

## Priestly Demolition Inc. Safety Data Sheets

#	Product	Manufacturer
1	1T HUMIDIFIER WATER TREATMENT	RPS Products
2	3M™ Heavy Duty 20 Spray Adhesive, clear	3M Products
3	ABC Fire Extinguisher	Tyco Fire Protection Products
4	ACE METHYL ALCOHOL	Kleen-Flo Tumbler Ind. Ltd.
5	ACETYLENE	Josef Gas
6	AIR INTAKE KLEEN	Kleen-Flo Tumbler Ind. Ltd.
7	Air Tool Oil	CRC Canada Co.
8	Alex Plus Acrylic Latex Caulk Plus Silicone - All Colors	DAP Products Inc.
9	ALOE VERA Antibacterial Liquid Hand Soap	Sensibly Clean Inc.
10	Anti-Seize Grease	Grease Warehouse
11	Armor All MULTI PURPOSE CLEANER	Spectrum Brands
12	Atlas Copco Chisel Paste VP 3537	Atlas Copco Construction Tools AB
13	K+S Windsor Salt Ltd. (Safe-T-Salt)	Windsor
14	BAKOR AQUATAC PRIMER	Henry Company
15	BEAUTI-TONE RUST COAT ACRYLIC	Home Hardware Stores Limited
16	BEAUTI-TONE SIGNATURE SERIES	Home Hardware Stores Limited
17	Benefect Botanical Disinfectant	Sensible Life Products
18	Benefect Botanical Multi-Purpose Cleaner	Sensible Life Products
19	BEYE 2X3.78L 123 PRIMER	Rust-Oleum Canada
20	BIN 6X473ML SHELLAC BSE PRIMERSEALR	Rust-Oleum Canada
21	BK12018 - BAKOR 120-18 LAGGING CTG	Henry Company
22	BLUE BEAR® 500MR Mastic Remover For Concrete	Franmar Chemical Inc.
23	BLUE BEAST AEROSOL	Mantek
24	CANTESCO 365 LOW TEMP TYPE II / LOW TEMP LPGAS	Kemper System
25	Castrol AP Gear 80W-90	BP Lubricants USA
26	Castrol GTX 5W-30	BP Lubricants USA
27	Castrol GTX 10W-30	BP Lubricants USA
28	Castrol Pyroplex Blue 1	BP Lubricants USA
29	Castrol Pyroplex Blue 2	BP Lubricants USA
30	Castrol Tecton Extra 15W-40	BP Lubricants USA
31	CHILDERS CP-240	H.B. Fuller Construction Products Inc.
32	CGC Sheetrock Brand Sheetrock Setting-Type Joint Compound	CGC Inc.
33	Clear Reflections Glass Cleaner	ITW Pro Brands
34	Concrobium® Broad Spectrum Disinfectant	Concrobium Professional Products
35	Contact Cement Thinner/Cleaner	Recochem Inc.
36	CR60 Waterproofing Coating	Condor Chimiques
37	Crown Blue Toolmaker's Ink - Aerosol	Arvoe Industries Inc.
38	Cutting Fluid, Soluble Oil	Ted Pella Inc.
39	DeWALT CHALKS	Stanley Works
40	Diesel Exhaust Fluid (DEF)	Recochem Inc.
41	DIESEL FUEL CONDITIONER	Kleen-Flo Tumbler Ind. Ltd.
42	DIESEL FUEL	Petro-Canada
43	Diesel Treat	R.B. Howes & Co. Inc.
44	Dry Lube	Kent (United Kingdom) Ltd.
45	Dual Range HV 46 Castrol	BP Lubricants USA
46	Easi-Fil All-Purpose (CertainTeed Finishing Products, Ready-Mix Joint Compours, Ready-Mix Non-Aggregated Textures)	CertainTeed Gypsum
47	emzone Brake & Parts Cleaner	Empack Spraytech Inc.
48	Emzone Foaming Glass Cleaner	Empack Spraytech Inc.
49	ETERNA-KOTE S-100 SILICONE ROOF COATING	Gardener-Gibson

## Priestly Demolition Inc. Safety Data Sheets

#	Product	Manufacturer
50	E-Z Go	Multi-Blend Ltd.
51	Facto HD40	Swish Maintenance Ltd.
52	FERTAN Rust Remover	CRP Industries
53	Fiberlock Fiberset PM Clear 7475	ICP Construction
54	Flo-Perm Magnum Global Concentrate Antifreeze/Coolant	Vulsay Industries Ltd.
55	Fluorescent Gas Leak Detector	Nu-Calogon
56	FOSTER 32-80	H.B. Fuller Construction Products Inc.
57	FOSTER 40-80	H.B. Fuller Construction Products Inc.
58	FS-ONE MAX	Hilti (Canada) Corp
59	Fuel Stabilizer	Kleen-Flo Tumbler Ind. Ltd.
60	GASOLINE, UNLEADED	Petro-Canada
61	Glance® NA Glass & Multi-Surface Cleaner Non-Ammoniated	Diversey
62	Goof Off Graffiti Remover VOC Spray	W.M. Barr
63	GREAT STUFF™ Big Gap Filler Insulating	DDP Speciality Electronic Materials US Inc.
64	Grip-Tack™ No. 6408 Clear Lockdown & Adhesive	Fiberlock Technologies
65	Heavy Duty Antifreeze/Coolant 50/50 Premixed	Recochem Inc.
66	HENRY BLUESKIN LVC SPRAY PRIMER	Henry Company
67	Hilti Firestop Acrylic Sealant CFS-S ACR	Hilti Inc
68	78E HYDRAULIC JACK OIL	Permatex Inc.
69	Hydrogen Sulfide	Praxair Inc.
70	Ingersoll Rand XL300 Compressor Oil	Spectrum Lubricants Corporation
71	INSTAPATCH PART A 2V GRAY	Rust-Oleum Corporation
72	INSTAPATCH PART B GRAY 2V	Rust-Oleum Corporation
73	KLEAR GLASS	K-Chem Inc.
74	Kleen start starting fluid	Kleen-Flo Tumbler Ind. Ltd.
75	Kleens-It Citrus Base Cleaner and Degreaser.	Lloyds Laboratories Inc.
76	Krown Fast-Acting Penetrant (Krown The Solution)	Empack Spraytech Inc.
77	KROWN T40	Krown Corporate
78	KRYLON® Industrial QUIK-MARK™ Solvent-Based Inverted Marking Paint	Krylon Products Group
79	LePage® Carpenter's Glue	Henkel Canada Corporation
80	LePage® PL Premium 100% Polyurethane Construction Adhesive	Henkel Canada Corporation
81	LOCTITE LB 8008 C5-A known as C5-A® Copper Based Anti-Seize	Henkel Canada Corporation
82	LOCTITE 243 Sealant	Henkel
83	Low-Lustre Sealer No. 986	Behr Process Corporation
84	MASTER® DOT 3 Brake Fluid	Master Products
85	MORTAR REPAIR, CONCRETE REPAIR, BLACKTOP REPAIR	Quikrete Companies
86	MotoMaster 2 Cycle Oil	Shell Canada Products
87	MOTOMASTER ATF (Automatic Transmission Fluid)	Shell Canada Limited
88	MOTOMASTER BELT-DRESSING	Canadian Tire Corporation
89	Motomaster Compressor Oil 32	Shell Canada Products
90	Motomaster Extreme Pressure Gear Oil, SAE 80W-90	CITGO Petroleum Corporation
91	Mr. Clean Liquid Muscle Multi-Purpose Cleaner	Procter & Gamble
92	Nashua 357 Spray Adhesive	Berry Global Inc.
93	OATEY CANADIAN PREMIUM ABS YELLOW CEMENT (Plastic Pipe Cement)	Oatey Company
94	One Touch All Wheel Care Wheel Cleaner	Permatex Inc.
95	OUTBOARD MOTOR OIL	Petro-Canada American Lubricants Inc
96	OUTBOARD OIL	Esso Imperial Oil

## Priestly Demolition Inc. Safety Data Sheets

#	Product	Manufacturer
97	Overall Rust Preventive Enamel, Flat Black	ROC Sales Inc.
98	OXYGEN, REFRIGERATED LIQUID	Josef Gas
99	PipeFit	Fire Protection Products Inc.
100	Piranha 4 No. 5740 Paint Remover	Fiberlock Technologies
101	Plastic Cleaner	Axalta Coating Systems/ Cromax
102	LPS PreSolve (Aerosol)	ITW Pro Brands
103	PRO INDUSTRIAL™ Acrylic	The Sherwin-Williams Company
104	Propane	Worthington Cylinder Corporation
105	Quaker State Multi-Purpose Grease Lithium EP 2	Shell Oil Products
106	Quaker State ITASCA Sterling 2-Cycle Engine Oil	Shell Canada Products
107	QUICK START STARTING FLUID	K-G Spray-Pak Inc.
108	QUIKRETE Concrete Mix	Quikrete Companies
109	Royal Hammer Paste, Ultra 365 Super HD Moly Grease	Royal Mfg Co LP
110	Rust Remover	Legend Brands
111	Rustoleum Mode Aerosol (All Colours)	Rust-Oleum Corporation
112	Rust-Oleum™ Leakseal	Rust-Oleum
113	SafeTSorb	EP Minerals
114	SAKRETE Fast Setting Mortar Repair Concrete and Masonry Repair Mixes (Top'n bond, flow-stone, fast-patch, plug-tite, brush'n seal, high'n dry)	King Packages Materials Company
115	Shell Rotella ELC Pre-diluted 50/50	Shell Oil Products
116	Shell Rotella T Triple Protection 15W-40	Shell Oil Products
117	Shell Rotella T5 10W-30	Shell Oil Products
118	SHELLZONE® ALL-SEASON Antifreeze/Coolant	SOPUS Products
119	SikaGrout®-212	Sika Canada Inc.
120	SOFT CARE Pink Hand Soap	Diversey
121	SPEED PLUG Cement	Euclid Admixture Canada
122	SPILL MATE Absorbent	Mantek
123	Spray &Wipe Cleaner Concentrate	Charlotte Products Ltd
124	Spray Paint	J2 Products
125	STIHL CANADA MEDIUM BAR & CHAIN LUBRICANT	Omni Specialty Packaging
126	STIHL MOTOMIX® High Performance Patented Fuel	Omni Specialty Packaging
127	Stihl HP (High Performance) 2-Cycle Engine Oil	Omni Specialty Packaging
128	Striping Paint (solvent based) - Aerosol	Aervoe Industries Inc
129	Universal Antifreeze UPA/NAPA	Laurentide
130	Uvex Clear Solution	Honeywell Safety Products
131	VARA 6X946ML PRO OIL SEMI-GLOSS	Rust-Oleum
132	G.K. VARSOL	G.K. Chemical Specialties Co.
133	WD-40 Aerosol	WD-40 Company
134	White Grease	Kleen-Flo Tumbler Ind. Ltd.
135	WHITE KNIGHT FLEXCOAT ROOF CTG WHITE	Henry Company
136	WINDSHIELD WASH -40°C	Recochem Inc.
137	Winterinse Winter Floor Cleaner	Swish Maintenance Ltd.
138	WP CHOMP Super Concentrate Wallpaper Stripper	Environmental Solutions International

Common Name: 1T HUMIDIFIER WATER TREATMENT

Manufacturer: RPS PRODUCTS

SDS Revision Date: 5/20/2015

SDS Format: GHS-US

Item Number(s): 21EX23

Manufacturer Model Number(s):

#### SDS Table of Contents

Click the desired link below to jump directly to that section in the SDS.

[SECTION 1, IDENTIFICATION](#)

[SECTION 2, HAZARD\(S\) IDENTIFICATION](#)

[SECTION 3, COMPOSITION/INFORMATION ON INGREDIENTS](#)

[SECTION 4, FIRST-AID MEASURES](#)

[SECTION 5, FIRE-FIGHTING MEASURES](#)

[SECTION 6, ACCIDENTAL RELEASE MEASURES](#)

[SECTION 7, HANDLING AND STORAGE](#)

[SECTION 8, EXPOSURE CONTROLS/PERSONAL PROTECTION](#)

[SECTION 9, PHYSICAL AND CHEMICAL PROPERTIES](#)

[SECTION 10, STABILITY AND REACTIVITY](#)

[SECTION 11, TOXICOLOGICAL INFORMATION](#)

[SECTION 12, ECOLOGICAL INFORMATION](#)

[SECTION 13, DISPOSAL CONSIDERATIONS](#)

[SECTION 14, TRANSPORT INFORMATION](#)

[SECTION 15, REGULATORY INFORMATION](#)

SECTION 16, OTHER INFORMATION

1T HUMIDIFIER WATER TREATMENT

RPS PRODUCTS, INC.

281 KEYES AVENUE, HAMPSHIRE, IL 60140

(847-683-3400)

HAZARD COMMUNICATION SAFETY DATA SHEET

SECTION 1, IDENTIFICATION

PRODUCT IDENTITY: 1T HUMIDIFIER WATER TREATMENT

MANUFACTURED BY:

RPS PRODUCTS, INC.

281 KEYES AVENUE,

HAMPSHIRE, IL 60140

PHONE: 847-683-3400

RECOMMEND USE IN ALL MANUALLY FILLED EVAPORATIVE HUMIDIFIERS. NOT TO BE  
USED IN ULTRASONIC OR VAPORIZERS.

EMERGENCY TELEPHONE NUMBERS:

R.P.S. PRODUCTS: 847-683-3400

CHEMTREC: 800-424-9300

SECTION 2, HAZARD(S) IDENTIFICATION

(COMMON NAME(S)) HAZARDOUS COMPONENTS (SPECIFIC CHEMICAL IDENTITY)

CAS NUMBER OSHA PEL ACGIH TLV %PERCENT

SODIUM EDTA 64-02-8 N.K. N.K. N.A.

WARNING SYMBOLS AND RISK FACTORS

EXCLAMATION MARK

AVOID CONTACT WITH SKIN AND EYES

DO NOT USE WHILE EATING OR DRINKING

IN CASE OF CONTACT WITH EYES, RINSE IMMEDIATELY WITH PLENTY OF WATER AND  
SEEK MEDICAL ATTENTION

IF SWALLOWED, SEEK MEDICAL ATTENTION

IRRITATING TO SKIN

RISK OF DAMAGE TO EYES

IRRITATING TO RESPIRATORY SYSTEM IF INHALED

### SECTION 3, COMPOSITION/INFORMATION ON INGREDIENTS

COMPONENT	CAS#
H2O/WATER	7732-18-5
VERSENE	23411-34-9
SODIUM TRIPOLYPHOSPHATE/STPP	7758-29-4
ALKYL-PHENOL ETHOXYLATE 9.5/CG-110	9016-45-9
PERFUME/NEUTRA 1086W	

\*THE SPECIFIC CHEMICAL IDENTITY AND/OR EXACT PERCENTAGE (CONCENTRATION) OF COMPOSITION HAS BEEN WITHHELD AS A TRADE SECRET.

### SECTION 4, FIRST-AID MEASURES

#### EYE CONTACT:

FLUSH EYES WITH PLENTY OF FLOWING WATER FOR 15 MINUTES LIFTING UPPER AND LOWER LIDS.

REMOVE CONTACT LENSES IF APPLICABLE.

SEEK MEDICAL ATTENTION.

SKIN CONTACT:

WASH WITH PLENTY OF SOAP AND WATER. IF IRRITATION DEVELOPS, SEEK MEDICAL ATTENTION.

INHALATION:

IF OVERCOME BY VAPOR, REMOVE PERSON TO FRESH AIR.

IF BREATHING IS IRREGULAR OR HAS STOPPED, START RESUSCITATION.

ADMINISTER OXYGEN IF AVAILABLE.

INGESTION:

IF INGESTED, MAY CAUSE ABDOMINAL IRRITATION, NAUSEA, VOMITING, AND DIARRHEA. SEEK MEDICAL ATTENTION IMMEDIATELY. INDUCE VOMITING. MOUTH MAY BE RINSED WITH WATER. NEVER GIVE ANYTHING BY MOUTH TO UNCONSCIOUS PERSON.

SECTION 5, FIRE-FIGHTING MEASURES

FLASH POINT: N/A

METHOD USED: N/A

(NFPA) NATIONAL FIRE PROTECTION ASSOCIATION - HAZARD INFORMATION:

HEALTH 0

FLAMMABILITY 0

REACTIVITY 0

## SECTION 6, ACCIDENTAL RELEASE MEASURES

### USE OF PERSONAL PRECAUTIONS:

#### PROTECTIVE GLOVES:

USE CHEMICAL-RESISTANT GLOVES, IF NEEDED, TO AVOID PROLONGED OR REPEATED SKIN CONTACT.

#### EYE PROTECTION:

USE SPLASH GOGGLES OR FACE SHIELD WHEN EYE CONTACT MAY OCCUR.

VENTILATION: USE LOCAL EXHAUST TO CAPTURE EXCESSIVE VAPOR, MISTS OR FUMES.

#### RESPIRATORY PROTECTION:

USE SUPPLIED-AIR RESPIRATORY PROTECTION IN CONFINED OR ENCLOSED SPACES.

#### PERSONAL HYGIENE:

CLEANSE SKIN THOROUGHLY AFTER CONTACT, BEFORE BREAKS AND MEALS, AND AT END OF WORK PERIOD. REMOVE CONTAMINATED CLOTHING AND SHOES AND THOROUGHLY CLEAN BEFORE REUSE. MAINTAIN GOOD PERSONAL HYGIENE.

#### EMERGENCY PROCEDURES:

REMOVE CONTAMINATED CLOTHING AND WASH BEFORE REUSE.

RINSE SKIN THOROUGHLY WITH PLENTY OF SOAP AND WATER

#### METHODS AND MATERIALS USED FOR CONTAINMENT:

REPLACE CAP IMMEDIATELY AFTER USE

CLEANUP PROCEDURES: WEAR GLOVES AND CLEAN UP SPILLS IMMEDIATELY

## SECTION 7, HANDLING AND STORAGE

### PRECAUTIONS FOR SAFE HANDLING:

WASH HANDS AFTER EXPOSURE AND BEFORE EATING OR DRINKING

### RECOMMENDATIONS ON SAFE STORAGE:

KEEP CONTAINER TIGHTLY CLOSED AND UPRIGHT WHEN NOT IN USE TO PREVENT LEAKAGE

VENTILATION: USE LOCAL EXHAUST TO CAPTURE EXCESSIVE VAPOR, MISTS OR FUMES.

## SECTION 8, EXPOSURE CONTROLS/PERSONAL PROTECTION

### EFFECTS OF OVEREXPOSURE: (SIGNS AND SYMPTOMS OF EXPOSURE)

#### EYE CONTACT

PRODUCT CONTACTING THE EYES MAY CAUSE REDNESS, TEARING, AND IRRITATION.

RINSE EYES THOROUGHLY FOR 15 MINUTES.

SEEK MEDICAL ATTENTION.

#### SKIN CONTACT:

CONTACT WITH SKIN MAY CAUSE SLIGHT SKIN IRRITATION OR RASH IF NOT WASHED

IMMEDIATELY.

INHALATION:

AFTER HIGH VAPOR EXPOSURE, REMOVE TO FRESH AIR.

IF BREATHING IS DIFFICULT, GIVE OXYGEN.

IF BREATHING HAS STOPPED GIVE ARTIFICIAL RESPIRATION.

INGESTION:

IF SWALLOWED, CALL PHYSICIAN IMMEDIATELY!

INDUCE VOMITING PROMPTLY FOLLOWING PHYSICIAN'S INSTRUCTIONS.

## SECTION 9, PHYSICAL AND CHEMICAL PROPERTIES

THE FOLLOWING DATA ARE APPROXIMATE OR TYPICAL VALUES AND SHOULD BE USED FOR PRECISE DESIGN PURPOSES.

APPEARANCE: CLEAR, RED OR BLUE

AUTO-IGNITION TEMPERATURE: N/A

BOILING RANGE: 100 101 101\*DEG. C/212 214 214\*DEG. F (\*=END POINT)

DECOMPOSITION TEMPERATURE: N/A

DKB (DISPERSION): 5.6

DRY TIME (ETHER=1): LONG

EVAPORATION RATE: >0.8

EXPLOSIVE LIMITS: N/A

FLASH POINT: N/A

FLAMMABILITY: 0

FREEZING POINT: BELOW 20 DEGREES F

ODOR: MILD

ODOR THRESHOLD: N/A

PH: NEUTRAL

MELTING POINT: N/A

PARTITION COEFFICIENT N-OCTANOL/WATER: N/A

RELATIVE DENSITY: 1.008

SOLUBILITY: COMPLETE

VAPOR DENSITY (AIR=1): 0.6

VAPOR PRESSURE (MM OF HG)@20 C: 16.4

VISCOSITY: N/A

WATER ABSORPTION: COMPLETE

#### SECTION 10, STABILITY AND REACTIVITY

REACTIVITY: N/A

CHEMICAL STABILITY: THIS PRODUCT IS CONSIDERED STABLE.

#### SECTION 11, TOXICOLOGICAL INFORMATION

##### INFORMATION ON LIKELY ROUTES OF EXPOSURE:

##### EYE CONTACT:

PRODUCT CONTACTING THE EYES MAY CAUSE REDNESS, TEARING, AND BLURRED VISION.

RINSE EYES THOROUGHLY FOR 15 MINUTES. SEEK MEDICAL ATTENTION.

##### SKIN CONTACT:

CONTACT WITH SKIN MAY CAUSE SLIGHT SKIN IRRITATION OR RASH IF NOT WASHED IMMEDIATELY.

##### INHALATION:

AFTER HIGH VAPOR EXPOSURE, REMOVE TO FRESH AIR. IF BREATHING IS DIFFICULT, GIVE OXYGEN. IF BREATHING HAS STOPPED GIVE ARTIFICIAL RESPIRATION.

INGESTION:

IF SWALLOWED, CALL PHYSICIAN IMMEDIATELY!

INDUCE VOMITING PROMPTLY FOLLOWING PHYSICIAN'S INSTRUCTIONS.

DELAYED, IMMEDIATE OR CHRONIC EFFECTS NOT DETERMINED

## SECTION 12, ECOLOGICAL INFORMATION

NOT AVAILABLE

## SECTION 13, DISPOSAL CONSIDERATIONS

EMPTY CONTAINER WARNING:

EMPTY CONTAINERS RETAIN RESIDUE (LIQUID AND/OR VAPOR). DO NOT PRESSURIZE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND, OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS OR OTHER SOURCES OF IGNITION; THEY MAY EXPLODE AND CAUSE INJURY OR DEATH.

EMPTY DRUMS SHOULD BE COMPLETELY DRAINED, PROPERLY BUNGED AND SHOULD BE DISPOSED OF IN AN ENVIRONMENTALLY SAFE MANNER AND IN ACCORDANCE WITH GOVERNMENTAL REGULATIONS.

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:

MATERIALS SHOULD BE SWEEPED UP FOR SALVAGE OR DISPOSAL. REMAINING RESIDUE MAY BE FLUSHED WITH WATER. DISPOSE OF IN ACCORDANCE WITH ALL LOCAL, STATE, AND FEDERAL REGULATIONS.

#### SECTION 14, TRANSPORT INFORMATION

FOR FURTHER INFORMATION RELATIVE TO SPILLS RESULTING FROM TRANSPORTATION INCIDENTS, REFER TO LATEST DEPARTMENT OF TRANSPORTATION EMERGENCY RESPONSE GUIDEBOOK FOR HAZARDOUS MATERIALS INCIDENTS.

#### SECTION 15, REGULATORY INFORMATION

NON HAZARDOUS

NON-REGULATED MATERIAL

#### SECTION 16, OTHER INFORMATION

LEGAL RESPONSIBILITY IS ASSUMED ONLY FOR THE FACT THAT ALL STUDIES REPORTED ARE THOSE OF QUALIFIED EXPERTS. BUYER ASSUMES ALL RISK AND LIABILITY. HE ACCEPTS AND USES THIS MATERIAL ON THESE CONDITIONS. HE MUST KEEP A COPY OF THIS MSDS WHERE MATERIAL IS HANDLED.

N. A.: (NOT APPLICABLE)

N. D.: (NOT DETERMINED)

REVISED DATE: 05-20-2015

RPS PRODUCTS (HEREIN CALLED RPS) HAS BEEN ASKED TO SUPPLY THE ATTACHED MATERIAL SAFETY DATA SHEET ("MSDS") DESPITE THE FACT THAT SOME OF THE DATA CONTAINED THEREIN IS BASED ON INFORMATION SUPPLIED TO RPS BY THIRD PARTIES AND THE FACT THAT RPS CANNOT ANTICIPATE ALL OF THE CONDITIONS OF USE AND APPLICATION WITH THE RESPECT TO THE PRODUCT DESCRIBED IN THE MSDS. ALTHOUGH RPS HAS MADE A GOOD FAITH EFFORT IN FILLING OUT THE MSDS AND BELIEVES THE INFORMATION, DATA AND SUGGESTIONS CONTAINED THEREIN TO BE RELIABLE, RPS DOES NOT WARRANT OR GUARANTEE THE COMPLETENESS OR THE ACCURACY OF THE DATA CONTAINED IN THE MSDS. RPS DISCLAIMS ANY AND ALL RESPONSIBILITY FOR ANY USE OF OR RELIANCE ON SUCH DATA.



## Safety Data Sheet

Copyright, 2017, 3M Canada Company

All rights reserved. Copying and/or downloading of this information for the purpose of properly utilizing 3M products is allowed provided that: (1) the information is copied in full with no changes unless prior written agreement is obtained from 3M, and (2) neither the copy nor the original is resold or otherwise distributed with the intention of earning a profit thereon.

<b>Document group:</b>	26-9520-3	<b>Version number:</b>	6.07
<b>Issue Date:</b>	2017/03/29	<b>Supersedes Date:</b>	2017/03/27

This Safety Data Sheet has been prepared in accordance with the Canadian Hazardous Products Regulations.

### SECTION 1: Identification

#### 1.1. Product identifier

3M™ Heavy Duty 20 Spray Adhesive, clear

#### Product Identification Numbers

62-4915-4920-0      62-4915-4925-9

#### 1.2. Recommended use and restrictions on use

##### Recommended use

Adhesive aerosol, Industrial Use

##### Restrictions on Use

Not applicable

#### 1.3. Supplier's details

<b>Company:</b>	3M Canada Company
<b>Division:</b>	Industrial Adhesives and Tapes Division
<b>Address:</b>	1840 Oxford Street East, Post Office Box 5757, London, Ontario N6A 4T1
<b>Telephone:</b>	(800) 364-3577
<b>Website:</b>	www.3M.ca

#### 1.4. Emergency telephone number

Medical Emergency Telephone: (519) 451-2500, Ext. 2222; Transportation Emergency Telephone (CANUTEC): (613) 996-6666

### SECTION 2: Hazard identification

#### 2.1. Classification of the substance or mixture

Flammable Aerosol: Category 1.

Gas Under Pressure: Liquefied gas.

Serious Eye Damage/Irritation: Category 2B.

Reproductive Toxicity: Category 2.

Simple Asphyxiant.

Specific Target Organ Toxicity (single exposure): Category 1.

Specific Target Organ Toxicity (single exposure): Category 3.

Specific Target Organ Toxicity (repeated exposure): Category 1.

## 2.2. Label elements

### Signal word

Danger

### Symbols

Flame | Gas cylinder | Exclamation mark | Health Hazard |

### Pictograms



### Hazard statements

Extremely flammable aerosol. Contains gas under pressure; may explode if heated.

Causes eye irritation. May cause respiratory irritation. May cause drowsiness or dizziness. Suspected of damaging fertility or the unborn child. May displace oxygen and cause rapid suffocation.

Causes damage to organs: cardiovascular system |

Causes damage to organs through prolonged or repeated exposure: nervous system |

### Precautionary statements

#### General:

Keep out of reach of children. Read label before use. If medical advice is needed, have product container or label at hand.

#### Prevention:

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not spray on an open flame or other ignition source. Do not pierce or burn, even after use. Do not breathe dust/fume/gas/mist/vapours/spray. Use only outdoors or in a well-ventilated area. Wear protective gloves. Do not eat, drink or smoke when using this product. Wash thoroughly after handling.

#### Response:

IF INHALED: Remove person to fresh air and keep comfortable for breathing. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. IF exposed or concerned: Get medical advice/attention.

#### Storage:

Protect from sunlight. Store in a well-ventilated place. Protect from sunlight. Do not expose to temperatures exceeding 50C/122F. Store in a well-ventilated place. Keep container tightly closed. Store locked up.

#### Disposal:

Dispose of contents/container in accordance with applicable local/regional/national/international regulations.

## 2.3. Other hazards

None known.

## SECTION 3: Composition/information on ingredients

This material is a mixture.

Ingredient	C.A.S. No.	% by Wt
Methyl acetate	79-20-9	25 - 35

## 3M™ Heavy Duty 20 Spray Adhesive, clear

Non-hazardous components	Trade Secret	20 - 30
Dimethyl ether	115-10-6	15 - 25
Hexane	110-54-3	10 - 20
Isobutane	75-28-5	5 - 10
Propane	74-98-6	5 - 10

Non-hazardous components is a non-hazardous Trade Secret material according to WHMIS criteria.

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

#### **Inhalation:**

Remove person to fresh air. Get medical attention.

#### **Skin Contact:**

Wash with soap and water. If signs/symptoms develop, get medical attention.

#### **Eye Contact:**

Flush with large amounts of water. Remove contact lenses if easy to do. Continue rinsing. If signs/symptoms persist, get medical attention.

#### **If Swallowed:**

Rinse mouth. If you feel unwell, get medical attention.

### 4.2. Most important symptoms and effects, both acute and delayed

See Section 11.1. Information on toxicological effects.

### 4.3. Indication of any immediate medical attention and special treatment required

Exposure may increase myocardial irritability. Do not administer sympathomimetic drugs unless absolutely necessary.

## SECTION 5: Fire-fighting measures

### 5.1. Suitable extinguishing media

In case of fire: Use a carbon dioxide or dry chemical extinguisher to extinguish.

### 5.2. Special hazards arising from the substance or mixture

Closed containers exposed to heat from fire may build pressure and explode.

### Hazardous Decomposition or By-Products

#### Substance

Carbon monoxide  
Carbon dioxide  
Toxic Vapor, Gas, Particulate

#### Condition

During Combustion  
During Combustion  
During Combustion

### 5.3. Special protective actions for fire-fighters

Water may not effectively extinguish fire; however, it should be used to keep fire-exposed containers and surfaces cool and prevent explosive rupture. Wear full protective equipment (Bunker Gear) and a self-contained breathing apparatus (SCBA).

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

## 3M™ Heavy Duty 20 Spray Adhesive, clear

Evacuate area. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Use only non-sparking tools. Ventilate the area with fresh air. For large spill, or spills in confined spaces, provide mechanical ventilation to disperse or exhaust vapours, in accordance with good industrial hygiene practice. Warning! A motor could be an ignition source and could cause flammable gases or vapours in the spill area to burn or explode. Refer to other sections of this SDS for information regarding physical and health hazards, respiratory protection, ventilation, and personal protective equipment.

### 6.2. Environmental precautions

For larger spills, cover drains and build dikes to prevent entry into sewer systems or bodies of water. Collect the resulting residue containing solution. Place in a metal container approved for transportation by appropriate authorities. Dispose of collected material as soon as possible.

### 6.3. Methods and material for containment and cleaning up

If possible, seal leaking container. Place leaking containers in a well-ventilated area, preferably an operating exhaust hood, or if necessary outdoors on an impermeable surface until appropriate packaging for the leaking container or its contents is available. Place in a metal container approved for transportation by appropriate authorities. Seal the container. Dispose of collected material as soon as possible.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Keep out of reach of children. Do not handle until all safety precautions have been read and understood. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Do not spray on an open flame or other ignition source. Do not pierce or burn, even after use. Do not breathe dust/fume/gas/mist/vapours/spray. Do not get in eyes, on skin, or on clothing. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Avoid contact with oxidizing agents (eg. chlorine, chromic acid etc.) Use personal protective equipment (gloves, respirators, etc.) as required.

### 7.2. Conditions for safe storage including any incompatibilities

Store in a well-ventilated place. Keep container tightly closed. Protect from sunlight. Do not expose to temperatures exceeding 50C/122F. Store away from heat. Store away from acids. Store away from oxidizing agents.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### Occupational exposure limits

If a component is disclosed in section 3 but does not appear in the table below, an occupational exposure limit is not available for the component.

Ingredient	C.A.S. No.	Agency	Limit type	Additional Comments
Hexane	110-54-3	ACGIH	TWA:50 ppm	SKIN
Dimethyl ether	115-10-6	AIHA	TWA:1880 mg/m3(1000 ppm)	
Propane	74-98-6	ACGIH	Limit value not established:	
Isobutane	75-28-5	ACGIH	STEL:1000 ppm	
Methyl acetate	79-20-9	ACGIH	TWA:200 ppm;STEL:250 ppm	

ACGIH : American Conference of Governmental Industrial Hygienists

AIHA : American Industrial Hygiene Association

CMRG : Chemical Manufacturer's Recommended Guidelines

TWA: Time-Weighted-Average

STEL: Short Term Exposure Limit

CEIL: Ceiling

### 8.2. Exposure controls

#### 8.2.1. Engineering controls

Do not remain in area where available oxygen may be reduced. Use general dilution ventilation and/or local exhaust ventilation to control airborne exposures to below relevant Exposure Limits and/or control dust/fume/gas/mist/vapours/spray.

If ventilation is not adequate, use respiratory protection equipment.

### 8.2.2. Personal protective equipment (PPE)

#### Eye/face protection

Select and use eye/face protection to prevent contact based on the results of an exposure assessment. The following eye/face protection(s) are recommended:

Indirect Vented Goggles

#### Skin/hand protection

Select and use gloves and/or protective clothing approved to relevant local standards to prevent skin contact based on the results of an exposure assessment. Selection should be based on use factors such as exposure levels, concentration of the substance or mixture, frequency and duration, physical challenges such as temperature extremes, and other use conditions. Consult with your glove and/or protective clothing manufacturer for selection of appropriate compatible gloves/protective clothing.

Gloves made from the following material(s) are recommended: Butyl Rubber  
Nitrile Rubber

#### Respiratory protection

An exposure assessment may be needed to decide if a respirator is required. If a respirator is needed, use respirators as part of a full respiratory protection program. Based on the results of the exposure assessment, select from the following respirator type(s) to reduce inhalation exposure:

Half facepiece or full facepiece supplied-air respirator

Organic vapor respirators may have short service life.

For questions about suitability for a specific application, consult with your respirator manufacturer.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

<b>Physical state</b>	Liquid
<b>Specific Physical Form:</b>	Aerosol
<b>Appearance/Odour</b>	Clear, Mild Solvent Odour
<b>Odour threshold</b>	<i>No Data Available</i>
<b>pH</b>	<i>No Data Available</i>
<b>Melting point/Freezing point</b>	<i>No Data Available</i>
<b>Flash Point</b>	-93.9 °C [ <i>Details:Propellant</i> ]
<b>Boiling point/Initial boiling point/Boiling range</b>	<i>No Data Available</i>
<b>Evaporation rate</b>	1.9 [ <i>Ref Std:ETHER=1</i> ]
<b>Flammability (solid, gas)</b>	Not Applicable
<b>Flammable Limits(LEL)</b>	<i>No Data Available</i>
<b>Flammable Limits(UEL)</b>	<i>No Data Available</i>
<b>Vapour Pressure</b>	<i>No Data Available</i>
<b>Vapour Density</b>	2.97 [ <i>Ref Std:AIR=1</i> ]
<b>Density</b>	0.75 g/ml
<b>Relative density</b>	0.73 - 0.77 [ <i>Ref Std:WATER=1</i> ]
<b>Water solubility</b>	Nil
<b>Solubility- non-water</b>	<i>No Data Available</i>
<b>Partition coefficient: n-octanol/ water</b>	<i>No Data Available</i>
<b>Autoignition temperature</b>	<i>No Data Available</i>
<b>Decomposition temperature</b>	<i>Not Applicable</i>
<b>Viscosity</b>	<i>Not Applicable</i>
<b>Molecular weight</b>	<i>No Data Available</i>

**Volatile Organic Compounds**

<=378 g/l [*Test Method*:calculated SCAQMD rule 443.1]  
[*Details*:Material VOC]

**Volatile Organic Compounds**

<=51.8 % [*Test Method*:calculated per CARB title 2]

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

This material may be reactive with certain agents under certain conditions - see the remaining headings in this section.

### 10.2. Chemical stability

Stable.

### 10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

### 10.4. Conditions to avoid

Heat

### 10.5. Incompatible materials

Strong oxidizing agents

### 10.6. Hazardous decomposition products

**Substance**

**Condition**

None known.

Refer to section 5.2 for hazardous decomposition products during combustion.

## SECTION 11: Toxicological information

The information below may not be consistent with the material classification in Section 2 if specific ingredient classifications are mandated by a competent authority. In addition, toxicological data on ingredients may not be reflected in the material classification and/or the signs and symptoms of exposure, because an ingredient may be present below the threshold for labeling, an ingredient may not be available for exposure, or the data may not be relevant to the material as a whole.

### 11.1. Information on Toxicological effects

#### Signs and Symptoms of Exposure

Based on test data and/or information on the components, this material may produce the following health effects:

#### **Inhalation:**

Intentional concentration and inhalation may be harmful or fatal. Simple Asphyxiation: Signs/symptoms may include increased heart rate, rapid respirations, drowsiness, headache, incoordination, altered judgement, nausea, vomiting, lethargy, seizures, coma, and may be fatal. Respiratory Tract Irritation: Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain. May cause additional health effects (see below).

#### **Skin Contact:**

Mild Skin Irritation: Signs/symptoms may include localized redness, swelling, itching, and dryness.

#### **Eye Contact:**

Moderate Eye Irritation: Signs/symptoms may include redness, swelling, pain, tearing, and blurred or hazy vision.

**3M™ Heavy Duty 20 Spray Adhesive, clear****Ingestion:**

Gastrointestinal Irritation: Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhea. May cause additional health effects (see below).

**Additional Health Effects:****Single exposure may cause target organ effects:**

Central Nervous System (CNS) Depression: Signs/symptoms may include headache, dizziness, drowsiness, incoordination, nausea, slowed reaction time, slurred speech, giddiness, and unconsciousness.

Single exposure, above recommended guidelines, may cause:

Cardiac Sensitization: Signs/symptoms may include irregular heartbeat (arrhythmia), faintness, chest pain, and may be fatal.

**Prolonged or repeated exposure may cause target organ effects:**

Peripheral Neuropathy: Signs/symptoms may include tingling or numbness of the extremities, incoordination, weakness of the hands and feet, tremors and muscle atrophy.

**Reproductive/Developmental Toxicity:**

Contains a chemical or chemicals which can cause birth defects or other reproductive harm.

**Toxicological Data**

If a component is disclosed in section 3 but does not appear in a table below, either no data are available for that endpoint or the data are not sufficient for classification.

**Acute Toxicity**

Name	Route	Species	Value
Overall product	Inhalation-Vapor(4 hr)		No data available; calculated ATE >50 mg/l
Overall product	Ingestion		No data available; calculated ATE >5,000 mg/kg
Methyl acetate	Dermal	Rat	LD50 > 2,000 mg/kg
Methyl acetate	Inhalation-Vapor (4 hours)	Rat	LC50 > 49 mg/l
Methyl acetate	Ingestion	Rat	LD50 > 5,000 mg/kg
Hexane	Dermal	Rabbit	LD50 > 2,000 mg/kg
Hexane	Inhalation-Vapor (4 hours)	Rat	LC50 170 mg/l
Hexane	Ingestion	Rat	LD50 > 28,700 mg/kg
Dimethyl ether	Inhalation-Gas (4 hours)	Rat	LC50 164,000 ppm
Isobutane	Inhalation-Gas (4 hours)	Rat	LC50 276,000 ppm
Propane	Inhalation-Gas (4 hours)	Rat	LC50 > 200,000 ppm
Non-hazardous components	Dermal	Not available	LD50 > 2,000 mg/kg
Non-hazardous components	Ingestion	Not available	LD50 > 2,000 mg/kg

ATE = acute toxicity estimate

**Skin Corrosion/Irritation**

Name	Species	Value
Methyl acetate	Rabbit	No significant irritation
Hexane	Human	Mild irritant

**3M™ Heavy Duty 20 Spray Adhesive, clear**

	and animal	
Isobutane	Professional judgement	No significant irritation
Propane	Rabbit	Minimal irritation
Non-hazardous components	Professional judgement	No significant irritation

**Serious Eye Damage/Irritation**

Name	Species	Value
Methyl acetate	Rabbit	Moderate irritant
Hexane	Rabbit	Mild irritant
Isobutane	Professional judgement	No significant irritation
Propane	Rabbit	Mild irritant
Non-hazardous components	Professional judgement	No significant irritation

**Skin Sensitization**

Name	Species	Value
Methyl acetate	Human	Not sensitizing
Hexane	Human	Not sensitizing
Non-hazardous components		Not sensitizing

**Respiratory Sensitization**

For the component/components, either no data are currently available or the data are not sufficient for classification.

**Germ Cell Mutagenicity**

Name	Route	Value
Methyl acetate	In Vitro	Not mutagenic
Methyl acetate	In vivo	Not mutagenic
Hexane	In Vitro	Not mutagenic
Hexane	In vivo	Not mutagenic
Dimethyl ether	In Vitro	Not mutagenic
Dimethyl ether	In vivo	Not mutagenic
Isobutane	In Vitro	Not mutagenic
Propane	In Vitro	Not mutagenic

**Carcinogenicity**

Name	Route	Species	Value
Hexane	Dermal	Mouse	Not carcinogenic
Hexane	Inhalation	Mouse	Some positive data exist, but the data are not sufficient for classification
Dimethyl ether	Inhalation	Rat	Not carcinogenic

**Reproductive Toxicity**

**Reproductive and/or Developmental Effects**

Name	Route	Value	Species	Test result	Exposure Duration
Hexane	Ingestion	Not toxic to development	Mouse	NOAEL 2,200	during

**3M™ Heavy Duty 20 Spray Adhesive, clear**

				mg/kg/day	organogenesis
Hexane	Inhalation	Some positive developmental data exist, but the data are not sufficient for classification	Rat	NOAEL 0.7 mg/l	during gestation
Hexane	Ingestion	Toxic to male reproduction	Rat	NOAEL 1,140 mg/kg/day	90 days
Hexane	Inhalation	Toxic to male reproduction	Rat	LOAEL 3.52 mg/l	28 days
Dimethyl ether	Inhalation	Not toxic to development	Rat	NOAEL 40,000 ppm	during organogenesis

**Target Organ(s)**

**Specific Target Organ Toxicity - single exposure**

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
Methyl acetate	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Human and animal	NOAEL Not available	
Methyl acetate	Inhalation	respiratory irritation	May cause respiratory irritation	Human and animal	NOAEL Not available	
Methyl acetate	Inhalation	blindness	Some positive data exist, but the data are not sufficient for classification		NOAEL Not available	
Methyl acetate	Ingestion	central nervous system depression	May cause drowsiness or dizziness		NOAEL Not available	
Hexane	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Human	NOAEL Not available	not available
Hexane	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	Rabbit	NOAEL Not available	8 hours
Hexane	Inhalation	respiratory system	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 24.6 mg/l	8 hours
Dimethyl ether	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Rat	LOAEL 10,000 ppm	30 minutes
Dimethyl ether	Inhalation	cardiac sensitization	Some positive data exist, but the data are not sufficient for classification	Dog	NOAEL 100,000 ppm	5 minutes
Isobutane	Inhalation	cardiac sensitization	Causes damage to organs	Multiple animal species	NOAEL Not available	
Isobutane	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Human and animal	NOAEL Not available	
Isobutane	Inhalation	respiratory irritation	All data are negative	Mouse	NOAEL Not available	
Propane	Inhalation	cardiac sensitization	Causes damage to organs	Human	NOAEL Not available	
Propane	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Human	NOAEL Not available	
Propane	Inhalation	respiratory irritation	All data are negative	Human	NOAEL Not available	

**Specific Target Organ Toxicity - repeated exposure**

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
Methyl acetate	Inhalation	respiratory system	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 1.1 mg/l	28 days
Methyl acetate	Inhalation	endocrine system   hematopoietic system   liver	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 6.1 mg/l	28 days

**3M™ Heavy Duty 20 Spray Adhesive, clear**

		immune system   kidney and/or bladder				
Hexane	Inhalation	peripheral nervous system	Causes damage to organs through prolonged or repeated exposure	Human	NOAEL Not available	occupational exposure
Hexane	Inhalation	respiratory system	Some positive data exist, but the data are not sufficient for classification	Mouse	LOAEL 1.76 mg/l	13 weeks
Hexane	Inhalation	liver	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL Not available	6 months
Hexane	Inhalation	kidney and/or bladder	Some positive data exist, but the data are not sufficient for classification	Rat	LOAEL 1.76 mg/l	6 months
Hexane	Inhalation	hematopoietic system	Some positive data exist, but the data are not sufficient for classification	Mouse	NOAEL 35.2 mg/l	13 weeks
Hexane	Inhalation	auditory system   immune system   eyes	Some positive data exist, but the data are not sufficient for classification	Human	NOAEL Not available	occupational exposure
Hexane	Inhalation	heart   skin   endocrine system	All data are negative	Rat	NOAEL 1.76 mg/l	6 months
Hexane	Ingestion	peripheral nervous system	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 1,140 mg/kg/day	90 days
Hexane	Ingestion	endocrine system   hematopoietic system   liver   immune system   kidney and/or bladder	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL Not available	13 weeks
Dimethyl ether	Inhalation	hematopoietic system	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 25,000 ppm	2 years
Dimethyl ether	Inhalation	liver	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 20,000 ppm	30 weeks
Isobutane	Inhalation	kidney and/or bladder	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 4,500 ppm	13 weeks

**Aspiration Hazard**

Name	Value
Hexane	Aspiration hazard

Please contact the address or phone number listed on the first page of the SDS for additional toxicological information on this material and/or its components.

**SECTION 12: Ecological information**

No data available.

**SECTION 13: Disposal considerations**

Dispose of contents/ container in accordance with the local/regional/national/international regulations.

**SECTION 14: Transport Information**

For Transport Information, please visit <http://3M.com/Transportinfo> or call 1-800-364-3577 or 651-737-6501.

## SECTION 15: Regulatory information

### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

#### Global inventory status

Contact 3M for more information. The components of this material are in compliance with the provisions of the Korea Chemical Control Act. Certain restrictions may apply. Contact the selling division for additional information. The components of this material are in compliance with the provisions of Australia National Industrial Chemical Notification and Assessment Scheme (NICNAS). Certain restrictions may apply. Contact the selling division for additional information. The components of this material are in compliance with the provisions of Japan Chemical Substance Control Law. Certain restrictions may apply. Contact the selling division for additional information. The components of this material are in compliance with the provisions of Philippines RA 6969 requirements. Certain restrictions may apply. Contact the selling division for additional information. The components of this product are in compliance with the new substance notification requirements of CEPA. The components of this product are in compliance with the chemical notification requirements of TSCA. This product complies with Measures on Environmental Management of New Chemical Substances. All ingredients are listed on or exempt from on China IECSC inventory.

## SECTION 16: Other information

National Fire Protection Association (NFPA) hazard ratings are designed for use by emergency response personnel to address the hazards that are presented by short-term, acute exposure to a material under conditions of fire, spill, or similar emergencies. Hazard ratings are primarily based on the inherent physical and toxic properties of the material but also include the toxic properties of combustion or decomposition products that are known to be generated in significant quantities.

**Health:** 2 **Flammability:** 4 **Instability:** 0 **Special Hazards:** None  
**Aerosol Storage Code:** 3

National Fire Protection Association (NFPA) hazard ratings are designed for use by emergency response personnel to address the hazards that are presented by short-term, acute exposure to a material under conditions of fire, spill, or similar emergencies. Hazard ratings are primarily based on the inherent physical and toxic properties of the material but also include the toxic properties of combustion or decomposition products that are known to be generated in significant quantities.

<b>Document group:</b>	26-9520-3	<b>Version number:</b>	6.07
<b>Issue Date:</b>	2017/03/29	<b>Supersedes Date:</b>	2017/03/27

The information in this Safety Data Sheet (SDS) is believed to be correct as of the date issued. 3M MAKES NO WARRANTIES, EXPRESS OR IMPLIED, STATUTORY OR OTHERWISE, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OR CONDITION OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR ANY IMPLIED WARRANTY OR CONDITION ARISING OUT OF A COURSE OF PERFORMANCE, COURSE OF DEALING, CUSTOM OR USAGE OF TRADE. User is responsible for determining whether the 3M product is fit for a particular purpose and suitable for user's method of use or application. Given the variety of factors that can affect the use and application of a 3M product, some of which are uniquely within the user's knowledge and control, it is essential that the user evaluate the 3M product to determine whether it is fit for a particular purpose and suitable for user's method of use or application.

3M Canada SDSs are available at [www.3M.ca](http://www.3M.ca)



# MATERIAL SAFETY DATA SHEET

by Tyco Fire Suppression & Building Products

## ABC Fire Extinguisher

Issue Date: 04-13-2011

### 1. Product and Company Identification

**Material name** ABC Fire Extinguisher  
**Version #** 02  
**Revision date** 04-13-2011  
**CAS #** Mixture  
**Product use** Fire Extinguisher  
**Manufacturer / Importer / Supplier**  
**Name** Tyco Fire Protection Products  
**Address** One Stanton Street  
Marinette, WI 54143-2542  
**Phone** 715-735-7411  
**Internet** <http://www.ansul.com>  
**Emergency Phone Number** CHEMTREC 800-424-9300 or 703-527-3887

### 2. Hazards Identification

**Emergency overview** WARNING  
Irritating to eyes and skin.

**OSHA regulatory status** This product is considered hazardous under 29 CFR 1910.1200 (Hazard Communication).

**Potential health effects**

- Routes of exposure** Eye contact. Skin contact. Inhalation. Ingestion.
- Eyes** Avoid contact with eyes. Contact with eyes may cause irritation.
- Skin** Avoid contact with the skin. May cause skin irritation.
- Inhalation** Inhalation of dusts may cause respiratory irritation.
- Ingestion** Not a likely route of entry.

**Target organs** Eyes. Respiratory system. Skin.

**Signs and symptoms** Irritation of eyes and mucous membranes.

### 3. Composition / Information on Ingredients

Hazardous components	CAS #	Percent
CALCIUM CARBONATE	471-34-1	1 - 2.5
Non-hazardous components	CAS #	Percent
Ammonium Sulfate	7783-20-2	10 - 20
Ammonium Phosphate	7722-76-1	60 - 80
Other components below reportable levels		2.5 - 10

### 4. First Aid Measures

#### First aid procedures

**Eye contact** Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation persists after washing.

**Skin contact** Wash off with warm water and soap. Get medical attention if irritation develops and persists.

**Inhalation** Move to fresh air. Get medical attention, if needed.

**Ingestion** Rinse mouth. Do not induce vomiting without advice from poison control center. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.

**Notes to physician** Symptoms may be delayed.

**General advice** If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance.

---

## 5. Fire Fighting Measures

**Flammable properties** No unusual fire or explosion hazards noted.

**Extinguishing media**  
**Suitable extinguishing media** This product is not flammable. Use extinguishing agent suitable for type of surrounding fire.

**Protection of firefighters**  
**Specific hazards arising from the chemical** None known.

**Hazardous combustion products** Carbon monoxide and carbon dioxide.

---

## 6. Accidental Release Measures

**Personal precautions** Local authorities should be advised if significant spillages cannot be contained. Avoid inhalation of dust from the spilled material. Wear a dust mask if dust is generated above exposure limits.

**Environmental precautions** Prevent further leakage or spillage if safe to do so. Do not contaminate water.

**Methods for containment** If sweeping of a contaminated area is necessary use a dust suppressant agent which does not react with the product. Prevent entry into waterways, sewer, basements or confined areas.

**Methods for cleaning up** Should not be released into the environment. Sweep up or vacuum up spillage and collect in suitable container for disposal. Collect dust using a vacuum cleaner equipped with HEPA filter. Avoid dust formation. Following product recovery, flush area with water.

**Other information** Clean up in accordance with all applicable regulations.

---

## 7. Handling and Storage

**Handling** Keep formation of airborne dusts to a minimum. Do not breathe dust. Avoid contact with eyes. Do not use in areas without adequate ventilation. Wear personal protective equipment. Wash thoroughly after handling.

**Storage** Keep container tightly closed. Guard against dust accumulation of this material. Use care in handling/storage.

---

## 8. Exposure Controls / Personal Protection

### Occupational exposure limits

#### U.S. - OSHA

Components	Type	Value	Form
CALCIUM CARBONATE (471-34-1)	PEL	5.0000 mg/m3	Respirable fraction.
		15.0000 mg/m3	Total dust.
	TWA	5.0000 mg/m3	Respirable fraction.
		15.0000 mg/m3	Total dust.

**Engineering controls** Ensure adequate ventilation, especially in confined areas.

**Personal protective equipment**

**Eye / face protection** Do not get in eyes. Chemical goggles are recommended.

**Skin protection** No special protective equipment required.

**Respiratory protection** When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

**General hygiene considerations** Do not get in eyes.

---

## 9. Physical & Chemical Properties

**Appearance**

**Form** Powder.

**Color** Yellow.

**Odor** Odorless.

**Physical state** Solid.

<b>pH</b>	Not available.
<b>Melting point</b>	Not available.
<b>Freezing point</b>	Not available.
<b>Boiling point</b>	Not available.
<b>Flash point</b>	Not available.
<b>Evaporation rate</b>	Not available.
<b>Flammability limits in air, upper, % by volume</b>	Not available.
<b>Flammability limits in air, lower, % by volume</b>	Not available.
<b>Vapor pressure</b>	Not available.
<b>Vapor density</b>	Not available.
<b>Specific gravity</b>	Not available.
<b>Relative density</b>	Not available.
<b>Solubility (water)</b>	Not available.
<b>Partition coefficient (n-octanol/water)</b>	Not available.
<b>Auto-ignition temperature</b>	Not available.
<b>Decomposition temperature</b>	Not available.
<b>VOC</b>	Not available.

---

## 10. Chemical Stability & Reactivity Information

<b>Chemical stability</b>	Material is stable under normal conditions.
<b>Incompatible materials</b>	Strong acids.
<b>Hazardous decomposition products</b>	Carbon oxides.

---

## 11. Toxicological Information

**Toxicological information** The toxicity of this product has not been tested.

### Toxicological data

<b>Components</b>	<b>Test Results</b>
CALCIUM CARBONATE (471-34-1)	Acute Oral LD50 Rat: 6450 mg/kg
<b>Local effects</b>	Components of the product may be absorbed into the body through the skin. Contact may irritate or burn eyes.
<b>Chronic effects</b>	Hazardous by OSHA criteria. Prolonged inhalation may be harmful.
<b>Carcinogenicity</b>	This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

---

## 12. Ecological Information

### Ecotoxicological data

<b>Components</b>	<b>Test Results</b>
CALCIUM CARBONATE (471-34-1)	LC50 Western mosquitofish ( <i>Gambusia affinis</i> ): > 56000 mg/l 96.00 Hours
Ammonium Sulfate (7783-20-2)	EC50 Water flea ( <i>Ceriodaphnia dubia</i> ): 52 - 67 mg/l 48.00 hours LC50 Pink salmon ( <i>Oncorhynchus gorbuscha</i> ): 0.068 mg/l 96.00 hours
<b>Ecotoxicity</b>	This material is not expected to be harmful to aquatic life.
<b>Environmental effects</b>	An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.
<b>Persistence and degradability</b>	Not available.

---

## 13. Disposal Considerations

---

<b>Disposal instructions</b>	This product, in its present state, when discarded or disposed of, is not a hazardous waste according to Federal regulations (40 CFR 261.4 (b)(4)). Under RCRA, it is the responsibility of the user of the product to determine, at the time of disposal, whether the product meets RCRA criteria for hazardous waste. Dispose of waste material according to Local, State, Federal, and Provincial Environmental Regulations.
<b>Waste from residues / unused products</b>	Dispose of in accordance with local regulations.

---

## 14. Transport Information

---

### DOT

#### Basic shipping requirements:

<b>UN number</b>	UN1044
<b>Proper shipping name</b>	Fire extinguishers
<b>Hazard class</b>	2.2

#### Additional information:

<b>Special provisions</b>	18, 110
<b>Packaging exceptions</b>	309
<b>Packaging non bulk</b>	309
<b>Packaging bulk</b>	None
<b>ERG number</b>	126



DOT

---

## 15. Regulatory Information

---

<b>US federal regulations</b>	This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200. All components are on the U.S. EPA TSCA Inventory List.
-------------------------------	---

CERCLA/SARA Hazardous Substances - Not applicable.

#### US EPCRA (SARA Title III) Section 313 - Toxic Chemical: De minimis concentration

Ammonium Phosphate (CAS 7722-76-1)	1.0 %
Ammonium Sulfate (CAS 7783-20-2)	1.0 %

#### US EPCRA (SARA Title III) Section 313 - Toxic Chemical: Listed substance

Ammonium Phosphate (CAS 7722-76-1)	Listed.
Ammonium Sulfate (CAS 7783-20-2)	Listed.

#### CERCLA (Superfund) reportable quantity

None

#### Superfund Amendments and Reauthorization Act of 1986 (SARA)

<b>Hazard categories</b>	Acute Health - Yes Chronic Health - Yes Fire Hazard - No Pressure Hazard - Yes Reactivity Hazard - No
--------------------------	---

**Section 302 extremely hazardous substance** No

**Section 311 hazardous chemical** No

## Inventory status

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

\*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

**State regulations** This product does not contain a chemical known to the State of California to cause cancer, birth defects or other reproductive harm.

### US - Pennsylvania RTK - Hazardous Substances: Listed substance

Ammonium Sulfate (CAS 7783-20-2)	Listed.
CALCIUM CARBONATE (CAS 471-34-1)	Listed.

---

## 16. Other Information

<b>Further information</b>	HMIS® is a registered trade and service mark of the NPCA.
<b>HMIS® ratings</b>	Health: 1* Flammability: 0 Physical hazard: 0
<b>NFPA ratings</b>	Health: 1 Flammability: 0 Instability: 0
<b>Disclaimer</b>	The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.
<b>Issue date</b>	04-13-2011

## SAFETY DATA SHEET

### SECTION 1. IDENTIFICATION

**Product identifier used on the label**

: **ACE METHYL ALCOHOL**

**Stock No.** : 984/985/986/989

**Recommended use of the chemical and restrictions on use**

: Gasoline Antifreeze  
Recommended restrictions: None known.

**Name, address, and telephone number  
of the manufacturer:**

**Kleen-Flo Tumbler Ind. Ltd.**

75 Advance Blvd.  
Brampton, ON,  
L6T 4N1

Telephone # : 905-793-4311

**24 Hr. Emergency Tel #** : CANUTEC: 613-996-6666

### SECTION 2. HAZARDS IDENTIFICATION

**Classification of the chemical**

Clear colourless liquid. Alcohol odour.

OSHA: This material is classified as hazardous under U.S. OSHA regulations (29CFR 1910.1200) (Hazcom 2012) and Canadian WHMIS regulations (Hazardous Products Regulations) (WHMIS 2015).

**Hazard classification :**

- Flammable liquid - Category 2
- Acute toxicity - Oral - Category 3
- Acute toxicity - Dermal - Category 3
- Acute toxicity - Inhalation - Category 3
- Eye irritation - Category 2A
- Reproductive toxicity - Category 2
- Specific target organ toxicity, single exposure - Category 1

**Label elements**

*Hazard pictogram(s)*



*Signal Word*

DANGER!

*Hazard statement(s)*

- Highly flammable liquid and vapour
- Toxic if swallowed, in contact with skin or if inhaled.
- Causes serious eye irritation.
- Suspected of damaging the unborn child if inhaled.
- Causes damage to the optic nerve and central nervous system.

**SAFETY DATA SHEET***Precautionary statement(s)*

Obtain special instructions before use.  
 Do not handle until all safety precautions have been read and understood.  
 Keep away from heat, sparks and open flame. - No smoking.  
 Keep container tightly closed.  
 Ground/Bond container and receiving equipment.  
 Use explosion-proof electrical and ventilating equipment.  
 Use only non-sparking tools.  
 Take precautionary measures against static discharge.  
 Wear protective gloves/clothing and eye/face protection.  
 Wash hands and face thoroughly after handling.  
 Do not eat, drink or smoke when using this product.  
 Use only outdoors or in a well-ventilated area.  
 Do not breathe fumes, mists or vapours.  
 In case of fire: Use water fog, dry chemical, CO2 or 'alcohol' foam for extinction.  
 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.  
 Get medical attention/advice if you feel unwell.  
 IF SWALLOWED: Immediately call a POISON CENTRE or doctor/physician.  
 Rinse mouth.  
 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.  
 Call a POISON CENTRE or doctor/physician.  
 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.  
 Continue rinsing.  
 If eye irritation persists, get medical advice/attention.  
 Store in a well-ventilated place. Keep cool.  
 Store locked up.  
 Dispose of contents/container in accordance with local regulation.

**Other hazards**

Other hazards which do not result in classification:

May cause mild skin irritation. May be harmful if absorbed through the skin. May be harmful if inhaled. Prolonged or repeated overexposure could cause adverse liver effects. Burning produces obnoxious and toxic fumes.

Environmental precautions: Avoid release to the environment.

**SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

Pure substance

<u>Chemical name</u>	<u>Common name and synonyms</u>	<u>CAS #</u>	<u>Concentration</u>
Methanol	Carbinol Methyl hydrate Methyl alcohol	67-56-1	100

**SECTION 4. FIRST-AID MEASURES****Description of first aid measures**

- Ingestion* : Call a physician or poison control centre immediately. Do not induce vomiting. Rinse mouth. Never give anything by mouth to an unconscious person.
- Inhalation* : If inhaled, move to fresh air. If breathing is difficult, give oxygen by qualified medical personnel only. If breathing has stopped, give artificial respiration. Get medical attention.
- Skin contact* : Immediately flush skin with running water for at least 15 minutes, while removing contaminated clothing. Get medical attention. Wash contaminated clothing before re-use.
- Eye contact* : Immediately flush eyes with running water for at least 20 minutes. Remove contact lenses if present and easy to do. Get medical attention.

## SAFETY DATA SHEET

### Most important symptoms and effects, both acute and delayed

- : Toxic if swallowed. Causes serious eye irritation. Symptoms may include redness, pain, tearing and conjunctivitis. Suspected of damaging the unborn child. May cause fetotoxic (toxic to the fetus during the latter stages of pregnancy, often through the placenta) and teratogenic effects (causing malformations of the fetus), based on animal information. Causes damage to the optic nerve and central nervous system. May be harmful if inhaled. May be harmful if absorbed through the skin. May cause mild skin irritation.  
Prolonged or repeated overexposure could cause adverse liver effects.

### Indication of any immediate medical attention and special treatment needed

- : Treat symptomatically. Immediate medical attention is required. This product is a CNS depressant.  
Contains methanol. Acute exposure to methanol, either through ingestion or breathing high airborne concentrations can result in symptoms appearing between 40 minutes and 72 hours after exposure. Medical supervision for minimum 48 hours. Symptoms and signs are usually limited to the Central Nervous System (CNS), eyes and gastrointestinal tract. Because of the initial CNS's effects of headache, vertigo, lethargy and confusion, there may be an impression of ethanol intoxication. Blurred vision, decreased acuity and photophobia are common complaints. Treatment with ipecac or lavage is indicated in any patient presenting within two hours of ingestion. A profound metabolic acidosis occurs in severe poisoning and serum bicarbonate levels are a more accurate measure of severity than serum methanol levels. Treatment protocols are available from most major hospitals and early collaboration with appropriate hospitals is recommended.

Administration of ethanol can slow the metabolism of methanol, thus reducing the potential for harmful effects.

## SECTION 5. FIRE-FIGHTING MEASURES

### Extinguishing media

#### *Suitable extinguishing media*

- : Extinguishing media - small fires: Use water fog or fine spray, foams, carbon dioxide or dry chemical.  
Extinguishing media - large fires: AFFF(R) [Aqueous Film Forming Foam (alcohol resistant)] type with either a 3% or 6% foam proportioning system; Water spray (see note in Unsuitable Extinguishing Media).

#### *Unsuitable extinguishing media*

- : Do not use a solid water stream as it may scatter and spread fire. Water may be ineffective because it may not cool product below the flashpoint.  
General purpose synthetic foams or protein foams.

### Special hazards arising from the substance or mixture / Conditions of flammability

- : Highly flammable liquid and vapour. Will be ignited by heat, sparks, flame, or other ignition sources. Burns with a nearly invisible flame. Vapours are heavier than air and collect in confined and low-lying areas. Closed containers may rupture if exposed to excess heat or flame due to a build-up of internal pressure.

### Flammability classification (OSHA 29 CFR 1910.106)

- : Flammable liquid - Category 2

### Hazardous combustion products

- : Carbon oxides; formaldehyde; Other unidentified organic compounds.

### Special protective equipment and precautions for firefighters

#### *Protective equipment for fire-fighters*

- : Firefighters should wear proper protective equipment and self-contained breathing apparatus with full face piece operated in positive pressure mode.

#### *Special fire-fighting procedures*

- : Fight fires from a safe distance. Move containers from fire area if safe to do so. Water spray may be useful in cooling equipment exposed to heat and flame.

## SAFETY DATA SHEET

### SECTION 6. ACCIDENTAL RELEASE MEASURES

#### Personal precautions, protective equipment and emergency procedures

- : Restrict access to area until completion of clean-up. Ensure clean-up is conducted by trained personnel only. Individuals involved in the cleanup must wear appropriate personal protective equipment. For personal protection see section 8.

#### Environmental precautions

- : Ensure spilled product does not enter drains, sewers, waterways, or confined spaces. For large spills, dike the area to prevent spreading.

#### Methods and material for containment and cleaning up

- : Ventilate the area. Use only non-sparking tools and equipment in the clean-up process. Contain and absorb spilled liquid with non-combustible, inert absorbent material (e.g. sand), then place absorbent material into a container for later disposal (see Section 13). Contaminated absorbent material may pose the same hazards as the spilled product. Notify the appropriate authorities as required. Do not use combustible absorbents, such as sawdust.

#### Special spill response procedures

- : If a spill/release in excess of the EPA reportable quantity is made into the environment, immediately notify the national response center in the United States (phone: 1-800-424-8802).  
US CERCLA Reportable quantity (RQ): Methanol. (5000 lbs / 2270 kg)

### SECTION 7. HANDLING AND STORAGE

#### Precautions for safe handling

- : Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use only in well-ventilated areas. Wear suitable protective equipment during handling. Do not ingest or swallow. Avoid breathing vapours. Avoid contact with skin, eyes and clothing. Wash thoroughly after handling. Keep away from heat, sparks and open flame. - No smoking. Ground/Bond container and receiving equipment. Use explosion-proof electrical and ventilating equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Avoid contact with incompatible materials. Keep containers tightly closed when not in use. Empty containers retain residue (liquid and/or vapour) and can be dangerous. Do not use pressure to empty drums. Do not cut, weld, drill or grind on or near this container. Follow labeled warnings even after container is emptied. For rescue and maintenance work in storage tanks use self-contained breathing apparatus. Tanks must be grounded and vented and should have vapour emission controls. Tanks must be diked. Anhydrous methanol is non-corrosive to most metals at ambient temperatures except lead and magnesium. However coatings of copper (or copper alloys), zinc (including galvanized steel) or aluminum are unsuitable for storage as they are attacked slowly. Mild steel is the recommended construction material.

#### Conditions for safe storage

- : Store in a cool, dry, well-ventilated area. Store away from incompatible materials. Store locked up. Storage area should be clearly identified, clear of obstruction and accessible only to trained and authorized personnel. Inspect periodically for damage or leaks. No smoking in the area. Have appropriate fire extinguishers and spill clean-up equipment in or near storage area. Equip bulk storage tank with overflow protection such as high level alarms or secondary containment. Attacks some elastomers, rubber, plastic and coatings.

#### Incompatible materials

- : Acids; Powdered metals; Alkali metals; Isocyanates; Strong oxidizers (e.g. Chlorine, Peroxides, etc.).

### SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

<b>Exposure Limits:</b>				
<b>Chemical Name</b>	<b>ACGIH TLV</b>		<b>OSHA PEL</b>	
	<b>TWA</b>	<b>STEL</b>	<b>PEL</b>	<b>STEL</b>
Methanol	200 ppm (skin)	250 ppm (skin)	200 ppm (260 mg/m <sup>3</sup> )	N/Av

NIOSH IDLH (Immediately Dangerous to Life or Health Concentrations): 6000 ppm

### **Exposure controls**

#### **Ventilation and engineering measures**

: Ensure adequate ventilation, especially in confined areas. Use general or local exhaust ventilation to maintain air concentrations below recommended exposure limits. Use explosion-proof electrical and ventilating equipment.

#### **Respiratory protection**

: Respiratory protection is required if the concentrations exceed the TLV. NIOSH-approved respirators are recommended. Cartridge type respirators are not recommended. Wear self-contained breathing apparatus with a full face piece operated in the positive pressure mode.

Advice should be sought from respiratory protection specialists. Respirators should be selected based on the form and concentration of contaminants in air, and in accordance with OSHA (29 CFR 1910.134) or CSA Z94.4-02.

#### **Skin protection**

: Wear impervious gloves, such as butyl rubber. Unsuitable material: Natural rubber; Neoprene.; Nitrile rubber; Polyethylene; polyvinyl alcohol; Polyvinylchloride. Advice should be sought from glove suppliers. Where extensive exposure to product is possible, use resistant coveralls, apron and boots to prevent contact.

#### **Eye / face protection**

: Chemical splash goggles are recommended. A full face shield may also be necessary.

#### **Other protective equipment**

: An eyewash station and safety shower should be made available in the immediate working area. Other equipment may be required depending on workplace standards.

#### **General hygiene considerations**

: Avoid breathing vapour or mist. Avoid contact with skin, eyes and clothing. Do not eat, drink or smoke when using this product. Upon completion of work, wash hands before eating, drinking, smoking or use of toilet facilities. Remove soiled clothing and wash it thoroughly before reuse. Handle in accordance with good industrial hygiene and safety practice.

## **SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

**Appearance** : Clear colourless liquid.

**Odour** : Alcohol

**Odour threshold** : 50-100 ppm

**pH** : N/Av

**Melting/Freezing point** : - 97.8°C (- 144°F)

#### **Initial boiling point and boiling range**

: 64.5°C (148°F)

**Flash point** : 12°C (53.6°F)

**Flashpoint (Method)** : closed cup

**Evaporation rate (BuAe = 1)** : <1

**Flammability (solid, gas)** : Not applicable.

**Lower flammable limit (% by vol.)** : 7.3%

**Upper flammable limit (% by vol.)** : 36%

<b>Oxidizing properties</b>	: None.
<b>Explosive properties</b>	: Not expected to be sensitive to mechanical impact. May be sensitive to static discharge. Vapours in the flammable range may be ignited by a static discharge of sufficient energy.
<b>Vapour pressure</b>	: 92 mmHg @ 20°C
<b>Vapour density</b>	: >1.1
<b>Relative density / Specific gravity</b>	: 0.79
<b>Solubility in water</b>	: Complete
<b>Other solubility(ies)</b>	: Soluble in all proportions in ethanol, benzene, other alcohols, chloroform, diethyl ether, other ethers, esters, ketones and most organic solvents.
<b>Partition coefficient: n-octanol/water or Coefficient of water/oil distribution</b>	: log P (oct) = - 0.8
<b>Auto-ignition temperature</b>	: 464°C (867.2°F)
<b>Decomposition temperature</b>	: N/Av
<b>Viscosity</b>	: 0.75 cSt @ 20C (68°F)
<b>Volatiles (% by weight)</b>	: 100%
<b>Volatile organic Compounds (VOC's)</b>	: N/Av
<b>Absolute pressure of container</b>	: N/Av
<b>Flame projection length</b>	: N/Av
<b>Other physical/chemical comments</b>	: Molecular Weight: 32.04 g/mol Molecular formula: C-H4-O

**SECTION 10. STABILITY AND REACTIVITY**

<b>Reactivity</b>	: Not normally reactive. Attacks some elastomers, rubber, plastic and coatings. Anhydrous methanol is non-corrosive to most metals at ambient temperatures except lead and magnesium. Coatings of copper (or copper alloys), zinc (including galvanized steel) or aluminium are attacked slowly.
<b>Chemical stability</b>	: Stable under the recommended storage and handling conditions prescribed.
<b>Possibility of hazardous reactions</b>	: Hazardous polymerization does not occur.
<b>Conditions to avoid</b>	: Keep away from excessive heat, open flames, sparks and other possible sources of ignition. Avoid contact with incompatible materials. Do not use in areas without adequate ventilation.
<b>Incompatible materials</b>	: Acids; Powdered metals; Alkali metals; Isocyanates; Strong oxidizers (e.g. Chlorine, Peroxides, etc.).
<b>Hazardous decomposition products</b>	: None known, refer to hazardous combustion products in Section 5.

**SECTION 11. TOXICOLOGICAL INFORMATION****Information on likely routes of exposure:**

<b>Routes of entry inhalation</b>	: YES
<b>Routes of entry skin &amp; eye</b>	: YES
<b>Routes of entry Ingestion</b>	: YES

## SAFETY DATA SHEET

**Routes of exposure skin absorption**

: YES

**Potential Health Effects:**

**Signs and symptoms of short-term (acute) exposure**

*Sign and symptoms Inhalation*

: Toxic if inhaled. May cause irritation of the nose, throat, mucous membranes, and respiratory tract. Symptoms may include pain, headache, nausea, vomiting, dizziness, drowsiness and other central nervous system effects. Affected person could experience a latent period of no symptoms, followed by blurred vision and possibly blindness. Could also cause convulsions, coma, respiratory arrest and death.

*Sign and symptoms ingestion*

: Toxic if swallowed. May cause irritation of mouth, throat, and stomach. Symptoms may include pain, headache, nausea, vomiting, dizziness, drowsiness and other central nervous system effects. May cause blindness if swallowed - cannot be made non-poisonous. Could also cause convulsions, coma, respiratory arrest and death.

*Sign and symptoms skin*

: Toxic in contact with skin. May cause mild skin irritation. May be absorbed and cause symptoms similar to those for inhalation.

*Sign and symptoms eyes*

: Causes serious eye irritation.

**Potential Chronic Health Effects**

: Prolonged or repeated skin contact may cause drying and irritation. Prolonged or repeated overexposure could cause adverse liver effects.

**Mutagenicity**

: Not expected to be mutagenic in humans.

**Carcinogenicity**

: No components are listed as carcinogens by ACGIH, IARC, OSHA or NTP.

**Reproductive effects & Teratogenicity**

: This material is classified as hazardous under OSHA regulations (29CFR 1910.1200) (Hazcom 2012). Classification:  
 Reproductive toxicity - Category 2. Suspected of damaging the unborn child.  
 Contains Methanol. Methanol may cause fetotoxic and teratogenic effects at doses which are not maternally toxic, based on animal data. May cause fetotoxic (toxic to the fetus during the latter stages of pregnancy, often through the placenta) and teratogenic effects (causing malformations of the fetus), based on animal information.

**Sensitization to material**

: Not expected to be a skin or respiratory sensitizer.

**Specific target organ effects**

: This material is classified as hazardous under OSHA regulations (29CFR 1910.1200) (Hazcom 2012). Classification:  
 Specific target organ toxicity - single exposure - Category 1. Causes damage to the optic nerve and central nervous system.

Other hazards which do not result in classification:

Prolonged or repeated overexposure could cause adverse liver effects.

**Medical conditions aggravated by overexposure**

: Pre-existing skin, eye, respiratory and central nervous system disorders.

**Synergistic materials**

: Methanol can increase the toxicity of other liver toxins (e.g. Carbon tetrachloride).

**Toxicological data**

: See below for toxicological data on the substance.

<u>Chemical name</u>	<b>LC<sub>50</sub>(4hr)</b>	<b>LD<sub>50</sub></b>	
	<u>inh, rat</u>	<u>(Oral, rat)</u>	<u>(Rabbit, dermal)</u>
Methanol	> 5000 ppm/6H (4.1 mg/L/4H (vapour))	5628 mg/kg (rat) The estimated human lethal dose is: 300 - 1000 mg/kg	> 393 mg/kg (Monkey) 15 000 mg/kg (rabbit)

## SAFETY DATA SHEET

**Other important toxicological hazards**

: CNS depression may result from extreme exposures. May cause blindness if swallowed.

### SECTION 12. ECOLOGICAL INFORMATION

**Ecotoxicity** : The product should not be allowed to enter drains or water courses, or be deposited where it can affect ground or surface waters.

**Ecotoxicity data:**

<u>Ingredients</u>	CAS No	Toxicity to Fish		
		LC50 / 96h	NOEC / 21 day	M Factor
Methanol	67-56-1	15 400 mg/L (Bluegill sunfish)	446.7 mg/L/28-day (Fathead minnow) (QSAR)	None.

<u>Ingredients</u>	CAS No	Toxicity to Daphnia		
		EC50 / 48h	NOEC / 21 day	M Factor
Methanol	67-56-1	> 10 000 mg/L (Daphnia magna)	208 mg/L (QSAR)	None.

<u>Ingredients</u>	CAS No	Toxicity to Algae		
		EC50 / 96h or 72h	NOEC / 96h or 72h	M Factor
Methanol	67-56-1	22 000 mg/L/96hr (Green algae)	N/Av	None.

**Persistence and degradability**

: Methanol is readily biodegradable.

**Bioaccumulation potential**

: Does not accumulate in organisms.

<u>Components</u>	<u>Partition coefficient n-octanol/ater (log Kow)</u>	<u>Bioconcentration factor (BCF)</u>
Methanol (CAS 67-56-1)	- 0.82 to - 0.64	<10 species: fish

**Mobility in soil** : No data is available on the product itself.

**Other Adverse Environmental effects**

: No data is available on the product itself.

### SECTION 13. DISPOSAL CONSIDERATIONS

**Handling for Disposal**

: See Section 7 (Handling and Storage) for further details. Empty containers retain residue (liquid and/or vapour) and can be dangerous. Do not cut, weld, drill or grind on or near this container.

**Methods of Disposal**

: Dispose in accordance with all applicable federal, state, provincial and local regulations. Reuse or recycling should be given priority over disposal. Large volumes may be suitable for re-distillation or, if contaminated, incinerated. Can be disposed of in a sewage treatment facility.

## SAFETY DATA SHEET

**RCRA** : If this product, as supplied, becomes a waste in the United States, it may meet the criteria of a hazardous waste as defined under RCRA, Title 40 CFR 261. It is the responsibility of the waste generator to determine the proper waste identification and disposal method.

**SECTION 14. TRANSPORTATION INFORMATION FOR STOCK**  
#985/986/989

Regulatory Information	UN Number	UN proper shipping name	Transport hazard class(es)	Packing Group
TDG	UN1230	METHANOL	3(6.1)	II

**#984-** Limited Quantity

**Special precautions for user** : Keep away from heat, sparks and open flame. - No smoking. Appropriate advice on safety must accompany the package.

**Environmental hazards** : See Section 12 for more environmental information.

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**

: This information is not available.

**SECTION 15 - REGULATORY INFORMATION**

**US Federal Information:**

Components listed below are present on the following U.S. Federal chemical lists:

**SAFETY DATA SHEET**

<u>Ingredients</u>	CAS #	TSCA Inventory	CERCLA Reportable Quantity(RQ) (40 CFR 117.302):	SARA TITLE III: Sec. 302, Extremely Hazardous Substance, 40 CFR 355:	SARA TITLE III: Sec. 313, 40 CFR 372, Specific Toxic Chemical	
					Toxic Chemical	de minimus Concentration
Methanol	67-56-1	Yes	5000 lbs / 2270 kg	None.	Yes	1%

SARA TITLE III: Sec. 311 and 312, MSDS Requirements, 40 CFR 370 Hazard Classes: Fire Hazard; Immediate (Acute) health hazard; Chronic Health Hazard. Under SARA Sections 311 and 312, the EPA has established threshold quantities for the reporting of hazardous chemicals. The current thresholds are 500 pounds for the threshold planning quantity (TPQ), whichever is lower, for extremely hazardous substances and 10,000 pounds for all other hazardous chemicals.

**US State Right to Know Laws:**

The following chemicals are specifically listed by individual States:

<u>Ingredients</u>	CAS #	California Proposition 65		State "Right to Know" Lists					
		Listed	Type of Toxicity	CA	MA	MN	NJ	PA	RI
Methanol	67-56-1	No	Developmental	Yes	Yes	Yes	Yes	Yes	Yes

**Canadian Information:**

WHMIS information: Refer to Section 2 for a WHMIS Classification for this product.

Canadian Environmental Protection Act (CEPA) information: All ingredients listed appear on the Domestic Substances List (DSL).

**International Information:**

Components listed below are present on the following International Inventory list:

<u>Ingredients</u>	CAS #	European EINECs	Australia AICS	Philippines PICCS	Japan ENCS	Korea KECI/KECL	China IECSC	NewZealand IOC
Methanol	67-56-1	200-659-6	Present	Present	(2)-201	KE-23193	Present	HSR001186

**SECTION 16. OTHER INFORMATION**

**Legend**

- : ACGIH: American Conference of Governmental Industrial Hygienists
- CA: California
- CAS: Chemical Abstract Services
- CERCLA: Comprehensive Environmental Response, Compensation, and Liability Act of 1980
- CFR: Code of Federal Regulations
- CNS: Central Nervous System
- DOT: Department of Transportation
- EmS: Emergency Schedules
- EPA: Environmental Protection Agency
- ERG: Emergency Response Guidebook
- HMIS: Hazardous Materials Identification System
- HSDB: Hazardous Substances Data Bank
- IARC: International Agency for Research on Cancer

### SAFETY DATA SHEET

Inh: Inhalation  
 LC: Lethal Concentration  
 LD: Lethal Dose  
 MA: Massachusetts  
 MN: Minnesota  
 MSHA: Mine Safety and Health Administration  
 N/Ap: Not Applicable  
 N/Av: Not Available  
 NFPA: National Fire Protection Association  
 NIOSH: National Institute of Occupational Safety and Health  
 NJ: New Jersey  
 NTP: National Toxicology Program  
 OSHA: Occupational Safety and Health Administration  
 PA: Pennsylvania  
 PEL: Permissible exposure limit  
 RCRA: Resource Conservation and Recovery Act  
 RI: Rhode Island  
 RTECS: Registry of Toxic Effects of Chemical Substances  
 SARA: Superfund Amendments and Reauthorization Act  
 STEL: Short Term Exposure Limit  
 TDG: Canadian Transportation of Dangerous Goods Act & Regulations  
 TLV: Threshold Limit Values  
 TSCA: Toxic Substance Control Act  
 TWA: Time Weighted Average  
 WHMIS: Workplace Hazardous Materials Identification System

**References**

- : 1. ACGIH, Threshold Limit Values for Chemical Substances and Physical Agents & Biological Exposure Indices for 2012.
- 2. International Agency for Research on Cancer Monographs, searched 2012.
- 3. Canadian Centre for Occupational Health and Safety, CCIInfoWeb databases, 2012 (Chempendium, HSDB and RTECs).
- 4. Material Safety Data Sheets from manufacturer.
- 5. US EPA Title III List of Lists - July 2011 version.
- 6. California Proposition 65 List - July 20, 2012 version.

**Preparation Date (mm/dd/yyyy)**

: 2/5/2017

**Other special considerations for handling**

: Provide adequate information, instruction and training for operators.

**HMIS Rating**

: \*- Chronic hazard 0 - Minimal 1 - Slight 2 - Moderate 3 - Serious 4 - Severe

---

*Health:* \*2                      *Flammability:* 3                      *Reactivity:* 0

**NFPA Rating**

0 - Minimal    1 - Slight    2 - Moderate    3 - Serious    4 - Severe

---

: *Health:* 1            *Flammability:* 3            *Instability:* 0            *Special Hazards:* None



## MATERIAL SAFETY DATA SHEET

PRODUCT IDENTIFIER: **ACETYLENE**

Product Name(s): ACETYLENE

Formula: C<sub>2</sub>H<sub>2</sub>

Synonym(s): ETHYNE, ETHINE

Chemical Family: HYDROCARBON

PRODUCT USE(S): WELDING, CUTTING  
CHEMICAL SYNTHESIS

W.H.M.I.S. Classification  
Class(es): A, B, F

---

### HAZARDOUS INGREDIENTS:

INGREDIENT PARAMETERS	C.A.S. / P.I.N. NUMBER(S)	CONC. % VOL./VOL.	L.D. 50 (Species & Route)	L.C. 50 (Species & Route)
--------------------------	------------------------------	----------------------	------------------------------	------------------------------

ACETYLENE	74862/1001	APPR. 100	NOT APPL.	NOT APPL.
-----------	------------	-----------	-----------	-----------

Note: LCLo 50% inh1-man/5min, TCLo 33% inh1-man/7min (Anaesthesia)

---

### PHYSICAL DATA

PHYSICAL STATE:	Gas @ N.T.P.
ODOUR AND APPEARANCE:	Colourless with garlic-like odour
ODOUR THRESHOLD:	565 ppm
SPECIFIC GRAVITY (air=1):	0.908 (@0°C and 1 atm.)
VAPOUR PRESSURE:	1,724 kPa/250 psig (@21.1°C/70°F)
VAPOUR DENSITY:	1.175 kg/m <sup>3</sup>
EVAPORATION RATE:	Not Appl.
BOILING POINT:	-75.0°C (@ 170kPa)
FREEZING POINT:	-82.2°C (-116°F)
pH:	Not Applicable
COEFFICIENT OF WATER/OIL DISTRIBUTION:	Not Available
SOLUBILITY IN WATER:	1.1 (vol./vol.)
% VOLATILES:	100

FOR TRANSPORT EMERGENCY CALL COLLECT CANUTEC TEL: 1-613-996-6666

**FIRE OR EXPLOSION HAZARDS**

CONDITIONS OF FLAMMABILITY:	Highly flammable. Acetylene may be ignited by static electricity and all common sources of ignition. Gas escaping in the air may ignite due to friction. When undissolved Acetylene may decompose if subject to pressures above 15 psig.
MEANS OF EXTINCTION:	Cool containers with water spray from maximum distance. Do not aim at source: gas may reignite easily. Evacuate area. Shut off gas if it can be done without risk. Containers may rupture when subject to localized heating. Cylinders may have fusible Safety Relief Devices near the valve and on the bottom.
FLASH POINT:	Flammable Gas
UPPER FLAMMABLE LIMIT: 82.0%	LOWER FLAMMABLE LIMIT: 2.5%
AUTOIGNITION TEMPERATURE:	305°C (581 °F)
HAZARDOUS COMBUSTION PRODUCTS:	CO <sub>2</sub> , CO, Hydrocarbons.
SENSITIVITY TO MECHANICAL IMPACT:	Decomposition may occur.
SENSITIVITY TO STATIC DISCHARGE:	Ignitable by static electricity when within the flammability range.
SPECIAL PROCEDURES:	Evacuate areas where a leak or a spill is present. Fight the surrounding fires at the case may be. Cylinders have fusible Safety Relief Devices that melt if the temperature reaches 100 °C. rupturing cylinders may send debris over 100 metres (300feet) away.

**REACTIVITY DATA**

CONDITIONS OF CHEMICAL UNSTABILITY:	Stable when dissolved (in cylinders the solvent is commonly acetone). Unstable if the pressure is above 15psig.
INCOMPATIBILITY:	Air, Oxidizers, Alkali Metals, Halogens, Hydrides.
CONDITIONS OF REACTIVITY:	Acetylene may form explosive compounds with COPPER (alloys over 65%), MERCURY, SILVER.
HAZARDOUS DECOMPOSITION PRODUCTS:	H <sub>2</sub> , CO, Hydrocarbons.

**TOXICOLOGICAL PROPERTIES**

ROUTE OF ENTRY	
SKIN (CONTACT):	NO
SKIN (ABSORPTION):	NO
EYE CONTACT:	YES
INHALATION:	YES
INGESTION:	NO
EFFECTS OF ACUTE EXPOSURE:	
May displace air in enclosed spaces. If oxygen concentration falls below 18% symptoms of asphyxia may develop. Acetylene at concentrations above 10% may act as a general anaesthetic. Concentrations to 33% may cause unconsciousness in 7 minutes.	
EFFECTS OF CHRONIC EXPOSURE:	NONE KNOWN
EXPOSURE LIMITS:	2500 ppm Ceiling (OSHA)
IRRITANCY:	Lung irritant when PURE and at pressures higher than atmospheric.
SENSITIZATION:	NONE
CARCINOGENICITY:	NONE
REPRODUCTIVE TOXICITY:	NONE
TERATOGENICITY:	NONE
MUTAGENICITY:	NONE
TOXIC SYNERGISTIC PRODUCTS:	NONE

### FIRST AID

EYE:	Acetylene may harm the unprotected eye if delivered at pressures higher than atmospheric.
INGESTION:	Not applicable
INHALATION:	Move victim to fresh air if possible. Administer C.P.R. if breathing has stopped. If breathing is difficult give oxygen. Obtain medical attention.
SKIN:	Treat burns from fires.

### PREVENTIVE MEASURES

#### PERSONAL PROTECTION

EYE:	Safety glasses or goggles to protect from accidental deliveries (leaks) under pressure.
HAND:	Not applicable.
FEET:	Safety footwear where applicable.
CLOTHING:	Long sleeves, trousers recommended.
RESPIRATOR:	Not applicable where oxygen concentration is kept above 18%.

**ENGINEERING CONTROLS:** Provide good ventilation. Keep away from all sources of ignition. Use only electrical equipment designed for a flammable atmosphere. Specific design considerations may be necessary for piping and vessels.

**SPILL AND LEAK PROCEDURE:** Remove all sources of ignition. Clear the area. Shut off the source if without risk. Use SCBA to enter confined spaces after monitoring for flammable conditions. Leave the danger area. Try to stop the leak at source if without risk. Gas will dissipate depending on the site/area ventilation. Verify oxygen concentration prior to re-entry.

**WASTE DISPOSAL:** Do not discard empty cylinders. Acetone may still be present. Return the cylinder where applicable. Waste cylinders may have to be disposed in accordance to Federal, Provincial and Municipal requirements.

**HANDLING PROCEDURES & EQUIPMENT:** Keep away from ALL SOURCES OF IGNITION. Ensure good ventilation. Use appropriate carts for moving containers. Secure container when in use. Close the container valve when NOT in use, or when empty. Secure (restrain) during transportation or use. Use backflow preventive devices (checkvalves) on piping & tubing (including hoses). Use only with equipment designed for Acetylene use. Always keep containers upright.

**STORAGE REQUIREMENTS:** Store in well ventilated areas. Keep away from sources of ignition. Store at temperatures below 52°C (125°F).

**SPECIAL SHIPPING INFORMATION:** Transport upright in well-ventilated vehicle. Do not transport in trunk of enclosed vehicle. Commercial (cylinders) quantities may NOT be transported in passenger compartments. Secure containers during transportation and ensure that valve protection is in place.

T.D.G. SHIPPING NAME:	Acetylene	T.D.G. CLASSIFICATION CLASS(ES):	2.1
T.D.G. P.I.N. / U.N. :	1001		

PREPARED BY:	<b>Josef Gas</b>
TEL:	(416) 658-1212
EFFECTIVE DATE:	JANUARY 1 2016

# SAFETY DATA SHEET

## 1. Identification

**Product identifier** AIR INTAKE KLEEN  
**Other means of identification**  
**Product code** 837  
**Recommended use** Cleaner  
**Recommended restrictions** None known.

## Manufacturer/Importer/Supplier/Distributor information

### Manufacturer

**Company name** Kleen-Flo Tumbler Ind Limited  
**Address** 75 Advance Blvd  
Brampton, Ontario L6T 4N1  
Canada  
**Telephone** General Assistance 1-905-793-4311  
**E-mail** Not available.  
**Emergency phone number** CANUTEC: 613-996-6666

## 2. Hazard(s) identification

<b>Physical hazards</b>	Flammable aerosols	Category 1
<b>Health hazards</b>	Skin corrosion/irritation	Category 2
	Serious eye damage/eye irritation	Category 2A
	Reproductive toxicity (the unborn child)	Category 2
	Specific target organ toxicity, single exposure	Category 3 narcotic effects
	Specific target organ toxicity, repeated exposure	Category 2
	Aspiration hazard	Category 1

### Label elements



**Signal word** Danger

**Hazard statement** Extremely flammable aerosol. May be fatal if swallowed and enters airways. Causes skin irritation. Causes serious eye irritation. May cause drowsiness or dizziness. Suspected of damaging the unborn child. May cause damage to organs through prolonged or repeated exposure.

**Precautionary statement**

**Prevention** Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not spray on an open flame or other ignition source. Do not pierce or burn, even after use. Do not breathe mist or vapor. Wash thoroughly after handling. Use only outdoors or in a well-ventilated area. Avoid release to the environment. Wear protective gloves/protective clothing/eye protection/face protection.

**Response** IF SWALLOWED: Immediately call a POISON CENTER/doctor. Do NOT induce vomiting. IF ON SKIN: Wash with plenty of water. IF INHALED: Remove person to fresh air and keep comfortable for breathing. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. IF exposed or concerned: Get medical advice/attention. Call a POISON CENTER/doctor if you feel unwell. If skin irritation occurs: Get medical advice/attention. If eye irritation persists: Get medical advice/attention. Take off contaminated clothing and wash it before reuse. Collect spillage.

<b>Storage</b>	Store in a well-ventilated place. Keep container tightly closed. Store locked up. Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F.
<b>Disposal</b>	Dispose of contents/container in accordance with local/regional/national/international regulations.
<b>Environmental hazards</b>	Hazardous to the aquatic environment, acute hazard Category 2
	Hazardous to the aquatic environment, long-term hazard Category 2
<b>Other hazards</b>	None known.
<b>Supplemental information</b>	None.

### 3. Composition/information on ingredients

#### Mixtures

Chemical name	Common name and synonyms	CAS number	%
Toluene		108-88-3	15-40
Xylene		1330-20-7	10-30
Acetone		67-64-1	10-30
Ethyl Benzene		100-41-4	1-5
Diacetone Alcohol		123-42-2	1-5
Other components below reportable levels			15-40

All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

### 4. First-aid measures

<b>Inhalation</b>	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.
<b>Skin contact</b>	Remove contaminated clothing. Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention. Wash contaminated clothing before reuse.
<b>Eye contact</b>	Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.
<b>Ingestion</b>	Call a physician or poison control center immediately. Rinse mouth. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.
<b>Most important symptoms/effects, acute and delayed</b>	Aspiration may cause pulmonary edema and pneumonitis. May cause drowsiness and dizziness. Headache. Nausea, vomiting. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. May cause redness and pain. Prolonged exposure may cause chronic effects.
<b>Indication of immediate medical attention and special treatment needed</b>	Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.
<b>General information</b>	IF exposed or concerned: Get medical advice/attention. If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance.

### 5. Fire-fighting measures

<b>Suitable extinguishing media</b>	Alcohol resistant foam. Powder. Carbon dioxide (CO <sub>2</sub> ).
<b>Unsuitable extinguishing media</b>	Do not use water jet as an extinguisher, as this will spread the fire.
<b>Specific hazards arising from the chemical</b>	Contents under pressure. Pressurized container may explode when exposed to heat or flame. During fire, gases hazardous to health may be formed.
<b>Special protective equipment and precautions for firefighters</b>	Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.
<b>Fire fighting equipment/instructions</b>	Move containers from fire area if you can do so without risk. Containers should be cooled with water to prevent vapor pressure build up. For massive fire in cargo area, use unmanned hose holder or monitor nozzles, if possible. If not, withdraw and let fire burn out.
<b>Specific methods</b>	Use standard firefighting procedures and consider the hazards of other involved materials. Move containers from fire area if you can do so without risk. In the event of fire and/or explosion do not breathe fumes.
<b>General fire hazards</b>	Extremely flammable aerosol.

## 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures

Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Do not breathe mist or vapor. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

### Methods and materials for containment and cleaning up

Refer to attached safety data sheets and/or instructions for use. Stop leak if you can do so without risk. Move the cylinder to a safe and open area if the leak is irreparable. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material. Prevent entry into waterways, sewer, basements or confined areas. Cover with plastic sheet to prevent spreading. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. For waste disposal, see section 13 of the SDS.

### Environmental precautions

Avoid release to the environment. Inform appropriate managerial or supervisory personnel of all environmental releases. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground.

## 7. Handling and storage

### Precautions for safe handling

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Pressurized container: Do not pierce or burn, even after use. Do not use if spray button is missing or defective. Do not spray on a naked flame or any other incandescent material. Do not smoke while using or until sprayed surface is thoroughly dry. Do not cut, weld, solder, drill, grind, or expose containers to heat, flame, sparks, or other sources of ignition. All equipment used when handling the product must be grounded. Do not re-use empty containers. Do not breathe mist or vapor. Avoid contact with eyes, skin, and clothing. Pregnant or breastfeeding women must not handle this product. Should be handled in closed systems, if possible. Use only in well-ventilated areas. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Avoid release to the environment. Observe good industrial hygiene practices.

### Conditions for safe storage, including any incompatibilities

Level 3 Aerosol.

Store locked up. Pressurized container. Protect from sunlight and do not expose to temperatures exceeding 50°C/122 °F. Do not puncture, incinerate or crush. Do not handle or store near an open flame, heat or other sources of ignition. This material can accumulate static charge which may cause spark and become an ignition source. Store away from incompatible materials (see Section 10 of the SDS).

## 8. Exposure controls/personal protection

### Occupational exposure limits

#### US. ACGIH Threshold Limit Values

Components	Type	Value
Acetone (CAS 67-64-1)	STEL	500 ppm
	TWA	250 ppm
Diacetone Alcohol (CAS 123-42-2)	TWA	50 ppm
Ethyl Benzene (CAS 100-41-4)	TWA	20 ppm
Toluene (CAS 108-88-3)	TWA	20 ppm
Xylene (CAS 1330-20-7)	STEL	150 ppm
	TWA	100 ppm

#### Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2)

Components	Type	Value
Acetone (CAS 67-64-1)	STEL	1800 mg/m <sup>3</sup>
	TWA	750 ppm
		1200 mg/m <sup>3</sup>
Diacetone Alcohol (CAS 123-42-2)	TWA	500 ppm
		238 mg/m <sup>3</sup>
Ethyl Benzene (CAS 100-41-4)	STEL	50 ppm
		543 mg/m <sup>3</sup>
		125 ppm

**Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2)**

Components	Type	Value
	TWA	434 mg/m3
		100 ppm
Toluene (CAS 108-88-3)	TWA	188 mg/m3
		50 ppm
Xylene (CAS 1330-20-7)	STEL	651 mg/m3
		150 ppm
	TWA	434 mg/m3
		100 ppm

**Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended)**

Components	Type	Value
Acetone (CAS 67-64-1)	STEL	500 ppm
	TWA	250 ppm
Diacetone Alcohol (CAS 123-42-2)	TWA	50 ppm
Ethyl Benzene (CAS 100-41-4)	TWA	20 ppm
Toluene (CAS 108-88-3)	TWA	20 ppm
Xylene (CAS 1330-20-7)	STEL	150 ppm
	TWA	100 ppm

**Canada. Manitoba OELs (Reg. 217/2006, The Workplace Safety And Health Act)**

Components	Type	Value
Acetone (CAS 67-64-1)	STEL	500 ppm
	TWA	250 ppm
Diacetone Alcohol (CAS 123-42-2)	TWA	50 ppm
Ethyl Benzene (CAS 100-41-4)	TWA	20 ppm
Toluene (CAS 108-88-3)	TWA	20 ppm
Xylene (CAS 1330-20-7)	STEL	150 ppm
	TWA	100 ppm

**Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents)**

Components	Type	Value
Acetone (CAS 67-64-1)	STEL	750 ppm
	TWA	500 ppm
Diacetone Alcohol (CAS 123-42-2)	STEL	360 mg/m3
		75 ppm
	TWA	240 mg/m3
		50 ppm
Ethyl Benzene (CAS 100-41-4)	STEL	125 ppm
	TWA	100 ppm
Toluene (CAS 108-88-3)	TWA	20 ppm
Xylene (CAS 1330-20-7)	STEL	150 ppm
	TWA	100 ppm

**Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment)**

Components	Type	Value
Acetone (CAS 67-64-1)	STEL	2380 mg/m3
		1000 ppm
	TWA	1190 mg/m3
		500 ppm
Diacetone Alcohol (CAS 123-42-2)	TWA	238 mg/m3
		50 ppm
Ethyl Benzene (CAS 100-41-4)	STEL	543 mg/m3

**Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment)**

Components	Type	Value
		125 ppm
	TWA	434 mg/m3
Toluene (CAS 108-88-3)	TWA	100 ppm 188 mg/m3
Xylene (CAS 1330-20-7)	STEL	50 ppm 651 mg/m3
	TWA	150 ppm 434 mg/m3 100 ppm

**Biological limit values**

**ACGIH Biological Exposure Indices**

Components	Value	Determinant	Specimen	Sampling Time
Acetone (CAS 67-64-1)	25 mg/l	Acetone	Urine	*
Ethyl Benzene (CAS 100-41-4)	0.15 g/g	Sum of mandelic acid and phenylglyoxylic acid	Creatinine in urine	*
Toluene (CAS 108-88-3)	0.3 mg/g	o-Cresol, with hydrolysis	Creatinine in urine	*
	0.03 mg/	Toluene	Urine	*
	0.02 mg/	Toluene	Blood	*
Xylene (CAS 1330-20-7)	1.5 g/g	Methylhippuric acids	Creatinine in urine	*

\* - For sampling details, please see the source document.

**Exposure guidelines**

**Canada - Alberta OELs: Skin designation**

Toluene (CAS 108-88-3) Can be absorbed through the skin.

**Canada - Quebec OELs: Skin designation**

Toluene (CAS 108-88-3) Can be absorbed through the skin.

**Canada - Saskatchewan OELs: Skin designation**

Toluene (CAS 108-88-3) Can be absorbed through the skin.

**Appropriate engineering controls**

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eye wash facilities and emergency shower must be available when handling this product.

**Individual protection measures, such as personal protective equipment**

**Eye/face protection** Chemical respirator with organic vapor cartridge and full facepiece.

**Skin protection**

**Hand protection** Wear appropriate chemical resistant gloves. Suitable gloves can be recommended by the glove supplier.

**Other** Wear appropriate chemical resistant clothing. Use of an impervious apron is recommended.

**Respiratory protection** Chemical respirator with organic vapor cartridge and full facepiece.

**Thermal hazards** Wear appropriate thermal protective clothing, when necessary.

**General hygiene considerations**

Observe any medical surveillance requirements. When using do not smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

**9. Physical and chemical properties**

**Appearance**

<b>Physical state</b>	Liquid.
<b>Form</b>	Aerosol.
<b>Color</b>	Not available.

<b>Odor</b>	Not available.
<b>Odor threshold</b>	Not available.
<b>pH</b>	Not available.
<b>Melting point/freezing point</b>	Not available.
<b>Initial boiling point and boiling range</b>	222.95 °F (106.08 °C) estimated
<b>Flash point</b>	-11.5 °F (-24.2 °C) estimated
<b>Evaporation rate</b>	Not available.
<b>Flammability (solid, gas)</b>	Not applicable.
<b>Upper/lower flammability or explosive limits</b>	
<b>Flammability limit - lower (%)</b>	1.7 % estimated
<b>Flammability limit - upper (%)</b>	9.3 % estimated
<b>Explosive limit - lower (%)</b>	Not available.
<b>Explosive limit - upper (%)</b>	Not available.
<b>Vapor pressure</b>	125.24 psig @70F estimated
<b>Vapor density</b>	Not available.
<b>Relative density</b>	Not available.
<b>Solubility(ies)</b>	
<b>Solubility (water)</b>	Not available.
<b>Partition coefficient (n-octanol/water)</b>	<b>Not available.</b>
<b>Auto-ignition temperature</b>	971.56 °F (521.98 °C) estimated
<b>Decomposition temperature</b>	Not available.
<b>Viscosity</b>	Not available.
<b>Other information</b>	
<b>Density</b>	0.67 g/cm <sup>3</sup> estimated
<b>Explosive properties</b>	Not explosive.
<b>Flammability class</b>	Flammable IB estimated
<b>Heat of combustion</b>	32.95 kJ/g estimated
<b>Heat of combustion (NFPA 30B)</b>	33.02 kJ/g estimated
<b>Oxidizing properties</b>	Not oxidizing.
<b>Percent volatile</b>	94.38 % estimated
<b>Specific gravity</b>	0.669 estimated
<b>VOC (Weight %)</b>	64.58 % estimated

## 10. Stability and reactivity

<b>Reactivity</b>	The product is stable and non-reactive under normal conditions of use, storage and transport. Material is stable under normal conditions.
<b>Chemical stability</b>	Hazardous polymerization does not occur.
<b>Possibility of hazardous reactions</b>	Avoid temperatures exceeding the flash point. Contact with incompatible materials.
<b>Conditions to avoid</b>	Strong acids. Acids. Strong oxidizing agents. Nitrates. Halogens. Fluorine. Chlorine.
<b>Incompatible materials</b>	No hazardous decomposition products are known.
<b>Hazardous decomposition products</b>	

## 11. Toxicological information

### Information on likely routes of exposure

<b>Inhalation</b>	May cause damage to organs through prolonged or repeated exposure by inhalation. May cause drowsiness and dizziness. Headache. Nausea, vomiting.
<b>Skin contact</b>	Causes skin irritation.

**Eye contact** Causes serious eye irritation.

**Ingestion** Droplets of the product aspirated into the lungs through ingestion or vomiting may cause a serious chemical pneumonia.

**Symptoms related to the physical, chemical and toxicological characteristics** Aspiration may cause pulmonary edema and pneumonitis. May cause drowsiness and dizziness. Headache. Nausea, vomiting. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. May cause redness and pain.

**Information on toxicological effects**

**Acute toxicity** May be fatal if swallowed and enters airways. Narcotic effects.

<b>Components</b>	<b>Species</b>	<b>Test Results</b>
Acetone (CAS 67-64-1)		
<b>Acute</b>		
<b>Dermal</b>		
LD50	Guinea pig	> 7426 mg/kg, 24 Hours > 9.4 ml/kg, 24 Hours
	Rabbit	> 7426 mg/kg, 24 Hours > 9.4 ml/kg, 24 Hours
<b>Inhalation</b>		
LC50	Rat	55700 ppm, 3 Hours 132 mg/l, 3 Hours 50.1 mg/l
<b>Oral</b>		
LD50	Rat	5800 mg/kg 2.2 ml/kg
Diacetone Alcohol (CAS 123-42-2)		
<b>Acute</b>		
<b>Dermal</b>		
LD50	Rabbit	14.5 ml/kg, 24 Hours
	Rat	> 1875 mg/kg, 24 Hours 13500 mg/kg
<b>Oral</b>		
LD50	Rat	3002 mg/kg
Ethyl Benzene (CAS 100-41-4)		
<b>Acute</b>		
<b>Dermal</b>		
LD50	Rabbit	17.8 ml/kg, 24 Hours
<b>Inhalation</b>		
LC50	Mouse	> 8000 ppm, 20 Minutes
	Rat	4000 ppm
<b>Oral</b>		
LD50	Rat	3500 mg/kg
Toluene (CAS 108-88-3)		
<b>Acute</b>		
<b>Dermal</b>		
LD50	Rabbit	> 5000 mg/kg, 24 Hours
<b>Inhalation</b>		
LC50	Mouse	6405 - 7436 ppm, 6 Hours 5320 ppm, 8 Hours
	Rat	5879 - 6281 ppm, 6 Hours 25.7 mg/l, 4 Hours

Components	Species	Test Results
<b>Oral</b>		
LD50	Rat	> 5000 mg/kg
Xylene (CAS 1330-20-7)		
<b>Acute</b>		
<b>Dermal</b>		
LD50	Rabbit	> 5000 ml/kg, 4 Hours 12126 mg/kg, 24 Hours
<b>Inhalation</b>		
LC50	Rat	5922 ppm, 4 Hours
<b>Oral</b>		
LD50	Mouse	5251 mg/kg
	Rat	3523 mg/kg 10 ml/kg

\* Estimates for product may be based on additional component data not shown.

**Skin corrosion/irritation** Causes skin irritation. Causes serious eye irritation.

**Serious eye damage/eye irritation**

**Respiratory or skin sensitization**

**Canada - Alberta OELs: Irritant**

Diacetone Alcohol (CAS 123-42-2) Irritant

**Respiratory sensitization** Not a respiratory sensitizer.

**Skin sensitization** This product is not expected to cause skin sensitization.

**Germ cell mutagenicity** No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

**Carcinogenicity** Risk of cancer cannot be excluded with prolonged exposure.

**ACGIH Carcinogens**

Acetone (CAS 67-64-1)

A4 Not classifiable as a human carcinogen.

Ethyl Benzene (CAS 100-41-4)

A3 Confirmed animal carcinogen with unknown relevance to humans.

Toluene (CAS 108-88-3)

A4 Not classifiable as a human carcinogen.

Xylene (CAS 1330-20-7)

A4 Not classifiable as a human carcinogen.

**Canada - Manitoba OELs: carcinogenicity**

ACETONE (CAS 67-64-1)

Not classifiable as a human carcinogen.

ETHYL BENZENE (CAS 100-41-4)

Confirmed animal carcinogen with unknown relevance to humans.

TOLUENE (CAS 108-88-3)

Not classifiable as a human carcinogen.

XYLENE (O, M AND P ISOMERS) (CAS 1330-20-7)

Not classifiable as a human carcinogen.

**IARC Monographs. Overall Evaluation of Carcinogenicity**

Ethyl Benzene (CAS 100-41-4)

2B Possibly carcinogenic to humans.

Toluene (CAS 108-88-3)

3 Not classifiable as to carcinogenicity to humans.

Xylene (CAS 1330-20-7)

3 Not classifiable as to carcinogenicity to humans.

**Reproductive toxicity** Components in this product have been shown to cause birth defects and reproductive disorders in laboratory animals. Suspected of damaging the unborn child.

**Specific target organ toxicity - single exposure** May cause drowsiness and dizziness.

**Specific target organ toxicity - repeated exposure** May cause damage to organs through prolonged or repeated exposure.

**Aspiration hazard** May be fatal if swallowed and enters airways.

**Chronic effects** May cause damage to organs through prolonged or repeated exposure. Prolonged exposure may cause chronic effects.

## 12. Ecological information

**Ecotoxicity** Toxic to aquatic life with long lasting effects.

Product name: AIR INTAKE KLEEN

SDSCANADA

Product #: 837

Version #: 01 Issue date:01-23-2017

8 / 12

Components		Species	Test Results
Acetone (CAS 67-64-1)			
	<b>Aquatic Crustacea</b>		
	Fish	EC50	Water flea (Daphnia magna)
		LC50	Rainbow trout,donaldson trout (Oncorhynchus mykiss)
			21.6 - 23.9 mg/l, 48 hours
			4740 - 6330 mg/l, 96 hours
Diacetone Alcohol (CAS 123-42-2)			
	<b>Aquatic</b>		
	Fish	LC50	Bluegill (Lepomis macrochirus)
			Fish
			420 mg/l, 96 hours
			420 mg/L, 96 Hours
Ethyl Benzene (CAS 100-41-4)			
	<b>Aquatic</b>		
	Algae	IC50	Algae
	Crustacea	EC50	Daphnia
			Water flea (Daphnia magna)
	Fish	LC50	Fathead minnow (Pimephales promelas)
			4.6 mg/L, 72 Hours
			2.1 mg/L, 48 Hours
			1.37 - 4.4 mg/l, 48 hours
			7.5 - 11 mg/l, 96 hours
Toluene (CAS 108-88-3)			
	<b>Aquatic</b>		
	Algae	IC50	Algae
	Crustacea	EC50	Daphnia
			Water flea (Daphnia magna)
	Fish	LC50	Coho salmon,silver salmon (Oncorhynchus kisutch)
			433.0001 mg/L, 72 Hours
			7.645 mg/L, 48 Hours
			5.46 - 9.83 mg/l, 48 hours
			8.11 mg/l, 96 hours
Xylene (CAS 1330-20-7)			
	<b>Aquatic</b>		
	Fish	LC50	Bluegill (Lepomis macrochirus)
			7.711 - 9.591 mg/l, 96 hours

\* Estimates for product may be based on additional component data not shown.

**Persistence and degradability** No data is available on the degradability of this product.

**Bioaccumulative potential**

Partition coefficient n-octanol / water (log Kow)	
Acetone	-0.24
Diacetone Alcohol	-0.098
Ethyl Benzene	3.15
Toluene	2.73
Xylene	3.12 - 3.2

**Mobility in soil** No data available.

**Other adverse effects** No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

**13. Disposal considerations**

**Disposal instructions** Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Contents under pressure. Do not puncture, incinerate or crush. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.

**Local disposal regulations** Dispose in accordance with all applicable regulations.

**Hazardous waste code** The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

**Waste from residues / unused products** Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

**Contaminated packaging** Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal. Do not re-use empty containers.

## 14. Transport information

### TDG

<b>UN number</b>	UN1950
<b>UN proper shipping name</b>	AEROSOLS, flammable
<b>Transport hazard class(es)</b>	
<b>Class</b>	2.1
<b>Subsidiary risk</b>	-
<b>Packing group</b>	Not applicable.
<b>Environmental hazards</b>	Yes
<b>Special precautions for user</b>	Read safety instructions, SDS and emergency procedures before handling.

This product is exempted under TDG section 1.17 as a limited quantity and can be shipped as a limited quantity.

## 15. Regulatory information

### Canadian regulations

#### Controlled Drugs and Substances Act

Not regulated.

#### Export Control List (CEPA 1999, Schedule 3)

Not listed.

#### Greenhouse Gases

Not listed.

#### Precursor Control Regulations

Acetone (CAS 67-64-1)

Class B

Toluene (CAS 108-88-3)

Class B

### International regulations

#### Stockholm Convention

Not applicable.

#### Rotterdam Convention

Not applicable.

#### Kyoto protocol

Not applicable.

#### Montreal Protocol

Not applicable.

#### Basel Convention

Not applicable.

### International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	No
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

\*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

## 16. Other Information

**Issue date** 01-23-2017  
**Version #** 01

**Guidelines for SDS use:** The product described in this SDS is a consumer product. It is safe for use by consumers as described on the product label under normal, foreseeable conditions. This SDS is designed to provide additional valuable safety and handling information.

**Disclaimer:** We cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. The information in the sheet was written based on the best knowledge and experience currently available.





# MATERIAL SAFETY DATA SHEET

---

---

## Section 1: Product & Company Identification

---

---

**Product Name:** Air Tool Oil  
**Product Number (s):** SL2531, SL2533, 74095  
**Product Use:** lubricant for pneumatic equipment

### Manufacturer / Supplier Contact Information:

In United States:  
CRC Industries, Inc.  
885 Louis Drive  
Warminster, PA 18974  
[www.crcindustries.com](http://www.crcindustries.com)  
1-215-674-4300 (General)  
(800) 521-3168 (Technical)  
(800) 272-4620 (Customer Service)

In Canada:  
CRC Canada Co.  
2-1246 Lorimar Drive  
Mississauga, Ontario L5S 1R2  
[www.crc-canada.ca](http://www.crc-canada.ca)  
1-905-670-2291

In Mexico:  
CRC Industries Mexico  
Av. Benito Juárez 4055 G  
Colonia Orquídea  
San Luís Potosí, SLP CP 78394  
[www.crc-mexico.com](http://www.crc-mexico.com)  
52-444-824-1666

24-Hr Emergency – CHEMTREC: (800) 424-9300 or (703) 527-3887

---

---

## Section 2: Hazards Identification

---

---

### Emergency Overview

As defined by OSHA's Hazard Communication Standard, this product is non-hazardous.  
Appearance & Odor: Amber viscous liquid, faint petroleum odor

### Potential Health Effects:

#### ACUTE EFFECTS:

**EYE:** Direct contact irritates slightly with redness and swelling.

**SKIN:** Slightly irritating. Repeated or prolonged contact can result in drying of the skin.

**INHALATION:** Inhalation hazard at room temperature is unlikely due to the low volatility of this product. Heating can generate vapors that may cause respiratory irritation, nausea and headaches.

**INGESTION:** May cause stomach pain or vomiting. Main hazard, if ingested, is aspiration into the lungs and subsequent pneumonitis.

**CHRONIC EFFECTS:** Unknown

**TARGET ORGANS:** Unknown

**Medical Conditions Aggravated by Exposure:** Unknown

See Section 11 for toxicology and carcinogenicity information on product ingredients.

---



---

### Section 3: Composition/Information on Ingredients

---



---

COMPONENT	CAS NUMBER	% by Wt.
Hydrotreated light naphthenic distillates	64742-53-6	93 – 97
Solvent-refined heavy naphthenic distillates	64741-96-4	1 – 5
Zinc, dithiophosphate di-C1-14-alkyl esters	68649-42-3	< 1

---



---

### Section 4: First Aid Measures

---



---

- Eye Contact: Immediately flush with plenty of water for 15 minutes. Call a physician if irritation persists.
- Skin Contact: Remove contaminated clothing and wash affected area with soap and water. Call a physician if irritation persists. Wash contaminated clothing prior to re-use.
- Inhalation: Remove person to fresh air. Keep person calm. If not breathing, give artificial respiration. If breathing is difficult give oxygen. Call a physician.
- Ingestion: Do NOT induce vomiting. Get medical attention immediately. Never give anything by mouth to an unconscious person.

*Note to Physicians:* If product is injected into or under the skin, or into any part of the body, the individual should be evaluated immediately as a surgical emergency. Even though symptoms from high pressure injection may be minimal or absent, early surgical treatment within the first few hours may significantly reduce the ultimate extent of injury.

---



---

### Section 5: Fire-Fighting Measures

---



---

**Flammable Properties:** As defined by OSHA, this product is a nonflammable.

Flash Point: > 300F (COC)	Upper Explosive Limit: ND
Autoignition Temperature: ND	Lower Explosive Limit: ND

#### **Fire and Explosion Data:**

Suitable Extinguishing Media: Foam, dry chemicals, sand, dolomite, carbon dioxide

Products of Combustion: Acrid smoke/fumes; oxides of carbon

Explosion Hazards: Containers, when exposed to heat from fire, may build pressure and rupture.

Protection of Fire-Fighters: Firefighters should wear self-contained, NIOSH-approved breathing apparatus for protection against suffocation and possible toxic decomposition products. Proper eye and skin protection should be provided. Use water spray to keep fire-exposed containers cool and to knock down vapors which may result from product decomposition.

---



---

### Section 6: Accidental Release Measures

---



---

Personal Precautions: Use personal protection recommended in Section 8. Minimize skin contact

Environmental Precautions: Take precautions to prevent contamination of ground and surface waters. Do not flush into sewers or storm drains.

Methods for Containment & Clean-up: Dike area to contain spill. Ventilate the area with fresh air. If in confined space or limited air circulation area, clean-up workers should wear appropriate respiratory

respiratory protection. Recover or absorb spilled material using an absorbent designed for chemical spills. Place used absorbents into proper waste containers.

## Section 7: Handling and Storage

**Handling Procedures:** Do not reuse container. Keep container closed when not in use. Ventilate well and avoid breathing vapors. Do not store or mix with strong oxidizers. Avoid strong heating. For product use instructions, please see the product label.

**Storage Procedures:** Store in a cool dry area out of direct sunlight. Containers should be tightly closed while in storage. Keep away from sources of ignition. Store away from strong acids and oxidizers.

**Aerosol Storage Level:** NA

## Section 8: Exposure Controls/Personal Protection

### Exposure Guidelines:

COMPONENT	OSHA		ACGIH		OTHER		UNIT
	TWA	STEL	TWA	STEL	TWA	SOURCE	
Hydrotreated light naphthenic distillates	5	NE	0.2	NE	NE		mg/m <sup>3</sup>
Solvent-refined heavy naphthenic distillates	5	NE	0.2	NE	NE		mg/m <sup>3</sup>
Zinc, dithiophosphate di-C1-14-alkyl esters	NE	NE	NE	NE	NE		
N.E. – Not Established      (c) – ceiling      (s) – skin      (v) – vacated							

### Controls and Protection:

**Engineering Controls:** Area should have ventilation to provide fresh air. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at the source, preventing dispersion into the general work area. Use mechanical means if necessary to maintain vapor levels below the exposure guidelines. If working in a confined space, follow applicable OSHA regulations.

**Respiratory Protection:** None required for normal work where adequate ventilation is provided. If engineering controls are not feasible or if exposure exceeds the applicable exposure limits, use a NIOSH-approved cartridge respirator with organic vapor cartridge. Air monitoring is needed to determine actual employee exposure levels. Use a self-contained breathing apparatus in confined spaces and for emergencies.

**Eye/face Protection:** For normal conditions, wear safety glasses. Where there is reasonable probability of liquid contact, wear splash-proof goggles.

**Skin Protection:** Use protective gloves such as nitrile or PVC. Also, use full protective clothing if there is prolonged or repeated contact of liquid with skin.

## Section 9: Physical and Chemical Properties

**Physical State:** liquid (viscous)

**Color:** amber

**Odor:** mild petroleum

**Odor Threshold:** ND

**Specific Gravity:** 0.91

Initial Boiling Point: > 360°F  
 Freezing Point: ND  
 Vapor Pressure: ND  
 Vapor Density: > 1 (air = 1)  
 Evaporation Rate: slow  
 Solubility: insoluble in water  
 Coefficient of water/oil distribution: ND  
 pH: NA  
 Volatile Organic Compounds: wt %: 0 g/L: 0 lbs./gal: 0

**Section 10: Stability and Reactivity**

Stability: Stable  
 Conditions to Avoid: Sources of ignition  
 Incompatible Materials: Strong acids and oxidizers  
 Hazardous Decomposition Products: Oxides of carbon, sulfur and phosphorus  
 Possibility of Hazardous Reactions: No

**Section 11: Toxicological Information**

Long-term toxicological studies have not been conducted for this product. The following information is available for components of this product.

**Acute Toxicity:**

Component	Oral LD50 (rat)	Dermal LD50 (rabbit)	Inhalation LC50 (rat)
Hydrotreated light naphthenic distillates	> 5000 mg/kg	> 2000 mg/kg	2.18 mg/L/4H
Solvent-refined heavy naphthenic distillates	No data	No data	No data
Zinc, dithiophosphate di-C1-14-alkyl esters	No data	No data	No data

**Chronic Toxicity:**

Component	OSHA Carcinogen	IARC Carcinogen	NTP Carcinogen	Irritant	Sensitizer
Hydrotreated light naphthenic distillates	No	No	No	E (mild) / S (mild)	Unknown
Solvent-refined heavy naphthenic distillates	No	No	No	Unknown	Unknown
Zinc, dithiophosphate di-C1-14-alkyl esters	No	No	No	Unknown	Unknown

E – Eye      S – Skin      R - Respiratory

Reproductive Toxicity: No information available  
Teratogenicity: No information available  
Mutagenicity: No information available  
Synergistic Effects: No information available  
Other: IARC has determined in reviewing cancer prevalence of exposed workers that the carcinogenic activity of refined oils is related to the severity of processing of the base oil. The base oils in this product contain < 3% DMSO Extractable total polycyclic aromatic compound (PAC) per IP 346.

---

---

## **Section 12: Ecological Information**

---

---

Ecological studies have not been conducted for this product. The following information is available for components of this product.

Ecotoxicity: No information available  
Persistence / Degradability: No information available  
Bioaccumulation / Accumulation: No information available  
Mobility in Environment: No information available

---

---

## **Section 13: Disposal Considerations**

---

---

**Waste Classification:** This product is not a RCRA hazardous waste as packaged. (See 40 CFR Part 261.20 – 261.33) Used oil should be collected and handled in accordance with 40 CFR Part 279. Used oil that is mixed with hazardous waste may be subject to regulation as hazardous waste. Empty containers may be recycled.

All disposal activities must comply with federal, state, provincial and local regulations. Local regulations may be more stringent than state, provincial or national requirements.

---

---

## **Section 14: Transport Information**

---

---

US DOT (ground): Not Regulated  
ICAO/IATA (air): Not Regulated  
IMO/IMDG (water): Not Regulated  
Special Provisions: None

---

---

## **Section 15: Regulatory Information**

---

---

**U.S. Federal Regulations:**

Toxic Substances Control Act (TSCA):

All ingredients are either listed on the TSCA inventory or are exempt.

Comprehensive Environmental Response, Compensation and Liability Act (CERCLA):

Reportable Quantities (RQ's) exist for the following ingredients: None

**Spills or releases resulting in the loss of any ingredient at or above its RQ require immediate notification to the National Response Center (800-424-8802) and to your Local Emergency Planning Committee.**

Superfund Amendments Reauthorization Act (SARA) Title III:

Section 302 Extremely Hazardous Substances (EHS): None

Section 311/312 Hazard Categories:	Fire Hazard	No
	Reactive Hazard	No
	Release of Pressure	No
	Acute Health Hazard	No
	Chronic Health Hazard	No

Section 313 Toxic Chemicals: This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372:  
Zinc, dithiophosphate di-C1-14-alkyl esters (zinc compounds): < 1%

Clean Air Act:

Section 112 Hazardous Air Pollutants (HAPs): None

**U.S. State Regulations:**

California Safe Drinking Water and Toxic Enforcement Act (Prop 65):

This product may contain the following chemicals known to the state of California to cause cancer, birth defects or other reproductive harm: N-Methylpyrrolidone ( < 35 ppm)

Consumer Products VOC Regulations: This product is not regulated.

State Right to Know:

New Jersey: Petroleum Oil  
Pennsylvania: None  
Massachusetts: 64742-53-6  
Rhode Island : None

**Canadian Regulations:**

Controlled Products Regulations:

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

WHMIS Hazard Class: Not Regulated

Canadian DSL Inventory: All ingredients are either listed on the DSL Inventory or are exempt.

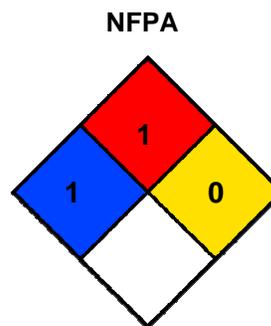
**European Union Regulations:**

RoHS Compliance: This product is compliant with Directive 2002/95/EC of the European Parliament and of the Council of 27 January 2003. This product does not contain any of the restricted substances as listed in Article 4(1) of the RoHS Directive.

**Additional Regulatory Information:** None

**Section 16: Other Information**

HMIS® (II)	
Health:	1
Flammability:	1
Reactivity:	0
PPE:	B



Ratings range from 0 (no hazard) to 4 (severe hazard)

Prepared By: Michelle Rudnick  
CRC #: 720090  
Revision Date: 08/19/2009

Changes since last revision: MSDS reformatted to meet the requirements of the Canadian Controlled Products Regulations.

The information contained in this document applies to this specific material as supplied. It may not be valid for this material if it is used in combination with any other materials. This information is accurate to the best of CRC Industries' knowledge or obtained from sources believed by CRC to be accurate. Before using any product, read all warnings and directions on the label. For further clarification of any information contained on this MSDS consult your supervisor, a health & safety professional, or CRC Industries.

ACGIH: American Conference of Governmental Industrial Hygienists	NA: Not Applicable
CAS: Chemical Abstract Service	ND: Not Determined
CFR: Code of Federal Regulations	NIOSH: National Institute of Occupational Safety & Health
DOT: Department of Transportation	NFPA: National Fire Protection Association
DSL: Domestic Substance List	NTP: National Toxicology Program
g/L: grams per Liter	OSHA: Occupational Safety and Health Administration
HMIS: Hazardous Materials Identification System	PMCC: Pensky-Martens Closed Cup
IARC: International Agency for Research on Cancer	PPE: Personal Protection Equipment
IATA: International Air Transport Association	ppm: Parts per Million
ICAO: International Civil Aviation Organization	RoHS: Restriction of Hazardous Substances
IMDG: International Maritime Dangerous Goods	STEL: Short Term Exposure Limit
IMO: International Maritime Organization	TCC: Tag Closed Cup
lbs./gal: pounds per gallon	TWA: Time Weighted Average
LC: Lethal Concentration	WHMIS: Workplace Hazardous Materials Information System
LD: Lethal Dose	



## Safety Data Sheet

**24 Hour Emergency Phone Numbers**  
**Medical/Poison Control:**  
**In U.S.: Call 1-800-222-1222**

**Outside U.S.: Call your local poison control center**

**Transportation/National Response Center:**

**1-800-535-5053**

**1-352-323-3500**

NOTE: The National Response Center emergency numbers to be used only in the event of chemical emergencies involving a spill, leak, fire, exposure or accident involving chemicals.

IMPORTANT: Provide this information to employees, customers, and users of this product. Read this SDS before handling or disposing of this product. This product is covered by the OSHA Hazard Communication Standard and this document has been prepared in accordance with requirements of this standard. All abbreviated terms used in this MSDS are further described in Section 16.

### 1. Identification

This Safety Data Sheet is available in American Spanish upon request.  
 Los Datos de Seguridad pueden obtenerse en Espanol si lo requiere.

<b>Product Name:</b>	Alex Plus Acrylic Latex Caulk Plus Silicone - All Colors	<b>Revision Date:</b>	1/12/2016
<b>Product UPC Number:</b>	11440, 18101, 18107, 18109, 18110, 18111, 18112, 18128, 18135, 18136, 18155, 18172	<b>Supercedes Date:</b>	6/19/2015
<b>Product Use/Class:</b>	Caulking Compound	<b>SDS No:</b>	00010002001
<b>Manufacturer:</b>	DAP Products Inc. 2400 Boston Street Suite 200 Baltimore, MD 21224-4723 888-327-8477 (non - emergency matters)		
<b>Preparer:</b>	Regulatory Department		

### 2. Hazards Identification

**EMERGENCY OVERVIEW:** Under normal use conditions, this product is not expected to cause adverse health effects.

**GHS Classification**

Not a hazardous substance or mixture.

**Symbol(s) of Product**

None

**Signal Word**

Not a hazardous substance or mixture.

**Possible Hazards**

13% of the mixture consists of ingredients of unknown acute toxicity

### 3. Composition/Information on Ingredients

<u>Chemical Name</u>	<u>CAS-No.</u>	<u>Wt. %</u>	<u>GHS Symbols</u>	<u>GHS Statements</u>
Limestone	1317-65-3	50-75	GHS03	H270
Dipropylene glycol dibenzoate	27138-31-4	1.0-2.5	GHS03	H270
Petroleum distillates	64741-88-4	1.0-2.5	GHS03-GHS06	H270-331
Diethylene glycol dibenzoate	120-55-8	1.0-2.5	GHS03-GHS07	H270-312
Titanium dioxide	13463-67-7	0.1-1.0	No Information	No Information
Quartz	14808-60-7	0.1-1.0	GHS03-GHS07	H270-302
Carbon black	1333-86-4	0.1-1.0	No Information	No Information

The text for GHS Hazard Statements shown above (if any) is given in the "Other information" Section.

#### 4. First-aid Measures

**FIRST AID - INHALATION:** Material is not likely to present an inhalation hazard at ambient conditions. If you experience difficulty in breathing, leave the area to obtain fresh air. If continued difficulty is experienced, get medical attention immediately.

**FIRST AID - SKIN CONTACT:** No health hazards are known to exist. In case of contact, wash skin immediately with soap and water.

**FIRST AID - EYE CONTACT:** In case of contact, immediately flush eyes with large quantities of water for at least 15 minutes until irritation subsides. Get medical attention immediately.

**FIRST AID - INGESTION:** If swallowed, DO NOT INDUCE VOMITING. Get medical attention immediately.

#### 5. Fire-fighting Measures

**UNUSUAL FIRE AND EXPLOSION HAZARDS:** No Information

**SPECIAL FIREFIGHTING PROCEDURES:** Wear self-contained breathing apparatus pressure-demand (NIOSH approved or equivalent) and full protective gear. Use water spray to cool exposed surfaces.

**EXTINGUISHING MEDIA:** Carbon Dioxide, Dry Chemical, Foam, Water Fog

#### 6. Accidental Release Measures

**ENVIRONMENTAL MEASURES:** No Information

**STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED:** Contain spilled material and remove with inert absorbent. Dispose of contaminated absorbent, container and unused contents in accordance with local, state and federal regulations. Scrape up dried material and place into containers. Use personal protective equipment as necessary. In case of spillage, absorb with inert material and dispose of in accordance with applicable regulations.

#### 7. Handling and Storage

**HANDLING:** KEEP OUT OF REACH OF CHILDREN! DO NOT TAKE INTERNALLY. Use only with adequate ventilation. Ensure fresh air entry during application and drying. Wash thoroughly after handling.

**STORAGE:** Avoid excessive heat and freezing. Do not store at temperatures above 120 degrees F. Store away from caustics and oxidizers.

#### 8. Exposure Controls/Personal Protection

##### Ingredients with Occupational Exposure Limits

<u>Chemical Name</u>	<u>ACGIH TLV-TWA</u>	<u>ACGIH-TLV STEL</u>	<u>OSHA PEL-TWA</u>	<u>OSHA PEL-CEILING</u>
Limestone	N.E.	N.E.	15 mg/m <sup>3</sup> TWA total dust, 5 mg/m <sup>3</sup> TWA respirable fraction	N.E.
Dipropylene glycol dibenzoate	N.E.	N.E.	N.E.	N.E.
Petroleum distillates	N.E.	N.E.	N.E.	N.E.
Diethylene glycol dibenzoate	N.E.	N.E.	N.E.	N.E.

Titanium dioxide	10 mg/m3 TWA	N.E.	15 mg/m3 TWA total dust	N.E.
Quartz	0.025 mg/m3 TWA respirable fraction	N.E.	N.E.	N.E.
Carbon black	3 mg/m3 TWA inhalable fraction	N.E.	3.5 mg/m3 TWA	N.E.

Further Advice: MEL = Maximum Exposure Limit OES = Occupational Exposure Standard SUP = Supplier's Recommendation  
Sk = Skin Sensitizer N.E. = Not Established

## Personal Protection



**RESPIRATORY PROTECTION:** No personal respiratory protective equipment normally required. National Institute for Occupational Safety and Health (NIOSH) has recommended that the permissible exposure limit be changed to 50 micrograms respirable free silica per cubic meter of air (0.05 mg/m3) as determined by a full shift sample up to 10-hour work shift.



**SKIN PROTECTION:** Rubber gloves.



**EYE PROTECTION:** Goggles or safety glasses with side shields.



**OTHER PROTECTIVE EQUIPMENT:** Not required under normal use.



**HYGIENIC PRACTICES:** Wash hands before breaks and at the end of workday. Remove and wash contaminated clothing before re-use.

## 9. Physical and Chemical Properties

<b>Appearance:</b>	Colored	<b>Physical State:</b>	Paste
<b>Odor:</b>	Very Slight Ammonia	<b>Odor Threshold:</b>	Not Established
<b>Density, g/cm3:</b>	1.64 - 1.67	<b>pH:</b>	Between 7.0 and 12.0
<b>Freeze Point, °C:</b>	Not Established	<b>Viscosity (mPa.s):</b>	Not Established
<b>Solubility in Water:</b>	No Information	<b>Partition Coeff., n-octanol/water:</b>	Not Established
<b>Decomposition Temperature, °C:</b>	Not Established	<b>Explosive Limits, %:</b>	N.I. - N.I.
<b>Boiling Range, °C:</b>	N.I. - N.I.	<b>Auto-Ignition Temperature, °C</b>	Not Established
<b>Minimum Flash Point, °C:</b>	93.3	<b>Vapor Pressure, mmHg:</b>	No Information
<b>Evaporation Rate:</b>	Slower Than n-Butyl Acetate	<b>Flash Method:</b>	Seta Closed Cup
<b>Vapor Density:</b>	Heavier Than Air	<b>Flammability:</b>	Non-Flammable
<b>Combustibility:</b>	Does not support combustion		

(See "Other information" Section for abbreviation legend)

(If product is an aerosol, the flash point stated above is that of the propellant.)

## 10. Stability and Reactivity

**STABILITY:** Stable under recommended storage conditions.

**CONDITIONS TO AVOID:** Excessive heat and freezing.

**INCOMPATIBILITY:** Incompatible with strong bases and oxidizing agents.

**HAZARDOUS DECOMPOSITION PRODUCTS:** Normal decomposition products, i.e., COx, NOx.

## 11. Toxicological Information

**EFFECT OF OVEREXPOSURE - INHALATION:** Under normal use conditions, this product is not expected to cause adverse health effects. Inhalation of vapors in high concentration may cause mild irritation of respiratory system (nose, mouth, mucous membranes).

**EFFECT OF OVEREXPOSURE - SKIN CONTACT:** Under normal use conditions, this product is not expected to cause adverse health effects. Prolonged or repeated contact with skin may cause mild irritation.

**EFFECT OF OVEREXPOSURE - EYE CONTACT:** Under normal use conditions, this product is not expected to cause adverse health effects. Direct eye contact may cause irritation.

**EFFECT OF OVEREXPOSURE - INGESTION:** Under normal use conditions, this product is not expected to cause adverse health effects. Single dose oral toxicity is very low. Amounts ingested incidental to industrial handling are not likely to cause injury; however, ingestion of large amounts may cause injury.

**CARCINOGENICITY:** No Information

**EFFECT OF OVEREXPOSURE - CHRONIC HAZARDS:** Repeated or prolonged exposure may cause irritation of eyes and skin. The International Agency for Research on Cancer (IARC) has determined that crystalline silica in the form of quartz or cristobalite that is inhaled from occupational sources is carcinogenic to humans (Group 1- carcinogenic to humans). Refer to IARC Monograph 68, Silica, Some Silicates and Organic Fibres (published in June 1997) in conjunction with the use of these materials. The National Toxicology Program (NTP) classifies respirable crystalline silica as "known to be a human carcinogen". Refer to the 9th Report on Carcinogens (2000). The American Conference of Governmental Industrial Hygienists (ACGIH) classifies crystalline silica, quartz, as a suspected human carcinogen (Group A2). Breathing dust containing respirable crystalline silica may not cause noticeable injury or illness even though permanent lung damage may be occurring. Inhalation of dust may have the following serious chronic health effects: Excessive inhalation of respirable dust can cause pneumoconiosis, a respiratory disease, which can result in delayed, progressive, disabling and sometimes fatal lung injury. Symptoms include cough, shortness of breath, wheezing, non-specific chest illness and reduced pulmonary function. Smoking exacerbates this disease. Individuals with pneumoconiosis are predisposed to develop tuberculosis. There is some evidence that breathing respirable crystalline silica or the disease silicosis is associated with an increased incidence of significant disease endpoints such as scleroderma (an immune system disorder manifested by fibrosis of the lungs, skin and other internal organs) and kidney disease.

**PRIMARY ROUTE(S) OF ENTRY:** Inhalation, Skin Contact

### Acute Toxicity Values

The acute effects of this product have not been tested. Data on individual components are tabulated below

<u>CAS-No.</u>	<u>Chemical Name</u>	<u>Oral LD50</u>	<u>Dermal LD50</u>	<u>Vapor LC50</u>
1317-65-3	Limestone	6450 mg/kg Rat	>2000 mg/kg	>20 mg/L
27138-31-4	Dipropylene glycol dibenzoate	5368 mg/kg Rat	>2000 mg/kg Rabbit	>200 mg/L Rat
64741-88-4	Petroleum distillates	>5000 mg/kg Rat	>2000 mg/kg Rabbit	2.18 mg/L Rat
120-55-8	Diethylene glycol dibenzoate	2830 mg/kg Rat	2000 mg/kg Rabbit	> 200 mg/L Rat
13463-67-7	Titanium dioxide	>10000 mg/kg Rat	>5000 mg/kg Rabbit	>20 mg/L
14808-60-7	Quartz	500 mg/kg Rat	>2000 mg/kg	>20 mg/L
1333-86-4	Carbon black	>8000 mg/kg Rat	>3000 mg/kg Rabbit	N.I.

N.I. = No Information

## 12. Ecological Information

**ECOLOGICAL INFORMATION:** Ecological injuries are not known or expected under normal use.

## 13. Disposal Information

**DISPOSAL INFORMATION:** This product does not meet the definition of a hazardous waste according to U.S. EPA Hazardous

Waste Management Regulation, 40 CFR Section 261. Dispose as hazardous waste according to all local, state, federal and provincial regulations. State and Local regulations/restrictions are complex and may differ from Federal regulations. Responsibility for proper waste disposal is with the owner of the waste.

## 14. Transport Information

**SPECIAL TRANSPORT PRECAUTIONS:** No Information

DOT UN/NA Number:	N.A.
DOT Proper Shipping Name:	Not Regulated.
DOT Technical Name:	N.A.
DOT Hazard Class:	N.A.
Hazard SubClass:	N.A.
Packing Group:	N.A.

## 15. Regulatory Information

### U.S. Federal Regulations:

#### CERCLA - SARA Hazard Category

This product has been reviewed according to the EPA 'Hazard Categories' promulgated under Sections 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III) and is considered, under applicable definitions, to meet the following categories:

Acute Health Hazard, Chronic Health Hazard

#### SARA SECTION 313:

This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendment and Reauthorization Act of 1986 and 40 CFR part 372:

No Sara 313 components exist in this product.

#### TOXIC SUBSTANCES CONTROL ACT:

All ingredients in this product are either on TSCA inventory list, or otherwise exempt.

This product contains the following chemical substances subject to the reporting requirements of TSCA 12(B) if exported from the United States:

No TSCA 12(b) components exist in this product.

#### CALIFORNIA PROPOSITION 65 CARCINOGENS AND REPRODUCTIVE TOXINS

**CALIFORNIA PROPOSITION 65:** WARNING: This product contains chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

### International Regulations: As follows -

#### CANADIAN WHMIS:

This SDS has been prepared in compliance with Controlled Product Regulations except for the use of the 16 headings.

**WHMIS Class**            Consumer Commodity

**16. Other Information**

**Revision Date:** 1/12/2016 **Supersedes Date:** 6/19/2015

**Reason for revision:** Product Composition Changed  
Substance and/or Product Properties Changed in Section(s):  
16 - Other Information  
Statement(s) Changed

**Datasheet produced by:** Regulatory Department

**HMIS Ratings:**

<b>Health:</b>	1	<b>Flammability:</b>	1	<b>Reactivity:</b>	0	<b>Personal Protection:</b>	X
----------------	---	----------------------	---	--------------------	---	-----------------------------	---

VOC Less Water Less Exempt Solvent, g/L:38.0

VOC Material, g/L:28

VOC as Defined by California Consumer Product Regulation, Wt/Wt%:0.8

**Text for GHS Hazard Statements shown in Section 3 describing each ingredient:**

H270 May cause or intensify fire; oxidiser.  
H302 Harmful if swallowed.  
H312 Harmful in contact with skin.  
H331 Toxic if inhaled.

**Icons for GHS Pictograms shown in Section 3 describing each ingredient:**

GHS03



GHS06



GHS07



Legend: N.A. - Not Applicable, N.E. - Not Established, N.D. - Not Determined

DAP believes the data and statements contained herein are accurate as of the date hereof. They are offered in good faith as typical values and not as a product specification. NO WARRANTY OF MERCHANTABILITY, WARRANTY OF FITNESS FOR ANY PARTICULAR PURPOSE OR ANY OTHER WARRANTY, EXPRESS OR IMPLIED, IS MADE WITH REGARD TO THE INFORMATION HEREIN PROVIDED OR THE PRODUCT TO WHICH THE INFORMATION REFERS. Since this document is intended only as a guide to the appropriate use and precautionary handling of the referenced product by a properly trained person, it is therefore the responsibility of the user to (i) review the recommendations with due consideration for the specific context of the intended use and (ii) determine if they are appropriate.

**Section 1: PRODUCT AND COMPANY IDENTIFICATION**

Product Name ALOE VERA Antibacterial Liquid Hand Soap

Other means of Identification Not applicable

Recommended use Skin Cleansing

Restrictions on use Reserved for industrial and professional use

Product dilution information: Product sold ready to use

Company Sensibly Clean Inc.  
5040 Maingate Drive, Unit 10 & 11  
Mississauga, Ontario Canada L4W 1X5  
905-206-1769

Emergency Health Information CANUTEC – 613 996 6666

Issue Date: February 21, 2019

**Section 2: HAZARD IDENTIFICATION**

**GHS Classification**

Eye Irritation: Category 2A

**GHS Label Element**

Signal Word: Warning

Hazard Statements: May cause eye irritation

Precautionary Statement: **Response:** IF SWALLOWED: rinse mouth. Do NOT induce vomiting. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: seek medical advice / attention.  
**Disposal:** Dispose of contents/container to an approved waste disposal plant

**Section 3: COMPOSITION / INFORMATION ON INGREDIENTS**

Pure substance / mixture: Mixture

Chemical Name	CAS-No.	Concentration: (%)
Sodium Lauryl Ether Sulfate	68585-34-2	15 – 30
Sodium Lauryl Sulfate	617-895-40	5 – 10
Cocopropyl Betain	61789-40-0	2 – 5
Diethanolamide	111-42-2	2 – 5
Glycerin	56-81-5	1 – 3
Triclosan	3380-34-5	0.4-.08

#### **Section 4: FIRST AID MEASURES**

In case of eye contact:	Rinse immediately with plenty of water
If swallowed:	Rinse mouth with water. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention immediately.
Protection of first-aiders:	No special precautions are necessary for first aid responders
Notes to Physician:	Treat symptomatically
Most important symptoms and effects, both acute and delayed	See Section 11 for more detailed information on health effects and symptoms

#### **Section 5: FIREFIGHTING MEASURES**

Suitable extinguishing media:	Use extinguishing measures that are appropriate to local circumstances and the Surrounding environment.
Unsuitable extinguishing media:	None Known
Specific hazards during Firefighting	Not flammable or combustible
Hazardous combustion products:	Decomposition products may include the following materials: Carbon oxides Nitrogen oxides (NOx) Sulphur oxides Oxides of phosphorus
Special protective equipment for Firefighters:	Use personal protective equipment
Specific extinguishing methods:	Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. In the event of fire and/or explosion, do not breathe fumes.
Risk of explosion:	Not Available

#### **Section 6: ACCIDENTAL RELEASE MEASURES**

Personal precautions, protective Equipment and emergency procedures	Ensure clean up is conducted by trained personnel only. Refer to protective measures listed in sections 7 and 8.
Environmental precautions:	Do not allow contact with soil, surface or ground water.
Methods and materials for Containment and clean up:	Stop leak if safe to do so. Contain spillage, and then collect with non-combustible absorbent material (eg: sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13) Flush away traces with water. For large spills, dike spilled material or otherwise contain mater to ensure runoff does not reach a waterway. Refer to protective measures listed in Sections 7 and
:	

#### **Section 7: HANDLING AND STORAGE**

Advice on Safe Handling: No Special Handling Required  
 Conditions for safe storage: Keep out of reach of children. Keep from freezing.  
 Storage temperature: Zero to 40 degrees

**Section 8: EXPOSURE CONTROLS / PERSONAL PROTECTION**

**Components with workplace control parameters**

COMPONENTS	CAS-NO.	Form of Exposure	Permissible Concentration	Basis
Sodium Lauryl Ether Sulfate	68585-34-2	TWA	Not Listed	Not Listed
Sodium Lauryl Sulfate	617-895-40	TWA	Not Listed	Not Listed
Cocopropyl Betain	61789-40-0	TWA	Not Listed	Not Listed
Diethanolamide	111-42-2	TWA	3ppm	Not Listed
Glycerin	56-81-5	TWA	10mg/m3	OSHA Z1
Triclosan	3380-34-5	TWA	Not Listed	Not Listed

Engineering measures: Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

**Personal protective equipment**

Eye protection: No special protective equipment required  
 Hand protection: No special protective equipment required  
 Skin protection: No special protective equipment required  
 Respiratory protection: No special protective equipment required

**Section 9: PHYSICAL AND CHEMICAL PROPERTIES**

Appearance: Liquid  
 Colour: Light Blue  
 Odour: Fragranced  
 viscpH: 6.0 – 8.0, 100%  
 Flash point: Not Applicable  
 Odour Threshold: No data available  
 Melting point/freezing point: No data available  
 Initial boiling point and boiling range: No data available  
 Evaporation rate: No data available  
 Flammability (solid, gas): No data available  
 Upper explosion limit: No data available  
 Lower explosion limit: No data available  
 Vapour pressure: No data available  
 Relative vapour density: No data available  
 Relative density: 1.0 – 1.02, 100%  
 Water solubility: Soluble  
 Solubility in other solvents: No data available  
 Partition coefficient: n-octanol/water: No data available  
 Auto-ignition temperature: No data available  
 Thermal decomposition: No data available  
 Viscosity, kinematic: No data available  
 Explosive properties: No data available  
 Oxidizing properties: No data available  
 Molecular weight: No data available  
 VOC: No data available

**Section 10: STABILITY AND REACTIVITY**

Chemical stability:	Stable under normal conditions
Possibility of hazardous reactions:	No dangerous reaction known under conditions of normal use
Conditions to avoid:	None known
Incompatible materials:	None know
Hazardous decomposition products:	Decomposition products may include the following materials: Sulphur Oxides

**Section 11: TOXICOLOGICAL INFORMATION**

Information on likely routes of exposure: Inhalation, Eye contact

**Potential Health Effects**

Eyes:	May cause eye irritation
Skin:	May cause skin irritation
Ingestion:	May cause digestive tract irritation
Inhalation:	May cause nose, throat, and lung irritation.
Chronic Exposure:	Health injuries are not known or expected under normal use.

**Experience with Human Exposure**

Eye Contact:	Redness, Pain, Irritation
Skin Contact:	No symptoms known or expected
Ingestion:	No symptoms known or expected
Inhalation:	No symptoms known or expected

**Toxicity**

Acute oral toxicity:	No data available
Acute inhalation toxicity:	No data available
Acute dermal toxicity:	No data available
Skin corrosion/irritation:	No data available
Serious eye damage/eye irritation:	No data available
Respiratory or skin sensitization:	No data available
Carcinogenicity	No data available
Reproductive effects:	No data available

Germ cell mutagenicity:	No data available
Teratogenicity:	No data available
STOT – single exposure	No data available
STOT – repeated exposure	No data available
Aspiration toxicity:	No data available

## Section 12: ECOLOGICAL INFORMATION

### Ecotoxicity

Environmental Effects: This product may be harmful to aquatic life

### Products

Toxicity to Fish:	No data available
Toxicity to daphnia and other Aquatic invertebrates:	No data available
Toxicity to algae:	No data available

### Components

Toxicity to daphnia and other Aquatic invertebrates: No data available

**Persistence and degradability** No data available

**Bioaccumulative potential** No data available

**Mobility in soil** No data available

**Other adverse effects** No data available

## Section 13: DISPOSAL CONSIDERATIONS

Disposal methods: Where possible, recycling is preferred to disposal or incineration. If recycling is not practical, dispose of in compliance with local regulations. Dispose of wastes in an approved waste disposal facility.

Disposal considerations: Dispose of as unused product. Empty containers should be taken to an approved waste Handling site for recycling or disposal. Do not re-use empty containers. Dispose of in accordance with local and federal regulations.

## Section 14: TRANSPORT INFORMATION

The shipper/consignor/sender is responsible to ensure that the packaging, labeling and markings are in compliance with the selected mode of transport.

### Land Transport (TDG)

Not Dangerous Goods

## Section 15: REGULATORY INFORMATION

This product has been classified according to the hazard criteria of the HPR and the SDS contains all of the information required by the HPR.

The components of this product are reported in the following inventories:

**United States TSCA Inventory**

On TSCA Inventory

**Canadian Domestic Substances List (DSL)**

All components of this product are on the Canadian DSL

**Section 16: OTHER INFORMATION**



# MATERIAL SAFETY DATA SHEET

DATE: 11/22/2012

## SECTION 1: CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

**PRODUCT:** Anti-Seize Grease

**PRODUCT DESCRIPTION:** Heavy Duty NLGI 2 Grease

**INTENDED USE:** Lubricating Grease

**COMPANY NAME:** Grease Warehouse  
**ADDRESS LINE 1:** P.O. Box 693  
**ADDRESS LINE 2:** Tulsa, OK 74101 - 0693  
**TELEPHONE NUMBER:** 918-584-2671  
**EMERGENCY TELEPHONE:** 918-584-2671

## SECTION 2: COMPOSITION / INFORMATION ON INGREDIENTS

<u>COMPONENT</u>	<u>CAS NUMBER</u>	<u>TLV/PEL (mg/M3)</u>	<u>Weight (%)</u>
Calcium Sulfonate Thickener	Proprietary	NE	50 - 60 %
Mineral Oil	Mixture	NE	15 - 20 %
Graphite Powder	7782-42-5	NE	10 - 15 %
Proprietary Additives	Mixture	NE	10 - 15 %

*The specific chemical names & composition of the components not disclosed is confidential business information & is withheld as permitted by 29CFR 1910.1200 and various Right-to-Know laws. This product is not a WHMIS Controlled Substance.*

## SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

This material is not considered to be hazardous according to regulatory guidelines. (See Section 15)

### POTENTIAL HEALTH EFFECTS

Excessive exposure may result in eye, skin or respiratory irritation. Low order of toxicity.  
High-pressure injection under skin may cause serious damage.

**NFPA Rating:** Flammability: 1, Reactivity: 0, Health: 1  
**HMIS Rating:** Flammability: 1, Reactivity: 0, Health: 1

**NOTE:** This material should not be used for any other purpose than the intended use listed in Section 1 without expert advice. Health studies have shown that chemical exposure may cause potential human health risks, which may vary from person to person.

## SECTION 4: FIRST AID MEASURES

**EYE CONTACT:** Immediately flush with large quantities of cool water for at least 15 minutes. Get medical attention.

**SKIN CONTACT:** Wash off with soap and water.

**INHALATION:** Remove to fresh air. If not breathing, give artificial respiration. Get medical attention.

**INGESTION:** Do NOT induce vomiting. Get medical attention.

**NOTES TO PHYSICIAN:** High pressure injection under the skin may have serious consequences & may require urgent treatment.

## SECTION 5: FIRE FIGHTING MEASURES

**EXTINGUISHING MEDIA:** Appropriate Extinguishing Media: Water Spray (fog), dry chemical, foam, halon, or carbon dioxide.  
Inappropriate Extinguishing Media: Water stream may splash burning liquid and spread fire.

**FIRE FIGHTING:** Procedure: Evacuate area. Prevent runoff from fire control or dilution from entering streams, sewers or drinking water supply. Fire fighters should use self-contained breathing apparatus (SCBA) to fight fires. Use water spray to cool fire exposed surfaces and to protect personnel.

**HAZARDOUS COMBUSTION PRODUCTS:** Smoke, Fume, Sulfur oxides, oxides of carbon.

**FLAMMABILITY PROPERTIES**

**Flashpoint (Cleveland Open Cup):** 455°F

**Flammable Limits (Approximate volume% in Air):** LEL: NA UEL: N/A

**Auto-ignition Temperature:** N/A

**SECTION 6: ACCIDENTAL RELEASE MEASURES**

**NOTIFICATION PROCEDURE:** Contain any spills with absorbents to prevent migrations and entry into sewers or streams. Take up small spills with dry chemical absorbent. Large spills may be taken up with pump or vacuum and finished off with dry chemical absorbent. May require excavation of contaminated soil.

**SPILL MANAGEMENT:** ***Land Spill:*** Contain any spills with absorbents to prevent migrations and entry into sewers or streams. Take up small spills with dry chemical absorbent. Large spills may be taken up with pump or vacuum and finished off with dry chemical absorbent. May require excavation of contaminated soil.

***Water Spill:*** Confine the spill immediately with booms. Stop leak, if you can do so without risking personal safety. Report spills as required to appropriate authorities. Remove from the surface by skimming or with suitable absorbents.

**ENVIRONMENTAL PRECAUTIONS:** Large spills should be diked for later recovery or disposal. Spills may be taken up with pump or vacuum and finished off with dry chemical absorbent. May require excavation of contaminated soil. To the best of Grease Warehouse knowledge, this product is not regulated by CERCLA/RCRA as a hazardous waste or material. However, this product has not been tested for the toxicity characteristic via the Toxicity Characteristic Leaching Procedure. Therefore, it may be disposed of as an industrial waste in a manner acceptable to good waste management practice and in compliance with applicable local, state, and federal regulations.

**SECTION 7: HANDLING AND STORAGE**

**HANDLING:** Avoid contact with skin. Prevent spills and leaks to avoid slipping hazards.

**STORAGE:** Keep containers sealed until ready for use. Avoid excessive long-term storage temperatures to prolong shelf life. Maximum storage temperature: 120F. Store in well ventilated areas.

**SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION INFORMATION**

Exposure limits/standards for materials that can be formed when handling this product: When mists/aerosols can occur, the following are recommended: 5 mg/m<sup>3</sup> – ACGIH TLV, 10mg/m<sup>3</sup> – ACGIH STEL, 5 mg/m<sup>3</sup> – OSHA PEL

**ENGINEERING CONTROLS**

The level of protection and types of control necessary will vary depending upon potential exposure conditions. Under normal conditions, no special control required when used in a well-ventilated area with local exhaust ventilation.

**PERSONAL PROTECTION**

Personal protective equipment selections vary based on potential exposure conditions such as applications, handling practices, concentration and ventilation. Information on the selection of protective equipment for use with this material, as provided below, is based upon intended, normal usage.



**Respiratory Protection:** None required in normal use. Use only NIOSH/MSHA Organic vapor approved equipment if necessary.

**Hand Protection:** Chemical resistant gloves are recommended. No protection is required in normal use.

**Eye Protection:** Goggles or safety glasses with side shields are recommended.

**Skin & Body Protection:** Chemical / oil resistant clothing if contact with material is likely. NO skin protection is ordinarily required under normal conditions of use.

**Special Hygiene Measures:** Practice good personal hygiene. Wash hands after use and handling.

**ENVIRONMENTAL CONTROLS**

See Section 6, 7, 12, 13.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE/PHYSICAL STATE:	Semi-Fluid Gel (Grease)
COLOR:	Moly - Grey
ODOR:	Mild/Faint - Petroleum
SOLUBILITY DESCRIPTION:	Insoluble in water
DENSITY: 0.96	0.96
TEMPERATURE (°C):	15.6 (60°F)
VAPOR DENSITY (air=1):	> 5
VAPOR PRESSURE:	< 0.1 mmHg
TEMPERATURE (°C):	20 (68°F)
EVAPORATION RATE:	< 1
pH-VALUE, CONC. SOLUTION:	N/A

## SECTION 10: STABILITY AND REACTIVITY

STABILITY:	Normally stable
CONDITIONS TO AVOID:	Avoid contact with acids and oxidating substances.
HAZARDOUS POLYMERIZATION:	Will not occur
POLYMERIZATION DESCRIPTION:	Not applicable
HAZARDOUS DECOMPOSITION PRODUCT:	Oxides of carbon sulfur

## SECTION 11: TOXICOLOGICAL INFORMATION

### ACUTE TOXICITY

<b>Product or Ingredients:</b>	No data is specifically available for this product and therefore this toxicological information is based on data available for the ingredients.
<b>Routes of Exposure:</b>	Exposure will most likely occur through skin contact or form inhalation of mechanically or thermally generated oil mists.
<b>Skin and Eye:</b>	This product is not a primary skin irritant after exposure of short duration, is not a skin sensitizer and is not irritating to the eyes.

### CHRONIC/OTHER EFFECTS

Prolonged and repeated contact with skin can cause defatting and drying of the skin resulting in skin irritation and dermatitis. Long term intensive exposure to oil mist may cause benign lung fibrosis.

**The following ingredients are cited on the lists below:** None

### NTP CARC, NTP SUS, IARC 1, IARC 2A, IARC 2B, OSHA CARC

This material is not known to contain any chemical listed as a carcinogen or suspected carcinogen by OSHA Hazard Communication Standard 29CFR 1910.1200, IARC, or the National Toxicology Program (NTP) at a concentration greater than 0.1%.

## SECTION 12: ECOLOGICAL INFORMATION

ECOLOGICAL INFORMATION:	There is no ecological data on the product itself.
ECOTOXICITY:	Material - Not expected to be harmful to aquatic organisms.
MOBILITY:	Base oil component - Low solubility and float and is expected to migrate from water to the land. Expected to partition to sediment and wastewater solids.

### PERSISTENCE AND DEGRADABILITY

BIODEGRADATION:	N/E
-----------------	-----

An environmental fate analysis is not available for this specific product. Plants and animals may experience harmful or fatal effects when coated with petroleum products. Petroleum-based (mineral) lubricating oils normally will float on water. In stagnant or slow-flowing waterways, an oil layer can cover a large surface area. As a result, this oil layer might limit or eliminate natural atmospheric oxygen transport into the water. With time, if not removed, oxygen depletion in the waterway may be sufficient to cause a fish kill or create an anaerobic environment.

## SECTION 13: DISPOSAL CONSIDERATIONS

Disposal recommendations based on material as supplied. Therefore, it may be disposed of as an industrial waste in a manner acceptable to good waste management practice and in compliance with applicable local, state, and federal regulations.

### DISPOSAL RECOMMENDATIONS

Product is suitable for burning in an enclosed controlled burner for fuel value or disposal by supervised incineration at very high temperatures to prevent formation of undesirable combustion products.

### REGULATORY DISPOSAL INFORMATION

To the best of Grease Warehouse knowledge, this product is not regulated by CERCLA/RCRA as a hazardous waste or material. However, this product has not been tested for the toxicity characteristic via the Toxicity Characteristic Leaching Procedure.

Empty Container Warning: Do not attempt to refill or clean containers since residue is difficult to remove. Empty drums should be completely drained, properly bunged and returned to a drum re-conditioner. All containers should be disposed of in an environmentally safe manner and in accordance with governmental regulations.

## SECTION 14: TRANSPORT INFORMATION

**LAND-DOT:** Not Regulated for Land Transportation  
**LAND-TDG:** Not Regulated for Land Transportation  
**SEA-IMDG:** Not Regulated for Sea Transport  
**AIR-IATA:** Not Regulated for Air Transport

## SECTION 15: REGULATORY INFORMATION

**OSHA Hazard Communication Standard:** When used for its intended purposes, this material is not classified as hazardous in accordance with OSHA 29 CFR 1910.1200.

**WHMIS:** Not a controlled product

**Chemical Inventory Listing:** TSCA, CEPA

**EPCRA:** This material contains no extremely hazardous substances.

**SARA (311/312) Reportable Hazards:** None

**SARA (313) Toxic Release Inventory:** This material contains no chemicals subject to the supplier notification requirements of the SARA 313 Toxic Release Program

**TSCA:** This material is in compliance with the Toxic Substances Control Act (15USC2601-2629)

**CEPA:** All components of this product are either on the Domestic Substance List (DSL) or are exempted.

## SECTION 16: OTHER INFORMATION

NE = Not Established, ND = Not Determined, NA = Not Applicable

**THIS SAFETY DATA SHEET CONTAINS THE FOLLOWING REVISIONS:** No Revision information is available.

**REVISION DATE:** 10/8/2013  
**SUPERSEDES:** Any previous versions  
**PREPARED BY:** Denice Miranda (Quality Control Document Administer)

### DISCLAIMER

Grease Warehouse believes that the information and recommendations contained herein (including data and statements) are accurate as of the date hereof. No warranty of fitness, warranty of merchantability or any other warranty, expressed or implied, is made concerning the information provided herein. The information provided herein relates only to the specific product designated product is used and may not be valid where such in combination with any other materials or process. Further, since the conditions and methods of use of this product and of the information referred to herein are beyond our control. We expressly disclaims any and all liability as to any results obtained or arising from any use of the product or reliance on such information.



# Armor All Multipurpose Cleaner

Material Safety Data Sheet

## 1. Identification of Substance and Company

<b>Product Name:</b>	Armor All Multipurpose Cleaner
<b>Other Names:</b>	None
<b>HSNO Approval:</b>	HSR002530 - Cleaning Products (Subsidiary Hazard) Group Standard 2006
<b>Proper Shipping name</b>	Not allocated
<b>DG class</b>	NA
<b>UN Number:</b>	NA
<b>Packaging group:</b>	Not Applicable
<b>Hazchem Code:</b>	1T (recommended)
<b>Uses:</b>	Multipurpose cleaner

### Company Details

<b>Company:</b>	<b>Spectrum Brands New Zealand Limited</b>
<b>Address:</b>	Level one, 8 Hugo Johnson Drive, Penrose, 1061, Auckland, New Zealand
<b>Telephone Number:</b>	+64-9-571-7700
<b>Emergency Telephone Number:</b>	0800 764 766

## 2. Hazard Identification

### Hazard Classifications

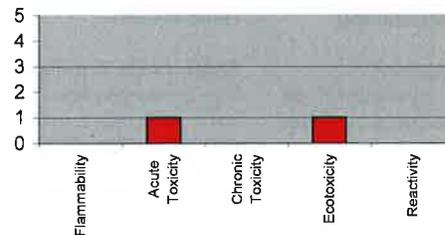
This product is an approved substance under the Hazardous Substances and New Organisms Act (HSNO, Approval HSR002530 - Cleaning Products (Subsidiary Hazard) Group Standard 2006), and is classified as follows:

Classes 6.1 E, 6.3 A, 6.4 A, 9.1 D

Symbols:  
WARNING



Degree of hazard:



### Other classifications

There are no other Classifications that are known to apply.

### Hazard and Precautionary Statements

<b>Hazard Statements</b>	May be harmful if swallowed Causes skin irritation. Causes eye irritation.
<b>Precautionary Statements</b>	May cause long lasting harmful effects to aquatic life. Keep out of reach of children. Read label before use. Wash hands thoroughly after handling. Wear protective gloves/protective clothing. Wear eye/face protection. Avoid release to the environment. Collect spillage.
Further precautionary statements can be found in Section 4 – First Aid.	

## 3. Composition/Information on Ingredients

Component	CAS/ Identification	Conc (%)
Detergents	Confidential	1 – 5%
Other non hazardous ingredients	Confidential	5 – 10%
Water	7732-18-5	to 100%

This is a commercial product whose exact ratio of components may vary. Trace quantities of impurities are also likely.



# Armor All Multipurpose Cleaner

Material Safety Data Sheet

4. First Aid			
<b>General Information</b>			
You should call the National Poisons Centre if you feel that you may have been harmed or irritated by this product. The number is 0800 764 766 (0800 POISON) (24 hr emergency service).			
<b>Recommended first aid facilities</b>		Ready access to running water is required. Accessible eyewash is recommended.	
<b>Exposure</b>			
<b>Swallowed</b>	IF SWALLOWED: Do NOT induce vomiting. Rinse mouth. If vomiting occurs, place victim face downwards, with the head turned to the side and lower than the hips to prevent vomit entering the lungs.		
<b>Eye contact</b>	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Apply continuous irrigation with water for at least 15 minutes holding eyelids apart. If eye irritation persists: Get medical advice.		
<b>Skin contact</b>	IF ON SKIN (or hair): Wash with plenty of soap and water. If skin irritation occurs: get medical advice/attention. Take off contaminated clothing and wash before re-use.		
<b>Inhaled</b>	No first aid measures normally required. However, if vapours or mists have been inhaled, and irritation has developed, remove to fresh air and observe until recovered. If irritation becomes painful or persists more than about 30 minutes, seek medical advice.		
<b>Advice to Doctor</b>			
Treat symptomatically.			
5. Firefighting Measures			
<b>Fire and explosion hazards</b>	There are no specific risks for fire/explosion for this chemical. It is predominantly water and non-flammable.		
<b>Suitable Extinguishing Substances</b>	This product does not burn. Use extinguishing media suited to the materials that are burning.		
<b>Unsuitable extinguishing substances</b>	None known.		
<b>Protective Equipment</b>	Safety boots, non-flammable overalls, gloves, hat and preferably goggles.		
<b>Danger caused by material, its combustion products or gases produced</b>	Fire decomposition products from this product may form toxic and corrosive mixtures in confined spaces. Likely to decompose only after heating to dryness followed by further strong heating. Product of decomposition: Carbon dioxide, and if combustion is incomplete, carbon monoxide and smoke. Water.		
<b>Hazchem Code</b>	1[T] (note: not a dangerous good)		
6. Accidental Release Measures			
<b>Containment</b>	There is no current legal requirement for secondary containment of this product. Prevent product from entering environment.		
<b>Emergency procedures</b>	The packaging of the product generally will prevent major spills. Stop spill if it is safe, isolate area (ensure no persons inside spill area). Transfer to container for disposal according to guidelines below (Section 13).		
<b>Clean-up method</b>	This product is not considered flammable or ecotoxic. Small spills do not require any special clean up method. Larger spills should be mopped up and collected.		
<b>Precautions</b>	Wear protective footwear, overalls, gloves and safety glasses to clean-up large spills.		
7. Handling and Storage			
<b>Storage</b>	Avoid storage of toxic substances with food. Store out of reach of children. Containers should be kept closed in order to minimise contamination. Keep from extreme heat and open flames. Avoid contact with incompatible substances, as listed in Section 10.		
<b>Handling</b>	Keep exposure to a minimum, and minimise the quantities kept in work areas. See section 8 with regard to personal protective equipment requirements.		
8. Exposure Controls/Personal Protection Equipment			
<b>Workplace Exposure Standards</b>			
A workplace exposure standard (WES) has not been established by WorkSafe NZ for this product. There is a general limit of 10mg/m <sup>3</sup> for dusts and mists when limits have not otherwise been established.			
<b>NZ Workplace Exposure Standards (OSH, 2016).</b>	<b>Ingredient</b>	<b>WES- TWA</b>	<b>WES- STEL</b>
	No ingredients listed	No data	No data
<b>Engineering Controls</b>			
In industrial situations, it is expected that employee exposure to hazardous substances will be controlled to a level as far below the WES as practicable by applying the hierarchy of control required by the Health and Safety at Work Act (2015) and the Health and Safety at Work (General Risk and Workplace Management) Regulations 2016. Exposure can be reduced by process modification, use of local exhaust ventilation, capturing substances at the source, or other methods. If you believe air borne concentrations of mists, dusts or vapours are high, you are advised to modify processes or increase ventilation.			



# Armor All Multipurpose Cleaner

Material Safety Data Sheet

<i>Personal Protective Equipment</i>	
<b>Eyes</b>	Product is mildly irritating to eyes – glasses are not required for normal use. Use eye protection when using this product in bulk.
<b>Skin</b>	 Protective gloves are recommended when using this product to prevent irritation.
<b>Respiratory</b>	
<b>9. Physical and Chemical Properties</b>	
<b>Appearance:</b>	Clear liquid.
<b>Odour</b>	Mild fragrant odour.
<b>pH</b>	approx. 10
<b>Vapour pressure</b>	Water vapour pressure
<b>Vapour density</b>	No data
<b>Boiling point</b>	Approximately 100°C at 100 kPa
<b>Volatile materials</b>	Water component
<b>Softening/melting point</b>	Approximately 0°C
<b>Solubility</b>	Completely soluble in water
<b>Specific gravity or density</b>	No data
<b>Flash point</b>	Not applicable (does not burn)
<b>Upper &amp; lower flammable limits</b>	Not applicable (does not burn)
<b>Auto ignition temperature</b>	Not applicable (does not burn)
<b>Corrosiveness</b>	Not corrosive
<b>10. Stability and Reactivity</b>	
<b>Stability</b>	Stable - unlikely to react/decompose under normal conditions
<b>Conditions to be avoided</b>	Mixing with other cleaning chemicals should be avoided.
<b>Incompatible materials</b>	No particular incompatibilities
<b>Hazardous decomposition products</b>	Carbon dioxide, and if combustion is incomplete, carbon monoxide and smoke. Water.
<b>Hazardous reactions</b>	No specific hazards.
<b>11. Toxicological Information</b>	
<i>Summary</i>	
Limited data available on the mixture. This product is not considered toxic if swallowed, absorbed through the skin or inhaled. It is considered a skin and eye irritant. There are no long-term effects associated with exposure by any route.	
<i>Supporting Data</i>	
<b>Acute:</b>	
<b>Oral</b>	This mixture is not considered to be harmful if swallowed.
<b>Dermal</b>	No evidence of dermal toxicity.
<b>Inhaled</b>	No evidence of inhalation toxicity.
<b>Eye</b>	The detergent in this substance is a considered strong eye irritant in concentrated form.
<b>Skin</b>	This mixture is considered to be a skin irritant. Some of the ingredients present are considered skin irritants in more concentrated form.
<b>Chronic:</b>	
<b>Sensitisation:</b>	No evidence of sensitisation for the mixture or any of its components (>0.1%)
<b>Mutagenicity:</b>	No evidence of mutagenicity for the mixture or any of its components (>0.1%)
<b>Carcinogenicity:</b>	No evidence of carcinogenicity for the mixture.
<b>Reproductive / Developmental:</b>	No evidence of reproductive toxicity for the mixture or any of its components (>0.1%).
<b>Systemic:</b>	No evidence of developmental toxicity for the mixture or any of its components (>0.1%)
<b>Aggravation of Existing Conditions:</b>	None known.

Not fi



# Armor All Multipurpose Cleaner

Material Safety Data Sheet

12. Ecological Data			
<b>Summary</b>			
This product is unlikely to be considered toxic in the aquatic environment. However, as there is insufficient evidence relating to some of the confidential ingredients, the product has been conservatively classed as 9.1D (mildly ecotoxic)			
<b>Supporting Data</b>			
<b>Aquatic</b>	Limited data on the mixture.		
<b>Bioaccumulation</b>	Not considered bioaccumulative (>90% water, no evidence for any ingredient)		
<b>Degradability</b>	Considered rapidly degradable (>90% water, no evidence of persistence for any ingredient)		
<b>Soil</b>	Not considered toxic in soil.		
<b>Terrestrial Vertebrate</b>	Animal-based acute toxicity data indicates low toxicity for terrestrial vertebrates. See acute toxicity.		
<b>Terrestrial Invertebrate</b>	No evidence of terrestrial invertebrate toxicity for the mixture or any of its components (>0.1%)		
<b>Biocidal</b>	The product is not designed as a biocide.		
13. Disposal Considerations			
<b>Restrictions</b>	There are no product-specific restrictions, however, local council and resource consent conditions may apply, including requirements of trade waste consents.		
<b>Disposal method</b>	Dispose of residue and solutions that cannot be reused to sewer. If this is not possible dilute with water (at least 5 times as much water) and drain.		
<b>Contaminated Packaging</b>	Rinse containers with water before disposal. Preferably re-cycle container, otherwise send to landfill or similar.		
14. Transport Information			
There are no specific restrictions for this product (not a dangerous good).			
<b>UN Number</b>	NA	<b>Proper Shipping Name</b>	NA
<b>Class(es)</b>	NA	<b>Packing group</b>	NA
<b>Precautions</b>	NA	<b>HAZCHEM code</b>	1T (recommended)
15. Regulatory Information			
This product has been approved under the Hazardous Substances and New Organisms Act. HSR002530 Cleaning Products (Subsidiary Hazard) Group Standard 2006.			
<i>Specific Workplace Controls (as per HSNO approval referenced to Controls Matrix)</i>			
<b>Key workplace requirements are:</b>			
<b>SDS</b>	To be available within 10 minutes in workplaces storing >50L.		
<b>Labelling</b>	No removal of labels and/or decanting of product into other containers can occur.		
<b>Emergency plan</b>	Required if >10000l is stored.		
<b>Approved handler</b>	Not required.		
<b>Tracking</b>	Not required.		
<b>Bunding &amp; secondary containment</b>	Required if >10000l is stored.		
<b>Signage</b>	Required if >10000l is stored.		
<b>Location Test certificate</b>	Not required.		
<b>Flammable zone</b>	Not required.		
<b>Fire extinguisher</b>	Not required.		
Note: The above workplace requirements apply if only this particular substance is present. The complete set of controls for a location will depend on the classification and total quantities of other substances present in that location.			
<b>Other Legislation</b>			
In New Zealand, the use of this product may come under the Resource Management Act and Regulations, the Health and Safety at Work Act 2015 and the Health and Safety at Work (General Risk and Workplace Management) Regulations 2016, local Council Rules and Regional Council Plans.			



# Armor All Multipurpose Cleaner

Material Safety Data Sheet

16. Other Information	
<i>Abbreviations</i>	
<b>Approval Code</b>	Approval HSR002530 Cleaning Products (Subsidiary Hazard) Group Standard 2006.Controls, EPA. <a href="http://www.epa.govt.nz">www.epa.govt.nz</a>
<b>CAS Number</b>	Unique Chemical Abstracts Service Registry Number
<b>Ceiling</b>	Ceiling Exposure Value: The maximum airborne concentration of a biological or chemical agent to which a worker may be exposed at any time.
<b>Controls Matrix</b>	List of default controls linking regulation numbers to Matrix code (e.g. T1, I16).
<b>EC<sub>50</sub></b>	Ecotoxic Concentration 50% – concentration in water which is fatal to 50% of a test population (e.g. daphnia, fish species)
<b>EPA</b>	Environmental Protection Authority (New Zealand)
<b>HAZCHEM Code</b>	Emergency action code of numbers and letters that provide information to emergency services, especially fire fighters
<b>HSNO</b>	Hazardous Substances and New Organisms (Act and Regulations)
<b>IARC</b>	International Agency for Research on Cancer
<b>LEL</b>	Lower Explosive Limit
<b>LD<sub>50</sub></b>	Lethal Dose 50% – dose which is fatal to 50% of a test population (usually rats).
<b>LC<sub>50</sub></b>	Lethal Concentration 50% – concentration in air which is fatal to 50% of a test population (usually rats)
<b>MSDS/SDS</b>	Material Safety Data Sheet (or Safety Data Sheet)
<b>PES</b>	Prescribed Exposure Standard means a WES or a biological exposure standard that is prescribed in a regulation, a safe work instrument or an approval under HSNO (including group standards).
<b>STEL</b>	Short Term Exposure Limit - The maximum airborne concentration of a chemical or biological agent to which a worker may be exposed in any 15 minute period, provided the TWA is not exceeded
<b>TWA</b>	Time Weighted Average – generally referred to WES averaged over typical work day (usually 8 hours)
<b>UEL</b>	Upper Explosive Limit
<b>UN Number</b>	United Nations Number
<b>WES</b>	Workplace Exposure Standard - The airborne concentration of a biological or chemical agent to which a worker may be exposed during work hours (usually 8 hours, 5 days a week). The WES relates to exposure that has been measured by personal monitoring using procedures that gather air samples in the worker's breathing zone.
<i>References</i>	
<b>Data</b>	Unless otherwise stated comes from the EPA HSNO chemical classification information database (CCID).
<b>WES 2016</b>	The NZ Workplace Exposure Standards Effective from 2016, published by WorkSafe NZ and available on their web site – <a href="http://www.worksafe.govt.nz">www.worksafe.govt.nz</a> .
<b>WES 2002</b>	Workplace Exposure Standards published by the Occupational Safety and Health Service, Department of Labour, January 2002, ISBN 0-477-03660-0. These are the WES referred to under the Group Standard (HSNO approval) and may constitute a PES.
<b>Other References</b>	Suppliers MSDS
<i>Review</i>	
<b>Date</b>	<b>Reason for Review</b>
March 2005	New MSDS
November 2010	Change of Risk Phrases and Safety Phrases to Hazard and Precautionary Statements
March 2012	Change of company name, review of classification, review WES data, change ERMA to EPA
November 2016	Change of logo, company name, HSE to HSAW, formatting.
<i>Disclaimer</i>	
This SDS was prepared by Datachem LTD and is based on our current state of knowledge, including information obtained from suppliers. The SDS is given in good faith and constitutes a guideline (not a guarantee of safety). The level of risk each substance poses is relevant to its properties (as summarised in the SDS) AND HOW THE SUBSTANCE IS USED. While guidelines are given for personal protective equipment, such precautions must be relevant to the use. The likely HSNO classifications, are based on our experience, EPA Guidelines and international classifications. This SDS is copyright Datachem and must not be copied, edited or used for other than intended purpose. To contact the SDS author, email <a href="mailto:info@datachem.co.nz">info@datachem.co.nz</a> or phone: (09) 940 30 80.	
	

## SAFETY DATA SHEET

# Atlas Copco Chisel Paste VP 3537

## 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

**Identification of the substance or preparation** Atlas Copco Chisel Paste VP 3537

**Issued at:** 14.12.2010

**Use of the substance/preparation** Lubricant for industrial use

**Supplier**

Atlas Copco Construction Tools AB  
SE-105 23 Stockholm  
Sweden

Homepage: [www.atlascopco.com](http://www.atlascopco.com)

**Telephone number**

+46 (0)8-743 96 00

**Fax number**

+46 (0)8-743 96 50

**Emergency Phone Number**

Swedish Poison Centre 112 (acute)  
+46-8-33 12 31 (non-acute)

## 2. HAZARDS IDENTIFICATION

**Classification**

**Classification according to directive (EC) No. 1272/2008, annex VI:**  
Not classified.

**Classification according to directive 67/548/EWG or directive 1999/45/EC:**  
Not classified.

**Additional advice:**

None.

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

**Hazard substances:**

None.

**Ingredients with EC-limits:**

None.

## 4. FIRST-AID MEASURES

**General information:**

Remove contaminated clothes. In case of indisposition consult a doctor.

**In case of inhalation:**

Move person into fresh air. In case of irritated airways consult a doctor.

**In case of skin contact:**

Wash off with soap and plenty of water.

**In case of eye contact:**

Remove contact lenses. Rinse thoroughly with plenty of water for at least 15 minutes. Consult a doctor, if necessary.

Chisel Paste

**In case of ingestion:**

Clean mouth immediately. Drink water in small sips (dilution effect). Avoid vomiting. No neutralisation. Consult a doctor and show safety data sheet.

**Symptoms:**

Nausea, vomiting, diarrhoea.

**Treatment in case of unconsciousness:**

Call a doctor.

## 5. FIRE-FIGHTING MEASURES

**Extinguishing media:**

**Suitable:** Water spray/-mist, foam, carbon dioxide, powder

**Unsuitable:** Water jet.

**Special exposure hazards arising from the substance or preparation itself, combustion products, resulting gases:**

In case of fire, dangerous fumes/gases might occur: Carbon dioxide, carbon monoxide, sulphur dioxide, sulphur trioxide.

**Additional information for fire fighters:**

Use recirculated air respirator in danger zone. Use water spray to cool down container. Hunt down fume by using water. Take care for ignition. Avoid contamination of groundwater and soil. Do not let product enter into drains. Use personal protective equipment avoiding skin contact and keep distance.

## 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions:**

Keep away from fire. Remove all sources of ignition. Ensure adequate ventilation. Keep care of persons in danger zone. Consult chapter 7 and 8 for protective measures.

**Environmental precautions:**

Avoid contamination of groundwater and soil. Do not let product enter into drains. Try to cover drains. For limitation of emissions by volatile organic compounds (VOC), lead extinguishing media vapours to a flue gas cleaning device.

**Methods for cleaning up**

Bigger amounts: Use pumps. For residues: Try to soak material using neutralising, fire resistant absorbent. Dispose off in accordance with regulations using intended containers. Smaller quantities (up to approx. 1 l): Take up with tissue papers and dispose off. Only use spark-free media in danger zone.

## 7. HANDLING AND STORAGE

**Handling**

Keep containers closed. Observe minimum standards according to TRGS 500. This includes general hygiene measures like no eating, drinking, smoking, washing hands after use, remove contaminated clothes before entering areas in which will be eat.

**Storage**

**Advices for safe handling**

Fumes are heavier than air. Explosive fumes/gas mixtures might form in case of excessive heat. Keep away from oxidising agents.

**Specific requirements on storage**

Store at room temperature, not below 0° C or above 60° C. Do not store together with: Pharmaceuticals, food, feed, inflammables, substances forming flammable gas with water. Organic peroxides.

**Requirements to store rooms**

Store rooms must have solvent resistant floors or collection pans, that in case of leakage the protection of the groundwater is guaranteed. Always store in containers complying with the original containers.

Atlas Copco Chisel Paste

**Specific use for consumers**  
Lubrication of tools and machines.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Preparation does not contain any substances with exposure limit values.

### Personal protective equipment

#### Respiratory protection:

Respiratory protection is not necessary. If protection is wanted, use multi-purpose combined filters of type ABEK (EN 14387). Respiratory protection equipment must be in accordance with national standards like NIOSH (US) or CEN (EU).

#### Hand protection:

In case of enduring and repeated contact, use protection gloves according to EN 374.

#### Eye protection:

Protection goggles according to EN 166:2001.

#### Environmental protection:

See chapter 6 and 7.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### Physical and chemical properties:

<b>Physical state</b>	Pasty.
<b>Colour</b>	Black/coppery.
<b>Odour</b>	Characteristic.

### Security relevant data

	Value	Method	Comment
<b>Dropping point</b>	> 250° C	DIN ISO 2176	
<b>Flash point</b>	> 250° C		
<b>Self ignition</b>	The product is not self-igniting.		
<b>Explosion hazard</b>	The product is not self-igniting.		
<b>Density</b>	0,94 – 0,98 g/cm <sup>3</sup>		
<b>Water</b>	Not resp. less miscible.		

#### Other information:

Further physical and chemical properties are not reported.

## 10. STABILITY AND REACTIVITY

### Reactivity:

Exothermic reaction with strong oxidising and reducing agents.

### Chemical stability:

Preparation remains chemically stable under normal conditions (room temperature).

### Possible dangerous reactions:

If used as intended no hazardous reactions are expected.

### Materials to avoid:

None known.

### Hazardous decomposition products:

Flammable gases/fumes might arise in case of contact with strong oxidising agents.

## 11. TOXICOLOGICAL INFORMATION

**Acute toxicity:**

None known.

**Irritant and corrosive effects:**

None known.

**Sensitisation:**

None known.

**Chronical effects:**

No ingredient of this product with concentrations of 0.1 % or more is IRAC listed or has any carcinogenic, mutagenic or reproduction toxic effect known to humans.

**Symptoms after exposition:**

None known.

**Possible health damages:****Inhalation:**

Might cause irritations of respiratory airways.

**Skin:**

Might cause skin irritations at repeated contact.

**Eyes:**

Might cause eye irritations.

**Ingestion:**

Might be harmful after ingestion.

**Target organs:**

Intestine, liver, kidney.

## 12. ECOLOGICAL INFORMATION

**Toxicity:**

None known.

**Persistency and degradability:**

No data available.

**PBT potential:**

No data available.

**Mobility:**

No data available.

**PBT- and VPvB-Assessment:**

No data available.

**Other adverse effects:**

None known.

## 13. DISPOSAL CONSIDERATIONS

**Procedures of waste handling:**

Observe all national and local laws.

**Contaminated packaging:**

Dispose off like product.

## 14. TRANSPORT INFORMATION

### Proper UN-forwarding labelling ADR/RID Risk class

**ADR/RID:**

No hazardous material.

**IMDG-Code/ICAQ-TI/IATA-DGR:**

No hazardous material.

## 15. REGULATORY INFORMATION

**Labelling according to EC-directives:**

The product is not subject to declaration according to the particular national laws.

**National directives:**

Water hazardous class (WGK): 1

## 16. OTHER INFORMATION

**Last changes:**

None.

**Literature and data sources:**

Regulations

Preparation directive (1999/45/EC), at last modified by regulation (EC) No. 1907/2006.

Material guideline (67/548/EWG), at last modified by guideline 2009/2/EG.

Regulation (EC) 1272/2008, at last modified by regulation (EC) No. 790/2009.

Internet:

<http://www.baua.de>

<http://www.arbeitssicherheit.de>

<http://dguv.de/ifa/de/gestis/stoffdb>

<http://logkow.cisti.nrc.ca>

Hazard notes referred to in chapter 2 and 3 according to regulation (EC) No. 1272/2008: (--) according to directive 67/548/EWG: (--)

**Legend:**

ADR	European agreement on the international transport of hazardous goods on roads.
BImSchV	Regulation on implementation of the Federal Immission Control Act
CAS	Chemical Abstracts Service.
DIN	Norm of the German Institut for Standardization.
EC	Effective concentration.
EC	European Community.
EN	European Standard.
IATA-DGR	International Air Transport Association – Dangerous Goods Regulations.
IBC	International Code for the construction and equipment of vessels for transport of hazardous chemicals.
ICAO-TI	International Civil Aviation Organisation – Technical Instructions.
IMDG-Code	International Maritime Code for Dangerous Goods.
ISO	Norm of the International Organization for Standardization.
IUCLID	International Uniform Chemical Information Database.
LC	Lethal concentration.
LD	Lethal Dose.
log Kow	Partition coefficient between octanol and water.
MARPOL	Maritime Pollution Convention = Internation Convention on the Prevention of Pollution from Ships.
OECD	Organisation for Economic Cooperation and Development.

Chisel Paste

PBT	Persistent, bio-accumulable, toxic
RID	Ordinance for International Carriage of Hazardous Goods by Rail
TRGS	Technical rules for hazardous substances.
UN	United Nations.
VOC	Volatile Organic Compounds.
vPvB	Very persistent and very bio-accumulable.
VwVwS	German administrative regulation regarding water pollutants.
WGK/WHC	Water hazard class.I

**Important advice:**

All data are based on the current state of knowledge. This safety data sheet is to procure all physical, safety regulating, toxicological and ecological data and recommendations for the use of chemical substances when storing, applying and during transport. It is to support the protection of humans and environment by correct information. These specific statement for occupational safety are for security officers and safety experts as well as for industrial medics, toxicologists and governmental monitoring bodies. Please, pass these information to the responsible department.

# K+S Windsor Salt Ltd./K+S Sel Windsor Ltée

## Material Safety Data Sheet

Eff. Date: January 1, 2015  
Emergency Phone Number: 312-807-2000  
(Morton Salt Co.)

### (1) PRODUCT INFORMATION

Chemical Name: Sodium Chloride Salt      Product Name: Safe-T-Salt  
Supplier: see above  
Common Name: Salt, Rock Salt, Halite  
Product Use: Deicing  
CAS Number: 7647-14-5  
Chemical Formula: NaCl

### (2) HAZARDOUS INGREDIENTS

<u>Chemical Name</u>	<u>Common Name</u>	<u>CAS Number</u>	<u>%</u>	<u>OSHA PEL</u>	<u>ACGIH TLV-TWA</u>
None					

This is not a hazardous or controlled product as defined under Canada's WHMIS regulations.  
This is not a hazardous or controlled product as defined under Canada's Hazardous Products Act and Controlled Products Regulations.  
All ingredients are found in Canada's Domestic Substances List.  
This product is not hazardous as defined by Canada's Transportation of Dangerous Goods Act.  
This product is regarded as GRAS (generally recognized as safe) by the U.S. Food & Drug Administration.  
No occupational exposure limits have been established by OSHA, ACGIH or NIOSH for this product.

NFPA RATINGS (Scale 0-4):      Health= 1    Fire= 0    Reactivity= 0

### (3) PHYSICAL DATA

Boiling Point (760mm Hg): 1,413° C (2,575° F)      Specific Gravity (Water= 1): 2.165  
Vapour Pressure (mm Hg): 1 mm @ 865° C (1,589° F)      % non-volatile: 100  
Vapour Density (Air = 1): N/A      Evaporation rate (ether= 1): N/A  
Solubility in Water: 36 g/100 cc water at 20° C(68° F)      pH: 5.5 - 9.5  
Appearance: Colorless or white crystals (depending on additives)  
Rock salt may have dark impurities  
Odour: none  
Melting Point: 801° C (1,474° F)

### (4) FIRE AND EXPLOSION HAZARD DATA

Flash Point: N/A      Flammable Limits    LEL: N/A      UEL: N/A  
This product is non-combustible  
Extinguishing Media: None required  
Special Fire Fighting Procedures: None  
Unusual Fire & Explosion Hazards: None  
Hazardous Decomposition Products: None

## (5) REACTIVITY DATA

---

Stability:	Stable under normal temperatures and pressures
Incompatibility (Materials to Avoid):	Stable and inert under normal conditions. Will react with strong acids (to generate HCl) and strong oxidizing agents (to generate Cl <sub>2</sub> ).
Can Hazardous Polymerization occur:	No
Hazardous Decomposition Products and Conditions:	None

## (6) TOXICOLOGICAL PROPERTIES

---

Oral Toxicity:	Oral rat LD50: 3,000 mg/kg (RTECS, 1986)
Dermal Toxicity:	Skin irritation rabbit: 500 mg/24 hr. Mild (RTECS, 1986)
Eye:	Eye irritation rabbit: 100 mg/24 hr. Moderate (RTECS, 1986)
Inhalation:	No information found
Chronic Toxicity:	No information found
Mutagenesis:	Mutation references cited (RTECS, 1986)
Effects of Overexposure:	
Ingestion:	Very large doses can cause vomiting, diarrhea, and prostration.
Skin Contact:	Not expected to be a health hazard.
Eye Contact:	May cause irritation.
Inhalation:	Inhalation of dust may cause mild irritation to mucous membranes, nose and throat. Symptoms may include coughing, dryness and sore throat.
Acute Systemic Effects:	Dehydration and congestion may occur in internal organs. Hypertonic salt solutions can produce inflammatory reactions in the gastrointestinal tract.
Chronic Systemic Effects:	No information found

## (7) PREVENTIVE MEASURES

---

### SPILL OR LEAK PROCEDURES:

Response to Small Spills:	Sweep up and containerize for reclamation or disposal. Vacuuming or wet sweeping may be used to avoid dust dispersal.
Response to Large Spills:	Shovel and sweep up; containerize for reclamation or disposal.
Hazards to be Avoided:	None known.
Reportable Quantity:	Check your local requirements.
Waste Classification:	Some jurisdictions have set maximum limits on Chlorides in waste effluent.
Disposal Methods:	Whatever cannot be saved for reclamation may be delivered to an approved waste disposal facility, or if local ordinances allow, can be dissolved in sufficient amounts of water to meet water quality standards, and flushed down a sewer drain. Ensure compliance with local, provincial/state and federal regulations.

### SPECIAL PROTECTION INFORMATION:

Respiratory Protection:	For conditions of use where exposure to the dust is apparent, a NIOSH approved dust/mist respirator may be worn. For emergencies, a self-contained breathing apparatus may be necessary.
-------------------------	--

For Hands, Body: If deemed necessary, wear protective gloves and clean body-covering clothing.

For Eyes: Use chemical safety goggles. Contact lenses should not be worn when working with this material. Maintain eye wash fountain and quick-drench facilities in work area.

Ventilation: In general, dilution ventilation is a satisfactory health hazard control for this substance. However, if conditions of use create discomfort to the worker, a local exhaust system should be considered.

**SPECIAL PRECAUTIONS:**

Other Precautions: Transport in dry equipment; store in dry location.

**LABELLING INFORMATION:**

DOT Shipping Name: Salt (common), sodium chloride  
DOT Label: Not applicable  
UN Number: Not applicable  
Other contents of product label: Not applicable  
Warning: None

**(8) EMERGENCY AND FIRST AID PROCEDURES**

---

Eye Contact: Immediately flush eyes with plenty of water for at least 15 minutes. Call a physician.  
Skin Contact: Wash exposed area with soap and water. Get medical advice if irritation develops.  
Inhalation: Remove to fresh air. Get medical attention for any breathing difficulty.  
Ingestion: If large amounts were swallowed, get medical advice.

**(9) PREPARED BY:**

---

K+ S Windsor Salt Ltd.  
755 Boulevard St-Jean, Suite 700  
Pointe Claire, Quebec, Canada H9R 5M9  
514-630-0900

**USERS RESPONSIBILITY**

---

The responsibility to provide a safe workplace remains with the user. The user should consider the health hazards and safety information contained herein as a guide and should take those precautions required in an individual operation to instruct employees and develop work practice procedures for a safe work environment.

**DISCLAIMER OF LIABILITY**

---

The information contained herein is, to the best of our knowledge and belief, accurate. However, since the conditions of handling and use are beyond our control, we make no guarantee of results, and assume no liability for damages incurred by use of this material. It is the responsibility of the user to comply with all applicable federal, provincial/state, and local laws and regulations. Nothing contained herein is to be construed as a recommendation for use in violation of any

patents or of applicable laws or regulations.

Issue Date 20-Dec-2015

Revision Date 20-Dec-2015

Version 1

## 1. IDENTIFICATION

### Product identifier

**Product Name** BAKOR AQUATAC PRIMER

### Other means of identification

**Product Code** BK545

**Synonyms** None

### Recommended use of the chemical and restrictions on use

**Recommended Use** Coatings

**Uses advised against** No information available

### Details of the supplier of the safety data sheet

#### **Manufacturer Address**

HENRY COMPANY

999 N. Sepulveda Blvd., Suite 800

El Segundo, CA 90245-2716

Web Site: [www.henry.com](http://www.henry.com) [www.ca.henry.com](http://www.ca.henry.com)

### Emergency telephone number

**Company Phone Number** 800-486-1278

**Emergency Telephone** CHEMTREC: 800-424-9300

CHEMTREC: 703-527-3887

CANUTEC: 613-966-6666

## 2. HAZARDS IDENTIFICATION

### Classification

#### **OSHA Regulatory Status**

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2A
Specific target organ toxicity (single exposure)	Category 3

### Label elements

#### **Warning**

#### **Emergency Overview**

#### **Hazard statements**

Causes skin irritation

Causes serious eye irritation

May cause respiratory irritation



**Appearance** viscous cream**Physical state** liquid**Odor** Slight**Precautionary Statements - Prevention**

Wash face, hands and any exposed skin thoroughly after handling  
 Wear protective gloves/protective clothing/eye protection/face protection  
 Avoid breathing dust/fume/gas/mist/vapors/spray  
 Use only outdoors or in a well-ventilated area

**Precautionary Statements - Response**

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
 If eye irritation persists: Get medical advice/attention  
 IF ON SKIN: Wash with plenty of soap and water  
 If skin irritation occurs: Get medical advice/attention  
 Take off contaminated clothing and wash before reuse  
 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing  
 Call a POISON CENTER or doctor/physician if you feel unwell

**Precautionary Statements - Storage**

Store in a well-ventilated place. Keep container tightly closed  
 Store locked up

**Precautionary Statements - Disposal**

Dispose of contents/container to an approved waste disposal plant

**Hazards not otherwise classified (HNOC)**

Not applicable

**Other Information**

Toxic to aquatic life with long lasting effects. Toxic to aquatic life.

**Unknown acute toxicity**

28.19223275% of the mixture consists of ingredient(s) of unknown toxicity

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

**Substance**

Not applicable

**Mixture**

Chemical Name	CAS No	Weight-%
Acrylic polymer *	Proprietary	30 - 60
Water *	7732-18-5	15 - 40
1,2-Propylene glycol *	57-55-6	1 - 5

\*The exact percentage (concentration) of composition has been withheld as a trade secret.

### 4. FIRST AID MEASURES

**Description of first aid measures****General advice**

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible). If symptoms persist, call a physician.

**Eye contact**

Keep eye wide open while rinsing. Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. If symptoms persist, call a physician.

**Skin contact**

Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. If symptoms persist, call a physician. Wash contaminated clothing

before reuse.

**Inhalation** Remove to fresh air. If breathing is irregular or stopped, administer artificial respiration. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. If symptoms persist, call a physician.

**Ingestion** Call a physician or poison control center immediately. Do not induce vomiting without medical advice. Rinse mouth. Never give anything by mouth to an unconscious person.

**Self-protection of the first aider** Use personal protective equipment as required.

**Most important symptoms and effects, both acute and delayed**

**Symptoms** May cause redness and tearing of the eyes. Coughing and/ or wheezing. May cause skin irritation.

**Indication of any immediate medical attention and special treatment needed**

**Note to physicians** Treat symptomatically.

## 5. FIRE-FIGHTING MEASURES

**Suitable extinguishing media**

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Dry chemical, CO<sub>2</sub>, sand, earth, water spray or regular foam.

**Unsuitable extinguishing media** No information available.

**Specific hazards arising from the chemical**

Thermal decomposition can lead to release of irritating and toxic gases and vapors.

**Explosion data**

**Sensitivity to Mechanical Impact** None.

**Sensitivity to Static Discharge** None.

**Protective equipment and precautions for firefighters**

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

## 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions, protective equipment and emergency procedures**

**Personal precautions** Ensure adequate ventilation, especially in confined areas. Use personal protective equipment as required. Avoid contact with skin, eyes or clothing.

**Environmental precautions**

**Environmental precautions** Prevent entry into waterways, sewers, basements or confined areas. Do not flush into surface water or sanitary sewer system.

**Methods and material for containment and cleaning up**

**Methods for containment** Prevent further leakage or spillage if safe to do so.

**Methods for cleaning up** Use personal protective equipment as required. Cover liquid spill with sand, earth or other non-combustible absorbent material. Dam up. Take up mechanically, placing in appropriate containers for disposal. Clean contaminated surface thoroughly.

## 7. HANDLING AND STORAGE

**Precautions for safe handling**

**Advice on safe handling** Avoid contact with skin, eyes or clothing. Use personal protective equipment as required. Wash contaminated clothing before reuse. Do not breathe dust/fume/gas/mist/vapors/spray. Do not eat, drink or smoke when using this product.

**Conditions for safe storage, including any incompatibilities**

**Storage Conditions** Keep container tightly closed in a dry and well-ventilated place. Keep out of the reach of children.

**Incompatible materials** Strong oxidizing agents. Strong acids. Strong bases.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Control parameters**

**Exposure Guidelines** This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

**Appropriate engineering controls**

**Engineering Controls** Showers  
Eyewash stations  
Ventilation systems.

**Individual protection measures, such as personal protective equipment**

**Eye/face protection** Wear safety glasses with side shields (or goggles).

**Skin and body protection** Wear protective gloves and protective clothing.

**Respiratory protection** If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

**General Hygiene Considerations** Handle in accordance with good industrial hygiene and safety practice.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Information on basic physical and chemical properties**

<b>Physical state</b>	liquid	<b>Odor</b>	Slight
<b>Appearance</b>	viscous cream	<b>Odor threshold</b>	No information available
<b>Color</b>	green		
<b><u>Property</u></b>	<b><u>Values</u></b>	<b><u>Remarks • Method</u></b>	
<b>pH</b>	6-9		
<b>Melting point / freezing point</b>	<= 0 °C / 32 °F		
<b>Boiling point / boiling range</b>	> 100 °C / 212 °F		
<b>Flash point</b>	> 100 °C / 212 °F		Pensky-Martens Closed Cup (PMCC)
<b>Evaporation rate</b>	>= 1		
<b>Flammability (solid, gas)</b>	No information available		
<b>Flammability Limit in Air</b>			
<b>Upper flammability limit:</b>	No information available		
<b>Lower flammability limit:</b>	No information available		
<b>Vapor pressure</b>	18 mmHg		@ 25 °C
<b>Vapor density</b>	No information available		
<b>Relative density</b>	1.1-1.3		
<b>Water solubility</b>	dispersible		
<b>Solubility in other solvents</b>	No information available		
<b>Partition coefficient</b>	No information available		
<b>Autoignition temperature</b>	No information available		

<b>Decomposition temperature</b>	No information available	
<b>Kinematic viscosity</b>	> 100 mm <sup>2</sup> /s	@ 40 °C
<b>Dynamic viscosity</b>	No information available	
<b>Explosive properties</b>	Not an explosive	
<b>Oxidizing properties</b>	Not applicable	

**Other Information**

<b>Softening point</b>	No information available
<b>Molecular weight</b>	No information available
<b>VOC Content (%)</b>	No information available
<b>Density</b>	No information available
<b>Bulk density</b>	No information available

## 10. STABILITY AND REACTIVITY

**Reactivity**

No data available

**Chemical stability**

Stable under recommended storage conditions.

**Possibility of Hazardous Reactions**

None under normal processing.

**Conditions to avoid**

Elevated Temperature. Keep from freezing. Incompatible materials.

**Incompatible materials**

Strong oxidizing agents. Strong acids. Strong bases.

**Hazardous Decomposition Products**

Thermal decomposition can lead to release of irritating and toxic gases and vapors.

## 11. TOXICOLOGICAL INFORMATION

**Information on likely routes of exposure****Product Information**

<b>Inhalation</b>	May cause irritation of respiratory tract.
<b>Eye contact</b>	Irritating to eyes.
<b>Skin contact</b>	Irritating to skin.
<b>Ingestion</b>	No data available.

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Water 7732-18-5	> 90 mL/kg ( Rat )	-	-
1,2-Propylene glycol 57-55-6	= 20 g/kg ( Rat )	= 20800 mg/kg ( Rabbit )	-

**Information on toxicological effects**

**Symptoms** May cause redness and tearing of the eyes. Coughing and/ or wheezing. May cause skin irritation.

**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

<b>Sensitization</b>	No information available.
<b>Germ cell mutagenicity</b>	No information available.
<b>Carcinogenicity</b>	No information available.
<b>Reproductive toxicity</b>	No information available.
<b>STOT - single exposure</b>	Target Organs. Respiratory system. Eyes.
<b>STOT - repeated exposure</b>	No information available.

<b>Target Organ Effects</b>	Eyes, lungs, Respiratory system, Skin.
<b>Aspiration hazard</b>	No information available.

**Numerical measures of toxicity - Product Information**

The following values are calculated based on chapter 3.1 of the GHS document .

<b>ATEmix (oral)</b>	10,348.00 mg/kg
----------------------	-----------------

## 12. ECOLOGICAL INFORMATION

**Ecotoxicity**

None known

99.58198 % of the mixture consists of components(s) of unknown hazards to the aquatic environment

**Persistence and degradability**

No information available.

**Bioaccumulation**

No information available.

**Other adverse effects**

No information available

## 13. DISPOSAL CONSIDERATIONS

**Waste treatment methods**

<b>Disposal of wastes</b>	Disposal should be in accordance with applicable regional, national and local laws and regulations.
---------------------------	---

<b>Contaminated packaging</b>	Do not reuse container.
-------------------------------	-------------------------

## 14. TRANSPORT INFORMATION

<b><u>DOT</u></b>	Not regulated
-------------------	---------------

<b><u>TDG</u></b>	Not regulated
-------------------	---------------

<b><u>IATA</u></b>	Not regulated
--------------------	---------------

<b><u>IMDG</u></b>	Not regulated
--------------------	---------------

## 15. REGULATORY INFORMATION

**International Inventories**

<b>TSCA</b>	Complies
<b>DSL/NDSL</b>	Complies
<b>EINECS/ELINCS</b>	Complies
<b>IECSC</b>	Complies
<b>KECL</b>	Complies
<b>PICCS</b>	Complies
<b>AICS</b>	Complies

**Legend:**

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory

**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List

**EINECS/ELINCS** - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

**ENCS** - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances  
 KECL - Korean Existing and Evaluated Chemical Substances  
 PICCS - Philippines Inventory of Chemicals and Chemical Substances  
 AICS - Australian Inventory of Chemical Substances

### US Federal Regulations

#### SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

#### SARA 311/312 Hazard Categories

Acute health hazard	Yes
Chronic Health Hazard	No
Fire hazard	No
Sudden release of pressure hazard	No
Reactive Hazard	No

#### CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

#### CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

### US State Regulations

#### California Proposition 65

This product does not contain any Proposition 65 chemicals

#### U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Water 7732-18-5	-	-	X
1,2-Propylene glycol 57-55-6	X	-	X

#### U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

### 16. OTHER INFORMATION, INCLUDING DATE OF PREPARATION OF THE LAST REVISION

<u>NFPA</u>	Health hazards 2	Flammability 0	Instability 0	Physical and Chemical Properties -
<u>HMIS</u>	Health hazards 2	Flammability 0	Physical hazards 0	Personal protection X

Issue Date 20-Dec-2015

Revision Date 20-Dec-2015

#### Revision Note

No information available

#### Disclaimer

The information provided in this Material Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

**End of Safety Data Sheet**

# MATERIAL SAFETY DATA SHEET

Formula: 84-03  
MSDS No.: 1

Home Hardware Stores Limited

Page 1 of 3  
4

## Section 1 - Product and Company Identification

**Brand Name:** BEAUTI-TONE RUST COAT ACRYLIC  
**Item Number:** 84-03  
**Material Code:** 1825-007, 1825-008  
**Chemical Family:** LATEX GLOSS CLEAR BASE CORROSION INHIBITING PAINT  
**Intended Use:** LATEX PAINT  
**Preparation Date:** 8 August 2017  
**Prepared By:** PAINT LAB **Phone Number:** 519-449-2441

**Emergency Phone Number:** (613) 996-6666

**Supplier:**

Home Hardware Stores Limited  
6 Brian Drive  
Burford, ON  
N0E 1A0

**Manufacturer:**

Home Hardware Stores Limited  
6 Brian Drive  
Burford, ON  
N0E 1A0

## Section 2 - Composition/Information on Ingredients

CAS No.	Description	LC50 (ml/m <sup>3</sup> )	LD50 oral (mg/kg)	LD50 Dermal (mg/kg)	Range
107-21-1	ETHYLENE GLYCOL	2920 (RAT)	4700 (rat)	9500 (rabbit)	0.5% - 1.5%
34590-94-8	DIPROPYLENE GLYCOL MONOMETHYL ETHER	N/AV	5153 (rat)	9500 (rabbit)	1.0% - 5.0%

## Section 3 - Hazards Identification

Emergency Overview: May cause skin or eye irritation.

Routes of Entry: Eye contact, skin contact, skin absorption, inhalation, and ingestion.

Eye: May cause eye irritation.

Skin absorption: Substance may be harmful if absorbed through skin.

Inhalation: May be harmful if vapours are inhaled.

Ingestion: May be harmful if swallowed.

Effects of Chronic Exposure to Product: Refer to Section 11.

Effects Of Acute Exposure: Refer to Section 11. MAY CAUSE EYE IRRITATION

## Section 4 - First Aid Measures

Eye contact: Flush immediately with water for 15 mins. Get medical attention.

Skin contact: Immediately flush skin with plenty of water. Remove clothing. Get medical attention if irritation develops or persists. Contaminated clothing should be discarded in a manner of limiting further exposure.

Skin absorption: Immediately flush skin with plenty of water. Remove clothing. Get medical attention if irritation develops or persists. Contaminated clothing should be discarded in a manner limiting further exposure.

Inhalation: Move to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Special training of first aid providers is required. Get medical attention.

Ingestion: Get medical attention immediately. Substance may be harmful if swallowed.

## Section 5 - Fire Fighting Measures

Flash Point: N/AP

# MATERIAL SAFETY DATA SHEET

Formula: 84-03  
MSDS No.: 1

Home Hardware Stores Limited

Page 2 of 3  
4

---

Flash Point Method:	N/AP
Upper Flammable Limit:	N/AP
Lower Flammable Limit:	N/AP
Autoignition:	N/AP
Hazardous Combustion Products:	OXIDES OF CARBON
Means of Extinction:	WATER FOG, DRY CHEMICAL, FOAM
Conditions Of Flammability:	NON-FLAMMABLE

Explosion Data

Mechanical Impact:	NO
Static Discharge:	NO

---

## Section 6 - Accidental Release Measures

---

Dispose of in accordance with regional regulations.

---

## Section 7 - Handling and Storage

---

Handling Procedures and Equipment: Avoid contact with eyes, skin, and clothing.

Storage Requirements: Keep from freezing.

---

## Section 8 - Exposure Control/Personal Protection

---

Specific Engineering Controls: Use adequate ventilation to reduce airborne vapour levels.

Personal Protective Equipment: Wear safety glasses with side shields and chemical resistant gloves. Use NIOSH approved respirator specified for protection against paint spray mist and organic vapours in restricted and confined areas. Use dust mask when sanding.

Exposure Limits: Consult local authorities for acceptable exposure limits.

---

## Section 9 - Physical and Chemical Properties

---

Appearance:	CLEAR LIQUID
Odour:	MILD ODOUR
Vapour Pressure:	N/AV
Vapour Density:	N/AV
Physical State:	LIQUID
Boiling Point:	APPROX. 100C
Freezing/Melting Point:	APPROX. 0C
pH:	8.5-9.0
Evaporation Rate:	SLOWER THAN BUTYL ACETATE
Coefficient water/oil distr.:	N/AV
Odour Threshold:	N/AV
Specific Gravity:	1.0271

---

## Section 10 - Stability and Reactivity

---

Stability: Yes.

Conditions to Avoid: High temperatures.

Materials to Avoid: None.

Hazardous Decomposition Products: Not available.

Hazardous Polymerization: Not available.

# MATERIAL SAFETY DATA SHEET

Formula: 84-03  
MSDS No.: 1

Home Hardware Stores Limited

Page 3 of 3  
4

---

## Section 11 - Toxicological Information

---

Sensitization to Product: Possible from ethylene glycol and latex resin.  
Carcinogenicity: Under normal use, no exposure to carcinogens.  
May cause irritation due to ethylene glycol, dipropylene glycol monomethyl ether & latex resin.  
Reproductive Toxicity: Not available.  
Teratogenicity: Yes from ethylene glycol.  
Mutagenicity: Not available.  
Name of Toxicologically Synergistic Products: Not available.

---

## Section 12 - Ecological Information

---

Not Available.

---

## Section 13 - Disposal Considerations

---

Contact your local municipal office for specific disposal guidelines in your region.

---

## Section 14 - Transport Information

---

TDG Road Classification	
Shipping Name:	NOT REGULATED
Class:	NOT REGULATED
Packing Group:	NOT REGULATED
UN #:	NOT REGULATED
Limited Quantity Exemption:	NOT REGULATED

---

## Section 15 - Regulatory Information

---

WHMIS Classification:	D2A, D2B
P.C.P. Registration #:	NOT APPLICABLE
EPA Registration #:	NOT APPLICABLE

This product has been classified in accordance with the hazard criteria of the CPR and the MSDS contains all the information required by the CPR.

---

## Section 16 - Other Information

---

N/AV: Not available  
N/AP: Not applicable  
NR: Not regulated

---

Information for this material safety data sheet was obtained from sources considered accurate and reliable, and was prepared to the best of Home Hardware Stores Limited knowledge. Actual conditions of use and handling beyond seller's control. User is responsible to evaluate all available information when using product for any particular use and to comply with all Federal, Provincial and local laws and regulations.

---

# MATERIAL SAFETY DATA SHEET

Formula: 73-03  
MSDS No.: 1

Home Hardware Stores Limited

Page 1 of 3  
11

## Section 1 - Product and Company Identification

**Brand Name:** BEAUTI-TONE SIGNATURE SERIES  
**Item Number:** 73-03  
**Material Code:** 1853-328, 1853-505  
**Chemical Family:** INTERIOR SEMI-GLOSS CLEAR BASE  
**Intended Use:** LATEX PAINT  
**Preparation Date:** 4 March 2010  
**Prepared By:** PAINT LAB **Phone Number:** 519-449-2441

**Emergency Phone Number:** (613) 996-6666

**Supplier:**

Home Hardware Stores Limited  
6 Brian Drive  
Burford, ON  
N0E 1A0

**Manufacturer:**

Home Hardware Stores Limited  
6 Brian Drive  
Burford, ON  
N0E 1A0

## Section 2 - Composition/Information on Ingredients

CAS No.	Description	LC50 (ml/m <sup>3</sup> )	LD50 oral (mg/kg)	LD50 Dermal (mg/kg)	Range
107-21-1	ETHYLENE GLYCOL	2920 (RAT)	4700 (rat)	9500 (rabbit)	0.5% - 1.5%
57-55-6	PROPYLENE GLYCOL	N/AV	20000 (rat)	20800 (rabbit)	0.5% - 1.5%

## Section 3 - Hazards Identification

Emergency Overview: Eye irritant.

Potential Health Effects

Routes of Entry: Eye contact, skin contact, skin absorption, inhalation, and ingestion.

Eye: May cause eye irritation.

Skin contact: May cause skin irritation.

Skin absorption: Substance may be harmful if absorbed through skin.

Inhalation: May be harmful if vapours are inhaled.

Ingestion: May be harmful if swallowed.

Effects of Chronic Exposure to Product: Refer to Section 11.

Effects Of Acute Exposure: MAY CAUSE EYE IRRITATION

## Section 4 - First Aid Measures

Eye contact: Flush immediately with water for 15 mins. Get medical attention.

Skin contact: Immediately flush skin with plenty of water. Remove clothing. Get medical attention if irritation develops or persists.

Skin absorption: Immediately flush skin with plenty of water. Remove clothing. Get medical attention if irritation develops or persists.

Inhalation: Move to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

Ingestion: Get medical attention immediately. Substance may be harmful if swallowed.

## Section 5 - Fire Fighting Measures

Flash Point: N/AP

Flash Point Method: N/AP

# MATERIAL SAFETY DATA SHEET

Formula: 73-03  
MSDS No.: 1

Home Hardware Stores Limited

Page 2 of 3  
11

---

Upper Flammable Limit:	N/AP
Lower Flammable Limit:	N/AP
Autoignition:	N/AP
Hazardous Combustion Products:	OXIDES OF CARBON
Means of Extinction:	WATER FOG, DRY CHEMICAL, FOAM
Conditions Of Flammability:	NON-FLAMMABLE

Explosion Data

Mechanical Impact:	NO
Static Discharge:	NO

---

## Section 6 - Accidental Release Measures

---

Dispose of in accordance with regional regulations.

---

## Section 7 - Handling and Storage

---

Handling Procedures and Equipment: Avoid contact with eyes, skin, and clothing.  
Storage Requirements: Keep from freezing. Keep away from food and drink.

---

## Section 8 - Exposure Control/Personal Protection

---

Specific Engineering Controls: Use adequate ventilation to reduce airborne vapour levels.  
Personal Protective Equipment: Wear safety glasses with side shields and chemical resistant gloves. Use NIOSH approved respirator specified for protection against paint spray mist and organic vapours in restricted and confined areas. Use dust mask when sanding.  
Exposure Limits: Consult local authorities for acceptable exposure limits.

---

## Section 9 - Physical and Chemical Properties

---

Appearance:	WHITE LIQUID
Odour:	MILD ODOUR
Vapour Pressure:	N/AV
Vapour Density:	N/AV
Physical State:	LIQUID
Boiling Point:	APPROX 100C
Freezing/Melting Point:	APPROX 0C
pH:	8.0 - 9.0
Evaporation Rate:	SLOWER THAN BUTYL ACETATE
Coefficient water/oil distr.:	N/AV
Odour Threshold:	N/AV
Specific Gravity:	1.0609

---

## Section 10 - Stability and Reactivity

---

Stability: Yes.  
Conditions to Avoid: High temperatures, and avoid freezing.  
Materials to Avoid: None known.  
Hazardous Decomposition Products: Not available.  
Hazardous Polymerization: Not available.

---

## Section 11 - Toxicological Information

---

# MATERIAL SAFETY DATA SHEET

Formula: 73-03  
MSDS No.: 1

Home Hardware Stores Limited

Page 3 of 3  
11

Sensitization to Product: Possible from ethylene glycol and latex resin.

Carcinogenicity: Under normal use, no exposure to carcinogens.

Irritancy of Product: May cause irritation due to ethylene glycol, propylene glycol, and latex resin.

Reproductive Toxicity: Not available.

Teratogenicity: Yes from ethylene glycol.

Mutagenicity: Not available.

Name of Toxicologically Synergistic Products: Not available.

---

## Section 12 - Ecological Information

---

Not Available.

---

## Section 13 - Disposal Considerations

---

Contact your local municipal office for specific disposal guidelines in your region.

---

## Section 14 - Transport Information

---

TDG Road Classification

Shipping Name: NR

Class: NR

Packing Group: NR

UN #: NR

Limited Quantity Exemption: NR

---

## Section 15 - Regulatory Information

---

WHMIS Classification: D2B

P.C.P. Registration #: N/AP

EPA Registration #: N/AP

This product has been classified in accordance with the hazard criteria of the CPR and the MSDS contains all the information required by the CPR.

---

## Section 16 - Other Information

---

N/AV: Not available

N/AP: Not applicable

NR: Not regulated

---

Information for this material safety data sheet was obtained from sources considered accurate and reliable, and was prepared to the best of Home Hardware Stores Limited knowledge. Actual conditions of use and handling beyond seller's control. User is responsible to evaluate all available information when using product for any particular use and to comply with all Federal, Provincial and local laws and regulations.

---

# Benefect Botanical Disinfectant

## Safety Data Sheet

according to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012 WHMIS 2015

Date of issue: 06/19/2015

Revision date: 05/12/2017

Version: 2.0

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1. Product identifier

Product name : Benefect Botanical Disinfectant  
Product code : 21275, 20475, 20275, 22075, 51275, 50475, 50275, 52075 & 51275  
EPA Registration Number : 84683-1-74771  
Heath Canada (DIN) : 02242474

#### 1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture : Disinfectant

#### 1.3. Details of the supplier of the safety data sheet

Sensible Life Products (div of Benefect Corp)  
555 Bay Street North  
Hamilton, Ontario L8L1H1 - Canada  
T (905) 528-7474

#### 1.4. Emergency telephone number

Emergency number : (905) 528-7474

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

##### GHS classification

Not classified.

#### 2.2. Label elements

##### GHS labelling

No labelling applicable.

#### 2.3. Other hazards

No additional information available.

#### 2.4. Unknown acute toxicity (GHS)

Not applicable.

### SECTION 3: Composition/information on ingredients

#### 3.1. Substance

Not applicable

#### 3.2. Mixture

Name	Product identifier	%
Oils, thyme	(CAS No) 8007-46-3	0.1 - 1
Oils, lemongrass	(CAS No) 8007-02-1	0.1 - 1

\* The exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200.

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

First-aid measures after inhalation : If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical advice/attention if you feel unwell.  
First-aid measures after skin contact : If irritation occurs, flush skin with plenty of water. Get medical attention if irritation persists.  
First-aid measures after eye contact : In case of contact, flush eyes with plenty of water. Remove contact lenses, if worn. If irritation persists, get medical attention.  
First-aid measures after ingestion : If swallowed, do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical advice/attention if you feel unwell.

#### 4.2. Most important symptoms and effects, both acute and delayed

Symptoms/injuries after inhalation : None under normal use. May cause slight irritation.  
Symptoms/injuries after skin contact : None under normal use. May cause an allergic skin reaction in sensitive individuals.  
Symptoms/injuries after eye contact : None under normal use. May cause slight irritation. Symptoms may include discomfort or pain, excess blinking and tear production, with possible redness and swelling.  
Symptoms/injuries after ingestion : None under normal use.

# Benefect Botanical Disinfectant

## Safety Data Sheet

according to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012 WHMIS 2015

### 4.3. Indication of any immediate medical attention and special treatment needed

Symptoms may not appear immediately. In case of accident or if you feel unwell, seek medical advice immediately (show the label or SDS where possible).

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

Suitable extinguishing media : Treat for surrounding material.  
Unsuitable extinguishing media : None known.

### 5.2. Special hazards arising from the substance or mixture

Fire hazard : None known.

### 5.3. Advice for firefighters

Protection during firefighting : Keep upwind of fire. Wear full fire fighting turn-out gear (full Bunker gear) and respiratory protection (SCBA).

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

General measures : Use personal protection recommended in Section 8. Keep unnecessary personnel away from the release.

### 6.2. Methods and material for containment and cleaning up

For containment : Contain and/or absorb spill, then place in a suitable container.  
Methods for cleaning up : Thoroughly wash the area with water after a spill or leak.

### 6.3. Reference to other sections

See section 8 for further information on protective clothing and equipment and section 13 for advice on waste disposal.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Precautions for safe handling : Avoid contact with eyes. Do not swallow. Handle and open container with care. When using do not eat, drink or smoke.  
Hygiene measures : Wash hands with water as a precaution.

### 7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep out of the reach of children. Keep container tightly closed. Store at room temperature.

### 7.3. Specific end use(s)

Not available.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

Oils, thyme (8007-46-3)	
ACGIH	Not applicable
OSHA	Not applicable
Oils, lemongrass (8007-02-1)	
ACGIH	Not applicable
OSHA	Not applicable

### 8.2. Exposure controls

Appropriate engineering controls : No special precautions.  
Hand protection : None necessary under normal conditions of use.  
Eye protection : None necessary under normal conditions of use.  
Skin and body protection : None necessary under normal conditions of use.  
Respiratory protection : None necessary under normal conditions of use.  
Environmental exposure controls : Maintain levels below Community environmental protection thresholds.  
Other information : Handle according to established industrial hygiene and safety practices.

# Benefect Botanical Disinfectant

## Safety Data Sheet

according to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012 WHMIS 2015

### SECTION 9: Physical and chemical properties

#### 9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: Hazy
Colour	: Light tan
Odour	: Lemon/Spice
Odour threshold	: No data available
pH	: 4.0-5.0
Melting point	: As per water
Freezing point	: As per water
Boiling point	: As per water
Flash point	: Not applicable
Relative evaporation rate (butylacetate=1)	: As per water
Flammability (solid, gas)	: Not flammable
Explosive limits	: Not applicable
Explosive properties	: No data available
Oxidising properties	: No data available
Vapour pressure	: Not applicable
Relative density	: 1.00-1.02
Relative vapour density at 20 °C	: Not applicable
Solubility	: Soluble in water :
Partition coefficient: n-octanol/water	No data available :
Log Kow	No data available :
Auto-ignition temperature	Not combustible :
Decomposition temperature	No data available :
Viscosity	As per water

#### 9.2. Other information

No additional information available.

### SECTION 10: Stability and reactivity

#### 10.1. Reactivity

No dangerous reaction known under conditions of normal use.

#### 10.2. Chemical stability

Stable under normal storage conditions.

#### 10.3. Possibility of hazardous reactions

No dangerous reaction known under conditions of normal use.

#### 10.4. Conditions to avoid

None known.

#### 10.5. Incompatible materials

None known.

#### 10.6. Hazardous decomposition products

None known.

### SECTION 11: Toxicological information

#### 11.1. Information on toxicological effects

Acute toxicity : Not classified.

Benefect Botanical Disinfectant	
LD50 oral rat	> 2000 mg/kg
LD50 dermal rabbit	> 2000 mg/kg
LC50 inhalation rat	> 20 mg/l/4h

# Benefect Botanical Disinfectant

## Safety Data Sheet

according to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012 WHMIS 2015

Oils, thyme (8007-46-3)	
LD50 oral rat	2840 mg/kg
LD50 dermal rabbit	> 5 g/kg

Oils, lemongrass (8007-02-1)	
LD50 oral rat	> 5 g/kg
LD50 dermal rabbit	> 5 g/kg

Skin corrosion/irritation	: Based on available data, the classification criteria are not met.
Serious eye damage/irritation	: Based on available data, the classification criteria are not met.
Respiratory or skin sensitisation	: Based on available data, the classification criteria are not met.
Germ cell mutagenicity	: Based on available data, the classification criteria are not met.
Carcinogenicity	: Based on available data, the classification criteria are not met.
Reproductive toxicity	: Based on available data, the classification criteria are not met.
Specific target organ toxicity (single exposure)	: Based on available data, the classification criteria are not met.
Specific target organ toxicity (repeated exposure)	: Based on available data, the classification criteria are not met.
Aspiration hazard	: Based on available data, the classification criteria are not met.
Symptoms/injuries after inhalation	: None under normal use. May cause slight irritation.
Symptoms/injuries after skin contact	: None under normal use. May cause an allergic skin reaction in sensitive individuals.
Symptoms/injuries after eye contact	: None under normal use. May cause slight irritation. Symptoms may include discomfort or pain, excess blinking and tear production, with possible redness and swelling.
Symptoms/injuries after ingestion	: None under normal use.

## SECTION 12: Ecological information

### 12.1. Toxicity

Ecology - general	: No known significant effects or critical hazards.
Aquatic Toxicity	: Not toxic to aquatic life (IC50 >100 mg/L, Protocol EPS 1/RM/24)

### 12.2. Persistence and degradability

Benefect Botanical Disinfectant	
Persistence and degradability	Readily Biodegradable (85% in 28 days, OECD 301D Method)

### 12.3. Bioaccumulative potential

Benefect Botanical Disinfectant	
Bioaccumulative potential	None.

### 12.4. Mobility in soil

No additional information available.

### 12.5. Other adverse effects

Effect on the global warming	: No known ecological damage caused by this product.
------------------------------	--

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Waste disposal recommendations	: Dispose in a safe manner in accordance with local/national regulations. Do not reuse container. Recycle empty containers where allowed.
--------------------------------	---

## SECTION 14: Transport information

### Department of Transportation (DOT)

In accordance with DOT  
Not regulated for transport.

### Additional information

Other information	: No supplementary information available.
Special transport precautions	: Do not handle until all safety precautions have been read and understood.

# Benefect Botanical Disinfectant

## Safety Data Sheet

according to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012 WHMIS 2015

### SECTION 15: Regulatory information

#### 15.1. US regulations

All components of this product are not listed or are excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory.

#### EPA labelling

This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

This product has no assigned hazard information according to the Environmental Protection Agency.

This product does not contain a chemical known to the State of California to cause cancer, birth defects or other reproductive harm.

#### 15.2. Canada regulations

WHMIS : Exempt DIN # 02242474

This product has no assigned hazard information according to Health Canada

### SECTION 16: Other information

#### HMIS

Health Hazard: 0  
Flammability: 0  
Reactivity: 0

Date of Revision : 05/12/2017

Other information : None.

*Disclaimer: We believe the statements, technical information and recommendations contained herein are reliable, but they are given without warranty or guarantee of any kind. The information contained in this document applies to this specific material as supplied. It may not be valid for this material if it is used in combination with any other materials. It is the user's responsibility to satisfy oneself as to the suitability and completeness of this information for the user's own particular use.*

# Benefect Botanical Multi-Purpose Cleaner

## Safety Data Sheet

according to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012 WHMIS 2015

Date of issue: 05/26/2015

Revision date: 05/12/2017

Version: 2.0

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1. Product identifier

Product name : Benefect Botanical Multi-Purpose Cleaner  
Product code : 30475

#### 1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture : Multi-Purpose Cleaner

#### 1.3. Details of the supplier of the safety data sheet

Sensible Life Products (div of Benefect Corp)  
555 Bay Street North  
Hamilton, Ontario, Canada L8L1H1  
T (905) 528-7474

#### 1.4. Emergency telephone number

Emergency number : (905) 528-7474

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

##### GHS classification

Not classified.

#### 2.2. Label elements

##### GHS labelling

No labelling applicable.

#### 2.3. Other hazards

No additional information available.

#### 2.4. Unknown acute toxicity (GHS)

Not applicable.

### SECTION 3: Composition/information on ingredients

#### 3.1. Substance

Not applicable

#### 3.2. Mixture

Name	Product identifier	%	GHS-US classification
D-Glucopyranose, oligomeric, C10-16-alkyl glycosides	(CAS No) 110615-47-9*	10 - 30	Skin Irrit. 2B

\* The exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200.

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

First-aid measures after inhalation : If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical advice/attention if you feel unwell.

First-aid measures after skin contact : If irritation occurs, flush skin with plenty of water. Call a physician if irritation persists.

First-aid measures after eye contact : If irritation occurs, flush eyes with plenty of water. If easy to do, remove contact lenses, if worn. If irritation persists, get medical attention.

First-aid measures after ingestion : If swallowed, do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical advice/attention if you feel unwell.

#### 4.2. Most important symptoms and effects, both acute and delayed

Symptoms/injuries after inhalation : May cause temporary irritation.

Symptoms/injuries after skin contact : May cause temporary irritation. Symptoms may include redness, drying, defatting and cracking of the skin.

Symptoms/injuries after eye contact : May cause temporary eye irritation. Symptoms may include discomfort or pain, excess blinking and tear production, with possible redness and swelling.

Symptoms/injuries after ingestion : May cause temporary stomach distress, nausea or vomiting.

# Benefect Botanical Multi-Purpose Cleaner

## Safety Data Sheet

according to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012 WHMIS 2015

### 4.3. Indication of any immediate medical attention and special treatment needed

Symptoms may not appear immediately. In case of accident or if you feel unwell, seek medical advice immediately (show the label or SDS where possible).

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

Suitable extinguishing media : Treat for surrounding material.  
Unsuitable extinguishing media : None known.

### 5.2. Special hazards arising from the substance or mixture

Fire hazard : Products of combustion may include, and are not limited to: oxides of carbon.

### 5.3. Advice for firefighters

Protection during firefighting : Keep upwind of fire. Wear full fire fighting turn-out gear (full Bunker gear) and respiratory protection (SCBA).

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

General measures : Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary personnel.

### 6.2. Methods and material for containment and cleaning up

For containment : Contain and/or absorb spill, then place in a suitable container.  
Methods for cleaning up : Thoroughly wash the area with water after a spill or leak.

### 6.3. Reference to other sections

See section 8 for further information on protective clothing and equipment and section 13 for advice on waste disposal.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Precautions for safe handling : Avoid prolonged contact with skin and eyes. Do not swallow. Handle and open container with care.  
Hygiene measures : General hygiene is normally adequate.

### 7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep out of the reach of children. Keep container tightly closed. Store at room temperature.

### 7.3. Specific end use(s)

Not available.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

D-Glucoopyranose, oligomeric, C10-16-alkyl glycosides (110615-47-9)	
ACGIH	Not applicable
OSHA	Not applicable

### 8.2. Exposure controls

Appropriate engineering controls : General ventilation adequate under normal conditions of use.  
Hand protection : Suitable gloves are recommended due to concentrated surfactants.  
Eye protection : Safety glasses or goggles are recommended due to concentrated surfactants.  
Skin and body protection : Suitable protective clothing as required by employer code.  
Respiratory protection : None necessary under normal conditions of use.  
Environmental exposure controls : Maintain levels below Community environmental protection thresholds.  
Other information : Handle according to established industrial hygiene and safety practices.

# Benefect Botanical Multi-Purpose Cleaner

## Safety Data Sheet

according to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012 WHMIS 2015

### SECTION 9: Physical and chemical properties

#### 9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: No data available
Color	: Light tan
Odor	: Odourless
Odor threshold	: No data available
pH	: 4 - 5
Melting point	: No data available
Freezing point	: No data available
Boiling point	: No data available
Flash point	: No data available
Relative evaporation rate (butylacetate=1)	: As per water
Flammability (solid, gas)	: Not flammable
Explosive limits	: Not applicable
Explosive properties	: No data available
Oxidising properties	: No data available
Vapor pressure	: No data available
Relative density	: No data available
Relative vapor density at 20 °C	: No data available
Solubility	: No data available
Partition coefficient: n-octanol/water	: No data available
Log Kow	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity	: As per water

#### 9.2. Other information

No additional information available.

### SECTION 10: Stability and reactivity

#### 10.1. Reactivity

No dangerous reaction known under conditions of normal use.

#### 10.2. Chemical stability

Stable under normal storage conditions.

#### 10.3. Possibility of hazardous reactions

No dangerous reaction known under conditions of normal use.

#### 10.4. Conditions to avoid

Incompatible materials.

#### 10.5. Incompatible materials

Strong alkalis. Strong acids. Oxidizers.

#### 10.6. Hazardous decomposition products

May include, and are not limited to: oxides of carbon.

### SECTION 11: Toxicological information

#### 11.1. Information on toxicological effects

Acute toxicity : Not classified.

Benefect Botanical Multi-Purpose Cleaner	
LD50 oral rat	> 2000 mg/kg
LD50 dermal rabbit	> 2000 mg/kg
LC50 inhalation rat	No data available

# Benefect Botanical Multi-Purpose Cleaner

## Safety Data Sheet

according to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012 WHMIS 2015

<b>D-Glucopyranose, oligomeric, C10-16-alkyl glycosides (110615-47-9)</b>	
LD50 oral rat	> 5000 mg/kg
LD50 dermal rabbit	> 2000 mg/kg

Skin corrosion/irritation	: Based on available data, the classification criteria are not met.
Serious eye damage/irritation	: Based on available data, the classification criteria are not met.
Respiratory or skin sensitisation	: Based on available data, the classification criteria are not met.
Germ cell mutagenicity	: Based on available data, the classification criteria are not met.
Carcinogenicity	: Based on available data, the classification criteria are not met.
Reproductive toxicity	: Based on available data, the classification criteria are not met.
Specific target organ toxicity (single exposure)	: Based on available data, the classification criteria are not met.
Specific target organ toxicity (repeated exposure)	: Based on available data, the classification criteria are not met.
Aspiration hazard	: Based on available data, the classification criteria are not met.
Symptoms/injuries after inhalation	: May cause temporary irritation.
Symptoms/injuries after skin contact	: May cause temporary irritation. Symptoms may include redness, drying, defatting and cracking of the skin.
Symptoms/injuries after eye contact	: May cause temporary irritation. Symptoms may include discomfort or pain, excess blinking and tear production, with possible redness and swelling.
Symptoms/injuries after ingestion	: May cause temporary stomach distress, nausea or vomiting.

## SECTION 12: Ecological information

### 12.1. Toxicity

Ecology - general : No known significant effects or critical hazards.

### 12.2. Persistence and degradability

<b>Benefect Botanical Multi-Purpose Cleaner</b>	
Persistence and degradability	Biodegradable.

### 12.3. Bioaccumulative potential

<b>Benefect Botanical Multi-Purpose Cleaner</b>	
Bioaccumulative potential	Not established.

### 12.4. Mobility in soil

No additional information available.

### 12.5. Other adverse effects

Effect on the global warming : No known ecological damage caused by this product.

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Waste disposal recommendations : This material must be disposed of in accordance with all local, state, provincial, and federal regulations. The generation of waste should be avoided or minimized wherever possible. Recycle empty containers where allowed.

## SECTION 14: Transport information

### Department of Transportation (DOT)

In accordance with DOT

Not regulated for transport

### Additional information

Other information : No supplementary information available.

Special transport precautions : Do not handle until all safety precautions have been read and understood.

## SECTION 15: Regulatory information

### 15.1. US Federal regulations

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory except for:

Collagens, hydrolyzates	CAS No 92113-31-0
-------------------------	-------------------

# Benefect Botanical Multi-Purpose Cleaner

## Safety Data Sheet

according to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012 WHMIS 2015

### 15.2. US State regulations

#### Benefect Botanical Multi-Purpose Cleaner

State or local regulations

This product does not contain a chemical known to the State of California to cause cancer, birth defects or other reproductive harm.

### SECTION 16: Other information

#### HMIS

Health Hazard: 1  
Flammability: 0  
Reactivity: 0

Date of revision : 05/12/2017

Other information : None.

*Disclaimer: We believe the statements, technical information and recommendations contained herein are reliable, but they are given without warranty or guarantee of any kind. The information contained in this document applies to this specific material as supplied. It may not be valid for this material if it is used in combination with any other materials. It is the user's responsibility to satisfy oneself as to the suitability and completeness of this information for the user's own particular use.*

# Safety Data Sheet



## 1. Identification

<b>Product Name:</b>	BEYE 2X3.78L 123 PRIMER	<b>Revision Date:</b>	8/2/2018
<b>Product Identifier:</b>	Z02012	<b>Supersedes Date:</b>	3/14/2018
<b>Recommended Use:</b>	Primer/Bulls Eye Waterbased		
<b>Supplier:</b>	Rust-Oleum Canada (ROCA) 200 Confederation Parkway Concord, ON L4K 4T8 Canada	<b>Manufacturer:</b>	Rust-Oleum Canada (ROCA) 200 Confederation Parkway Concord, ON L4K 4T8 Canada
<b>Preparer:</b>	Regulatory Department		
<b>Emergency Telephone:</b>	24 Hour Hotline: 847-367-7700		

## 2. Hazard Identification

### Classification

#### Symbol(s) of Product



#### Signal Word

Danger

#### Possible Hazards

13% of the mixture consists of ingredient(s) of unknown acute toxicity.

#### GHS HAZARD STATEMENTS

Carcinogenicity, category 1A                      H350                      May cause cancer.

#### GHS LABEL PRECAUTIONARY STATEMENTS

P201	Obtain special instructions before use.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P308+P313	IF exposed or concerned: Get medical advice/attention.
P405	Store locked up.
P501	Dispose of contents/container in accordance with local, regional and national regulations.

### 3. Composition / Information On Ingredients

#### HAZARDOUS SUBSTANCES

<u>Chemical Name</u>	<u>CAS-No.</u>	<u>Wt. %</u>	<u>GHS Symbols</u>	<u>GHS Statements</u>
Titanium Dioxide	13463-67-7	7.7	Not Available	Not Available
Ethylene Glycol	107-21-1	2.4	GHS08	H373
Kaolin Clay	1332-58-7	2.2	Not Available	Not Available
Hydrous Magnesium Silicate	14807-96-6	1.3	Not Available	Not Available
Distillates (Petroleum) Solvent-Dewaxed Heavy Paraffinic	64742-65-0	0.3	GHS08	H350
Oxirane, 2-Methyl-, Polymer with Oxirane, Monobutyl Ether	9038-95-3	0.3	GHS06	H330
Sodium Nitrite	7632-00-0	0.2	GHS03-GHS06-GHS08	H272-301-319-331-350

### 4. First-Aid Measures

**FIRST AID - EYE CONTACT:** Immediately flush eyes with plenty of water for at least 15 minutes holding eyelids open. Get medical attention. Do NOT allow rubbing of eyes or keeping eyes closed.

**FIRST AID - SKIN CONTACT:** Wash skin with soap and water. Remove contaminated clothing. Get medical attention if irritation develops or persists.

**FIRST AID - INHALATION:** Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get immediate medical attention. Do NOT use mouth-to-mouth resuscitation. If you experience difficulty in breathing, leave the area to obtain fresh air. If continued difficulty is experienced, get medical assistance immediately.

**FIRST AID - INGESTION:** Swallowing less than an ounce will not cause significant harm. For larger amounts, do not induce vomiting, but give one or two glasses of water to drink and get medical attention. If swallowed, rinse mouth with water. If feeling unwell, get medical attention.

### 5. Fire-Fighting Measures

**EXTINGUISHING MEDIA:** Alcohol Film Forming Foam, Carbon Dioxide, Dry Chemical, Dry Sand, Water Fog

**UNUSUAL FIRE AND EXPLOSION HAZARDS:** No unusual fire or explosion hazards noted. Keep containers tightly closed. FLASH POINT IS TESTED TO BE GREATER THAN 200 DEGREES F.

**SPECIAL FIREFIGHTING PROCEDURES:** Water may be used to cool closed containers to prevent buildup of steam. If water is used, fog nozzles are preferred.

**Special Fire and Explosion Hazard (Combustible Dust):** No Information

### 6. Accidental Release Measures

**STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED:** If spilled, contain spilled material and remove with inert absorbent. Dispose of contaminated absorbent, container, and unused contents in accordance with local, state, and federal regulations. Do not incinerate closed containers

### 7. Handling and Storage

**HANDLING:** Wash thoroughly after handling. Wash hands before eating. Remove contaminated clothing and launder before reuse. Use only with adequate ventilation. Follow all SDS and label precautions even after container is emptied because it may retain product residues. Avoid breathing fumes, vapors, or mist. Avoid contact with eyes, skin and clothing.

**STORAGE:** Store in a dry, well ventilated place. Keep container tightly closed when not in use.

**Advice on Safe Handling of Combustible Dust:** No Information

## 8. Exposure Controls / Personal Protection

Chemical Name	CAS-No.	Weight % Less Than	ACGIH TLV- TWA	ACGIH TLV- STEL	OSHA PEL-TWA	OSHA PEL- CEILING
Titanium Dioxide	13463-67-7	10.0	10 mg/m <sup>3</sup>	N.E.	15 mg/m <sup>3</sup>	N.E.
Ethylene Glycol	107-21-1	5.0	25 ppm	50 ppm	N.E.	N.E.
Kaolin Clay	1332-58-7	5.0	2 mg/m <sup>3</sup>	N.E.	15 mg/m <sup>3</sup>	N.E.
Hydrous Magnesium Silicate	14807-96-6	5.0	2 mg/m <sup>3</sup>	N.E.	N.E.	N.E.
Distillates (Petroleum) Solvent- Dewaxed Heavy Paraffinic	64742-65-0	1.0	N.E.	N.E.	N.E.	N.E.
Oxirane, 2-Methyl-, Polymer with Oxirane, Monobutyl Ether	9038-95-3	1.0	N.E.	N.E.	N.E.	N.E.
Sodium Nitrite	7632-00-0	1.0	N.E.	N.E.	N.E.	N.E.

### PERSONAL PROTECTION

**ENGINEERING CONTROLS:** Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits. Prevent build-up of vapors by opening all doors and windows to achieve cross-ventilation.

**RESPIRATORY PROTECTION:** A respiratory protection program that meets OSHA 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant a respirator's use.

**SKIN PROTECTION:** Use gloves to prevent prolonged skin contact. Nitrile or Neoprene gloves may afford adequate skin protection.

**EYE PROTECTION:** Use safety eyewear designed to protect against splash of liquids.

**OTHER PROTECTIVE EQUIPMENT:** Refer to safety supervisor or industrial hygienist for further guidance regarding types of personal protective equipment and their applications.

**HYGIENIC PRACTICES:** Wash thoroughly with soap and water before eating, drinking or smoking. Remove contaminated clothing immediately and launder before reuse.

**Engineering Measures for Combustible Dust:** No Information

## 9. Physical and Chemical Properties

<b>Appearance:</b>	Liquid	<b>Physical State:</b>	Liquid
<b>Odor:</b>	Mild	<b>Odor Threshold:</b>	N.E.
<b>Relative Density:</b>	1.261	<b>pH:</b>	N.D.
<b>Freeze Point, °C:</b>	N.D.	<b>Viscosity:</b>	N.D.
<b>Solubility in Water:</b>	Miscible	<b>Partition Coefficient, n-octanol/ water:</b>	N.D.
<b>Decomposition Temp., °C:</b>	N.D.	<b>Explosive Limits, vol%:</b>	3.2 - 15.3
<b>Boiling Range, °C:</b>	-18 - 537	<b>Flash Point, °C:</b>	94
<b>Flammability:</b>	Does not Support Combustion	<b>Auto-ignition Temp., °C:</b>	N.D.
<b>Evaporation Rate:</b>	Slower than Ether	<b>Vapor Pressure:</b>	N.D.
<b>Vapor Density:</b>	Heavier than Air		

(See "Other information" Section for abbreviation legend)

## 10. Stability and Reactivity

**CONDITIONS TO AVOID:** No Information

**INCOMPATIBILITY:** Incompatible with strong oxidizing agents, strong acids and strong alkalies.

**HAZARDOUS DECOMPOSITION:** When heated to decomposition, it emits acrid smoke and irritating fumes.

**HAZARDOUS POLYMERIZATION:** Will not occur under normal conditions.

**STABILITY:** This product is stable under normal storage conditions.

## 11. Toxicological Information

**EFFECTS OF OVEREXPOSURE - EYE CONTACT:** Irritating, and may injure eye tissue if not removed promptly.

**EFFECTS OF OVEREXPOSURE - SKIN CONTACT:** Low hazard for usual industrial handling or commercial handling by trained personnel.

**EFFECTS OF OVEREXPOSURE - INHALATION:** High gas, vapor, mist or dust concentrations may be harmful if inhaled. Avoid breathing fumes, spray, vapors, or mist.

**EFFECTS OF OVEREXPOSURE - INGESTION:** Substance may be harmful if swallowed.

**EFFECTS OF OVEREXPOSURE - CHRONIC HAZARDS:** Contains Titanium Dioxide. Titanium Dioxide is listed as a Group 2B-"Possibly carcinogenic to humans" by IARC. No significant exposure to Titanium Dioxide is thought to occur during the use of products in which Titanium Dioxide is bound to other materials, such as in paints during brush application or drying. Risk of overexposure depends on duration and level of exposure to dust from repeated sanding of surfaces or spray mist and the actual concentration of Titanium Dioxide in the formula. (Ref: IARC Monograph, Vol. 93, 2010)

**PRIMARY ROUTE(S) OF ENTRY:** Eye Contact, Ingestion, Inhalation, Skin Absorption, Skin Contact

#### ACUTE TOXICITY VALUES

The acute effects of this product have not been tested. Data on individual components are tabulated below:

<u>CAS-No.</u>	<u>Chemical Name</u>	<u>Oral LD50</u>	<u>Dermal LD50</u>	<u>Vapor LC50</u>
13463-67-7	Titanium Dioxide	>10000 mg/kg Rat	2500 mg/kg	N.E.
107-21-1	Ethylene Glycol	4700 mg/kg Rat	10600 mg/kg Rat	N.E.
1332-58-7	Kaolin Clay	5500 mg/kg	>5000 mg/kg Rat	25
14807-96-6	Hydrous Magnesium Silicate	6000	N.E.	30
64742-65-0	Distillates (Petroleum) Solvent-Dewaxed Heavy Paraffinic	>15000 mg/kg Rat	>5000 mg/kg Rabbit	N.E.
9038-95-3	Oxirane, 2-Methyl-, Polymer with Oxirane, Monobutyl Ether	5000 mg/kg Rat	14904 mg/kg Rabbit	.1 mg/L Rat
7632-00-0	Sodium Nitrite	85 mg/kg Rat	N.E.	5.5 mg/L Rat

N.E. - Not Established

## 12. Ecological Information

**ECOLOGICAL INFORMATION:** Product is a mixture of listed components.

## 13. Disposal Information

**DISPOSAL INFORMATION:** Dispose of material in accordance to local, state, and federal regulations and ordinances. Do not allow to enter waterways, wastewater, soil, storm drains or sewer systems.

## 14. Transport Information

	<u>Domestic (USDOT)</u>	<u>International (IMDG)</u>	<u>Air (IATA)</u>	<u>TDG (Canada)</u>
<b>UN Number:</b>	N.A.	N.A.	N.A.	N.A.
<b>Proper Shipping Name:</b>	Not Regulated	Not Regulated	Not Regulated	Not Regulated
<b>Hazard Class:</b>	N.A.	N.A.	N.A.	N.A.
<b>Packing Group:</b>	N.A.	N.A.	N.A.	N.A.
<b>Limited Quantity:</b>	No	No	No	No

## 15. Regulatory Information

### U.S. Federal Regulations:

#### CERCLA - SARA Hazard Category

This product has been reviewed according to the EPA 'Hazard Categories' promulgated under Sections 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III) and is considered, under applicable definitions, to meet the following categories:

Carcinogenicity

#### Sara Section 313:

This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendment and Reauthorization Act of 1986 and 40 CFR part 372:

<u>Chemical Name</u>	<u>CAS-No.</u>
----------------------	----------------

Ethylene Glycol  
Sodium Nitrite

107-21-1  
7632-00-0

**Toxic Substances Control Act:**

This product contains the following chemical substances subject to the reporting requirements of TSCA 12(b) if exported from the United States:

<u>Chemical Name</u>	<u>CAS-No.</u>
Sodium Nitrite	7632-00-0

**16. Other Information****HMIS RATINGS**

Health: 2      Flammability: 1      Physical Hazard: 0      Personal Protection: X

**NFPA RATINGS**

Health: 2      Flammability: 1      Instability: 0

Volatile Organic Compounds      89 g/L

SDS REVISION DATE:      8/2/2018

REASON FOR REVISION:      Product Composition Changed  
    Substance and/or Product Properties Changed in Section(s):  
    02 - Hazard Identification  
    03 - Composition/Information on Ingredients  
    05 - Fire-fighting Measures  
    08 - Exposure Controls/Personal Protection  
    09 - Physical & Chemical Properties  
    15 - Regulatory Information  
    16 - Other Information  
    Substance Regulatory CAS Number Changed  
    Substance Hazardous Flag Changed  
    Substance Hazard Threshold % Changed  
    Revision Statement(s) Changed

Legend: N.A. - Not Applicable, N.E. - Not Established, N.D. - Not Determined

Rust-Oleum Canada believes, to the best of its knowledge, information and belief, the information contained herein to be accurate and reliable as of the date of this safety data sheet. However, because the conditions of handling, use, and storage of these materials are beyond our control, we assume no responsibility or liability for personal injury or property damage incurred by the use of these materials. Rust-Oleum Canada makes no warranty, expressed or implied, regarding the accuracy or reliability of the data or results obtained from their use. All materials may present unknown hazards and should be used with caution. The information and recommendations in this material safety data sheet are offered for the users' consideration and examination. It is the responsibility of the user to determine the final suitability of this information and to comply with all applicable international, federal, state, and local laws and regulations.

# Safety Data Sheet



## 1. Identification

<b>Product Name:</b>	BIN 6X473ML SHELLAC BSE PRIMER-SEALR	<b>Revision Date:</b>	3/14/2018
<b>Product Identifier:</b>	Z00918	<b>Supersedes Date:</b>	8/18/2015
<b>Product Use/Class:</b>	Primer/ Alcohol Based		
<b>Supplier:</b>	Rust-Oleum Consumer Brands Canada (RCBC) 200 Confederation Parkway Concord, ON L4K 4T8 Canada	<b>Manufacturer:</b>	Rust-Oleum Consumer Brands Canada (RCBC) 200 Confederation Parkway Concord, ON L4K 4T8 Canada
<b>Preparer:</b>	Regulatory Department		
<b>Emergency Telephone:</b>	24 Hour Hotline: 847-367-7700		

## 2. Hazard Identification

### Classification

### Symbol(s) of Product



### Signal Word

Danger

### Possible Hazards

24% of the mixture consists of ingredient(s) of unknown acute toxicity.

### GHS HAZARD STATEMENTS

Flammable Liquid, category 1                      H224                      Extremely flammable liquid and vapour.

### GHS LABEL PRECAUTIONARY STATEMENTS

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233	Keep container tightly closed.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P370+P378	In case of fire: Use alcohol film forming foam, carbon dioxide, dry chemical, dry sand to extinguish.

P403+P235

Store in a well-ventilated place. Keep cool.

P501

Dispose of contents/container in accordance with local, regional and national regulations.

**GHS SDS PRECAUTIONARY STATEMENTS**

P240

Ground/bond container and receiving equipment.

P241

Use explosion-proof electrical/ventilating/lighting/equipment.

P242

Use only non-sparking tools.

P243

Take precautionary measures against static discharge.

**3. Composition / Information On Ingredients****HAZARDOUS SUBSTANCES**

<u>Chemical Name</u>	<u>CAS-No.</u>	<u>Wt.%</u>	<u>GHS Symbols</u>	<u>GHS Statements</u>
Ethanol	64-17-5	40	GHS02	H225
Shellac	9000-59-3	16	Not Available	Not Available
Titanium Dioxide	13463-67-7	14	Not Available	Not Available
Kaolin Clay	1332-58-7	11	Not Available	Not Available
Hydrous Magnesium Silicate	14807-96-6	7.5	Not Available	Not Available
2-Propanol	67-63-0	2.0	GHS02-GHS07	H225-302-319-336

**4. First-Aid Measures**

**FIRST AID - EYE CONTACT:** Immediately flush eyes with plenty of water for at least 15 minutes holding eyelids open. Get medical attention. Do NOT allow rubbing of eyes or keeping eyes closed.

**FIRST AID - SKIN CONTACT:** Wash skin with soap and water. Remove contaminated clothing. Get medical attention if irritation develops or persists.

**FIRST AID - INHALATION:** Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get immediate medical attention. Do NOT use mouth-to-mouth resuscitation. If you experience difficulty in breathing, leave the area to obtain fresh air. If continued difficulty is experienced, get medical assistance immediately.

**FIRST AID - INGESTION:** Aspiration hazard: Do not induce vomiting or give anything by mouth because this material can enter the lungs and cause severe lung damage. Get immediate medical attention. If swallowed, get medical attention.

**5. Fire-Fighting Measures**

**EXTINGUISHING MEDIA:** Alcohol Film Forming Foam, Carbon Dioxide, Dry Chemical, Water Fog

**UNUSUAL FIRE AND EXPLOSION HAZARDS:** Isolate from heat, electrical equipment, sparks and open flame. Vapors can travel to a source of ignition and flash back. Vapors may form explosive mixtures with air. Closed containers may explode when exposed to extreme heat due to buildup of steam. Keep containers tightly closed.

**SPECIAL FIREFIGHTING PROCEDURES:** Water may be used to cool closed containers to prevent pressure buildup and possible autoignition or explosion. Evacuate area and fight fire from a safe distance. Use water spray to keep fire-exposed containers cool. Containers may explode when heated.

**Special Fire and Explosion Hazard (Combustible Dust):** Avoid generating dust; fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard.

## 6. Accidental Release Measures

**STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED:** Contain spilled liquid with sand or earth. DO NOT use combustible materials such as sawdust. Eliminate all ignition sources; use explosion-proof equipment. Place material in a container and dispose of according to local, provincial, state and federal regulations. Remove all sources of ignition, ventilate area and remove with inert absorbent and non-sparking tools. Dispose of according to local, state (provincial) and federal regulations. Do not incinerate closed containers. Ventilate area, isolate spilled material, and remove with inert absorbent. Dispose of contaminated absorbent, container, and unused contents in accordance with local, state, and federal regulations.

## 7. Handling and Storage

**HANDLING:** Wash thoroughly after handling. Wash hands before eating. Use only with adequate ventilation. Follow all SDS and label precautions even after container is emptied because it may retain product residues. Remove contaminated clothing and launder before reuse. Avoid breathing fumes, vapors, or mist. Avoid contact with eyes, skin and clothing.

**STORAGE:** Keep containers tightly closed. Isolate from heat, electrical equipment, sparks and open flame. Keep away from heat, sparks, flame and sources of ignition. Keep container closed when not in use. Product should be stored in tightly sealed containers and protected from heat, moisture, and foreign materials. Store in a dry, well ventilated place. Keep container tightly closed when not in use. Avoid excess heat. Do not store above 120 ° F. Store large quantities in buildings designed and protected for storage of NFPA Class II combustible liquids.

**Advice on Safe Handling of Combustible Dust:** Minimize dust generation and accumulation. Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces. Dry powders can build static electricity charges when subjected to the friction of transfer and mixing operations. Provide adequate precautions such as grounding and bonding or inert atmospheres. For safe handling, refer to NFPA 654, Standard for the Prevention of Fire and Dust Explosions from the Manufacturing, Processing, and Handling of Combustible Particulate Solids.

## 8. Exposure Controls / Personal Protection

Chemical Name	CAS-No.	Weight % Less Than	ACGIH TLV- TWA	ACGIH TLV- STEL	OSHA PEL-TWA	OSHA PEL- CEILING
Ethanol	64-17-5	45.0	N.E.	1000 ppm	1000 ppm	N.E.
Shellac	9000-59-3	20.0	N.E.	N.E.	N.E.	N.E.
Titanium Dioxide	13463-67-7	15.0	10 mg/m3	N.E.	15 mg/m3	N.E.
Kaolin Clay	1332-58-7	15.0	2 mg/m3	N.E.	15 mg/m3	N.E.
Hydrous Magnesium Silicate	14807-96-6	10.0	2 mg/m3	N.E.	N.E.	N.E.
2-Propanol	67-63-0	5.0	200 ppm	400 ppm	400 ppm	N.E.

### PERSONAL PROTECTION

**ENGINEERING CONTROLS:** Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits. Prevent build-up of vapors by opening all doors and windows to achieve cross-ventilation.

**RESPIRATORY PROTECTION:** A respiratory protection program that meets OSHA 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant a respirator's use. A NIOSH/MSHA approved air purifying respirator with an organic vapor cartridge or canister may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits.

Protection provided by air purifying respirators is limited. Use a positive pressure air supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known, or in any other circumstances where air purifying respirators may not provide adequate protection.

**SKIN PROTECTION:** Use impervious gloves to prevent skin contact and absorption of this material through the skin. Nitrile or Neoprene gloves may afford adequate skin protection. Use gloves to prevent prolonged skin contact.

**EYE PROTECTION:** Use safety eyewear designed to protect against splash of liquids.

**OTHER PROTECTIVE EQUIPMENT:** Refer to safety supervisor or industrial hygienist for further information regarding personal protective equipment and its application. Refer to safety supervisor or industrial hygienist for further guidance regarding types of personal protective equipment and their applications.

**HYGIENIC PRACTICES:** Wash thoroughly with soap and water before eating, drinking or smoking. Remove contaminated clothing immediately and launder before reuse.

**Engineering Measures for Combustible Dust:** It is recommended that all dust control equipment such as local exhaust ventilation and material transport systems involved in handling of the product contain explosion relief vents, an explosion suppression system, or an oxygen deficient environment. Ensure that dust handling systems such as exhaust ducts, dust collectors, vessels, and processing equipment are designed in a manner to prevent the escape of dust into the work area (i.e., there is no leakage from the equipment). Use only appropriately classified electrical equipment and powered industrial trucks.

## 9. Physical and Chemical Properties

<b>Appearance:</b>	Liquid	<b>Physical State:</b>	Liquid
<b>Odor:</b>	Solvent Like	<b>Odor Threshold:</b>	N.E.
<b>Relative Density:</b>	1.177	<b>pH:</b>	N.A.
<b>Freeze Point, °C:</b>	N.D.	<b>Viscosity:</b>	N.D.
<b>Solubility in Water:</b>	Slight	<b>Partition Coefficient, n-octanol/ water:</b>	N.D.
<b>Decomposition Temp., °C:</b>	N.D.	<b>Explosive Limits, vol%:</b>	3.3 - 19.0
<b>Boiling Range, °C:</b>	-18 - 537	<b>Flash Point, °C:</b>	13
<b>Flammability:</b>	Supports Combustion	<b>Auto-ignition Temp., °C:</b>	N.D.
<b>Evaporation Rate:</b>	Slower than Ether	<b>Vapor Pressure:</b>	N.D.
<b>Vapor Density:</b>	Heavier than Air		

(See "Other information" Section for abbreviation legend)

## 10. Stability and Reactivity

**CONDITIONS TO AVOID:** Avoid all possible sources of ignition. Avoid temperatures above 120°F (49°C).

**INCOMPATIBILITY:** Incompatible with strong oxidizing agents, strong acids and strong alkalies.

**HAZARDOUS DECOMPOSITION:** By open flame, carbon monoxide and carbon dioxide. When heated to decomposition, it emits acrid smoke and irritating fumes. Contains solvents which may form carbon monoxide, carbon dioxide, and formaldehyde.

**HAZARDOUS POLYMERIZATION:** Will not occur under normal conditions.

**STABILITY:** This product is stable under normal storage conditions.

## 11. Toxicological Information

**EFFECTS OF OVEREXPOSURE - EYE CONTACT:** Causes Serious Eye Irritation

**EFFECTS OF OVEREXPOSURE - SKIN CONTACT:** Prolonged or repeated skin contact may cause irritation. Causes skin irritation. Allergic reactions are possible.

**EFFECTS OF OVEREXPOSURE - INHALATION:** Harmful if inhaled. Avoid breathing fumes, spray, vapors, or mist. May cause headaches and dizziness. High vapor concentrations are irritating to the eyes, nose, throat and lungs. High gas, vapor, mist or dust concentrations may be harmful if inhaled. Prolonged or excessive inhalation may cause respiratory tract irritation.

**EFFECTS OF OVEREXPOSURE - INGESTION:** Harmful if swallowed. Aspiration hazard if swallowed; can enter lungs and cause damage.

**EFFECTS OF OVEREXPOSURE - CHRONIC HAZARDS:** Contains Titanium Dioxide. Titanium Dioxide is listed as a Group 2B-"Possibly carcinogenic to humans" by IARC. No significant exposure to Titanium Dioxide is thought to occur during the use of products in which Titanium Dioxide is bound to other materials, such as in paints during brush application or drying. Risk of overexposure depends on duration and level of exposure to dust from repeated sanding of surfaces or spray mist and the actual concentration of Titanium Dioxide in the formula. (Ref: IARC Monograph, Vol. 93, 2010) Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. High concentrations may lead to central nervous system effects (drowsiness, dizziness, nausea, headaches, paralysis, and blurred vision) and/or damage.

**PRIMARY ROUTE(S) OF ENTRY:** Eye Contact, Inhalation, Skin Absorption, Skin Contact

### ACUTE TOXICITY VALUES

The acute effects of this product have not been tested. Data on individual components are tabulated below:

<u>CAS-No.</u>	<u>Chemical Name</u>	<u>Oral LD50</u>	<u>Dermal LD50</u>	<u>Vapor LC50</u>
64-17-5	Ethanol	7060 mg/kg Rat	15,800 mg/kg Rabbit	30,000 mg/l Rat
13463-67-7	Titanium Dioxide	>10000 mg/kg Rat	2500 mg/kg	N.E.
1332-58-7	Kaolin Clay	5500 mg/kg	>5000 mg/kg Rat	25
14807-96-6	Hydrous Magnesium Silicate	6000	N.E.	30
67-63-0	2-Propanol	1870 mg/kg Rat	4059 mg/kg Rabbit	72.6 mg/L Rat

N.E. - Not Established

## 12. Ecological Information

**ECOLOGICAL INFORMATION:** Product is a mixture of listed components. Product is a mixture of listed components.

## 13. Disposal Information

**DISPOSAL INFORMATION:** Dispose of material in accordance to local, state, and federal regulations and ordinances. Do not allow to enter waterways, wastewater, soil, storm drains or sewer systems. Do not incinerate closed containers.

## 14. Transport Information

	<u>Domestic (USDOT)</u>	<u>International (IMDG)</u>	<u>Air (IATA)</u>	<u>TDG (Canada)</u>
<b>UN Number:</b>	N.A.	1263	1263	N.A.
<b>Proper Shipping Name:</b>	Not Regulated	Paint	Paint	Not Regulated
<b>Hazard Class:</b>	N.A.	3	3	N.A.
<b>Packing Group:</b>	N.A.	III	III	N.A.
<b>Limited Quantity:</b>	No	Yes, >5L No	Yes, >5L No	No

## 15. Regulatory Information

### U.S. Federal Regulations:

#### CERCLA - SARA Hazard Category

This product has been reviewed according to the EPA 'Hazard Categories' promulgated under Sections 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III) and is considered, under applicable definitions, to meet the following categories:

No Information

#### Sara Section 313:

This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendment and Reauthorization Act of 1986 and 40 CFR part 372:

No Sara 313 components exist in this product.

#### Toxic Substances Control Act:

This product contains the following chemical substances subject to the reporting requirements of TSCA 12(b) if exported from the United States:

No TSCA 12(b) components exist in this product.

**16. Other Information****HMIS RATINGS**

Health: 2      Flammability: 3      Physical Hazard: 0      Personal Protection: X

**NFPA RATINGS**

Health: 2      Flammability: 3      Instability: 0

**VOLATILE ORGANIC COMPOUNDS, g/L:** 539

**SDS REVISION DATE:** 3/14/2018

**REASON FOR REVISION:** Regulatory Formula Source Changed  
Product Composition Changed  
Substance and/or Product Properties Changed in Section(s):  
02 - Hazard Identification  
05 - Fire-fighting Measures  
15 - Regulatory Information  
16 - Other Information  
Statement(s) Changed

Legend: N.A. - Not Applicable, N.E. - Not Established, N.D. - Not Determined

Rust-Oleum Consumer Brands Canada believes, to the best of its knowledge, information and belief, the information contained herein to be accurate and reliable as of the date of this safety data sheet. However, because the conditions of handling, use, and storage of these materials are beyond our control, we assume no responsibility or liability for personal injury or property damage incurred by the use of these materials. Rust-Oleum Consumer Brands Canada makes no warranty, expressed or implied, regarding the accuracy or reliability of the data or results obtained from their use. All materials may present unknown hazards and should be used with caution. The information and recommendations in this material safety data sheet are offered for the users' consideration and examination. It is the responsibility of the user to determine the final suitability of this information and to comply with all applicable international, federal, state, and local laws and regulations.



# MATERIAL SAFETY DATA SHEET

## BK12018 - BAKOR 120-18 LAGGING CTG

1. Product And Company Identification	
<b>Supplier</b> HENRY COMPANY 999 N. Sepulveda Blvd., Suite 800 El Segundo, CA 90245-2716  <b>Company Contact:</b> Technical Services <b>Telephone Number:</b> (800) 486-1278 <b>Web Site:</b> www.henry.com www.bakor.com	<b>Manufacturer</b> HENRY COMPANY 999 N. Sepulveda Blvd., Suite 800 El Segundo, CA 90245-2716  <b>Company Contact:</b> Technical Services <b>Telephone Number:</b> (800) 486-1278 <b>Web Site:</b> www.henry.com www.bakor.com
<b>Supplier Emergency Contacts &amp; Phone Number</b> CHEMTREC: (800) 424-9300 CHEMTREC: (703) 527-3887 CANUTEC: (613) 996-6666	<b>Manufacturer Emergency Contacts &amp; Phone Number</b> CHEMTREC: (800) 424-9300 CHEMTREC: (703) 527-3887 CANUTEC: (613) 996-6666
<b>Issue Date:</b> 08/14/2013  <b>Product Name:</b> BK12018 - BAKOR 120-18 LAGGING CTG <b>Product Code:</b> BK12018  <b>Product/Material Uses</b> Fire resistive lagging coating.	

2. Composition/Information On Ingredients			
Ingredient Name	CAS Number		Percent Of Total Weight
bentonite	1302-78-9		1 - 5
calcium carbonate	1317-65-3		10 - 30
polymer blend	NA-Mixture		10 - 20
silica, quartz	14808-60-7		0.1 - 1
titanium dioxide	13463-67-7		1 - 5
water	7732-18-5		40 - 60
calcium silicate	13983-17-0		5 - 10

EMERGENCY OVERVIEW	
<b>CAUTION! May be irritating to the eyes, skin and respiratory tract. May be harmful if swallowed.</b>	
<b>Appearance/Odor: White, medium viscosity liquid. Acetic acid odor.</b>	

3. Hazards Identification
<b>Primary Routes(s) Of Entry</b> Inhalation - possible if product becomes airborne, but considered unlikely.
<b>Eye Hazards</b> May cause eye irritation.
<b>Skin Hazards</b> May cause skin irritation.



BK12018 - BAKOR 120-18 LAGGING CTG

<p>3. Hazards Identification - Continued</p> <p><b><u>Ingestion Hazards</u></b> May be harmful if swallowed. May cause gastric distress, vomiting.</p> <p><b><u>Inhalation Hazards</u></b> Exposure to vapors may cause respiratory tract irritation.</p> <p><b><u>Chronic/Carcinogenicity Effects</u></b> This product or one of its ingredients present at 0.1% or more is listed as a carcinogen by NTP, IARC or OSHA. See Section 11 (Toxicological Information) for more details.</p>
<p>4. First Aid Measures</p> <p><b><u>Eye</u></b> In case of contact, hold eyelids apart and immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention immediately if irritation develops and persists.</p> <p><b><u>Skin</u></b> Remove contaminated clothing and shoes. Wash affected areas with soap and water.</p> <p><b><u>Ingestion</u></b> Never give anything by mouth to an unconscious victim. Call a physician or poison control center immediately.</p> <p><b><u>Inhalation</u></b> Remove the person from the contaminated area to fresh air. If breathing is difficult, give oxygen. Get medical attention immediately.</p>
<p>5. Fire Fighting Measures</p> <p><b>Flash Point:</b> not applicable °F not applicable °C <b>Lower Explosive Limit:</b> not available <b>Upper Explosive Limit:</b> not available</p> <p><b><u>Fire And Explosion Hazards</u></b> Thermal decomposition (burning) may release irritating, corrosive and/or toxic gases and vapors including carbon monoxide and carbon dioxide.</p> <p><b><u>Extinguishing Media</u></b> Chemical foam, carbon dioxide (CO2), water fog or dry chemical.</p> <p><b><u>Fire Fighting Instructions</u></b> Firefighters should wear self-contained breathing apparatus and full protective gear.</p>
<p>6. Accidental Release Measures</p> <p>Contain and/or absorb spill with inert material (e.g. sand, vermiculite). Collect and dispose in accordance with applicable regulations. Avoid runoff to waterways and sewers.</p>
<p>7. Handling And Storage</p> <p><b><u>Handling And Storage Precautions</u></b> Keep containers tightly closed. Store in a cool, dry, well-ventilated area. Protect from freezing. Use only with adequate ventilation.</p>
<p>8. Exposure Controls/Personal Protection</p> <p><b><u>Engineering Controls</u></b> Use with adequate general and local exhaust ventilation. When used outdoors, stay well away from building air intakes or close and seal the intakes to prevent product from entering building.</p>

**BK12018 - BAKOR 120-18 LAGGING CTG****8. Exposure Controls/Personal Protection - Continued****Eye/Face Protection**

Safety glasses with side shields or goggles recommended.

**Skin Protection**

Use with chemical-protective gloves to prevent skin contact.

**Respiratory Protection**

Airborne exposures to hazardous dusts or mists may be generated by spraying, sanding or grinding.

The level of respiratory protection needed should be based on the evaluation of chemical exposures by a health or safety professional.

Occupational Exposure Limits for individual ingredients (if available) are listed below.

**Ingredient(s) - Exposure Limits**

bentonite

ACGIH TLV-TWA 10 mg/m<sup>3</sup> (total dust)

ACGIH TLV-TWA 3 mg/m<sup>3</sup> (respirable dust)

OSHA PEL-TWA 15 mg/m<sup>3</sup> (total dust)

OSHA PEL-TWA 5 mg/m<sup>3</sup> (respirable dust)

silica, quartz

ACGIH TLV-TWA 0.025 mg/m<sup>3</sup>

OSHA PEL-TWA 30mg/m<sup>3</sup> / (%SiO<sub>2</sub>+2) (total dust)

OSHA PEL-TWA 10 mg/m<sup>3</sup>/ (%SiO<sub>2</sub>+2) (respirable dust)

titanium dioxide

ACGIH TLV-TWA 10 mg/m<sup>3</sup> (respirable)

OSHA PEL-TWA 15 mg/m<sup>3</sup> (total dust)

**9. Physical And Chemical Properties****Appearance**

White viscous liquid

**Odor**

Acetic acid odor

**Chemical Type:** Mixture

**Physical State:** Liquid

**Boiling Point:** 212 °F 100 °C

**Specific Gravity:** 1.3

**Percent Volatiles:** 50%

**Percent VOCs:** <10 g/L

**Vapor Pressure:** as for water

**Vapor Density:** as for water

**pH Factor:** 6 - 8

**Solubility:** miscible in water, insoluble when dry

**Evaporation Rate:** as for water

**10. Stability And Reactivity**

**Stability:** Stable

**Hazardous Polymerization:** not expected to occur

**Incompatible Materials**

Avoid contact with materials that react with water.



BK12018 - BAKOR 120-18 LAGGING CTG

11. Toxicological Information

**Chronic/Carcinogenicity**

IARC has concluded that the following chemicals in this product are carcinogenic to humans (Group 1): silica, quartz  
IARC has concluded that the following chemicals in this product are possibly carcinogenic to humans (Group 2B): titanium dioxide.

ACGIH has designated the following chemicals in this product as suspected human carcinogens (A2): silica, quartz  
NTP has listed the following chemicals in this product as known human carcinogens: silica, quartz

Risk of cancer depends on duration and level of exposure to this product as a dust or aerosol mist.

**Miscellaneous Toxicological Information**

Toxicological testing has not been conducted for this product overall. Available toxicological data for individual ingredients are summarized below.

**Ingredient(s) - Carcinogenicity**

polymer blend

Listed In The IARC Monographs

silica, quartz

NTP - Listed On The National Toxicology Program

Listed In The IARC Monographs

**Ingredient(s) - Toxicological Data**

calcium carbonate

LD50 (oral-rat) : 6450 mg/kg

silica, quartz

LD50 (iv-rat ): 500 mg/kg bw/Quartz (10-200 um)

titanium dioxide

LD50 (oral, mouse): >10,000 mg/kg

LD50 (oral, rat): >25,000 mg/kg

LD50 (dermal, rabbit): >10,000 mg/kg

LC50 (inhalation,rat): >6820 mg/m3 (4 Hr)

12. Ecological Information

None identified.

13. Disposal Considerations

Dispose in accordance with applicable federal, state and local government regulations.

14. Transport Information

Ground Not restricted

IMDG Not restricted

IATA Not restricted

15. Regulatory Information

**Ingredient(s) - State Regulations**

calcium carbonate

Pennsylvania - Workplace Hazard

silica, quartz

New Jersey - Workplace Hazard

Pennsylvania - Workplace Hazard

California - Proposition 65

### BK12018 - BAKOR 120-18 LAGGING CTG

15. Regulatory Information - Continued

**Ingredient(s) - State Regulations - Continued**

Massachusetts - Hazardous Substance  
 titanium dioxide  
 New Jersey - Workplace Hazard  
 Pennsylvania - Workplace Hazard  
 New York City - Hazardous Substance  
 calcium silicate  
 Pennsylvania - Workplace Hazard

**Canadian Regulatory Information**

This product has been classified in accordance with the hazard criteria of the CPR and the MSDS contains all the information required by the CPR. WHMIS Classification: D2A - Very Toxic

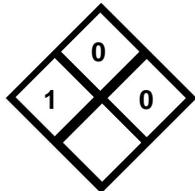
**Ingredient(s) - Canadian Regulatory Information**

silica, quartz  
 WHMIS - Ingredient Disclosure List  
 titanium dioxide  
 WHMIS - Ingredient Disclosure List

**WHMIS - Canada (Pictograms)**



**NFPA**



**HMIS**

HEALTH	1
FLAMMABILITY	0
REACTIVITY	0
PERSONAL PROTECTION	

16. Other Information

**Revision/Preparer Information**

This MSDS Supersedes A Previous MSDS Dated: 08/26/2010

Disclaimer

Although reasonable care has been taken in the preparation of this document, we extend no warranties and make no representations as to the accuracy or completeness of the information contained therein, and assume no responsibility regarding the suitability of this information for the user's intended purposes or for the consequences of its use. Each individual should make a determination as to the suitability of the information for their particular purposes(s).



## SAFETY DATA SHEET (GHS)

### Section 1: CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

**Product / Chemical Name:**

BLUE BEAR® 500MR Mastic Remover For Concrete

**Other Means Of Identification:**

Carpet and tile glue remover.

**Recommended Use Of The Product / Chemical And Restrictions On Use:**

Removal of carpet and tile glue or adhesives on concrete.

**Manufacturer / Company Information:**

Franmar Chemical, Inc.  
10282 E. 1400 North Rd.  
Bloomington, IL 61705  
1-800-538-5069 / 1-309-828-2900

**For Chemical Emergency - Spill, Leak, Fire, Exposure, or Accident Call:**

CHEMTREC Day or Night: Within USA and Canada: 1-800-424-9300  
CCN717946 or +1 703-527-3887 (collect calls accepted)

Health: 1  
Flammability: 1  
Reactivity: 0  
Special: 0

**NFPA HAZARD RATING**  
4 - Extreme  
3 - High  
2 - Moderate  
1 - Slight  
0 - Insignificant

### Section 2: HAZARD IDENTIFICATION

**Classification Of Product / Chemical Mixture And Any National or Regional Information:**

None known.

**GHS Statements:**

GHS Signal Word: WARNING

GHS Hazard Phrases: (H316) Causes mild skin irritation. (H320) Causes eye irritation. (H303) May be harmful if swallowed.

**Other Hazards Which Do Not Result In Classification:**

None known.



## SAFETY DATA SHEET (GHS)

### Section 3: COMPOSITION, INFORMATION ON INGREDIENTS

<u>Ingredient Name</u>	<u>CAS Number</u>	<u>Percent</u>
Soy methyl ester	67784-80-9	80-90%
Proprietary, non-hazardous, non-regulated ethoxylated alcohol surfactant	trade secret	10-15%

#### Other Chemical Information:

### Section 4: FIRST AID MEASURES

#### Necessary Measures For Routes Of Exposure:

**Inhalation:**

If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing. Call a physician if symptoms develop or persist.

**Skin:**

If skin irritation occurs, get medical advice/attention.

**Eyes:**

If in eyes, rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists, get medical advice/attention.

**Ingestion:**

Rinse mouth. Call a doctor/physician if you feel unwell.

#### Important Symptoms/Effects, Acute and Delayed:

Specific data not available.

#### Immediate Medical Attention And Special Treatment Needed:

Specific data not available.



## SAFETY DATA SHEET (GHS)

### Section 5: FIRE FIGHTING MEASURES

**Suitable (and unsuitable) Extinguishing Media:**

CO<sub>2</sub>, Dry Chemical for small fires, foam for large fires, water spray

**Hazards Arising From The Product/Chemical (e.g., nature of any hazardous combustion products):**

None known

**Special Fire Fighting Procedures:**

Use water spray to cool containers.

### Section 6: ACCIDENTAL RELEASE MEASURES

**Personal Precautions, Protective Equipment and Emergency Procedures:**

Wear protective clothing.

**Environmental Precautions:**

Specific data not available.

**Methods and Materials for Containment and Cleaning Up:**

Contain the spill and hold for disposal.

### Section 7: HANDLING AND STORAGE

**Precautions For Safe Handling:**

Normal care in handling & storage.

**Conditions For Safe Storage, Including Any Incompatibilities:**

Specific data not available.



## SAFETY DATA SHEET (GHS)

### Section 8: EXPOSURE CONTROLS AND PERSONAL PROTECTION

**Control Parameters, e.g., Occupational Exposure Limit Values or Biological Limit Values:**

Specific data not available.

**Appropriate Engineering Controls:**

Not required. Mechanical generally sufficient.

**Individual Protective Measures, Such As Personal Protective Equipment:**

Safety glasses, or chemical goggles.

### Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance (physical state, color, etc.):	Light yellow, low viscosity liquid	Flammability (solid, gas):	None known.
Odor:	Mild odor	Upper/Lower Flammability or Explosive Limits:	
Odor Threshold:	Specific data not available.	Vapor Pressure:	< 2mm Hg at 20°C
pH:	6.65	Vapor Density:	Estimated heavier than air.
Freezing / Melting Point:	below 32°F	Relative Density:	7.3 lbs/gal (@25°C)
Boiling Point and Boiling Range:	Over 300°F	Partition Coefficient (n-octanol/water):	Specific data not available.
Flash Point:	Above 200°F (PMcc)	Autoignition Temperature:	445°C (833°F)
Evaporation Rate:	Less than 1 (n-butyl acetate=1)	Decomposition Temperature:	Specific data not available.
Solubility:	Emulsifiable	VOC:	2.3%    .06 lb/g    20 g/l



## SAFETY DATA SHEET (GHS)

### Section 10: STABILITY AND REACTIVITY

**Chemical Stability:**

Stable

**Possibility Of Hazardous Reactions:**

Will not occur.

**Conditions To Avoid (e.g., static discharge, shock or vibration):**

Strong oxidizing agents.

**Incompatible Materials:**

Specific data not available.

**Hazardous Decomposition Products:**

Produces carbon monoxide and carbon dioxide on combustion.

### Section 11: TOXICOLOGICAL INFORMATION

**Information On The Likely Routes Of Exposure (inhalation, ingestion, skin and eye contact):**

SKIN: (H316) Causes mild skin irritation.

EYE: (H320) Causes eye irritation.

INGESTION: (303) May be harmful if swallowed.

**Symptoms Related To The Physical, Chemical and Toxicological Characteristics:**

Not listed by NTP, IARC, OSHA.



## SAFETY DATA SHEET (GHS)

### Delayed and Immediate Effects and Also Chronic Effects From Short- and Long-Term Exposure:

Specific data not available.

### Numerical Measures Of Toxicity (such as acute toxicity estimates):

Specific data not available.

## Section 12: ECOLOGICAL INFORMATION

### Ecotoxicity (aquatic and terrestrial, where available):

The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

### Persistence and Degradability:

Specific data not available on the degradability of this product.  
Meets U.S. EPA 28 day half-life criteria.

### Bioaccumulative Potential:

Meets U.S. EPA 28 day half-life criteria.

### Mobility In Soil:

The product is immiscible with water and will spread on the water surface.

### Other Adverse Effects:

Specific data not available.



## SAFETY DATA SHEET (GHS)

### Section 13: DISPOSAL CONSIDERATIONS

#### **Description Of Waste Residues and Information On Their Safe Handling and Methods Of Disposal, Including The Disposal Of Any Contaminated Packaging:**

Contaminated absorbent material may be disposed of in an approved landfill. Dispose of in accordance with all existing local, state, and federal ordinances.

### Section 14: TRANSPORT INFORMATION

#### **UN Number:**

N/A, non-regulated

#### **UN Proper Shipping Name:**

Fatty acid ester

#### **Transport Hazard Class(es):**

NMFC (National Motor Freight Classification): Identification number 144920  
Shipping Classification 65

#### **Packing Group (if applicable):**

Specific data not available.

#### **Marine Pollutant (Yes/No):**

Specific data not available.

#### **Special Precautions Which User Needs To Be Aware Of / Or Comply With In Connection With Transport Or Conveyance Either Within Or Outside Their Premises:**

Specific data not available.

### Section 15: REGULATORY INFORMATION

SARA TITLE III (Superfund Amendments and Reauthorization Act): N/A  
Section 312 Extremely Hazardous Substance: None  
Section 311/312 Hazard Categories: None  
Section 313 Toxic Chemicals: None

### Section 16: OTHER INFORMATION

# Safety Data Sheet: BLUE BEAST AEROSOL SAMPLE, US MM

Supersedes Date 10/10/2018

Issuing Date 05/22/2019

## 1. PRODUCT AND COMPANY IDENTIFICATION

**Formula Code** BLUE BEAST AEROSOL SAMPLE, US MM

**Recommended use** Degreaser

**Information on Manufacturer**

MANTEK, DIVISION OF NCH CORP.

BOX 152170

IRVING, TEXAS 75015

**Product Code** 5350

**Chemical nature** Aqueous solution of surfactants

**Emergency Telephone**

CHEMTREC® 800-424-9300

**Telephone inquiry**

972-579-2477

## 2. HAZARD IDENTIFICATION

**Color** Colorless

**Physical state** Gas

**Odor** Mild Characteristic

### GHS

#### Classification

##### Physical Hazards

Gases under pressure

Compressed Gas

##### Health Hazard

Skin Corrosion/Irritation

Category 2

Serious Eye Damage/Eye Irritation

Category 2B

##### Other hazards

None

### Labeling

#### Signal Word

**WARNING**



#### Hazard statements

H280 - Contains gas under pressure; may explode if heated

H315 - Causes skin irritation

H320 - Causes eye irritation

#### Precautionary Statements

P251 - Pressurized container: Do not pierce or burn, even after use

P210 - Keep away from heat, sparks, open flames or hot surfaces.

P280 - Wear protective gloves, protective clothing and eye protection.

P264 - Wash face, hands and any exposed skin thoroughly after handling.

P302 + P352 - IF ON SKIN: Wash with plenty of soap and water

P332 + P313 - If skin irritation occurs, get medical attention.

P362 - Take off contaminated clothing and wash before reuse.

P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes.

Remove contact lenses, if present and easy to do. Continue rinsing.

P337 + P313 - If eye irritation persists, get medical attention.

P410 + P403 - Protect from sunlight. Store in a well-ventilated place

## 3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical name	CAS No.	Weight-%
Petroleum gases, liquified, sweetened	68476-86-8	3-7
2-Butoxyethanol	111-76-2	3-7

\*The exact percentage (concentration) of composition has been withheld as a trade secret

## 4. FIRST AID MEASURES

### General advice

Avoid contact with skin, eyes and clothing. Avoid breathing vapors, mist, or gas.

### Eye Contact

Rinse thoroughly with plenty of water, also under the eyelids. Get medical attention if irritation develops and persists.

### Skin Contact

Wash off immediately with plenty of water for at least 15 minutes. Remove contaminated clothing and shoes. Get medical attention if irritation develops and persists. Wash contaminated clothing before re-use.

<b>Inhalation</b>	No hazards which require special first aid measures.
<b>Ingestion</b>	No hazards which require special first aid measures.
<b>Notes to physician</b>	Treat symptomatically.

## 5. FIRE-FIGHTING MEASURES

<b>Flash Point</b>	No data available	<b>Method</b>	No data available
<b>Flammability Limits in Air %:</b>	Hydrogen, by reaction with metals.	<b>Upper:</b>	75
		<b>Lower:</b>	4
<b>Suitable Extinguishing Media</b>	Foam. Dry powder. Carbon dioxide (CO <sub>2</sub> ). Water spray. Dry sand. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.		
<b>Unsuitable Extinguishing Media</b>	Do not use a solid water stream as it may scatter and spread fire.		
<b>Specific hazards arising from the chemical</b>	Material can create slippery conditions.		
<b>Protective Equipment and Precautions for Firefighters</b>	As in any fire, wear self-contained breathing apparatus pressure-demand, NOHSC (approved or equivalent) and full protective gear.		
<b>Aerosol Level (NFPA 30B) -</b>	1		
<b>NFPA</b>	<b>Health</b> 2	<b>Flammability</b> 4	<b>Instability</b> 1
<b>HMIS -</b>	<b>Health</b> 2	<b>Flammability</b> 3	<b>Instability</b> 1

## 6. ACCIDENTAL RELEASE MEASURES

<b>Personal Precautions</b>	Use personal protective equipment. Ensure adequate ventilation. Take precautionary measures against static discharges. Remove all sources of ignition. Material can create slippery conditions.
<b>Environmental precautions</b>	Do not flush into surface water or sanitary sewer system.
<b>Methods for Containment</b>	Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local / national regulations (see section 13).
<b>Methods for Cleaning Up</b>	Use clean non-sparking tools to collect absorbed material. Pick up and transfer to properly labeled containers.
<b>Neutralizing Agent</b>	Acetic acid, diluted.

## 7. HANDLING AND STORAGE

<b>Handling</b>	Keep away from open flames, hot surfaces and sources of ignition. Avoid contact with skin, eyes and clothing. Avoid breathing vapors, mist or gas.			
<b>Storage</b>	Store in original container. Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from heat and sources of ignition.			
<b>Storage Temperature</b>	<b>Minimum</b>	35 °F / 2 °C	<b>Maximum</b>	120 °F / 49 °C
<b>Storage Conditions</b>	<b>Indoor</b>	X	<b>Outdoor</b>	<b>Heated</b> <b>Refrigerated</b>

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

### Exposure Guidelines

Chemical name	ACGIH TLV	OSHA PEL	NIOSH
2-Butoxyethanol	TWA: 20 ppm	TWA: 50 ppm TWA: 240 mg/m <sup>3</sup> Skin	700 ppm TWA: 5 ppm TWA: 24 mg/m <sup>3</sup>

<b>Engineering Measures</b>	Ensure adequate ventilation, especially in confined areas. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction.
<b>Personal Protective Equipment</b>	
<b>Eye/Face Protection</b>	Tightly fitting safety goggles.
<b>Skin Protection</b>	For prolonged or repeated contact, use protective gloves with appropriate chemical resistance.
<b>Respiratory Protection</b>	In case of inadequate ventilation wear respiratory protection. When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.
<b>General Hygiene Considerations</b>	Ensure that eyewash stations and safety showers are close to the workstation location. Remove and wash contaminated clothing before re-use.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Physical state</b>	Gas	<b>Viscosity</b>	Non viscous
<b>Color</b>	Colorless	<b>Odor</b>	Mild Characteristic
<b>Odor Threshold</b>	Not applicable	<b>Appearance</b>	Cloudy Liquid
<b>pH</b>	11	<b>Specific Gravity</b>	0.99
<b>Evaporation Rate</b>	No data available	<b>Percent Volatile (Volume)</b>	>7.7

<b>VOC Content (%)</b>	7.7	<b>VOC Content (g/L)</b>	76
<b>Vapor pressure</b>	No data available	<b>Vapor Density</b>	>1 (Air = 1.0)
<b>Solubility</b>	Soluble in water	<b>n-Octanol/Water Partition</b>	No data available
<b>Melting Point/Range</b>	No data available	<b>Decomposition Temperature</b>	No data available
<b>Boiling Point/Range</b>	No data available	<b>Flammability (solid, gas)</b>	No data available
<b>Flash Point</b>	No data available	<b>Method</b>	No data available
<b>Autoignition Temperature</b>	No data available		
<b>Flammability Limits in Air %:</b>	Hydrogen, by reaction with metals	<b>Upper:</b> 75	<b>Lower:</b> 4

## 10. STABILITY AND REACTIVITY

<b>Chemical Stability</b>	Stable. Hazardous polymerization does not occur.
<b>Conditions to Avoid</b>	Keep away from open flames, hot surfaces, and sources of ignition, Extremes of temperature and direct sunlight.
<b>Incompatible Products</b>	Strong acids and strong bases.
<b>Decomposition Temperature</b>	No data available
<b>Hazardous Decomposition Products</b>	Carbon oxides, Highly toxic fumes.
<b>Possibility of Hazardous Reactions</b>	None under normal processing.

## 11. TOXICOLOGICAL INFORMATION

Product Information No information available.

The following values are calculated based on chapter 3.1 of the GHS document

<b>Oral LD50</b>	No information available
<b>Dermal LD50</b>	No information available
<b>Inhalation LC50</b>	
<b>Gas</b>	No information available
<b>Mist</b>	No information available
<b>Vapor</b>	No information available

**Principle Route of Exposure** Inhalation, Skin contact, Eye contact.

**Primary Routes of Entry** Skin contact.

**Acute Effects:**

<b>Eyes</b>	Causes eye irritation.
<b>Skin</b>	Causes skin irritation.
<b>Inhalation</b>	Low hazard for usual industrial or commercial handling.
<b>Ingestion</b>	Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

**Chronic Toxicity** Repeated exposure may cause skin dryness or cracking.

**Target Organ Effects:** Skin, Eyes, Respiratory system, Central nervous system, Liver, Kidney, Blood.

**Aggravated Medical Conditions** Skin disorders, Respiratory disorders, Neurological disorders, Liver disorders, Kidney disorders, Blood disorders.

Component Information

**Acute Toxicity**

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50	Draize Test	Other
2-Butoxyethanol 111-76-2	= 470 mg/kg ( Rat )	= 1100 mg/kg ( Rabbit )	= 450 ppm ( Rat ) 4 h	No data available	No data available

**Chronic Toxicity**

Chemical name	Mutagenicity	Sensitization	Developmental Toxicity	Reproductive Toxicity	Target Organ Effects
2-Butoxyethanol 111-76-2	No data available	No data available	No data available	No data available	Blood; Hematopoietic System; Skin; Central nervous system; Eyes; Respiratory system; Liver; Kidney

**Carcinogenicity**

The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical name	ACGIH	IARC	NTP	OSHA	Other
2-Butoxyethanol 111-76-2	A3	Group 3	Not applicable	Not applicable	Not applicable

## 12. ECOLOGICAL INFORMATION

Product Information No information available.

Component Information

Chemical name	Toxicity to Algae	Toxicity to Fish	Microtox	Crustacea	Partition coefficient
Petroleum gases, liquified, sweetened	No information available.	No information available.	No information available	No information available.	2.8
2-Butoxyethanol	No information available.	LC50 = 1490 mg/L Lepomis	No information available	1000: 48 h Daphnia	0.81

		macrochirus 96 h LC50 = 2950 mg/L Lepomis macrochirus 96 h		magna mg/L EC50	
--	--	--	--	-----------------	--

**Persistence and Degradability** No information available.  
**Bioaccumulation** No information available.  
**Mobility** No information available.

### 13. DISPOSAL CONSIDERATIONS

**Product Disposal** Dispose of in accordance with local regulations. Should not be released into the environment.  
**Container Disposal** Contents under pressure. Do not puncture. Empty remaining contents. Empty containers should be taken for local recycling, recovery, or waste disposal. Do not re-use empty containers.

### 14. TRANSPORT INFORMATION

**DOT** Limited Quantity  
**Proper Shipping Name** AEROSOLS, NON-FLAMMABLE  
**Hazard Class** 2.2  
**UN-No** UN1950  
**Description** UN1950, AEROSOLS, NON-FLAMMABLE, 2.2, LTD QTY \*\*EXCEPTION APPLIES PER 49CFR 173.306

**TDG** Limited Quantity  
**Proper shipping name** AEROSOLS, NON-FLAMMABLE  
**Hazard Class** 2.2  
**UN-No** UN1950  
**Description** UN1950, AEROSOLS, NON-FLAMMABLE, 2.2, LTD QTY \*\*EXCEPTION APPLIES PER TDG SECTION 1.17 PART 1

**ICAO** Limited Quantity  
**UN-No** UN1950  
**Proper Shipping Name** AEROSOLS, NON-FLAMMABLE  
**Hazard Class** 2.2  
**Shipping Description** UN1950, AEROSOLS, NON-FLAMMABLE, 2.2, LTD QTY

**IATA** Limited Quantity  
**UN-No** UN1950  
**Proper Shipping Name** AEROSOLS, NON-FLAMMABLE  
**Hazard Class** 2.2  
**Shipping Description** UN1950, AEROSOLS, NON-FLAMMABLE, 2.2, LTD QTY

**IMDG/IMO** Limited Quantity  
**UN proper shipping name** AEROSOLS  
**Hazard Class** 2.2  
**UN Number** UN1950  
**Description** UN1950, AEROSOLS, 2.1, LTD QTY

### 15. REGULATORY INFORMATION

#### Inventories

**TSCA** Complies  
**DSL** Complies

#### U.S. Federal Regulations

#### SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372:

Chemical name	CAS No.	Weight-%	SARA 313 - Threshold Values
2-Butoxyethanol	111-76-2	1-5	1.0

#### SARA 311/312 Hazardous Categorization

See Section 2

#### CERCLA

**16. OTHER INFORMATION**

<b>Prepared By</b>	Pamela Starkey
<b>Supersedes Date</b>	10/10/2018
<b>Issuing Date</b>	05/22/2019
<b>Reason for Revision</b>	No information available.
<b>Glossary</b>	No information available.
<b>List of References.</b>	No information available.

**MANTEK, DIVISION OF NCH CORP. assumes no responsibility for personal injury or property damage caused by the use, storage, or disposal of the product in a manner not recommended on the product label. Users assume all risks associated with such unrecommended use, storage or disposal of the product. The information provided on this document is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.**

MATERIAL SAFETY DATA SHEET FOR CANTESCO® FORMULA 365

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME : CANTESCO® 365 LOW TEMP TYPE II / LOW TEMP LPGAS
PRODUCT IDENTIFIER : LEAK DETECTION COMPOUND
PRODUCT USE : LEAK DETECTION COMPOUND
ITEM CODE(S) : 365-04, 365-08, 365-1G, 365-5G, 365-DR, LP11-08
365-115, 365-230, 365-4L, 365-20L, LP11-230
UPC BAR CODE(S) : 10195, 10200, 10205, 10210, 10215, 10222
FORMULA NAME : 365
FORMULA CODE : 30152
MSDS CODE : 21
E-MAIL ADDRESS : MSDS@CANTESCO.COM
WEB ADDRESS : WWW.CANTESCO.COM
USA ADDRESS : KEMPER SYSTEM PRODUCTION, INC
1200 NORTH AMERICA DRIVE
WEST SENECA, NY 14224
PH (716) 693-8206
FAX (716) 693-8373
CANADIAN ADDRESS : KEMPER SYSTEM CANADA
13 - 5200 DIXIE ROAD
MISSISSAUGA, ON L4W 1E4
PH (905) 624-5463
FAX (905) 624-2840
PREPARED BY : QUALITY MANAGER
TELEPHONE : (905) 624-5463
EMERGENCY TELEPHONE : (613) 996-6666 (CANUTEC - Call collect)
PREPARATION DATE : MARCH 01, 2009
OSHA REGULATORY STATUS : REGULATED
WHMIS CLASSIFICATION : D2A

SECTION 2. COMPOSITION / INFORMATION ON INGREDIENTS

Table with 7 columns: HAZARDOUS INGREDIENTS, CAS, OSHA PEL, ACGIH TLV, LD50 SPECIES/ROUTE, LC50 SPECIES/ROUTE, %WT. Row 1: ETHYLENE GLYCOL, 107-21-1, 50 ppm, 100 ppm, 4700 mg/kg (rat) oral, N/Av, 30 - 70 %

SECTION 3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

EYE: May possibly cause minor eye irritation.
SKIN: Liquid may cause irritation. Extent of absorption through undamaged skin is unknown, but may be significant in extensive exposure, with symptoms similar to ingestion (see below).
INGESTION: Contains ethylene glycol, known to be toxic to humans.
INHALATION: Vapor concentrations are normally too low at room temperature (low vapor pressure) to cause significant toxic effects from vapor alone. Exposure to vapor and mists is possible, however at elevated temperatures. Vapor and mists can cause irritation of the nose and throat.
EFFECTS OF ACUTE EXPOSURE: N/Av
EFFECTS OF CHRONIC EXPOSURE: Ethylene glycol may have reproductive hazards, and is also associated with development of bladder and kidney stones.
OTHER IMPORTANT HAZARDS: None
SUGGESTED HMIS RATING: HEALTH | 3 | FLAMMABILITY | 0 | REACTIVITY | 0 | SPECIAL - NONE

## **SECTION 4. FIRST AID MEASURES**

---

**INHALATION:** If someone has difficulty breathing after exposure to product, remove him or her to fresh air immediately. If breathing difficulty persists, contact a doctor.

**INGESTION:** If swallowed, do not induce vomiting. Get medical attention right away.

**EYE CONTACT:** For eye contact, flush with water for at least 15 minutes, occasionally lifting lids. Call physician right away.

**SKIN CONTACT:** For skin contact, wash with soap and water. Call physician if irritation persists.

## **SECTION 5. FIRE FIGHTING MEASURES**

---

**CONDITIONS OF FLAMMABILITY:** Not flammable under normal conditions. Product is water based.

**MEANS OF EXTINCTION:** N/Av

**SPECIAL FIRE FIGHTING PROCEDURES:** None

**UNUSUAL FIRE AND EXPLOSION HAZARDS:** N/Av

**FLASH POINT / DETERMINATION:** None

**UPPER FLAMMABLE LIMIT:** None

**LOWER FLAMMABLE LIMIT:** None

**AUTO-IGNITION TEMPERATURE:** Not known.

**HAZARDOUS COMBUSTION PRODUCTS:** If water component is driven off, and residue ignited, this product may release carbon dioxide, carbon monoxide, and oxides of nitrogen and sulphur.

**EXPLOSION DATA - SENSITIVITY TO MECHANICAL IMPACT:** Not sensitive.

**EXPLOSION DATA - SENSITIVITY TO STATIC DISCHARGE:** Will not be ignited by exposure to static.

## **SECTION 6. ACCIDENTAL RELEASE MEASURES**

---

**LEAK / SPILL RESPONSE:** Ensure that all spilled material is promptly cleaned up. Absorb with inert material such as vermiculite or paper towels, place in a chemical waste container for eventual disposal. Seal and label the container as waste. Dispose of in accordance with all federal, state, provincial and local regulations.

**SPECIAL INSTRUCTIONS:** Avoid contact with eyes, or prolonged contact with skin. Wash thoroughly after handling. Keep away from food, and out of reach of small children.

## **SECTION 7. HANDLING AND STORAGE**

---

**HANDLING PROCEDURES / EQUIPMENT:** Keep containers closed when not in use.

**STORAGE REQUIREMENTS:** Store in a cool, dry area away from water-reactive chemicals such as sodium and potassium.

## SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

---

EYE PROTECTION: Safety glasses with side shields, or chemical splash goggles, are recommended when handling this product.

SKIN PROTECTION: Protective gloves not normally required. People with sensitive skin may prefer to wear water-proof gloves, such as rubber or neoprene, to avoid skin contact.

ENGINEERING CONTROLS: No special ventilation requirements. Special respiratory protection is not required for normal conditions of use of this product.

EXPOSURE GUIDELINE LEVELS: For ethylene glycol: OSHA PEL: 50 ppm. ACGIH-CEILING: 100 ppm.

## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

---

PHYSICAL STATE	: Liquid
ODOR AND APPEARANCE	: No odor, clear liquid
ODOR THRESHOLD	: Not applicable
SPECIFIC GRAVITY (H <sub>2</sub> O=1)	: ~1.0
VAPOUR PRESSURE (mm HG)	: Approximately that of water (24 mm Hg)
VAPOUR DENSITY (AIR=1)	: 0.610
EVAPORATION RATE (BA=1)	: 1.0
BOILING POINT (°F)	: Approximately 200°F (93°C)
FREEZING POINT (°F)	: Approximately -65°F (-54°C)
pH	: 7.0
COEFFICIENT OF WATER/OIL DISTRIBUTION	: N/Av
DENSITY	: 1.075
SOLUBILITY IN WATER	: Soluble
% VOLATILE BY VOLUME	: N/Av
VOC'S	: Less than 1

## SECTION 10. STABILITY AND REACTIVITY

---

STABILITY: Normally stable.

CONDITIONS TO AVOID: Excessive heating.

MATERIALS TO AVOID (INCOMPATIBILITIES): Water-reactive chemicals such as sodium or potassium.

CONDITIONS OF REACTIVITY: N/Av

HAZARDOUS DECOMPOSITION BYPRODUCTS: If heated until water is driven off and decomposition begins, this product may release carbon dioxide, carbon monoxide, and oxides of nitrogen and sulphur.

HAZARDOUS POLYMERIZATION: Will not occur.

## SECTION 11. TOXICOLOGICAL INFORMATION

---

LD50: N/Av

LC50: N/Av

ROUTES OF ENTRY: INHALATION[N] EYE CONTACT[Y] SKIN CONTACT[N] SKIN ABSORPTION[N] INGESTION[N]

EXPOSURE LIMITS: N/Av

IRRITANCY OF PRODUCT: Not known to be irritating.

SENSITIZATION TO PRODUCT / MEDICAL CONDITIONS AGGRAVATED: Only two cases have been reported of allergies associated with exposure to ethylene glycol.

CARCINOGENICITY: No ingredients known to be carcinogens.

TERATOGENICITY / MUTAGENICITY / REPRODUCTIVE TOXICITY: No effects determined.

TOXICOLOGICAL DATA: LD<sub>50</sub> for ethylene glycol: 4700 mg/kg (rat).

## SECTION 12. ECOLOGICAL INFORMATION

---

ENVIRONMENTAL EFFECTS: Not know. Not expected to have serious environmental effects in small quantities.

IMPORTANT ENVIRONMENTAL CHARACTERISTICS: None known. Product is water-based.

AQUATIC TOXICITY: Not known. Expected to have minimal toxicity.

## SECTION 13. DISPOSAL CONSIDERATIONS

---

Place in a sealed container and label as waste. Place in a safe area, and comply with all federal, state, provincial and local regulations for disposal.

## SECTION 14. TRANSPORTATION INFORMATION

---

SPECIAL SHIPPING INFORMATION : None

DOT HM-181 SHIPPING INFORMATION

PROPER SHIPPING NAME : Not regulated

HAZARD CLASS OR DIVISION : none

UN NUMBER : none

PACKAGING GROUP : none

LABEL(S) REQUIRED : none

TDG SHIPPING INFORMATION

TDG SHIPPING NAME : Not regulated

TDG CLASSIFICATION : none

UN NUMBER : none

PACKING GROUP : none

LABEL(S) REQUIRED : none

NAERG : none

EMERGENCY TELEPHONE NUMBER : (613) 996-6666

INTERNATIONAL TRANSPORT INFORMATION

PROPER SHIPPING NAME : Not regulated

CLASS OR DIVISION : none

SUBSIDIARY RISK : none

HAZARDOUS LABEL(S) : none

PACKAGING GROUP : none

UN OR ID NUMBER : none

## SECTION 15. REGULATORY INFORMATION

---

TOXIC SUBSTANCES CONTROL ACT (TSCA): The product on this MSDS, or all of its components, is listed under TSCA.

SARA TITLE III, SECTION 313: The following ingredients are subject to the reporting requirements of section 313 of Title III of the Superfund and Reauthorization Act of 1986 and 40 CFR Part 372: None

CLEAN AIR ACT (CAA): The following ingredients appear on the List of Hazardous Air Pollutants (HAP – 42 USC 7412, Title I, Part A, p112): None

CLEAN WATER ACT (CWA):The following ingredients appear on the CWA List of Hazardous Substances (40 CFR 116.4): None

CALIFORNIA PROPOSITION 65: The following ingredients appear on the Proposition 65 list(s): None

CANADIAN WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM (WHMIS): This MSDS has been prepared according to the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all of the information required by the CPR.

DOMESTIC SUBSTANCES LIST (DSL): The product on this MSDS, or all of its components, is included in the DSL.

**SECTION 16. OTHER INFORMATION**

---

N/E Not Established  
N/Av Not Available  
N/Ap Not Applicable  
IARC International Agency for Research on Cancer  
ACGIH American Conference of Governmental Industrial Hygienists  
NIOSH National Institute for Occupational Health and Safety  
TLV-TWA Threshold Limit Values, Time Weighted Average  
NAERG North American Emergency Response Guidebook  
WHMIS Workplace Hazardous Materials Information System

---

This MSDS format meets ANSI Z400.1-1998, OSHA 1910.1200 and WHMIS requirements. Cantesco Corporation provides the information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product. Product use and conditions of use are beyond the control of Cantesco Corporation. Warranty of materials is limited to test results of product performance as detailed in certificates of compliance. Interpretation of test results is the responsibility of end-user. No other warranties, expressed or implied, are made. Cantesco Corporation is an ISO 9001:2000 registered company.

ADDITIONAL INFORMATION REPLY FORM – PLEASE FAX OR EMAIL BACK

**PLEASE ADD ME TO YOUR MSDS DATA BASE FOR PRODUCT UPDATES:**

NAME		TITLE / DEPT	
FIRM			
ADDRESS			
CITY			
STATE / PROV		ZIP / POSTAL CODE	
PHONE		FAX	
EMAIL ADDRESS			

**PLEASE SEND ME INFORMATION ON THE FOLLOWING CANTESCO® PRODUCTS:**

WELDING CHEMICAL PRODUCTS	
AUTOMOTIVE, TRUCK & BUS FLEET WASH PRODUCTS	
CONSUMER CLEANING PRODUCTS	
INDUSTRIAL & INSTITUTIONAL CLEANERS	
HVAC CHEMICAL PRODUCTS	

# SAFETY DATA SHEET



Castrol AP Gear 80W-90

## Section 1. Identification

<b>GHS product identifier</b>	Castrol AP Gear 80W-90
<b>Product code</b>	460826-US06
<b>SDS #</b>	460826
<b>Relevant identified uses of the substance or mixture and uses advised against</b>	
<b>Use of the substance/ mixture</b>	<input checked="" type="checkbox"/> Gear lubricant For specific application advice see appropriate Technical Data Sheet or consult our company representative.
<b>Manufacturer</b>	BP Lubricants USA Inc. 1500 Valley Road Wayne, NJ 07470 Telephone: (973) 633-2200
<b>Supplier</b>	Wakefield Canada Inc. 3620 Lakeshore Blvd West Toronto, Ontario, Canada M8W 1P2 Phone Number - 416-252-5511
<b>EMERGENCY HEALTH INFORMATION:</b>	1 (800) 447-8735  Outside the US: +1 703-527-3887 (CHEMTREC)
<b>EMERGENCY TELEPHONE NUMBER</b>	1 (800) 447-8735  Outside the US: +1 703-527-3887 (CHEMTREC)

## Section 2. Hazard identification

<b>Classification of the substance or mixture</b>	Not classified.
<b>GHS label elements</b>	
<b>Signal word</b>	No signal word.
<b>Hazard statements</b>	No known significant effects or critical hazards.
<b>Precautionary statements</b>	
<b>General</b>	P103 - Read label before use. P102 - Keep out of reach of children. P101 - If medical advice is needed, have product container or label at hand.
<b>Prevention</b>	Not applicable.
<b>Response</b>	Not applicable.
<b>Storage</b>	Not applicable.
<b>Disposal</b>	Not applicable.
<b>Other hazards which do not result in classification</b>	Defatting to the skin.

## Section 3. Composition/information on ingredients

Substance/mixture

Mixture

Ingredient name	CAS number	% (w/w)
Base oil - highly refined	Varies - See Key to abbreviations	≥90
Amines, C12-14-tert-alkyl	68955-53-3	≤0.3

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

## Section 4. First-aid measures

### Description of necessary first aid measures

<b>Eye contact</b>	In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Eyelids should be held away from the eyeball to ensure thorough rinsing. Check for and remove any contact lenses. Get medical attention.
<b>Skin contact</b>	Wash skin thoroughly with soap and water or use recognized skin cleanser. Remove contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention if symptoms occur.
<b>Inhalation</b>	If inhaled, remove to fresh air. Get medical attention if symptoms occur.
<b>Ingestion</b>	Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.
<b>Protection of first-aiders</b>	No action shall be taken involving any personal risk or without suitable training.

### Most important symptoms/effects, acute and delayed

See Section 11 for more detailed information on health effects and symptoms.

### Indication of immediate medical attention and special treatment needed, if necessary

<b>Notes to physician</b>	Treatment should in general be symptomatic and directed to relieving any effects.
<b>Specific treatments</b>	No specific treatment.

## Section 5. Fire-fighting measures

### Extinguishing media

**Suitable extinguishing media** In case of fire, use foam, dry chemical or carbon dioxide extinguisher or spray.

**Unsuitable extinguishing media** Do not use water jet.

**Specific hazards arising from the chemical** In a fire or if heated, a pressure increase will occur and the container may burst.

**Hazardous thermal decomposition products** Combustion products may include the following:  
carbon oxides (CO, CO<sub>2</sub>) (carbon monoxide, carbon dioxide)

**Special protective actions for fire-fighters** Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

**Special protective equipment for fire-fighters** Fire-fighters should wear positive pressure self-contained breathing apparatus (SCBA) and full turnout gear.

## Section 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures

**For non-emergency personnel** No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment. Floors may be slippery; use care to avoid falling.

**For emergency responders** If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

**Environmental precautions** Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

### Methods and materials for containment and cleaning up

**Small spill** Stop leak if without risk. Move containers from spill area. Absorb with an inert material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

**Large spill** Stop leak if without risk. Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Dispose of via a licensed waste disposal contractor.

## Section 7. Handling and storage

### Precautions for safe handling

**Protective measures** Put on appropriate personal protective equipment (see Section 8).

**Advice on general occupational hygiene** Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Wash thoroughly after handling. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

**Conditions for safe storage, including any incompatibilities** Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Store and use only in equipment/containers designed for use with this product. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

**Not suitable** Prolonged exposure to elevated temperature

## Section 8. Exposure controls/personal protection

### Control parameters

#### Occupational exposure limits

<b>Ingredient name</b>	<b>Exposure limits</b>
Base oil - highly refined	<b>CA Alberta Provincial (Canada).</b> 15 min OEL: 10 mg/m <sup>3</sup> 15 minutes. Issued/Revised: 7/2009 Form: Mist 8 hrs OEL: 5 mg/m <sup>3</sup> 8 hours. Issued/Revised: 4/2004 Form: Mist <b>CA Quebec Provincial (Canada).</b> STEV: 10 mg/m <sup>3</sup> 15 minutes. Issued/Revised: 1/2000 Form: mist TWAEV: 5 mg/m <sup>3</sup> 8 hours. Issued/Revised: 1/2000 Form: mist

## Section 8. Exposure controls/personal protection

### Appropriate engineering controls

All activities involving chemicals should be assessed for their risks to health, to ensure exposures are adequately controlled. Personal protective equipment should only be considered after other forms of control measures (e.g. engineering controls) have been suitably evaluated. Personal protective equipment should conform to appropriate standards, be suitable for use, be kept in good condition and properly maintained.

Your supplier of personal protective equipment should be consulted for advice on selection and appropriate standards. For further information contact your national organisation for standards.

Provide exhaust ventilation or other engineering controls to keep the relevant airborne concentrations below their respective occupational exposure limits.

The final choice of protective equipment will depend upon a risk assessment. It is important to ensure that all items of personal protective equipment are compatible.

### Environmental exposure controls

Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

### Individual protection measures

#### Hygiene measures

Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period.

Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

#### Eye/face protection

Safety glasses with side shields.

#### Skin protection

##### Hand protection

Wear protective gloves if prolonged or repeated contact is likely. Wear chemical resistant gloves. Recommended: Nitrile gloves. The correct choice of protective gloves depends upon the chemicals being handled, the conditions of work and use, and the condition of the gloves (even the best chemically resistant glove will break down after repeated chemical exposures). Most gloves provide only a short time of protection before they must be discarded and replaced. Because specific work environments and material handling practices vary, safety procedures should be developed for each intended application. Gloves should therefore be chosen in consultation with the supplier/manufacturer and with a full assessment of the working conditions.

##### Body protection

Use of protective clothing is good industrial practice.

Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Cotton or polyester/cotton overalls will only provide protection against light superficial contamination that will not soak through to the skin. Overalls should be laundered on a regular basis. When the risk of skin exposure is high (e.g. when cleaning up spillages or if there is a risk of splashing) then chemical resistant aprons and/or impervious chemical suits and boots will be required.

##### Other skin protection

Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

##### Respiratory protection

In case of insufficient ventilation, wear suitable respiratory equipment.

The correct choice of respiratory protection depends upon the chemicals being handled, the conditions of work and use, and the condition of the respiratory equipment. Safety procedures should be developed for each intended application. Respiratory protection equipment should therefore be chosen in consultation with the supplier/manufacturer and with a full assessment of the working conditions.

## Section 9. Physical and chemical properties

### Appearance

Physical state	Liquid.
Color	Brown.
Odor	Not available.
Odor threshold	Not available.
pH	Not available.
Melting point	Not available.
Boiling point	Not available.
Flash point	☑ Closed cup: >200°C (>392°F) [Pensky-Martens.]
Pour point	☑ 36 °C
Drop Point	Not available.
Evaporation rate	Not available.
Flammability (solid, gas)	Not applicable. Based on - Physical state
Lower and upper explosive (flammable) limits	Not available.
Vapor pressure	Not available.
Vapor density	Not available.
Density	895 kg/m <sup>3</sup> (0.895 g/cm <sup>3</sup> ) at 15°C
Relative density	Not available.
Solubility	insoluble in water.
Partition coefficient: n-octanol/water	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	☑ Kinematic: 139 mm <sup>2</sup> /s (139 cSt) at 40°C Kinematic: 13.8 to 15 mm <sup>2</sup> /s (13.8 to 15 cSt) at 100°C

## Section 10. Stability and reactivity

Reactivity	No specific test data available for this product. Refer to Conditions to avoid and Incompatible materials for additional information.
Chemical stability	The product is stable.
Possibility of hazardous reactions	Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous polymerization will not occur.
Conditions to avoid	Avoid all possible sources of ignition (spark or flame).
Incompatible materials	Reactive or incompatible with the following materials: oxidizing materials.
Hazardous decomposition products	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## Section 11. Toxicological information

### Information on toxicological effects

**Information on the likely routes of exposure** Routes of entry anticipated: Dermal, Inhalation.

### Potential acute health effects

**Eye contact** No known significant effects or critical hazards.  
**Skin contact** Defatting to the skin. May cause skin dryness and irritation.  
**Inhalation** Vapor inhalation under ambient conditions is not normally a problem due to low vapor pressure.  
**Ingestion** No known significant effects or critical hazards.

### Symptoms related to the physical, chemical and toxicological characteristics

**Eye contact** No specific data.  
**Inhalation** May be harmful by inhalation if exposure to vapor, mists or fumes resulting from thermal decomposition products occurs.  
**Skin contact** Adverse symptoms may include the following:  
irritation  
dryness  
cracking  
**Ingestion** No specific data.

### Delayed and immediate effects and also chronic effects from short and long term exposure

#### Short term exposure

**Potential immediate effects** Not available.  
**Potential delayed effects** Not available.

#### Long term exposure

**Potential immediate effects** Not available.  
**Potential delayed effects** Not available.

### Potential chronic health effects

**General** No known significant effects or critical hazards.  
**Carcinogenicity** No known significant effects or critical hazards.  
**Mutagenicity** No known significant effects or critical hazards.  
**Teratogenicity** No known significant effects or critical hazards.  
**Developmental effects** No known significant effects or critical hazards.  
**Fertility effects** No known significant effects or critical hazards.

### Numerical measures of toxicity

#### Acute toxicity estimates

Not available.

## Section 12. Ecological information

### Toxicity

No testing has been performed by the manufacturer.

### Persistence and degradability

Expected to be biodegradable.

### Bioaccumulative potential

This product is not expected to bioaccumulate through food chains in the environment.

### Mobility in soil

**Soil/water partition coefficient (K<sub>oc</sub>)** Not available.

## Section 12. Ecological information

**Mobility** Spillages may penetrate the soil causing ground water contamination.

**Other ecological information** Spills may form a film on water surfaces causing physical damage to organisms. Oxygen transfer could also be impaired.

## Section 13. Disposal considerations

**Disposal methods** The generation of waste should be avoided or minimized wherever possible. Significant quantities of waste product residues should not be disposed of via the foul sewer but processed in a suitable effluent treatment plant. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

## Section 14. Transport information

	<b>DOT Classification</b>	<b>TDG Classification</b>	<b>IMDG</b>	<b>IATA</b>
<b>UN number</b>	Not regulated.	Not regulated.	Not regulated.	Not regulated.
<b>UN proper shipping name</b>	-	-	-	-
<b>Transport hazard class(es)</b>	-	-	-	-
<b>Packing group</b>	-	-	-	-
<b>Environmental hazards</b>	No.	No.	No.	No.
<b>Additional information</b>	-	-	-	-

**Special precautions for user** Not available.

**Transport in bulk according to Annex II of MARPOL and the IBC Code** Not available.

## Section 15. Regulatory information

### Other regulations

**Australia inventory (AICS)** All components are listed or exempted.  
**Canada inventory** All components are listed or exempted.  
**China inventory (IECSC)** All components are listed or exempted.  
**Japan inventory (ENCS)** All components are listed or exempted.  
**Korea inventory (KECI)** All components are listed or exempted.  
**Philippines inventory (PICCS)** All components are listed or exempted.

## Section 15. Regulatory information

### Taiwan Chemical Substances Inventory (TCSI)

All components are listed or exempted.

### United States inventory (TSCA 8b)

All components are listed or exempted.

### REACH Status

For the REACH status of this product please consult your company contact, as identified in Section 1.

## Section 16. Other information

### History

Date of issue/Date of revision 04/10/2017

Date of previous issue 13/12/2016.

Version 5

Prepared by Product Stewardship

### Key to abbreviations

ATE = Acute Toxicity Estimate  
BCF = Bioconcentration Factor  
CAS Number = Chemical Abstracts Service Registry Number  
GHS = Globally Harmonized System of Classification and Labelling of Chemicals  
HPR = Hazardous Products Regulations  
IATA = International Air Transport Association  
IBC = Intermediate Bulk Container  
IMDG = International Maritime Dangerous Goods  
LogPow = logarithm of the octanol/water partition coefficient  
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)  
REACH = Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation [Regulation (EC) No. 1907/2006]  
UN = United Nations  
Varies = may contain one or more of the following 101316-69-2, 101316-70-5, 101316-71-6, 101316-72-7, 64741-88-4, 64741-89-5, 64741-95-3, 64741-96-4, 64741-97-5, 64742-01-4, 64742-44-5, 64742-45-6, 64742-52-5, 64742-53-6, 64742-54-7, 64742-55-8, 64742-56-9, 64742-57-0, 64742-58-1, 64742-62-7, 64742-63-8, 64742-64-9, 64742-65-0, 64742-70-7, 72623-85-9, 72623-86-0, 72623-87-1, 74869-22-0, 90669-74-2

### References

Not available.

Indicates information that has changed from previously issued version.

### Notice to reader

All reasonably practicable steps have been taken to ensure this data sheet and the health, safety and environmental information contained in it is accurate as of the date specified below. No warranty or representation, express or implied is made as to the accuracy or completeness of the data and information in this data sheet.

The data and advice given apply when the product is sold for the stated application or applications. You should not use the product other than for the stated application or applications without seeking advice from BP Group.

It is the user's obligation to evaluate and use this product safely and to comply with all applicable laws and regulations. The BP Group shall not be responsible for any damage or injury resulting from use, other than the stated product use of the material, from any failure to adhere to recommendations, or from any hazards inherent in the nature of the material. Purchasers of the product for supply to a third party for use at work, have a duty to take all necessary steps to ensure that any person handling or using the product is provided with the information in this sheet. Employers have a duty to tell employees and others who may be affected of any hazards described in this sheet and of any precautions that should be taken. You can contact the BP Group to ensure that this document is the most current available. Alteration of this document is strictly prohibited.

# SAFETY DATA SHEET



Castrol GTX 5W-30

## Section 1. Identification

<b>GHS product identifier</b>	Castrol GTX 5W-30
<b>Product code</b>	452871-CA01
<b>SDS #</b>	452871
<b><u>Relevant identified uses of the substance or mixture and uses advised against</u></b>	
<b>Use of the substance/ mixture</b>	Engine Oils. For specific application advice see appropriate Technical Data Sheet or consult our company representative.
<b>Manufacturer</b>	BP Lubricants USA Inc. 1500 Valley Road Wayne, NJ 07470 Telephone: (973) 633-2200
<b>Supplier</b>	Wakefield Canada Inc. 3620 Lakeshore Blvd West Toronto, Ontario, Canada M8W 1P2 Phone Number - 416-252-5511
<b>EMERGENCY HEALTH INFORMATION:</b>	1 (800) 447-8735  Outside the US: +1 703-527-3887 (CHEMTREC)
<b>EMERGENCY TELEPHONE NUMBER</b>	1 (800) 447-8735  Outside the US: +1 703-527-3887 (CHEMTREC)

## Section 2. Hazard identification

<b>Classification of the substance or mixture</b>	Not classified.
<b><u>GHS label elements</u></b>	
<b>Signal word</b>	No signal word.
<b>Hazard statements</b>	No known significant effects or critical hazards.
<b><u>Precautionary statements</u></b>	
<b>General</b>	P103 - Read label before use. P102 - Keep out of reach of children. P101 - If medical advice is needed, have product container or label at hand.
<b>Prevention</b>	Not applicable.
<b>Response</b>	Not applicable.
<b>Storage</b>	Not applicable.
<b>Disposal</b>	Not applicable.
<b>Other hazards which do not result in classification</b>	Defatting to the skin. USED ENGINE OILS Used engine oil may contain hazardous components which have the potential to cause skin cancer. See Toxicological Information, section 11 of this Safety Data Sheet.

## Section 3. Composition/information on ingredients

Substance/mixture

Mixture

Ingredient name	CAS number	% (w/w)
Base oil - highly refined	Varies - See Key to abbreviations	≥75 - ≤90
Base oil - highly refined	Varies - See Key to abbreviations	≤10
Distillates (petroleum), hydrotreated heavy paraffinic	64742-54-7	≤3
Zinc alkyl dithiophosphate	68649-42-3	≤3

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

## Section 4. First-aid measures

### Description of necessary first aid measures

<b>Eye contact</b>	In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Eyelids should be held away from the eyeball to ensure thorough rinsing. Check for and remove any contact lenses. Get medical attention.
<b>Skin contact</b>	Wash skin thoroughly with soap and water or use recognized skin cleanser. Remove contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention if symptoms occur.
<b>Inhalation</b>	If inhaled, remove to fresh air. Get medical attention if symptoms occur.
<b>Ingestion</b>	Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.
<b>Protection of first-aiders</b>	No action shall be taken involving any personal risk or without suitable training.

### Most important symptoms/effects, acute and delayed

See Section 11 for more detailed information on health effects and symptoms.

### Indication of immediate medical attention and special treatment needed, if necessary

<b>Notes to physician</b>	Treatment should in general be symptomatic and directed to relieving any effects.
<b>Specific treatments</b>	No specific treatment.

## Section 5. Fire-fighting measures

### Extinguishing media

**Suitable extinguishing media** In case of fire, use foam, dry chemical or carbon dioxide extinguisher or spray.

**Unsuitable extinguishing media** Do not use water jet.

**Specific hazards arising from the chemical** In a fire or if heated, a pressure increase will occur and the container may burst.

**Hazardous thermal decomposition products** Combustion products may include the following:  
phosphorus oxides  
metal oxide/oxides  
carbon oxides (CO, CO<sub>2</sub>) (carbon monoxide, carbon dioxide)  
sulfur oxides (SO, SO<sub>2</sub> etc.)

**Special protective actions for fire-fighters** Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

**Special protective equipment for fire-fighters** Fire-fighters should wear positive pressure self-contained breathing apparatus (SCBA) and full turnout gear.

## Section 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures

**For non-emergency personnel** No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment. Floors may be slippery; use care to avoid falling.

**For emergency responders** If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

**Environmental precautions** Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

### Methods and materials for containment and cleaning up

**Small spill** Stop leak if without risk. Move containers from spill area. Absorb with an inert material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

**Large spill** Stop leak if without risk. Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Dispose of via a licensed waste disposal contractor.

## Section 7. Handling and storage

### Precautions for safe handling

**Protective measures** Put on appropriate personal protective equipment (see Section 8).

**Advice on general occupational hygiene** Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Wash thoroughly after handling. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

**Conditions for safe storage, including any incompatibilities** Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Store and use only in equipment/containers designed for use with this product. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

**Not suitable** Prolonged exposure to elevated temperature

## Section 8. Exposure controls/personal protection

### Control parameters

#### Occupational exposure limits

<b>Ingredient name</b>	<b>Exposure limits</b>
Base oil - highly refined	<b>CA Alberta Provincial (Canada).</b> 15 min OEL: 10 mg/m <sup>3</sup> 15 minutes. Issued/Revised: 7/2009 Form: Mist 8 hrs OEL: 5 mg/m <sup>3</sup> 8 hours. Issued/Revised: 4/2004 Form: Mist <b>CA Quebec Provincial (Canada).</b> STEV: 10 mg/m <sup>3</sup> 15 minutes. Issued/Revised: 1/2000 Form: mist TWAEV: 5 mg/m <sup>3</sup> 8 hours. Issued/Revised: 1/2000 Form: mist
Base oil - highly refined	<b>CA Alberta Provincial (Canada).</b> 15 min OEL: 10 mg/m <sup>3</sup> 15 minutes. Issued/Revised: 7/2009 Form: Mist 8 hrs OEL: 5 mg/m <sup>3</sup> 8 hours. Issued/Revised: 4/2004 Form: Mist

## Section 8. Exposure controls/personal protection

Distillates (petroleum), hydrotreated heavy paraffinic

### CA Quebec Provincial (Canada).

STEV: 10 mg/m<sup>3</sup> 15 minutes. Issued/Revised: 1/2000

Form: mist

TWAEV: 5 mg/m<sup>3</sup> 8 hours. Issued/Revised: 1/2000

Form: mist

### CA Alberta Provincial (Canada).

8 hrs OEL: 5 mg/m<sup>3</sup> 8 hours. Issued/Revised: 4/2004

Form: Mist

15 min OEL: 10 mg/m<sup>3</sup> 15 minutes. Issued/Revised:

7/2009 Form: Mist

### CA Quebec Provincial (Canada).

TWAEV: 5 mg/m<sup>3</sup> 8 hours. Issued/Revised: 1/2000

Form: mist

STEV: 10 mg/m<sup>3</sup> 15 minutes. Issued/Revised: 1/2000

Form: mist

### Appropriate engineering controls

All activities involving chemicals should be assessed for their risks to health, to ensure exposures are adequately controlled. Personal protective equipment should only be considered after other forms of control measures (e.g. engineering controls) have been suitably evaluated. Personal protective equipment should conform to appropriate standards, be suitable for use, be kept in good condition and properly maintained.

Your supplier of personal protective equipment should be consulted for advice on selection and appropriate standards. For further information contact your national organisation for standards.

Provide exhaust ventilation or other engineering controls to keep the relevant airborne concentrations below their respective occupational exposure limits.

The final choice of protective equipment will depend upon a risk assessment. It is important to ensure that all items of personal protective equipment are compatible.

### Environmental exposure controls

Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

### Individual protection measures

#### Hygiene measures

Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

#### Eye/face protection

Safety glasses with side shields.

#### Skin protection

##### Hand protection

Wear protective gloves if prolonged or repeated contact is likely. Wear chemical resistant gloves. Recommended: Nitrile gloves. The correct choice of protective gloves depends upon the chemicals being handled, the conditions of work and use, and the condition of the gloves (even the best chemically resistant glove will break down after repeated chemical exposures). Most gloves provide only a short time of protection before they must be discarded and replaced. Because specific work environments and material handling practices vary, safety procedures should be developed for each intended application. Gloves should therefore be chosen in consultation with the supplier/manufacturer and with a full assessment of the working conditions.

#### Body protection

Use of protective clothing is good industrial practice.

Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Cotton or polyester/cotton overalls will only provide protection against light superficial contamination that will not soak through to the skin. Overalls should be laundered on a regular basis. When the risk of skin exposure is high (e.g. when

## Section 8. Exposure controls/personal protection

cleaning up spillages or if there is a risk of splashing) then chemical resistant aprons and/or impervious chemical suits and boots will be required.

### Other skin protection

Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

### Respiratory protection

In case of insufficient ventilation, wear suitable respiratory equipment. The correct choice of respiratory protection depends upon the chemicals being handled, the conditions of work and use, and the condition of the respiratory equipment. Safety procedures should be developed for each intended application. Respiratory protection equipment should therefore be chosen in consultation with the supplier/manufacturer and with a full assessment of the working conditions.

## Section 9. Physical and chemical properties

### Appearance

Physical state	Liquid.
Color	Brown.
Odor	Not available.
Odor threshold	Not available.
pH	Not available.
Melting point	Not available.
Boiling point	Not available.
Flash point	Closed cup: >200°C (>392°F) [Pensky-Martens.]
Pour point	-39 °C
Drop Point	Not available.
Evaporation rate	Not available.
Flammability (solid, gas)	Not applicable. Based on - Physical state
Lower and upper explosive (flammable) limits	Not available.
Vapor pressure	Not available.
Vapor density	Not available.
Density	<1000 kg/m <sup>3</sup> (<1 g/cm <sup>3</sup> ) at 15°C
Relative density	Not available.
Solubility	insoluble in water.
Partition coefficient: n-octanol/water	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	Kinematic: 66.14 mm <sup>2</sup> /s (66.14 cSt) at 40°C Kinematic: 10.8 to 11.4 mm <sup>2</sup> /s (10.8 to 11.4 cSt) at 100°C

### Aerosol product

## Section 10. Stability and reactivity

Reactivity	No specific test data available for this product. Refer to Conditions to avoid and Incompatible materials for additional information.
Chemical stability	The product is stable.
Possibility of hazardous reactions	Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous polymerization will not occur.
Conditions to avoid	Avoid all possible sources of ignition (spark or flame).

## Section 10. Stability and reactivity

**Incompatible materials** Reactive or incompatible with the following materials: oxidizing materials.

**Hazardous decomposition products** Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## Section 11. Toxicological information

### Information on toxicological effects

#### Aspiration hazard

Name	Result
Base oil - highly refined	ASPIRATION HAZARD - Category 1
Distillates (petroleum), hydrotreated heavy paraffinic	ASPIRATION HAZARD - Category 1

**Information on the likely routes of exposure** Routes of entry anticipated: Dermal, Inhalation.

#### Potential acute health effects

**Eye contact** No known significant effects or critical hazards.

**Skin contact** Defatting to the skin. May cause skin dryness and irritation.

**Inhalation** Vapor inhalation under ambient conditions is not normally a problem due to low vapor pressure.

**Ingestion** No known significant effects or critical hazards.

#### Symptoms related to the physical, chemical and toxicological characteristics

**Eye contact** No specific data.

**Inhalation** No specific data.

**Skin contact** Adverse symptoms may include the following:  
irritation  
dryness  
cracking

**Ingestion** No specific data.

#### Delayed and immediate effects and also chronic effects from short and long term exposure

##### Short term exposure

**Potential immediate effects** Not available.

**Potential delayed effects** Not available.

##### Long term exposure

**Potential immediate effects** Not available.

**Potential delayed effects** Not available.

#### Potential chronic health effects

##### **General**

USED ENGINE OILS

Combustion products resulting from the operation of internal combustion engines contaminate engine oils during use. Used engine oil may contain hazardous components which have the potential to cause skin cancer. Frequent or prolonged contact with all types and makes of used engine oil must therefore be avoided and a high standard of personal hygiene maintained.

**Carcinogenicity** No known significant effects or critical hazards.

**Mutagenicity** No known significant effects or critical hazards.

**Teratogenicity** No known significant effects or critical hazards.

**Developmental effects** No known significant effects or critical hazards.

**Fertility effects** No known significant effects or critical hazards.

#### Numerical measures of toxicity

##### Acute toxicity estimates

Not available.

## Section 12. Ecological information

### Toxicity

No testing has been performed by the manufacturer.

### Persistence and degradability

Expected to be biodegradable.

### Bioaccumulative potential

This product is not expected to bioaccumulate through food chains in the environment.

### Mobility in soil

**Soil/water partition coefficient (K<sub>oc</sub>)**

Not available.

**Mobility**

Spillages may penetrate the soil causing ground water contamination.

### Other ecological information

Spills may form a film on water surfaces causing physical damage to organisms. Oxygen transfer could also be impaired.

## Section 13. Disposal considerations

### Disposal methods

The generation of waste should be avoided or minimized wherever possible. Significant quantities of waste product residues should not be disposed of via the foul sewer but processed in a suitable effluent treatment plant. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

## Section 14. Transport information

	<b>DOT Classification</b>	<b>TDG Classification</b>	<b>IMDG</b>	<b>IATA</b>
<b>UN number</b>	Not regulated.	Not regulated.	Not regulated.	Not regulated.
<b>UN proper shipping name</b>	-	-	-	-
<b>Transport hazard class(es)</b>	-	-	-	-
<b>Packing group</b>	-	-	-	-
<b>Environmental hazards</b>	No.	No.	No.	No.
<b>Additional information</b>	-	-	-	-

**Special precautions for user** Not available.

## Section 14. Transport information

Transport in bulk according to Annex II of MARPOL and the IBC Code

Not available.

## Section 15. Regulatory information

### Other regulations

<a href="#">Australia inventory (AICS)</a>	At least one component is not listed.
<a href="#">Canada inventory</a>	All components are listed or exempted.
<a href="#">China inventory (IECSC)</a>	At least one component is not listed.
<a href="#">Japan inventory (ENCS)</a>	At least one component is not listed.
<a href="#">Korea inventory (KECI)</a>	All components are listed or exempted.
<a href="#">Philippines inventory (PICCS)</a>	At least one component is not listed.
<a href="#">Taiwan Chemical Substances Inventory (TCSI)</a>	All components are listed or exempted.
<a href="#">United States inventory (TSCA 8b)</a>	All components are listed or exempted.
<a href="#">REACH Status</a>	For the REACH status of this product please consult your company contact, as identified in Section 1.

## Section 16. Other information

### History

<a href="#">Date of issue/Date of revision</a>	02/10/2017
<a href="#">Date of previous issue</a>	02/10/2017.
<a href="#">Version</a>	6.02
<a href="#">Prepared by</a>	Product Stewardship
<a href="#">Key to abbreviations</a>	ATE = Acute Toxicity Estimate BCF = Bioconcentration Factor CAS Number = Chemical Abstracts Service Registry Number GHS = Globally Harmonized System of Classification and Labelling of Chemicals HPR = Hazardous Products Regulations IATA = International Air Transport Association IBC = Intermediate Bulk Container IMDG = International Maritime Dangerous Goods LogPow = logarithm of the octanol/water partition coefficient MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution) REACH = Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation [Regulation (EC) No. 1907/2006] UN = United Nations Varies = may contain one or more of the following 101316-69-2, 101316-70-5, 101316-71-6, 101316-72-7, 64741-88-4, 64741-89-5, 64741-95-3, 64741-96-4, 64741-97-5, 64742-01-4, 64742-44-5, 64742-45-6, 64742-52-5, 64742-53-6, 64742-54-7, 64742-55-8, 64742-56-9, 64742-57-0, 64742-58-1, 64742-62-7, 64742-63-8, 64742-64-9, 64742-65-0, 64742-70-7, 72623-85-9, 72623-86-0, 72623-87-1, 74869-22-0, 90669-74-2

### References

Not available.

✔ Indicates information that has changed from previously issued version.

### [Notice to reader](#)

## Section 16. Other information

All reasonably practicable steps have been taken to ensure this data sheet and the health, safety and environmental information contained in it is accurate as of the date specified below. No warranty or representation, express or implied is made as to the accuracy or completeness of the data and information in this data sheet.

The data and advice given apply when the product is sold for the stated application or applications. You should not use the product other than for the stated application or applications without seeking advice from BP Group.

It is the user's obligation to evaluate and use this product safely and to comply with all applicable laws and regulations. The BP Group shall not be responsible for any damage or injury resulting from use, other than the stated product use of the material, from any failure to adhere to recommendations, or from any hazards inherent in the nature of the material. Purchasers of the product for supply to a third party for use at work, have a duty to take all necessary steps to ensure that any person handling or using the product is provided with the information in this sheet. Employers have a duty to tell employees and others who may be affected of any hazards described in this sheet and of any precautions that should be taken. You can contact the BP Group to ensure that this document is the most current available. Alteration of this document is strictly prohibited.

# SAFETY DATA SHEET



Castrol GTX 10W-30

## Section 1. Identification

<b>GHS product identifier</b>	Castrol GTX 10W-30
<b>Product code</b>	459835-US81
<b>SDS #</b>	459835
<b><u>Relevant identified uses of the substance or mixture and uses advised against</u></b>	
<b>Use of the substance/ mixture</b>	Engine Oils. For specific application advice see appropriate Technical Data Sheet or consult our company representative.
<b>Manufacturer</b>	BP Lubricants USA Inc. 1500 Valley Road Wayne, NJ 07470 Telephone: (973) 633-2200
<b>Supplier</b>	Wakefield Canada Inc. 3620 Lakeshore Blvd West Toronto, Ontario, Canada M8W 1P2 Phone Number - 416-252-5511
<b>EMERGENCY HEALTH INFORMATION:</b>	1 (800) 447-8735  Outside the US: +1 703-527-3887 (CHEMTREC)
<b>EMERGENCY TELEPHONE NUMBER</b>	1 (800) 447-8735  Outside the US: +1 703-527-3887 (CHEMTREC)

## Section 2. Hazard identification

<b>Classification of the substance or mixture</b>	Not classified.
<b><u>GHS label elements</u></b>	
<b>Signal word</b>	No signal word.
<b>Hazard statements</b>	No known significant effects or critical hazards.
<b><u>Precautionary statements</u></b>	
<b>General</b>	P103 - Read label before use. P102 - Keep out of reach of children. P101 - If medical advice is needed, have product container or label at hand.
<b>Prevention</b>	Not applicable.
<b>Response</b>	Not applicable.
<b>Storage</b>	Not applicable.
<b>Disposal</b>	Not applicable.
<b>Other hazards which do not result in classification</b>	Defatting to the skin. USED ENGINE OILS Used engine oil may contain hazardous components which have the potential to cause skin cancer. See Toxicological Information, section 11 of this Safety Data Sheet.

## Section 3. Composition/information on ingredients

**Substance/mixture** Mixture

Highly refined base oil (IP 346 DMSO extract < 3%). Proprietary performance additives.

Ingredient name	CAS number	% (w/w)
Base oil - highly refined	Varies - See Key to abbreviations	≥90
Distillates (petroleum), hydrotreated heavy paraffinic	64742-54-7	≤10

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

## Section 4. First-aid measures

### Description of necessary first aid measures

<b>Eye contact</b>	In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Eyelids should be held away from the eyeball to ensure thorough rinsing. Check for and remove any contact lenses. Get medical attention.
<b>Skin contact</b>	Wash skin thoroughly with soap and water or use recognized skin cleanser. Remove contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention if symptoms occur.
<b>Inhalation</b>	If inhaled, remove to fresh air. Get medical attention if symptoms occur.
<b>Ingestion</b>	Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.
<b>Protection of first-aiders</b>	No action shall be taken involving any personal risk or without suitable training.

### Most important symptoms/effects, acute and delayed

See Section 11 for more detailed information on health effects and symptoms.

### Indication of immediate medical attention and special treatment needed, if necessary

<b>Notes to physician</b>	Treatment should in general be symptomatic and directed to relieving any effects.
<b>Specific treatments</b>	No specific treatment.

## Section 5. Fire-fighting measures

### Extinguishing media

<b>Suitable extinguishing media</b>	In case of fire, use foam, dry chemical or carbon dioxide extinguisher or spray.
<b>Unsuitable extinguishing media</b>	Do not use water jet.
<b>Specific hazards arising from the chemical</b>	In a fire or if heated, a pressure increase will occur and the container may burst.
<b>Hazardous thermal decomposition products</b>	Combustion products may include the following: carbon oxides (CO, CO <sub>2</sub> ) (carbon monoxide, carbon dioxide)
<b>Special protective actions for fire-fighters</b>	No action shall be taken involving any personal risk or without suitable training. Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire.
<b>Special protective equipment for fire-fighters</b>	Fire-fighters should wear positive pressure self-contained breathing apparatus (SCBA) and full turnout gear.

## Section 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures

**For non-emergency personnel** No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment. Floors may be slippery; use care to avoid falling.

**For emergency responders** If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

**Environmental precautions** Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

### Methods and materials for containment and cleaning up

**Small spill** Stop leak if without risk. Move containers from spill area. Absorb with an inert material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

**Large spill** Stop leak if without risk. Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Dispose of via a licensed waste disposal contractor.

## Section 7. Handling and storage

### Precautions for safe handling

**Protective measures** Put on appropriate personal protective equipment (see Section 8).

**Advice on general occupational hygiene** Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Wash thoroughly after handling. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

**Conditions for safe storage, including any incompatibilities** Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Store and use only in equipment/containers designed for use with this product. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

**Not suitable** Prolonged exposure to elevated temperature

## Section 8. Exposure controls/personal protection

### Control parameters

#### Occupational exposure limits

<b>Ingredient name</b>	<b>Exposure limits</b>
Base oil - highly refined	<b>CA Alberta Provincial (Canada).</b> 15 min OEL: 10 mg/m <sup>3</sup> 15 minutes. Issued/Revised: 7/2009 Form: Mist 8 hrs OEL: 5 mg/m <sup>3</sup> 8 hours. Issued/Revised: 4/2004 Form: Mist <b>CA Quebec Provincial (Canada).</b> STEV: 10 mg/m <sup>3</sup> 15 minutes. Issued/Revised: 1/2000 Form: mist TWAEV: 5 mg/m <sup>3</sup> 8 hours. Issued/Revised: 1/2000 Form: mist
Distillates (petroleum), hydrotreated heavy paraffinic	<b>CA Alberta Provincial (Canada).</b> 8 hrs OEL: 5 mg/m <sup>3</sup> 8 hours. Issued/Revised: 4/2004 Form: Mist 15 min OEL: 10 mg/m <sup>3</sup> 15 minutes. Issued/Revised: 7/2009 Form: Mist

## Section 8. Exposure controls/personal protection

### CA Quebec Provincial (Canada).

TWAEV: 5 mg/m<sup>3</sup> 8 hours. Issued/Revised: 1/2000

Form: mist

STEV: 10 mg/m<sup>3</sup> 15 minutes. Issued/Revised: 1/2000

Form: mist

### Appropriate engineering controls

All activities involving chemicals should be assessed for their risks to health, to ensure exposures are adequately controlled. Personal protective equipment should only be considered after other forms of control measures (e.g. engineering controls) have been suitably evaluated. Personal protective equipment should conform to appropriate standards, be suitable for use, be kept in good condition and properly maintained.

Your supplier of personal protective equipment should be consulted for advice on selection and appropriate standards. For further information contact your national organisation for standards.

Provide exhaust ventilation or other engineering controls to keep the relevant airborne concentrations below their respective occupational exposure limits.

The final choice of protective equipment will depend upon a risk assessment. It is important to ensure that all items of personal protective equipment are compatible.

### Environmental exposure controls

Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

### Individual protection measures

#### Hygiene measures

Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period.

Appropriate techniques should be used to remove potentially contaminated clothing.

Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

#### Eye/face protection

Safety glasses with side shields.

#### Skin protection

##### Hand protection

Wear protective gloves if prolonged or repeated contact is likely. Wear chemical resistant gloves. Recommended: Nitrile gloves. The correct choice of protective gloves depends upon the chemicals being handled, the conditions of work and use, and the condition of the gloves (even the best chemically resistant glove will break down after repeated chemical exposures). Most gloves provide only a short time of protection before they must be discarded and replaced. Because specific work environments and material handling practices vary, safety procedures should be developed for each intended application. Gloves should therefore be chosen in consultation with the supplier/manufacturer and with a full assessment of the working conditions.

##### Body protection

Use of protective clothing is good industrial practice.

Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Cotton or polyester/cotton overalls will only provide protection against light superficial contamination that will not soak through to the skin. Overalls should be laundered on a regular basis. When the risk of skin exposure is high (e.g. when cleaning up spillages or if there is a risk of splashing) then chemical resistant aprons and/or impervious chemical suits and boots will be required.

##### Other skin protection

Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

## Section 8. Exposure controls/personal protection

### Respiratory protection

In case of insufficient ventilation, wear suitable respiratory equipment. The correct choice of respiratory protection depends upon the chemicals being handled, the conditions of work and use, and the condition of the respiratory equipment. Safety procedures should be developed for each intended application. Respiratory protection equipment should therefore be chosen in consultation with the supplier/manufacturer and with a full assessment of the working conditions.

## Section 9. Physical and chemical properties

### Appearance

Physical state	Liquid.
Color	Brown.
Odor	Not available.
Odor threshold	Not available.
pH	Not available.
Melting point	Not available.
Boiling point	Not available.
Flash point	Closed cup: >200°C (>392°F) [Pensky-Martens.]
Pour point	-42 °C
Drop Point	Not available.
Evaporation rate	Not available.
Flammability (solid, gas)	Not applicable. Based on - Physical state
Lower and upper explosive (flammable) limits	Not available.
Vapor pressure	Not available.
Vapor density	Not available.
Density	<1000 kg/m <sup>3</sup> (<1 g/cm <sup>3</sup> ) at 15°C
Relative density	Not available.
Solubility	insoluble in water.
Partition coefficient: n-octanol/water	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	☑ Kinematic: 70.57 mm <sup>2</sup> /s (70.57 cSt) at 40°C Kinematic: 10.9 mm <sup>2</sup> /s (10.9 cSt) at 100°C

## Section 10. Stability and reactivity

Reactivity	No specific test data available for this product. Refer to Conditions to avoid and Incompatible materials for additional information.
Chemical stability	The product is stable.
Possibility of hazardous reactions	Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous polymerization will not occur.
Conditions to avoid	Avoid all possible sources of ignition (spark or flame).
Incompatible materials	Reactive or incompatible with the following materials: oxidizing materials.
Hazardous decomposition products	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

# Section 11. Toxicological information

## Information on toxicological effects

### Aspiration hazard

Name	Result
Distillates (petroleum), hydrotreated heavy paraffinic	ASPIRATION HAZARD - Category 1

**Information on the likely routes of exposure** Routes of entry anticipated: Dermal, Inhalation.

### Potential acute health effects

**Eye contact** No known significant effects or critical hazards.

**Skin contact** Defatting to the skin. May cause skin dryness and irritation.

**Inhalation** Vapor inhalation under ambient conditions is not normally a problem due to low vapor pressure.

**Ingestion** No known significant effects or critical hazards.

### Symptoms related to the physical, chemical and toxicological characteristics

**Eye contact** No specific data.

**Inhalation** No specific data.

**Skin contact** Adverse symptoms may include the following:  
irritation  
dryness  
cracking

**Ingestion** No specific data.

### Delayed and immediate effects and also chronic effects from short and long term exposure

#### Short term exposure

**Potential immediate effects** Not available.

**Potential delayed effects** Not available.

#### Long term exposure

**Potential immediate effects** Not available.

**Potential delayed effects** Not available.

### Potential chronic health effects

**General** USED ENGINE OILS  
Combustion products resulting from the operation of internal combustion engines contaminate engine oils during use. Used engine oil may contain hazardous components which have the potential to cause skin cancer. Frequent or prolonged contact with all types and makes of used engine oil must therefore be avoided and a high standard of personal hygiene maintained.

**Carcinogenicity** No known significant effects or critical hazards.

**Mutagenicity** No known significant effects or critical hazards.

**Teratogenicity** No known significant effects or critical hazards.

**Developmental effects** No known significant effects or critical hazards.

**Fertility effects** No known significant effects or critical hazards.

### Numerical measures of toxicity

#### Acute toxicity estimates

Not available.

## Section 12. Ecological information

### Toxicity

No testing has been performed by the manufacturer.

### Persistence and degradability

Expected to be biodegradable.

### Bioaccumulative potential

This product is not expected to bioaccumulate through food chains in the environment.

### Mobility in soil

**Soil/water partition coefficient (K<sub>oc</sub>)**

Not available.

**Mobility**

Spillages may penetrate the soil causing ground water contamination.

### Other ecological information

Spills may form a film on water surfaces causing physical damage to organisms. Oxygen transfer could also be impaired.

## Section 13. Disposal considerations

### Disposal methods

The generation of waste should be avoided or minimized wherever possible. Significant quantities of waste product residues should not be disposed of via the foul sewer but processed in a suitable effluent treatment plant. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

## Section 14. Transport information

	<b>DOT Classification</b>	<b>TDG Classification</b>	<b>IMDG</b>	<b>IATA</b>
<b>UN number</b>	Not regulated.	Not regulated.	Not regulated.	Not regulated.
<b>UN proper shipping name</b>	-	-	-	-
<b>Transport hazard class(es)</b>	-	-	-	-
<b>Packing group</b>	-	-	-	-
<b>Environmental hazards</b>	No.	No.	No.	No.
<b>Additional information</b>	-	-	-	-

**Special precautions for user** Not available.

## Section 14. Transport information

Transport in bulk according to Annex II of MARPOL and the IBC Code

Not available.

## Section 15. Regulatory information

### Other regulations

<a href="#">Australia inventory (AICS)</a>	At least one component is not listed.
<a href="#">Canada inventory</a>	All components are listed or exempted.
<a href="#">China inventory (IECSC)</a>	All components are listed or exempted.
<a href="#">Japan inventory (ENCS)</a>	At least one component is not listed.
<a href="#">Korea inventory (KECI)</a>	All components are listed or exempted.
<a href="#">Philippines inventory (PICCS)</a>	At least one component is not listed.
<a href="#">Taiwan Chemical Substances Inventory (TCSI)</a>	All components are listed or exempted.
<a href="#">United States inventory (TSCA 8b)</a>	All components are listed or exempted.
<a href="#">REACH Status</a>	For the REACH status of this product please consult your company contact, as identified in Section 1.

## Section 16. Other information

### History

[Date of issue/Date of revision](#) 19/06/2018

[Date of previous issue](#) 08/05/2018.

[Version](#) 2.02

[Prepared by](#) Product Stewardship Group

### Key to abbreviations

ATE = Acute Toxicity Estimate  
BCF = Bioconcentration Factor  
CAS Number = Chemical Abstracts Service Registry Number  
GHS = Globally Harmonized System of Classification and Labelling of Chemicals  
HPR = Hazardous Products Regulations  
IATA = International Air Transport Association  
IBC = Intermediate Bulk Container  
IMDG = International Maritime Dangerous Goods  
LogPow = logarithm of the octanol/water partition coefficient  
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)  
REACH = Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation [Regulation (EC) No. 1907/2006]  
UN = United Nations  
Varies = may contain one or more of the following 101316-69-2, 101316-70-5, 101316-71-6, 101316-72-7, 64741-88-4, 64741-89-5, 64741-95-3, 64741-96-4, 64741-97-5, 64742-01-4, 64742-44-5, 64742-45-6, 64742-52-5, 64742-53-6, 64742-54-7, 64742-55-8, 64742-56-9, 64742-57-0, 64742-58-1, 64742-62-7, 64742-63-8, 64742-64-9, 64742-65-0, 64742-70-7, 72623-85-9, 72623-86-0, 72623-87-1, 74869-22-0, 90669-74-2

### References

Not available.

✔ Indicates information that has changed from previously issued version.

### Notice to reader

## Section 16. Other information

All reasonably practicable steps have been taken to ensure this data sheet and the health, safety and environmental information contained in it is accurate as of the date specified below. No warranty or representation, express or implied is made as to the accuracy or completeness of the data and information in this data sheet.

The data and advice given apply when the product is sold for the stated application or applications. You should not use the product other than for the stated application or applications without seeking advice from BP Group.

It is the user's obligation to evaluate and use this product safely and to comply with all applicable laws and regulations. The BP Group shall not be responsible for any damage or injury resulting from use, other than the stated product use of the material, from any failure to adhere to recommendations, or from any hazards inherent in the nature of the material. Purchasers of the product for supply to a third party for use at work, have a duty to take all necessary steps to ensure that any person handling or using the product is provided with the information in this sheet. Employers have a duty to tell employees and others who may be affected of any hazards described in this sheet and of any precautions that should be taken. You can contact the BP Group to ensure that this document is the most current available. Alteration of this document is strictly prohibited.

# SAFETY DATA SHEET



Castrol Pyroplex Blue 1

## Section 1. Identification

<b>GHS product identifier</b>	Castrol Pyroplex Blue 1
<b>Product code</b>	455339-CA01 US06 US81
<b>SDS #</b>	455339
<b>Historic SDS #:</b>	0000002021
<b><u>Relevant identified uses of the substance or mixture and uses advised against</u></b>	
<b>Use of the substance/ mixture</b>	Grease for industrial applications. For specific application advice see appropriate Technical Data Sheet or consult our company representative.
<b>Manufacturer</b>	BP Lubricants USA, Inc 1500 Valley Road Wayne, NJ USA 07470
<b>Supplier</b>	Wakefield Canada, Limited 3620 Lakeshore Blvd West Toronto, Ontario, Canada M8W 1P2 Phone Number - 416-252-5511 Fax Number - 416-252-7315  BP Lubricants USA, Inc 1500 Valley Road Wayne, NJ USA 07470 Phone Number - 973-633-2296 Fax Number - 973-633-7475
<b>EMERGENCY HEALTH INFORMATION:</b>	1 (800) 447-8735  Outside the US: +1 703-527-3887 (CHEMTREC)
<b>EMERGENCY TELEPHONE NUMBER</b>	1 (800) 424-9300 CHEMTREC (USA)

## Section 2. Hazard identification

**Classification of the  
substance or mixture** EYE IRRITATION - Category 2A

**GHS label elements**  
**Hazard pictograms**



**Signal word** Warning

**Hazard statements** H319 - Causes serious eye irritation.

**Precautionary statements**

**General** P103 - Read label before use.  
P102 - Keep out of reach of children.  
P101 - If medical advice is needed, have product container or label at hand.

<b>Product name</b> Castrol Pyroplex Blue 1	<b>Product code</b> 455339-CA01 US06 US81	Page: 1/9	
<b>Version</b> 7.02	<b>Date of issue</b> 12/13/2016.	<b>Format</b> Canada <b>(Canada)</b>	<b>Language</b> ENGLISH <b>(ENGLISH)</b>

## Section 2. Hazard identification

<b>Prevention</b>	P280 - Wear eye or face protection. P264 - Wash hands thoroughly after handling.
<b>Response</b>	P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337 + P313 - If eye irritation persists: Get medical attention.
<b>Storage</b>	Not applicable.
<b>Disposal</b>	Not applicable.
<b>Other hazards which do not result in classification</b>	Defatting to the skin. Note: High Pressure Applications Injections through the skin resulting from contact with the product at high pressure constitute a major medical emergency. See 'Notes to physician' under First-Aid Measures, Section 4 of this Safety Data Sheet.

## Section 3. Composition/information on ingredients

**Substance/mixture** Mixture  
Highly refined base oil (IP 346 DMSO extract < 3%). Thickening agent. Proprietary performance additives.

<b>Ingredient name</b>	<b>CAS number</b>	<b>% (w/w)</b>
Base oil - highly refined	Varies - See Key to abbreviations	80 - 89.9
Zinc bis[O,O-bis(2-ethylhexyl)] bis(dithiophosphate)	4259-15-8	1 - 2.999

**There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.**

**Occupational exposure limits, if available, are listed in Section 8.**

## Section 4. First-aid measures

### Description of necessary first aid measures

<b>Eye contact</b>	In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Eyelids should be held away from the eyeball to ensure thorough rinsing. Check for and remove any contact lenses. Get medical attention.
<b>Skin contact</b>	Wash skin thoroughly with soap and water or use recognized skin cleanser. Remove contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention if symptoms occur.
<b>Inhalation</b>	If inhaled, remove to fresh air. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours. Get medical attention if symptoms occur.
<b>Ingestion</b>	Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Get medical attention if adverse health effects persist or are severe.
<b>Protection of first-aiders</b>	No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

### Most important symptoms/effects, acute and delayed

**See Section 11 for more detailed information on health effects and symptoms.**

### Indication of immediate medical attention and special treatment needed, if necessary

**Product name** Castrol Pyroplex Blue 1

**Product code** 455339-CA01 US06  
US81

Page: 2/9

**Version** 7.02 **Date of issue** 12/13/2016.

**Format Canada**  
**(Canada)**

**Language ENGLISH**  
**(ENGLISH)**

## Section 4. First-aid measures

### Notes to physician

In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours. Treatment should in general be symptomatic and directed to relieving any effects.

Note: High Pressure Applications

Injections through the skin resulting from contact with the product at high pressure constitute a major medical emergency. Injuries may not appear serious at first but within a few hours tissue becomes swollen, discolored and extremely painful with extensive subcutaneous necrosis.

Surgical exploration should be undertaken without delay. Thorough and extensive debridement of the wound and underlying tissue is necessary to minimize tissue loss and prevent or limit permanent damage. Note that high pressure may force the product considerable distances along tissue planes.

### Specific treatments

No specific treatment.

## Section 5. Fire-fighting measures

### Extinguishing media

#### Suitable extinguishing media

In case of fire, use water fog, alcohol resistant foam, dry chemical or carbon dioxide extinguisher or spray.

#### Unsuitable extinguishing media

Do not use water jet.

### Specific hazards arising from the chemical

In a fire or if heated, a pressure increase will occur and the container may burst.

#### Hazardous thermal decomposition products

Combustion products may include the following:  
carbon dioxide  
carbon monoxide  
nitrogen oxides  
sulfur oxides  
phosphorus oxides

### Special protective actions for fire-fighters

Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

### Special protective equipment for fire-fighters

Fire-fighters should wear positive pressure self-contained breathing apparatus (SCBA) and full turnout gear.

## Section 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures

#### For non-emergency personnel

No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Put on appropriate personal protective equipment. Floors may be slippery; use care to avoid falling. Contact emergency personnel.

#### For emergency responders

Entry into a confined space or poorly ventilated area contaminated with vapor, mist or fume is extremely hazardous without the correct respiratory protective equipment and a safe system of work. Wear self-contained breathing apparatus. Wear a suitable chemical protective suit. Chemical resistant boots. See also the information in "For non-emergency personnel".

### Environmental precautions

Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

### Methods and materials for containment and cleaning up

#### Small spill

Stop leak if without risk. Move containers from spill area. Absorb with an inert material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

## Section 6. Accidental release measures

### Large spill

Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Contaminated absorbent material may pose the same hazard as the spilled product. If emergency personnel are unavailable, contain spilled material. Suction or scoop the spill into appropriate disposal or recycling vessels, then cover spill area with oil absorbent. Dispose of via a licensed waste disposal contractor.

## Section 7. Handling and storage

### Precautions for safe handling

#### Protective measures

Put on appropriate personal protective equipment (see Section 8). Avoid breathing vapor or mist. Avoid contact with eyes, skin and clothing. Do not ingest. Empty containers retain product residue and can be hazardous. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Do not reuse container.

#### Advice on general occupational hygiene

Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Wash thoroughly after handling. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

#### Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Store and use only in equipment/containers designed for use with this product. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

#### Not suitable

Prolonged exposure to elevated temperature

## Section 8. Exposure controls/personal protection

### Control parameters

#### Occupational exposure limits

Ingredient name	Exposure limits
Base oil - highly refined	<b>CA Alberta Provincial (Canada).</b> 15 min OEL: 10 mg/m <sup>3</sup> 15 minutes. Issued/Revised: 7/2009 Form: Mist 8 hrs OEL: 5 mg/m <sup>3</sup> 8 hours. Issued/Revised: 4/2004 Form: Mist <b>CA Quebec Provincial (Canada).</b> STEV: 10 mg/m <sup>3</sup> 15 minutes. Issued/Revised: 1/2000 Form: mist TWAEV: 5 mg/m <sup>3</sup> 8 hours. Issued/Revised: 1/2000 Form: mist

#### Appropriate engineering controls

All activities involving chemicals should be assessed for their risks to health, to ensure exposures are adequately controlled. Personal protective equipment should only be considered after other forms of control measures (e.g. engineering controls) have been suitably evaluated. Personal protective equipment should conform to appropriate standards, be suitable for use, be kept in good condition and properly maintained.

Your supplier of personal protective equipment should be consulted for advice on selection and appropriate standards. For further information contact your national organisation for standards.

Provide exhaust ventilation or other engineering controls to keep the relevant airborne concentrations below their respective occupational exposure limits.

The final choice of protective equipment will depend upon a risk assessment. It is

## Section 8. Exposure controls/personal protection

### Environmental exposure controls

important to ensure that all items of personal protective equipment are compatible. Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

### Individual protection measures

#### Hygiene measures

Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

#### Eye/face protection

Safety glasses with side shields.

#### Skin protection

##### Hand protection

Wear protective gloves if prolonged or repeated contact is likely. Wear chemical resistant gloves. Recommended: Nitrile gloves. The correct choice of protective gloves depends upon the chemicals being handled, the conditions of work and use, and the condition of the gloves (even the best chemically resistant glove will break down after repeated chemical exposures). Most gloves provide only a short time of protection before they must be discarded and replaced. Because specific work environments and material handling practices vary, safety procedures should be developed for each intended application. Gloves should therefore be chosen in consultation with the supplier/manufacturer and with a full assessment of the working conditions.

##### Body protection

Use of protective clothing is good industrial practice. Cotton or polyester/cotton overalls will only provide protection against light superficial contamination that will not soak through to the skin. Overalls should be laundered on a regular basis. When the risk of skin exposure is high (e.g. when cleaning up spillages or if there is a risk of splashing) then chemical resistant aprons and/or impervious chemical suits and boots will be required. Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

##### Other skin protection

Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

##### Respiratory protection

In case of insufficient ventilation, wear suitable respiratory equipment. For protection against metal working fluids, respiratory protection that is classified as "resistant to oil" (class R) or oil proof (class P) should be selected where appropriate. Depending on the level of airborne contaminants, an air-purifying, half-mask respirator (with HEPA filter) including disposable (P- or R-series) (for oil mists less than 50mg/m<sup>3</sup>), or any powered, air-purifying respirator equipped with hood or helmet and HEPA filter (for oil mists less than 125 mg/m<sup>3</sup>). Where organic vapours are a potential hazard during metalworking operations, a combination particulate and organic vapour filter may be necessary. The correct choice of respiratory protection depends upon the chemicals being handled, the conditions of work and use, and the condition of the respiratory equipment. Safety procedures should be developed for each intended application. Respiratory protection equipment should therefore be chosen in consultation with the supplier/manufacturer and with a full assessment of the working conditions.

## Section 9. Physical and chemical properties

### Appearance

Physical state	Grease
Color	Blue.
Odor	Petroleum
Odor threshold	Not available.
pH	Not available.
Melting point	Not available.
Boiling point	Not available.
Flash point	Open cup: 232°C (449.6°F) [Cleveland.]
Pour point	Not available.
Drop Point	Not available.
Evaporation rate	Not available.
Flammability (solid, gas)	Not applicable. Based on - Physical state
Lower and upper explosive (flammable) limits	Not available.
Vapor pressure	Not available.
Vapor density	Not available.
Density	890 kg/m <sup>3</sup> (0.89 g/cm <sup>3</sup> ) at 15°C
Relative density	Not available.
Solubility	insoluble in water.
Partition coefficient: n-octanol/water	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	Not available.

### Aerosol product

## Section 10. Stability and reactivity

Reactivity	No specific test data available for this product. Refer to Conditions to avoid and Incompatible materials for additional information.
Chemical stability	The product is stable.
Possibility of hazardous reactions	Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous polymerization will not occur.
Conditions to avoid	Avoid all possible sources of ignition (spark or flame).
Incompatible materials	Reactive or incompatible with the following materials: oxidizing materials.
Hazardous decomposition products	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## Section 11. Toxicological information

### Information on toxicological effects

**Information on the likely routes of exposure** Routes of entry anticipated: Dermal, Inhalation.

### Potential acute health effects

**Eye contact** Causes serious eye irritation.  
**Skin contact** Defatting to the skin. May cause skin dryness and irritation.  
**Inhalation** Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.  
**Ingestion** No known significant effects or critical hazards.

### Symptoms related to the physical, chemical and toxicological characteristics

**Eye contact** Adverse symptoms may include the following:  
pain or irritation  
watering  
redness  
**Inhalation** No specific data.  
**Skin contact** Adverse symptoms may include the following:  
irritation  
dryness  
cracking  
**Ingestion** No specific data.

### Delayed and immediate effects and also chronic effects from short and long term exposure

#### Short term exposure

**Potential immediate effects** Not available.  
**Potential delayed effects** Not available.

#### Long term exposure

**Potential immediate effects** Not available.  
**Potential delayed effects** Not available.

#### Potential chronic health effects

**General** No known significant effects or critical hazards.  
**Carcinogenicity** No known significant effects or critical hazards.  
**Mutagenicity** No known significant effects or critical hazards.  
**Teratogenicity** No known significant effects or critical hazards.  
**Developmental effects** No known significant effects or critical hazards.  
**Fertility effects** No known significant effects or critical hazards.

### Numerical measures of toxicity

#### Acute toxicity estimates

Not available.

## Section 12. Ecological information

### Toxicity

No testing has been performed by the manufacturer.

### Persistence and degradability

Expected to be biodegradable.

### Bioaccumulative potential

This product is not expected to bioaccumulate through food chains in the environment.

**Product name** Castrol Pyroplex Blue 1

**Product code** 455339-CA01 US06  
US81

Page: 7/9

**Version** 7.02

**Date of issue** 12/13/2016.

**Format Canada**  
**(Canada)**

**Language ENGLISH**  
**(ENGLISH)**

## Section 12. Ecological information

### Mobility in soil

**Soil/water partition coefficient (K<sub>oc</sub>)** Not available.

**Mobility** Spillages are unlikely to penetrate the soil.

**Other ecological information** This product is unlikely to disperse in water.

## Section 13. Disposal considerations

### Disposal methods

The generation of waste should be avoided or minimized wherever possible. Significant quantities of waste product residues should not be disposed of via the foul sewer but processed in a suitable effluent treatment plant. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

## Section 14. Transport information

	<b>DOT Classification</b>	<b>TDG Classification</b>	<b>IMDG</b>	<b>IATA</b>
<b>UN number</b>	Not regulated.	Not regulated.	Not regulated.	Not regulated.
<b>UN proper shipping name</b>	-	-	-	-
<b>Transport hazard class(es)</b>	-	-	-	-
<b>Packing group</b>	-	-	-	-
<b>Environmental hazards</b>	No.	No.	No.	No.
<b>Additional information</b>	-	-	-	-

**Special precautions for user** Not available.

**Transport in bulk according to Annex II of MARPOL and the IBC Code** Not available.

## Section 15. Regulatory information

### Other regulations

**Australia inventory (AICS)** All components are listed or exempted.

**Canada inventory** All components are listed or exempted.

**China inventory (IECSC)** All components are listed or exempted.

**Japan inventory (ENCS)** At least one component is not listed.

**Product name** Castrol Pyroplex Blue 1

**Product code** 455339-CA01 US06  
US81

Page: 8/9

**Version** 7.02

**Date of issue** 12/13/2016.

**Format Canada**  
**(Canada)**

**Language ENGLISH**  
**(ENGLISH)**

## Section 15. Regulatory information

<a href="#">Korea inventory (KECI)</a>	At least one component is not listed.
<a href="#">Philippines inventory (PICCS)</a>	All components are listed or exempted.
<a href="#">Taiwan Chemical Substances Inventory (TCSI)</a>	Not determined.
<a href="#">United States inventory (TSCA 8b)</a>	All components are listed or exempted.
<a href="#">REACH Status</a>	For the REACH status of this product please consult your company contact, as identified in Section 1.

## Section 16. Other information

### History

<a href="#">Date of issue/Date of revision</a>	13/12/2016
<a href="#">Date of previous issue</a>	12/12/2016.
<a href="#">Version</a>	7.02
<a href="#">Prepared by</a>	Product Stewardship
<a href="#">Key to abbreviations</a>	ATE = Acute Toxicity Estimate BCF = Bioconcentration Factor CAS Number = Chemical Abstracts Service Registry Number GHS = Globally Harmonized System of Classification and Labelling of Chemicals IATA = International Air Transport Association IBC = Intermediate Bulk Container IMDG = International Maritime Dangerous Goods LogPow = logarithm of the octanol/water partition coefficient MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution) UN = United Nations HPR = Hazardous Products Regulations Varies = may contain one or more of the following 101316-69-2, 101316-70-5, 101316-71-6, 101316-72-7, 64741-88-4, 64741-89-5, 64741-95-3, 64741-96-4, 64741-97-5, 64742-01-4, 64742-44-5, 64742-45-6, 64742-52-5, 64742-53-6, 64742-54-7, 64742-55-8, 64742-56-9, 64742-57-0, 64742-58-1, 64742-62-7, 64742-63-8, 64742-64-9, 64742-65-0, 64742-70-7, 72623-85-9, 72623-86-0, 72623-87-1, 74869-22-0, 90669-74-2
<a href="#">References</a>	Not available.

 Indicates information that has changed from previously issued version.

### Notice to reader

All reasonably practicable steps have been taken to ensure this data sheet and the health, safety and environmental information contained in it is accurate as of the date specified below. No warranty or representation, express or implied is made as to the accuracy or completeness of the data and information in this data sheet.

The data and advice given apply when the product is sold for the stated application or applications. You should not use the product other than for the stated application or applications without seeking advice from BP Group.

It is the user's obligation to evaluate and use this product safely and to comply with all applicable laws and regulations. The BP Group shall not be responsible for any damage or injury resulting from use, other than the stated product use of the material, from any failure to adhere to recommendations, or from any hazards inherent in the nature of the material. Purchasers of the product for supply to a third party for use at work, have a duty to take all necessary steps to ensure that any person handling or using the product is provided with the information in this sheet. Employers have a duty to tell employees and others who may be affected of any hazards described in this sheet and of any precautions that should be taken. You can contact the BP Group to ensure that this document is the most current available. Alteration of this document is strictly prohibited.

**Product name** Castrol Pyroplex Blue 1

**Product code** 455339-CA01 US06  
US81

Page: 9/9

**Version** 7.02      **Date of issue** 12/13/2016.

**Format Canada**  
**(Canada)**

**Language ENGLISH**  
**(ENGLISH)**

# SAFETY DATA SHEET



Castrol Pyroplex Blue 2

## Section 1. Identification

<b>GHS product identifier</b>	Castrol Pyroplex Blue 2
<b>Product code</b>	453759-CA01 US06 US12 US81
<b>SDS #</b>	453759
<b>Historic SDS #:</b>	0000002021
<b><u>Relevant identified uses of the substance or mixture and uses advised against</u></b>	
<b>Use of the substance/ mixture</b>	Grease for industrial applications. For specific application advice see appropriate Technical Data Sheet or consult our company representative.
<b>Manufacturer</b>	BP Lubricants USA, Inc 1500 Valley Road Wayne, NJ USA 07470
<b>Supplier</b>	Wakefield Canada, Limited 3620 Lakeshore Blvd West Toronto, Ontario, Canada M8W 1P2 Phone Number - 416-252-5511 Fax Number - 416-252-7315  BP Lubricants USA, Inc 1500 Valley Road Wayne, NJ USA 07470 Phone Number - 973-633-2296 Fax Number - 973-633-7475
<b>EMERGENCY HEALTH INFORMATION:</b>	1 (800) 447-8735  Outside the US: +1 703-527-3887 (CHEMTREC)
<b>EMERGENCY TELEPHONE NUMBER</b>	1 (800) 424-9300 CHEMTREC (USA)

## Section 2. Hazard identification

**Classification of the  
substance or mixture** EYE IRRITATION - Category 2A

**GHS label elements**  
**Hazard pictograms**



**Signal word** Warning

**Hazard statements** H319 - Causes serious eye irritation.

**Precautionary statements**

**General** P103 - Read label before use.  
P102 - Keep out of reach of children.  
P101 - If medical advice is needed, have product container or label at hand.

<b>Product name</b> Castrol Pyroplex Blue 2	<b>Product code</b> 453759-CA01 US06 US12 US81	Page: 1/9	
<b>Version</b> 7.02	<b>Date of issue</b> 12/13/2016.	<b>Format</b> Canada <b>(Canada)</b>	<b>Language</b> ENGLISH <b>(ENGLISH)</b>

## Section 2. Hazard identification

<b>Prevention</b>	P280 - Wear eye or face protection. P264 - Wash hands thoroughly after handling.
<b>Response</b>	P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337 + P313 - If eye irritation persists: Get medical attention.
<b>Storage</b>	Not applicable.
<b>Disposal</b>	Not applicable.
<b>Other hazards which do not result in classification</b>	Defatting to the skin. Note: High Pressure Applications Injections through the skin resulting from contact with the product at high pressure constitute a major medical emergency. See 'Notes to physician' under First-Aid Measures, Section 4 of this Safety Data Sheet.

## Section 3. Composition/information on ingredients

**Substance/mixture** Mixture  
Highly refined base oil (IP 346 DMSO extract < 3%). Thickening agent. Proprietary performance additives.

<b>Ingredient name</b>	<b>CAS number</b>	<b>% (w/w)</b>
Base oil - highly refined	Varies - See Key to abbreviations	80 - 89.9
Zinc bis[O,O-bis(2-ethylhexyl)] bis(dithiophosphate)	4259-15-8	1 - 2.999

**There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.**

Occupational exposure limits, if available, are listed in Section 8.

## Section 4. First-aid measures

### Description of necessary first aid measures

<b>Eye contact</b>	In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Eyelids should be held away from the eyeball to ensure thorough rinsing. Check for and remove any contact lenses. Get medical attention.
<b>Skin contact</b>	Wash skin thoroughly with soap and water or use recognized skin cleanser. Remove contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention if symptoms occur.
<b>Inhalation</b>	If inhaled, remove to fresh air. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours. Get medical attention if symptoms occur.
<b>Ingestion</b>	Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Get medical attention if adverse health effects persist or are severe.
<b>Protection of first-aiders</b>	No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

### Most important symptoms/effects, acute and delayed

See Section 11 for more detailed information on health effects and symptoms.

### Indication of immediate medical attention and special treatment needed, if necessary

**Product name** Castrol Pyroplex Blue 2

**Product code** 453759-CA01 US06  
US12 US81

Page: 2/9

**Version** 7.02

**Date of issue** 12/13/2016.

**Format Canada**  
(Canada)

**Language ENGLISH**  
(ENGLISH)

## Section 4. First-aid measures

### Notes to physician

In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours. Treatment should in general be symptomatic and directed to relieving any effects.

Note: High Pressure Applications

Injections through the skin resulting from contact with the product at high pressure constitute a major medical emergency. Injuries may not appear serious at first but within a few hours tissue becomes swollen, discolored and extremely painful with extensive subcutaneous necrosis.

Surgical exploration should be undertaken without delay. Thorough and extensive debridement of the wound and underlying tissue is necessary to minimize tissue loss and prevent or limit permanent damage. Note that high pressure may force the product considerable distances along tissue planes.

### Specific treatments

No specific treatment.

## Section 5. Fire-fighting measures

### Extinguishing media

#### Suitable extinguishing media

In case of fire, use water fog, alcohol resistant foam, dry chemical or carbon dioxide extinguisher or spray.

#### Unsuitable extinguishing media

Do not use water jet.

### Specific hazards arising from the chemical

In a fire or if heated, a pressure increase will occur and the container may burst.

#### Hazardous thermal decomposition products

Combustion products may include the following:  
carbon dioxide  
carbon monoxide  
nitrogen oxides  
sulfur oxides  
phosphorus oxides

### Special protective actions for fire-fighters

Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

### Special protective equipment for fire-fighters

Fire-fighters should wear positive pressure self-contained breathing apparatus (SCBA) and full turnout gear.

## Section 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures

#### For non-emergency personnel

No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Put on appropriate personal protective equipment. Floors may be slippery; use care to avoid falling. Contact emergency personnel.

#### For emergency responders

Entry into a confined space or poorly ventilated area contaminated with vapor, mist or fume is extremely hazardous without the correct respiratory protective equipment and a safe system of work. Wear self-contained breathing apparatus. Wear a suitable chemical protective suit. Chemical resistant boots. See also the information in "For non-emergency personnel".

### Environmental precautions

Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

### Methods and materials for containment and cleaning up

#### Small spill

Stop leak if without risk. Move containers from spill area. Absorb with an inert material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

## Section 6. Accidental release measures

### Large spill

Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Contaminated absorbent material may pose the same hazard as the spilled product. If emergency personnel are unavailable, contain spilled material. Suction or scoop the spill into appropriate disposal or recycling vessels, then cover spill area with oil absorbent. Dispose of via a licensed waste disposal contractor.

## Section 7. Handling and storage

### Precautions for safe handling

#### Protective measures

Put on appropriate personal protective equipment (see Section 8). Avoid breathing vapor or mist. Avoid contact with eyes, skin and clothing. Do not ingest. Empty containers retain product residue and can be hazardous. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Do not reuse container.

#### Advice on general occupational hygiene

Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Wash thoroughly after handling. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

#### Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Store and use only in equipment/containers designed for use with this product. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

#### Not suitable

Prolonged exposure to elevated temperature

## Section 8. Exposure controls/personal protection

### Control parameters

#### Occupational exposure limits

Ingredient name	Exposure limits
Base oil - highly refined	<b>CA Alberta Provincial (Canada).</b> 15 min OEL: 10 mg/m <sup>3</sup> 15 minutes. Issued/Revised: 7/2009 Form: Mist 8 hrs OEL: 5 mg/m <sup>3</sup> 8 hours. Issued/Revised: 4/2004 Form: Mist <b>CA Quebec Provincial (Canada).</b> STEV: 10 mg/m <sup>3</sup> 15 minutes. Issued/Revised: 1/2000 Form: mist TWAEV: 5 mg/m <sup>3</sup> 8 hours. Issued/Revised: 1/2000 Form: mist

#### Appropriate engineering controls

All activities involving chemicals should be assessed for their risks to health, to ensure exposures are adequately controlled. Personal protective equipment should only be considered after other forms of control measures (e.g. engineering controls) have been suitably evaluated. Personal protective equipment should conform to appropriate standards, be suitable for use, be kept in good condition and properly maintained.

Your supplier of personal protective equipment should be consulted for advice on selection and appropriate standards. For further information contact your national organisation for standards.

Provide exhaust ventilation or other engineering controls to keep the relevant airborne concentrations below their respective occupational exposure limits.

The final choice of protective equipment will depend upon a risk assessment. It is

Product name Castrol Pyroplex Blue 2

Product code 453759-CA01 US06  
US12 US81

Page: 4/9

Version 7.02 Date of issue 12/13/2016.

Format Canada  
(Canada)

Language ENGLISH  
(ENGLISH)

## Section 8. Exposure controls/personal protection

### Environmental exposure controls

important to ensure that all items of personal protective equipment are compatible. Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

### Individual protection measures

#### Hygiene measures

Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

#### Eye/face protection

Safety glasses with side shields.

#### Skin protection

##### Hand protection

Wear protective gloves if prolonged or repeated contact is likely. Wear chemical resistant gloves. Recommended: Nitrile gloves. The correct choice of protective gloves depends upon the chemicals being handled, the conditions of work and use, and the condition of the gloves (even the best chemically resistant glove will break down after repeated chemical exposures). Most gloves provide only a short time of protection before they must be discarded and replaced. Because specific work environments and material handling practices vary, safety procedures should be developed for each intended application. Gloves should therefore be chosen in consultation with the supplier/manufacturer and with a full assessment of the working conditions.

##### Body protection

Use of protective clothing is good industrial practice. Cotton or polyester/cotton overalls will only provide protection against light superficial contamination that will not soak through to the skin. Overalls should be laundered on a regular basis. When the risk of skin exposure is high (e.g. when cleaning up spillages or if there is a risk of splashing) then chemical resistant aprons and/or impervious chemical suits and boots will be required. Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

##### Other skin protection

Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

##### Respiratory protection

In case of insufficient ventilation, wear suitable respiratory equipment. For protection against metal working fluids, respiratory protection that is classified as "resistant to oil" (class R) or oil proof (class P) should be selected where appropriate. Depending on the level of airborne contaminants, an air-purifying, half-mask respirator (with HEPA filter) including disposable (P- or R-series) (for oil mists less than 50mg/m<sup>3</sup>), or any powered, air-purifying respirator equipped with hood or helmet and HEPA filter (for oil mists less than 125 mg/m<sup>3</sup>). Where organic vapours are a potential hazard during metalworking operations, a combination particulate and organic vapour filter may be necessary. The correct choice of respiratory protection depends upon the chemicals being handled, the conditions of work and use, and the condition of the respiratory equipment. Safety procedures should be developed for each intended application. Respiratory protection equipment should therefore be chosen in consultation with the supplier/manufacturer and with a full assessment of the working conditions.

## Section 9. Physical and chemical properties

### Appearance

Physical state	Grease
Color	Blue.
Odor	Characteristic.
Odor threshold	Not available.
pH	Not available.
Melting point	Not available.
Boiling point	Not available.
Flash point	Open cup: 232°C (449.6°F) [Cleveland.]
Pour point	Not available.
Drop Point	Not available.
Evaporation rate	Not available.
Flammability (solid, gas)	Not applicable. Based on - Physical state
Lower and upper explosive (flammable) limits	Not available.
Vapor pressure	Not available.
Vapor density	Not available.
Density	890 kg/m <sup>3</sup> (0.89 g/cm <sup>3</sup> ) at 15°C
Relative density	Not available.
Solubility	insoluble in water.
Partition coefficient: n-octanol/water	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	Not available.

### Aerosol product

## Section 10. Stability and reactivity

Reactivity	No specific test data available for this product. Refer to Conditions to avoid and Incompatible materials for additional information.
Chemical stability	The product is stable.
Possibility of hazardous reactions	Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous polymerization will not occur.
Conditions to avoid	Avoid all possible sources of ignition (spark or flame).
Incompatible materials	Reactive or incompatible with the following materials: oxidizing materials.
Hazardous decomposition products	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## Section 11. Toxicological information

### Information on toxicological effects

**Information on the likely routes of exposure** Routes of entry anticipated: Dermal, Inhalation.

### Potential acute health effects

**Eye contact** Causes serious eye irritation.  
**Skin contact** Defatting to the skin. May cause skin dryness and irritation.  
**Inhalation** Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.  
**Ingestion** No known significant effects or critical hazards.

### Symptoms related to the physical, chemical and toxicological characteristics

**Eye contact** Adverse symptoms may include the following:  
pain or irritation  
watering  
redness  
**Inhalation** No specific data.  
**Skin contact** Adverse symptoms may include the following:  
irritation  
dryness  
cracking  
**Ingestion** No specific data.

### Delayed and immediate effects and also chronic effects from short and long term exposure

#### Short term exposure

**Potential immediate effects** Not available.  
**Potential delayed effects** Not available.

#### Long term exposure

**Potential immediate effects** Not available.  
**Potential delayed effects** Not available.

#### Potential chronic health effects

**General** No known significant effects or critical hazards.  
**Carcinogenicity** No known significant effects or critical hazards.  
**Mutagenicity** No known significant effects or critical hazards.  
**Teratogenicity** No known significant effects or critical hazards.  
**Developmental effects** No known significant effects or critical hazards.  
**Fertility effects** No known significant effects or critical hazards.

### Numerical measures of toxicity

#### Acute toxicity estimates

Not available.

## Section 12. Ecological information

### Toxicity

No testing has been performed by the manufacturer.

### Persistence and degradability

Expected to be biodegradable.

### Bioaccumulative potential

This product is not expected to bioaccumulate through food chains in the environment.

**Product name** Castrol Pyroplex Blue 2

**Product code** 453759-CA01 US06 Page: 7/9  
US12 US81

**Version** 7.02 **Date of issue** 12/13/2016.

**Format Canada**  
**(Canada)**

**Language ENGLISH**  
**(ENGLISH)**

## Section 12. Ecological information

### Mobility in soil

**Soil/water partition coefficient (K<sub>oc</sub>)** Not available.

**Mobility** Spillages are unlikely to penetrate the soil.

**Other ecological information** This product is unlikely to disperse in water.

## Section 13. Disposal considerations

### Disposal methods

The generation of waste should be avoided or minimized wherever possible. Significant quantities of waste product residues should not be disposed of via the foul sewer but processed in a suitable effluent treatment plant. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

## Section 14. Transport information

	<b>DOT Classification</b>	<b>TDG Classification</b>	<b>IMDG</b>	<b>IATA</b>
<b>UN number</b>	Not regulated.	Not regulated.	Not regulated.	Not regulated.
<b>UN proper shipping name</b>	-	-	-	-
<b>Transport hazard class(es)</b>	-	-	-	-
<b>Packing group</b>	-	-	-	-
<b>Environmental hazards</b>	No.	No.	No.	No.
<b>Additional information</b>	-	-	-	-

**Special precautions for user** Not available.

**Transport in bulk according to Annex II of MARPOL and the IBC Code** Not available.

## Section 15. Regulatory information

### Other regulations

**Australia inventory (AICS)** All components are listed or exempted.

**Canada inventory** All components are listed or exempted.

**China inventory (IECSC)** All components are listed or exempted.

**Japan inventory (ENCS)** At least one component is not listed.

**Product name** Castrol Pyroplex Blue 2

**Product code** 453759-CA01 US06  
US12 US81

Page: 8/9

**Version** 7.02

**Date of issue** 12/13/2016.

**Format Canada**  
**(Canada)**

**Language ENGLISH**  
**(ENGLISH)**

## Section 15. Regulatory information

<b>Korea inventory (KECI)</b>	At least one component is not listed.
<b>Philippines inventory (PICCS)</b>	All components are listed or exempted.
<b>Taiwan Chemical Substances Inventory (TCSI)</b>	Not determined.
<b>United States inventory (TSCA 8b)</b>	All components are listed or exempted.
<b>REACH Status</b>	For the REACH status of this product please consult your company contact, as identified in Section 1.

## Section 16. Other information

### History

<b>Date of issue/Date of revision</b>	13/12/2016
<b>Date of previous issue</b>	12/12/2016.
<b>Version</b>	7.02
<b>Prepared by</b>	Product Stewardship
<b>Key to abbreviations</b>	ATE = Acute Toxicity Estimate BCF = Bioconcentration Factor CAS Number = Chemical Abstracts Service Registry Number GHS = Globally Harmonized System of Classification and Labelling of Chemicals IATA = International Air Transport Association IBC = Intermediate Bulk Container IMDG = International Maritime Dangerous Goods LogPow = logarithm of the octanol/water partition coefficient MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution) UN = United Nations HPR = Hazardous Products Regulations Varies = may contain one or more of the following 101316-69-2, 101316-70-5, 101316-71-6, 101316-72-7, 64741-88-4, 64741-89-5, 64741-95-3, 64741-96-4, 64741-97-5, 64742-01-4, 64742-44-5, 64742-45-6, 64742-52-5, 64742-53-6, 64742-54-7, 64742-55-8, 64742-56-9, 64742-57-0, 64742-58-1, 64742-62-7, 64742-63-8, 64742-64-9, 64742-65-0, 64742-70-7, 72623-85-9, 72623-86-0, 72623-87-1, 74869-22-0, 90669-74-2
<b>References</b>	Not available.

✔ Indicates information that has changed from previously issued version.

### Notice to reader

All reasonably practicable steps have been taken to ensure this data sheet and the health, safety and environmental information contained in it is accurate as of the date specified below. No warranty or representation, express or implied is made as to the accuracy or completeness of the data and information in this data sheet.

The data and advice given apply when the product is sold for the stated application or applications. You should not use the product other than for the stated application or applications without seeking advice from BP Group.

It is the user's obligation to evaluate and use this product safely and to comply with all applicable laws and regulations. The BP Group shall not be responsible for any damage or injury resulting from use, other than the stated product use of the material, from any failure to adhere to recommendations, or from any hazards inherent in the nature of the material. Purchasers of the product for supply to a third party for use at work, have a duty to take all necessary steps to ensure that any person handling or using the product is provided with the information in this sheet. Employers have a duty to tell employees and others who may be affected of any hazards described in this sheet and of any precautions that should be taken. You can contact the BP Group to ensure that this document is the most current available. Alteration of this document is strictly prohibited.

**Product name** Castrol Pyroplex Blue 2

**Product code** 453759-CA01 US06  
US12 US81

Page: 9/9

**Version** 7.02

**Date of issue** 12/13/2016.

**Format Canada**  
**(Canada)**

**Language ENGLISH**  
**(ENGLISH)**

# SAFETY DATA SHEET



Castrol Tecton Extra 15W-40

## Section 1. Identification

<b>GHS product identifier</b>	Castrol Tecton Extra 15W-40
<b>Product code</b>	465297-CA01
<b>SDS #</b>	465297
<b>Relevant identified uses of the substance or mixture and uses advised against</b>	
<b>Use of the substance/ mixture</b>	Engine Oils. For specific application advice see appropriate Technical Data Sheet or consult our company representative.
<b>Manufacturer</b>	BP Lubricants USA Inc. 1500 Valley Road Wayne, NJ 07470 Telephone: (973) 633-2200
<b>Supplier</b>	Wakefield Canada, Limited 3620 Lakeshore Blvd West Toronto, Ontario, Canada M8W 1P2 Phone Number - 416-252-5511
<b>EMERGENCY HEALTH INFORMATION:</b>	1 (800) 447-8735  Outside the US: +1 703-527-3887 (CHEMTREC)
<b>EMERGENCY TELEPHONE NUMBER</b>	1 (800) 447-8735  Outside the US: +1 703-527-3887 (CHEMTREC)

## Section 2. Hazard identification

<b>Classification of the substance or mixture</b>	Not classified.
<b>GHS label elements</b>	
<b>Signal word</b>	No signal word.
<b>Hazard statements</b>	No known significant effects or critical hazards.
<b>Precautionary statements</b>	
<b>General</b>	P103 - Read label before use. P102 - Keep out of reach of children. P101 - If medical advice is needed, have product container or label at hand.
<b>Prevention</b>	Not applicable.
<b>Response</b>	Not applicable.
<b>Storage</b>	Not applicable.
<b>Disposal</b>	Not applicable.
<b>Other hazards which do not result in classification</b>	Defatting to the skin. USED ENGINE OILS Used engine oil may contain hazardous components which have the potential to cause skin cancer. See Toxicological Information, section 11 of this Safety Data Sheet.

## Section 3. Composition/information on ingredients

**Substance/mixture** Mixture

Highly refined base oil (IP 346 DMSO extract < 3%). Proprietary performance additives.

Ingredient name	CAS number	% (w/w)
Base oil - highly refined	Varies - See Key to abbreviations	≥75 - ≤90
Base oil - highly refined	Varies - See Key to abbreviations	≤10
Distillates (petroleum), hydrotreated heavy paraffinic	64742-54-7	≤3

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

## Section 4. First-aid measures

### Description of necessary first aid measures

<b>Eye contact</b>	In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Eyelids should be held away from the eyeball to ensure thorough rinsing. Check for and remove any contact lenses. Get medical attention.
<b>Skin contact</b>	Wash skin thoroughly with soap and water or use recognized skin cleanser. Remove contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention if symptoms occur.
<b>Inhalation</b>	If inhaled, remove to fresh air. Get medical attention if symptoms occur.
<b>Ingestion</b>	Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.
<b>Protection of first-aiders</b>	No action shall be taken involving any personal risk or without suitable training.

### Most important symptoms/effects, acute and delayed

See Section 11 for more detailed information on health effects and symptoms.

### Indication of immediate medical attention and special treatment needed, if necessary

<b>Notes to physician</b>	Treatment should in general be symptomatic and directed to relieving any effects.
<b>Specific treatments</b>	No specific treatment.

## Section 5. Fire-fighting measures

### Extinguishing media

<b>Suitable extinguishing media</b>	In case of fire, use foam, dry chemical or carbon dioxide extinguisher or spray.
<b>Unsuitable extinguishing media</b>	Do not use water jet.
<b>Specific hazards arising from the chemical</b>	In a fire or if heated, a pressure increase will occur and the container may burst.
<b>Hazardous thermal decomposition products</b>	Combustion products may include the following: carbon dioxide carbon monoxide
<b>Special protective actions for fire-fighters</b>	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
<b>Special protective equipment for fire-fighters</b>	Fire-fighters should wear positive pressure self-contained breathing apparatus (SCBA) and full turnout gear.

## Section 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures

**For non-emergency personnel** No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment. Floors may be slippery; use care to avoid falling.

**For emergency responders** If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

**Environmental precautions** Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

### Methods and materials for containment and cleaning up

**Small spill** Stop leak if without risk. Move containers from spill area. Absorb with an inert material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

**Large spill** Stop leak if without risk. Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Dispose of via a licensed waste disposal contractor.

## Section 7. Handling and storage

### Precautions for safe handling

**Protective measures** Put on appropriate personal protective equipment (see Section 8).

**Advice on general occupational hygiene** Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Wash thoroughly after handling. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

**Conditions for safe storage, including any incompatibilities** Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Store and use only in equipment/containers designed for use with this product. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

**Not suitable** Prolonged exposure to elevated temperature

## Section 8. Exposure controls/personal protection

### Control parameters

#### Occupational exposure limits

<b>Ingredient name</b>	<b>Exposure limits</b>
Base oil - highly refined	<b>CA Alberta Provincial (Canada).</b> 15 min OEL: 10 mg/m <sup>3</sup> 15 minutes. Issued/Revised: 7/2009 Form: Mist 8 hrs OEL: 5 mg/m <sup>3</sup> 8 hours. Issued/Revised: 4/2004 Form: Mist <b>CA Québec Provincial (Canada).</b> STEV: 10 mg/m <sup>3</sup> 15 minutes. Issued/Revised: 1/2000 Form: mist TWAEV: 5 mg/m <sup>3</sup> 8 hours. Issued/Revised: 1/2000 Form: mist
Base oil - highly refined	<b>CA Alberta Provincial (Canada).</b> 15 min OEL: 10 mg/m <sup>3</sup> 15 minutes. Issued/Revised: 7/2009 Form: Mist 8 hrs OEL: 5 mg/m <sup>3</sup> 8 hours. Issued/Revised: 4/2004 Form: Mist

## Section 8. Exposure controls/personal protection

Distillates (petroleum), hydrotreated heavy paraffinic

### CA Québec Provincial (Canada).

STEV: 10 mg/m<sup>3</sup> 15 minutes. Issued/Revised: 1/2000

Form: mist

TWAEV: 5 mg/m<sup>3</sup> 8 hours. Issued/Revised: 1/2000

Form: mist

### CA Alberta Provincial (Canada).

8 hrs OEL: 5 mg/m<sup>3</sup> 8 hours. Issued/Revised: 4/2004

Form: Mist

15 min OEL: 10 mg/m<sup>3</sup> 15 minutes. Issued/Revised:

7/2009 Form: Mist

### CA Québec Provincial (Canada).

TWAEV: 5 mg/m<sup>3</sup> 8 hours. Issued/Revised: 1/2000

Form: mist

STEV: 10 mg/m<sup>3</sup> 15 minutes. Issued/Revised: 1/2000

Form: mist

### Appropriate engineering controls

All activities involving chemicals should be assessed for their risks to health, to ensure exposures are adequately controlled. Personal protective equipment should only be considered after other forms of control measures (e.g. engineering controls) have been suitably evaluated. Personal protective equipment should conform to appropriate standards, be suitable for use, be kept in good condition and properly maintained.

Your supplier of personal protective equipment should be consulted for advice on selection and appropriate standards. For further information contact your national organisation for standards.

Provide exhaust ventilation or other engineering controls to keep the relevant airborne concentrations below their respective occupational exposure limits.

The final choice of protective equipment will depend upon a risk assessment. It is important to ensure that all items of personal protective equipment are compatible.

### Environmental exposure controls

Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

### Individual protection measures

#### Hygiene measures

Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

#### Eye/face protection

Safety glasses with side shields.

#### Skin protection

##### Hand protection

Wear protective gloves if prolonged or repeated contact is likely. Wear chemical resistant gloves. Recommended: Nitrile gloves. The correct choice of protective gloves depends upon the chemicals being handled, the conditions of work and use, and the condition of the gloves (even the best chemically resistant glove will break down after repeated chemical exposures). Most gloves provide only a short time of protection before they must be discarded and replaced. Because specific work environments and material handling practices vary, safety procedures should be developed for each intended application. Gloves should therefore be chosen in consultation with the supplier/manufacturer and with a full assessment of the working conditions.

##### Body protection

Use of protective clothing is good industrial practice. Cotton or polyester/cotton overalls will only provide protection against light superficial contamination that will not soak through to the skin. Overalls should be laundered on a regular basis. When the risk of skin exposure is high (e.g. when cleaning up spillages or if there is a risk of splashing) then chemical resistant aprons and/or impervious chemical suits and boots will be required. Personal protective equipment for the body should be selected based on the task

## Section 8. Exposure controls/personal protection

being performed and the risks involved and should be approved by a specialist before handling this product.

### Other skin protection

Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

### Respiratory protection

In case of insufficient ventilation, wear suitable respiratory equipment. The correct choice of respiratory protection depends upon the chemicals being handled, the conditions of work and use, and the condition of the respiratory equipment. Safety procedures should be developed for each intended application. Respiratory protection equipment should therefore be chosen in consultation with the supplier/manufacturer and with a full assessment of the working conditions.

## Section 9. Physical and chemical properties

### Appearance

Physical state	Liquid.
Color	Brown.
Odor	Not available.
Odor threshold	Not available.
pH	Not available.
Melting point	Not available.
Boiling point	Not available.
Flash point	Open cup: 200°C (392°F) [Cleveland.]
Pour point	-39 °C
Drop Point	Not available.
Evaporation rate	Not available.
Flammability (solid, gas)	Not applicable. Based on - Physical state
Lower and upper explosive (flammable) limits	Not available.
Vapor pressure	Not available.
Vapor density	Not available.
Density	875 kg/m <sup>3</sup> (0.875 g/cm <sup>3</sup> ) at 15°C
Relative density	Not available.
Solubility	insoluble in water.
Partition coefficient: n-octanol/water	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	Kinematic: 114.6 mm <sup>2</sup> /s (114.6 cSt) at 40°C Kinematic: 15 mm <sup>2</sup> /s (15 cSt) at 100°C

## Section 10. Stability and reactivity

Reactivity	No specific test data available for this product. Refer to Conditions to avoid and Incompatible materials for additional information.
Chemical stability	The product is stable.
Possibility of hazardous reactions	Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous polymerization will not occur.
Conditions to avoid	Avoid all possible sources of ignition (spark or flame).

## Section 10. Stability and reactivity

**Incompatible materials** Reactive or incompatible with the following materials: oxidizing materials.

**Hazardous decomposition products** Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## Section 11. Toxicological information

### Information on toxicological effects

#### Aspiration hazard

Name	Result
Base oil - highly refined Distillates (petroleum), hydrotreated heavy paraffinic	ASPIRATION HAZARD - Category 1 ASPIRATION HAZARD - Category 1

**Information on the likely routes of exposure** Routes of entry anticipated: Dermal, Inhalation.

#### Potential acute health effects

**Eye contact** No known significant effects or critical hazards.

**Skin contact** Defatting to the skin. May cause skin dryness and irritation.

**Inhalation** Vapor inhalation under ambient conditions is not normally a problem due to low vapor pressure.

**Ingestion** No known significant effects or critical hazards.

#### Symptoms related to the physical, chemical and toxicological characteristics

**Eye contact** No specific data.

**Inhalation** No specific data.

**Skin contact** Adverse symptoms may include the following:  
irritation  
dryness  
cracking

**Ingestion** No specific data.

#### Delayed and immediate effects and also chronic effects from short and long term exposure

##### Short term exposure

**Potential immediate effects** Not available.

**Potential delayed effects** Not available.

##### Long term exposure

**Potential immediate effects** Not available.

**Potential delayed effects** Not available.

#### Potential chronic health effects

**General** USED ENGINE OILS  
Combustion products resulting from the operation of internal combustion engines contaminate engine oils during use. Used engine oil may contain hazardous components which have the potential to cause skin cancer. Frequent or prolonged contact with all types and makes of used engine oil must therefore be avoided and a high standard of personal hygiene maintained.

**Carcinogenicity** No known significant effects or critical hazards.

**Mutagenicity** No known significant effects or critical hazards.

**Teratogenicity** No known significant effects or critical hazards.

**Developmental effects** No known significant effects or critical hazards.

**Fertility effects** No known significant effects or critical hazards.

#### Numerical measures of toxicity

##### Acute toxicity estimates

Not available.

## Other information

This product contains low levels of para-dodecylphenol. Para-dodecylphenol given orally to rats repeatedly at high dose levels caused adverse reproductive effects. The relevance of these findings to humans is uncertain. These effects are not expected to occur with the use of this product as intended when good personal hygiene is practiced.

## Section 12. Ecological information

### Toxicity

No testing has been performed by the manufacturer.

### Persistence and degradability

Expected to be biodegradable.

### Bioaccumulative potential

This product is not expected to bioaccumulate through food chains in the environment.

### Mobility in soil

#### Soil/water partition coefficient ( $K_{oc}$ )

Not available.

#### Mobility

Spillages may penetrate the soil causing ground water contamination.

### Other ecological information

Spills may form a film on water surfaces causing physical damage to organisms. Oxygen transfer could also be impaired.

## Section 13. Disposal considerations

### Disposal methods

The generation of waste should be avoided or minimized wherever possible. Significant quantities of waste product residues should not be disposed of via the foul sewer but processed in a suitable effluent treatment plant. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

## Section 14. Transport information

	<b>DOT Classification</b>	<b>TDG Classification</b>	<b>IMDG</b>	<b>IATA</b>
<b>UN number</b>	Not regulated.	Not regulated.	Not regulated.	Not regulated.
<b>UN proper shipping name</b>	-	-	-	-
<b>Transport hazard class(es)</b>	-	-	-	-
<b>Packing group</b>	-	-	-	-
<b>Environmental hazards</b>	No.	No.	No.	No.
<b>Additional information</b>	-	-	-	-

## Section 14. Transport information

**Special precautions for user** Not available.

**Transport in bulk according to Annex II of MARPOL and the IBC Code** Not available.

## Section 15. Regulatory information

### Other regulations

<b>Australia inventory (AICS)</b>	All components are listed or exempted.
<b>Canada inventory</b>	All components are listed or exempted.
<b>China inventory (IECSC)</b>	<input checked="" type="checkbox"/> At least one component is not listed.
<b>Japan inventory (ENCS)</b>	All components are listed or exempted.
<b>Korea inventory (KECI)</b>	All components are listed or exempted.
<b>Philippines inventory (PICCS)</b>	All components are listed or exempted.
<b>Taiwan Chemical Substances Inventory (TCSI)</b>	<input checked="" type="checkbox"/> All components are listed or exempted.
<b>United States inventory (TSCA 8b)</b>	All components are listed or exempted.
<b>REACH Status</b>	For the REACH status of this product please consult your company contact, as identified in Section 1.

## Section 16. Other information

### History

**Date of issue/Date of revision** 22/06/2017

**Date of previous issue** 13/12/2016.

**Version** 11

**Prepared by** Product Stewardship

### Key to abbreviations

ATE = Acute Toxicity Estimate  
BCF = Bioconcentration Factor  
CAS Number = Chemical Abstracts Service Registry Number  
GHS = Globally Harmonized System of Classification and Labelling of Chemicals  
IATA = International Air Transport Association  
IBC = Intermediate Bulk Container  
IMDG = International Maritime Dangerous Goods  
LogPow = logarithm of the octanol/water partition coefficient  
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)  
UN = United Nations  
HPR = Hazardous Products Regulations  
Varies = may contain one or more of the following 101316-69-2, 101316-70-5, 101316-71-6, 101316-72-7, 64741-88-4, 64741-89-5, 64741-95-3, 64741-96-4, 64741-97-5, 64742-01-4, 64742-44-5, 64742-45-6, 64742-52-5, 64742-53-6, 64742-54-7, 64742-55-8, 64742-56-9, 64742-57-0, 64742-58-1, 64742-62-7, 64742-63-8, 64742-64-9, 64742-65-0, 64742-70-7, 72623-85-9, 72623-86-0, 72623-87-1, 74869-22-0, 90669-74-2

**References** Not available.

Indicates information that has changed from previously issued version.

### Notice to reader

## Section 16. Other information

All reasonably practicable steps have been taken to ensure this data sheet and the health, safety and environmental information contained in it is accurate as of the date specified below. No warranty or representation, express or implied is made as to the accuracy or completeness of the data and information in this data sheet.

The data and advice given apply when the product is sold for the stated application or applications. You should not use the product other than for the stated application or applications without seeking advice from BP Group.

It is the user's obligation to evaluate and use this product safely and to comply with all applicable laws and regulations. The BP Group shall not be responsible for any damage or injury resulting from use, other than the stated product use of the material, from any failure to adhere to recommendations, or from any hazards inherent in the nature of the material. Purchasers of the product for supply to a third party for use at work, have a duty to take all necessary steps to ensure that any person handling or using the product is provided with the information in this sheet. Employers have a duty to tell employees and others who may be affected of any hazards described in this sheet and of any precautions that should be taken. You can contact the BP Group to ensure that this document is the most current available. Alteration of this document is strictly prohibited.

**SAFETY DATA SHEET**

REVISION DATE: 11-07-2017

SUPERSEDES: 04-18-2017

**SECTION 1: IDENTIFICATION OF THE PRODUCT AND SUPPLIER****PRODUCT INFORMATION**

PRODUCT: CHILDERS CP-240  
PRODUCT DESCRIPTION: Sealant  
INTENDED USE: Sealant  
PRODUCT IDENTIFIER: 801871PM

**COMPANY INFORMATION**

H.B. Fuller Construction Products Inc.  
1105 S. Frontenac Street  
Aurora, IL 60504  
Phone: 1-800-552-6225

Medical Emergency Phone Number (24 Hours): 1-888-853-1758  
Transport Emergency Phone Number (CHEMTREC): 1-800-424-9300

**SECTION 2: HAZARDS IDENTIFICATION**

**GHS Classification:** Hazardous to the aquatic environment - Acute Category 3; Hazardous to the aquatic environment - Chronic Category 3; Additional category for effects on or via lactation

**GHS Hazard Phrases:** May cause harm to breast-fed children.; Harmful to aquatic life with long lasting effects.

**GHS Precautions:**

**Safety Precautions:** Obtain special instructions before use. Do not breathe dust/fume/gas/mist/vapours/spray. Avoid contact during pregnancy/while nursing. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Avoid release to the environment.

**First Aid Measures:** IF exposed or concerned: Get medical advice/attention.

**Disposal:** Dispose of contents/container in accordance with local/regional/national/international regulation for hazardous wastes.

**SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS**

Chemical Name	CAS #	PERCENT	Classification	Note
Chlorinated paraffin	63449-39-8	1 - 5	Aquatic Acute 1; H400 Aquatic Chronic 1; H410 Effects on or via lactation; H362	
Chlorinated paraffin, C14-C17	61788-76-9	1 - 5	Aquatic Acute 1; H400 Aquatic Chronic 1; H410	

Unlisted ingredients are not 'hazardous' per the Occupational Safety and Health Administration Hazard Communication Standard (29 CFR 1910.1200) and/or are not found on the Canadian Workplace Hazardous Materials Information System ingredient disclosure list. See Section 8 for exposure limit guidelines.

**SECTION 4: FIRST AID MEASURES**

IF IN EYES: None expected to be needed, however, use an eye wash to remove a chemical from your eye regardless of the level of hazard.

IF ON SKIN: Wash with soap and water.

**SAFETY DATA SHEET**

**IF INHALED:** Remove individual to fresh air after an airborne exposure if any symptoms develop, as a precautionary measure.

**IF SWALLOWED:** Do not induce vomiting. Seek medical attention if symptoms develop. Provide medical care provider with this MSDS. Induced vomiting may lead to aspiration of the material into the lungs potentially causing chemical pneumonitis that may be fatal.

**SECTION 5: FIRE FIGHTING MEASURES**

**EXTINGUISHING MEDIA:** Use water spray, foam, dry chemical or carbon dioxide.  
**UNUSUAL FIRE AND EXPLOSION HAZARDS:** There is a possibility of pressure buildup in closed containers when heated. Water spray may be used to cool the containers.  
**SPECIAL FIRE FIGHTING INSTRUCTIONS:** Persons exposed to products of combustion should wear self-contained breathing apparatus and full protective equipment.  
**HAZARDOUS COMBUSTION PRODUCTS:** Carbon dioxide, Carbon monoxide Chlorine containing gases

**SECTION 6: ACCIDENTAL RELEASE MEASURES**

**SPECIAL PROTECTION:** No adverse health effects expected from the clean-up of spilled material. Follow personal protective equipment recommendations found in Section 8 of this SDS.  
**METHODS FOR CLEAN-UP:** Dike if necessary, contain spill with inert absorbent and transfer to containers for disposal. Keep spilled product out of sewers, watersheds, or water systems.

Transport Emergency Phone Number (CHEMTREC): 1-800-424-9300

**SECTION 7: HANDLING AND STORAGE**

**Handling:** No special handling instructions due to toxicity.

**Storage:** Store in a cool, dry place. Protect from freezing.  
Consult the Technical Data Sheet for specific storage instructions.

**SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION****EXPOSURE LIMITS:**

Chemical Name	Note	ACGIH EXPOSURE LIMITS	OSHA PEL
No data available.			

**ENGINEERING CONTROL METHODS:**

**VENTILATION:** General room ventilation might be required under normal conditions of use.  
**EYE PROTECTION:** Wear safety glasses when handling this product.  
**SKIN PROTECTION:** Not normally considered a skin hazard. Where use can result in skin contact, practice good personal hygiene. Wash hands and other exposed areas with mild soap and water before eating, drinking, and when leaving work.

**SAFETY DATA SHEET**

GLOVES: Not normally required. Use nitrile gloves if conditions warrant.  
 RESPIRATORY PROTECTION: No respiratory protection required under normal conditions of use. Respirators should be selected by and used following requirements found in OSHA's respirator standard (29 CFR 1910.134).

**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**

PHYSICAL STATE: Liquid  
 COLOR: Colorless  
 ODOR: Sweet  
 ODOR THRESHOLD: Not established  
 pH: Not established  
 FREEZING/MELTING POINT (deg. C): Not established  
 BOILING POINT (deg. C): Not established  
 FLASH POINT: Non flammable  
 EVAPORATION RATE: Not established  
 FLAMMABILITY: Not a flammable solid or gas  
 UPPER EXPLOSIVE LIMIT (% in air): Not established  
 LOWER EXPLOSIVE LIMIT (% in air): Not established  
 VAPOR PRESSURE (mm Hg): Not established  
 VAPOR DENSITY: Not established  
 WEIGHT PER GALLON (lbs.): 8.40  
 SPECIFIC GRAVITY: 1.000  
 SOLUBILITY: Not established  
 OCTANOL/WATER COEFFICIENT: Not established  
 AUTOIGNITION TEMPERATURE: Not established  
 DECOMPOSITION TEMPERATURE: Not established  
 VISCOSITY: No data available.  
 SOLIDS (% by weight): 10.0  
 VOC, weight percent 0.00  
 VOC, U.S. EPA Method 24, less water and exempt solvents (theoretically determined) 0g/liter of material

**SECTION 10: STABILITY AND REACTIVITY**

STABILITY: Stable under normal conditions.  
 CHEMICAL INCOMPATIBILITY: Not established  
 HAZARDOUS POLYMERIZATION: Will not occur.  
 HAZARDOUS DECOMPOSITION PRODUCTS: Chlorine containing gases Carbon monoxide, carbon dioxide

**SECTION 11: TOXICOLOGICAL INFORMATION**

**Component Toxicity / Toxicology Data:**

COMPONENT NAME	LD50/LC50
Chlorinated paraffin	Oral LD50 Rat > 21,500 microliter/kg
Chlorinated paraffin	Oral LD50 Rat > 21,500 microliter/kg

**This product is a mixture. Unless noted, the information below is based on components.**

Skin corrosion / irritation: No irritation hazard in normal industrial use.

### SAFETY DATA SHEET

Serious eye damage / irritation :No irritation hazard in normal industrial use.

Respiratory / skin sensitization: No data available.

Germ cell mutagenicity: No data available.

Carcinogenicity: Contains a material that is suspected of causing cancer.

Reproductive toxicity: No data available.

Specific target organ toxicity-single exposure: No data available.

Respiratory irritation / Narcotic effects: No data available.

Specific target organ toxicity-repeated exposure: No data available.

Target organs potentially affected by exposure: Kidneys Liver

Aspiration hazard: Not an aspiration hazard.

Medical Conditions Aggravated by Exposure: Liver disease, Kidney disease

#### SECTION 12: ECOLOGICAL INFORMATION

OVERVIEW:	No ecological information available for this product.
MOBILITY:	No data available.
PERSISTENCE:	No data available.
BIOACCUMULATION:	No data available.

**This product has not been tested for ecological effects. Relevant information for components is listed below:**

Component:	Ecotoxicity values:
Chlorinated paraffin	<b>Acute Toxicity (Fish):</b> 96 Hr LC50 Oncorhynchus mykiss: >0.0109 mg/L [flow-through]; 96 Hr LC50 Oncorhynchus mykiss: 94.5 - 271 mg/L [static]; 96 Hr LC50 Lepomis macrochirus: >0.1 mg/L [flow-through] <b>Acute Toxicity (Daphnia):</b> Not established <b>Acute Toxicity (Algae):</b> Not established
Chlorinated paraffin	<b>Acute Toxicity (Fish):</b> 96 Hr LC50 Oncorhynchus mykiss: >0.0109 mg/L [flow-through]; 96 Hr LC50 Oncorhynchus mykiss: 94.5 - 271 mg/L [static]; 96 Hr LC50 Lepomis macrochirus: >0.1 mg/L [flow-through] <b>Acute Toxicity (Daphnia):</b> Not established <b>Acute Toxicity (Algae):</b> Not established

#### SECTION 13: DISPOSAL CONSIDERATIONS

To the best of our knowledge, this product does not meet the definition of hazardous waste under the U.S. EPA Hazardous Waste Regulations 40 CFR 261. Solidify and dispose of in an approved landfill. Consult state, local or provincial authorities for more restrictive requirements.

#### SECTION 14: TRANSPORT INFORMATION

Consult Bill of Lading for transportation information.

US DOT:	NOT REGULATED
IATA:	UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCES, LIQUID, N.O.S. (C14-C17 CHLORINATED PARAFFINS), 9, PGIII, MARINE POLLUTANT (PACKAGES <5 L NOT REGULATED, IATA 4.4, SP A197).
IMDG:	UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCES, LIQUID, N.O.S. (C14-C17 CHLORINATED PARAFFINS), 9, PGIII, MARINE POLLUTANT (PACKAGES <5 L NOT REGULATED, IMDG 3.3 SP 969).

**SAFETY DATA SHEET****SECTION 15: REGULATORY INFORMATION****INVENTORY STATUS**

U.S. EPA TSCA:	This product is in compliance with the Toxic Substances Control Act's Inventory requirements.
CANADIAN CEPA DSL:	The components of this product are included on the DSL or are exempt from DSL requirements.
EUROPEAN REACH:	As a result of the introduction of REACH into Europe, this product cannot be imported into Europe unless the REACH requirements are met.
AUSTRALIA AICS:	This product is in compliance with the Australian Inventory of Chemical Substances requirements.
JAPAN ENCS:	This product is in compliance with the Japanese Existing and New Chemical Substances requirements.
KOREAN TCCL:	This product is in compliance with the Korean Existing Chemicals List requirements.
PHILIPPINES:	This product is in compliance with the Philippine Inventory of Chemicals and Chemical Substances requirements.
CHINA IECSC INVENTORY:	This product is in compliance with the Inventory of Existing Chemical Substances in China (IECSC) requirements.

If you need more information about the inventory status of this product call 651-236-5858.

This product may contain chemical substances that are regulated for export by various government agencies (such as the Environmental Protection Agency, the Bureau of Industry and Security, or the Drug Enforcement Administration, among others). Before exporting this product from the USA or Canada, we recommend you contact us at [reg.request@hbfuller.com](mailto:reg.request@hbfuller.com) to request an export review.

**FEDERAL REPORTING**

## EPA SARA Title III Section 313

Unless listed below, this product does not contain toxic chemical(s) subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA) and 40 CFR part 372. EPA has advised that when a percentage range is listed the midpoint may be used to fulfill reporting obligations.

Chemical Name	CAS#	%
---------------	------	---

**STATE REPORTING**

Proposition 65, The Safe Drinking Water and Toxic Enforcement Act of 1986:

Unless listed below, this product does not contain known levels of any chemical known to the State of California to cause cancer or reproductive harm.

Chemical Name/List	CAS	Percent
Acetaldehyde (Carcinogen)	75-07-0	0.001 - 0.01
Formaldehyde (Carcinogen)	50-00-0	0.001 - 0.01
Methyl isobutyl ketone (Carcinogen)	108-10-1	< 10 ppm
Methanol (Developmental toxin)	67-56-1	< 10 ppm
Methyl isobutyl ketone (Developmental toxin)	108-10-1	< 10 ppm

**Substances of Very High Concern (SVHC) Content:**

Unless listed below, this product does not contain SVHC's at 0.1% or greater, as of the version date of this SDS.

**SECTION 16: OTHER INFORMATION**

**SAFETY DATA SHEET**

---

SDS VERSION DATE: 11-07-2017

This Safety Data Sheet is prepared to comply with the United States Occupational Safety and Health Administration (OSHA) Hazard Communication Standard (29 CFR 1910.1200) and the Canadian Workplace Hazardous Materials Information System (WHMIS).

HMIS RATING: HEALTH -- 0 FLAMMABILITY -- 0 REACTIVITY -- 0

See SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for personal protective equipment recommendations.

Prepared by: The Global Regulatory Department

Phone: 651-236-5842

The information and recommendations set forth herein are believed to be accurate. Because some of the information is derived from information provided to H.B. Fuller Construction Products, Inc. from its suppliers, and because H.B. Fuller Construction Products, Inc. has no control over the conditions of handling and use, H.B. Fuller Construction Products, Inc. makes no warranty, expressed or implied, regarding the accuracy of the data or the results to be obtained from the use thereof. The information is supplied solely for your information and consideration, and H.B. Fuller Construction Products, Inc. assumes no responsibility for use or reliance thereon. It is the responsibility of the user of H.B. Fuller Construction Products, Inc. products to comply with all applicable federal, state and local laws and regulations.



# SAFETY DATA SHEET

## 1. Identification

<b>Product identifier</b>	<b>CGC Sheetrock® Brand Sheetrock® [5/20/45/90] Setting-Type Joint Compound</b>	
<b>Other means of identification</b>		
<b>SDS number</b>	61001020002	
<b>Synonyms</b>	Joint Compound (Setting Type), Finishing Compound, Taping Compound, Mud	
<b>Recommended use</b>	Interior use.	
<b>Recommended restrictions</b>	Use in accordance with manufacturer's recommendations.	
<b>Manufacturer/Importer/Supplier/Distributor information</b>		
<b>Company name</b>	CGC Inc.	
<b>Address</b>	350 Burnhamthorpe Road West, 5th Floor Mississauga, Ontario L5B 3J1 A Subsidiary of USG Corporation	
<b>Telephone</b>	1-800-387-2690	
<b>Website</b>	www.cgcinc.com	
<b>Emergency phone number</b>	1-800-507-8899	

## 2. Hazard(s) identification

<b>Physical hazards</b>	Not classified.	
<b>Health hazards</b>	Carcinogenicity	Category 1A
<b>Environmental hazards</b>	Not classified.	
<b>Label elements</b>		



<b>Signal word</b>	Danger	
<b>Hazard statement</b>	May cause cancer.	

<b>Precautionary statements</b>		
<b>Prevention</b>	Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves/protective clothing/eye protection/face protection.	
<b>Response</b>	If exposed or concerned: Get medical advice/attention.	
<b>Storage</b>	Store locked up.	
<b>Disposal</b>	Dispose of in accordance with local, provincial, and federal regulations.	
<b>Other hazards</b>	None known.	
<b>Supplemental information</b>	None.	

## 3. Composition/information on ingredients

### Mixtures

<b>Chemical name</b>	<b>CAS number</b>	<b>%</b>
Perlite	93763-70-3	< 10
Attapulgate	12174-11-7	< 5

### Impurities

	<b>CAS number</b>	<b>%</b>
Crystalline silica (quartz)	14808-60-7	< 0.75

## Composition comments

All concentrations are in percent by weight unless ingredient is a gas.

Raw materials in this product contain respirable crystalline silica as an impurity. The weight percent of respirable crystalline silica found in this product is < 0.75%. Exposures to respirable crystalline silica during the normal use of this product must be determined by workplace hygiene testing.

## 4. First-aid measures

### Inhalation

Dust irritates the respiratory system, and may cause coughing and difficulties in breathing. Move injured person into fresh air and keep person calm under observation. Get medical attention if symptoms persist.

### Skin contact

Contact with dust: Rinse area with plenty of water. Get medical attention if irritation develops or persists.

### Eye contact

Dust in the eyes: Do not rub eyes. Flush thoroughly with water. If irritation occurs, get medical assistance.

### Ingestion

Plaster of Paris hardens and if ingested may result in stomach and intestinal blockage. Drinking gelatin solutions or large volumes of water may delay setting.

### Most important symptoms/effects, acute and delayed

Under normal conditions of intended use, this product is not expected to be a health risk. Dust may irritate throat and respiratory system and cause coughing.

### Indication of immediate medical attention and special treatment needed

Provide general supportive measures and treat symptomatically.

### General information

Ensure that medical personnel are aware of the material(s) involved.

## 5. Fire-fighting measures

### Suitable extinguishing media

Use fire-extinguishing media appropriate for surrounding materials.

### Unsuitable extinguishing media

Not applicable.

### Specific hazards arising from the chemical

Not a fire hazard.

### Special protective equipment and precautions for firefighters

Selection of respiratory protection for firefighting: follow the general fire precautions indicated in the workplace. Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

### Fire fighting equipment/instructions

Use standard firefighting procedures and consider the hazards of other involved materials.

### Specific methods

Cool material exposed to heat with water spray and remove it if no risk is involved.

### General fire hazards

No unusual fire or explosion hazards noted.

## 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures

See Section 8 of the SDS for Personal Protective Equipment.

### Methods and materials for containment and cleaning up

Vacuum up the spilled material. Vacuums used for this purpose should be equipped with HEPA filters. Containers must be labeled. Collect in approved containers and seal securely. For waste disposal, see Section 13 of the SDS.

### Environmental precautions

Avoid discharge to drains, sewers, and other water systems.

## 7. Handling and storage

### Precautions for safe handling

Minimize dust production when mixing, sanding, or opening and closing bags. Avoid inhalation of dust. Wear appropriate personal protective equipment. Wash hands after handling. Observe good industrial hygiene practices and use appropriate lifting techniques.

### Conditions for safe storage, including any incompatibilities

Store in a cool, dry, well-ventilated place. Store away from incompatible materials. Avoid contact with acids, water, and moisture.

## 8. Exposure controls/personal protection

### Occupational exposure limits

#### US. ACGIH Threshold Limit Values

Components	Type	Value	Form
Dust	TWA	3 mg/m <sup>3</sup>	Respirable particles.

## US. ACGIH Threshold Limit Values

Components	Type	Value	Form
		10 mg/m <sup>3</sup>	Inhalable particles.
Impurities	Type	Value	Form
Crystalline silica (quartz) (CAS 14808-60-7)	TWA	0.025 mg/m <sup>3</sup>	Respirable fraction.

## Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2)

Components	Type	Value	Form
Dust	TWA	3 mg/m <sup>3</sup>	Respirable particles.
		10 mg/m <sup>3</sup>	Total particulate.
Impurities	Type	Value	Form
Crystalline silica (quartz) (CAS 14808-60-7)	TWA	0.025 mg/m <sup>3</sup>	Respirable particles.

## Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended)

Components	Type	Value	Form
Dust	TWA	3 mg/m <sup>3</sup>	Respirable fraction.
		10 mg/m <sup>3</sup>	Total dust.
Impurities	Type	Value	Form
Crystalline silica (quartz) (CAS 14808-60-7)	TWA	0.025 mg/m <sup>3</sup>	Respirable fraction.

## Canada. Manitoba OELs (Reg. 217/2006, The Workplace Safety And Health Act)

Impurities	Type	Value	Form
Crystalline silica (quartz) (CAS 14808-60-7)	TWA	0.025 mg/m <sup>3</sup>	Respirable fraction.

## Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents)

Components	Type	Value	Form
Dust	TWA	3 mg/m <sup>3</sup>	Respirable particles.
		10 mg/m <sup>3</sup>	Inhalable
Perlite (CAS 93763-70-3)	TWA	10 mg/m <sup>3</sup>	
Impurities	Type	Value	Form
Crystalline silica (quartz) (CAS 14808-60-7)	TWA	0.1 mg/m <sup>3</sup>	Respirable.

## Canada. Quebec OELs. (Ministry of Labour - Regulation Respecting the Quality of the Work Environment)

Components	Type	Value	Form
Attapulgit (CAS 12174-11-7)	TWA	1 fibers/cm <sup>3</sup>	Fiber.
Dust	TWA	10 mg/m <sup>3</sup>	Total dust.
Impurities	Type	Value	Form
Crystalline silica (quartz) (CAS 14808-60-7)	TWA	0.1 mg/m <sup>3</sup>	Respirable dust.

### Biological limit values

No biological exposure limits noted for the ingredient(s).

### Appropriate engineering controls

Provide sufficient ventilation for operations causing dust formation. Observe occupational exposure limits and minimise the risk of exposure.

### Individual protection measures, such as personal protective equipment

#### Eye/face protection

Wear approved safety goggles.

#### Skin protection

##### Hand protection

It is a good industrial hygiene practice to minimise skin contact. For prolonged or repeated skin contact use suitable protective gloves.

##### Other

Normal work clothing (long sleeved shirts and long pants) is recommended.

**Respiratory protection**

If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. Use a NIOSH/MSHA approved air purifying respirator as needed to control exposure. Consult with respirator manufacturer to determine respirator selection, use, and limitations. Use positive pressure air supplied respirator for uncontrolled releases or when air purifying respirator limitations may be exceeded. Follow respirator protection program requirements (OSHA 1910.134 and ANSI Z88.2) for all respirator use.

**Thermal hazards**

None.

**General hygiene considerations**

Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment separately from regular wash. Observe any medical surveillance requirements.

**9. Physical and chemical properties****Appearance****Physical state**

Solid.

**Form**

Powder.

**Colour**

Off-white.

**Odour**

Low to no odour.

**Odour threshold**

Not applicable.

**pH**

7.5 - 10.1

**Melting point/freezing point**

Not applicable.

**Initial boiling point and boiling range**

Not applicable.

**Flash point**

Not applicable.

**Evaporation rate**

Not applicable.

**Flammability (solid, gas)**

Not applicable.

**Upper/lower flammability or explosive limits****Flammability limit - lower (%)**

Not applicable.

**Flammability limit - upper (%)**

Not applicable.

**Explosive limit - lower (%)**

Not applicable.

**Explosive limit - upper (%)**

Not applicable.

**Vapour pressure**

Not applicable.

**Vapour density**

Not applicable.

**Relative density**

0.6 - 0.9 (H<sub>2</sub>O=1)

**Solubility(ies)****Solubility (water)**

Soluble in water.

**Partition coefficient (n-octanol/water)**

Not applicable.

**Auto-ignition temperature**

Not applicable.

**Decomposition temperature**

Not applicable.

**Viscosity**

Not applicable.

**Other information****Bulk density**

600 - 900 kg/m<sup>3</sup>

**VOC (Weight %)**

None detected.

**10. Stability and reactivity****Reactivity**

The product is stable and non-reactive under normal conditions of use, storage and transport.

**Chemical stability**

Material is stable under normal conditions.

**Possibility of hazardous reactions**

Hazardous polymerisation does not occur.

<b>Conditions to avoid</b>	When mixed with water this product can become very hot. Encasing or making moulds of any body part can cause serious burns that may require surgical removal of affected tissue and even amputation of encased body part.
<b>Incompatible materials</b>	Acids. Exposure to water and acids must be supervised because the reactions are vigorous and produce large amounts of heat. Crystalline silica in contact with powerful oxidizing agents, such as fluorine, chlorine trifluoride and oxygen difluoride, may cause fires. Crystalline silica will dissolve in hydrofluoric acid and produce a corrosive gas, silicon tetrafluoride.
<b>Hazardous decomposition products</b>	Calcium oxides. Sulphur oxides. Silicon oxides. Above 800°C (1472°F) limestone (CaCO <sub>3</sub> ) can decompose to lime (CaO) and release carbon dioxide (CO <sub>2</sub> ).

## 11. Toxicological information

### Information on likely routes of exposure

<b>Inhalation</b>	Inhalation of dusts may cause respiratory irritation. Prolonged and repeated exposure to airborne respirable crystalline silica can cause silicosis and/or lung cancer.
<b>Skin contact</b>	Under normal conditions of intended use, this product does not pose a skin hazard.
<b>Eye contact</b>	Direct contact with airborne particulates may cause temporary irritation.
<b>Ingestion</b>	Ingestion may cause irritation and stomach discomfort.
<b>Symptoms related to the physical, chemical and toxicological characteristics</b>	Dust may irritate eyes and mucous membranes of the nose, throat and upper respiratory system causing sneezing and/or coughing.

### Information on toxicological effects

<b>Acute toxicity</b>	Not expected to be a hazard under normal conditions of intended use.
<b>Skin corrosion/irritation</b>	Prolonged or repeated skin contact may cause drying, cracking, or irritation.
<b>Serious eye damage/eye irritation</b>	Direct contact with eyes may cause temporary irritation.
<b>Respiratory or skin sensitisation</b>	
<b>Respiratory sensitisation</b>	Not a respiratory sensitizer.
<b>Skin sensitisation</b>	Not a skin sensitizer. Plaster of Paris has displayed little sensitization potential.
<b>Germ cell mutagenicity</b>	Data does not suggest that this product or any components present at greater than 0.1% are mutagenic or genotoxic.
<b>Carcinogenicity</b>	Repeated and prolonged exposure to high levels of respirable crystalline silica may cause cancer.

#### ACGIH Carcinogens

Crystalline silica (quartz) (CAS 14808-60-7) A2 Suspected human carcinogen.

#### Canada - Alberta OELs: Carcinogen category

Crystalline silica (quartz) (CAS 14808-60-7) Suspected human carcinogen.

#### Canada - Manitoba OELs: carcinogenicity

SILICA, CRYSTALLINE-.ALPHA.-QUARTZ, RESPIRABLE FRACTION (CAS 14808-60-7) Suspected human carcinogen.

#### Canada - Quebec OELs: Carcinogen category

Attapulgite (CAS 12174-11-7) Detected carcinogenic effect in humans.  
Crystalline silica (quartz) (CAS 14808-60-7) Suspected carcinogenic effect in humans.

#### IARC Monographs. Overall Evaluation of Carcinogenicity

Attapulgite (CAS 12174-11-7) 2B Possibly carcinogenic to humans.  
3 Not classifiable as to its carcinogenicity to humans.  
1 Carcinogenic to humans.  
Crystalline silica (quartz) (CAS 14808-60-7)

<b>Reproductive toxicity</b>	Not expected to be a reproductive hazard.
<b>Specific target organ toxicity - single exposure</b>	No data available, but none expected.
<b>Specific target organ toxicity - repeated exposure</b>	Not classified. For detailed information, see section 16.
<b>Aspiration hazard</b>	Due to the physical form of the product it is not an aspiration hazard.
<b>Chronic effects</b>	Prolonged and routine inhalation of high levels of respirable crystalline silica particles can lead to the lung disease known as silicosis. Some studies show excess numbers of cases of scleroderma, connective tissue disorders, lupus, rheumatoid arthritis, chronic kidney diseases and end-stage kidney disease in workers exposed to respirable crystalline silica. Pre-existing skin and respiratory conditions including dermatitis, asthma and chronic lung disease might be aggravated by exposure. Occupational exposure to respirable dust and respirable crystalline silica should be monitored and controlled.

## 12. Ecological information

<b>Ecotoxicity</b>	The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.
<b>Persistence and degradability</b>	Calcium sulfate dissolves in water forming calcium and sulfate ions.
<b>Bioaccumulative potential</b>	Bioaccumulation is not expected.
<b>Mobility in soil</b>	No data available.
<b>Other adverse effects</b>	None expected.

## 13. Disposal considerations

<b>Disposal instructions</b>	Dispose of in accordance with federal, provincial and local regulations. Recycle responsibly.
<b>Local disposal regulations</b>	Dispose of in accordance with local regulations.
<b>Hazardous waste code</b>	Not regulated.
<b>Waste from residues / unused products</b>	Dispose of in accordance with local regulations.
<b>Contaminated packaging</b>	Dispose of in accordance with local regulations.

## 14. Transport information

<b>TDG</b>	Not regulated as dangerous goods.
<b>IATA</b>	Not regulated as dangerous goods.
<b>IMDG</b>	Not regulated as dangerous goods.
<b>Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code</b>	Not applicable.

## 15. Regulatory information

<b>Canadian regulations</b>	This product has been classified in accordance with the hazard criteria of the HPR and the SDS contains all the information required by the HPR.
-----------------------------	--

### **Controlled Drugs and Substances Act**

Not regulated.

### **Export Control List (CEPA 1999, Schedule 3)**

Not listed.

### **Greenhouse Gases**

Not listed.

### **Precursor Control Regulations**

Not regulated.

### **International regulations**

#### **Stockholm Convention**

Not applicable.

#### **Rotterdam Convention**

Not applicable.

#### **Kyoto protocol**

Not applicable.

#### **Montreal Protocol**

Not applicable.

#### **Basel Convention**

Not applicable.

## 16. Other information

<b>Issue date</b>	11-January-2016
<b>Revision date</b>	-
<b>Version No.</b>	01

**Further information**

Attapulgite: Carcinogenic to experimental animals via a route of exposure not relevant to human exposure per ACGIH.

Crystalline silica: Raw materials in this product contain respirable crystalline silica as an impurity. Exposures to respirable crystalline silica are not expected during the normal use of this product. However, actual levels must be determined by workplace hygiene testing. Prolonged and repeated exposure to airborne free respirable crystalline silica can result in lung disease (i.e., silicosis) and/or lung cancer.

Plaster of Paris: Is classified as a hazardous substance but is generally considered a safe material for routine use. When plaster of Paris is used responsibly it is not considered as a dangerous material. However, when mixed with water this product can become very hot. DO NOT attempt to make a cast enclosing any part of the body. Encasing any body part can cause serious burns and even amputation of the encased body part.

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

**NFPA ratings**

Health: 1  
Flammability: 0  
Instability: 0

**NFPA ratings**



**Disclaimer**

This information is provided without warranty. The information is believed to be correct. This information should be used to make an independent determination of the methods to safeguard workers and the environment.

## 1 Identification

- **Product identifier**
- **Trade name:** Clear Reflections
- **Article number:** 385
- **Application of the substance / the mixture** Glass Cleaner
- **Details of the supplier of the Safety Data Sheet**
- **Manufacturer/Supplier:**  
ITW Pro Brands  
805 East Old 56 Highway  
Olathe, Kansas 66061  
Phone: 1-800-224-4860
- **Emergency telephone number:** Infotrac Emergency Hotline: 1-800-535-5053

## 2 Hazard(s) identification

- **Classification of the substance or mixture**



GHS04 Gas cylinder

Press. Gas H280 Contains gas under pressure; may explode if heated.

- **Label elements**
- **GHS label elements**  
The product is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms**

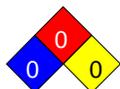


GHS04

- **Signal word** Warning
- **Hazard statements**  
H280 Contains gas under pressure; may explode if heated.
- **Precautionary statements**  
P410+P403 Protect from sunlight. Store in a well-ventilated place.
- **Hazard description:**
- **WHMIS-symbols:**  
A - Compressed gas



- **Classification system:**
- **NFPA ratings (scale 0 - 4)**



Health = 0  
Fire = 0  
Reactivity = 0

# Safety Data Sheet

acc. to HCS and GHS

Printing date 01/06/2015

Reviewed on 01/06/2015

Trade name: Clear Reflections

(Contd. of page 1)

- **HMIS-ratings (scale 0 - 4)**

HEALTH	0	Health = 0
FIRE	0	Fire = 0
REACTIVITY	0	Reactivity = 0

- **Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

### 3 Composition/information on ingredients

- **Chemical characterization: Mixtures**
- **Description:** Mixture of the substances listed below with nonhazardous additions.

- **Dangerous components:**

74-98-6	propane <ul style="list-style-type: none"> <li>⚠ Flam. Gas 1, H220</li> <li>⚠ Press. Gas, H280</li> </ul>	2.5-10%
75-28-5	Isobutane <ul style="list-style-type: none"> <li>⚠ Flam. Gas 1, H220</li> </ul>	≤ 2.5%
64-17-5	ethanol <ul style="list-style-type: none"> <li>⚠ Flam. Liq. 2, H225</li> <li>⚠ Eye Irrit. 2A, H319</li> </ul>	≤ 2.5%
111-76-2	2-butoxyethanol <ul style="list-style-type: none"> <li>⚠ Acute Tox. 4, H302; Acute Tox. 4, H312; Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2, H319</li> <li>Flam. Liq. 4, H227</li> </ul>	≤ 2.5%

### 4 First-aid measures

- **Description of first aid measures**
- **General information:** Take affected persons out into the fresh air.
- **After inhalation:**  
Supply fresh air; consult doctor in case of complaints.  
Provide oxygen treatment if affected person has difficulty breathing.
- **After skin contact:**  
Immediately wash with water and soap and rinse thoroughly.  
If skin irritation is experienced, consult a doctor.
- **After eye contact:**  
Remove contact lenses if worn.  
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing:**  
Unlikely route of exposure.  
Rinse out mouth and then drink plenty of water.  
Do not induce vomiting; immediately call for medical help.

(Contd. on page 3)

# Safety Data Sheet

## acc. to HCS and GHS

Printing date 01/06/2015

Reviewed on 01/06/2015

Trade name: Clear Reflections

(Contd. of page 2)

- **Most important symptoms and effects, both acute and delayed**
  - Headache
  - Breathing difficulty
  - Dizziness
  - Coughing
  - Nausea
  - Disorientation
- **Danger** Danger of impaired breathing.
- **Indication of any immediate medical attention and special treatment needed**  
If necessary oxygen respiration treatment.

### 5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:** Use fire fighting measures that suit the environment.
- **For safety reasons unsuitable extinguishing agents:** None.
- **Special hazards arising from the substance or mixture**  
Danger of receptacles bursting because of high vapor pressure if heated.  
Formation of toxic gases is possible during heating or in case of fire.
- **Advice for firefighters**
- **Protective equipment:**  
Wear self-contained respiratory protective device.  
Wear fully protective suit.
- **Additional information** No further relevant information available.

### 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**  
Ensure adequate ventilation.  
For large spills, wear protective clothing.  
For large spills, use respiratory protective device against the effects of fumes/dust/aerosol.
- **Environmental precautions:** No special measures required.
- **Methods and material for containment and cleaning up:**  
Absorb liquid components with liquid-binding material.  
Pick up mechanically.  
Dispose contaminated material as waste according to item 13.  
Send for recovery or disposal in suitable receptacles.
- **Reference to other sections**  
See Section 7 for information on safe handling.  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.

### 7 Handling and storage

- **Precautions for safe handling**  
Keep away from heat and direct sunlight.  
Use only in well ventilated areas.

(Contd. on page 4)

# Safety Data Sheet

## acc. to HCS and GHS

Printing date 01/06/2015

Reviewed on 01/06/2015

**Trade name: Clear Reflections**

(Contd. of page 3)

- Avoid splashes or spray in enclosed areas.
- **Information about protection against explosions and fires:** No special measures required.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:**  
Observe official regulations on storing packagings with pressurized containers.  
Provide ventilation for receptacles.
- **Information about storage in one common storage facility:**  
Store away from foodstuffs.  
Store away from oxidizing agents.
- **Further information about storage conditions:**  
Store in a cool place. Heat will increase pressure and may lead to the receptacle bursting.  
Protect from frost.
- **Specific end use(s)** No further relevant information available.

### 8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **Control parameters**

#### · Components with limit values that require monitoring at the workplace:

##### 74-98-6 propane

PEL (USA)	Long-term value: 1800 mg/m <sup>3</sup> , 1000 ppm
REL (USA)	Long-term value: 1800 mg/m <sup>3</sup> , 1000 ppm
TLV (USA)	refer to Appendix F
EL (Canada)	Long-term value: 1000 ppm
EV (Canada)	Long-term value: 1.000 ppm
LMPE (Mexico)	Long-term value: 1000 ppm

##### 64-17-5 ethanol

PEL (USA)	Long-term value: 1900 mg/m <sup>3</sup> , 1000 ppm
REL (USA)	Long-term value: 1900 mg/m <sup>3</sup> , 1000 ppm
TLV (USA)	Short-term value: 1880 mg/m <sup>3</sup> , 1000 ppm
EL (Canada)	Short-term value: 1000 ppm
EV (Canada)	Long-term value: 1.900 mg/m <sup>3</sup> , 1.000 ppm
LMPE (Mexico)	Long-term value: 1000 ppm
	A3

##### 111-76-2 2-butoxyethanol

PEL (USA)	Long-term value: 240 mg/m <sup>3</sup> , 50 ppm
	Skin
REL (USA)	Long-term value: 24 mg/m <sup>3</sup> , 5 ppm
	Skin
TLV (USA)	Long-term value: 97 mg/m <sup>3</sup> , 20 ppm
	BEI

(Contd. on page 5)

## Safety Data Sheet

acc. to HCS and GHS

Printing date 01/06/2015

Reviewed on 01/06/2015

<b>Trade name: Clear Reflections</b>
--------------------------------------

(Contd. of page 4)

EL (Canada)	Long-term value: 20 ppm
EV (Canada)	Long-term value: 20 ppm Skin
LMPE (Mexico)	Long-term value: 20 ppm A3, IBE

<b>· Ingredients with biological limit values:</b>
--

<b>111-76-2 2-butoxyethanol</b>
---------------------------------

BEI (USA)	200 mg/g creatinine Medium: urine Time: end of shift Parameter: Butoxyacetic acid with hydrolysis
-----------	--

- **Additional information:** The lists that were valid during the creation were used as basis.

- **Exposure controls**

- **Personal protective equipment:**

- **General protective and hygienic measures:**

The usual precautionary measures for handling chemicals should be followed.

Keep away from foodstuffs, beverages and feed.

Wash hands before breaks and at the end of work.

Do not inhale gases / fumes / aerosols.

Avoid close or long term contact with the skin.

Avoid contact with the eyes.

- **Breathing equipment:**

Not required under normal conditions of use.

For spills, respiratory protection may be advisable.

Use suitable respiratory protective device in case of insufficient ventilation.

- **Protection of hands:**

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

- **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

- **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

- **Eye protection:**



Safety glasses

- **Body protection:** Protective work clothing

- **Limitation and supervision of exposure into the environment**

No further relevant information available.

(Contd. on page 6)

# Safety Data Sheet

## acc. to HCS and GHS

Printing date 01/06/2015

Reviewed on 01/06/2015

Trade name: Clear Reflections

(Contd. of page 5)

### 9 Physical and chemical properties

#### · Information on basic physical and chemical properties

#### · General Information

#### · Appearance:

Form: Aerosol

Color: Colorless

· Odor: Pleasant

· Odor threshold: Not determined.

· pH-value: 9.0 - 10.0

#### · Change in condition

Melting point/Melting range: Not applicable, as aerosol.

Boiling point/Boiling range: Not applicable, as aerosol.

· Flash point: Not applicable, as aerosol.

· Flammability (solid, gaseous): Not applicable.

· Auto-ignition temperature: Not determined.

· Decomposition temperature: Not determined.

· Auto igniting: Product is not self-igniting.

· Danger of explosion: Not determined.

#### · Explosion limits:

Lower: Not determined.

Upper: Not determined.

· Vapor pressure at 21 °C (70 °F): 125 psig

· Density at 20 °C (68 °F): 0.996 g/cm<sup>3</sup> (8.312 lbs/gal)

· Relative density: Not determined.

· Vapour density: > 1 (Air=1)

· Evaporation rate: Not applicable.

#### · Solubility in / Miscibility with

Water: Soluble.

· Partition coefficient (n-octanol/water): Not determined.

#### · Viscosity:

Dynamic: Not determined.

Kinematic: Not determined.

#### · Solvent content:

VOC content: 7.38 %

· Other information: No further relevant information available.

(Contd. on page 7)

# Safety Data Sheet

acc. to HCS and GHS

Printing date 01/06/2015

Reviewed on 01/06/2015

Trade name: Clear Reflections

(Contd. of page 6)

## 10 Stability and reactivity

- **Reactivity**
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:**  
No decomposition if used and stored according to specifications.
- **Possibility of hazardous reactions**  
Toxic fumes may be released if heated above the decomposition point.  
Reacts with strong acids and oxidizing agents.
- **Conditions to avoid** Keep away from heat and direct sunlight.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:**  
Possible in traces.  
Carbon monoxide and carbon dioxide  
Nitrogen oxides

## 11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**
- **Primary irritant effect:**
- **on the skin:** No irritant effect.
- **on the eye:** No irritating effect.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**
- **Carcinogenic categories**
- **IARC (International Agency for Research on Cancer)** See Section 15.

- **NTP (National Toxicology Program)**

None of the ingredients is listed.

- **OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.

## 12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:**  
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.

(Contd. on page 8)

# Safety Data Sheet

## acc. to HCS and GHS

Printing date 01/06/2015

Reviewed on 01/06/2015

**Trade name: Clear Reflections**

(Contd. of page 7)

- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

### 13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:**  
Must not be disposed of together with household garbage. Do not allow product to reach sewage system. Contact waste processors for recycling information.  
The user of this material has the responsibility to dispose of unused material, residues and containers in compliance with all relevant local, state and federal laws and regulations regarding treatment, storage and disposal for hazardous and nonhazardous wastes. Residual materials should be treated as hazardous.
- **Waste disposal key:** EPA RCRA Code (USA) : D001 .
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.

### 14 Transport information

- **UN-Number**
  - **DOT, ADR, IMDG, IATA** UN1950
  - **UN proper shipping name**
-  Limited Quantity for packages less than 30 kg (66 lb) and inner packagings less than 1 L (0.3 gal).
- **DOT** Aerosols
  - **ADR** 1950 AEROSOLS
  - **IMDG** AEROSOLS
  - **IATA** Aerosols, non-flammable
  - **Transport hazard class(es)**

- **DOT**



- **Class** 2 Gases
- **Label** 2.2

- **ADR**



- **Class** 2 5A Gases

(Contd. on page 9)

# Safety Data Sheet

acc. to HCS and GHS

Printing date 01/06/2015

Reviewed on 01/06/2015

Trade name: Clear Reflections

(Contd. of page 8)

· Label 2.2

· IMDG



· Class 2 Gases  
· Label 2.2

· IATA



· Class 2.2  
· Label 2.2  
· Packing group  
· DOT, ADR, IMDG, IATA Not Regulated  
· Environmental hazards:  
· Marine pollutant: No  
· Special precautions for user Warning: Gases  
· Danger code (Kemler): -  
· EMS Number: F-D,S-U  
· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code Not applicable.

· Transport/Additional information:

· DOT  
· Quantity limitations On passenger aircraft/rail: 75kg  
On cargo aircraft only: 150kg

· ADR  
· Excepted quantities (EQ) Code: E0  
Not permitted as Excepted Quantity

· IMDG  
· Limited quantities (LQ) 1L  
· Excepted quantities (EQ) Code: E0  
Not permitted as Excepted Quantity  
· UN "Model Regulation": UN1950, Aerosols, 2.2

## 15 Regulatory information

· Safety, health and environmental regulations/legislation specific for the substance or mixture  
· SARA

· Section 355 (extremely hazardous substances):

None of the ingredients is listed.

(Contd. on page 10)

## Safety Data Sheet

acc. to HCS and GHS

Printing date 01/06/2015

Reviewed on 01/06/2015

Trade name: Clear Reflections

(Contd. of page 9)

- **Section 313 (Specific toxic chemical listings):**

111-76-2	2-butoxyethanol
----------	-----------------

- **TSCA (Toxic Substances Control Act):**

All ingredients are listed.

- **Proposition 65 (California)**

- **Chemicals known to cause cancer:**

Ethanol - listing refers specifically to alcoholic beverage consumption and is not applicable for product.

64-17-5	ethanol
---------	---------

- **Chemicals known to cause reproductive toxicity for females:**

None of the ingredients are listed.

- **Chemicals known to cause reproductive toxicity for males:**

None of the ingredients is listed.

- **Chemicals known to cause developmental toxicity:**

Ethanol - listing refers specifically to alcoholic beverage consumption and is not applicable for product.

64-17-5	ethanol
---------	---------

- **Carcinogenic categories**

- **EPA (Environmental Protection Agency)**

111-76-2	2-butoxyethanol	NL
----------	-----------------	----

- **IARC (International Agency for Research on Cancer)**

64-17-5	ethanol	1
---------	---------	---

111-76-2	2-butoxyethanol	3
----------	-----------------	---

- **TLV (Threshold Limit Value established by ACGIH)**

64-17-5	ethanol	A3
---------	---------	----

111-76-2	2-butoxyethanol	A3
----------	-----------------	----

- **NIOSH-Ca (National Institute for Occupational Safety and Health)**

None of the ingredients is listed.

- **State Right to Know Listings**

None of the ingredients is listed.

- **Canadian substance listings:**

- **Canadian Domestic Substances List (DSL)**

All ingredients are listed.

- **Canadian Ingredient Disclosure list (limit 0.1%)**

64-17-5	ethanol
---------	---------

- **Canadian Ingredient Disclosure list (limit 1%)**

111-76-2	2-butoxyethanol
----------	-----------------

- **Other regulations, limitations and prohibitive regulations**

This product has been classified in accordance with hazard criteria of the Controlled Products Regulations and the SDS contains all the information required by the Controlled Products Regulations.

(Contd. on page 11)

# Safety Data Sheet

## acc. to HCS and GHS

Printing date 01/06/2015

Reviewed on 01/06/2015

**Trade name: Clear Reflections**

(Contd. of page 10)

- **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

### 16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Date of preparation / last revision** 01/06/2015 / -

- **Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

ACGIH: American Conference of Governmental Industrial Hygienists

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

HMS: Hazardous Materials Identification System (USA)

WHMIS: Workplace Hazardous Materials Information System (Canada)

VOC: Volatile Organic Compounds (USA, EU)

Flam. Gas 1: Flammable gases, Hazard Category 1

Press. Gas: Gases under pressure: Compressed gas

Flam. Liq. 2: Flammable liquids, Hazard Category 2

Flam. Liq. 4: Flammable liquids, Hazard Category 4

Acute Tox. 4: Acute toxicity, Hazard Category 4

Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2

Eye Irrit. 2: Serious eye damage/eye irritation, Hazard Category 2

Eye Irrit. 2A: Serious eye damage/eye irritation, Hazard Category 2A

- **Sources**

SDS Prepared by:

ChemTel Inc.

1305 North Florida Avenue

Tampa, Florida USA 33602-2902

Toll Free North America 1-888-255-3924 Intl. +01 813-248-0573

Website: [www.chemtelinc.com](http://www.chemtelinc.com)

# SAFETY DATA SHEET

Issue Date March 1 2019

Revision Date

## 1. IDENTIFICATION

### Product identifier

**Product Name** Concrobium Broad Spectrum Disinfectant II

### Other means of identification

**Product code** 621-004, 621-208

### Recommended use of the chemical and restrictions on use

**Recommended Use** Disinfectant, Deodorizer, Cleaner

### Details of the supplier of the safety data sheet

#### **Supplier Address**

48 Galaxy Blvd, Unit 413  
Toronto, Ontario  
M9W 6C8

#### **Manufacturer Address**

325 Leffingwell Avenue  
Kirkwood, MO 63122

### Emergency telephone number

#### **Company Phone Number**

416 213-0219

US Toll-free: 866-811-8148

#### **24 Hour Emergency Phone Number**

Chemtrec:(800) 424-9300

#### **Emergency Telephone**

Chemtrec 24-Hour International Number: 1-703-527-3887

## 2. HAZARD IDENTIFICATION

### **EMERGENCY OVERVIEW:**

The product contains no substances which at their given concentration, are considered to be hazardous to health.

**Principle routes of exposure:** Eye contact. Skin contact. Inhalation. Ingestion.

### Potential Health Effects

#### **Acute toxicity**

##### **Eyes: May cause irritation with direct contact.**

EPA toxicity category for ocular irritation is Class IV—no irritation.

**Skin** Not irritating to the skin.

**Inhalation** May cause irritation, not expected when used as directed.

**Ingestion** Ingestion of large quantities may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

**Chronic Effects** No known effect based on information supplied.

**Aggravated Medical Conditions** Preexisting eye disorders. Skin disorders. Respiratory disorders.

## 3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	CAS Number	Weight %
Thymol	89-83-8	0.051

# SAFETY DATA SHEET

Issue Date March 1 2019

Revision Date

## 4. FIRST AID MEASURES

**General advice** Show this material safety data sheet to the doctor in attendance. When symptoms persist or in all cases of doubt seek medical advice.

**Eye contact** Remove contact lenses. Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Call a physician if irritation develops or persists.

**Skin contact** Wash off immediately with soap and plenty of water. Remove all contaminated clothes and shoes. Use a mild soap if available. Call a physician if irritation develops or persists. If skin irritation persists, call a physician.

**Inhalation** No specific first aid measures are required.

**Ingestion** No specific first aid measures are required.

**Notes to physician** All treatments should be based on observed signs/symptoms of distress in the patient. The possibility of overexposure to materials other than this product should be considered.

## 5. FIRE FIGHTING MEASURES

**Flammable Properties:** Not Flammable Liquid.

**Flash point:** (Pensky-Martens Closed Cup). None to boiling.

**Suitable extinguishing media:** Suitable to origin of fire.

### Explosion Data

**Sensitivity to Mechanical Impact** None.

**Sensitivity to Static Discharge** None.

### **Protective Equipment and Precautions for Firefighters**

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

## 6. ACCIDENTAL RELEASE MEASURES

Use appropriate containment to avoid environmental contamination. Soak up with inert absorbent material. Sweep up and shovel into suitable containers for disposal. Keep in suitable and closed containers for disposal. Use a water rinse for final clean-up.

## 7. HANDLING AND STORAGE

**Handling Procedures:** Do not contaminate food, feed, or water by storage or disposal. No special handling requirements.

**Storage Requirements:** Keep container closed when not in use. Store at room temperature. Keep from freezing. Keep out of reach of children.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**Engineering Measures:** None normally required. No special ventilation requirements.

### **Personal Protective Equipment:**

**Hand Protection** None required.

**Eye/Face Protection** No special protective equipment required.

**Skin and body protection** No special protective equipment required.

**Respiratory protection** None required.

**Hygiene measures:** When using, do not eat, drink or smoke. Wash hands before breaks and at the end of workday. Remove and wash contaminated clothing before re-use.

# SAFETY DATA SHEET

Issue Date March 1 2019

Revision Date

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Physical state** Liquid.

**Odor** Aromatic, slightly citrus.

**Color** Clear, slightly cloudy liquid.

**Explosive properties** no data available.

### Other information

**Volatile organic compounds (VOC) content:** <.025%

**Melting/freezing point:** As water.

### **Property Values**

**pH** 3.7- 4.3

**Boiling point/boiling range** over 212 F.

**Flash Point** None to Boiling.

**Evaporation rate** no data available, as water.

**Vapor density** no data available.

**Specific Gravity** (water =1) 0.99 -1.01

**Water solubility** Soluble in water.

## 10. STABILITY AND REACTIVITY

**Stability/Reactivity** Stable under recommended storage conditions.

**Incompatible products** None known based on information supplied.

**Conditions to Avoid** None known based on information supplied.

**Hazardous Decomposition Products** None.

**Hazardous Polymerization** Hazardous polymerization does not occur.

## 11. TOXICOLOGICAL INFORMATION

**Acute Toxicity:** Oral LD50 (rat) > 5 g/kg body weight.

Dermal LD50 (rabbit) > 5 g/kg body weight.

Inhalation LC50 (of 256 concentrate) > 5.65 mg/liter for 4 hours.

**Carcinogens:** No ingredients are listed by OSHA, IARC, or NTP as known or suspected carcinogens.

## 12. ECOLOGICAL INFORMATION

### Ecotoxicity

**Persistence and degradability:** No known or expected environmental concerns.

**Bioaccumulative potential** No known or expected environmental concerns.

**Mobility** No known or expected environmental concerns.

**Other adverse effects** No known or expected environmental concerns.

## 13. DISPOSAL INFORMATION

### Waste treatment methods

Disposal should be in accordance with applicable regional, national and local laws and regulations.

# SAFETY DATA SHEET

Issue Date March 1 2019

Revision Date

## 14. TRANSPORTATION INFORMATION

**DOT** Not Regulated as Dangerous Goods.

**TDG** Not Regulated as Dangerous Goods.

**MEX** Not Regulated as Dangerous Goods.

**IATA** Not Regulated as Dangerous Goods.

**IMDG** Not Regulated as Dangerous Goods.

**Marine pollutant** This product is not a marine pollutant according to IMDG/IMO.

## 15. REGULATORY INFORMATION

**HMIS CLASSIFICATION** (H, F, R, PE): 0,0,0, NONE.

**WHMIS Classification** (Canada): **Non-Hazardous** under **WHMIS**.

### International Inventories

**TSCA** Complies.

**DSL/NDSL** Complies.

### Legend:

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory.

**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List.

### US Federal Regulations

#### SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

#### SARA 311/312 Hazard Categories

<b>Acute health hazard</b>	No
<b>Chronic Health Hazard</b>	No
<b>Fire hazard</b>	No
<b>Sudden release of pressure hazard</b>	No
<b>Reactive Hazard</b>	No

#### CWA (Clean Water Act)

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

#### CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302).

### US State Regulations

#### California Proposition 65

This product does not contain any Proposition 65 chemicals.

### International Regulations

#### **Canada**

This product when tested as a whole is not a controlled substance within the meaning of the Hazardous Products Act. This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the SDS contains all the information required by the Controlled Products Regulations.

# SAFETY DATA SHEET

Issue Date March 1 2019

Revision Date

## 16. OTHER INFORMATION

NFPA Health hazard 0 Flammability 0 Stability/Reactivity 0 Physical and chemical hazards 0

HMIS Health Hazard 0 Flammability 0 Physical Hazard 0 Personal protection None

Issue Date March 1 2019

Revision Date

### Revision Note

No information available

### Disclaimer

The information provided on this MSDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

**End of Safety Data Sheet**

# Contact Cement Thinner/Cleaner

## SECTION 1. IDENTIFICATION

Product Identifier	Contact Cement Thinner/Cleaner
Other Means of Identification	13-650, 33-651ZIPEXP, 33-654ZIPEXP, 33-661ZIPEXP
Other Identification	Zip Kleen, Zip Sander, Brush Cleaner
Recommended Use	Please refer to Product label.
Restrictions on Use	None known.
Manufacturer/Supplier Identifier	Recochem Inc., 850 Montee de Liesse, Montreal, QC, H4T 1P4, Compliance and Regulatory Department, 905-878-5544, www.recochem.com
Emergency Phone No.	CANUTEC, 613-996-6666, 24 Hours
SDS No.	1700

## SECTION 2. HAZARD IDENTIFICATION

### Classification

Flammable liquid - Category 2; Acute toxicity (Oral) - Category 3; Acute toxicity (Dermal) - Category 3; Acute toxicity (Inhalation) - Category 3; Skin irritation - Category 2; Eye irritation - Category 2A; Germ cell mutagenicity - Category 1B; Carcinogenicity - Category 1B; Specific target organ toxicity (single exposure) - Category 1; Specific target organ toxicity (single exposure) - Category 3; Specific target organ toxicity (repeated exposure) - Category 2; Aspiration hazard - Category 1

### Label Elements



Signal Word:  
Danger

### Hazard Statement(s):

H225	Highly flammable liquid and vapour.
H301	Toxic if swallowed.
H304	May be fatal if swallowed and enters airways.
H311	Toxic in contact with skin.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H331	Toxic if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H340	May cause genetic defects.
H350	May cause cancer.
H370	Causes damage to organs (nervous system, auditory (hearing) system, liver, thyroid gland, nervous system) if inhaled.
H373	May cause damage to organs (nervous system, nervous system, thyroid gland, liver, auditory (hearing) system) through prolonged or repeated exposure if inhaled.

Product Identifier:	Contact Cement Thinner/Cleaner
SDS No.:	1700
Date of Preparation:	July 21, 2016

Precautionary Statement(s):

Prevention:

- P201 Obtain special instructions before use.
- P202 Do not handle until all safety precautions have been read and understood.
- P210 Keep away from heat, sparks, open flames, and hot surfaces. – No smoking.
- P233 Keep container tightly closed.
- P240 Ground/bond container and receiving equipment.
- P241 Use explosion-proof electrical, ventilating, lighting, and other equipment.
- P242 Use only non-sparking tools.
- P243 Take precautionary measures against static discharge.
- P260 Do not breathe fume, mist, vapours, spray.
- P264 Wash hands and skin thoroughly after handling.
- P270 Do not eat, drink or smoke when using this product.
- P271 Use only outdoors or in a well-ventilated area.
- P280 Wear protective gloves/eye protection/face protection.

Response:

- P301 + P310 IF SWALLOWED: Immediately call a POISON CENTRE or doctor.
- P331 Do NOT induce vomiting.
- P330 Rinse mouth.
- P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
- P312 Call a POISON CENTRE or doctor if you feel unwell.
- P332 + P313 If skin irritation occurs: Get medical advice/attention.
- P363 Wash contaminated clothing before reuse.
- P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
- P312 Call a POISON CENTRE/doctor/ if you feel unwell.
- P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P312 Call a POISON CENTRE/doctor/ if you feel unwell.
- P337 + P313 If eye irritation persists: Get medical advice/attention.
- P308 + P313 IF exposed or concerned: Get medical advice/attention.
- P321 Specific treatment (see supplemental first aid instruction on this label).
- P370 + P378 In case of fire: Use appropriate foam, carbon dioxide, dry chemical powder, water spray or fog to extinguish.

P370 + P378 In case of fire: Use to extinguish.  
Store in a well ventilated place. Keep cool. Keep container tightly closed. Store locked up.

P405 Store locked up.  
Dispose of contents/container in accordance with applicable regional, national and local laws and regulations.

Disposal:

Dispose of contents/container in accordance with applicable regional, national and local laws and regulations.

Note:

33.29  
% of the mixture consists of ingredient(s) of unknown acute toxicity dermal.

Other Hazards

None known.

---

Product Identifier: Contact Cement Thinner/Cleaner  
SDS No.: 1700  
Date of Preparation: July 21, 2016

### SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Mixture:

Chemical Name	CAS No.	%	Other Identifiers
Solvent naphtha (petroleum), light aliph.	64742-89-8	33.29	
Toluene	108-88-3	18.83	
Acetone	67-64-1	17.09	
Methyl ethyl ketone	78-93-3	15.56	
Methanol	67-56-1	3.02	

### SECTION 4. FIRST-AID MEASURES

First-aid Measures

Inhalation

Take precautions to ensure your own safety before attempting rescue (e.g. wear appropriate protective equipment). Remove source of exposure or move to fresh air. Keep at rest in a position comfortable for breathing. If breathing has stopped, trained personnel should begin rescue breathing. If the heart has stopped, trained personnel should start cardiopulmonary resuscitation (CPR) or automated external defibrillation (AED). Avoid mouth-to-mouth contact by using a barrier device. Call a Poison Centre or doctor if you feel unwell.

Skin Contact

Avoid direct contact. Wear chemical protective clothing if necessary. Take off immediately contaminated clothing, shoes and leather goods (e.g. watchbands, belts). Wash gently and thoroughly with lukewarm, gently flowing water and mild soap for 5 minutes. If breathing has stopped, trained personnel should immediately begin rescue breathing. If the heart has stopped, trained personnel should start cardiopulmonary resuscitation (CPR) or automated external defibrillation (AED). Avoid mouth-to-mouth contact by using a barrier device. Call a Poison Centre or doctor if you feel unwell. Thoroughly clean clothing, shoes and leather goods before reuse or dispose of safely.

Eye Contact

Avoid direct contact. Wear chemical protective gloves if necessary. Rinse the contaminated eye(s) with lukewarm, gently flowing water for 5 minutes, while holding the eyelid(s) open. Remove contact lenses, if present and easy to do. Take care not to rinse contaminated water into the unaffected eye or onto the face. If eye irritation persists, get medical advice or attention.

Ingestion

Rinse mouth with water. Never give anything by mouth if person is rapidly losing consciousness, or is unconscious or convulsing. Do not induce vomiting. If vomiting occurs naturally, lie on your side in the recovery position. Rinse mouth with water again. If breathing has stopped, trained personnel should immediately begin rescue breathing. Avoid mouth-to-mouth contact by using a barrier device. If the heart has stopped, trained personnel should start cardiopulmonary resuscitation (CPR) or automated external defibrillation (AED). Call a Poison Centre or doctor if you feel unwell.

First-aid Comments

If exposed or concerned, get medical advice or attention. Some of the first-aid procedures recommended here require advanced first-aid training. Get medical advice or attention if you feel unwell or are concerned.

Most Important Symptoms and Effects, Acute and Delayed

No specific treatment. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

Immediate Medical Attention and Special Treatment

Target Organs

Auditory (hearing) system, brain, eyes, liver, lungs, nervous system, respiratory system, skin, thyroid gland.

Special Instructions

Acute exposure to methanol, either through ingestion or breathing high airborne concentrations can result in

Product Identifier: Contact Cement Thinner/Cleaner

SDS No.: 1700

Page 03 of 10

Date of Preparation: July 21, 2016

symptoms appearing between 40 minutes and 72 hours after exposure. Symptoms and signs are usually limited to CNS, eyes and gastrointestinal tract. Because of the initial CNS's effects of headache, vertigo, lethargy and confusion, there may be an impression of ethanol intoxication. Blurred vision, decreased acuity and photophobia are common complaints. Treatment with ipecac or lavage is indicated in any patient presenting within two hours of ingestion. A profound metabolic acidosis occurs in severe poisoning and serum bicarbonate levels are a more accurate measure of severity than serum methanol levels. Treatment protocols are available from most major hospitals and early collaboration with appropriate hospitals is recommended.

Medical Conditions Aggravated by Exposure

Thyroid conditions, dermatitis.

## SECTION 5. FIRE-FIGHTING MEASURES

### Extinguishing Media

Suitable Extinguishing Media

Carbon dioxide, dry chemical powder, appropriate foam, water spray or fog.

Unsuitable Extinguishing Media

None known.

### Specific Hazards Arising from the Product

Highly flammable liquid and vapour. Can ignite at room temperature. Releases vapour that can form explosive mixture with air. Can be ignited by static discharge. Can accumulate static charge by flow, splashing or agitation. May travel a considerable distance to a source of ignition and flash back to a leak or open container. See Section 9 (Physical and Chemical Properties) for flash point and explosive limits. Vapours may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. Vapour forms explosive mixture with air between upper and lower flammable limits.

In a fire, the following hazardous materials may be generated: very toxic carbon monoxide, carbon dioxide.

Special Protective Equipment and Precautions for Fire-fighters

Review Section 6 (Accidental Release Measures) for important information on responding to leaks/spills.

See Skin Protection in Section 8 (Exposure Controls/Personal Protection) for advice on suitable chemical protective materials.

## SECTION 6. ACCIDENTAL RELEASE MEASURES

### Personal Precautions, Protective Equipment, and Emergency Procedures

Evacuate the area immediately. Isolate the hazard area. Keep out unnecessary and unprotected personnel. Evacuate downwind locations. Do not touch damaged containers or spilled product unless wearing appropriate protective equipment. Use the personal protective equipment recommended in Section 8 of this safety data sheet. Eliminate all ignition sources. Use grounded, explosion-proof equipment. Increase ventilation to area or move leaking container to a well-ventilated and secure area. Distant ignition and flashback are possible.

### Environmental Precautions

Do not allow into any sewer, on the ground or into any waterway.

### Methods and Materials for Containment and Cleaning Up

Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see section 13). Use spark-proof tools and explosion-proof equipment. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see section 1 for emergency contact information and section 13 for waste disposal.

## SECTION 7. HANDLING AND STORAGE

### Precautions for Safe Handling

Put on appropriate personal protective equipment (see section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating,

---

Product Identifier: Contact Cement Thinner/Cleaner

SDS No.: 1700

Date of Preparation: July 21, 2016

drinking and smoking. Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapour or mist. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use non-sparking tools. Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material. Empty containers retain product residue and can be hazardous. Do not reuse container.

#### Conditions for Safe Storage

Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see section 10) and food and drink. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

## SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Control Parameters

Chemical Name	ACGIH TLV®		OSHA PEL		AIHA WEEL	
	TWA	STEL	TWA	Ceiling	8-hr TWA	TWA
Methyl ethyl ketone	200 ppm	300 ppm	200 ppm	300 ppm		
Methanol	200 ppm	250 ppm	200 ppm	250 ppm		
Solvent naphtha (petroleum), light aliph.	Not established	Not established	400 ppm	Not established		
Toluene	20 ppm A4	Not established	100 ppm	150 ppm		

### Appropriate Engineering Controls

Do not allow product to accumulate in the air in work or storage areas, or in confined spaces. Use non-sparking ventilation systems, approved explosion-proof equipment and intrinsically safe electrical systems in areas where this product is used and stored. Control static electricity discharges which includes bonding of equipment to ground. Use only non-combustible, compatible materials for walls, floors, ventilation system, air cleaning devices, pallets, shelving. Provide eyewash and safety shower if contact or splash hazard exists.

### Individual Protection Measures

#### Eye/Face Protection

Wear chemical safety goggles and face shield when contact is possible.

#### Skin Protection

Not required, if used as directed. In case of an emergency (e.g. an uncontrolled release): wear chemical protective clothing e.g. gloves, aprons, boots.

Suitable materials are: nitrile rubber.

#### Respiratory Protection

Not normally required if product is used as directed. Or, wear a NIOSH approved air-purifying respirator with an appropriate cartridge.

## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

### Basic Physical and Chemical Properties

Appearance	Colourless liquid.
Odour	Ketone-like
Odour Threshold	Not available
pH	Not available
Melting Point/Freezing Point	Not available (melting); Not available (freezing)

Product Identifier: Contact Cement Thinner/Cleaner

SDS No.: 1700

Date of Preparation: July 21, 2016

Initial Boiling Point/Range	55 - 138 °C (131 - 280 °F)
Flash Point	-18.3 °C (-0.9 °F) (open cup)
Evaporation Rate	> 1 (n-butyl acetate = 1)
Flammability (solid, gas)	Not applicable
Upper/Lower Flammability or Explosive Limit	Not available (upper); 0.9% (lower)
Vapour Pressure	72.8 mm Hg (9.7 kPa) at 20 °C
Vapour Density (air = 1)	> 1
Relative Density (water = 1)	0.782 at 20 °C
Solubility	Soluble in water; Soluble in all proportions in alcohols (e.g. ethanol).
Partition Coefficient, n-Octanol/Water (Log Kow)	Not available
Auto-ignition Temperature	Not available
Decomposition Temperature	Not available
Viscosity	Not available (kinematic); Not available (dynamic)
<b>Other Information</b>	
Physical State	Liquid
Molecular Weight	Not available

## SECTION 10. STABILITY AND REACTIVITY

### Reactivity

None known.

### Chemical Stability

Normally stable.

### Possibility of Hazardous Reactions

None known.

### Conditions to Avoid

Heat. Prolonged exposure to high temperatures. Open flames, sparks, static discharge, heat and other ignition sources. Exposure to air. Prolonged contact with water, moisture or humidity. Temperatures above -18.0 °C (-0.4 °F)

### Incompatible Materials

Slightly reactive or incompatible with the following materials: oxidizing agents (e.g. peroxides), reducing agents (e.g. hydroquinone), strong bases (e.g. sodium hydroxide).

Not corrosive to metals.

### Hazardous Decomposition Products

None known.

## SECTION 11. TOXICOLOGICAL INFORMATION

### Likely Routes of Exposure

Inhalation; skin contact; skin absorption; eye contact; ingestion.

### Acute Toxicity

Chemical Name	LC50	LD50 (oral)	LD50 (dermal)
Methyl ethyl ketone	11300-11700 ppm (rat) (4-hour exposure)	2737 mg/kg (rat)	> 8050 mg/kg (rabbit)
Methanol	83867.5 mg/m <sup>3</sup> (rat) (4-hour exposure)	5628 mg/kg (rat)	15800 mg/kg (rabbit)

Product Identifier: Contact Cement Thinner/Cleaner

SDS No.: 1700

Date of Preparation: July 21, 2016

Solvent naphtha (petroleum), light aliph.	3400 ppm (rat) (4-hour exposure)	> 2000 mg/kg (rat)	Not available
Toluene	12500-28800 mg/m <sup>3</sup> (rat) (4-hour exposure)	> 5580 mg/kg (rat)	12125 mg/kg (rabbit)

LC50: Not applicable.

LD50 (oral): Not applicable.

LD50 (dermal): Not applicable.

Skin Corrosion/Irritation

May cause moderate or severe irritation based on information for closely related materials. Symptoms include pain, redness, and swelling. Repeated or prolonged exposure can irritate or burn the skin. The vapour also irritates the skin.

Serious Eye Damage/Irritation

May cause serious eye irritation based on information for closely related materials. Symptoms include sore, red eyes, and tearing. The vapour also irritates the eyes.

STOT (Specific Target Organ Toxicity) - Single Exposure

Inhalation

Harmful based on information for closely related materials. Causes depression of the central nervous system. Symptoms may include headache, nausea, dizziness, drowsiness and confusion. A severe exposure can cause unconsciousness. Liver function tests may show abnormal results.

Skin Absorption

Can cause effects as described for inhalation. Symptoms may include redness, rash, swelling and itching.

Ingestion

Causes Can cause effects as described for inhalation.

Aspiration Hazard

May be drawn into the lungs (aspirated) if swallowed or vomited. Death can result.

STOT (Specific Target Organ Toxicity) - Repeated Exposure

If inhaled, following skin contact and/or if swallowed: effects similar to STOT (Specific Target Organ Toxicity) - Single Exposure, as described above. Liver function tests may show abnormal results. Effects on the central nervous system. Symptoms may include restlessness, reduced ability to think, muscle tremors, memory loss and personality changes. Symptoms may include headaches, fatigue, memory loss, irritability, depression and reduced ability to think or reason. Exposure to this chemical and loud noise may cause greater hearing loss than expected from noise exposure alone. Thyroid function tests may show abnormal results.

Respiratory and/or Skin Sensitization

Not known to be a skin sensitizer. Not known to be a respiratory sensitizer.

Carcinogenicity

Chemical Name	IARC	ACGIH®	NTP	OSHA
Methyl ethyl ketone	Not Listed	Not Listed	Not Listed	Not Listed
Methanol	Not Listed	Not designated	Not Listed	Not Listed
Solvent naphtha (petroleum), light aliph.	Group 3	Not designated	Not Listed	Not Listed
Toluene	Group 3	A4	Not Listed	Not Listed

Reproductive Toxicity

Development of Offspring

May harm the unborn child. If inhaled: known to cause: decreased weight, long-lasting behavioural changes, learning disabilities, hearing loss, death. (Toluene)

Product Identifier: Contact Cement Thinner/Cleaner

SDS No.: 1700

Date of Preparation: July 21, 2016

Page 07 of 10

### Sexual Function and Fertility

Animal studies show effects on sexual function and/or fertility. Known to cause: reduced male fertility.

### Effects on or via Lactation

No information was located.

### Germ Cell Mutagenicity

Conclusions cannot be drawn from the limited studies available.

### Interactive Effects

Exposure to this chemical and loud noise may cause greater hearing loss than expected from noise exposure alone.

## SECTION 12. ECOLOGICAL INFORMATION

### Ecotoxicity

#### Acute Aquatic Toxicity

Chemical Name	LC50 Fish	EC50 Crustacea	ErC50 Aquatic Plants	ErC50 Algae
Methyl ethyl ketone	3130-3320 mg/L (Pimephales promelas (fathead minnow); 96-hour)	Not available		Not available
Methanol	15400 mg/L (Lepomis macrochirus (bluegill); 96-hour)	10000 mg/L (Daphnia magna (water flea); 48-hour)		
Solvent naphtha (petroleum), light aliph.	Not available	Not available		
Toluene	7.63 mg/L (Oncorhynchus mykiss (rainbow trout); 96-hour; fresh water)	8 mg/L (Daphnia magna (water flea); 24 hr)		

#### Chronic Aquatic Toxicity

Chemical Name	NOEC Fish	EC50 Fish	NOEC Crustacea	EC50 Crustacea
Methyl ethyl ketone	400 mg/L (salt water)			
Methanol	7900 mg/L (Lepomis macrochirus (bluegill); 200-hrs)			
Solvent naphtha (petroleum), light aliph.	Not available		Not available	
Toluene	5.44 mg/L (Oncorhynchus mykiss (rainbow trout))		Not available	

### Persistence and Degradability

No information was located.

### Bioaccumulative Potential

No information was located.

### Mobility in Soil

No information was located.

Product Identifier: Contact Cement Thinner/Cleaner

SDS No.: 1700

Date of Preparation: July 21, 2016

## Other Adverse Effects

There is no information available.

## SECTION 13. DISPOSAL CONSIDERATIONS

### Disposal Methods

The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe way. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

## SECTION 14. TRANSPORT INFORMATION

Regulation	UN No.	Proper Shipping Name	Transport Hazard Class(es)	Packing Group
Canadian TDG	1992	FLAMMABLE LIQUID, TOXIC, N.O.S. (Acetone, Methanol)	3 (6.1)	II
US DOT	1992	FLAMMABLE LIQUID, TOXIC, N.O.S. (Acetone, Methanol)	3 (6.1)	II

Environmental Hazards Marine Pollutant

Special Precautions Please note: In containers of 1 L (1Kg) this product is qualified as a "consumer commodity" ORM-D under DOT  
In containers of 1 L (1Kg) capacity or less this product is classified as a "Limited Quantities""Consumer Commodity" under TDG regulations.

Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

### Proof of Dangerous Goods Classification

Date of Classification July 21, 2016

Classification Method Flashpoint taken from the ingredient present in the mixture which has the lowest flashpoint.

## SECTION 15. REGULATORY INFORMATION

### Safety, Health and Environmental Regulations

#### Canada

Domestic Substances List (DSL) / Non-Domestic Substances List (NDSL)

All ingredients are listed on the DSL/NDSL.

#### USA

Toxic Substances Control Act (TSCA) Section 8(b)

All ingredients are listed on the TSCA Inventory.

Additional USA Regulatory Lists

California Proposition 65: WARNING: This product contains chemicals known to the State of California to cause birth defects.

### Custom Regulatory 1

#### Consumer Product Safety Improvement Act of 2008 General Conformity Certification

The Supplier identified in Section 1 of this MSDS has evaluated this product and certifies it to be labeled and packaged in compliance with the applicable provisions of the Federal Hazardous Substance Act as stated in 16 CFR 1500 and enforced by the Consumer Product Safety Commission, and where applicable the products that require Child Resistant

Product Identifier: Contact Cement Thinner/Cleaner

SDS No.: 1700

Date of Preparation: July 21, 2016

Closures are packaged in accordance with the Poison Prevention Packaging Act as stated in 16 CFR 1700 and enforced by the Consumer Product Safety Commission. All closures have been tested in accordance with the latest protocols. No other testing is required to certify compliance with the above. The date of manufacture is stamped on the product container.

## SECTION 16. OTHER INFORMATION

SDS Prepared By Compliance and Regulatory Department

Phone No. 905-878-5544

Date of Preparation July 21, 2016

Additional Information We are committed to uphold the Industry Consumer Ingredient Communication Voluntary Initiative.

Please send us your request by visiting our website at [www.recochem.com](http://www.recochem.com).

Ingredients present (intentionally added ingredients) at a concentration of greater than one percent (1%) shall be listed in descending order of predominance. Ingredients present at a concentration of not more than one percent shall be listed but may be disclosed without respect to order of predominance.

Disclaimer

Notice to reader: To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

---

Product Identifier: Contact Cement Thinner/Cleaner

SDS No.: 1700

Page 10 of 10

Date of Preparation: July 21, 2016

# Material Safety Data Sheet

CR60



## 1. Product and company identification

<b>Product name</b>	:	CR60
<b>Material uses</b>	:	Concrete and masonry structures waterproofing coating.
<b>Supplier/Manufacturer</b>	:	CONDOR CHIMIQUES 2645-B, Boul. Terra-Jet St-Cyrille-de-Wendover, Qc J1Z 1B3, Canada Tél : (819) 474-6661 Fax : (819) 474-6681 Courriel : info@condor.pro
<b>Validation date</b>	:	2016-01-03
<b>Responsible name</b>	:	SIMDUT Group.
<b>In case of emergency</b>	:	(819) 474-6661 ou CANUTEC (613) 996-6666

## 2. Hazards identification

<b>Physical state</b>	:	Liquid.
<b>Odor</b>	:	Solvent.
<b>Emergency overview</b>	:	WARNING!

COMBUSTIBLE LIQUID AND VAPOR. CAUSES EYE AND SKIN IRRITATION. CONTAINS MATERIAL THAT CAN CAUSE TARGET ORGAN DAMAGE.

Keep away from heat, sparks and flame. Avoid exposure - obtain special instructions before use. Do not breathe vapor or mist. Avoid contact with eyes, skin and clothing. Contains material that can cause target organ damage. Use only with adequate ventilation. Keep container tightly closed and sealed until ready for use. Wash thoroughly after handling.

### Potential acute health effects

<b>Inhalation</b>	:	Slightly irritating to the respiratory system.
<b>Ingestion</b>	:	No known significant effects or critical hazards.
<b>Skin</b>	:	Irritating to skin.
<b>Eyes</b>	:	Irritating to eyes.

### Potential chronic health effects

<b>Chronic effects</b>	:	Contains material that can cause target organ damage.
<b>Carcinogenicity</b>	:	No known significant effects or critical hazards.
<b>Mutagenicity</b>	:	No known significant effects or critical hazards.
<b>Teratogenicity</b>	:	No known significant effects or critical hazards.
<b>Developmental effects</b>	:	No known significant effects or critical hazards.
<b>Fertility effects</b>	:	No known significant effects or critical hazards.
<b>Target organs</b>	:	Contains material which causes damage to the following organs: kidneys, upper respiratory tract, skin, central nervous system (CNS), eye, lens or cornea.

## 2. Hazards identification

### Over-exposure signs/symptoms

- Inhalation** : Adverse symptoms may include the following:  
respiratory tract irritation  
coughing
- Ingestion** : No specific data.
- Skin** : Adverse symptoms may include the following:  
irritation  
redness
- Eyes** : Adverse symptoms may include the following:  
pain or irritation  
watering  
redness
- Medical conditions aggravated by overexposure** : Pre-existing disorders involving any target organs mentioned in this MSDS as being at risk may be aggravated by over-exposure to this product.
- See toxicological information (section 11)

## 3. Composition/information on ingredients

Name	CAS Number	%
Stoddart solvent	8052-41-3	15 - 40

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section

## 4. First aid measures

- Eye contact** : Check for and remove any contact lenses. In case of contact with eyes, rinse immediately with plenty of water. Get medical attention.
- Skin contact** : Wash with soap and water. Get medical attention if symptoms occur.
- Inhalation** : If inhaled, remove to fresh air. If not breathing, give artificial respiration. Get medical attention if symptoms occur.
- Ingestion** : Do not induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.
- Notes to physician** : No specific treatment. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

## 5. Fire-fighting measures

- Flammability of the product** : Combustible
- Extinguishing media**
- Suitable** : Use dry chemical, CO<sub>2</sub>, water spray (fog) or foam.
- Not suitable** : Do not use water jet.
- Special exposure hazards** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

## 5. Fire-fighting measures

- Hazardous thermal decomposition products** : Decomposition products may include the following materials:  
carbon dioxide  
carbon monoxide  
sulfur oxides
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

## 6. Accidental release measures

- Personal precautions** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see section 8).
- Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
- Methods for cleaning up**
- Small spill** : Absorb spill with inert material (e.g. dry sand or earth) and place in a chemical waste container.
- Large spill** : Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see section 1 for emergency contact information and section 13 for waste disposal.

## 7. Handling and storage

- Handling** : Put on appropriate personal protective equipment (see section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not re-use container.
- Storage** : Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see section 10) and food and drink. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

## 8. Exposure controls/personal protection

**Product name**  
Stoddart solvent

**Exposure limits**  
**ACGIH TLV (United States, 1/2006).**  
TWA: 525 mg/m<sup>3</sup> 8 hour(s).

Consult local authorities for acceptable exposure limits.

## 8. Exposure controls/personal protection

<b>Recommended monitoring procedures</b>	:	If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment.
<b>Engineering measures</b>	:	Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits.
<b>Hygiene measures</b>	:	Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
<b>Personal protection</b>		
<b>Eyes</b>	:	Safety glasses.
<b>Skin</b>	:	Wear appropriate personal protective suit.
<b>Respiratory</b>	:	Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.
<b>Hands</b>	:	Natural rubber (latex).
<b>Personal protective equipment (Pictograms)</b>	:	
<b>HMIS Code/Personal protective equipment</b>	:	B
<b>Environmental exposure controls</b>	:	Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

## 9. Physical and chemical properties

<b>Physical state</b>	:	Liquid.
<b>Flash point</b>	:	Closed cup: 43°C (109.4°F) [Pensky-Martens.]
<b>Flammable limits</b>	:	Lower: 1% Upper : 6 %
<b>Self-burning temperature</b>	:	245°C (solvent)
<b>Color</b>	:	Black.
<b>Odor</b>	:	Solvent.
<b>Relative density</b>	:	0.965 g/ml
<b>Vapor pressure (38°C)</b>	:	0.93 kPa (7 mm Hg)
<b>Vapor density</b>	:	3.9 [Air = 1]
<b>Volatility</b>	:	30 to 35% (v/v)
<b>Evaporation rate</b>	:	0.10 à 0.15 (Butyl acetate. = 1)
<b>Boiling point</b>	:	90-150°C
<b>Viscosity</b>	:	48000-60000 Cps
<b>VOC</b>	:	<350 g/L Maximum
<b>Solubility</b>	:	Insoluble in water.

## 10. Stability and reactivity

<b>Stability</b>	:	The product is stable.
<b>Hazardous polymerization</b>	:	Under normal conditions of storage and use, hazardous polymerization will not occur.
<b>Conditions to avoid</b>	:	Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition. Do not allow vapor to accumulate in low or confined areas. Avoid exposure - obtain special instructions before use.
<b>Materials to avoid</b>	:	Reactive or incompatible with the following materials: oxidizing materials
<b>Hazardous decomposition products</b>	:	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
<b>Conditions of reactivity</b>	:	Flammable in the presence of the following materials or conditions: open flames, sparks and static discharge. Slightly flammable in the presence of the following materials or conditions: heat.

## 11. Toxicological information

### Acute toxicity

Product/ingredient name	Species	Dose	Result	Exposure
Stoddart solvent	Rabbit	>3 g/kg	LD Dermal	-
	Rat	>5 g/kg	LD Oral	-

<b>Inhalation</b>	:	Slightly irritating to the respiratory system.
<b>Ingestion</b>	:	No known significant effects or critical hazards.
<b>Skin</b>	:	Irritating to skin.
<b>Eyes</b>	:	Irritating to eyes.

### Carcinogenicity

### Classification

Product/ingredient name	ACGIH	CIRC	EPA	NIOSH	NTP	OSHA
	-	-	-	-	-	-

## 12. Ecological information

<b>Environmental effects</b>	:	No known significant effects or critical hazards
------------------------------	---	--

## 13. Disposal considerations

<b>Waste disposal</b>	:	The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe way. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any byproducts should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.
-----------------------	---	--

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees.

## 14. Transport information

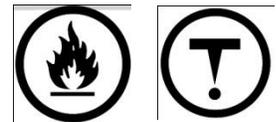
**AERG** : 130

Regulatory information	UN number	Proper shipping name	Classes	PG*	Label	Additional information
<b>TDG Classification</b>	UN 1999	Tars liquid including road asphalt and tar cut backs	3	III		-
<b>IMDG Class</b>	UN 1999	Tars liquid including road asphalt and tar cut backs	3	III		-
<b>IATA-DGR Class</b>	UN 1999	Tars liquid including road asphalt and tar cut backs	3	III		-

## 15. Regulatory information

### Canada

**WHMIS (Canada)** : Class B-3: Combustible liquid with a flash point between 37.8°C (100°F) and 93.3°C (200°F).  
Class D-2B: Material causing other toxic effects (Toxic).



**Canadian lists** : **CEPA Toxic substances:** None of the components are listed.  
**Canadian ARET:** None of the components are listed.  
**Canadian NPRI:** The following components are listed: Stoddart solvent  
**Alberta Designated Substances:** None of the components are listed.  
**Ontario Designated Substances:** None of the components are listed.  
**Quebec Designated Substances:** None of the components are listed.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

### GHS (United Nation, Purple Book)

**Classification of the substance or mixture** : FLAMMABLE LIQUIDS - Category 3  
SKIN CORROSION/IRRITATION - Category 2  
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2B  
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) Respiratory tract irritation - Category 3  
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) central nervous system (CNS), kidneys and respiratory tract - Category 2

### GHS label elements

**Signal word** : Danger

**Hazard statements** : Flammable liquid and vapor.  
Causes skin irritation.  
Causes eye irritation.  
May cause respiratory irritation.  
May cause damage to organs through prolonged or repeated exposure if inhaled. (respiratory tract)  
May cause damage to organs through prolonged or repeated exposure if swallowed. (central nervous system (CNS), kidneys)

## 15. Regulatory information

### Precautionary statements

- Prevention** : Read label before use. Wear protective gloves. Wear eye/face protection. Keep away from ignition sources such as heat/sparks/open flame. - No smoking. Keep container tightly closed. KEEP OUT OF REACH OF CHILDREN. Do not breathe vapor. Wash thoroughly after handling. If medical advice is needed: Have product container or label at hand.
- Response** : IF ON SKIN (or hair): Take off contaminated clothing and wash before re-use. Rinse skin with water and/or take a shower. Wash with plenty of soap and water. If skin irritation occurs, seek medical advice/attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists, get medical advice/attention. Wash hands after handling. Get medical attention/advice if you feel unwell.
- Storage** : Store locked up. Store in cool/well-ventilated place.
- Disposal** : Dispose of contents and container in accordance with all local, regional, national and international regulations.
- Symbole** : 
- Other hazards which do not result in classification** : Not available.
- International regulations**
- International lists** : This product, (and its ingredients) is (are) listed on national inventories, or is (are) exempted from being listed, in Australia (AICS), in Europe (EINECS/ELINCS), in Korea (TCCL), in Japan (METI), in the Philippines (RA6969).

## 16. Other information

- Label requirements** : COMBUSTIBLE LIQUID AND VAPOR. CAUSES EYE AND SKIN IRRITATION. MAY CAUSE RESPIRATORY TRACT IRRITATION. CONTAINS MATERIAL THAT CAN CAUSE TARGET ORGAN DAMAGE.

### Hazardous Material Information System (U.S.A.)

Health	*	1
Fire hazard		2
Physical Hazard		0
Protection individuelle		B

### HAZARD RATINGS

4- Extreme  
 3- Serious  
 2- Moderate  
 1- Slight  
 0- Minimal  
 See section 8 for more detailed information on personal protection

The customer is responsible for determining the PPE code for this material.

### National Fire Protection Association (U.S.A.)

Health  Flammability  
 Instability  
 Special

## 16. Other information

**References** : ANSI Z400.1, MSDS Standard, 2004. - Manufacturer's Material Safety Data Sheet. - Canada Gazette Part II, Vol. 122, No. 2. Registration SOR/88-64, 31 December 1987. Hazardous Products Act "Ingredient Disclosure List" - Canadian Transport of Dangerous Goods, Regulations and Schedules, Clear Language version 2005.

**Date of issue** January 03, 2016.

**Version** 1

### Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.



# Safety Data Sheet (SDS)

Date Prepared/Revised: 2/24/17      Version no.: 02      Supersedes: (11/12/2014)

## 1.) Identification of the Mixture and of the Company

Product identifier: **Crown Blue Toolmaker's Ink - Aerosol**

Product name: **Crown 6001 Blue Toolmaker's Ink**

Relevant identified uses of the substance: Use for production layouts, pattern making, tool, die, and model making. May be used for templates and machined parts.

Uses advised against: Poorly ventilated areas

CAS No:	<b>Not Applicable (mixture)</b>
EC No:	<b>Not Applicable (mixture)</b>
Index No:	<b>Not Applicable (mixture)</b>
Manufacturer/Supplier:	<b>Aervoe Industries Incorporated</b>
Street address/P.O. Box:	<b>1100 Mark Circle</b>
Country ID/Postcode/Place:	<b>Gardnerville, Nevada 89410</b>
Telephone number:	<b>001 (0) 1-775-782-0100</b>
e-mail:	<b>mailbox@aervoe.com</b>
National contact:	<b>Aervoe Industries Incorporated</b>
For Product Information:	<b>001 (0) 1-800-227-0196</b>
Emergency telephone number:	<b>001 (0) 1-800-424-9300 (CHEMTREC – 24 hrs)</b> <b>English Language Service</b>

## 2. Hazards identification

### Classifications

Physical Hazards:      Aerosol - Category 1  
                                  Flam. Gas. 1  
                                  Press. Gas  
                                  Flam. Liq. 2  
                                  Flam. Liq. 3

Health Hazards:      Car 1B  
                                  Muta 1B  
                                  Asp Tox. 1  
                                  Eye Irrit. - 2  
                                  STOT SE3

Environmental Hazards:      N/AV

### Labeling

Signal Word:      Danger



# Safety Data Sheet (SDS)

Date Prepared/Revised: 2/24/17      Version no.: 02      Supersedes: (11/12/2014)

Hazard Statements:      H220 – Extremely flammable gas  
H222 – Extremely flammable aerosol  
H225 – Highly flammable liquid and vapour.  
H226 – Flammable liquid and vapour.  
H229 - Pressurized container: may burst if heated  
H319 – Causes serious eye irritation.  
H336 – May cause drowsiness or dizziness.  
H340 – May cause genetic defects  
H350 – May cause cancer

Precautionary Statements:      P101 - If medical advice is needed, have product container or label at hand  
P102 - Keep out of reach of children  
P103 - Read label before use  
P210 - Keep away from heat/sparks/open flames/hot surfaces - no smoking  
P211 - Do not spray on an open flame or other ignition source  
P251 - Pressurized container: Do not pierce or burn, even after use  
P261 - Avoid breathing dust/fume/gas/mist/vapours/spray  
P262 - Do not get in eyes, on skin, or on clothing  
P264 - Wash ... thoroughly after handling  
P280 - Wear protective gloves/eye protection/face protection  
  
P303+P361+P353 - If on skin or hair, remove/takeoff immediately all contaminated clothing. Rinse skin with water/shower.  
P410+P412 - Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F  
P501 - Dispose of contents/container in accordance with local/regional/national/international regulation

Symbols/Pictograms:



## 3. Composition / Information on Ingredients

### Composition

Chemical	Synonyms	CAS Number	EINECS Number	Weight Percent	Hazard Category	H-Code
----------	----------	------------	---------------	----------------	-----------------	--------



# Safety Data Sheet (SDS)

Date Prepared/Revised: 2/24/17      Version no.: 02      Supersedes: (11/12/2014)

Methyl Ethyl Ketone	M.E.K.	78-93-3	201-159-0	30-60%	Flam. Liq. 2 Eye Irrit. 2 STOT SE 3	H225 H319 H336
Hydrocarbon Propellant	LPG	68476-86-8	270-705-8	15-40%	Press. Gas Flam. Gas 1 Carc. 1B Muta. 1B	H220 H350 H340
n-Butyl Acetate	n-Butyl Ester	123-86-4	204-658-1	7-13%	Flam. Liq. 3 STOT SE 3	H226 H336
n-Methyl-2-Propanol Acetate	2-Methoxy-1-Methylethyl Acetate	108-65-6	203-603-9	1-5%	Flam. Liq. 3	H226

## Other Product Information

Chemical Identity: Mixture

## 4.) First Aid Measures

<b>General Advice:</b>	If symptoms persist, always call a doctor.
<b>Inhalation First Aid:</b>	Remove victim to fresh air and provide oxygen if breathing is difficult. If not breathing, give artificial respiration, preferably mouth to mouth. Get medical attention immediately.
<b>Skin Contact First Aid:</b>	Wash with soap and water. Remove contaminated clothing and shoes. Get medical attention immediately. Wash clothing before reuse.
<b>Eye Contact First Aid:</b>	If contact with eyes, immediately flush eyes with plenty of water for at least 15 minutes, while holding eyelids open. Get medical attention immediately.
<b>Ingestion First Aid:</b>	If swallowed, wash out mouth with water provided the person is conscious. Do not induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention immediately.
<b>Most Important Symptoms/Effects:</b>	Exposure may cause slight irritation to the skin, eyes, and respiratory tract. Excessive exposure may cause central nervous system effects.

## 5. Fire Fighting Measures

Flammable Properties:	Aerosol
Auto Ignition Temperature:	Not Available
Suitable extinguishing media:	Carbon dioxide, dry chemical, water spray.
Unsuitable extinguishing media:	None known
Special hazards arising from the substance or mixture:	None known
Hazardous combustion products:	Carbon dioxide, Carbon monoxide



# Safety Data Sheet (SDS)

Date Prepared/Revised: 2/24/17      Version no.: 02      Supersedes: (11/12/2014)

Fire & Explosion Hazards:                      Closed Containers may rupture due to the buildup of pressure from extreme temperatures.

Precautions for fire-fighters: Use water spray to cool containers exposed to heat or fire to prevent pressure build up. In the event of a fire, wear full protective clothing and NIOSH- approved self-contained breathing apparatus with full face piece operated in the pressure demand or other positive pressure mode.

## 6. Accidental Release Measures

### PERSONAL PRECAUTIONARY MEASURES:

- 1) Follow personal protective equipment recommendations found in section 8.
- 2) Maintain adequate ventilation.

### SPILL CLEAN-UP PROCEDURES:

- 1.) Evacuate unprotected personnel from the area.
- 2.) Remove sources of ignition if safe to do so.
- 3.) Pickup spilled materials using non-sparking tools and place in an appropriate container for disposal.
- 4.) Contain spill to prevent material from entering sewage or ground water systems.
- 5.) Always dispose of waste materials in accordance with all EU, National and Local Regulations.

## 7. Handling and Storage

### Handling:

Flammable Aerosol, use in a well ventilated area.  
Do not use near sources of ignition.  
Do not to eat, drink and smoke while working with this material.  
Wash hands after use.

### Conditions for safe storage, including any incompatibilities:

Store out of direct sunlight.  
Storage Temperature: 32° to 120°F (0° to 49°C).  
No known incompatibilities.

## 8. Exposure Controls / Personal Protection

### Appropriate engineering controls:

Ensure adequate ventilation. A system of local and/or general exhaust is recommended to keep employee exposures below the Airborne Exposure Limits.  
Keep away from sources of ignition.  
Take precautionary measures against static discharge.

### Personal Protection:

Eye & face protection devices such as safety glasses, safety goggles or face shield are recommended.

### Skin protection



# Safety Data Sheet (SDS)

Date Prepared/Revised: 2/24/17      Version no.: 02      Supersedes: (11/12/2014)

Wear the appropriate protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.

## Respiratory protection:

Use only in an adequately ventilated area. For unknown vapor concentrations use a positive-pressure, pressure-demand, self-contained breathing apparatus (SCBA).

Hazardous Ingredient	CAS Number	ACGIH TLV (TWA)	ACGIH TLV (STEL)	OSHA PEL (TWA)	OSHA PEL (STEL)
Methyl Ethyl Ketone	78-93-3	200ppm	300ppm	200ppm	N/AV
Hydrocarbon Propellant	68476-86-8	N/AV	N/AV	N/AV	N/AV
n-Butyl Acetate	123-86-4	150ppm	200ppm	150ppm	N/AV
n-Methyl-2-Propanol Acetate	108-65-6	N/AV	N/AV	N/AV	N/AV

**\*Values are based on the 2014 Guide to Occupational Exposure Values by ACGIH**

## 9. Information on Basic Physical and Chemical Properties

Appearance: Blue	Odor: Ketone odor
Odor Threshold: N/AV	pH: Not Applicable (solvent Base)
Melting Point: N/AV	Freezing Point: N/AV
Initial Boiling Point: N/AV	Boiling Point Range: N/AV
Flash Point: <0° F (-18° C)	Evaporation Rate: Faster Than n-Butyl Acetate
Flammability Solid/Gas: Flammable gas	LEL: 0.7% UEL: 14%
Vapor Pressure: N/AV	Vapor Density: Heavier Than Air
Relative Density: N/AV	Solubility: Negligible
Partition Coefficient: n-octanol/ water: N/AV	Auto-ignition Temperature: N/AV
Decomposition Temperature: N/AV	Viscosity: N/AV
Explosive Properties: N/AV	Oxidizing Properties: N/AV

## 10. Stability & Reactivity

Possibility of hazardous reactions: Hazardous polymerization will not occur under normal conditions

Chemical stability: Stable under normal conditions

Conditions to avoid: Heat and ignition sources

Incompatible materials: Strong Oxidizing Agents

Hazardous decomposition products: Will not occur

## 11. Toxicological Information

Reports have associated repeated and prolonged overexposure to solvents with permanent brain and nervous system damage. Repeated overexposure can also damage kidneys, lungs, liver, heart and blood

Routes of exposure: Eyes, skin, ingestion, and/or inhalation



# Safety Data Sheet (SDS)

Date Prepared/Revised: 2/24/17      Version no.: 02      Supersedes: (11/12/2014)

Acute toxicological data: N/AV

Eye irritation data: N/AV

Skin irritation/sensitization/absorption data: N/AV

Reproductive toxicity data: N/AV

Mutagenicity data: Muta 1B

Symptoms associated with physical contact: N/AV

Acute/chronic effects from short/long term exposure: Irritating to skin. Prolonged/repeated contact may cause defatting of the skin which can lead to dermatitis. Not expected to be a skin sensitizer.

Known reportable carcinogens via the following agencies:

NTP: N/AV

IARC: N/AV

OSHA: N/AV

\* Petroleum distillates may contain chemical carcinogens in limited quantities (< 0.01%). These quantities are determined by the supplier/fraction/purity of the distillate during the manufacturing process. Chemicals that may be present within distillates are listed on California's prop 65 list such as ETHYLBENZENE, BENZENE, and TOLUENE.

## 12. Ecological Information

Ecotoxicity: **No Data Available**

Persistence and degradability: **No Data Available**

Bioaccumulative potential: **No Data Available**

Mobility in soil: **No Data Available**

Results of PBT and vPvB assessment: **No Data Available**

Other adverse effects: **No Data Available**

## 13. Disposal Considerations

**Waste Disposal:** Dispose of material in accordance with EU, national and local requirements. For proper disposal of used material, an assessment must be completed to determine the proper and permissible waste management options permitted under applicable rules, regulations and/or laws governing your location.



# Safety Data Sheet (SDS)

Date Prepared/Revised: 2/24/17      Version no.: 02      Supersedes: (11/12/2014)

**Product / Packaging disposal:** Dispose of packaging in accordance with federal, state and local requirements, regulations and/or laws governing your location.

## 14. Transportation Information

### US DOT

UN Number	Proper Shipping Name	Hazard Class	Packing Group	Marine Pollutant	Special Provisions
UN1950	Aerosols	2.1	Not Applicable	Not Applicable	Reference 49 CFR 172.101

### IMDG

UN Number	Proper Shipping Name	Hazard Class	Packing Group	Marine Pollutant	Special Provisions
UN1950	Aerosols	2.1	Not Applicable	Not Applicable	Reference IMDG code part 3

### IATA:

UN Number	Proper Shipping Name	Hazard Class	Packing Group	Marine Pollutant	Special Provisions
UN1950	Aerosols, Flammable	2.1	Not Applicable	Not Applicable	Reference IATA Dangerous Goods Regulation

## 15. Regulatory Information

### Workplace classification:

This product is considered hazardous under the OSHA Hazard Communication Standard (29 CFR 1910.1200). The Occupational Safety and Health Administration's interpretation of the product's hazard to workers.

### SARA Title 3:

Section 311/312 Categorizations (40 CFR 372): This product is a hazardous chemical under 29 CFR 1910.1200, and is categorized as an immediate and delayed health, and flammability physical hazard. Superfund Amendment and Reauthorization Act (SARA) category. SARA requires reporting any spill of any hazardous substance.

**TSCA status:** All chemicals in this product are listed, or are exempt from listing, on the TSCA Inventory.

**WHMIS:** This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the (M)SDS contains all of the information required by the CPR.

**PROP 65 (CA): WARNING:** This product may contain chemicals know to the state of California to cause cancer, birth defects or other reproductive harm.

## 16. Other Information



# Safety Data Sheet (SDS)

---

Date Prepared/Revised: 2/24/17      Version no.: 02      Supersedes: (11/12/2014)

This SDS has been completed in accordance with GHS Rev04 (2011): U.S OSHA, CMA, ANSI, Canadian WHMIS standards, and European Directives.

Date of Preparation/Revision: 2/24/17  
Supersedes: (11/12/2014)

To the best of our knowledge, the information contained herein is believed to be accurate. However, the above data does not imply any guarantee or warranty of any kind, expressed or implied. The final determination of the suitability of any material is the sole responsibility of the user. All materials made present un-known hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee these are the only hazards existing.

## Safety Data Sheet

**Product No. 812-650, 812-653 Cutting Fluid, Soluble Oil**

**Issue Date (05-12-14)**

**Review Date (08-31-17)**

---

### Section 1: Product and Company Identification

**Product Name: Cutting Fluid, Soluble Oil**

Synonym: SO Soluble Oil

**Company Name**

**Ted Pella, Inc., P.O. Box 492477, Redding, CA 96049-2477**

Inside USA and Canada 1-800-237-3526 (Mon-Thu. 6:00AM to 4:30PM PST; Fri 6:00AM to 4:00PM PST)

Outside USA and Canada 1-530-243-2200 (Mon-Thu. 6:00AM to 4:30PM PST; Fri 6:00AM to 4:00PM PST)

**CHEMTREC USA and Canada Emergency Contact Number 1-800-424-9300 24 hours a day**

**CHEMTREC Outside USA and Canada Emergency Contact Number +1-703-741-5970 24 hours a day**

---

### Section 2: Hazard Identification

#### 2.1 Classification of the substance or mixture

OSHA/HCS status: This material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200). Not classified.

GHS Pictograms: Void

GHS Categories: Void

#### 2.2 Label elements

Hazard Pictograms: None

Signal Word: None

Hazard Statements: No known significant effects or critical hazards.

Precautionary Statements: NA

#### 2.3 Other hazards

Defatting to the skin.

#### Health Effects:

NFPA Hazard Rating: Health: 2; Fire: 1; Reactivity: 0

HMIS® Hazard Rating: Health: 1; Fire: 1; Reactivity: 0

(0=least, 1=Slight, 2=Moderate, 3=High, 4=Extreme)

#### Results of PBT and vPvB assessment:

PBT: ND

vPvB: ND

#### Emergency overview

Appearance: Clear Blue Liquid.

Immediate effects: Warning! Causes eye irritation.

#### Potential health effects

Primary Routes of entry: Skin, ingestion.

Signs and Symptoms of Overexposure: ND

Eyes: Causes eye irritation.

Skin: May cause skin irritation. Defatting to the skin.

Ingestion: Toxic if swallowed

Inhalation: May cause respiratory tract irritation.

Chronic Exposure: ND

Chemical Listed as Carcinogen or Potential Carcinogen: See section 15. Trace amounts of Ethylene oxide, Propylene oxide, Dioxane. No components of this product at levels greater than 0.1% is identified as a carcinogen by ACGIH, IARC, NPT or OSHA.

See Toxicological Information (Section 11)

### Potential environmental effects

See Ecological Information (Section 12)

---

### Section 3: Composition / Information on Ingredients

Principle Components (chemical and common names) (Cas. No)	%	OSHA PEL mg/m <sup>3</sup>	ACGIH TLV mg/m <sup>3</sup>	NTP Carcinogen	IARC Carcinogen	OSHA regulated Carcinogen
Borates, tetra, sodium salts- anhydrous (1330-43-4)	1-5	ND	ND	No	No	No

ACGIH TLV (United States).

STEL: 6 mg/m<sup>3</sup> 15 minutes. Issued/Revised:

1/2005 Form: Inhalable fraction

TWA: 2 mg/m<sup>3</sup> 8 hours. Issued/Revised: 1/2005 Form: Inhalable fraction NIOSH REL (United States).

TWA: 1 mg/m<sup>3</sup> 10 hours. Issued/Revised:

6/1994

While specific OELs for certain components may be shown in this section, other components may be present in any mist, vapor or dust produced. Therefore, the specific OELs may not be applicable to the product as a whole and are provided for guidance only.

---

### Section 4: First Aid Measures

#### If accidental overexposure is suspected

Eye(s) Contact: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Eyelids should be held away from the eyeball to ensure thorough rinsing. Check for and remove any contact lenses. Get medical attention.

Skin Contact: Wash skin thoroughly with soap and water or use recognized skin cleanser. Remove contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention if symptoms occur.

Inhalation: In case of inhalation of decomposition products in a fire, symptoms may be delayed. If inhaled, remove to fresh air. The exposed person may need to be kept under medical surveillance for 48 hours. Get medical attention if symptoms occur.

Ingestion: Do not induce vomiting unless directed to do so by medical personnel. Wash out mouth with water if person is conscious. Get medical attention if symptoms occur.

#### Note to physician

Treatment: In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours. Treatment should in general be symptomatic and directed to relieving any effects.

Medical Conditions generally Aggravated by Exposure: ND

---

### Section 5: Fire Fighting Measures

Flash Point: >100°C

Flammable Limits: ND

Auto-ignition point: ND

Fire Extinguishing Media: Water fog, alcohol-resistant foam, dry chemical or carbon dioxide extinguisher or spray.

Unsuitable Extinguishing Media: Water jet.

Special Fire Fighting Procedures: Fire-fighters should wear positive pressure self-contained breathing apparatus (SCBA) and full turnout gear. Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

Unusual Fire and Explosion Hazards: Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain. In a fire or if heated, a pressure increase will occur and the container may burst.

Hazardous combustion products: Carbon dioxide, carbon monoxide, nitrogen oxides, metal oxides.

DOT Class: None.

---

## Section 6: Accidental Release Measures

Steps to be Taken in Case Material is Released or Spilled:

**Personal precautions, protective equipment, and emergency procedures:** No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment. Floors may be slippery; use care to avoid falling.

**Environmental precautions:** Avoid dispersal of spilled material, runoff, and contact with soil, waterways, drains and sewers. Inform relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water-polluting material; may be harmful to the environment if released in large quantities.

### Methods and materials for containment and clean-up:

Small spill: Stop leak if without risk. Move containers from spill area. Absorb with an inert material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill: Stop leak if without risk. Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Contain and collect spillage with noncombustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Dispose of via a licensed waste disposal contractor.

**Waste Disposal Methods:** Dispose of waste according to Federal, State and Local Regulations.

---

## Section 7: Handling and Storage

Precautions to be taken in Handling and Storage:

**Handling:** Put on appropriate personal protective equipment (see Section 8). Avoid breathing vapor or mist. Avoid contact of spilled material and runoff with soil and surface waterways. Avoid prolonged or repeated contact with skin. During metal-working, solid particles from work-pieces or tools will contaminate the fluid and may cause abrasions of the skin. Where such abrasions result in penetration of the skin, first aid treatment should be applied as soon as reasonably possible. The presence of certain metals in the work-piece or tool—such as chromium, cobalt and nickel—can contaminate the metal-working fluid and may induce allergic skin reactions as a result. Evaporation of water from soluble cutting fluids during use may lead to an increase in concentration which may result in the development of skin conditions due to irritation and defatting. It is important to monitor fluid strength on a regular basis with a refractometer and maintain it at the recommended concentration. Lubricants from other sources and other contaminants should be minimized. Swarf and other debris should be removed. To maintain optimum performance and minimize bacterial spoilage, machine tool coolant systems should be cleaned on a regular basis.

**Storage:** Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready

for use. Store and use only in equipment/containers designed for use with this product. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. DO NOT ADD NITRITES TO THIS FLUID.

Storage temperature: Ambient

Storage Pressure: NA

---

## Section 8: Exposure Controls / Personal Protection

### Ingredients with occupational exposure limits

Borates, tetra, sodium salts (anhydrous)

ACGIH TLV (U.S.) STEL: 3 mg/m<sup>3</sup> (15 min, inhalable fraction)

TWA: 2 mg/m<sup>3</sup> (8 hrs, inhalable fraction)

NIOSH REL (U.S.) TWA: 1 mg/m<sup>3</sup> (10 hrs)

### Engineering Controls

Ventilation required: Local exhaust.

Environmental exposure controls: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

### Personal Protection Equipment

Hygiene measures: Wash hands, forearms, and face thoroughly after handling chemical products, smoking and using the lavatory and at the end of the working period.

Respiratory protection: Use NIOSH approve respirator where spray mist occurs.

Protective gloves: Nitrile gloves.

Skin protection: Protective clothing. When risk of skin exposure is high, chemical resistant aprons and/or impervious chemical suits and boots are required.

Eye protection: Undiluted fluid: chemical goggles; diluted fluid: safety goggles with side shields.

Additional clothing and/or equipment: None.

### Exposure Guidelines

See Composition/Information on Ingredients (Section 3)

---

## Section 9 Physical and Chemical Properties

Appearance and Physical State: Clear yellow-to-amber liquid.

Odor (threshold): ND

Specific Gravity (H<sub>2</sub>O=1): ND

Vapor Pressure (mm Hg): ND

Vapor Density (air=1): ND

Percent Volatile by volume: ND

Evaporation Rate (butyl acetate=1): ND

Boiling Point: ND

Freezing point / melting point: ND

pH: ND

Solubility in Water: Soluble: >1000 kg/m<sup>3</sup> (>1 g/cm<sup>3</sup>) at 15°C

Molecular Weight: ND

---

## Section 10: Stability and Reactivity

Stability: Stable

Conditions to Avoid: High temperatures

Materials to Avoid (Incompatibility): Oxidizing materials, acids. Slightly reactive with reducing agents, organic materials and metals.

Hazardous Decomposition Products: None known under normal conditions of storage and use.

Hazardous Polymerization: Will not occur.

---

### **Section 11: Toxicological Information**

Results of component toxicity test performed: ND

This product contains an alkanolamine, based on animal studies which may cause damage to the liver and kidneys. In all metalworking fluids containing amines, there is a potential for forming nitrosamines which are animal carcinogens. Therefore, no nitrites or related nitrosating agents should be added to such compositions.

Human experience: No known significant effects or critical hazards

This product **does not** contain any compounds listed by NTP or IARC or regulated by OSHA as a carcinogen.

IARC: 3 - Not classifiable as a human carcinogen.

---

### **Section 12: Ecological Information**

Ecological Information: ND

Chemical Fate Information: ND

---

### **Section 13 Disposal Considerations**

RCRA 40 CFR 261 Classification: ND

The generation of waste should be avoided or minimized wherever possible. Significant quantities of waste product residues should not be disposed of via the foul sewer but processed in a suitable effluent treatment plant. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Diluted Fluid The spent diluted fluid comprises a relatively stable emulsion. Dispose of via an authorized person/ licensed waste disposal contractor or by other suitable waste treatment techniques (e.g. emulsion splitting, coagulation and filtration) approved by the local authority. Spent fluid should never be disposed of down the drain. The aqueous phase should not be discharged into sewage systems unless provided for by local regulations; the non-aqueous phase should be disposed of as undiluted fluid. Note that separated aqueous solutions or effluents may contain metal salts as well as traces of oil and must be checked for conformity in these respects against consents given by the authorities before disposal. Further treatment may be required. Federal, State and local laws governing disposal of materials can differ. Ensure proper disposal compliance with proper authorities before disposal.

---

### **Section 14: Transportation Information**

US DOT Information: Proper shipping name: Not regulated.

IATA: Proper shipping name: Not regulated when quantity is  $\leq 5$  L/ $\leq 5$  kg.

When  $>5$  L/5kg:

Proper shipping name: Environmentally hazardous substance, liquid, n.o.s. (Poly quaternary ammonium chloride)

UN number: UN3082

Hazard class: 9

Packing group: III

IMO: Proper shipping name: Not regulated.

Marine Pollutant: No

Canadian TDG: Not regulated.

---

### **Section 15: Regulatory Information**

#### **United States Federal Regulations**

SDS complies with OSHA's Hazard Communication Rule 29, CFR 1910.1200.

SARA: None

SARA Title III: Section 302, Extremely Hazardous Substances: No. Section 311/312,

Hazardous Categories: No. Section 313, Toxic Chemicals: No.

RCRA: No

TSCA: In compliance.

CERCLA: None

State Regulations

Massachusetts: The following components are listed: TRIETHANOLAMINE; BORON SODIUM OXIDE

New Jersey: The following components are listed: TRIETHANOLAMINE; ETHANOL, 2,2',2"-NITRILOTRIS-; BORATE COMPOUNDS, Inorganic

Pennsylvania: The following components are listed: ETHANOL, 2,2',2"-NITRILOTRIS-; BORON SODIUM OXIDE (B4NA2O7)

California Proposition 65:

WARNING: This product contains a chemical known to the State of California to cause cancer.

Diethanolamine; 2,2'-Iminodiethanol; Propylene oxide; 1,4-dioxane

WARNING: This product contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm. Ethylene oxide.

International Regulations

Australia inventory (AICS)

All components are listed or exempted

Canada inventory

All components are listed or exempted

China inventory (IECSC)

All components are listed or exempted

Japan inventory (ENCS)

All components are listed or exempted

Korea inventory (KECI)

All components are listed or exempted

Philippines inventory

(PICCS)

Canada WHMIS: ND

Europe EINECS Numbers: ND

---

### Section 16: Other Information

European Risk and Safety Phrases: ND

European symbols needed: ND

Canadian WHMIS Symbols: ND

#### Abbreviations used in this document

NE= Not established

NA= Not applicable

NIF= No Information Found

ND= No Data

---

### Disclaimer

Ted Pella, Inc. makes no warranty of any kind regarding the information furnished herein. Users should independently determine the suitability and completeness of information from all sources. While this data is presented in good faith and believed to be accurate, it should be considered only as a supplement to other information gathered by the user. It is the User's responsibility to assure the proper use and disposal of these materials as well as the safety and health of all personnel who may work with or otherwise come in contact with these materials.



# SAFETY DATA SHEET

Prepared to U.S. OSHA, CMA, ANSI, Canadian WHMIS Standards, European Union CLP EC 1272/2008 and the Global Harmonization Standard

## PART I What is the material and what do I need to know in an emergency?

### 1 – IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

#### IDENTIFICATION of the SUBSTANCE or PREPARATION:

TRADE NAME (AS LABELED):

**DeWALT CHALKS**

SYNONYMS:

DeWALT Black Chalk; DeWALT Blue Chalk; DeWALT Red Chalk; DeWALT White Chalk

CHEMICAL NAME/CLASS:

Calcium Carbonate/Pigment/Silica Mixtures

RELEVANT USES of the MIXTURE:

Chalks

USES ADVISED AGAINST:

Other than Relevant Use

#### SUPPLIER OF THE SAFETY DATA SHEET:

U.S. MANUFACTURER'S NAME:

**STANLEY WORKS**

ADDRESS:

480 Myrtle Street  
New Britain, CT 06053  
1-800-262-2161

BUSINESS PHONE:

EUROPEAN SUPPLIER/IMPORTER'S NAME:

ADDRESS:

BUSINESS PHONE:

EMERGENCY PHONE:

CHEMTREC: 1-800-424-9300 (U.S., Canada, Puerto Rico, U.S. Virgin Islands)  
+1-703-527-3887 (outside areas above, call collect)

DATE OF PREPARATION:

December 11, 2007

DATE OF REVISION:

July 18, 2013

ALL WHMIS required information is included in appropriate sections based on the ANSI Z400.1-2010 format. This material has been classified in accordance with the hazard criteria of the CPR and the SDS contains all the information required by the CPR. The material is also classified per all applicable EU Directives through EC 1907: 2006, the European Union CLP EC 1272/2008 and the Global Harmonization Standard.

### 2. HAZARD IDENTIFICATION

GLOBAL HARMONIZATION LABELING AND CLASSIFICATION: Classified in accordance with CLP Regulation (EC) 1272/2008.

Classification: Carcinogenic Cat. 2

Signal Word: Warning

Hazard Statement Codes: H351; For Blue Chalk Only: EUH032

Precautionary Statement Codes: P201, P202, P280, P308 + P313, P405, P501

Hazard Symbol/Pictogram: GHS08



EU 67/548/EEC LABELING AND CLASSIFICATION: Classified in accordance with the European Community Council Directive 67/548/EEC or subsequent Directives.

Classification: Carcinogenic Cat. 3

Risk Phrase Codes: R45; For Blue Chalk Only: R32

Safety Phrase Codes: S(1/2), S22, S25, S36/37/39, S38, S45, S53

Hazard Symbol: Xn



See Section 16 for full text of Classification

**EMERGENCY OVERVIEW: Product Description:** These products are colored, finely powdered, odorless chalks. **Health Hazards:** Inhalation of dusts from this product may irritate the respiratory system. Skin and eye contact may cause mechanical abrasion. These chalks contain Crystalline Silica, a known human carcinogen by inhalation. **Flammability Hazards:** These chalks are not flammable. Finely divided dusts from these products can form explosive mixtures in air. If involved in a fire, these products may decompose to form iron oxides, aluminum oxides, silicon dioxide, sulfur dioxide, magnesium oxides, carbon oxides and calcium oxides. **Reactivity Hazards:** These chalks are not normally reactive. For the Blue Chalk, contact with acids can release toxic hydrogen sulfide. **Environmental Hazards:** These products are not expected to pose significant harm to the environment, however all release to the environment should be avoided. **Emergency Recommendations:** Emergency responders must wear the personal protective equipment suitable for the situation to which they are responding.

### 3. COMPOSITION and INFORMATION ON INGREDIENTS

CHEMICAL NAME	CAS #	EINECS #	% w/w	LABEL ELEMENTS EU Classification (67/548/EEC) GHS & EU Classification (1272/2008 EC) Risk Phrases/Hazard Statements
Limestone/Calcium Carbonate (CaCO <sub>3</sub> )	1317-65-3	215-279-6	70-100%	EU 67/548: Classification: Not applicable. GHS & EU 1272/2008: Classification: Not applicable.

See Section 16 for full text of Classification

### 3. COMPOSITION and INFORMATION ON INGREDIENTS (Continued)

CHEMICAL NAME	CAS #	EINECS #	% w/w	LABEL ELEMENTS EU Classification (67/548/EEC) GHS & EU Classification (1272/2008 EC) Risk Phrases/Hazard Statements
Crystalline Silica	14808-60-7	238-878-4	0.1-1.5%	SELF-CLASSIFICATION EU 67/548 Classification: Carcinogenic Cat. 3 Risk Phrase Codes: R45 GHS and EU 1272/2008 Classification: Carcinogenic Cat. 2 Hazard Codes: H351
The following are pigments in each of the chalks:				
Blue Chalk: Sodium Aluminosulphosilicate/C.I. Pigment Blue 29	57455-37-5	Unlisted	20-30%	SELF-CLASSIFICATION EU 67/548 Classification: None Risk Phrase Codes: R32 GHS and EU 1272/2008 Classification: None Supplemental Hazard Codes: EUH032
Red Chalk: Hematite/Iron Oxide (Fe <sub>2</sub> O <sub>3</sub> )	1317-60-8	215-275-4	20-30%	EU 67/548: Classification: Not applicable. GHS & EU 1272/2008: Classification: Not applicable.
Black Chalk: Carbon Black	1333-86-4	215-609-9	17-23%	EU 67/548: Classification: Not applicable. GHS & EU 1272/2008: Classification: Not applicable.
White Chalk: Magnesium Carbonate (MgCO <sub>3</sub> )	546-93-0	208-915-6	0-2%	EU 67/548: Classification: Not applicable. GHS & EU 1272/2008: Classification: Not applicable.

See Section 16 for full text of Classification

## PART II What should I do if a hazardous situation occurs?

### 4. FIRST-AID MEASURES

**DESCRIPTION OF FIRST AID MEASURES:** Contaminated individuals must be taken for medical attention if any adverse effects occur. Remove contaminated clothing and shoes. Take a copy of this SDS to health professional with victim. Wash clothing and thoroughly clean shoes before reuse.

**SKIN EXPOSURE:** If skin contact with this material occurs, flush affected area with water. Minimum flushing is for 20 minutes. The contaminated individual must seek medical attention if any adverse effects occur after flushing.

**EYE EXPOSURE:** If this material enters the eyes, open contaminated individual's eyes while under gently running water. Use sufficient force to open eyelids. Have contaminated individual "roll" eyes. Minimum flushing is for 20 minutes. Contaminated individual must seek medical attention if adverse effect occurs or continues after flushing.

**INHALATION:** If dusts of this material are inhaled, remove victim to fresh air. The contaminated individual must seek medical attention if any adverse effects occur.

**INGESTION:** If this material is swallowed, CALL PHYSICIAN OR POISON CONTROL CENTER FOR MOST CURRENT INFORMATION. If professional advice is not available, seek immediate medical attention. If alert, victim should drink up to three glasses of water. Do not induce vomiting. Never induce vomiting or give diluents (milk or water) to someone who is unconscious, having convulsions, or unable to swallow. If victim is convulsing, maintain an open airway and obtain emergency medical attention.

**IMPORTANT SYMPTOMS AND EFFECTS:** See Sections 2 (Hazard Identification) and 11 (Toxicological Information).

**MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE:** Preexisting respiratory problems, dermatitis, and other skin disorders may be aggravated by exposure to this product.

**INDICATION OF IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT IF NEEDED:** Treat symptoms and eliminate exposure.

### 5. FIRE-FIGHTING MEASURES

**FLASH POINT:** Not applicable.

**AUTOIGNITION TEMPERATURE:** Not applicable.

**FLAMMABLE LIMITS (in air by volume, %):** Not applicable.

**FIRE EXTINGUISHING MEDIA:** Unless incompatibilities exist for surrounding materials, carbon dioxide, water spray, 'ABC' type chemical extinguishers, foam, dry chemical and halon extinguishers can be used to fight fires involving this material.

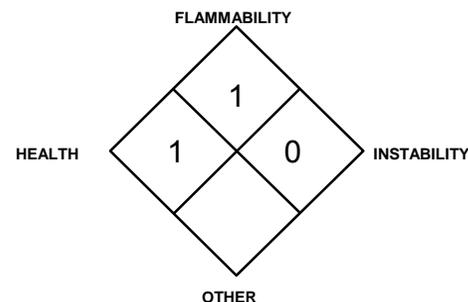
**UNSUITABLE FIRE EXTINGUISHING MEDIA:** None known.

**SPECIAL HAZARDS ARISING FROM THE SUBSTANCE:** Finely divided dusts from these products can form explosive mixtures in air. If involved in a fire, these products may decompose to form iron oxides, aluminum oxides, silicon dioxide, sulfur dioxide, magnesium, carbon and calcium oxides.

**Explosion Sensitivity to Mechanical Impact:** Not sensitive.

**Explosion Sensitivity to Static Discharge:** Finely divided dusts from this material pose a hazard of an air/dust explosion in presence of an ignition source.

### NFPA RATING



Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate  
3 = Serious 4 = Severe

## 5. FIRE-FIGHTING MEASURES (Continued)

**SPECIAL PROTECTIVE ACTIONS FOR FIRE-FIGHTERS:** Structural fire-fighters must wear Self-Contained Breathing Apparatus and full protective equipment. Move containers from fire area if it can be done without risk to personnel. Water fog or spray can also be used to cool fire-exposed containers. If possible, prevent runoff water from entering storm drains, bodies of water, or other environmentally sensitive areas. Rinse contaminated equipment thoroughly before returning such equipment to service.

## 6. ACCIDENTAL RELEASE MEASURES

**PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES:** It is suggested that kits include a respirator, chemical splash goggles, two pairs of gloves, two sheets (12" x 12") of absorbent material, 250-mL and 1-liter spill control pillows, a small scoop to collect glass fragments (if applicable) and two large waste disposal bags. Absorbents should be able to be incinerated. Avoid generating airborne dusts of this material during spill response procedures as described below.

### PROTECTIVE EQUIPMENT:

**Small Spills/Spills in Hoods:** Personnel wearing nitrile or other appropriate gloves, labcoat or other protective clothing and eye protection should immediately clean incidental spills of less than 5 g.

**Large Spills:** Use proper protective equipment, including double nitrile or appropriate gloves, and protective clothing (e.g., disposable Tyvek coveralls). When there is any danger of airborne dusts being generated, use a full-face respirator equipped with a High Efficiency Particulate (HEPA) filter. Self-Contained Breathing Apparatus (SCBA) can be used instead of an air-purifying respirator.

### METHODS FOR CLEAN-UP AND CONTAINMENT:

**Cleanup of Small Spills:** Solids should be gently covered with wet absorbent pads. Clean spill with pad and dispose of properly. Decontaminate the spill area (three times) using a bleach and detergent solution and then rinse with clean water.

**Large Spills:** Restrict access to the spill areas. For spills of greater than 5 g, be sure not to generate dusts by gently covering with damp absorbent sheets, spill-control pads, pillows, cloths, or towels. The dispersion of particles into surrounding air and the possibility of inhalation is a serious matter and should be treated as such. Do not apply chemical in-activators as they may produce hazardous by-products. Sweep up or vacuum spilled solid (an explosion-proof vacuum should be used), avoiding the generation of airborne dusts. Decontaminate the area thoroughly.

**All Spills:** Use procedures described above and then place all spill residues in an appropriate, labeled container and seal. Move to a secure area. Dispose of in accordance with Federal, State, and local hazardous waste disposal regulations (see Section 13, Disposal Considerations). For spills on water, contain, minimize dispersion and collect. Dispose of recovered material and report spill per regulatory requirements.

**ENVIRONMENTAL PRECAUTIONS:** Prevent material from entering sewer or confined spaces, waterways, soil or public waters. Do not flush to sewer. For spills on water, contain, minimize dispersion and collect.

**REFERENCE TO OTHER SECTIONS:** Review Sections 2, 8, 11, & 12 before proceeding with cleanup. See Section 13, Disposal Considerations for more information.

## **PART III** *How can I prevent hazardous situations from occurring?*

### 7. HANDLING and STORAGE

**PRECAUTIONS FOR SAFE HANDLING:** All employees who handle this material should be trained to handle it safely. Open containers slowly on a stable surface. As with all chemicals, avoid getting this product ON YOU or IN YOU. Wash thoroughly after handling this product. Do not eat, drink, smoke, or apply cosmetics while handling this product. Avoid breathing airborne dusts generated by this product. Use in a well-ventilated location. Ensure this product is used with adequate ventilation and personal protective equipment (see Section 8, Exposure Controls and Personal Protection). Avoid airborne dusts generated by this product. Clean work areas routinely to prevent accumulation of dust. Clean up spills promptly.

**CONDITIONS FOR SAFE STORAGE:** Empty containers may contain residual amounts of this product; therefore, empty containers should be handled with care. Store containers in a cool, dry location, away from direct sunlight, sources of intense heat, or where freezing is possible. Store away from incompatible materials (see Section 10, Stability and Reactivity). Have appropriate extinguishing equipment in the storage area (e.g., sprinkler system, portable fire extinguishers). Keep container tightly closed when not in use. Refer to NFPA 654, *Prevention of Fire and Dust Explosions from the Manufacturing, Processing and Handling of Combustible Particulate Solids* for additional information on storage.

**SPECIFIC END USE(S):** These products are used in chalk line devices in construction. Follow all industry standards for use of this product.

**PROTECTIVE PRACTICES DURING MAINTENANCE OF CONTAMINATED EQUIPMENT:** Follow practices indicated in Section 6 (Accidental Release Measures). Make certain that application equipment is locked and tagged-out safely. Always use this product in areas where adequate ventilation is provided. Decontaminate equipment thoroughly, before maintenance begins. Collect all rinsates and dispose of according to applicable or applicable federal, state, provincial and local standards.

### 8. EXPOSURE CONTROLS - PERSONAL PROTECTION

#### EXPOSURE LIMITS/CONTROL PARAMETERS:

**VENTILATION AND ENGINEERING CONTROLS:** Use with adequate ventilation to ensure exposure levels are maintained below the limits provided in this Section if applicable. Ensure eyewash/safety shower stations are available near areas where this product is used.

## 8. EXPOSURE CONTROLS - PERSONAL PROTECTION (Continued)

### EXPOSURE LIMITS/CONTROL PARAMETERS (continued):

#### WORKPLACE EXPOSURE LIMITS/CONTROL PARAMETERS (continued):

CHEMICAL NAME	CAS #	EXPOSURE LIMITS IN AIR							
		ACGIH-TLVs		OSHA-PELs		NIOSH-RELS		NIOSH	OTHER
		TWA mg/m <sup>3</sup>	STEL mg/m <sup>3</sup>	TWA mg/m <sup>3</sup>	STEL mg/m <sup>3</sup>	TWA mg/m <sup>3</sup>	STEL mg/m <sup>3</sup>	IDLH mg/m <sup>3</sup>	mg/m <sup>3</sup>
Calcium Carbonate	1317-65-3	NE	NE	15 (total dust); 5 (resp. fract.)	NE	10 (total dust); 5 (resp. fract.)	NE	NE	NE
Carbon Black	1333-86-4	3 (inhal. fract.)	NE	3.5	NE	3.5 (0.1 in presence of PAHs, as PAHs; 10-hr TWA)	NE	1750	DFG MAK: as Inhalable Dust Carcinogen: IARC-2B, MAK-3B, NIOSH-Ca (in presence of PAHs), TLV-A3
C.I. Pigment Blue 29	57455-37-5	NE	NE	NE	NE	NE	NE	NE	NE
Crystalline Silica	14808-60-7	0.025 (resp. fract.)	NE	30 mg/m <sup>3</sup> (total dust) % SO <sub>2</sub> + 2 250 mppcf (resp. dust) % SiO <sub>2</sub> + 5 or 10 mg/m <sup>3</sup> (resp. dust) % SO <sub>2</sub> + 2	NE	0.05 (resp. dust)	NE	0.05	Carcinogen: IARC-1, MAK-1 (respirable), NIOSH-Ca, NTP-K (respirable), TLV-A2
Iron Oxide/Hematite Exposure Limits given are for Iron oxide CAS# 1309-37-1	1317-60-8	3 (resp. fract.)	NE	10 (fume)	NE	5 (dust and fume as Fe)	NE	NE	DFG MAK: With the exception of iron oxides which are not biologically available. Carcinogen: IARC-3, MAK-3B, TLV-A4
Magnesium Carbonate Exposure limits given are for talc, containing no asbestos fibers, CAS # 14807-96-6)	546-93-0	2 (resp. fract.)	NE	20 mppcf (containing < 1% quartz)	NE	2 (resp. dust) & < 1% quartz	NE	NE	Carcinogen: IARC-3, MAK-3B, TLV-A4 (respirable)

NE = Not Established. See Section 16 for Definitions of Terms Used.

**INTERNATIONAL OCCUPATIONAL EXPOSURE LIMITS:** Currently, the following additional international exposure limits are established for some components of this product.

#### CALCIUM CARBONATE:

Belgium: TWA = 10 mg/m<sup>3</sup>, MAR 2002  
Hungary: TWA = 10 mg/m<sup>3</sup>, SEP 2000  
Japan: OEL = 2 mg/m<sup>3</sup> (resp. dust), 84 mg/m<sup>3</sup> (total dust), MAY 2009  
Korea: TWA = 10 mg/m<sup>3</sup>, 2006  
Mexico: TWA = 10 mg/m<sup>3</sup>; STEL 20 mg/m<sup>3</sup> (inhalable), 2004  
The Netherlands: MAC-TGG = 10 mg/m<sup>3</sup>, 2003  
New Zealand: TWA = 10 mg/m<sup>3</sup> (inspirable dust), JAN 2002  
Poland: MAC(TWA) dust = 10 mg/m<sup>3</sup>, JAN 1999  
Russia: STEL = 6 mg/m<sup>3</sup>, JUN 2003  
Switzerland: MAK-W = 3 mg/m<sup>3</sup>, DEC 2006  
United Kingdom: TWA = 10 mg/m<sup>3</sup> (inhal. dust), OCT 2007  
United Kingdom: TWA = 4 mg/m<sup>3</sup> (respirable dust), OCT 2007  
In Argentina, Bulgaria, Colombia, Jordan, Singapore, Vietnam check ACGIH TLV

#### CARBON BLACK:

Australia: TWA = 2.5 mg/m<sup>3</sup>, JUL 2008  
Austria: MAK-TMW = 2 mg/m<sup>3</sup>, resp, 2007  
Belgium: TWA = 2 mg/m<sup>3</sup>, MAR 2002  
Denmark: TWA = 0.3 f/cc, carc, MAY 2011  
Finland: TWA 0.5 mg/m<sup>3</sup>, NOV 2011  
France: VME = 3.5 mg/m<sup>3</sup>, FEB 2006  
Iceland: TWA = 0.3 f/cc, NOV 2011  
Japan: OEL = 0.5 mg/m<sup>3</sup> (resp. dust), 2 mg/m<sup>3</sup> (total dust), MAY 2009  
Korea: TWA = 2 mg/m<sup>3</sup>, 2006

#### CARBON BLACK (continued):

Mexico: TWA = 2 mg/m<sup>3</sup>; STEL = 7 mg/m<sup>3</sup>, 2004  
The Netherlands: MAC-TGG = 1 mg/m<sup>3</sup>, 2003  
New Zealand: TWA = 2 mg/m<sup>3</sup> (respirable dust), JAN 2002  
Norway: TWA = 3.5 mg/m<sup>3</sup>, JAN 1999  
Peru: TWA = 2 mg/m<sup>3</sup>, JUL 2005  
The Philippines: TWA = 3.5 mg/m<sup>3</sup>, JAN 1993  
Russia: STEL = 4 mg/m<sup>3</sup>, JUN 2003  
Sweden: TWA = 2 mg/cm<sup>3</sup> (total dust); TWA = 1 mg/cm<sup>3</sup> (resp. dust), JUN 2005  
Switzerland: MAK-W = 2 mg/m<sup>3</sup>, DEC 2006  
United Kingdom: TWA = 1 mg/m<sup>3</sup> (resp. dust), OCT 2007  
In Argentina, Bulgaria, Colombia, Jordan, Singapore, Vietnam check ACGIH TLV

#### CRYSTALLINE SILICA:

Australia: TWA = 0.1 mg/m<sup>3</sup>, JUL 2008  
Belgium: TWA = 0.1 mg/m<sup>3</sup> (resp. dust), MAR 2002  
Denmark: TWA = 0.1 mg/m<sup>3</sup> (respirable), carc, MAY 2011  
Denmark: TWA = 0.1 mg/m<sup>3</sup> (resp.), carc, MAY 2011  
Denmark: TWA = 0.3 mg/m<sup>3</sup> (total), MAY 2011  
Finland: TWA = 0.05 mg/m<sup>3</sup>, resp. dust, SEP 2009  
France: VME = 0.1 mg/m<sup>3</sup>, (resp), FEB 2006  
Iceland: TWA = 0.1 mg/m<sup>3</sup> (resp. dust), NOV 2011  
Japan: OEL-C = 0.03 mg/m<sup>3</sup> (respirable), APR 2007  
Korea: TWA = 0.1 mg/m<sup>3</sup>, 2006  
Mexico: TWA = 0.1 mg/m<sup>3</sup> (respirable), 2004  
The Netherlands: MAC-TGG = 0.075 mg/m<sup>3</sup>, 2003  
New Zealand: TWA = 0.2 mg/m<sup>3</sup> (respirable dust), JAN 2002  
Norway: TWA = 0.1 mg/m<sup>3</sup> (resp. dust), JAN 1999

#### CRYSTALLINE SILICA (continued):

Norway: TWA = 0.3 mg/m<sup>3</sup> (total dust), JAN 1999  
Peru: TWA = 0.05 mg/m<sup>3</sup>, JUL 2005  
Russia: TWA = 1 mg/m<sup>3</sup>, STEL = 3 mg/m<sup>3</sup>, JUN 2003  
Sweden: TWA = 0.1 mg/m<sup>3</sup> (resp. dust), JUN 2005  
Switzerland: MAK-W = 0.15 mg/m<sup>3</sup>, DEC 2006  
Thailand: TWA = 10 mg/m<sup>3</sup> (resp. dust), JAN 1993  
Thailand: TWA = 30 mg/m<sup>3</sup> (total dust), JAN 1993  
United Kingdom: TWA = 0.1 mg/m<sup>3</sup> (resp. dust), OCT 2007  
In Argentina, Bulgaria, Colombia, Jordan, Singapore, Vietnam check ACGIH TLV

#### IRON OXIDE/MAGNETITE:

Russia: STEL = 4 mg/m<sup>3</sup>, JUN 2003  
**MAGNESIUM CARBONATE (TALC):**  
Australia: TWA = 2.5 mg(F)/m<sup>3</sup>, JUL 2008  
Belgium: TWA = 10 mg/m<sup>3</sup>, MAR 2002  
France: VME = 10 mg/m<sup>3</sup>, FEB 2006  
Korea: TWA = 10 mg/m<sup>3</sup>, 2006  
Mexico: TWA = 10 mg/m<sup>3</sup>; STEL = 20 mg/m<sup>3</sup> (inhalable), 2004  
The Netherlands: MAC-TGG = 10 mg/m<sup>3</sup>, 2003  
New Zealand: TWA = 10 mg/m<sup>3</sup> (inspirable dust), JAN 2002  
Norway: TWA = 0.6 mg(F)/m<sup>3</sup>, JAN 1999  
Peru: TWA = 10 mg/m<sup>3</sup>, JUL 2005  
Russia: STEL = 10 mg/m<sup>3</sup>, JUN 2003  
Switzerland: MAK-W = 3 mg/m<sup>3</sup>, DEC 2006  
United Kingdom: TWA = 4 mg/m<sup>3</sup> (resp. dust), OCT 2007  
United Kingdom: TWA = 10 mg/m<sup>3</sup> (inhal. dust), OCT 2007  
In Argentina, Bulgaria, Colombia, Jordan, Singapore, Vietnam check ACGIH TLV

**PROTECTIVE EQUIPMENT:** The following information on appropriate Personal Protective Equipment is provided to assist employers in complying with OSHA regulations found in 29 CFR Subpart I (beginning at 1910.132, including U.S. Federal OSHA Respiratory Protection (29 CFR 1910.134), OSHA Eye Protection 29 CFR 1910.133, OSHA Hand Protection 29 CFR 1910.138, OSHA Foot Protection 29 CFR 1910.136 and OSHA Body Protection 29 CFR 1910.132), equivalent standards of Canada (including CSA Respiratory Standard Z94.4-02, Z94.3-M1982, Industrial Eye and Face Protectors and CSA Standard Z195-02, Protective Footwear), or standards of EU member states (including EN 529:2005 for respiratory PPE, CEN/TR 15419:2006 for hand protection, and CR 13464:1999 for face/eye protection). Please reference applicable regulations and standards for relevant details.

## 8. EXPOSURE CONTROLS - PERSONAL PROTECTION (Continued)

### PROTECTIVE EQUIPMENT (continued):

**RESPIRATORY PROTECTION:** Maintain airborne contaminant concentrations below exposure limits listed above. For materials without listed exposure limits, minimize respiratory exposure. If necessary, use only respiratory protection authorized under appropriate regulations. Oxygen levels below 19.5% are considered IDLH by U.S. OSHA. In such atmospheres, use of a full-facepiece pressure/demand SCBA or a full facepiece, supplied air respirator with auxiliary self-contained air supply is required under U.S. OSHA's Respiratory Protection Standard (1910.134-1998). The following are NIOSH Respiratory Protection Equipment Guidelines for some components of these products:

#### **CARBON BLACK**

##### CONCENTRATION

Up to 17.5 mg/m<sup>3</sup>:

Up to 35 mg/m<sup>3</sup>:

Up to 87.5 mg/m<sup>3</sup>:

Up to 175 mg/m<sup>3</sup>:

Up to 1750 mg/m<sup>3</sup>:

Emergency or Planned

Escape:

In Presence of Polycyclicaromatic Hydrocarbons:

Based on NIOSH REL

Escape:

#### **CRYSTALLINE SILICA**

##### CONCENTRATION

Up to 0.5 mg/m<sup>3</sup>:

Up to 1.25 mg/m<sup>3</sup>:

Up to 2.5 mg/m<sup>3</sup>:

Up to 25 mg/m<sup>3</sup>:

Emergency or Planned

Escape:

**EYE PROTECTION:** Wear safety goggles/glasses as appropriate for the task if dust or other particulates are present. Face shields are recommended if solutions are made. If necessary, refer to appropriate regulations.

**HAND PROTECTION:** Wash hands and wrists before putting on and after removing gloves. None needed under normal conditions of use and handling. Wear appropriate glove for work being done. Resistance of specific materials can vary from product to product. Evaluate resistance under conditions of use and maintain gloves carefully. Because all gloves are to some extent permeable and their permeability increases with time, they should be changed regularly or immediately if torn or punctured. Use triple gloves for spill response, as stated in Section 6 (Accidental Release Measures) of this SDS. If necessary refer to appropriate regulations.

**SKIN PROTECTION:** Use appropriate protective clothing for the task. Full-body chemical protective clothing is recommended for emergency response procedures. If a hazard of injury to the feet exists due to falling objects, rolling objects, where objects may pierce the soles of the feet or where employee's feet may be exposed to electrical hazards, use foot protection, as described in appropriate regulations. If necessary, refer to the U.S. OSHA Technical Manual (Section VII: Personal Protective Equipment) or other appropriate regulations.

## 9. PHYSICAL and CHEMICAL PROPERTIES

**FORM:** Finely divided, powdered solids

**ODOR:** Odorless.

**MOLECULAR FORMULA:** Mixture.

**RELATIVE VAPOR DENSITY (air = 1):** Not established.

**MELTING/FREEZING POINT:** Not established.

**VAPOR PRESSURE:** Not established.

**FLAMMABILITY:** Dusts may present ignition hazard.

**SPECIFIC GRAVITY (water = 1):** Black Chalk: 2.49-2.52; Blue Chalk: 2.60-2.62; Red Chalk: 3.1-3.3; White Chalk: 2.71

**SOLUBILITY IN ORGANIC SOLVENTS:** Not known.

**SOLUBILITY IN WATER:** Black and Blue Chalks: Insoluble. Red Chalk: 0.1%; White Chalk: Insoluble.

**HOW TO DETECT THIS SUBSTANCE IN EVENT OF ACCIDENTAL SPILL (warning properties):** The color of these products may be a method to identify them in event of an accidental spill.

## 10. STABILITY and REACTIVITY

**CHEMICAL STABILITY:** Normally stable.

**DECOMPOSITION PRODUCTS:** *Combustion:* Thermal decomposition of this product can produce iron oxides, aluminum oxides, silicon dioxide, sulfur dioxide, magnesium, carbon and calcium oxides. The Blue Chalk may release hydrogen sulfide in contact with acids. *Hydrolysis:* None known.

## 10. STABILITY and REACTIVITY (Continued)

**MATERIALS WITH WHICH PRODUCT IS INCOMPATIBLE:** Calcium carbonate ignites on contact with fluorine. It is incompatible with acids, aluminum, and ammonium salts and mercury/hydrogen mixtures. Due to other components, these products may also be incompatible with formaldehyde, strong oxidizing agents, hydrofluoric acid, manganese trifluoride, sodium, and xenon hexafluoride.

**POSSIBILITY OF HAZARDOUS REACTIONS/POLYMERIZATION:** Will not occur.

**CONDITIONS TO AVOID:** Avoid exposure to or contact with light, extreme temperatures, and incompatible chemicals.

## PART IV *Is there any other useful information about this material?*

### 11. TOXICOLOGICAL INFORMATION

**SYMPTOMS OF EXPOSURE BY ROUTE OF EXPOSURE:** The most significant routes of industrial exposure to this product are by skin or eye contact and inhalation.

**INHALATION:** If dusts or particulates from these products are inhaled, irritation of the nose, throat, and lungs can occur. Symptoms may include sneezing, coughing, nasal congestion, and difficulty breathing. Symptoms are generally alleviated upon exposure to fresh air. If heated, chronic exposure to concentrations of silicon dioxide fume may cause chronic obstructive lung disease. Inhalation of iron oxide fume or dust is cause of pulmonary roentgenographic appearance called siderosis, or an accumulation of iron that leads to reduced lung capacity. These products contain Crystalline Silica, which is a known human carcinogen. Chronic inhalation exposure to this material may cause silicosis, pulmonary fibrosis, bronchitis or present a hazard of cancer, due to the presence of Crystalline Silica.

**CONTACT WITH SKIN or EYES:** Skin contact may cause abrasion, redness, and discomfort. Prolonged or repeated skin exposure may cause dermatitis (dry, red skin). Direct eye contact with these products may cause stinging, tearing, and redness. Dust can cause mechanical irritation to the eye. Repeated contact of iron dusts with the eyes can cause conjunctivitis, or can cause discoloration of the eyes.

**SKIN ABSORPTION:** This product does not pose a hazard of skin absorption.

**INGESTION:** Ingestion is an unlikely route of occupational exposure to this product.

In the unlikely event that dusts from the product are ingested nausea, vomiting, and diarrhea may result.

Repeated ingestion of iron compounds can cause vomiting, diarrhea, pink urine, black stool, and liver or kidney damage. Repeated ingestion of iron compounds can also cause siderosis, which is an accumulation of iron in tissues.

**INJECTION:** These products do not pose a hazard of injection.

**HEALTH EFFECTS OR RISKS FROM EXPOSURE: An Explanation in Lay**

**Terms.** In the event of exposure, the following symptoms may be observed:

**Acute:** Acute exposure to the skin and eyes can cause mechanical irritation. Inhalation of dusts can cause pulmonary irritation.

**Chronic:** Repeated inhalation exposure may cause adverse effects to the respiratory system. Chronic inhalation may result in pulmonary fibrosis. This product contains crystalline silica, which is a known human carcinogen.

**HEALTH EFFECTS OR RISKS FROM EXPOSURE (continued):**

**TARGET ORGANS:** Acute: Skin, eyes, respiratory system. Chronic: Skin, respiratory system.

**TOXICITY DATA:** Currently, toxicity data are available for the following components of these products:

#### LIMESTONE/CALCIUM CARBONATE:

TCLo (Inhalation-Rat) 84 mg/m<sup>3</sup>/4 hours/40 weeks-intermittent: Lungs, Thorax, or Respiration: fibrosis (interstitial); Liver: other changes Kidney/Ureter/Bladder: other changes

TCLo (Inhalation-Rat) 250 mg/m<sup>3</sup>/2 hours/24 weeks-intermittent: Lungs, Thorax, or Respiration: fibrosis, focal (pneumoconiosis)

#### CARBON BLACK:

LD<sub>50</sub> (Oral-Rat) > 15,400 mg/kg; Behavioral: somnolence (general depressed activity)

LD<sub>50</sub> (Skin-Rabbit) > 3 gm/kg

TDLo (Intravenous-Rat) 10 mg/kg/2 minutes: Liver: changes in liver weight; Blood: changes in spleen

TDLo (Intravenous-Rat) 10 mg/kg/2 minutes: Biochemical; Enzyme inhibition, induction, or change in blood or tissue levels: hepatic microsomal mixed oxidase (dealkylation, hydroxylation, etc.)

TDLo (Skin-Rat) 11 gm/kg/4 weeks-intermittent: Blood: pigmented or nucleated red blood cells; Liver: changes in liver weight; Nutritional and Gross Metabolic: weight loss or decreased weight gain

TDLo (Intratracheal-Rat) 16 mg/kg: Lungs, Thorax, or Respiration: other changes; Biochemical: Metabolism (Intermediary): effect on inflammation or mediation of inflammation

#### CARBON BLACK (continued):

TDLo (Intratracheal-Rat) 15 mg/kg: Lungs, Thorax, or Respiration: other changes; Biochemical: Enzyme inhibition, induction, or change in blood or tissue levels: cytochrome oxidases (including oxidative phosphorylation)

TDLo (Intratracheal-Rat) 10 mg/kg: Lungs, Thorax, or Respiration: sputum; Biochemical: Metabolism (Intermediary): other proteins, effect on inflammation or mediation of inflammation

TDLo (Intratracheal-Mouse) 20 mg/kg: Lungs, Thorax, or Respiration: other changes; Biochemical: Metabolism (Intermediary): effect on inflammation or mediation of inflammation

TDLo (Intratracheal-Mouse) 20 mg/kg/4 days-intermittent: Lungs, Thorax, or Respiration: sputum; Immunological Including Allergic: increase in cellular immune response; Biochemical: Metabolism (Intermediary): effect on inflammation or mediation of inflammation

TDLo (Parenteral-Mouse) 36 µg/kg/3 days-intermittent: Immunological Including Allergic: increase in humoral immune response

TCLo (Inhalation-Rat) 7 mg/m<sup>3</sup>: Lungs, Thorax, or Respiration: other changes; Biochemical: Metabolism (Intermediary): effect on inflammation or mediation of inflammation

#### HAZARDOUS MATERIAL IDENTIFICATION SYSTEM

<b>HEALTH HAZARD</b>	(BLUE)	2*
----------------------	--------	----

<b>FLAMMABILITY HAZARD</b>	(RED)	1
----------------------------	-------	---

<b>PHYSICAL HAZARD</b>	(YELLOW)	0
------------------------	----------	---

#### PROTECTIVE EQUIPMENT

EYES	RESPIRATORY	HANDS	BODY
	SEE SECTION 8		SEE SECTION 8

For Routine Industrial Use and Handling Applications

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate  
3 = Serious 4 = Severe \* = Chronic hazard

## 11. TOXICOLOGICAL INFORMATION (Continued)

### TOXICITY DATA (continued):

#### CARBON BLACK (continued):

TCLo (Inhalation-Rat) 50 mg/m<sup>3</sup>/13 weeks-intermittent: Lungs, Thorax, or Respiration: other changes; Biochemical: Metabolism (Intermediary): other, effect on inflammation or mediation of inflammation

TCLo (Inhalation-Rat) 7 mg/m<sup>3</sup>/6 hours/13 weeks-intermittent: Sense Organs and Special Senses (Olfaction): effect, not otherwise specified; Biochemical: Metabolism (Intermediary): effect on inflammation or mediation of inflammation

TCLo (Inhalation-Mouse) 50 mg/m<sup>3</sup>/6 hours: Sense Organs and Special Senses (Olfaction): effect, not otherwise specified

TCLo (Inhalation-Mouse) 1 mg/m<sup>3</sup>/13 weeks-intermittent: Lungs, Thorax, or Respiration: other changes; Biochemical: Metabolism (Intermediary): effect on inflammation or mediation of inflammation

TCLo (Inhalation-Mouse) 1 mg/m<sup>3</sup>/13 weeks-intermittent: Lungs, Thorax, or Respiration: other changes; Lungs, Thorax, or Respiration: changes in lung weight; Biochemical: Metabolism (Intermediary): effect on inflammation or mediation of inflammation

TCLo (Inhalation-Mouse) 7 mg/m<sup>3</sup>/6 hours/13 weeks-intermittent: Sense Organs and Special Senses (Olfaction): effect, not otherwise specified; Biochemical: Metabolism (Intermediary): effect on inflammation or mediation of inflammation

TCLo (Inhalation-Hamster) 7 mg/m<sup>3</sup>/13 weeks-intermittent: Lungs, Thorax, or Respiration: other changes; Biochemical: Metabolism (Intermediary): effect on inflammation or mediation of inflammation

TCLo (Inhalation-Hamster) 50 mg/m<sup>3</sup>/6 hours/13 weeks-intermittent: Sense Organs and Special Senses (Olfaction): effect, not otherwise specified

**C.I. PIGMENT BLUE 29:**

LD<sub>50</sub> (Oral-Rat) 10 gm/kg

LD<sub>50</sub> (Oral-Mouse) 10 gm/kg

TDLo (Oral-Rat) 450 mg/kg/90 days-continuous: Gastrointestinal: other changes; Kidney/Ureter/Bladder: other changes

**CRYSTALLINE SILICA, CRYSTALLINE-QUARTZ:**

LCLo (Inhalation-Human) 300 mg/m<sup>3</sup>/10 years-intermittent: Systemic effects

TCLo (Inhalation-Human) 16 mppcf/8 hours/17.9 years-intermittent: Pulmonary system effects

TCLo (Inhalation-Rat) 58 mg/m<sup>3</sup>/13 weeks-intermittent: Lungs, Thorax, or Respiration: other changes; Endocrine: changes in thymus weight; Blood: changes in leukocyte (WBC) count

#### CRYSTALLINE SILICA, CRYSTALLINE-QUARTZ (continued):

TCLo (Inhalation-Rat) 50 mg/m<sup>3</sup>/6 hours/71 weeks-intermittent: Carcinogenic effects

TCLo (Inhalation-Rat) 80 mg/m<sup>3</sup>/26 weeks-intermittent: Lungs, Thorax, or Respiration: fibrosis, focal (pneumoconiosis); Blood: changes in spleen; Immunological Including Allergic: decrease in cellular immune

TCLo (Inhalation-Rat) 108 mg/m<sup>3</sup>/6 hours/3 days-intermittent: Biochemical: Enzyme inhibition, induction, or change in blood or tissue levels: phosphatases, Enzyme inhibition, induction, or change in blood or tissue levels: other oxidoreductases, Metabolism (Intermediary): other proteins

TCLo (Inhalation-Mouse) 1475 µg/m<sup>3</sup>/8 hours/21 weeks-intermittent: Lungs, Thorax, or Respiration: other changes

TCLo (Inhalation-Mouse) 4932 µg/m<sup>3</sup>/24 hours/39 weeks-continuous: Endocrine: changes in spleen weight; Immunological Including Allergic: decrease in humoral immune response

TCLo (Inhalation-Guinea Pig) 28 mg/m<sup>3</sup>/3 weeks-continuous: Lungs, Thorax, or Respiration: other changes, changes in lung weight; Biochemical: Enzyme inhibition, induction, or change in blood or tissue levels: other

TDLo (Intraperitoneal-Rat) 45 mg/kg: Carcinogenic effects

TDLo (Intratracheal-Rat) 90 mg/kg: Equivocal tumorigenic agent

TDLo (Intratracheal-Rat) 90 mg/kg: AR

TDLo (Intratracheal-Rat) 111 mg/kg: Carcinogenic effects

TDLo (Intratracheal-Rat) 111 mg/kg: AR

TDLo (Intratracheal-Rat) 100 mg/kg/19 weeks-intermittent: Tumorigenic: equivocal tumorigenic agent by RTECS criteria; Lungs, Thorax, or Respiration: tumors

TDLo (Intratracheal-Rat) 90 mg/kg: Carcinogenic effects

TDLo (Intratracheal-Hamster) 83 mg/kg: Tumorigenic: neoplastic by RTECS criteria, tumors at site of application

TDLo (Implant-Rat) 900 mg/kg: Neoplastic effects

TDLo (Implant-Mouse) 4000 mg/kg: Tumorigenic: equivocal tumorigenic agent by RTECS criteria; Kidney, Ureter, Bladder: tumors

TDLo (Implant-Mouse) 4000 mg/kg: Equivocal tumorigenic agent

TDLo (Intravenous-Rat) 90 mg/kg: Tumorigenic: equivocal tumorigenic agent by RTECS criteria; Blood: lymphoma, including Hodgkin's disease

#### CRYSTALLINE SILICA, CRYSTALLINE-QUARTZ (continued):

TD (Intraperitoneal-Rat) 90 mg/kg/4 weeks-intermittent: Equivocal tumorigenic agent

TD (Intraperitoneal-Rat) 450 mg/kg/4 weeks-intermittent: Neoplastic effects

TD (Implant-Rat) 4554 mg/kg: Equivocal tumorigenic agent

TD (Intratracheal-Rat) 200 mg/kg: Equivocal tumorigenic agent

TD (Intratracheal-Rat) 100 mg/kg: Carcinogenic effects

TD (Intratracheal-Rat) 100 mg/kg: Neoplastic effects

TD (Intratracheal-Rat) 100 mg/kg: Tumorigenic: equivocal tumorigenic agent by RTECS criteria; Lungs, Thorax, or Respiration: fibrosis, focal (pneumoconiosis), tumors

LDLo (Intravenous-Rat) 90 mg/kg

LDLo (Intratracheal-Rat) 200 mg/kg

LDLo (Intravenous-Mouse) 40 mg/kg

LDLo (Intravenous-Dog, adult) 20 mg/kg

Micronucleus test (Human-Lung) 40 µg/cm<sup>2</sup>

Micronucleus test (Hamster-Lung) 160 µg/cm<sup>2</sup>

**HEMATITE/IRON OXIDE:**

TDLo (Intratracheal-Rat) 12 mg/kg: Lungs, Thorax, or Respiration: other changes; Biochemical: Enzyme inhibition, induction, or change in blood or tissue levels: multiple enzyme effects

TCLo (Inhalation-Rat) 3900 mg/m<sup>3</sup>/6 hours/68 weeks-intermittent: Lungs, Thorax, or Respiration: fibrosis (interstitial)

TCLo (Inhalation-Dog) 3900 mg/m<sup>3</sup>/6 hours/68 weeks-intermittent: Lungs, Thorax, or Respiration: fibrosis (interstitial)

**MAGNESIUM CARBONATE/TALC:**

LD<sub>50</sub> (Oral-Rat) 7000 mg/kg

LD<sub>50</sub> (Oral-Mouse) 8000 mg/kg

LD<sub>50</sub> (Intraperitoneal-Mouse) 1033 mg/kg

TCLo (Inhalation-Rat) 76 mg/m<sup>3</sup>/4 hours: Cardiac: pulse rate increase, without fall in BP; Liver: liver function tests impaired; Kidney/Ureter/Bladder: other changes in urine composition

TCLo (Inhalation-Rat) 76 mg/m<sup>3</sup>/4 hours: Blood: changes in serum composition (e.g. TP, bilirubin, cholesterol); Biochemical: Enzyme inhibition, induction, or change in blood or tissue levels: phosphatases

TDLo (Unreported-Mammal-Species Unspecified) 18,000 mg/kg/7 days-intermittent: Gastrointestinal: other changes; Related to Chronic Data: death

**CARCINOGENIC POTENTIAL OF COMPONENTS:** The components of these products are listed by agencies tracking the carcinogenic potential of chemical compounds, as follows:

**CARBON BLACK:** ACGIH TLV-A3 (Confirmed Animal Carcinogen with Unknown Relevance to Humans); IARC-2B (Possibly Carcinogenic to Humans), MAK-3B (Substances for Which *in vitro* Tests or Animal Studies Have Yielded Evidence of Carcinogenic Effects that is Not Sufficient for Classification of the Substance in One of the Other Categories); In the Presence of PAHS: NIOSH-Ca (Potential Occupational Carcinogen, with No Further Categorization)

**CRYSTALLINE SILICA:** ACGIH TLV-A2 (Suspected Human Carcinogen); IARC-1 (Carcinogenic to Humans); Respirable: MAK-1 (Substances that Cause Cancer in Man and Can Be Assumed to Make a Significant Contribution to Cancer Risk); NIOSH-Ca (Potential Occupational Carcinogen, with No Further Categorization); Respirable: NTP-K (Known to Be a Human Carcinogen)

**IRON OXIDE/HEMATITE:** ACGIH TLV-A4 (Not Classifiable as a Human Carcinogen); IARC-3 (Unclassifiable as to Carcinogenicity in Humans); MAK-3B (Substances for Which *in vitro* Tests or Animal Studies Have Yielded Evidence of Carcinogenic Effects that is Not Sufficient for Classification of the Substance in One of the Other Categories)

**MAGNESIUM CARBONATE (TALC containing no asbestos fibers):** ACGIH TLV-A4 (Not Classifiable as a Human Carcinogen); IARC-3 (Unclassifiable as to Carcinogenicity in Humans); Respirable: MAK-3B (Substances for Which *in vitro* Tests or Animal Studies Have Yielded Evidence of Carcinogenic Effects that is Not Sufficient for Classification of the Substance in One of the Other Categories)

The remaining components of this product are not found on the following lists: U.S. EPA, U.S. NTP, U.S. OSHA, U.S. NIOSH, GERMAN MAK, IARC, or ACGIH and therefore are neither considered to be nor suspected to be cancer-causing agents by these agencies.

**IRRITANCY OF PRODUCT:** These products may cause skin, eye and respiratory irritation.

**SENSITIZATION TO THE PRODUCT:** Components of these products are not known to cause human skin or respiratory sensitization.

**REPRODUCTIVE TOXICITY INFORMATION:** The components of these products are not known to cause human mutagenic, embryotoxic, teratogenic or reproductive toxicity in humans.

**ACGIH BIOLOGICAL EXPOSURE INDICES:** Currently, there are no ACGIH Biological Exposure Indices (BEIs) determined for the components of these products.

## 12. ECOLOGICAL INFORMATION

ALL WORK PRACTICES MUST BE AIMED AT ELIMINATING ENVIRONMENTAL CONTAMINATION.

**MOBILITY:** These products have not been tested for mobility in soil; due to form they are not expected to be mobile.

**PERSISTENCE AND BIODEGRADABILITY:** These products have not been tested for persistence or biodegradability.

**BIO-ACCUMULATION POTENTIAL:** These products have not been tested for bio-accumulation potential.

**ECOTOXICITY:** These products have not been tested for aquatic or animal toxicity. All release to terrestrial, atmospheric and aquatic environments should be avoided.

## 12. ECOLOGICAL INFORMATION (Continued)

OTHER ADVERSE EFFECTS: The components of these products are not listed as having ozone depletion potential.

EFFECT OF CHEMICAL ON AQUATIC LIFE: These products have not been tested for aquatic toxicity. Releases of large quantities of this material may be detrimental to an aquatic environment.

## 13. DISPOSAL CONSIDERATIONS

PREPARING WASTES FOR DISPOSAL: Waste disposal must be in accordance with appropriate U.S. Federal, State, and local regulations or with regulations of Canada. This product, if unaltered by use, may be disposed of by treatment at a permitted facility or as advised by your local hazardous waste regulatory authority.

U.S. EPA WASTE NUMBER: Not applicable.

EUROPEAN EWC CODE: Wastes Not Otherwise Specified: 16 10 99

## 14. TRANSPORTATION INFORMATION

U.S. DEPARTMENT OF TRANSPORTATION REGULATIONS: These products are NOT classified as dangerous goods, per U.S. DOT regulations, under 49 CFR 172.101.

TRANSPORT CANADA TRANSPORTATION OF DANGEROUS GOODS REGULATIONS: These products are NOT classified as Dangerous Goods, per regulations of Transport Canada.

INTERNATIONAL AIR TRANSPORT ASSOCIATION (IATA): These products are NOT classified as Dangerous Goods, per rules of IATA.

INTERNATIONAL MARITIME ORGANIZATION (IMO) DESIGNATION: These products are NOT classified as Dangerous Goods, per rules of IMO.

EUROPEAN AGREEMENT CONCERNING THE INTERNATIONAL CARRIAGE OF DANGEROUS GOODS BY ROAD (ADR): These products are NOT classified by the United Nations Economic Commission for Europe to be dangerous goods.

TRANSPORT IN BULK ACCORDING TO THE IBC CODE: Not applicable.

ENVIRONMENTAL HAZARDS: These products do not meet the criteria of environmentally hazardous according to the criteria of the UN Model Regulations (as reflected in the IMDG Code, ADR, RID, and ADN); components are not specifically listed in Annex III under MARPOL 73/78.

## 15. REGULATORY INFORMATION

### ADDITIONAL U.S. REGULATIONS:

U.S. SARA REPORTING REQUIREMENTS: The components of these products are not subject to the reporting requirements of Sections 302, 304, and 313 of Title III of the Superfund Amendments and Reauthorization Act.

U.S. SARA THRESHOLD PLANNING QUANTITY: There are no specific Threshold Planning Quantities for the components of these products. The default Federal SDS submission and inventory requirement filing threshold of 10,000 lb (4,540 kg) therefore applies, per 40 CFR 370.20.

U.S. CERCLA REPORTABLE QUANTITY (RQ): Not applicable.

U.S. TSCA INVENTORY STATUS: Components of these products are on the TSCA Inventory.

OTHER U.S. FEDERAL REGULATIONS: Not applicable.

CALIFORNIA SAFE DRINKING WATER AND TOXIC ENFORCEMENT ACT (PROPOSITION 65): Crystalline Silica is on the California Proposition 65 lists. Carbon Black, with particles of respirable size, is on the Proposition 65 Lists as well. **WARNING!** These products contain compounds known to the State of California to cause cancer.

### ADDITIONAL CANADIAN REGULATIONS:

CANADIAN DSL/NDL INVENTORY STATUS: The components of these products are on the DSL Inventory.

OTHER CANADIAN REGULATIONS: Not applicable.

CANADIAN ENVIRONMENTAL PROTECTION ACT (CEPA) PRIORITIES SUBSTANCES LISTS: The components of these products are not on the CEPA Priority Substances Lists.

CANADIAN WHMIS CLASSIFICATION and SYMBOLS: Class D2A-Chronic Toxic Effects



### ADDITIONAL EUROPEAN REGULATIONS:

SAFETY, HEALTH, AND ENVIRONMENTAL REGULATIONS/LEGISLATION SPECIFIC FOR THE PRODUCT: None applicable.

CHEMICAL SAFETY ASSESSMENT: No Data Available. The chemical safety assessment is required for some substances according to European Union Regulation (EC) 1907/2006, Article 14.

## 16. OTHER INFORMATION

ANSI LABELING (Z129.1, Provided to Summarize Occupational Hazard Information): **CAUTION!** MAY CAUSE EYE AND RESPIRATORY TRACT IRRITATION. CONTAINS CRYSTALLINE SILICA, WHICH IS A KNOWN HUMAN CARCINOGEN; CONTAINS CARBON BLACK, WHICH IS A KNOWN ANIMAL CARCINOGEN. INGESTION MAY BE HARMFUL. Avoid breathing dusts. Avoid contact with skin, eyes, and clothing. Keep container closed. Use with adequate ventilation. Prevent dust accumulation. Wash thoroughly after handling. Wear gloves, goggles, dust mask, and appropriate body protection during operations that can generate dust.

## 16. OTHER INFORMATION (Continued)

**ANSI LABELING (continued):** FIRST-AID: In case of contact, flush skin or eyes with plenty of water. If inhaled, remove to fresh air. If ingested do not induce vomiting. Get medical attention if adverse effects continue after exposure ends. IN CASE OF FIRE: Use water fog, dry chemical, CO<sub>2</sub>, or "alcohol" foam. IN CASE OF SPILL: Sweep up spill, avoiding the generation of airborne dusts. Place residual in appropriate container and seal. Consult Safety Data Sheet for additional information.

**GLOBAL HARMONIZATION LABELING AND CLASSIFICATION:** Classified in accordance with CLP Regulation (EC) 1272/2008.

**Classification:** Carcinogenic Cat. 2

**Signal Word:** Warning

**Hazard Statements:** H351: Suspected of causing cancer. For Blue Chalk Only: EUH032: Contact with acids liberates very toxic gas (hydrogen sulfide).

**Precautionary Statements:**

**Prevention:** P201: Obtain special instructions before use. P202: Do not handle until all safety precautions have been read and understood. P280: Wear protective gloves/protective clothing/eye protection/face protection.

**Response:** P308 + P313: IF exposed or concerned: Get medical advice/attention.

**Storage:** P405: Store locked up.

**Disposal:** P501: Dispose of contents/containers in accordance with all local, regional, national and international regulations.

**Hazard Symbol/Pictograms:** GHS08

**EU 67/548/EEC LABELING AND CLASSIFICATION:** Classified in accordance with the European Community Council Directive 67/548/EEC or subsequent Directives.

**Classification:** Carcinogenic Cat. 3

**Risk Phrases:** R45: May cause cancer. For Blue Chalk Only: R32: Contact with acids liberates very toxic gas (hydrogen sulfide).

**Safety Phrases:** S(1/2): Keep locked up and out of the reach of children. (Can be omitted when product is for industrial use only). S22: Do not breathe dust. S25: Avoid contact with eyes. S36/37/39: Wear suitable protective clothing, gloves and eye/face protection. S38: In case of insufficient ventilation wear suitable respiratory equipment. S45: In case of accident or if you feel unwell seek medical advice immediately (show the label where possible). S53: Avoid exposure - obtain special instructions before use.

**Hazard Symbol:** Xn

### CLASSIFICATION FOR COMPONENTS:

**Full Text Global Harmonization AND EU CLP Regulation (EC) 1272/2008:**

**Crystalline Silica:** This is a self-classification.

**Classification:** Carcinogenic Category 2

**Hazard Statement Codes:** H351: Suspected of causing cancer.

**C.I. Pigment Blue 29:** This is a self-classification.

**Classification:** None.

**Hazard Statement Codes:** EUH032: Contact with acids liberates very toxic gas (hydrogen sulfide).

**All Other Components:** No classification has been published or is applicable.

**Full Text EU 67/548/EEC:**

**Crystalline Silica:** This is a self-classification.

**Classification:** Carcinogenic Category 3

**Risk Phrases:** R45: May cause cancer.

**Crystalline Silica:** This is a self-classification.

**Classification:** None.

**Risk Phrases:** R32: Contact with acids liberates very toxic gas (hydrogen sulfide).

**All Other Components:** No classification has been published or is applicable.

### PREPARED BY:

CHEMICAL SAFETY ASSOCIATES, Inc.

PO Box 1961, Hilo, HI 96721 •(800) 441-3365

November 25, 2013

### DATE OF PRINTING:

### REVISION INFORMATION:

July 2010: Review of SDS and up-date. Format up-dated. Section 3 EU Crystalline Silica self-classification added. Section 8 Exposure limits up-dated. Section 11 Cancer ratings up-dated. Section 15 EU component classification added. July 2013: Review and revise entire SDS to add GHS compliance. Up-date Section 8 Exposure Limits. Section 11 Cancer ratings up-dated.

The information contained herein is based on data considered accurate. However, no warranty is expressed or implied regarding the accuracy of these data or the results to be obtained from the use thereof. DeWalt assumes no responsibility for injury to the vendee or third persons proximately caused by the material if reasonable safety procedures are not adhered to as stipulated in the data sheet. Additionally, DeWalt assumes no responsibility for injury to vendee or third persons proximately caused by abnormal use of the material even if reasonable safety procedures are followed. Furthermore, vendee assumes the risk in his use of the material.

## DEFINITIONS OF TERMS

A large number of abbreviations and acronyms appear on an SDS. Some of these, which are commonly used, include the following:

**CAS #:** This is the Chemical Abstract Service Number that uniquely identifies each constituent.

### EXPOSURE LIMITS IN AIR:

**CEILING LEVEL:** The concentration that shall not be exceeded during any part of the working exposure.

**DFG MAK Germ Cell Mutagen Categories:** 1: Germ cell mutagens which have been shown to increase the mutant frequency in the progeny of exposed humans. 2: Germ cell mutagens which have been shown to increase the mutant frequency in the progeny of exposed mammals. 3A: Substances which have been shown to induce genetic damage in germ cells of human or animals, or which produce mutagenic effects in somatic cells of mammals *in vivo* and have been shown to reach the germ cells in an active form.

### EXPOSURE LIMITS IN AIR (continued):

**DFG MAK Germ Cell Mutagen Categories (continued): 3B:** Substances which are suspected of being germ cell mutagens because of their genotoxic effects in mammalian somatic cell *in vivo*; in exceptional cases, substances for which there are no *in vivo* data, but which are clearly mutagenic *in vitro* and structurally related to known *in vivo* mutagens. 4: Not applicable (Category 4 carcinogenic substances are those with non-genotoxic mechanisms of action. By definition, germ cell mutagens are genotoxic. Therefore, a Category 4 for germ cell mutagens cannot apply. At some time in the future, it is conceivable that a Category 4 could be established for genotoxic substances with primary targets other than DNA [e.g. purely aneugenic substances] if research results make this seem sensible.) 5: Germ cell mutagens, the potency of which is considered to be so low that, provided the MAK value is observed, their contribution to genetic risk for humans is expected not to be significant.

## DEFINITIONS OF TERMS (Continued)

### EXPOSURE LIMITS IN AIR (continued):

**DFG MAK Pregnancy Risk Group Classification:** **Group A:** A risk of damage to the developing embryo or fetus has been unequivocally demonstrated. Exposure of pregnant women can lead to damage of the developing organism, even when MAK and BAT (Biological Tolerance Value for Working Materials) values are observed.

**DFG MAK Pregnancy Risk Group Classification (continued):** **Group B:** Currently available information indicates a risk of damage to the developing embryo or fetus must be considered to be probable. Damage to the developing organism cannot be excluded when pregnant women are exposed, even when MAK and BAT values are observed. **Group C:** There is no reason to fear a risk of damage to the developing embryo or fetus when MAK and BAT values are observed. **Group D:** Classification in one of the groups A-C is not yet final because, although the data available may indicate a trend, they are not sufficient for final evaluation.

**IDLH-Immediately Dangerous to Life and Health:** This level represents a concentration from which one can escape within 30-minutes without suffering escape-preventing or permanent injury.

**LOQ:** Limit of Quantitation.

**MAK:** Federal Republic of Germany Maximum Concentration Values in the workplace.

**NE:** Not Established. When no exposure guidelines are established, an entry of NE is made for reference.

**NIC:** Notice of Intended Change.

**NIOSH CEILING:** The exposure that shall not be exceeded during any part of the workday. If instantaneous monitoring is not feasible, the ceiling shall be assumed as a 15-minute TWA exposure (unless otherwise specified) that shall not be exceeded at any time during a workday.

**NIOSH RELs:** NIOSH's Recommended Exposure Limits.

**PEL-Permissible Exposure Limit:** OSHA's Permissible Exposure Limits. This exposure value means exactly the same as a TLV, except that it is enforceable by OSHA. The OSHA Permissible Exposure Limits are based in the 1989 PELs and the June, 1993 Air Contaminants Rule (*Federal Register*: 58: 35338-35351 and 58: 40191). Both the current PELs and the vacated PELs are indicated. The phrase, "Vacated 1989 PEL," is placed next to the PEL that was vacated by Court Order.

**SKIN:** Used when there is a danger of cutaneous absorption.

**STEL-Short Term Exposure Limit:** Short Term Exposure Limit, usually a 15-minute time-weighted average (TWA) exposure that should not be exceeded at any time during a workday, even if the 8-hr TWA is within the TLV-TWA, PEL-TWA or REL-TWA.

**TLV-Threshold Limit Value:** An airborne concentration of a substance that represents conditions under which it is generally believed that nearly all workers may be repeatedly exposed without adverse effect. The duration must be considered, including the 8-hour.

**TWA-Time Weighted Average:** Time Weighted Average exposure concentration for a conventional 8-hr (TLV, PEL) or up to a 10-hr (REL) workday and a 40-hr workweek.

### HAZARDOUS MATERIALS IDENTIFICATION SYSTEM HAZARD

**RATINGS:** This rating system was developed by the National Paint and Coating Association and has been adopted by industry to identify the degree of chemical hazards.

**HEALTH HAZARD: 0 (Minimal Hazard):** No significant health risk, irritation of skin or eyes not anticipated. *Skin Irritation:* Essentially non-irritating. PII or Draize = "0". *Eye Irritation:* Essentially non-irritating, or minimal effects which clear in < 24 hours [e.g. mechanical irritation]. Draize = "0". *Oral Toxicity LD<sub>50</sub> Rat:* < 5000 mg/kg. *Dermal Toxicity LD<sub>50</sub>Rat or Rabbit:* < 2000 mg/kg. *Inhalation Toxicity 4-hrs LC<sub>50</sub> Rat:* < 20 mg/L; **1 (Slight Hazard):** Minor reversible injury may occur; slightly or mildly irritating. *Skin Irritation:* Slightly or mildly irritating. *Eye Irritation:* Slightly or mildly irritating. *Oral Toxicity LD<sub>50</sub> Rat:* > 500-5000 mg/kg. *Dermal Toxicity LD<sub>50</sub>Rat or Rabbit:* > 1000-2000 mg/kg. *Inhalation Toxicity LC<sub>50</sub> 4-hrs Rat:* > 2-20 mg/L; **2 (Moderate Hazard):** Temporary or transitory injury may occur. *Skin Irritation:* Moderately irritating; primary irritant; sensitizer. PII or Draize > 0, < 5. *Eye Irritation:* Moderately to severely irritating and/or corrosive; reversible corneal opacity; corneal involvement or irritation clearing in 8-21 days. Draize > 0, ≤ 25. *Oral Toxicity LD<sub>50</sub> Rat:* > 50-500 mg/kg. *Dermal Toxicity LD<sub>50</sub>Rat or Rabbit:* > 200-1000 mg/kg. *Inhalation Toxicity LC<sub>50</sub> 4-hrs Rat:* > 0.5-2 mg/L; **3 (Serious Hazard):** Major injury likely unless prompt action is taken and medical treatment is given; high level of toxicity; corrosive. *Skin Irritation:* Severely irritating and/or corrosive; may destroy dermal tissue, cause skin burns, dermal necrosis. PII or Draize > 5-8 with destruction of tissue. *Eye Irritation:* Corrosive, irreversible destruction of ocular tissue; corneal involvement or irritation persisting for more than 21 days. Draize > 80 with effects irreversible in 21 days. *Oral Toxicity LD<sub>50</sub> Rat:* > 1-50 mg/kg. *Dermal Toxicity LD<sub>50</sub>Rat or Rabbit:* > 20-200 mg/kg. *Inhalation Toxicity LC<sub>50</sub> 4-hrs Rat:* > 0.05-0.5 mg/L; **4 (Severe Hazard):** Life-threatening; major or permanent damage may result from single or repeated exposure. *Skin Irritation:* Not appropriate. Do not rate as a "4", based on skin irritation alone. *Eye Irritation:* Not appropriate. Do not rate as a "4", based on eye irritation alone. *Oral Toxicity LD<sub>50</sub> Rat:* ≤ 1 mg/kg. *Dermal Toxicity LD<sub>50</sub>Rat or Rabbit:* ≤ 20 mg/kg. *Inhalation Toxicity LC<sub>50</sub> 4-hrs Rat:* ≤ 0.05 mg/L.

**FLAMMABILITY HAZARD: 0 (Minimal Hazard-Materials that will not burn in air when exposure to a temperature of 815.5°C [1500°F] for a period of 5 minutes.); 1 (Slight Hazard-Materials that must be pre-heated before ignition can occur. Material require considerable pre-heating, under all ambient temperature conditions before ignition and combustion can occur, including: Materials that will burn in air when exposed to a temperature of 815.5°C (1500°F) for a period of 5 minutes or less; Liquids, solids and semisolids having a flash point at or above 93.3°C [200°F] (e.g. OSHA Class IIIB, or; Most ordinary combustible materials [e.g. wood, paper, etc.]; 2 (Moderate Hazard-Materials that must be moderately heated or exposed to relatively high ambient temperatures before ignition can occur. Materials in this degree would not, under normal conditions, form hazardous atmospheres in air, but under high ambient temperatures or moderate heating may release vapor in sufficient quantities to produce hazardous atmospheres in air, including: Liquids having a flash-point at or above 37.8°C [100°F]; Solid materials in the form of course dusts that may burn rapidly but that generally do not form explosive atmospheres; Solid materials in a fibrous or shredded form that may burn rapidly and create flash fire hazards (e.g. cotton, sisal, hemp; Solids and semisolids that readily give off flammable vapors.);**

### HAZARDOUS MATERIALS IDENTIFICATION SYSTEM HAZARD

#### RATINGS (continued):

**FLAMMABILITY HAZARD (continued): 3 (Serious Hazard- Liquids and solids that can be ignited under almost all ambient temperature conditions. Materials in this degree produce hazardous atmospheres with air under almost all ambient temperatures, or, unaffected by ambient temperature, are readily ignited under almost all conditions, including: Liquids having a flash point below 22.8°C [73°F] and having a boiling point at or above 38°C [100°F] and below 37.8°C [100°F] [e.g. OSHA Class IB and IC]; Materials that on account of their physical form or environmental conditions can form explosive mixtures with air and are readily dispersed in air [e.g., dusts of combustible solids, mists or droplets of flammable liquids]; Materials that burn extremely rapidly, usually by reason of self-contained oxygen [e.g. dry nitrocellulose and many organic peroxides]); 4 (Severe Hazard-Materials that will rapidly or completely vaporize at atmospheric pressure and normal ambient temperature or that are readily dispersed in air, and which will burn readily, including: Flammable gases; Flammable cryogenic materials; Any liquid or gaseous material that is liquid while under pressure and has a flash point below 22.8°C [73°F] and a boiling point below 37.8°C [100°F] [e.g. OSHA Class IA; Material that ignite spontaneously when exposed to air at a temperature of 54.4°C [130°F] or below [e.g. pyrophoric].**

**PHYSICAL HAZARD: 0 (Water Reactivity: Materials that do not react with water. Organic Peroxides: Materials that are normally stable, even under fire conditions and will not react with water. Explosives: Substances that are Non-Explosive. Unstable Compressed Gases: No Rating. Pyrophorics: No Rating. Oxidizers: No "0" rating allowed. Unstable Reactives: Substances that will not polymerize, decompose, condense or self-react.); 1 (Water Reactivity: Materials that change or decompose upon exposure to moisture. Organic Peroxides: Materials that are normally stable, but can become unstable at high temperatures and pressures. These materials may react with water, but will not release energy. Explosives: Division 1.5 & 1.6 substances that are very insensitive explosives or that do not have a mass explosion hazard. Compressed Gases: Pressure below OSHA definition. Pyrophorics: No Rating. Oxidizers: Packaging Group I; Solids: any material that in either concentration tested, exhibits a mean burning time less than or equal to the mean burning time of a 3:7 potassium bromate/cellulose mixture and the criteria for Packing Group I and II are not met. Liquids: any material that exhibits a mean pressure rise time less than or equal to the pressure rise time of a 1:1 nitric acid (65%/cellulose mixture and the criteria for Packing Group I and II are not met. Unstable Reactives: Substances that may decompose, condense or self-react, but only under conditions of high temperature and/or pressure and have little or no potential to cause significant heat generation or explosive hazard. Substances that readily undergo hazardous polymerization in the absence of inhibitors.); 2 (Water Reactivity: Materials that may react violently with water. Organic Peroxides: Materials that, in themselves, are normally unstable and will readily undergo violent chemical change, but will not detonate. These materials may also react violently with water. Explosives: Division 1.4 – Explosive substances where the explosive effect are largely confined to the package and no projection of fragments of appreciable size or range are expected. An external fire must not cause virtually instantaneous explosion of almost the entire contents of the package. Compressed Gases: Pressurized and meet OSHA definition but < 514.7 psi absolute at 21.1°C (70°F) [500 psig]. Pyrophorics: No Rating. Oxidizers: Packaging Group II Solids: any material that, either in concentration tested, exhibits a mean burning time of less than or equal to the mean burning time of a 2:3 potassium bromate/cellulose mixture and the criteria for Packing Group I are not met. Liquids: any material that exhibits a mean pressure rise time less than or equal to the pressure rise of a 1:1 aqueous sodium chlorate solution (40%/cellulose mixture and the criteria for Packing Group I are not met. Unstable Reactives: Substances that may polymerize, decompose, condense, or self-react at ambient temperature and/or pressure, but have a low potential for significant heat generation or explosion. Substances that readily form peroxides upon exposure to air or oxygen at room temperature); 3 (Water Reactivity: Materials that may form explosive reactions with water. Organic Peroxides: Materials that are capable of detonation or explosive reaction, but require a strong initiating source, or must be heated under confinement before initiation; or materials that react explosively with water. Explosives: Division 1.2 – Explosive substances that have a fire hazard and either a minor blast hazard or a minor projection hazard or both, but do not have a mass explosion hazard. Compressed Gases: Pressure ≥ 514.7 psi absolute at 21.1°C (70°F) [500 psig]. Pyrophorics: No Rating. Oxidizers: Packaging Group I Solids: any material that, in either concentration tested, exhibits a mean burning time less than the mean burning time of a 3:2 potassium bromate/cellulose mixture. Liquids: Any material that spontaneously ignites when mixed with cellulose in a 1:1 ratio, or which exhibits a mean pressure rise time less than the pressure rise time of a 1:1 perchloric acid (50%/cellulose mixture. Unstable Reactives: Substances that may polymerize, decompose, condense or self-react at ambient temperature and/or pressure and have a moderate potential to cause significant heat generation or explosion.); 4 (Water Reactivity: Materials that react explosively with water without requiring heat or confinement. Organic Peroxides: Materials that are readily capable of detonation or explosive decomposition at normal temperature and pressures. Explosives: Division 1.1 & 1.2-explosive substances that have a mass explosion hazard or have a projection hazard. A mass explosion is one that affects almost the entire load instantaneously. Compressed Gases: No Rating. Pyrophorics: Add to the definition of Flammability "4". Oxidizers: No "4" rating. Unstable Reactives: Substances that may polymerize, decompose, condense or self-react at ambient temperature and/or pressure and have a high potential to cause significant heat generation or explosion.)**

#### NATIONAL FIRE PROTECTION ASSOCIATION HAZARD RATINGS:

**HEALTH HAZARD: 0 (materials that, under emergency conditions, would offer no hazard beyond that of ordinary combustible materials): Gases and vapors whose LC<sub>50</sub> for acute inhalation toxicity is greater than 10,000 ppm. Dusts and mists whose LC<sub>50</sub> for acute inhalation toxicity is greater than 200 mg/L. Materials whose LD<sub>50</sub> for acute dermal toxicity is greater than 2000 mg/kg. Materials whose LD<sub>50</sub> for acute oral toxicity is greater than 2000 mg/kg. Materials that are essentially non-irritating to the respiratory tract, eyes and skin. 1 (materials that, under emergency conditions, can cause significant irritation): Gases and vapors whose LC<sub>50</sub> for acute inhalation toxicity is greater than 5,000 ppm but less than or equal to 10,000 ppm. Dusts and mists whose LC<sub>50</sub> for acute inhalation toxicity is greater than 10 mg/L but less than or equal to 200 mg/L. Materials whose LD<sub>50</sub> for acute dermal toxicity is greater than 1000 mg/kg but less than or equal to 2000 mg/kg. Materials whose LD<sub>50</sub> for acute oral toxicity is greater than 500 mg/kg but less than or equal to 2000 mg/kg. Materials that cause slight to moderate irritation to the respiratory tract, eyes and skin.**

## DEFINITIONS OF TERMS (Continued)

## NATIONAL FIRE PROTECTION ASSOCIATION HAZARD RATINGS (continued):

**HEALTH HAZARD (continued): 2** (materials that, under emergency conditions, can cause temporary incapacitation or residual injury): Gases and vapors whose  $LC_{50}$  for acute inhalation toxicity is greater than 3,000 ppm but less than or equal to 5,000 ppm. Dusts and mists whose  $LC_{50}$  for acute inhalation toxicity is greater than 2 mg/L but less than or equal to 10 mg/L. Materials whose  $LD_{50}$  for acute dermal toxicity is greater than 200 mg/kg but less than or equal to 1000 mg/kg. Materials whose  $LD_{50}$  for acute oral toxicity is greater than 50 mg/kg but less than or equal to 500 mg/kg. Any liquid whose saturated vapor concentration at 20°C (68°F) is equal to or greater than one-fifth its  $LC_{50}$  for acute inhalation toxicity, if its  $LC_{50}$  is less than or equal to 5000 ppm and that does not meet the criteria for either degree of hazard 3 or degree of hazard 4. Compressed liquefied gases with boiling points between -30°C (-22°F) and -55°C (-66.5°F) that cause severe tissue damage, depending on duration of exposure. Materials that are respiratory irritants. Materials that cause severe, but reversible irritation to the eyes or are lachrymators. Materials that are primary skin irritants or sensitizers. **3** (materials that, under emergency conditions, can cause serious or permanent injury): Gases and vapors whose  $LC_{50}$  for acute inhalation toxicity is greater than 1,000 ppm but less than or equal to 3,000 ppm. Dusts and mists whose  $LC_{50}$  for acute inhalation toxicity is greater than 0.5 mg/L but less than or equal to 2 mg/L. Materials whose  $LD_{50}$  for acute dermal toxicity is greater than 40 mg/kg but less than or equal to 200 mg/kg. Materials whose  $LD_{50}$  for acute oral toxicity is greater than 5 mg/kg but less than or equal to 50 mg/kg. Any liquid whose saturated vapor concentration at 20°C (68°F) is equal to or greater than one-fifth its  $LC_{50}$  for acute inhalation toxicity, if its  $LC_{50}$  is less than or equal to 3000 ppm and that does not meet the criteria for degree of hazard 4. Compressed liquefied gases with boiling points between -30°C (-22°F) and -55°C (-66.5°F) that cause frostbite and irreversible tissue damage. Materials that are respiratory irritants. Cryogenic gases that cause frostbite and irreversible tissue damage. Materials that are corrosive to the respiratory tract. Materials that are corrosive to the eyes or cause irreversible corneal opacity. Materials that are corrosive to the skin. **4** (materials that, under emergency conditions, can be lethal): Gases and vapors whose  $LC_{50}$  for acute inhalation toxicity less than or equal to 1,000 ppm. Dusts and mists whose  $LC_{50}$  for acute inhalation toxicity is less than or equal to 0.5 mg/L. Materials whose  $LD_{50}$  for acute dermal toxicity is less than or equal to 40 mg/kg. Materials whose  $LD_{50}$  for acute oral toxicity is less than or equal to 5 mg/kg. Any liquid whose saturated vapor concentration at 20°C (68°F) is equal to or greater than one-fifth its  $LC_{50}$  for acute inhalation toxicity, if its  $LC_{50}$  is less than or equal to 1000 ppm.

**FLAMMABILITY HAZARD: 0** Materials that will not burn under typical fire conditions, including intrinsically noncombustible materials such as concrete, stone, and sand: Materials that will not burn in air when exposed to a temperature of 816°C (1500°F) for a period of 5 minutes in accordance with Annex D. **1** Materials that must be preheated before ignition can occur. Materials in this degree require considerable preheating, under all ambient temperature conditions, before ignition and combustion can occur: Materials that will burn in air when exposed to a temperature of 816°C (1500°F) for a period of 5 minutes in accordance with Annex D. Liquids, solids and semisolids having a flash point at or above 93.4°C (200°F) (i.e. Class IIIB liquids). Liquids with a flash point greater than 35°C (95°F) that do not sustain combustion when tested using the Method of Testing for Sustained Combustibility, per 49 CFR 173, Appendix H or the UN Recommendation on the Transport of Dangerous Goods, Model Regulations (current edition) and the related Manual of Tests and Criteria (current edition). Liquids with a flash point greater than 35°C (95°F) in a water-miscible solution or dispersion with a water non-combustible liquid/solid content of more than 85 percent by weight. Liquids that have no fire point when tested by ASTM D 92 Standard Test Method for Flash and Fire Points by Cleveland Open Cup, up to a boiling point of the liquid or up to a temperature at which the sample being tested shows an obvious physical change. Combustible pellets with a representative diameter of greater than 2 mm (10 mesh). Solids containing greater than 0.5 percent by weight of a flammable or combustible solvent are rated by the closed cup flash point of the solvent. Most ordinary combustible materials. **2** Materials that must be moderately heated or exposed to relatively high ambient temperatures before ignition can occur. Materials in this degree would not under normal conditions form hazardous atmospheres with air, but under high ambient temperatures or under moderate heating could release vapor in sufficient quantities to produce hazardous atmospheres with air: Liquids having a flash point at or above 37.8°C (100°F) and below 93.4°C (200°F) (i.e. Class II and Class IIIA liquids.) Solid materials in the form of powders or coarse dusts of representative diameter between 420 microns (40 mesh) and 2 mm (10 mesh) that burn rapidly but that generally do not form explosive mixtures in air. Solid materials in fibrous or shredded form that burn rapidly and create flash fire hazards, such as cotton, sisal and hemp. Solids and semisolids that readily give off flammable vapors. Solids containing greater than 0.5 percent by weight of a flammable or combustible solvent are rated by the closed cup flash point of the solvent. **3** Liquids and solids that can be ignited under almost all ambient temperature conditions. Materials in this degree produce hazardous atmospheres with air under almost all ambient temperatures or, though unaffected by ambient temperatures, are readily ignited under almost all conditions: Liquids having a flash point below 22.8°C (73°F) and having a boiling point at or above 37.8°C (100°F) and those liquids having a flash point at or above 22.8°C (73°F) and below 37.8°C (73°F) and below 37.8°C (100°F) (i.e. Class IB and IC liquids). Materials that, on account of their physical form or environmental conditions, can form explosive mixtures with air and are readily dispersed in air. Flammable or combustible dusts with a representative diameter less than 420 microns (40 mesh). Materials that burn with extreme rapidity, usually by reason of self-contained oxygen (e.g. dry nitrocellulose and many organic peroxides). Solids containing greater than 0.5 percent by weight of a flammable or combustible solvent are rated by the closed cup flash point of the solvent.

## NATIONAL FIRE PROTECTION ASSOCIATION HAZARD RATINGS (continued):

**FLAMMABILITY HAZARD (continued): 4** Materials that will rapidly or completely vaporize at atmospheric pressure and normal ambient temperature or that are readily dispersed in air and will burn readily: Flammable gases. Flammable cryogenic materials. Any liquid or gaseous materials that is liquid while under pressure and has a flash point below 22.8°C (73°F) and a boiling point below 37.8°C (100°F) (i.e. Class IA liquids). Materials that ignite when exposed to air. Solids containing greater than 0.5 percent by weight of a flammable or combustible solvent are rated by the closed cup flash point of the solvent.

**INSTABILITY HAZARD: 0** Materials that in themselves are normally stable, even under fire conditions: Materials that have an estimated instantaneous power density (product of heat of reaction and reaction rate) at 250°C (482°F) below 0.01 W/mL. Materials that do not exhibit an exotherm at temperatures less than or equal to 500°C (932°F) when tested by differential scanning calorimetry. **1** Materials that in themselves are normally stable, but that can become unstable at elevated temperatures and pressures: Materials that have an estimated instantaneous power density (product of heat of reaction and reaction rate) at 250°C (482°F) at or above 0.01 W/mL and below 10 W/mL. **2** Materials that readily undergo violent chemical change at elevated temperatures and pressures: Materials that have an estimated instantaneous power density (product of heat of reaction and reaction rate) at 250°C (482°F) at or above 10 W/mL and below 100W/mL. **3** Materials that in themselves are capable of detonation or explosive decomposition or explosive reaction, but that require a strong initiating source or that must be heated under confinement before initiation: Materials that have an estimated instantaneous power density (product of heat of reaction and reaction rate) at 250°C (482°F) at or above 100 W/mL and below 1000 W/mL. Materials that are sensitive to thermal or mechanical shock at elevated temperatures and pressures. **4** Materials that in themselves are readily capable of detonation or explosive decomposition or explosive reaction at normal temperatures and pressures: Materials that have an estimated instantaneous power density (product of heat of reaction and reaction rate) at 250°C (482°F) of 1000 W/mL or greater. Materials that are sensitive to localized thermal or mechanical shock at normal temperatures and pressures.

**FLAMMABILITY LIMITS IN AIR:**

Much of the information related to fire and explosion is derived from the National Fire Protection Association (NFPA). **Flash Point** - Minimum temperature at which a liquid gives off sufficient vapors to form an ignitable mixture with air. **Autoignition Temperature:** The minimum temperature required to initiate combustion in air with no other source of ignition. **LEL** - the lowest percent of vapor in air, by volume, that will explode or ignite in the presence of an ignition source. **UEL** - the highest percent of vapor in air, by volume, that will explode or ignite in the presence of an ignition source.

**ECOLOGICAL INFORMATION:**

EC is the effect concentration in water. **BCF** = Bioconcentration Factor, which is used to determine if a substance will concentrate in lifetimes which consume contaminated plant or animal matter. **TL<sub>m</sub>** = median threshold limit; Coefficient of Oil/Water Distribution is represented by **log K<sub>ow</sub>** or **log K<sub>oc</sub>**, and is used to assess a substance's behavior in the environment.

**TOXICOLOGICAL INFORMATION:**

**Human and Animal Toxicology:** Possible health hazards as derived from human data, animal studies, or from the results of studies with similar compounds are presented. Definitions of some terms used in this section are: **LD<sub>50</sub>** - Lethal Dose (solids & liquids) which kills 50% of the exposed animals; **LC<sub>50</sub>** - Lethal Concentration (gases) which kills 50% of the exposed animals; **ppm** concentration expressed in parts of material per million parts of air or water; **mg/m<sup>3</sup>** concentration expressed in weight of substance per volume of air; **mg/kg** quantity of material, by weight, administered to a test subject, based on their body weight in kg. Other measures of toxicity include **TDLo**, the lowest dose to cause a symptom and **TCLo** the lowest concentration to cause a symptom; **TD<sub>0</sub>**, **LDLo**, and **LDo**, or **TC**, **TCo**, **LCLo**, and **LCo**, the lowest dose (or concentration) to cause lethal or toxic effects. **Cancer Information:** The sources are: **IARC** - the International Agency for Research on Cancer; **NTP** - the National Toxicology Program, **RTECS** - the Registry of Toxic Effects of Chemical Substances, **OSHA** and **CAL/OSHA**. IARC and NTP rate chemicals on a scale of decreasing potential to cause human cancer with rankings from 1 to 4. Subrankings (2A, 2B, etc.) are also used. **Other Information:** **BEI** - ACGIH Biological Exposure Indices, represent the levels of determinants which are most likely to be observed in specimens collected from a healthy worker who has been exposed to chemicals to the same extent as a worker with inhalation exposure to the TLV.

**REGULATORY INFORMATION:****U.S. and CANADA:**

**ACGIH:** American Conference of Governmental Industrial Hygienists, a professional association which establishes exposure limits.

This section explains the impact of various laws and regulations on the material. **EPA** is the U.S. Environmental Protection Agency. **NIOSH** is the National Institute of Occupational Safety and Health, which is the research arm of the U.S. Occupational Safety and Health Administration (**OSHA**). **WHMIS** is the Canadian Workplace Hazardous Materials Information System. **DOT** and **TC** are the U.S. Department of Transportation and the Transport Canada, respectively. Superfund Amendments and Reauthorization Act (**SARA**); the Canadian Domestic/Non-Domestic Substances List (**DSL/NDSL**); the U.S. Toxic Substance Control Act (**TSCA**); Marine Pollutant status according to the **DOT**; the Comprehensive Environmental Response, Compensation, and Liability Act (**CERCLA** or **Superfund**); and various state regulations. This section also includes information on the precautionary warnings which appear on the material's package label. **OSHA** - U.S. Occupational Safety and Health Administration.

## Diesel Exhaust Fluid (DEF)

### SECTION 1. IDENTIFICATION

Product Identifier	Diesel Exhaust Fluid (DEF)
Other Means of Identification	55-124AIR, 55-124C, 55-125AIR, 55-125BTG, 55-125H2B, 55-125MER, 55-126AIR, 55-126C, 55-126MER, 55-126STPDES, 55-129AIR, 55-129AIR-1000, 55-129AIR-1250, 55-129AIR-RPV, 55-129H2B, 55-129H2B-1000, 55-129H2B-1000T, 55-129H2B-RPV, 55-129H2B-RPV-T, 55-129H2B-R-R-RET, 55-129H2B-RSV, 55-129H2B-RSV-T, 55-129H2B-T, 55-129OLD-1000, 55-129OPW-1250, BULK-DEF, 55-125VW, 55-125FORD, 55-125BTGEXP, 55-125CHN, 55-125GM, 55-129FLT, 55-129CHN, 55-129FLT-1000, 55-125FLT, 55-129CHN-1000, 55-129IBP, 55-129IBP-1250, 55-126IBP, 55-129RC, 55-129BLU, 55-129BLU-1000, 55-129RC-1000, 55-125RC, 55-129TRP-1000, 55-125C, 55-125TRP, 55-125, 55-125BLU, 55-125CNH, 55-126, 55-126BLU, 55-126IBP, 55-129AIR-R, 55-129CNH-1000, 55-129IBP, 55-129IBP-1250, 55-129OLD-1250, 55-129OWCB-1250, 55-125TUX
Recommended Use	Please refer to Product label.
Restrictions on Use	None known.
Manufacturer/Supplier Identifier	Recochem Inc., 850 Montee de Liesse, Montreal, QC, H4T 1P4, Compliance and Regulatory Department, 905-878-5544, www.recochem.com
Emergency Phone No.	CANUTEC, 613-996-6666, 24 Hours
SDS No.	1519

### SECTION 2. HAZARD IDENTIFICATION

#### Classification

Skin irritation - Category 3; Eye irritation - Category 2B; Specific target organ toxicity (single exposure) - Category 3

#### Label Elements



Signal Word:  
Warning

#### Hazard Statement(s):

H316 Causes mild skin irritation.  
H320 Causes eye irritation.  
H335 May cause respiratory irritation.

#### Precautionary Statement(s):

##### Prevention:

P261 Avoid breathing fume, mist, vapours, spray.  
P264 Wash hands thoroughly after handling.

Product Identifier: Diesel Exhaust Fluid (DEF) - Ver. 1  
Date of Preparation: May 04, 2017  
Date of Last Revision:

SDS No.: 1519

Page 01 of 08

P271 Use only outdoors or in a well-ventilated area.

Response:

- P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
P312 Call a POISON CENTRE or doctor if you feel unwell.  
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P312 Call a POISON CENTRE or doctor if you feel unwell.  
P337 + P313 If eye irritation persists: Get medical advice/attention.  
P332 + P313 If skin irritation occurs: Get medical advice/attention.

Storage:

Store in a well ventilated place. Keep cool. Keep container tightly closed. Store locked up.

Disposal:

Dispose of contents/container in accordance with applicable regional, national and local laws and regulations.

Other Hazards

Not applicable.

### SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Mixture:

Chemical Name	CAS No.	%	Other Identifiers	Other Names
Urea	57-13-6	15-40		
Free Ammonia	7664-41-7	0.1-1		

Notes

Use of Generic SDS:

If the concentration or actual concentration range of an ingredient of a particular hazardous product in the series is different from the concentration or actual concentration range disclosed for the rest of the series, either the concentration or the actual concentration range must be indicated beside that ingredient under item 3 (Composition/Information on ingredients) of the SDS. Furthermore, if any other specific information element(s) (such as flash point, numerical measure of toxicity, etc.) for a particular hazardous product in the series differs from that of the other products in the series (without affecting the classification), the information element relevant to that hazardous product must be disclosed on the SDS with an indication to which hazardous product each relates.

Source: Health Canada - Technical Guidance on the Requirements of the Hazardous Products Act and the Hazardous Products Regulations WHMIS 2015 Supplier Requirements - pg 117

### SECTION 4. FIRST-AID MEASURES

First-aid Measures

Inhalation

Remove source of exposure or move to fresh air. Call a Poison Centre or doctor if you feel unwell.

Skin Contact

Avoid direct contact. Wear chemical protective clothing if necessary. Take off contaminated clothing, shoes and leather goods (e.g. watchbands, belts). Quickly and gently blot or brush away excess chemical. Wash gently and thoroughly with lukewarm, gently flowing water and mild soap for 5 minutes. If skin irritation occurs, get medical advice or attention. Get medical advice or attention if you feel unwell or are concerned. Clean clothing, shoes and leather goods.

Eye Contact

Avoid direct contact. Wear chemical protective gloves if necessary. Quickly and gently blot or brush chemical off the

Product Identifier: Diesel Exhaust Fluid (DEF) - Ver. 1

SDS No.: 1519

Date of Preparation: May 04, 2017

Date of Last Revision:

Page 02 of 08

face. Immediately rinse the contaminated eye(s) with lukewarm, gently flowing water for 15-20 minutes, while holding the eyelid(s) open. Remove contact lenses, if present and easy to do. Take care not to rinse contaminated water into the unaffected eye or onto the face. If eye irritation persists, get medical advice or attention.

Ingestion

Rinse mouth with water. Get medical advice or attention if you feel unwell or are concerned.

First-aid Comments

Get medical advice or attention if you feel unwell or are concerned.

Most Important Symptoms and Effects, Acute and Delayed

No specific treatment. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

Immediate Medical Attention and Special Treatment

Target Organs

Eyes, respiratory system, skin.

Special Instructions

No specific treatment. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

Medical Conditions Aggravated by Exposure

Dermatitis.

## SECTION 5. FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media

Not combustible. Use extinguishing agent suitable for surrounding fire.

Unsuitable Extinguishing Media

None known.

Specific Hazards Arising from the Product

Does not burn. This product presents no unusual hazards in a fire situation. Closed containers may rupture violently when heated releasing contents.

In a fire, the following hazardous materials may be generated: very toxic carbon monoxide, carbon dioxide; corrosive, oxidizing nitrogen oxides.

Special Protective Equipment and Precautions for Fire-fighters

Review Section 6 (Accidental Release Measures) for important information on responding to leaks/spills.

See Skin Protection in Section 8 (Exposure Controls/Personal Protection) for advice on suitable chemical protective materials.

## SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, and Emergency Procedures

No special precautions are necessary. Use the personal protective equipment recommended in Section 8 of this safety data sheet.

Environmental Precautions

Do not allow into any sewer, on the ground or into any waterway.

Methods and Materials for Containment and Cleaning Up

Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see section 13). Use spark-proof tools and explosion-proof equipment. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see section 1 for emergency contact information and section 13 for waste disposal.

Product Identifier: Diesel Exhaust Fluid (DEF) - Ver. 1

SDS No.: 1519

Date of Preparation: May 04, 2017

Date of Last Revision:

Page 03 of 08

## SECTION 7. HANDLING AND STORAGE

### Precautions for Safe Handling

Put on appropriate personal protective equipment (see section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapour or mist. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use non-sparking tools. Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material. Empty containers retain product residue and can be hazardous. Do not reuse container.

### Conditions for Safe Storage

Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see section 10) and food and drink. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

## SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Control Parameters

Not available.

### Appropriate Engineering Controls

The hazard potential of this product is relatively low. General ventilation is usually adequate. For large scale use of this product: use local exhaust ventilation, if general ventilation is not adequate to control amount in the air.

### Individual Protection Measures

#### Eye/Face Protection

Not required but it is good practice to wear safety glasses or chemical safety goggles.

#### Skin Protection

Wear chemical protective clothing e.g. gloves, aprons, boots.

Suitable materials are: nitrile rubber.

#### Respiratory Protection

Not normally required if product is used as directed.

## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

### Basic Physical and Chemical Properties

Appearance	Clear liquid.
Odour	Ammonia-like
Odour Threshold	Not available
pH	9 - 10 (100% solution)
Melting Point/Freezing Point	-11.5 °C (11.3 °F) (melting); -11.5 °C (11.3 °F) (freezing)
Initial Boiling Point/Range	100 °C (212 °F)
Flash Point	Not applicable
Evaporation Rate	Not available
Flammability (solid, gas)	Not applicable
Upper/Lower Flammability or Explosive Limit	Not applicable (upper); Not applicable (lower)
Vapour Pressure	Not available

Product Identifier: Diesel Exhaust Fluid (DEF) - Ver. 1

SDS No.: 1519

Date of Preparation: May 04, 2017

Date of Last Revision:

Page 04 of 08

Vapour Density (air = 1)	Not available
Relative Density (water = 1)	1
Solubility	Very soluble (more than 50 g/100 mL) in water; Not available (in other liquids)
Partition Coefficient, n-Octanol/Water (Log Kow)	Not available
Auto-ignition Temperature	Not available
Decomposition Temperature	Not available
Viscosity	1.4 mm <sup>2</sup> /s at 20 °C (kinematic); 1.4 mPa.s at 20 °C (dynamic)
<b>Other Information</b>	
Physical State	Liquid
Molecular Weight	Not applicable

## SECTION 10. STABILITY AND REACTIVITY

### Reactivity

None known.

### Chemical Stability

Normally stable.

### Possibility of Hazardous Reactions

None known.

### Conditions to Avoid

Contamination. High temperatures. Water, moisture or humidity. Temperatures above 135.0 °C (275.0 °F)

### Incompatible Materials

Reacts explosively with: strong oxidizing agents (e.g. perchloric acid).

Not corrosive to metals.

### Hazardous Decomposition Products

None known.

## SECTION 11. TOXICOLOGICAL INFORMATION

### Likely Routes of Exposure

Inhalation; skin contact; eye contact.

### Acute Toxicity

Chemical Name	LC50	LD50 (oral)	LD50 (dermal)
Urea		8471 mg/kg (rat)	> 21000 mg/kg (rabbit)
Free Ammonia	2000 ppm (rat) (4-hour exposure)	Not applicable	Not applicable

LC50: Not applicable.

LD50 (oral): Not applicable.

LD50 (dermal): Not applicable.

### Skin Corrosion/Irritation

Human experience shows very mild irritation.

### Serious Eye Damage/Irritation

Human experience shows very mild irritation.

### STOT (Specific Target Organ Toxicity) - Single Exposure

Inhalation

Product Identifier: Diesel Exhaust Fluid (DEF) - Ver. 1

Date of Preparation: May 04, 2017

Date of Last Revision:

SDS No.: 1519

Page 05 of 08

May be harmful At high concentrations based on human experience. Nose and throat irritation.

Skin Absorption

Not harmful based on human experience.

Ingestion

Not harmful based on animal tests.

Aspiration Hazard

Not known to be an aspiration hazard.

STOT (Specific Target Organ Toxicity) - Repeated Exposure

May cause Following skin contact: dermatitis.

May cause If inhaled: at high concentrations irritation of the respiratory system. May cause respiratory tract injury.

Respiratory and/or Skin Sensitization

No information was located. No information was located.

Carcinogenicity

Chemical Name	IARC	ACGIH®	NTP	OSHA
Urea	Not Listed	Not designated	Not Listed	Not Listed
Free Ammonia	Not Listed	Not designated	Not Listed	Not Listed

Not a carcinogen.

Reproductive Toxicity

Development of Offspring

Does not cause harm to the unborn child.

Sexual Function and Fertility

Does not cause effects on sexual function or fertility.

Effects on or via Lactation

No information was located.

Germ Cell Mutagenicity

Not mutagenic.

Interactive Effects

No information was located.

## SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Acute Aquatic Toxicity

Chemical Name	LC50 Fish	EC50 Crustacea	ErC50 Aquatic Plants	ErC50 Algae
Urea	Not available	Not available		
Free Ammonia	Not available	Not available		

Chronic Aquatic Toxicity

Chemical Name	NOEC Fish	EC50 Fish	NOEC Crustacea	EC50 Crustacea
Urea	Not available		Not available	
Free Ammonia	Not available		Not available	

Persistence and Degradability

No information was located.

Bioaccumulative Potential

No information was located.

Product Identifier: Diesel Exhaust Fluid (DEF) - Ver. 1

SDS No.: 1519

Date of Preparation: May 04, 2017

Date of Last Revision:

Page 06 of 08

#### Mobility in Soil

No information was located.

#### Other Adverse Effects

There is no information available.

### SECTION 13. DISPOSAL CONSIDERATIONS

#### Disposal Methods

The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe way. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

### SECTION 14. TRANSPORT INFORMATION

Not regulated under Canadian TDG regulations. Not regulated under US DOT Regulations.

Environmental Hazards Not applicable

Special Precautions Not applicable

Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

#### Proof of Dangerous Goods Classification

Date of Classification January 09, 2017

Classification Not Regulated

### SECTION 15. REGULATORY INFORMATION

#### Safety, Health and Environmental Regulations

##### Canada

Domestic Substances List (DSL) / Non-Domestic Substances List (NDSL)

All ingredients are listed on the DSL/NDSL.

##### USA

Toxic Substances Control Act (TSCA) Section 8(b)

All ingredients are listed on the TSCA Inventory.

##### Custom Regulatory 1

#### Consumer Product Safety Improvement Act of 2008 General Conformity Certification

The Supplier identified in Section 1 of this MSDS has evaluated this product and certifies it to be labeled and packaged in compliance with the applicable provisions of the Federal Hazardous Substance Act as stated in 16 CFR 1500 and enforced by the Consumer Product Safety Commission, and where applicable the products that require Child Resistant Closures are packaged in accordance with the Poison Prevention Packaging Act as stated in 16 CFR 1700 and enforced by the Consumer Product Safety Commission. All closures have been tested in accordance with the latest protocols. No other testing is required to certify compliance with the above. The date of manufacture is stamped on the product container.

### SECTION 16. OTHER INFORMATION

SDS Prepared By Compliance and Regulatory Department

Phone No. 905-878-5544

Date of Preparation May 04, 2017

References CHEMINFO database. Canadian Centre for Occupational Health and Safety (CCOHS).

Product Identifier: Diesel Exhaust Fluid (DEF) - Ver. 1

SDS No.: 1519

Date of Preparation: May 04, 2017

Date of Last Revision:

Page 07 of 08

Additional Information We are committed to uphold the Industry Consumer Ingredient Communication Voluntary Initiative.

Please send us your request by visiting our website at [www.recochem.com](http://www.recochem.com).

Ingredients present (intentionally added ingredients) at a concentration of greater than one percent (1%) shall be listed in descending order of predominance. Ingredients present at a concentration of not more than one percent shall be listed but may be disclosed without respect to order of predominance.

Disclaimer

Notice to reader: To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

---

Product Identifier: Diesel Exhaust Fluid (DEF) - Ver. 1

SDS No.: 1519

Date of Preparation: May 04, 2017

Date of Last Revision:

Page 08 of 08

## DIESEL FUEL CONDITIONER

Stock # 991/992/993/994/995/998

**SECTION 01: CHEMICAL PRODUCT AND COMPANY IDENTIFICATION**

MANUFACTURER..... KLEEN-FLO TUMBLER INDUSTRIES LIMITED  
75 ADVANCE BLVD., BRAMPTON, ON  
L6T 4N1  
905-793-4311

PRODUCT NAME.....DIESEL FUEL CONDITIONER  
PRODUCT CODE..... 991/992/993/994/995/998  
CHEMICAL FORMULA..... MIXTURE.  
MATERIAL USE..... DIESEL FUEL ADDITIVE  
EMERGENCY PHONE NO..... CANUTEC: 613-996-6666

**SECTION 02: HAZARDS IDENTIFICATION**

SIGNAL WORD..... DANGER.  
HAZARD CLASSIFICATION..... FLAMMABLE LIQUIDS — CATEGORY 2. SKIN IRRITATION — CATEGORY 2. EYE IRRITATION — CATEGORY 2A. ACUTE TOXICITY (ORAL) CATEGORY 5. SPECIFIC TARGET ORGAN TOXICITY — SINGLE EXPOSURE — CATEGORY 3. SPECIFIC TARGET ORGAN TOXICITY — REPEATED EXPOSURE — CATEGORY 2. ASPIRATION HAZARD — CATEGORY 1.

HAZARD STATEMENT..... H225 HIGHLY FLAMMABLE LIQUID AND VAPOUR. H304 MAY BE FATAL IF SWALLOWED AND ENTERS AIRWAYS. H315 CAUSES SKIN IRRITATION. H319 CAUSES SERIOUS EYE IRRITATION. H332 HARMFUL IF INHALED. H335 MAY CAUSE RESPIRATORY IRRITATION. H336 MAY CAUSE DROWSINESS OR DIZZINESS. H373 MAY CAUSE DAMAGE TO ORGANS THROUGH PROLONGED OR REPEATED EXPOSURE.

PRECAUTIONARY STATEMENT..... P210 KEEP AWAY FROM HEAT/SPARKS/OPEN FLAMES/HOT SURFACES AND OTHER IGNITION SOURCES – NO SMOKING. P233 KEEP CONTAINER TIGHTLY CLOSED. P240 GROUND/BOND CONTAINER AND RECEIVING EQUIPMENT. P241 USE EXPLOSION-PROOF ELECTRICAL/VENTILATING/LIGHTING EQUIPMENT. P242 USE ONLY NON-SPARKING TOOLS. P243 TAKE PRECAUTIONARY MEASURES AGAINST STATIC DISCHARGE. P260 DO NOT BREATHE DUST/FUME/GAS/MIST/VAPOURS/SPRAY. P264 WASH SKIN THOROUGHLY AFTER HANDLING. P271 USE ONLY OUTDOORS OR IN A WELL-VENTILATED AREA. P273 AVOID RELEASE TO THE ENVIRONMENT. P280 WEAR PROTECTIVE GLOVES/PROTECTIVE CLOTHING/EYE PROTECTION/FACE PROTECTION. P301+P310 IF SWALLOWED: IMMEDIATELY CALL A POISON CENTER OR DOCTOR/PHYSICIAN. P303+P361+P353 IF ON SKIN (OR HAIR): REMOVE/TAKE OFF IMMEDIATELY ALL CONTAMINATED CLOTHING. RINSE SKIN WITH WATER/SHOWER. P304+P312 IF INHALED: CALL A POISON CENTER OR DOCTOR/PHYSICIAN IF YOU FEEL UNWELL. P304+P340 IF INHALED: REMOVE VICTIM TO FRESH AIR AND KEEP AT REST IN A POSITION COMFORTABLE FOR BREATHING. P305+P351+P338 IF IN EYES: RINSE CAUTIOUSLY WITH WATER FOR SEVERAL MINUTES. REMOVE CONTACT LENSES, IF PRESENT AND EASY TO DO. CONTINUE RINSING. P312 CALL A POISON CENTER OR DOCTOR/PHYSICIAN IF YOU FEEL UNWELL. P331 DO NOT INDUCE VOMITING. P337+P313 IF EYE IRRITATION PERSISTS: GET MEDICAL ADVICE/ATTENTION. P340 REMOVE VICTIM TO FRESH AIR AND KEEP AT REST IN A POSITION COMFORTABLE FOR BREATHING. P370+P378 IN CASE OF FIRE: USE DRY SAND, DRY CHEMICAL OR ALCOHOL RESISTANT FOAM FOR EXTINCTION. P403+P233 STORE IN A WELL-VENTILATED PLACE. KEEP CONTAINER TIGHTLY CLOSED. P403+P235 STORE IN A WELL-VENTILATED PLACE. KEEP COOL. P405 STORE LOCKED UP. P501 DISPOSE OF CONTENTS/CONTAINER ACCORDING TO ALL APPLICABLE REGULATIONS.

OTHER HAZARDS..... VAPOURS CAN ACCUMULATE IN LOW AREAS. MAY FORM EXPLOSIVE PEROXIDES. TOXIC TO AQUATIC LIFE WITH LONG LASTING EFFECTS.

**PRODUCT: DIESEL FUEL CONDITIONER**

**STOCK # 991/992/993/994/995/998**

**SECTION 03: COMPOSITION/INFORMATION ON INGREDIENTS**

HAZARDOUS INGREDIENTS	CAS #	WT. %
-----------------------	-------	-------

ISOPROPYL ALCOHOL	67-63-0	80-100
XYLENE	1330-20-7	10-30

The exact concentrations of the above listed chemicals are being withheld as a trade secret.

**SECTION 04: FIRST AID MEASURES**

GENERAL ADVICE:..... CONSULT A PHYSICIAN. SHOW THIS SAFETY DATA SHEET TO THE DOCTOR IN ATTENDANCE. MOVE OUT OF DANGEROUS AREA.

IF INHALED:..... IF BREATHED IN, MOVE PERSON INTO FRESH AIR. IF NOT BREATHING, GIVE ARTIFICIAL RESPIRATION. CONSULT A PHYSICIAN.

IN CASE OF SKIN CONTACT:..... WASH OFF WITH SOAP AND PLENTY OF WATER. CONSULT A PHYSICIAN.

IN CASE OF EYE CONTACT:..... WASH EYES WITH COPIOUS AMOUNT OF WATER.

IF SWALLOWED:..... DO NOT INDUCE VOMITING. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON. RINSE MOUTH WITH WATER. CONSULT A PHYSICIAN. DO NOT LEAVE VICTIM UNATTENDED.

**SECTION 05: FIRE FIGHTING MEASURES**

FLAMMABILITY..... FLAMMABLE IN THE PRESENCE OF A SOURCE OF IGNITION WHEN THE TEMPERATURE IS ABOVE THE FLASH POINT. KEEP AWAY FROM HEAT/SPARK/OPEN FLAME/HOT SURFACE. NO SMOKING.

SUITABLE EXTINGUISHING MEDIA..... SUITABLE FOR SURROUNDING FIRE. CARBON DIOXIDE, DRY CHEMICAL, ALCOHOL FOAM, WATER FOG.

HAZARDOUS COMBUSTION PRODUCTS. CARBON OXIDES.

SPECIFIC HAZARDS ARISING FROM THE NO DATA AVAILABLE.

CHEMICAL

SPECIAL PROCEDURES..... EVACUATE HAZARD AREA. WEAR FULL PROTECTIVE EQUIPMENT INCLUDING A SELF-CONTAINED BREATHING APPARATUS. USE WATER TO COOL CONTAINERS.

**SECTION 06: ACCIDENTAL RELEASE MEASURES**

PERSONAL PRECAUTIONS:..... USE PERSONAL PROTECTIVE EQUIPMENT. AVOID BREATHING VAPORS, MIST OR GAS. ENSURE ADEQUATE VENTILATION. REMOVE ALL SOURCES OF IGNITION. EVACUATE PERSONNEL TO SAFE AREAS. BEWARE OF VAPOURS ACCUMULATING TO FORM EXPLOSIVE CONCENTRATIONS. VAPOURS CAN ACCUMULATE IN LOW AREAS.

ENVIRONMENTAL PRECAUTIONS:..... PREVENT FURTHER LEAKAGE OR SPILLAGE IF SAFE TO DO SO. DO NOT LET PRODUCT ENTER DRAINS. DISCHARGE INTO THE ENVIRONMENT MUST BE AVOIDED.

METHODS AND MATERIALS FOR CONTAINMENT AND CLEAN UP:..... CONTAIN SPILLAGE AND THEN COLLECT WITH ELECTRICALLY PROTECTED VACUUM CLEANER OR BY WET-BRUSHING AND PLACE IN CONTAINER FOR DISPOSAL ACCORDING TO LOCAL REGULATIONS.

**SECTION 07: HANDLING AND STORAGE**

PRECAUTIONS FOR SAFE HANDLING..... HANDLE IN ACCORDANCE WITH GOOD INDUSTRIAL HYGIENE AND SAFETY PRACTICES. AVOID CONTACT WITH EYES, SKIN AND CLOTHING. AVOID BREATHING MIST OR VAPOUR. WEAR PROTECTIVE EQUIPMENT DURING HANDLING. USE ADEQUATE VENTILATION. KEEP AWAY FROM HEAT, SPARKS, AND OPEN FLAME. TAKE MEASURES TO PREVENT THE BUILD UP OF ELECTROSTATIC CHARGE.

CONDITIONS FOR SAFE STORAGE..... KEEP AWAY FROM HEAT, SPARKS, AND OPEN FLAMES. PROTECT CONTAINER FROM PHYSICAL DAMAGE. KEEP THE CONTAINER TIGHTLY CLOSED WHEN NOT IN USE. STORE IN A COOL AND WELL-VENTILATED AREA, AWAY FROM DIRECT SUNLIGHT, SOURCES OF INTENSE HEAT, OR WHERE FREEZING IS POSSIBLE.

**SECTION 08: EXPOSURE CONTROLS/PERSONAL PROTECTION**

INGREDIENTS	TWA	ACGIH TLV STEL	PEL	OSHA PEL STEL	REL	NIOSH
-------------	-----	----------------	-----	---------------	-----	-------

ISOPROPYL ALCOHOL	200 ppm	400 ppm				
XYLENE	100 ppm	150 ppm				

ENGINEERING CONTROLS..... GOOD VENTILATION SHOULD BE PROVIDED TO KEEP VAPOUR AND MIST CONCENTRATIONS BELOW THE EXPOSURE LIMITS.

PRODUCT: DIESEL FUEL CONDITIONER

STOCK # 991/992/993/994/995/998

**SECTION 08: EXPOSURE CONTROLS/PERSONAL PROTECTION**

SKIN AND BODY PROTECTION..... COMPLETE SUIT PROTECTING AGAINST CHEMICALS. THE TYPE OF PROTECTIVE EQUIPMENT MUST BE SELECTED ACCORDING TO THE CONCENTRATION AND AMOUNT OF THE DANGEROUS SUBSTANCE AT THE SPECIFIC WORKPLACE. FLAME RETARDANT ANTISTATIC PROTECTIVE CLOTHING.

RESPIRATORY PROTECTION..... USE NIOSH APPROVED SUPPLIED-AIR RESPIRATOR.

EYE/FACE PROTECTION..... SPLASH PROOF CHEMICAL GOGGLES. FACE SHIELD.

HYGIENIC MEASURES..... USE GOOD PERSONAL HYGIENE PRACTICES. WASH HANDS BEFORE EATING, DRINKING, SMOKING, OR USING TOILET FACILITIES. PROMPTLY REMOVE SOILED CLOTHING AND WASH THOROUGHLY BEFORE REUSE. SHOWER AFTER WORK USING PLENTY OF SOAP AND WATER.

OTHER/TYPE..... EYE WASH STATION AND SAFETY SHOWER SHOULD BE LOCATED NEAR THE WORK STATION.

**SECTION 09: PHYSICAL AND CHEMICAL PROPERTIES**

PHYSICAL STATE..... LIQUID.

ODOUR..... ALCOHOL LIKE.

ODOUR THRESHOLD..... NO DATA AVAILABLE.

PH..... NO DATA AVAILABLE.

MELTING POINT/FREEZING POINT (C)..... -88 C.

BOILING POINT..... 82-83 C.

FLASH POINT (C), METHOD..... 12 C (ISOPROPYL ALCOHOL).

EVAPORATION RATE..... 2.3 (nBuAc=1).

FLAMMABILITY (SOLIDS AND GASES)..... NOT APPLICABLE.

UPPER FLAMMABLE LIMIT (% BY VOL.)... 12 % (V).

LOWER FLAMMABLE LIMIT (% BY VOL.)... 2% (V).

VAPOUR PRESSURE..... 6.020 Pa (20 C).

VAPOUR DENSITY (AIR=1)..... NO DATA AVAILABLE.

SPECIFIC GRAVITY (WATER=1)..... 0.796.

SOLUBILITY IN WATER (% W/W)..... COMPLETELY MISCIBLE.

AUTO IGNITION TEMPERATURE..... 425 (C).

PARTITION COEFFICIENT:..... NO DATA AVAILABLE.

N-OCTANOL/WATER

DECOMPOSITION TEMPERATURE..... NO DATA AVAILABLE.

VISCOSITY..... NO DATA AVAILBLE.

**SECTION 10: STABILITY AND REACTIVITY**

REACTIVITY:..... EXCESSIVE HEAT, SPARKS AND OPEN FLAME.

CHEMICAL STABILITY:..... STABLE UNDER RECOMMENDED STORAGE CONDITIONS.

POSSIBILITY OF HAZARDOUS REACTIONSVAPOURS MAY FORM EXPLOSIVE MIXTURE WITH AIR.

CONDITIONS TO AVOID:..... AVOID OPEN FLAMES AND SPARKS.

INCOMPATIBLE MATERIALS :..... STRONG OXIDIZING AGENTS.

HAZARDOUS DECOMPOSITION PRODUCTS..... CARBON OXIDES.

**SECTION 11: TOXICOLOGICAL INFORMATION**

INGREDIENTS	LC50	LD50
ISOPROPYL ALCOHOL	INHALATION-RAT- 16000 ppm - 8h	ORAL-RAT- >5000 MG/KG
XYLENE	INHALATION-RAT- >20 mg/L	ORAL-RAT- >3523 mg/kg

ACUTE TOXICITY:

ORAL LD50..... SEE ABOVE.

INHALATION LC50..... SEE ABOVE.

DERMAL LD50..... RABBIT - 12800 MG/KG.

SKIN CORROSION / IRRITATION..... RABBIT - MILD SKIN IRRITAION.

SERIOUS EYE DAMAGE / EYE IRRITATION RABBIT-EYE IRRITATION -24h.

RESPIRATORY OR SKIN SENSITIZATION. NO DATA AVAILABLE.

GERM CELL MUTAGENICITY..... NO DATA AVAILABLE.

CARCINOGENICITY..... IARC: 3 - GROUP 3: NOT CLASSIFIABLE AS TO ITS CARCINOGENICITY TO HUMANS . IARC: 2B - POSSIBLY CARCINOGENIC TO HUMANS (ETHYLBENZENE).

REPRODUCTIVE TOXICITY..... DOES NOT IMPAIR FERTILITY. NOT A DEVELOPMENTAL TOXICANT.

STOT- SINGLE EXPOSURE..... MAY CAUSE DROWSINESS OR DIZZINESS.

STOT - REPEAT EXPOSURE..... NO DATA AVAILABLE.

ASPIRATION HAZARD..... MAY BE FATAL IF SWALLOWED AND ENTERS AIRWAYS.

PRODUCT: DIESEL FUEL CONDITIONER

STOCK # 991/992/993/994/995/998

**SECTION 11: TOXICOLOGICAL INFORMATION**

POTENTIAL HEALTH EFFECTS..... INHALATION - MAY BE HARMFUL IF INHALED. CAUSES RESPIRATORY TRACT IRRITATION. VAPOURS MAY CAUSE DROWSINESS AND DIZZINESS. INGESTION - MAY BE HARMFUL IF SWALLOWED. ASPIRATION HAZARD IF SWALLOWED - CAN ENTER LUNGS AND CAUSE DAMAGE. EYES - MAY CAUSE EYE IRRITATION. SKIN - MAY BE HARMFUL IF ABSORBED THROUGH THE SKIN. MAY CAUSE SKIN IRRITATION.

SIGNS AND SYMPTOMS OF EXPOSURE.. CENTRAL NERVOUS SYSTEM DEPRESSION, PROLONGED OR REPEATED EXPOSURE CAN CAUSE, NARCOSIS, SKIN IRRITATION. OVER EXPOSURE MAY CAUSE MILD, REVERSIBLE LIVER EFFECTS. ASPIRATION MAY LEAD TO, LUNG EDEMA, PNEUMONIA.

**SECTION 12: ECOLOGICAL INFORMATION**

PERSISTENCE AND DEGRADABILITY..... READILY BIODEGRADABLE.

BIOACCUMULATIVE POTENTIAL..... NO BIOACCUMULATION IS TO BE EXPECTED.

TOXICITY..... LC50 - PIMEPHALES PROMELAS (FATHEAD MINNOW) - 9,640.00 mg/l - 96 h - (IPA).  
EC50 - DAPHNIA MAGNA (WATER FLEA) - 5,102.00 mg/l - 24 h - (IPA).

MOBILITY IN SOIL..... DISSOLVES IN WATER. IF THE PRODUCT ENTERS SOIL, ONE OR MORE CONSTITUENTS WILL OR MAY BE MOBILE AND MAY CONTAMINATE GROUND WATER.

OTHER ADVERSE EFFECTS..... NO DATA AVAILABLE.

**SECTION 13: DISPOSAL CONSIDERATIONS**

DISPOSAL METHODS:..... INCINERATION INCLUDING ENERGY RECOVERY OF WASTE MATERIAL IN A PERMITTED FACILITY IN ACCORDANCE WITH LOCAL, STATE OR PROVINCIAL AND FEDERAL REGULATIONS.

PACKAGING:..... DISPOSE OF AS UNUSED PRODUCT.

**SECTION 14: TRANSPORT INFORMATION**

STOCK # 994/995/998 AS FOLLOWS:

UN NUMBER..... 1993.

TDG CLASSIFICATION..... 3.

PACKING GROUP..... II.

PROPER SHIPPING NAME..... FLAMMABLE LIQUID, N.O.S. (2-PROPANOL SOLUTION).

STOCK # 991/992/993: CONSUMER COMMODITY

**SECTION 15: REGULATORY INFORMATION**

HPR COMPLIANCE..... THIS PRODUCT HAS BEEN CLASSIFIED IN ACCORDANCE WITH THE HAZARD CRITERIA OF THE HPR AND THE SDS CONTAINS ALL THE INFORMATION REQUIRED BY THE HPR.

**SECTION 16: OTHER INFORMATION**

TSCA- LISTED ON INVENTORY

N.A.V.=NOT AVAILABLE

PREPARED BY..... KLEEN-FLO TUMBLER INDUSTRIES LIMITED

PREPARATION DATE..... FEB 21/2017

# SAFETY DATA SHEET

## DIESEL FUEL

000003000395

Version 5.0

Revision Date 2018/12/19

Print Date 2018/12/19



### SECTION 1. IDENTIFICATION

Product name : DIESEL FUEL

Synonyms : Seasonal Diesel, #1 Diesel, #2 Heating Oil, #1 Heating Oil, D50, Arctic Diesel, Farm Diesel, Marine Diesel, Low Sulphur Diesel, LSD, Ultra Low Sulphur Diesel, ULSD, Mining Diesel, Naval Distillate, Dyed Diesel, Marked Diesel, Coloured Diesel, Furnace special, Biodiesel blend, B1, B2, B5, Diesel Low Cloud (LC), Marine Gas Oil, Marine Gas Oil Dyed.

Product code : 102907, 102762, 102763, 102755, 102302, 102744, 101801, 100678, 100677, 101802, 100107, 100668, 100658, 100911, 100663, 100652, 100460, 100065, 101796, 101793, 101795, 101792, 101794, 101791, 100768, 100643, 100642, 100103, 101798, 101800, 101797, 101788, 101789, 101787, 102531, 100734, 100733, 100640, 100997, 100995, 100732, 100731, 100994

Manufacturer or supplier's details  
Petro-Canada  
P.O. Box 2844, 150 - 6th Avenue South-West  
Calgary Alberta T2P 3E3  
Canada

Emergency telephone number  
Suncor Energy: +1 403-296-3000;  
Canutec Transportation: 1-888-226-8832 (toll-free) or 613-996-6666;  
Poison Control Centre: Consult local telephone directory for emergency number(s).

#### Recommended use of the chemical and restrictions on use

Recommended use : Diesel fuels are distillate fuels suitable for use in high and medium speed internal combustion engines of the compression ignition type. Mining diesels, marine diesels, MDO and naval distillates may have a higher flash point requirement.

Prepared by : Product Safety: +1 905-804-4752

### SECTION 2. HAZARDS IDENTIFICATION

#### Emergency Overview

Appearance	Bright oily liquid.
Colour	Clear to yellow (This product may be dyed red for taxation purposes)
Odour	Mild petroleum oil like.

#### GHS Classification

# SAFETY DATA SHEET

## DIESEL FUEL

000003000395



Version 5.0

Revision Date 2018/12/19

Print Date 2018/12/19

- Flammable liquids : Category 3
- Acute toxicity (Inhalation) : Category 4
- Skin irritation : Category 2
- Carcinogenicity : Category 2
- Specific target organ toxicity - single exposure : Category 3 (Central nervous system)
- Specific target organ toxicity - repeated exposure : Category 2 (Liver, thymus, Bone)
- Aspiration hazard : Category 1

### GHS label elements

Hazard pictograms :



Signal word : Danger

Hazard statements : Flammable liquid and vapour.  
May be fatal if swallowed and enters airways.  
Causes skin irritation.  
Harmful if inhaled.  
May cause drowsiness or dizziness.  
Suspected of causing cancer.  
May cause damage to organs (Liver, thymus, Bone) through prolonged or repeated exposure.

Precautionary statements : **Prevention:**  
Obtain special instructions before use.  
Do not handle until all safety precautions have been read and understood.  
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
Keep container tightly closed.  
Ground and bond container and receiving equipment.  
Use explosion-proof electrical/ ventilating/ lighting equipment.  
Use non-sparking tools.  
Take action to prevent static discharges.  
Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.  
Wash skin thoroughly after handling.  
Use only outdoors or in a well-ventilated area.  
Wear protective gloves/ protective clothing/ eye protection/ face protection.  
**Response:**  
IF SWALLOWED: Immediately call a POISON CENTER/doctor.  
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.  
IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell.

# SAFETY DATA SHEET

## DIESEL FUEL

000003000395

Version 5.0

Revision Date 2018/12/19

Print Date 2018/12/19



IF exposed or concerned: Get medical advice/ attention.  
Do NOT induce vomiting.  
If skin irritation occurs: Get medical advice/ attention.  
Take off contaminated clothing and wash it before reuse.  
In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.

### Storage:

Store in a well-ventilated place. Keep container tightly closed.  
Store in a well-ventilated place. Keep cool.  
Store locked up.

### Disposal:

Dispose of contents/ container to an approved waste disposal plant.

### Potential Health Effects

Primary Routes of Entry : Eye contact  
Ingestion  
Inhalation  
Skin contact

Aggravated Medical Condition : None known.

### Other hazards

None known.

## SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

### Hazardous components

Chemical name	CAS-No.	Concentration
Kerosine (petroleum), hydrodesulfurized; Kerosine -unspecified	64742-81-0	70 - 100 %
Kerosine (petroleum); Straight run kerosine	8008-20-6	
Fuels, diesel; Gasoil -unspecified	68334-30-5	
Alkanes, C10-20-branched and linear	928771-01-1	0 - 30 %
Fatty acids, C16-18 and C18-unsatd., Me esters	67762-38-3	0 - 20 %

All concentrations are in percent by weight.

## SECTION 4. FIRST AID MEASURES

If inhaled : Move to fresh air.  
Artificial respiration and/or oxygen may be necessary.  
Seek medical advice.

In case of skin contact : In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.  
Wash skin thoroughly with soap and water or use recognized skin cleanser.

# SAFETY DATA SHEET

## DIESEL FUEL

000003000395



Version 5.0

Revision Date 2018/12/19

Print Date 2018/12/19

- Wash clothing before reuse.  
Seek medical advice.
- In case of eye contact : Remove contact lenses.  
Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.  
Obtain medical attention.
- If swallowed : Rinse mouth with water.  
DO NOT induce vomiting unless directed to do so by a physician or poison control center.  
Never give anything by mouth to an unconscious person.  
Seek medical advice.
- Most important symptoms and effects, both acute and delayed : Harmful if inhaled.  
Respiratory, skin and eye irritation; nausea; cancer.
- Notes to physician : Treat symptomatically.  
For specialist advice physicians should contact the Poisons Information Service.

---

### SECTION 5. FIREFIGHTING MEASURES

- Suitable extinguishing media : Dry chemical  
Carbon dioxide (CO<sub>2</sub>)  
Water fog.  
Foam
- Unsuitable extinguishing media : Do NOT use water jet.
- Specific hazards during fire-fighting : Cool closed containers exposed to fire with water spray.
- Hazardous combustion products : Carbon oxides (CO, CO<sub>2</sub>), nitrogen oxides (NO<sub>x</sub>), sulphur oxides (SO<sub>x</sub>), smoke and irritating vapours as products of incomplete combustion.
- Further information : Prevent fire extinguishing water from contaminating surface water or the ground water system.
- Special protective equipment for firefighters : Wear self-contained breathing apparatus for firefighting if necessary.

---

### SECTION 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions, protective equipment and emergency procedures : For personal protection see section 8.  
Ensure adequate ventilation.  
Evacuate personnel to safe areas.  
Material can create slippery conditions.

- Environmental precautions : If the product contaminates rivers and lakes or drains inform

# SAFETY DATA SHEET

## DIESEL FUEL

000003000395

Version 5.0

Revision Date 2018/12/19

Print Date 2018/12/19



respective authorities.

Methods and materials for containment and cleaning up : Prevent further leakage or spillage if safe to do so.  
Remove all sources of ignition.  
Soak up with inert absorbent material.  
Non-sparking tools should be used.  
Ensure adequate ventilation.  
Contact the proper local authorities.

### SECTION 7. HANDLING AND STORAGE

Advice on safe handling : For personal protection see section 8.  
Smoking, eating and drinking should be prohibited in the application area.  
Use only with adequate ventilation.  
In case of insufficient ventilation, wear suitable respiratory equipment.  
Avoid spark promoters. Ground/bond container and equipment. These alone may be insufficient to remove static electricity.  
Avoid contact with skin, eyes and clothing.  
Do not ingest.  
Keep away from heat and sources of ignition.  
Keep container closed when not in use.

Conditions for safe storage : Store in original container.  
Containers which are opened must be carefully resealed and kept upright to prevent leakage.  
Keep in a dry, cool and well-ventilated place.  
Keep in properly labelled containers.  
To maintain product quality, do not store in heat or direct sunlight.  
Ensure the storage containers are grounded/bonded.

### SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

#### Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
Kerosine (petroleum), hydrodesulfurized; Kerosine - unspecified	64742-81-0	TWA	200 mg/m <sup>3</sup> (As total hydrocarbon vapour)	ACGIH
		TWA	200 mg/m <sup>3</sup> (total hydrocarbon vapor)	CA AB OEL
		TWA	525 mg/m <sup>3</sup>	CA ON OEL
		TWA	200 mg/m <sup>3</sup> (As total hydrocarbon vapour)	ACGIH
		TWA	200 mg/m <sup>3</sup> (total hydrocarbon	ACGIH

# SAFETY DATA SHEET

## DIESEL FUEL



000003000395

Version 5.0

Revision Date 2018/12/19

Print Date 2018/12/19

			vapor)	
Kerosine (petroleum); Straight run kerosine	8008-20-6	TWA	200 mg/m3 (total hydrocarbon vapor)	CA BC OEL
		TWA	200 mg/m3 (total hydrocarbon vapor)	CA AB OEL
		TWA	200 mg/m3 (total hydrocarbon vapor)	ACGIH
Fuels, diesel; Gasoil - unspecified	68334-30-5	TWA	100 mg/m3 (total hydrocarbons)	CA AB OEL
		TWA (Vapour and inhalable aerosols)	100 mg/m3 (total hydrocarbons)	CA BC OEL
		TWA (Inhalable fraction and vapor)	100 mg/m3 (total hydrocarbons)	ACGIH

**Engineering measures** : Adequate ventilation to ensure that Occupational Exposure Limits are not exceeded.  
Use only in well-ventilated areas.  
Ensure that eyewash station and safety shower are proximal to the work-station location.

### Personal protective equipment

**Respiratory protection** : Concentration in air determines protection needed.  
Use respiratory protection unless adequate local exhaust ventilation is provided or exposure assessment demonstrates that exposures are within recommended exposure guidelines. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

**Filter type** : organic vapour cartridge or canister may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits. Protection provided by air-purifying respirators is limited. Use a positive-pressure, air-supplied respirator if there is any potential for uncontrolled release, exposure levels are unknown, or any other circumstances where air-purifying respirators may not provide adequate protection.

**Hand protection**  
**Material** : neoprene, nitrile, polyvinyl alcohol (PVA), Viton(R). Consult your PPE provider for breakthrough times and the specific glove that is best for you based on your use patterns. It should be realized that eventually any material regardless of their imperviousness, will get permeated by chemicals. Therefore, protective gloves should be regularly checked for wear and tear. At the first signs of hardening and cracks, they should be changed.

# SAFETY DATA SHEET

## DIESEL FUEL

000003000395



Version 5.0

Revision Date 2018/12/19

Print Date 2018/12/19

---

Remarks	: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.
Eye protection	: Wear face-shield and protective suit for abnormal processing problems.
Skin and body protection	: Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place.
Protective measures	: Wash contaminated clothing before re-use.
Hygiene measures	: Remove and wash contaminated clothing and gloves, including the inside, before re-use. Wash face, hands and any exposed skin thoroughly after handling.

---

### SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	: Bright oily liquid.
Colour	: Clear to yellow (This product may be dyed red for taxation purposes)
Odour	: Mild petroleum oil like.
Odour Threshold	: No data available
pH	: No data available
Melting point	: No data available
Boiling point/boiling range	: 150 - 371 °C (302 - 700 °F)
decomposition temperature	No data available
Flash point	: > 40 °C (104 °F) Method: closed cup
Auto-Ignition Temperature	: 225 °C (437 °F)
Evaporation rate	: No data available
Flammability	: Flammable in presence of open flames, sparks and heat. Vapours are heavier than air and may travel considerable distance to sources of ignition and flash back. This product can accumulate static charge and ignite.
Upper explosion limit	: 6 %(V)
Lower explosion limit	: 0.7 %(V)
Vapour pressure	: 7.5 mmHg (20 °C / 68 °F)

# SAFETY DATA SHEET

## DIESEL FUEL

000003000395



Version 5.0

Revision Date 2018/12/19

Print Date 2018/12/19

---

Relative vapour density	: 4.5
Relative density	: 0.8 - 0.88
Solubility(ies)	
Water solubility	: insoluble
Partition coefficient: n-octanol/water	: No data available
Viscosity	
Viscosity, kinematic	: 1.3 - 4.1 cSt (40 °C / 104 °F)

---

### SECTION 10. STABILITY AND REACTIVITY

Reactivity	: Stable at normal ambient temperature and pressure.
Chemical stability	: Stable under normal conditions.
Possibility of hazardous reactions	: Hazardous polymerisation does not occur.
Conditions to avoid	: Extremes of temperature and direct sunlight.
Incompatible materials	: Reactive with oxidising agents and acids.
Hazardous decomposition products	: May release COx, NOx, SOx, smoke and irritating vapours when heated to decomposition.

---

### SECTION 11. TOXICOLOGICAL INFORMATION

#### Information on likely routes of exposure

Eye contact  
Ingestion  
Inhalation  
Skin contact

#### Acute toxicity

##### Product:

Acute oral toxicity	: Remarks: No data available
Acute inhalation toxicity	: Acute toxicity estimate: 1.2 mg/ Exposure time: 4 h Test atmosphere: dust/mist Method: Calculation method
Acute dermal toxicity	: Remarks: No data available

# SAFETY DATA SHEET

## DIESEL FUEL

000003000395

Version 5.0

Revision Date 2018/12/19

Print Date 2018/12/19



### Components:

#### **Kerosine (petroleum), hydrodesulfurized; Kerosine -unspecified:**

Acute oral toxicity : LD50 (Rat): > 5,000 mg/kg,

Acute inhalation toxicity : LC50 (Rat): > 5.2 mg/l  
Exposure time: 4 hrs  
Test atmosphere: dust/mist

Acute dermal toxicity : LD50 (Rabbit): > 2,000 mg/kg,

#### **Kerosine (petroleum); Straight run kerosine:**

Acute oral toxicity : LD50 (Rat): > 5,000 mg/kg,

Acute inhalation toxicity : LC50 (Rat): > 5 mg/l  
Exposure time: 4 h  
Test atmosphere: dust/mist

Acute dermal toxicity : LD50 (Rabbit): > 2,000 mg/kg,

#### **Fuels, diesel; Gasoil -unspecified:**

Acute oral toxicity : LD50 (Rat): 7,500 mg/kg,

Acute dermal toxicity : LD50 (Mouse): 24,500 mg/kg,

### **Skin corrosion/irritation**

#### Product:

Remarks: Causes skin irritation.

### **Serious eye damage/eye irritation**

#### Product:

Remarks: No data available

### **Respiratory or skin sensitisation**

#### Product:

Remarks: Based on available data, the classification criteria are not met.

### **Germ cell mutagenicity**

#### Product:

Genotoxicity in vitro                      Remarks: No data available

Genotoxicity in vivo                        Remarks: No data available

### **Carcinogenicity**

#### Product:

# SAFETY DATA SHEET

## DIESEL FUEL

000003000395



Version 5.0

Revision Date 2018/12/19

Print Date 2018/12/19

Carcinogenicity - Assessment

Suspected of causing cancer.

### Reproductive toxicity

**Product:**

Effects on fertility

Remarks: Based on available data, the classification criteria are not met.

### STOT - single exposure

**Product:**

Remarks: May cause drowsiness or dizziness.

### STOT - repeated exposure

**Product:**

Remarks: May cause damage to organs through prolonged or repeated exposure.

No data available

### Aspiration toxicity

**Product:**

May be fatal if swallowed and enters airways.

---

## SECTION 12. ECOLOGICAL INFORMATION

### Ecotoxicity

**Product:**

Toxicity to fish : Remarks: No data available

Toxicity to daphnia and other aquatic invertebrates : Remarks: No data available

Toxicity to algae : Remarks: No data available

Toxicity to bacteria : Remarks: No data available

### Persistence and degradability

**Product:**

Biodegradability : Remarks: No data available

### Bioaccumulative potential

No data available

# SAFETY DATA SHEET

## DIESEL FUEL

000003000395

Version 5.0

Revision Date 2018/12/19

Print Date 2018/12/19



### Mobility in soil

No data available

### Other adverse effects

No data available

## SECTION 13. DISPOSAL CONSIDERATIONS

### Disposal methods

Waste from residues : The product should not be allowed to enter drains, water courses or the soil.  
Offer surplus and non-recyclable solutions to a licensed disposal company.  
Waste must be classified and labelled prior to recycling or disposal.  
Send to a licensed waste management company.  
Dispose of as hazardous waste in compliance with local and national regulations.  
Dispose of product residue in accordance with the instructions of the person responsible for waste disposal.

## SECTION 14. TRANSPORT INFORMATION

### International Regulations

#### IATA-DGR

UN/ID No. : UN 1202  
Proper shipping name : Diesel fuel  
Class : 3  
Packing group : III  
Labels : Class 3 - Flammable Liquid  
Packing instruction (cargo aircraft) : 366

#### IMDG-Code

UN number : UN 1202  
Proper shipping name : DIESEL FUEL  
Class : 3  
Packing group : III  
Labels : 3  
EmS Code : F-E, S-E  
Marine pollutant : no

### Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

### National Regulations

#### TDG

UN number : UN 1202  
Proper shipping name : DIESEL FUEL  
Class : 3  
Packing group : III

# SAFETY DATA SHEET

## DIESEL FUEL

000003000395



Version 5.0

Revision Date 2018/12/19

Print Date 2018/12/19

Labels : 3  
ERG Code : 128  
Marine pollutant : no

---

### SECTION 15. REGULATORY INFORMATION

This product has been classified according to the hazard criteria of the Hazardous Products Regulations (HPR) and the SDS contains all of the information required by the HPR.

**The components of this product are reported in the following inventories:**

**DSL** : On the inventory, or in compliance with the inventory

---

### SECTION 16. OTHER INFORMATION

For Copy of SDS : Internet: [www.petro-canada.ca/msds](http://www.petro-canada.ca/msds)  
Canada-wide: telephone: 1-800-668-0220; fax: 1-800-837-1228  
For Product Safety Information: 1 905-804-4752

Prepared by : Product Safety: +1 905-804-4752

Revision Date : 2018/12/19

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

## SECTION 1: Identification

### 1.1. Identification

Product name : Diesel Treat  
Product code : 103060, 103061, 103062, 103064, 103065, 103066, 103068, 103070, 103089

### 1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture : Diesel fuel additive

### 1.3. Details of the supplier of the safety data sheet

#### Manufacturer

R.B. Howes & Co., Inc.  
3511 North Ohio Street  
Wichita, 67219 - USA  
T 401-294-5500, 1-800 GET HOWES (438-4693)

#### Manufacturer

R.B. Howes & Co., Inc.  
35 Regan Road  
Brampton, L7A 1B2 - Canada  
T 401-294-5500, 1-800 GET HOWES (438-4693)

### 1.4. Emergency telephone number

Emergency number : CHEMTREC 1 (800) 424-9300 / 703-527-3887

## SECTION 2: Hazard identification

### 2.1. Classification of the substance or mixture

#### GHS classification

Flam. Liq. 4  
Carc. 2  
Repr. 2  
Asp. Tox. 1

### 2.2. Label elements

#### GHS labelling

Hazard pictograms (GHS) :



GHS08

Signal word (GHS) : Danger  
Hazard statements (GHS) : Combustible liquid. Suspected of causing cancer. Suspected of damaging fertility or the unborn child. May be fatal if swallowed and enters airways  
Precautionary statements (GHS) : Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Wear protective gloves/protective clothing/eye protection/face protection. If swallowed: Immediately call a doctor. Do NOT induce vomiting. If exposed or concerned: Get medical advice/attention. Store in a well-ventilated place. Keep cool. Store locked up. Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation

### 2.3. Other hazards

No additional information available

### 2.4. Unknown acute toxicity

Not applicable

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Not applicable

# Diesel Treat

## Safety Data Sheet

According to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012 and the Hazardous Products Regulations (HPR) WHMIS 2015

### 3.2. Mixtures

Name	Product identifier	%
Distillates, petroleum, hydrotreated light naphthenic	(CAS-No.) 64742-53-6	30 - 60
Distillates, petroleum, hydrotreated heavy naphthenic	(CAS-No.) 64742-52-5	30 - 60
Stoddard solvent	(CAS No) 8052-41-3	10 - 30
Petroleum distillates, hydrotreated light	(CAS No) 64742-47-8	10 - 30
Benzene, 1,2,4-trimethyl-	(CAS No) 95-63-6	1 - 5
Solvent naphtha, petroleum, light aromatic	(CAS-No.) 64742-95-6	1 - 5
Nonane	(CAS No) 111-84-2	0.5 - 1.5
Naphthalene	(CAS-No.) 91-20-3	0.1 - 1
Xylenes (o-, m-, p- isomers)	(CAS-No.) 1330-20-7	0.1 - 1
Ethylbenzene	(CAS-No.) 100-41-4	0.1 - 1

\*Chemical name, CAS number and/or exact concentration have been withheld as a trade secret

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

- First-aid measures after inhalation : If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical advice/attention if you feel unwell.
- First-aid measures after skin contact : If skin irritation occurs: Wash skin with plenty of water. Obtain medical attention if irritation persists.
- First-aid measures after eye contact : IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
- First-aid measures after ingestion : IF SWALLOWED: immediately call a POISON CENTER or doctor/physician. Do NOT induce vomiting. Never give anything by mouth to an unconscious person.

### 4.2. Most important symptoms and effects, both acute and delayed

- Symptoms/effects after inhalation : May cause irritation to the respiratory tract.
- Symptoms/effects after skin contact : May cause skin irritation. Symptoms may include redness, drying, defatting and cracking of the skin.
- Symptoms/effects after eye contact : May cause eye irritation. Symptoms may include discomfort or pain, excess blinking and tear production, with possible redness and swelling.
- Symptoms/effects after ingestion : May be fatal if swallowed and enters airways. This product may be aspirated into the lungs and cause chemical pneumonitis. May cause stomach distress, nausea or vomiting.

### 4.3. Indication of any immediate medical attention and special treatment needed

Symptoms may be delayed. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

## SECTION 5: Fire-fighting measures

### 5.1. Extinguishing media

- Suitable extinguishing media : Foam. Carbon dioxide. Water fog.
- Unsuitable extinguishing media : Do not use water jet.

### 5.2. Special hazards arising from the substance or mixture

- Fire hazard : Combustible liquid. Products of combustion may include, and are not limited to: oxides of carbon.
- Reactivity : No dangerous reaction known under conditions of normal use.

### 5.3. Advice for firefighters

- Protection during firefighting : Keep upwind of fire. Wear full fire fighting turn-out gear (full Bunker gear) and respiratory protection (SCBA). Cool down the containers exposed to heat with a water spray.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

- General measures : Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Eliminate sources of ignition. Use special care to avoid static electric charges.

#### 6.1.1. For non-emergency personnel

No additional information available

#### 6.1.2. For emergency responders

No additional information available

# Diesel Treat

## Safety Data Sheet

According to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012 and the Hazardous Products Regulations (HPR) WHMIS 2015

### 6.2. Environmental precautions

Prevent entry to sewers and public waters.

### 6.3. Methods and material for containment and cleaning up

- For containment : Absorb and/or contain spill with inert material (sand, vermiculite or other appropriate material), then place in suitable container. Do not flush into surface water or sewer system. Wear recommended personal protective equipment.
- Methods for cleaning up : Sweep or shovel spills into appropriate container for disposal. Spilled material may present a slipping hazard. Provide ventilation.

### 6.4. Reference to other sections

For further information refer to section 8: "Exposure controls/personal protection"

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

- Precautions for safe handling : Keep away from sources of ignition - No smoking. Avoid contact with skin and eyes. Avoid breathing dust/fume/gas/mist/vapours/spray. Do not swallow. Handle and open container with care. When using do not eat, drink or smoke. Use only outdoors or in a well-ventilated area.
- Hygiene measures : Wash contaminated clothing before reuse. Always wash hands after handling the product.

### 7.2. Conditions for safe storage, including any incompatibilities

- Technical measures : Proper grounding procedures to avoid static electricity should be followed.
- Storage conditions : Keep out of the reach of children. Keep container tightly closed. Store locked up. Store in a well-ventilated place. Keep cool.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

Distillates, petroleum, hydrotreated heavy naphthenic (64742-52-5)		
Not applicable		
Distillates, petroleum, hydrotreated light naphthenic (64742-53-6)		
Not applicable		
Stoddard solvent (8052-41-3)		
ACGIH	ACGIH TWA (ppm)	100 ppm
ACGIH	Remark (ACGIH)	Eye, skin, & kidney dam;
OSHA	OSHA PEL (TWA) (mg/m <sup>3</sup> )	2900 mg/m <sup>3</sup>
OSHA	OSHA PEL (TWA) (ppm)	500 ppm
IDLH	US IDLH (mg/m <sup>3</sup> )	20000 mg/m <sup>3</sup>
NIOSH	NIOSH REL (TWA) (mg/m <sup>3</sup> )	350 mg/m <sup>3</sup>
NIOSH	NIOSH REL (ceiling) (mg/m <sup>3</sup> )	1800 mg/m <sup>3</sup>
Petroleum distillates, hydrotreated light (64742-47-8)		
Not applicable		
Benzene, 1,2,4-trimethyl- (95-63-6)		
NIOSH	NIOSH REL (TWA) (mg/m <sup>3</sup> )	125 mg/m <sup>3</sup>
NIOSH	NIOSH REL (TWA) (ppm)	25 ppm
Nonane (111-84-2)		
ACGIH	ACGIH TWA (ppm)	200 ppm
NIOSH	NIOSH REL (TWA) (mg/m <sup>3</sup> )	1050 mg/m <sup>3</sup>
NIOSH	NIOSH REL (TWA) (ppm)	200 ppm
Naphthalene (91-20-3)		
ACGIH	ACGIH TWA (ppm)	10 ppm
OSHA	OSHA PEL (TWA) (mg/m <sup>3</sup> )	50 mg/m <sup>3</sup>
OSHA	OSHA PEL (TWA) (ppm)	10 ppm
IDLH	US IDLH (ppm)	250 ppm

# Diesel Treat

## Safety Data Sheet

According to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012 and the Hazardous Products Regulations (HPR) WHMIS 2015

<b>Naphthalene (91-20-3)</b>		
NIOSH	NIOSH REL (TWA) (mg/m <sup>3</sup> )	50 mg/m <sup>3</sup>
NIOSH	NIOSH REL (TWA) (ppm)	10 ppm
NIOSH	NIOSH REL (STEL) (mg/m <sup>3</sup> )	75 mg/m <sup>3</sup>
NIOSH	NIOSH REL (STEL) (ppm)	15 ppm
<b>Xylenes (o-, m-, p- isomers) (1330-20-7)</b>		
ACGIH	ACGIH TWA (ppm)	100 ppm
ACGIH	ACGIH STEL (ppm)	150 ppm
ACGIH	Remark (ACGIH)	URT & eye irr; CNS impair
OSHA	OSHA PEL (TWA) (mg/m <sup>3</sup> )	435 mg/m <sup>3</sup>
OSHA	OSHA PEL (TWA) (ppm)	100 ppm
<b>Ethylbenzene (100-41-4)</b>		
ACGIH	ACGIH TWA (ppm)	20 ppm
ACGIH	Remark (ACGIH)	URT irr; kidney dam (nephropathy)
OSHA	OSHA PEL (TWA) (mg/m <sup>3</sup> )	435 mg/m <sup>3</sup>
OSHA	OSHA PEL (TWA) (ppm)	100 ppm
IDLH	US IDLH (ppm)	800 ppm (10% LEL)
NIOSH	NIOSH REL (TWA) (mg/m <sup>3</sup> )	435 mg/m <sup>3</sup>
NIOSH	NIOSH REL (TWA) (ppm)	100 ppm
NIOSH	NIOSH REL (STEL) (mg/m <sup>3</sup> )	545 mg/m <sup>3</sup>
NIOSH	NIOSH REL (STEL) (ppm)	125 ppm
<b>Solvent naphtha, petroleum, light aromatic (64742-95-6)</b>		
Not applicable		

### 8.2. Exposure controls

Appropriate engineering controls	: Ensure good ventilation of the work station.
Hand protection	: Wear suitable gloves.
Eye protection	: Safety glasses or goggles are recommended when using product.
Skin and body protection	: Wear suitable protective clothing.
Respiratory protection	: In case of insufficient ventilation, wear suitable respiratory equipment. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.
Environmental exposure controls	: Avoid release to the environment.
Other information	: Handle in accordance with good industrial hygiene and safety procedures. Do not eat, drink or smoke when using this product.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: No data available.
Colour	: Light amber
Odour	: Distinctive
Odour threshold	: No data available
pH	: No data available
Melting point	: No data available
Freezing point	: No data available
Boiling point	: 164 °C (327 °F)
Flash point	: ≥ 65.5 °C (≥ 150 °F) [Closed cup]
Relative evaporation rate (butylacetate=1)	: No data available
Flammability (solid, gas)	: Combustible liquid

# Diesel Treat

## Safety Data Sheet

According to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012 and the Hazardous Products Regulations (HPR) WHMIS 2015

Vapour pressure	: < 0.1 mm Hg
Relative vapour density at 20 °C	: > 1 (air = 1)
Relative density	: < 0.9 (water = 1)
Solubility	: Insoluble
Partition coefficient n-octanol/water	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity, kinematic	: 3.89 cSt @ 40 °C (104 °F)
Viscosity, dynamic	: No data available
Explosive limits	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available

### 9.2. Other information

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

No dangerous reaction known under conditions of normal use.

### 10.2. Chemical stability

Stable under normal conditions. May form flammable/explosive vapour-air mixture.

### 10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

### 10.4. Conditions to avoid

Sources of ignition. Heat. Incompatible materials.

### 10.5. Incompatible materials

Strong oxidizers.

### 10.6. Hazardous decomposition products

May include, and are not limited to: oxides of carbon. May release flammable gases.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity (oral)	: Not classified.
Acute toxicity (dermal)	: Not classified.
Acute toxicity (inhalation)	: Not classified.

#### Distillates, petroleum, hydrotreated heavy naphthenic (64742-52-5)

LD50 oral rat	> 5000 mg/kg
LD50 dermal rabbit	> 2000 mg/kg

#### Distillates, petroleum, hydrotreated light naphthenic (64742-53-6)

LD50 oral rat	> 5000 mg/kg
LD50 dermal rabbit	> 2000 mg/kg
LC50 inhalation rat	2180 mg/m <sup>3</sup> (Exposure time: 4 h)

#### Petroleum distillates, hydrotreated light (64742-47-8)

LD50 oral rat	> 5000 mg/kg
LD50 dermal rabbit	> 2000 mg/kg
LC50 inhalation rat	> 5.2 mg/l/4h

#### Benzene, 1,2,4-trimethyl- (95-63-6)

LD50 oral rat	3280 mg/kg
LD50 dermal rabbit	> 3160 mg/kg
LC50 inhalation rat	18 g/m <sup>3</sup> (Exposure time: 4 h)

#### Nonane (111-84-2)

LC50 inhalation rat	3200 ppm/4h
---------------------	-------------

# Diesel Treat

## Safety Data Sheet

According to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012 and the Hazardous Products Regulations (HPR) WHMIS 2015

<b>Naphthalene (91-20-3)</b>	
LD50 oral rat	1110 mg/kg
LD50 dermal rabbit	1120 mg/kg
LC50 inhalation rat	> 340 mg/m <sup>3</sup> (Exposure time: 1 h)

<b>Xylenes (o-, m-, p- isomers) (1330-20-7)</b>	
LD50 oral rat	3500 mg/kg
LD50 dermal rabbit	> 4350 mg/kg
LD50 dermal	1700 mg/kg
LC50 inhalation rat	29.08 mg/l/4h
LC50 inhalation rat (Vapours - mg/l/4h)	27.57 mg/l/4h

<b>Ethylbenzene (100-41-4)</b>	
LD50 oral rat	3500 mg/kg
LD50 dermal rabbit	15400 mg/kg
LC50 inhalation rat	17.4 mg/l/4h

<b>Solvent naphtha, petroleum, light aromatic (64742-95-6)</b>	
LD50 oral rat	8400 mg/kg
LD50 dermal rabbit	> 2000 mg/kg
LC50 inhalation rat	3400 ppm/4h

Skin corrosion/irritation	: Not classified.
Serious eye damage/irritation	: Not classified.
Respiratory or skin sensitisation	: Not classified.
Germ cell mutagenicity	: Not classified.
Carcinogenicity	: Suspected of causing cancer.

<b>Naphthalene (91-20-3)</b>	
IARC group	2B - Possibly carcinogenic to humans
National Toxicology Program (NTP) Status	1 - Evidence of Carcinogenicity, 3 - Reasonably anticipated to be Human Carcinogen
In OSHA Hazard Communication Carcinogen list	Yes

<b>Xylenes (o-, m-, p- isomers) (1330-20-7)</b>	
IARC group	3 - Not classifiable

<b>Ethylbenzene (100-41-4)</b>	
IARC group	2B - Possibly carcinogenic to humans
National Toxicology Program (NTP) Status	1 - Evidence of Carcinogenicity
In OSHA Hazard Communication Carcinogen list	Yes

Reproductive toxicity	: Suspected of damaging fertility or the unborn child.
STOT-single exposure	: Not classified.

<b>Xylenes (o-, m-, p- isomers) (1330-20-7)</b>	
STOT-single exposure	May cause drowsiness or dizziness.

<b>Solvent naphtha, petroleum, light aromatic (64742-95-6)</b>	
STOT-single exposure	May cause drowsiness or dizziness.

STOT-repeated exposure	: Not classified.
Aspiration hazard	: May be fatal if swallowed and enters airways.

<b>Diesel Treat</b>	
Viscosity, kinematic (calculated value)	< 20.5 mm <sup>2</sup> /s @ 40 °C (104 °F)

Symptoms/effects after inhalation	: May cause irritation to the respiratory tract.
Symptoms/effects after skin contact	: May cause skin irritation. Symptoms may include redness, drying, defatting and cracking of the skin.
Symptoms/effects after eye contact	: May cause eye irritation. Symptoms may include discomfort or pain, excess blinking and tear production, with possible redness and swelling.

# Diesel Treat

## Safety Data Sheet

According to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012 and the Hazardous Products Regulations (HPR) WHMIS 2015

Symptoms/effects after ingestion : May be fatal if swallowed and enters airways. This product may be aspirated into the lungs and cause chemical pneumonitis. May cause stomach distress, nausea or vomiting.

### SECTION 12: Ecological information

#### 12.1. Toxicity

Ecology - general : May cause long-term adverse effects in the aquatic environment.

##### Distillates, petroleum, hydrotreated heavy naphthenic (64742-52-5)

LC50 fish 1	> 5000 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss)
EC50 Daphnia 1	> 1000 mg/l (Exposure time: 48 h - Species: Daphnia magna)

##### Distillates, petroleum, hydrotreated light naphthenic (64742-53-6)

LC50 fish 1	> 5000 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss)
EC50 Daphnia 1	> 1000 mg/l (Exposure time: 48 h - Species: Daphnia magna)

##### Petroleum distillates, hydrotreated light (64742-47-8)

LC50 fish 1	45 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through])
LC50 fish 2	2.2 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [static])

##### Benzene, 1,2,4-trimethyl- (95-63-6)

LC50 fish 1	7.19 - 8.28 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through])
EC50 Daphnia 1	6.14 mg/l (Exposure time: 48 h - Species: Daphnia magna)

##### Naphthalene (91-20-3)

LC50 fish 1	5.74 - 6.44 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through])
EC50 Daphnia 1	2.16 mg/l (Exposure time: 48 h - Species: Daphnia magna)
LC50 fish 2	1.6 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [flow-through])
EC50 Daphnia 2	1.96 mg/l (Exposure time: 48 h - Species: Daphnia magna [Flow through])

##### Xylenes (o-, m-, p- isomers) (1330-20-7)

LC50 fish 1	13.4 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through])
EC50 Daphnia 1	3.82 mg/l (Exposure time: 48 h - Species: water flea)
LC50 fish 2	2.661 - 4.093 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [static])
EC50 Daphnia 2	0.6 mg/l (Exposure time: 48 h - Species: Gammarus lacustris)

##### Ethylbenzene (100-41-4)

LC50 fish 1	11.0 - 18.0 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [static])
EC50 Daphnia 1	1.8 - 2.4 mg/l (Exposure time: 48 h - Species: Daphnia magna)
LC50 fish 2	4.2 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [semi-static])
NOEC chronic crustacea	0.956 mg/l

##### Solvent naphtha, petroleum, light aromatic (64742-95-6)

LC50 fish 1	9.22 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss)
EC50 Daphnia 1	6.14 mg/l (Exposure time: 48 h - Species: Daphnia magna)

#### 12.2. Persistence and degradability

##### Diesel Treat

Persistence and degradability	Not established.
-------------------------------	------------------

#### 12.3. Bioaccumulative potential

##### Diesel Treat

Bioaccumulative potential	Not established.
---------------------------	------------------

##### Petroleum distillates, hydrotreated light (64742-47-8)

BCF fish 1	61 - 159
------------	----------

##### Benzene, 1,2,4-trimethyl- (95-63-6)

Partition coefficient n-octanol/water	3.63
---------------------------------------	------

##### Naphthalene (91-20-3)

BCF fish 1	30 - 430
Partition coefficient n-octanol/water	3.6

# Diesel Treat

## Safety Data Sheet

According to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012 and the Hazardous Products Regulations (HPR) WHMIS 2015

<b>Xylenes (o-, m-, p- isomers) (1330-20-7)</b>	
BCF fish 1	0.6 - 15
Partition coefficient n-octanol/water	2.77 - 3.15

<b>Ethylbenzene (100-41-4)</b>	
BCF fish 1	15
Partition coefficient n-octanol/water	3.2

### 12.4. Mobility in soil

No additional information available

### 12.5. Other adverse effects

Effect on the global warming : No known effects from this product.  
Other information : No other effects known.

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Product/Packaging disposal recommendations : Dispose in a safe manner in accordance with local/national regulations.  
Additional information : Handle empty containers with care because residual vapours are flammable.

## SECTION 14: Transport information

### Department of Transportation (DOT)

In accordance with DOT  
UN-No.(DOT) : UN1268  
Proper Shipping Name (DOT) : Petroleum distillates, n.o.s.  
Class (DOT) : Combustible liquid  
Packing group (DOT) : III

### Transportation of Dangerous Goods (TDG)

In accordance with TDG  
Not regulated

### Transport by sea

This product is currently not packaged to comply with IMDG regulations. It is not intended to be shipped by sea.

### Transport by air

This product is currently not packaged to comply with IATA regulations. It is not intended to be shipped by air.

## SECTION 15: Regulatory information

### 15.1. US Federal regulations

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory.

<b>Benzene, 1,2,4-trimethyl- (95-63-6)</b>	
Subject to reporting requirements of United States SARA Section 313	

<b>Nonane (111-84-2)</b>	
EPA TSCA Regulatory Flag	T - T - indicates a substance that is the subject of a final TSCA section 4 test rule.

<b>Naphthalene (91-20-3)</b>	
Subject to reporting requirements of United States SARA Section 313 Listed on EPA Hazardous Air Pollutant (HAPS)	
EPA TSCA Regulatory Flag	T - T - indicates a substance that is the subject of a final TSCA section 4 test rule.
CERCLA RQ	100 lb

<b>Xylenes (o-, m-, p- isomers) (1330-20-7)</b>	
Subject to reporting requirements of United States SARA Section 313 Listed on EPA Hazardous Air Pollutant (HAPS)	
CERCLA RQ	100 lb

# Diesel Treat

## Safety Data Sheet

According to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012 and the Hazardous Products Regulations (HPR) WHMIS 2015

<b>Ethylbenzene (100-41-4)</b>	
Subject to reporting requirements of United States SARA Section 313 Listed on EPA Hazardous Air Pollutant (HAPS)	
EPA TSCA Regulatory Flag	T - T - indicates a substance that is the subject of a final TSCA section 4 test rule.
CERCLA RQ	1000 lb
<b>Isopropylbenzene (98-82-8)</b>	
Subject to reporting requirements of United States SARA Section 313 Listed on EPA Hazardous Air Pollutant (HAPS)	
CERCLA RQ	5000 lb
<b>2-Ethylhexanol (104-76-7)</b>	
EPA TSCA Regulatory Flag	TP - TP - indicates a substance that is the subject of a proposed TSCA section 4 test rule.

All components of this product are listed, or excluded from listing, on the Canadian DSL (Domestic Substances List) and NDSL (Non-Domestic Substances List) inventories.

### 15.2. International regulations

No additional information available

### 15.3. US State regulations

**⚠ WARNING:** This product can expose you to Naphthalene, which is known to the State of California to cause cancer. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

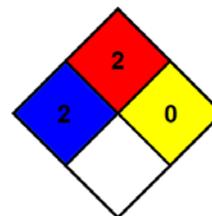
Component	State or local regulations
Benzene, 1,2,4-trimethyl-(95-63-6)	U.S. - Massachusetts - Right To Know List; U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List; U.S. - Pennsylvania - RTK (Right to Know) List
Nonane(111-84-2)	U.S. - Massachusetts - Right To Know List; U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - Pennsylvania - RTK (Right to Know) List
Xylenes (o-, m-, p- isomers)(1330-20-7)	U.S. - Massachusetts - Right To Know List; U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List; U.S. - Pennsylvania - RTK (Right to Know) List
Naphthalene(91-20-3)	U.S. - Massachusetts - Right To Know List; U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List; U.S. - Pennsylvania - RTK (Right to Know) List
Ethylbenzene(100-41-4)	U.S. - Massachusetts - Right To Know List; U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List; U.S. - Pennsylvania - RTK (Right to Know) List
Stoddard solvent(8052-41-3)	U.S. - Massachusetts - Right To Know List; U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - Pennsylvania - RTK (Right to Know) List
Distillates, petroleum, hydrotreated light naphthenic(64742-53-6)	U.S. - Massachusetts - Right To Know List

## SECTION 16: Other information

Revision date : 03/01/2019  
 Other information : None.  
 Prepared by : Nexreg Compliance Inc.  
[www.Nexreg.com](http://www.Nexreg.com)



NFPA health hazard : 2  
 NFPA fire hazard : 2  
 NFPA reactivity : 0



SDS HazCom 2012 - WHMIS 2015 (NexReg) - Section 15

*Disclaimer: We believe the statements, technical information and recommendations contained herein are reliable, but they are given without warranty or guarantee of any kind. The information contained in this document applies to this specific material as supplied. It may not be valid for this material if it is used in combination with any other materials. It is the user's responsibility to satisfy oneself as to the suitability and completeness of this information for the user's own particular use.*



# Dry Ice, Carbon Dioxide, Solid

## Safety Data Sheet E-4575

according to the Hazardous Products Regulation (February 11, 2015)

Date of issue: 10-15-1979

Revision date: 08-10-2016

Supersedes: 10-15-2013

### SECTION 1: Identification

#### 1.1. Product identifier

Product form : Substance  
Name : Dry Ice, Carbon Dioxide, Solid  
CAS No : 124-38-9  
Formula : CO<sub>2</sub>  
Other means of identification : Dry ice (nuggets, pellets, or blocks), carbonice, carbonic anhydride  
Product group : Core Products

#### 1.2. Recommended use and restrictions on use

Recommended uses and restrictions : Industrial use

#### 1.3. Supplier

Praxair Canada inc.  
1200 – 1 City Centre Drive  
Mississauga - Canada L5B 1M2  
T 1-905-803-1600 - F 1-905-803-1682  
[www.praxair.ca](http://www.praxair.ca)

#### 1.4. Emergency telephone number

Emergency number : 1-800-363-0042  
Call emergency number 24 hours a day only for spills, leaks, fire, exposure, or accidents involving this product.  
For routine information, contact your supplier or Praxair sales representative.

### SECTION 2: Hazard identification

#### 2.1. Classification of the substance or mixture

##### GHS-CA classification

#### 2.2. GHS Label elements, including precautionary statements

##### GHS-CA labelling

Hazard pictograms :



None

Signal word : DANGER

Hazard statements : MAY CAUSE CRYOGENIC BURNS OR INJURY  
VAPOUR MAY DISPLACE OXYGEN AND CAUSE RAPID SUFFOCATION  
MAY CAUSE FROSTBITE  
MAY INCREASE RESPIRATION AND HEART RATE

#### 2.3. Other hazards

Other hazards not contributing to the classification : Refrigerated solidified gas. CONTACT WITH PRODUCT MAY CAUSE COLD BURNS OR FROSTBITE. Dry ice sublimates to carbon dioxide vapor at -109°F (-78°C). VAPOUR MAY DISPLACE OXYGEN AND CAUSE RAPID SUFFOCATION.

#### 2.4. Unknown acute toxicity (GHS-CA)

No data available

### SECTION 3: Composition/information on ingredients

#### 3.1. Substances

This document is only controlled while on the Praxair Canada Inc. website and a copy of this controlled version is available for download. Praxair cannot assure the integrity or accuracy of any version of this document after it has been downloaded or removed from our website.



# Dry Ice, Carbon Dioxide, Solid

## Safety Data Sheet E-4575

according to the Hazardous Products Regulation (February 11, 2015)

Date of issue: 10-15-1979

Revision date: 08-10-2016

Supersedes: 10-15-2013

Name	CAS No.	% (Vol.)	Common Name (synonyms)
Dry Ice, Carbon Dioxide, Solid (Main constituent)	(CAS No) 124-38-9	100	Dry ice / CARBON DIOXIDE

### 3.2. Mixtures

Not applicable

## SECTION 4: First-aid measures

### 4.1. Description of first aid measures

- First-aid measures after inhalation : Remove victim to uncontaminated area wearing self contained breathing apparatus. Keep victim warm and rested. Call a doctor. Apply artificial respiration if breathing stopped.
- First-aid measures after skin contact : In case of contact, immediately flush eyes or skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.
- First-aid measures after eye contact : Immediately flush eyes thoroughly with water for at least 15 minutes. Hold the eyelids open and away from the eyeballs to ensure that all surfaces are flushed thoroughly. Contact an ophthalmologist immediately. Get immediate medical attention.
- First-aid measures after ingestion : Ingestion is not considered a potential route of exposure.

### 4.2. Most important symptoms and effects (acute and delayed)

No additional information available

### 4.3. Immediate medical attention and special treatment, if necessary

Other medical advice or treatment : None.

## SECTION 5: Fire-fighting measures

### 5.1. Suitable extinguishing media

Suitable extinguishing media : Use extinguishing media appropriate for surrounding fire.

### 5.2. Unsuitable extinguishing media

No additional information available

### 5.3. Specific hazards arising from the hazardous product

Reactivity : None.  
Reactivity in case of fire : None.

### 5.4. Special protective equipment and precautions for fire-fighters

Firefighting instructions : Evacuate all personnel from danger area. Do not discharge sprays onto solid carbon dioxide. Solid carbon dioxide will freeze water rapidly. NEVER HANDLE SOLID CARBON DIOXIDE WITH YOUR BARE HANDS. USE GLOVES OR DRY ICE TONGS OR A DRY SHOVEL OR SCOOP. Move packages away from fire area if safe to do so. Self-contained breathing apparatus may be required by rescue workers. On-site fire brigades must comply with OSHA 29 CFR 1910.156 and applicable standards under 29 CFR 1910 Subpart L—Fire Protection.

Protection during firefighting : Self-contained breathing apparatus.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

General measures : Use protective clothing. Wear cold-insulating gloves/face shield/eye protection. Chemical asphyxiant. Exposure to low concentrations for extended periods may result in dizziness or unconsciousness, and may lead to death. Wear self-contained breathing apparatus when entering area unless atmosphere is proven to be safe. NEVER HANDLE SOLID CARBON DIOXIDE WITH YOUR BARE HANDS. USE GLOVES OR DRY ICE TONGS OR A DRY SHOVEL OR SCOOP.

### 6.2. Methods and materials for containment and cleaning up

### 6.3. Reference to other sections

For further information refer to section 8: Exposure controls/personal protection

This document is only controlled while on the Praxair Canada Inc. website and a copy of this controlled version is available for download. Praxair cannot assure the integrity or accuracy of any version of this document after it has been downloaded or removed from our website.



# Dry Ice, Carbon Dioxide, Solid

## Safety Data Sheet E-4575

according to the Hazardous Products Regulation (February 11, 2015)

Date of issue: 10-15-1979

Revision date: 08-10-2016

Supersedes: 10-15-2013

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

Precautions for safe handling : Avoid materials incompatible with cryogenic use; some metals such as carbon steel may fracture easily at low temperature. Vapor can cause rapid suffocation due to oxygen deficiency. Never allow any unprotected part of your body to touch solid carbon dioxide or to touch uninsulated pipes or vessels containing solid or liquid carbon dioxide or cold carbon dioxide gas. Not only can you suffer frostbite, your skin may stick fast to the cold surfaces. Use tongs or insulated gloves when handling solid carbon dioxide or objects in contact cold carbon dioxide in any form. Wear protective clothing and equipment as prescribed in section 8. For other precautions in using carbon dioxide, see section 16.

#### 7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store and use with adequate ventilation. Do not store in tight containers or confined spaces. Storage areas should be clean and dry. Solid carbon dioxide is generally delivered to customers in 50-lb (22.7-kg), 1/2-cubic ft (0.0142 cubic meter) blocks (approximate dimensions), wrapped in kraft paper. Small pellets or nuggets are also produced. The product should be stored in insulated containers that open from the top. Lids should fit loosely so the carbon dioxide vapor given off as the solid sublimates can escape into the atmosphere. Carbon dioxide gas is about 1 1/2 times as heavy as air and will accumulate in low-lying areas, so ventilation must be adequate at floor or below grade level.

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

Dry Ice, Carbon Dioxide, Solid (124-38-9)		
USA - ACGIH	ACGIH TLV-TWA (ppm)	5000 ppm
USA - ACGIH	ACGIH TLV-STEL (ppm)	30000 ppm
USA - OSHA	OSHA PEL (TWA) (mg/m³)	9000 mg/m³
USA - OSHA	OSHA PEL (TWA) (ppm)	5000 ppm
Canada (Quebec)	VECD (mg/m³)	54000 mg/m³
Canada (Quebec)	VECD (ppm)	30000 ppm
Canada (Quebec)	VEMP (mg/m³)	9000 mg/m³
Canada (Quebec)	VEMP (ppm)	5000 ppm
Alberta	OEL STEL (mg/m³)	54000 mg/m³
Alberta	OEL STEL (ppm)	30000 ppm
Alberta	OEL TWA (mg/m³)	9000 mg/m³
Alberta	OEL TWA (ppm)	5000 ppm
British Columbia	OEL STEL (ppm)	15000 ppm
British Columbia	OEL TWA (ppm)	5000 ppm
Manitoba	OEL STEL (ppm)	30000 ppm
Manitoba	OEL TWA (ppm)	5000 ppm
New Brunswick	OEL STEL (mg/m³)	54000 mg/m³
New Brunswick	OEL STEL (ppm)	30000 ppm
New Brunswick	OEL TWA (mg/m³)	9000 mg/m³
New Brunswick	OEL TWA (ppm)	5000 ppm
New Foundland & Labrador	OEL STEL (ppm)	30000 ppm
New Foundland & Labrador	OEL TWA (ppm)	5000 ppm
Nova Scotia	OEL STEL (ppm)	30000 ppm
Nova Scotia	OEL TWA (ppm)	5000 ppm
Nunavut	OEL STEL (mg/m³)	27000 mg/m³
Nunavut	OEL STEL (ppm)	15000 ppm
Nunavut	OEL TWA (mg/m³)	9000 mg/m³
Nunavut	OEL TWA (ppm)	5000 ppm

This document is only controlled while on the Praxair Canada Inc. website and a copy of this controlled version is available for download. Praxair cannot assure the integrity or accuracy of any version of this document after it has been downloaded or removed from our website.



# Dry Ice, Carbon Dioxide, Solid

## Safety Data Sheet E-4575

according to the Hazardous Products Regulation (February 11, 2015)

Date of issue: 10-15-1979

Revision date: 08-10-2016

Supersedes: 10-15-2013

Dry Ice, Carbon Dioxide, Solid (124-38-9)		
Northwest Territories	OEL STEL (ppm)	30000 ppm
Northwest Territories	OEL TWA (ppm)	5000 ppm
Ontario	OEL STEL (ppm)	30000 ppm
Ontario	OEL TWA (ppm)	5000 ppm
Prince Edward Island	OEL STEL (ppm)	30000 ppm
Prince Edward Island	OEL TWA (ppm)	5000 ppm
Québec	VECD (mg/m <sup>3</sup> )	54000 mg/m <sup>3</sup>
Québec	VECD (ppm)	30000 ppm
Québec	VEMP (mg/m <sup>3</sup> )	9000 mg/m <sup>3</sup>
Québec	VEMP (ppm)	5000 ppm
Saskatchewan	OEL STEL (ppm)	30000 ppm
Saskatchewan	OEL TWA (ppm)	5000 ppm
Yukon	OEL STEL (mg/m <sup>3</sup> )	27000 mg/m <sup>3</sup>
Yukon	OEL STEL (ppm)	15000 ppm
Yukon	OEL TWA (mg/m <sup>3</sup> )	9000 mg/m <sup>3</sup>
Yukon	OEL TWA (ppm)	5000 ppm

### 8.2. Appropriate engineering controls

Appropriate engineering controls : Oxygen detectors should be used when asphyxiating gases may be released. Ensure exposure is below occupational exposure limits (where available). Systems under pressure should be regularly checked for leakages. Provide adequate general and local exhaust ventilation. Consider work permit system e.g. for maintenance activities.

### 8.3. Individual protection measures/Personal protective equipment

Personal protective equipment : Safety glasses. Insulated gloves.



Hand protection : Wear work gloves when handling containers. Wear heavy rubber gloves where contact with product may occur.

Eye protection : Wear safety glasses with side shields. Select in accordance with the current CSA standard Z94.3, "Industrial Eye and Face Protection", and any provincial regulations, local bylaws or guidelines.

Respiratory protection : **Respiratory protection:** Use respirable fume respirator or air supplied respirator when working in confined space or where local exhaust or ventilation does not keep exposure below TLV. Select in accordance with provincial regulations, local bylaws or guidelines. Selection should be based on the current CSA standard Z94.4, "Selection, Care, and Use of Respirators." Respirators should also be approved by NIOSH and MSHA. For emergencies or instances with unknown exposure levels, use a self-contained breathing apparatus (SCBA).

Thermal hazard protection : Wear cold insulating gloves.

Environmental exposure controls : None necessary.

Other information : **Other protection :** Safety shoes for general handling at customer sites. Metatarsal shoes and cuffless trousers for cylinder handling at packaging and filling plants. Select in accordance with the current CSA standard Z195, "Protective Foot Wear", and any provincial regulations, local bylaws or guidelines. For working with flammable and oxidizing materials, consider the use of flame resistant anti-static safety clothing.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state : Solid  
 Appearance : Opaque. White crystalline solid.  
 Molecular mass : 44 g/mol  
 Colour : White.  
 Odour : No odour warning properties.

This document is only controlled while on the Praxair Canada Inc. website and a copy of this controlled version is available for download. Praxair cannot assure the integrity or accuracy of any version of this document after it has been downloaded or removed from our website.



# Dry Ice, Carbon Dioxide, Solid

## Safety Data Sheet E-4575

according to the Hazardous Products Regulation (February 11, 2015)

Date of issue: 10-15-1979

Revision date: 08-10-2016

Supersedes: 10-15-2013

Odour threshold	: No data available
pH	: 3.7 (carbonic acid)
pH solution	: No data available
Relative evaporation rate (butylacetate=1)	: No data available
Relative evaporation rate (ether=1)	: Not applicable.
Melting point	: -78.5 °C
Freezing point	: No data available
Boiling point	: -78.4 °C
Flash point	: Not applicable.
Critical temperature	: 30 °C
Auto-ignition temperature	: Not applicable.
Decomposition temperature	: No data available
Vapour pressure	: 5730 kPa
Vapour pressure at 50 °C	: No data available
Critical pressure	: 7375 kPa
Relative vapour density at 20 °C	: No data available
Relative density	: 0.82
Relative density of saturated gas/air mixture	: No data available
Density	: 1562 kg/m <sup>3</sup>
Relative gas density	: 1.52
Solubility	: Water: 2000 mg/l Completely soluble.
Log Pow	: 0.83
Log Kow	: Not applicable.
Viscosity, kinematic	: Not applicable.
Viscosity, dynamic	: Not applicable.
Viscosity, kinematic (calculated value) (40 °C)	: No data available
Explosive properties	: Not applicable.
Oxidizing properties	: None.
Flammability (solid, gas)	:

### 9.2. Other information

Sublimation point	: -78.5 °C Expansion ratio for solid to gas at sublimation point is 1 to 554.
Additional information	: Gas/vapour heavier than air. May accumulate in confined spaces, particularly at or below ground level

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

Reactivity	: None.
Chemical stability	: Stable under normal conditions.
Possibility of hazardous reactions	: None.
Conditions to avoid	: None under recommended storage and handling conditions (see section 7).
Incompatible materials	: Alkali metals, Alkaline earth metals, Acetylide forming metals, Chromium, Titanium > 1022°F (550°C), Uranium (U) > 1382°F (750°C), Magnesium > 1427°F (775°C).
Hazardous decomposition products	: Electrical discharges and high temperatures decompose carbon dioxide into carbon monoxide and oxygen.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified

This document is only controlled while on the Praxair Canada Inc. website and a copy of this controlled version is available for download. Praxair cannot assure the integrity or accuracy of any version of this document after it has been downloaded or removed from our website.



# Dry Ice, Carbon Dioxide, Solid

## Safety Data Sheet E-4575

according to the Hazardous Products Regulation (February 11, 2015)

Date of issue: 10-15-1979

Revision date: 08-10-2016

Supersedes: 10-15-2013

Skin corrosion/irritation	: Not classified pH: 3.7 (carbonic acid)
Serious eye damage/irritation	: Not classified pH: 3.7 (carbonic acid)
Respiratory or skin sensitization	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
Specific target organ toxicity (single exposure)	: Not classified
Specific target organ toxicity (repeated exposure)	: Not classified
Aspiration hazard	: Not classified

## SECTION 12: Ecological information

### 12.1. Toxicity

Ecology - general : No ecological damage caused by this product.

### 12.2. Persistence and degradability

#### Dry Ice, Carbon Dioxide, Solid (124-38-9)

Persistence and degradability	No ecological damage caused by this product.
-------------------------------	--

### 12.3. Bioaccumulative potential

#### Dry Ice, Carbon Dioxide, Solid (124-38-9)

BCF fish 1	(no bioaccumulation)
Log Pow	0.83
Log Kow	Not applicable.
Bioaccumulative potential	No ecological damage caused by this product.

### 12.4. Mobility in soil

#### Dry Ice, Carbon Dioxide, Solid (124-38-9)

Mobility in soil	No data available.
Log Pow	0.83
Log Kow	Not applicable.
Ecology - soil	No ecological damage caused by this product.

### 12.5. Other adverse effects

Other adverse effects	: Can cause frost damage to vegetation.
Effect on the ozone layer	: None
Global warming potential [CO <sub>2</sub> =1]	: 1
Effect on global warming	: When discharged in large quantities may contribute to the greenhouse effect

## SECTION 13: Disposal considerations

### 13.1. Disposal methods

Waste treatment methods	: See Section 6.
Waste disposal recommendations	: Dispose of contents/container in accordance with local/regional/national/international regulations. Contact supplier for any special requirements.

## SECTION 14: Transport information

This document is only controlled while on the Praxair Canada Inc. website and a copy of this controlled version is available for download. Praxair cannot assure the integrity or accuracy of any version of this document after it has been downloaded or removed from our website.



# Dry Ice, Carbon Dioxide, Solid

## Safety Data Sheet E-4575

according to the Hazardous Products Regulation (February 11, 2015)

Date of issue: 10-15-1979

Revision date: 08-10-2016

Supersedes: 10-15-2013

### 14.1. Basic shipping description

In accordance with TDG

#### TDG

UN-No. (TDG) : UN1845  
TDG Primary Hazard Classes : 9 - Class 9 - Miscellaneous Products, Substances or Organisms  
Proper shipping name : CARBON DIOXIDE, SOLID

Explosive Limit and Limited Quantity Index : 0  
Passenger Carrying Road Vehicle or Passenger Carrying Railway Vehicle Index : 200 kg

### 14.3. Air and sea transport

#### IMDG

UN-No. (IMDG) : 1845  
Proper Shipping Name (IMDG) : CARBON DIOXIDE, SOLID (DRY ICE)  
Class (IMDG) : 9 - Miscellaneous dangerous substances and articles

#### IATA

UN-No. (IATA) : 1845  
Proper Shipping Name (IATA) : Carbon dioxide, solid  
Class (IATA) : 9 - Miscellaneous Dangerous Goods

## SECTION 15: Regulatory information

### 15.1. National regulations

#### Dry Ice, Carbon Dioxide, Solid (124-38-9)

Listed on the Canadian DSL (Domestic Substances List)

### 15.2. International regulations

#### Dry Ice, Carbon Dioxide, Solid (124-38-9)

Listed on the AICS (Australian Inventory of Chemical Substances)  
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)  
Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)  
Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory  
Listed on the Korean ECL (Existing Chemicals List)  
Listed on NZIoC (New Zealand Inventory of Chemicals)  
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)  
Listed on the United States TSCA (Toxic Substances Control Act) inventory  
Listed on INSQ (Mexican national Inventory of Chemical Substances)  
Listed on CICR (Turkish Inventory and Control of Chemicals)

## SECTION 16: Other information

Date of issue : 15/10/1979  
Revision date : 10/08/2016  
Supersedes : 15/10/2013

Indication of changes:

This document is only controlled while on the Praxair Canada Inc. website and a copy of this controlled version is available for download. Praxair cannot assure the integrity or accuracy of any version of this document after it has been downloaded or removed from our website.



# Dry Ice, Carbon Dioxide, Solid

## Safety Data Sheet E-4575

according to the Hazardous Products Regulation (February 11, 2015)

Date of issue: 10-15-1979

Revision date: 08-10-2016

Supersedes: 10-15-2013

### Other information

: Praxair asks users of this product to study this SDS and become aware of the product hazards and safety information. To promote safe use of this product, a user should (1) notify employees, agents, and contractors of the information in this SDS and of any other known product hazards and safety information, (2) furnish this information to each purchaser of the product, and (3) ask each purchaser to notify its employees and customers of the product hazards and safety information

The opinions expressed herein are those of qualified experts within Praxair Canada Inc. We believe that the information contained herein is current as of the date of this Safety Data Sheet. Since the use of this information and the conditions of use are not within the control of Praxair Canada Inc, it is the user's obligation to determine the conditions of safe use of the product. Praxair Canada Inc, SDSs are furnished on sale or delivery by Praxair Canada Inc, or the independent distributors and suppliers who package and sell our products. To obtain current SDSs for these products, contact your Praxair sales representative, local distributor, or supplier, or download from [www.praxair.ca](http://www.praxair.ca). If you have questions regarding Praxair SDSs, would like the document number and date of the latest SDS, or would like the names of the Praxair suppliers in your area, phone or write Praxair Canada Inc, (Phone: 1-888-257-5149; Address: Praxair Canada Inc, 1 City Centre Drive, Suite 1200, Mississauga, Ontario, L5B 1M2).

PRAXAIR and the Flowing Airstream design are trademarks or registered trademarks of Praxair Technology, Inc. in the United States and/or other countries.

### NFPA health hazard

: 3 - Short exposure could cause serious temporary or residual injury even though prompt medical attention was given.

### NFPA fire hazard

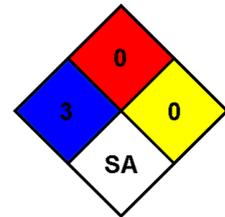
: 0 - Materials that will not burn.

### NFPA reactivity

: 0 - Normally stable, even under fire exposure conditions, and are not reactive with water.

### NFPA specific hazard

: SA - This denotes gases which are simple asphyxiants.



### HMIS III Rating

#### Health

: 3 Serious Hazard - Major injury likely unless prompt action is taken and medical treatment is given

#### Flammability

: 0 Minimal Hazard - Materials that will not burn

#### Physical

: 0 Minimal Hazard - Materials that are normally stable, even under fire conditions, and will NOT react with water, polymerize, decompose, condense, or self-react. Non-Explosives.

### SDS Canada (GHS) - Praxair

*This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.*

This document is only controlled while on the Praxair Canada Inc. website and a copy of this controlled version is available for download. Praxair cannot assure the integrity or accuracy of any version of this document after it has been downloaded or removed from our website.

## Safety data sheet according to 1907/2006/EC, Article 31

Printing date 23.01.2019

Version number 36

Revision: 11.01.2019

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

· **1.1 Product identifier**

· **Trade name:** *Dry Lube*

· **Article number:** 50180

· **1.2 Relevant identified uses of the substance or mixture and uses advised against**

FOR PROFESSIONAL AND INDUSTRIAL USE ONLY

· **Application of the substance / the mixture** *Lubricant*

· **1.3 Details of the supplier of the safety data sheet**

· **Manufacturer/Supplier:**

KENT (United Kingdom) Ltd

Forsyth House

Pitreavie Drive

Pitreavie Business Park

Dunfermline

Fife

KY11 8US

Tel: +44 01383 723344 / 0800 136925 Monday - Thursday 8.30am - 5.30pm, Friday 9.00am - 3.00pm

Fax: +44 1383 620079

SDS@kenteurope.com

· **1.4 Emergency telephone number:**

Tel: +44 01383 723344 During normal office hours - Monday - Thursday 8.30am - 5.30pm, Friday 9.00am - 3.00pm

### SECTION 2: Hazards identification

· **2.1 Classification of the substance or mixture**

· **Classification according to Regulation (EC) No 1272/2008**



GHS02 flame

Aerosol 1 H222-H229 Extremely flammable aerosol. Pressurised container: May burst if heated.



GHS09 environment

Aquatic Chronic 2 H411 Toxic to aquatic life with long lasting effects.



GHS07

Skin Irrit. 2 H315 Causes skin irritation.

STOT SE 3 H336 May cause drowsiness or dizziness.

· **2.2 Label elements**

· **Labelling according to Regulation (EC) No 1272/2008** The product is classified and labelled according to the CLP regulation.

· **Hazard pictograms**



GHS02



GHS07



GHS09

· **Signal word** *Danger*

· **Hazard-determining components of labelling:**

Hydrocarbons, C7, n-alkanes isoalkanes, cyclic

· **Hazard statements**

H222-H229 Extremely flammable aerosol. Pressurised container: May burst if heated.

(Contd. on page 2)

# Safety data sheet

## according to 1907/2006/EC, Article 31

Printing date 23.01.2019

Version number 36

Revision: 11.01.2019

**Trade name: Dry Lube**

(Contd. of page 1)

- H315 Causes skin irritation.  
 H336 May cause drowsiness or dizziness.  
 H411 Toxic to aquatic life with long lasting effects.

**Precautionary statements**

- P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
 P211 Do not spray on an open flame or other ignition source.  
 P251 Do not pierce or burn, even after use.  
 P261 Avoid breathing mist/vapours/spray.  
 P302+P352 IF ON SKIN: Wash with plenty of soap and water.  
 P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
 P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C.  
 P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

**2.3 Other hazards****Results of PBT and vPvB assessment**

- **PBT:** Not applicable.
- **vPvB:** Not applicable.

**SECTION 3: Composition/information on ingredients****3.2 Chemical characterisation: Mixtures**

- **Description:** Mixture of the substances listed below with harmless additions.

**Dangerous components:**

EC number: 927-510-4 Reg.nr.: 01-2119475515-33	Hydrocarbons, C7, n-alkanes isoalkanes, cyclic Flam. Liq. 2, H225; Asp. Tox. 1, H304; Aquatic Chronic 2, H411; Skin Irrit. 2, H315; STOT SE 3, H336	50-75%
CAS: 68476-85-7 EINECS: 270-704-2	Petroleum gases, liquefied (contains less than 0.1 % w/w 1,3-butadiene (EINECS No 203-450-8)). Flam. Gas 1, H220; Press. Gas L, H280	25-50%
CAS: 67-63-0 EINECS: 200-661-7 Reg.nr.: 01-2119457558-25	Propan-2-ol Flam. Liq. 2, H225; Eye Irrit. 2, H319; STOT SE 3, H336	<5%

**SECTION 4: First aid measures****4.1 Description of first aid measures**

- **After inhalation** Supply fresh air; consult doctor in case of symptoms.
- **After skin contact**  
Instantly wash with water and soap and rinse thoroughly.  
If skin irritation continues, consult a doctor.
- **After eye contact** Rinse opened eye for several minutes under running water. Then consult doctor.
- **After swallowing**  
Rinse out mouth.  
Do not induce vomiting; instantly call for medical help.

- **4.2 Most important symptoms and effects, both acute and delayed** No further relevant information available.

**4.3 Indication of any immediate medical attention and special treatment needed**

No further relevant information available.

**SECTION 5: Firefighting measures****5.1 Extinguishing media**

- **Suitable extinguishing agents** CO<sub>2</sub>, extinguishing powder or water haze. Fight larger fires with water haze or alcohol-resistant foam.
- **For safety reasons unsuitable extinguishing agents** Water with a full water jet.

**5.2 Special hazards arising from the substance or mixture**

Can form explosive gas-air mixtures.  
 Carbon monoxide and carbon dioxide

**5.3 Advice for firefighters**

- **Protective equipment:**  
Do not inhale explosion gases or combustion gases.  
Wear self-contained breathing apparatus.

**Additional information**

Cool endangered containers with water spray jet.

(Contd. on page 3)

# Safety data sheet

## according to 1907/2006/EC, Article 31

Printing date 23.01.2019

Version number 36

Revision: 11.01.2019

**Trade name: Dry Lube**

(Contd. of page 2)

### SECTION 6: Accidental release measures

#### 6.1 Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Keep unprotected persons away.  
Keep away from ignition sources  
Ensure adequate ventilation

#### 6.2 Environmental precautions:

Inform respective authorities in case product reaches water or sewage system.  
Do not allow to enter drainage system, surface or ground water.

#### 6.3 Methods and material for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
Dispose of contaminated material as waste according to item 13.  
Ensure adequate ventilation.

#### 6.4 Reference to other sections

See Section 7 for information on safe handling  
See Section 8 for information on personal protection equipment.  
See Section 13 for information on disposal.

### SECTION 7: Handling and storage

#### 7.1 Precautions for safe handling

Ensure good ventilation/exhaustion at the workplace.  
Keep away from heat and direct sunlight.

#### Information about protection against explosions and fires:

Keep ignition sources away - Do not smoke.  
Protect against electrostatic charges.  
Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C, i.e. electric lights. Do not pierce or burn, even after use.  
Do not spray on flames or red-hot objects.

#### 7.2 Conditions for safe storage, including any incompatibilities

##### Storage

##### Requirements to be met by storerooms and containers:

Store in cool location.  
Observe official regulations on storing packagings with pressurised containers.

##### Information about storage in one common storage facility: Not required.

##### Further information about storage conditions:

Protect from heat and direct sunlight.  
Store container in a well ventilated position.

##### Storage class 2 B

#### 7.3 Specific end use(s) No further relevant information available.

### SECTION 8: Exposure controls/personal protection

#### Additional information about design of technical systems: No further data; see item 7.

#### 8.1 Control parameters

##### Components with limit values that require monitoring at the workplace:

**68476-85-7 Petroleum gases, liquefied (contains less than 0.1 % w/w 1,3-butadiene (EINECS No 203-450-8)).**

WEL	Short-term value: 2180 mg/m <sup>3</sup> , 1250 ppm
	Long-term value: 1750 mg/m <sup>3</sup> , 1000 ppm
	Carc (if LPG contains > 0.1% of buta-1.3-diene)

**67-63-0 Propan-2-ol**

WEL	Short-term value: 1250 mg/m <sup>3</sup> , 500 ppm
	Long-term value: 999 mg/m <sup>3</sup> , 400 ppm

##### DNELs

##### Hydrocarbons, C7, n-alkanes isoalkanes, cyclic

Dermal	Long term systemic effect	300 mg/kg/day (Worker)
Inhalative	Long term systemic effect	2,085 mg/m <sup>3</sup> (Worker)

(Contd. on page 4)

# Safety data sheet

## according to 1907/2006/EC, Article 31

Printing date 23.01.2019

Version number 36

Revision: 11.01.2019

**Trade name: Dry Lube**

(Contd. of page 3)

**67-63-0 Propan-2-ol**

Dermal	Long term systemic effect	888 mg/kg bw/day (Worker)
Inhalative	Long term systemic effect	500 mg/m <sup>3</sup> (Worker)

· **PNECs****67-63-0 Propan-2-ol**

PNEC	140.9 mg/l (Aqua (freshwater))
	140.9 mg/l (Aqua (intermittent))
	140.9 mg/l (Aqua (marine water))
	552 mg/kg (Freshwater sediment)
	552 mg/kg (Marine water sediment)
	2,251 mg/l (Sewage treatment plant) (Assessment factor 1)
	28 mg/kg (Soil)

· **Additional information:** The lists that were valid during the compilation were used as basis.· **8.2 Exposure controls**· **Personal protective equipment**· **General protective and hygienic measures**

Keep away from foodstuffs, beverages and food.  
 Take off immediately all contaminated clothing  
 Wash hands during breaks and at the end of the work.  
 Avoid contact with the skin.  
 Avoid contact with the eyes and skin.

· **Breathing equipment:**

Only during spraying without adequate removal by suction.  
 Filter AX (EN 14387)

· **Protection of hands:**

Protective gloves.

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.  
 Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.  
 Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· **Material of gloves**

Wear suitable gloves tested to EN 374.  
 Nitrile rubber, NBR

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· **Penetration time of glove material**

Value for the permeation: Level 6 > 480 minutes  
 The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **Eye protection:**

Safety glasses (EN 166)

· **Body protection:** Protective work clothing. (EN-13034/6)**SECTION 9: Physical and chemical properties**· **9.1 Information on basic physical and chemical properties**· **General Information**· **Appearance:**

<b>Form:</b>	Aerosol
<b>Colour:</b>	Whitish
<b>Odour:</b>	Characteristic

· **Change in condition**

<b>Melting point/freezing point:</b>	Not determined
--------------------------------------	----------------

(Contd. on page 5)

# Safety data sheet

## according to 1907/2006/EC, Article 31

Printing date 23.01.2019

Version number 36

Revision: 11.01.2019

**Trade name: Dry Lube**

(Contd. of page 4)

<b>Initial boiling point and boiling range:</b>	Not applicable, as aerosol
· <b>Flash point:</b>	Not applicable, as aerosol
· <b>Self-inflammability:</b>	Product is not selfigniting.
· <b>Explosive properties:</b>	Product is not explosive. However, formation of explosive air/steam mixtures is possible.
· <b>Density at 25 °C</b>	0.705 g/cm <sup>3</sup>
· <b>Solubility in / Miscibility with Water:</b>	Unsoluble
· <b>Solvent content:</b>	
<b>Organic solvents:</b>	624 g/l VOC
· <b>9.2 Other information</b>	No further relevant information available.

### SECTION 10: Stability and reactivity

- **10.1 Reactivity** No further relevant information available.
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:** To avoid thermal decomposition do not overheat.
- **10.3 Possibility of hazardous reactions** No dangerous reactions known
- **10.4 Conditions to avoid** Heat. Hot surfaces. Sources of ignition. Flames.
- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:**  
Formation of toxic gases is possible during heating or in case of fire.  
Carbon monoxide and carbon dioxide

### SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity** Based on available data, the classification criteria are not met.

#### · LD/LC50 values that are relevant for classification:

Hydrocarbons, C7, n-alkanes isoalkanes, cyclic		
	IC50	<10 (Algae)
67-63-0 Propan-2-ol		
Oral	LD50	4,570 mg/kg (Rat)
Dermal	LD50	13,400 mg/kg (Rabbit)
Inhalative	LC50 (4 hr)	30 mg/m <sup>3</sup> (Rat)

- **Primary irritant effect:**
- **Skin corrosion/irritation**  
Causes skin irritation.
- **Serious eye damage/irritation** Based on available data, the classification criteria are not met.
- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
- **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
- **Carcinogenicity** Based on available data, the classification criteria are not met.
- **Reproductive toxicity** Based on available data, the classification criteria are not met.
- **STOT-single exposure**  
May cause drowsiness or dizziness.
- **STOT-repeated exposure** Based on available data, the classification criteria are not met.
- **Aspiration hazard** Based on available data, the classification criteria are not met.

### SECTION 12: Ecological information

#### · 12.1 Toxicity

##### · Aquatic toxicity:

Hydrocarbons, C7, n-alkanes isoalkanes, cyclic	
EC50 (48 hr)	3 mg/l (Daphnia magna)
LC50 (96 hr)	<10 mg/l (Fish)

(Contd. on page 6)

# Safety data sheet

## according to 1907/2006/EC, Article 31

Printing date 23.01.2019

Version number 36

Revision: 11.01.2019

**Trade name: Dry Lube**

(Contd. of page 5)

NOEC	>13.4 mg/l (Oncorhynchus mykiss)
NOEC (21 days)	1.53 mg/l (Oncorhynchus mykiss) (28 days)
	1 mg/l (Daphnia magna)
<b>68476-85-7 Petroleum gases, liquefied (contains less than 0.1 % w/w 1,3-butadiene (EINECS No 203-450-8)).</b>	
EC50 (96 hr)	12.32 mg/l (Algae) ((Q)SAR calculation method)
LC50 (48 hr)	69.43 mg/l (Daphnia magna) ((Q)SAR calculation method)
LC50 (96 hr)	49.47 mg/l (Fish) ((Q)SAR calculation method)
<b>67-63-0 Propan-2-ol</b>	
EC50 (48 hr)	13,299 mg/l (Daphnia magna)
LC50 (24 hr)	9,714 mg/l (Daphnia magna)
LC50 (96 hr)	4,200 mg/l (FSH) (dynamic)
	9,640 mg/l (Pimephales promelas)
LOEC (8 days)	1,000 mg/l (Algae)

- **12.2 Persistence and degradability** No further relevant information available.
- **Other information:** The product is biodegradable.
- **12.3 Bioaccumulative potential** Does not accumulate in organisms
- **12.4 Mobility in soil** No further relevant information available.
- **Ecotoxicological effects:**
- **Remark:** Toxic for fish
- **Additional ecological information:**
- **General notes:**  
Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water.  
Do not allow undiluted product or large quantities of it to reach ground water, water bodies or sewage system.  
Also poisonous for fish and plankton in water bodies.  
Toxic for aquatic organisms
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Other adverse effects** No further relevant information available.

### SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation** Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

#### European waste catalogue

15 00 00	WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED
15 01 00	packaging (including separately collected municipal packaging waste)
15 01 10*	packaging containing residues of or contaminated by hazardous substances
07 00 00	WASTES FROM ORGANIC CHEMICAL PROCESSES
07 01 00	wastes from the manufacture, formulation, supply and use (MFSU) of basic organic chemicals
07 01 04*	other organic solvents, washing liquids and mother liquors
HP 3	Flammable
HP 4	Irritant - skin irritation and eye damage
HP 5	Specific Target Organ Toxicity (STOT)/Aspiration Toxicity
HP 14	Ecotoxic

- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.

### SECTION 14: Transport information

- **14.1 UN-Number**
- **ADR, IMDG, IATA** UN1950
- **14.2 UN proper shipping name**
- **ADR** 1950 AEROSOLS, ENVIRONMENTALLY HAZARDOUS
- **IMDG** AEROSOLS, MARINE POLLUTANT

(Contd. on page 7)

GB

# Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 23.01.2019

Version number 36

Revision: 11.01.2019

Trade name: Dry Lube

(Contd. of page 6)

· IATA	AEROSOLS, flammable
· <b>14.3 Transport hazard class(es)</b>	
· ADR	
	
· Class	2 5F Gases.
· Label	2.1
· IMDG	
	
· Class	2.1
· Label	2.1
· IATA	
	
· Class	2.1
· Label	2.1
· <b>14.4 Packing group</b>	
· ADR, IMDG, IATA	Void
· <b>14.5 Environmental hazards:</b>	
· Marine pollutant:	Symbol (fish and tree)
· Special marking (ADR):	Symbol (fish and tree)
· <b>14.6 Special precautions for user</b>	Warning: Gases.
· EMS Number:	F-D,S-U
· Stowage Code	SW1 Protected from sources of heat. SW22 For AEROSOLS with a maximum capacity of 1 litre: Category A. For AEROSOLS with a capacity above 1 litre: Category B. For WASTE AEROSOLS: Category C, Clear of living quarters.
· Segregation Code	SG69 For AEROSOLS with a maximum capacity of 1 litre: Segregation as for class 9. Stow "separated from" class 1 except for division 1.4. For AEROSOLS with a capacity above 1 litre: Segregation as for the appropriate subdivision of class 2. For WASTE AEROSOLS: Segregation as for the appropriate subdivision of class 2.
· <b>14.7 Transport in bulk according to Annex II of Marpol and the IBC Code</b>	Not applicable.
· <b>Transport/Additional information:</b>	
· ADR	
· Limited quantities (LQ)	1L
· Excepted quantities (EQ)	Code: E0 Not permitted as Excepted Quantity
· Transport category	2
· Tunnel restriction code	D
· IMDG	
· Limited quantities (LQ)	1L
· Excepted quantities (EQ)	Code: E0 Not permitted as Excepted Quantity

(Contd. on page 8)

GB

# Safety data sheet

## according to 1907/2006/EC, Article 31

Printing date 23.01.2019

Version number 36

Revision: 11.01.2019

**Trade name: Dry Lube**

(Contd. of page 7)

· **UN "Model Regulation":**

UN 1950 AEROSOLS, 2.1, ENVIRONMENTALLY HAZARDOUS

### SECTION 15: Regulatory information

#### · 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

##### · Directive 2012/18/EU

· **Named dangerous substances - ANNEX I** None of the ingredients is listed.

##### · Seveso category

P3a FLAMMABLE AEROSOLS

E2 Hazardous to the Aquatic Environment

· **Qualifying quantity (tonnes) for the application of lower-tier requirements** 150 t

· **Qualifying quantity (tonnes) for the application of upper-tier requirements** 500 t

· **REGULATION (EC) No 1907/2006 ANNEX XVII** Conditions of restriction: 3

##### · National regulations

##### · Technical instructions (air):

Class	Share in %
III	5.0

· **Water hazard class:** Water hazard class 1 (Self-assessment): slightly hazardous for water.

· **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

### SECTION 16: Other information

These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

#### · Relevant phrases

H220 Extremely flammable gas.

H225 Highly flammable liquid and vapour.

H280 Contains gas under pressure; may explode if heated.

H304 May be fatal if swallowed and enters airways.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H336 May cause drowsiness or dizziness.

H411 Toxic to aquatic life with long lasting effects.

· **Department issuing data specification sheet:** Environment protection department.

#### · Abbreviations and acronyms:

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

ICAO: International Civil Aviation Organisation

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

DNEL: Derived No-Effect Level (REACH)

PNEC: Predicted No-Effect Concentration (REACH)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Flam. Gas 1: Flammable gases – Category 1

Aerosol 1: Aerosols – Category 1

Press. Gas L: Gases under pressure – Liquefied gas

Flam. Liq. 2: Flammable liquids – Category 2

Skin Irrit. 2: Skin corrosion/irritation – Category 2

Eye Irrit. 2: Serious eye damage/eye irritation – Category 2

STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

Asp. Tox. 1: Aspiration hazard – Category 1

Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2

· **Data compared to the previous version altered.** \*

# SAFETY DATA SHEET



Dual Range HV 46

## Section 1. Identification

**GHS product identifier** Dual Range HV 46

**Product code** 460278-CA01

**SDS #** 460278

### Relevant identified uses of the substance or mixture and uses advised against

**Use of the substance/  
mixture** Hydraulic fluid.  
For specific application advice see appropriate Technical Data Sheet or consult our company representative.

**Manufacturer** BP Lubricants USA Inc.  
1500 Valley Road  
Wayne, NJ 07470  
Telephone: +1-888-CASTROL  
Product Information: +1-877-641-1600

**Supplier** Wakefield Canada Inc.  
3620 Lakeshore Blvd West  
Toronto, Ontario, Canada M8W 1P2  
Phone Number - 416-252-5511

**EMERGENCY HEALTH  
INFORMATION:** +1-800-447-8735

**EMERGENCY TELEPHONE  
NUMBER** 1 (613) 996-6666 CANUTEC (Canada)  
+1-800-424-9300 (CHEMTREC USA)  
+1-703-527-3887 (CHEMTREC outside the US)

## Section 2. Hazard identification

**Classification of the  
substance or mixture** Not classified.

### GHS label elements

**Signal word** No signal word.

**Hazard statements** No known significant effects or critical hazards.

### Precautionary statements

**Prevention** Not applicable.

**Response** Not applicable.

**Storage** Not applicable.

**Disposal** Not applicable.

**Other hazards which do not  
result in classification** Defatting to the skin.  
Note: High Pressure Applications  
Injections through the skin resulting from contact with the product at high pressure constitute a major medical emergency.  
See 'Notes to physician' under First-Aid Measures, Section 4 of this Safety Data Sheet.

## Section 3. Composition/information on ingredients

Substance/mixture

Mixture

Ingredient name	CAS number	% (w/w)
Base oil - highly refined	Varies - See Key to abbreviations	≥90
Base oil - highly refined	Varies - See Key to abbreviations	≤3

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

## Section 4. First-aid measures

### Description of necessary first aid measures

<b>Eye contact</b>	In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Eyelids should be held away from the eyeball to ensure thorough rinsing. Check for and remove any contact lenses. Get medical attention.
<b>Skin contact</b>	Wash skin thoroughly with soap and water or use recognized skin cleanser. Remove contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention if symptoms occur.
<b>Inhalation</b>	If inhaled, remove to fresh air. Get medical attention if symptoms occur.
<b>Ingestion</b>	Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.
<b>Protection of first-aiders</b>	No action shall be taken involving any personal risk or without suitable training.

### Most important symptoms/effects, acute and delayed

See Section 11 for more detailed information on health effects and symptoms.

### Indication of immediate medical attention and special treatment needed, if necessary

<b>Notes to physician</b>	Treatment should in general be symptomatic and directed to relieving any effects.  Note: High Pressure Applications Injections through the skin resulting from contact with the product at high pressure constitute a major medical emergency. Injuries may not appear serious at first but within a few hours tissue becomes swollen, discolored and extremely painful with extensive subcutaneous necrosis. Surgical exploration should be undertaken without delay. Thorough and extensive debridement of the wound and underlying tissue is necessary to minimize tissue loss and prevent or limit permanent damage. Note that high pressure may force the product considerable distances along tissue planes.
<b>Specific treatments</b>	No specific treatment.

## Section 5. Fire-fighting measures

### Extinguishing media

**Suitable extinguishing media** In case of fire, use foam, dry chemical or carbon dioxide extinguisher or spray.

**Unsuitable extinguishing media** Do not use water jet.

**Specific hazards arising from the chemical** In a fire or if heated, a pressure increase will occur and the container may burst.

**Hazardous thermal decomposition products**  Combustion products may include the following:  
carbon oxides (CO, CO<sub>2</sub>) (carbon monoxide, carbon dioxide)

## Section 5. Fire-fighting measures

<b>Special protective actions for fire-fighters</b>	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
<b>Special protective equipment for fire-fighters</b>	Fire-fighters should wear positive pressure self-contained breathing apparatus (SCBA) and full turnout gear.

## Section 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures

<b>For non-emergency personnel</b>	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment. Floors may be slippery; use care to avoid falling.
<b>For emergency responders</b>	If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
<b>Environmental precautions</b>	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
<b><u>Methods and materials for containment and cleaning up</u></b>	
<b>Small spill</b>	Stop leak if without risk. Move containers from spill area. Absorb with an inert material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
<b>Large spill</b>	Stop leak if without risk. Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Dispose of via a licensed waste disposal contractor.

## Section 7. Handling and storage

### Precautions for safe handling

<b>Protective measures</b>	Put on appropriate personal protective equipment (see Section 8).
<b>Advice on general occupational hygiene</b>	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Wash thoroughly after handling. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
<b>Conditions for safe storage, including any incompatibilities</b>	Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Store and use only in equipment/containers designed for use with this product. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

## Section 8. Exposure controls/personal protection

### Control parameters

#### Occupational exposure limits

<b>Ingredient name</b>	<b>Exposure limits</b>
Base oil - highly refined	<b>CA Alberta Provincial (Canada).</b> 15 min OEL: 10 mg/m <sup>3</sup> 15 minutes. Issued/Revised: 7/2009 Form: Mist 8 hrs OEL: 5 mg/m <sup>3</sup> 8 hours. Issued/Revised: 4/2004 Form: Mist <b>CA Quebec Provincial (Canada).</b> STEV: 10 mg/m <sup>3</sup> 15 minutes. Issued/Revised: 1/2000 Form: mist TWAEV: 5 mg/m <sup>3</sup> 8 hours. Issued/Revised: 1/2000

## Section 8. Exposure controls/personal protection

Base oil - highly refined

Form: mist  
**CA Alberta Provincial (Canada).**  
 15 min OEL: 10 mg/m<sup>3</sup> 15 minutes. Issued/Revised: 7/2009 Form: Mist  
 8 hrs OEL: 5 mg/m<sup>3</sup> 8 hours. Issued/Revised: 4/2004  
 Form: Mist  
**CA Quebec Provincial (Canada).**  
 STEV: 10 mg/m<sup>3</sup> 15 minutes. Issued/Revised: 1/2000  
 Form: mist  
 TWAEV: 5 mg/m<sup>3</sup> 8 hours. Issued/Revised: 1/2000  
 Form: mist

### Appropriate engineering controls

All activities involving chemicals should be assessed for their risks to health, to ensure exposures are adequately controlled. Personal protective equipment should only be considered after other forms of control measures (e.g. engineering controls) have been suitably evaluated. Personal protective equipment should conform to appropriate standards, be suitable for use, be kept in good condition and properly maintained.

Your supplier of personal protective equipment should be consulted for advice on selection and appropriate standards. For further information contact your national organisation for standards.

Provide exhaust ventilation or other engineering controls to keep the relevant airborne concentrations below their respective occupational exposure limits.

The final choice of protective equipment will depend upon a risk assessment. It is important to ensure that all items of personal protective equipment are compatible.

### Environmental exposure controls

Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

### Individual protection measures

#### Hygiene measures

Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

#### Eye/face protection

Safety glasses with side shields.

#### Skin protection

##### Hand protection

Wear protective gloves if prolonged or repeated contact is likely. Wear chemical resistant gloves. Recommended: Nitrile gloves. The correct choice of protective gloves depends upon the chemicals being handled, the conditions of work and use, and the condition of the gloves (even the best chemically resistant glove will break down after repeated chemical exposures). Most gloves provide only a short time of protection before they must be discarded and replaced. Because specific work environments and material handling practices vary, safety procedures should be developed for each intended application. Gloves should therefore be chosen in consultation with the supplier/manufacturer and with a full assessment of the working conditions.

#### Body protection

Use of protective clothing is good industrial practice.

Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Cotton or polyester/cotton overalls will only provide protection against light superficial contamination that will not soak through to the skin. Overalls should be laundered on a regular basis. When the risk of skin exposure is high (e.g. when cleaning up spillages or if there is a risk of splashing) then chemical resistant aprons and/or impervious chemical suits and boots will be required.

## Section 8. Exposure controls/personal protection

### Other skin protection

Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

### Respiratory protection

In case of insufficient ventilation, wear suitable respiratory equipment. The correct choice of respiratory protection depends upon the chemicals being handled, the conditions of work and use, and the condition of the respiratory equipment. Safety procedures should be developed for each intended application. Respiratory protection equipment should therefore be chosen in consultation with the supplier/manufacturer and with a full assessment of the working conditions.

## Section 9. Physical and chemical properties

### Appearance

Physical state	Liquid.
Color	Purple.
Odor	Not available.
Odor threshold	Not available.
pH	Not available.
Melting point	Not available.
Boiling point	Not available.
Flash point	Closed cup: >190°C (>374°F) [Pensky-Martens.]
Pour point	-42 °C
Drop Point	Not available.
Evaporation rate	Not available.
Flammability (solid, gas)	Not applicable. Based on - Physical state
Lower and upper explosive (flammable) limits	Not available.
Vapor pressure	Not available.
Vapor density	Not available.
Density	<1000 kg/m <sup>3</sup> (<1 g/cm <sup>3</sup> ) at 15°C
Relative density	Not available.
Solubility	insoluble in water.
Partition coefficient: n-octanol/water	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	☑ Kinematic: 45.9 mm <sup>2</sup> /s (45.9 cSt) at 40°C Kinematic: 8.15 mm <sup>2</sup> /s (8.15 cSt) at 100°C

## Section 10. Stability and reactivity

Reactivity	No specific test data available for this product. Refer to Conditions to avoid and Incompatible materials for additional information.
Chemical stability	The product is stable.
Possibility of hazardous reactions	Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous polymerization will not occur.
Conditions to avoid	Avoid all possible sources of ignition (spark or flame).
Incompatible materials	Reactive or incompatible with the following materials: oxidizing materials.

## Section 10. Stability and reactivity

**Hazardous decomposition products** Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## Section 11. Toxicological information

### Information on toxicological effects

#### Aspiration hazard

Name	Result
Base oil - highly refined	ASPIRATION HAZARD - Category 1

**Information on the likely routes of exposure** Routes of entry anticipated: Dermal, Inhalation.

### Potential acute health effects

#### **Eye contact**

No known significant effects or critical hazards.

#### **Skin contact**

Defatting to the skin. May cause skin dryness and irritation.

#### **Inhalation**

Vapor inhalation under ambient conditions is not normally a problem due to low vapor pressure.

#### **Ingestion**

No known significant effects or critical hazards.

### Symptoms related to the physical, chemical and toxicological characteristics

#### **Eye contact**

No specific data.

#### **Inhalation**

No specific data.

#### **Skin contact**

Adverse symptoms may include the following:  
irritation  
dryness  
cracking

#### **Ingestion**

No specific data.

### Delayed and immediate effects and also chronic effects from short and long term exposure

#### Short term exposure

##### **Potential immediate effects**

Not available.

##### **Potential delayed effects**

Not available.

#### Long term exposure

##### **Potential immediate effects**

Not available.

##### **Potential delayed effects**

Not available.

### Potential chronic health effects

#### **General**

No known significant effects or critical hazards.

#### **Carcinogenicity**

No known significant effects or critical hazards.

#### **Mutagenicity**

No known significant effects or critical hazards.

#### **Teratogenicity**

No known significant effects or critical hazards.

#### **Developmental effects**

No known significant effects or critical hazards.

#### **Fertility effects**

No known significant effects or critical hazards.

### Numerical measures of toxicity

#### Acute toxicity estimates

Not available.

## Section 12. Ecological information

### Toxicity

No testing has been performed by the manufacturer.

### Persistence and degradability

Expected to be biodegradable.

### Bioaccumulative potential

This product is not expected to bioaccumulate through food chains in the environment.

### Mobility in soil

**Soil/water partition coefficient (K<sub>oc</sub>)**

Not available.

**Mobility**

Spillages may penetrate the soil causing ground water contamination.

### Other ecological information

Spills may form a film on water surfaces causing physical damage to organisms. Oxygen transfer could also be impaired.

## Section 13. Disposal considerations

### Disposal methods

The generation of waste should be avoided or minimized wherever possible. Significant quantities of waste product residues should not be disposed of via the foul sewer but processed in a suitable effluent treatment plant. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

## Section 14. Transport information

	<b>DOT Classification</b>	<b>TDG Classification</b>	<b>IMDG</b>	<b>IATA</b>
<b>UN number</b>	Not regulated.	Not regulated.	Not regulated.	Not regulated.
<b>UN proper shipping name</b>	-	-	-	-
<b>Transport hazard class(es)</b>	-	-	-	-
<b>Packing group</b>	-	-	-	-
<b>Environmental hazards</b>	No.	No.	No.	No.
<b>Additional information</b>	-	-	-	-

**Special precautions for user** Not available.

## Section 14. Transport information

Transport in bulk according to Annex II of MARPOL and the IBC Code

Not available.

## Section 15. Regulatory information

### Other regulations

<a href="#">Australia inventory (AICS)</a>	All components are listed or exempted.
<a href="#">Canada inventory</a>	All components are listed or exempted.
<a href="#">China inventory (IECSC)</a>	All components are listed or exempted.
<a href="#">Japan inventory (ENCS)</a>	All components are listed or exempted.
<a href="#">Korea inventory (KECI)</a>	All components are listed or exempted.
<a href="#">Philippines inventory (PICCS)</a>	All components are listed or exempted.
<a href="#">Taiwan Chemical Substances Inventory (TCSI)</a>	Not determined.
<a href="#">United States inventory (TSCA 8b)</a>	All components are listed or exempted.
<a href="#">REACH Status</a>	For the REACH status of this product please consult your company contact, as identified in Section 1.

## Section 16. Other information

### History

<a href="#">Date of issue/Date of revision</a>	30/10/2017
<a href="#">Date of previous issue</a>	06/01/2017.
<a href="#">Version</a>	2.03
<a href="#">Prepared by</a>	Product Stewardship
<a href="#">Key to abbreviations</a>	ATE = Acute Toxicity Estimate BCF = Bioconcentration Factor CAS Number = Chemical Abstracts Service Registry Number GHS = Globally Harmonized System of Classification and Labelling of Chemicals HPR = Hazardous Products Regulations IATA = International Air Transport Association IBC = Intermediate Bulk Container IMDG = International Maritime Dangerous Goods LogPow = logarithm of the octanol/water partition coefficient MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution) REACH = Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation [Regulation (EC) No. 1907/2006] UN = United Nations Varies = may contain one or more of the following 101316-69-2, 101316-70-5, 101316-71-6, 101316-72-7, 64741-88-4, 64741-89-5, 64741-95-3, 64741-96-4, 64741-97-5, 64742-01-4, 64742-44-5, 64742-45-6, 64742-52-5, 64742-53-6, 64742-54-7, 64742-55-8, 64742-56-9, 64742-57-0, 64742-58-1, 64742-62-7, 64742-63-8, 64742-64-9, 64742-65-0, 64742-70-7, 72623-85-9, 72623-86-0, 72623-87-1, 74869-22-0, 90669-74-2

### References

Not available.

✔ Indicates information that has changed from previously issued version.

### Notice to reader

**Product name** Dual Range HV 46

**Product code** 460278-CA01

Page: 8/9

**Version** 2.03

**Date of issue** 10/30/2017.

**Format** Canada

**Language** ENGLISH

(Canada)

(ENGLISH)

## Section 16. Other information

All reasonably practicable steps have been taken to ensure this data sheet and the health, safety and environmental information contained in it is accurate as of the date specified below. No warranty or representation, express or implied is made as to the accuracy or completeness of the data and information in this data sheet.

The data and advice given apply when the product is sold for the stated application or applications. You should not use the product other than for the stated application or applications without seeking advice from BP Group.

It is the user's obligation to evaluate and use this product safely and to comply with all applicable laws and regulations. The BP Group shall not be responsible for any damage or injury resulting from use, other than the stated product use of the material, from any failure to adhere to recommendations, or from any hazards inherent in the nature of the material. Purchasers of the product for supply to a third party for use at work, have a duty to take all necessary steps to ensure that any person handling or using the product is provided with the information in this sheet. Employers have a duty to tell employees and others who may be affected of any hazards described in this sheet and of any precautions that should be taken. You can contact the BP Group to ensure that this document is the most current available. Alteration of this document is strictly prohibited.

## Safety Data Sheet

according to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Revision: July 29, 2019

### 1 Identification

· **Product identifier**

· **Trade name:** **CertainTeed Finishing Products, Ready-Mix Joint Compounds, Ready-Mix Non-Aggregated Textures**

· **Other product identifiers:**

All Purpose  
BMITJ All-Purpose  
CertainTeed Extreme All-Purpose  
CertainTeed Heavy Taping  
CertainTeed Lite All-Purpose  
CertainTeed Lite Ceiling Spray  
CertainTeed Lite Finishing  
CertainTeed Lite Taping  
CertainTeed Lite Topping  
CertainTeed Machine Pro  
CertainTeed Mould Resistant  
CertainTeed ONE All-Purpose White and Beige  
CertainTeed Reinforced Lite Spray Texture  
CertainTeed Spray-Lite Ready-Mixed Texture  
Dust Away Reduced Dust Drywall Compound  
Dust Away Roll-On All-Purpose  
Easi-Fil All-Purpose  
Extreme  
Finish Coat  
Fusion  
Spray Tex  
White Formula

· **Recommended use and restriction on use**

· **Recommended use:** Ready mix joint compounds for interior wall applications.  
· **Restrictions on use:** No relevant information available.

· **Details of the supplier of the Safety Data Sheet**

· **Manufacturer/Supplier:**

CertainTeed Gypsum  
20 Moores Road  
Malvern, PA 19355  
Professional: 800-233-8990  
Consumer: 800-782-8777  
www.certainteed.com

· **Emergency telephone number:**

ChemTel Inc.  
(800)255-3924 (North America)  
+1 (813)248-0585 (International)  
1-300-954-583 (Australia)  
0-800-591-6042 (Brazil)  
400-120-0751 (China)  
000-800-100-4086 (India)  
01-800-099-0731 (Mexico)

(Cont'd. on page 2)

# Safety Data Sheet

according to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Revision: July 29, 2019

**Trade name: CertainTeed Finishing Products, Ready-Mix Joint Compounds,  
Ready-Mix Non-Aggregated Textures**

(Cont'd. of page 1)

## 2 Hazard(s) identification

· **Classification of the substance or mixture**

Skin Sens. 1 H317 May cause an allergic skin reaction.

· **Label elements**

· **GHS label elements**

The product is classified and labeled according to the Globally Harmonized System (GHS).

· **Hazard pictograms:**



GHS07

· **Signal word:** Warning

· **Hazard statements:**

H317 May cause an allergic skin reaction.

· **Precautionary statements:**

P261 Avoid breathing dust.

P272 Contaminated work clothing must not be allowed out of the workplace.

P280 Wear protective gloves.

P302+P352 If on skin: Wash with plenty of soap and water.

P333+P313 If skin irritation or rash occurs: Get medical advice/attention.

P363 Wash contaminated clothing before reuse.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

· **Additional information:** Long term inhalation of product dust may be harmful.

· **Other hazards** There are no other hazards not otherwise classified that have been identified.

## 3 Composition/information on ingredients

· **Chemical characterization: Mixtures**

· **Components:**

1317-65-3	Limestone	40-90%
93763-70-3	Perlite	0-10%
1332-58-7	Kaolin	0-7.5%
12001-26-2	Mica	0-5%
14808-60-7	Quartz (SiO <sub>2</sub> )	<0.4%
	⚠ Carc. 1A, H350	
4719-04-4	2,2',2''-(hexahydro-1,3,5-triazine-1,3,5-triyl)triethanol	<0.4%
	⚠ Acute Tox. 2, H330	
	⚠ STOT RE 1, H372	
	⚠ Acute Tox. 4, H302; Eye Irrit. 2A, H319; Skin Sens. 1, H317	
55406-53-6	3-Iodo-2-propynylbutylcarbamate	≤0.1%
	⚠ Acute Tox. 3, H331	

(Cont'd. on page 3)

# Safety Data Sheet

according to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Revision: July 29, 2019

**Trade name: CertainTeed Finishing Products, Ready-Mix Joint Compounds,  
Ready-Mix Non-Aggregated Textures**

(Cont'd. of page 2)

  	<p>STOT RE 1, H372            Eye Dam. 1, H318            Acute Tox. 4, H302; Skin Sens. 1, H317</p>
---	--

· **Additional information:**

For the wording of the listed Hazard Statements, refer to section 16.

Crystalline silica is a naturally occurring contaminant in earth minerals. Analysis for total and respirable Crystalline silica by X-Ray Diffraction(XRD) and Computer-Controlled Scanning Electron Microscopy (CCSEM). Respirable Crystalline silica was either not detected, or if detected, the concentration was below the OSHA Action Level of 25 µg/m<sup>3</sup>.

No Asbestos fibers detected in Asbestos fibers analysis by polarized light microscopy (EPA/600/R-93/116 & EPA/600/M4-82-020)

## 4 First-aid measures

· **Description of first aid measures**

· **After inhalation:**

Supply fresh air; consult doctor in case of complaints.

Provide oxygen treatment if affected person has difficulty breathing.

· **After skin contact:**

Brush off loose particles from skin.

Wash with soap and water.

If skin irritation or rash occurs: Get medical advice/attention.

· **After eye contact:**

Remove contact lenses if worn, if possible.

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

· **After swallowing:**

Rinse out mouth and then drink plenty of water.

Do not induce vomiting; immediately call for medical help.

· **Most important symptoms and effects, both acute and delayed:**

Breathing difficulty

Coughing

Allergic reactions

· **Indication of any immediate medical attention and special treatment needed:**

Contains 2,2',2''-(hexahydro-1,3,5-triazine-1,3,5-triyl)triethanol, 3-Iodo-2-propynylbutylcarbamate. May produce an allergic reaction.

Treat skin and mucous membrane with antihistamine and corticoid preparations.

## 5 Fire-fighting measures

· **Extinguishing media**

· **Suitable extinguishing agents:**

CO<sub>2</sub>, extinguishing powder or water spray. Fight larger fires with water spray.

· **For safety reasons unsuitable extinguishing agents:** None.

· **Special hazards arising from the substance or mixture**

Formation of toxic gases is possible during heating or in case of fire.

· **Advice for firefighters**

· **Protective equipment:**

(Cont'd. on page 4)

# Safety Data Sheet

according to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Revision: July 29, 2019

**Trade name: CertainTeed Finishing Products, Ready-Mix Joint Compounds,  
Ready-Mix Non-Aggregated Textures**

Wear self-contained respiratory protective device.  
Wear fully protective suit.

(Cont'd. of page 3)

## 6 Accidental release measures

### · Personal precautions, protective equipment and emergency procedures

Avoid formation of dust.

Do not breathe dust.

Wear appropriate NIOSH respirator when ventilation is inadequate and occupational exposure limits are exceeded.

### · Environmental precautions

Damp down dust with water spray.

### · Methods and material for containment and cleaning up

Towel or mop up material and collect in a suitable container.

Send for recovery or disposal in suitable receptacles.

### · Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

## 7 Handling and storage

### · Handling

#### · Precautions for safe handling:

Prevent formation of dust.

Avoid breathing dust.

Avoid contact with the eyes.

Keep out of reach of children.

#### · Conditions for safe storage, including any incompatibilities

#### · Requirements to be met by storerooms and receptacles:

Storage area should be dry and well-ventilated.

Containers should be tightly sealed.

#### · Information about storage in one common storage facility: Protect from humidity and water.

#### · Specific end use(s) No relevant information available.

## 8 Exposure controls/personal protection

### · Control parameters

#### · Components with limit values that require monitoring at the workplace:

#### 1317-65-3 Limestone

PEL (USA)	Long-term value: 15* 5** mg/m <sup>3</sup> *total dust **respirable fraction
REL (USA)	Long-term value: 10* 5** mg/m <sup>3</sup> *total dust **respirable fraction
TLV (USA)	TLV withdrawn

(Cont'd. on page 5)

# Safety Data Sheet

according to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Revision: July 29, 2019

**Trade name: CertainTeed Finishing Products, Ready-Mix Joint Compounds,  
Ready-Mix Non-Aggregated Textures**

(Cont'd. of page 4)

**93763-70-3 Perlite**

PEL (USA)	Long-term value: 15* 5** mg/m <sup>3</sup> *total dust **respirable fraction
REL (USA)	Long-term value: 10* 5** mg/m <sup>3</sup> *total dust **respirable fraction
TLV (USA)	TLV withdrawn
EL (Canada)	Long-term value: 10* 3** mg/m <sup>3</sup> *total dust; **respirable fraction
LMPE (Mexico)	Long-term value: 10 mg/m <sup>3</sup> (e), A4

**1332-58-7 Kaolin**

PEL (USA)	Long-term value: 15* 5** mg/m <sup>3</sup> *total dust **respirable fraction
REL (USA)	Long-term value: 10* 5** mg/m <sup>3</sup> *total dust **respirable fraction
TLV (USA)	Long-term value: 2* mg/m <sup>3</sup> E; as respirable fraction
EL (Canada)	Long-term value: 2 mg/m <sup>3</sup>
EV (Canada)	Long-term value: 2(D) mg/m <sup>3</sup> respirable
LMPE (Mexico)	Long-term value: 2* mg/m <sup>3</sup> A4, *fracción respirable

**12001-26-2 Mica**

PEL (USA)	Long-term value: 20 mppcf ppm <1% crystalline silica
REL (USA)	Long-term value: 3* mg/m <sup>3</sup> *respirable dust; containing < 1% quartz
TLV (USA)	Long-term value: 3* mg/m <sup>3</sup> *as respirable fraction
EL (Canada)	Long-term value: 3 mg/m <sup>3</sup>
EV (Canada)	Long-term value: 3(D) mg/m <sup>3</sup> respirable
LMPE (Mexico)	Long-term value: 3* mg/m <sup>3</sup> *fracción respirable

**14808-60-7 Quartz (SiO<sub>2</sub>)**

PEL (USA)	Long-term value: 0.05* mg/m <sup>3</sup> *resp. dust; 30mg/m <sup>3</sup> /%SiO <sub>2</sub> +2
REL (USA)	Long-term value: 0.05* mg/m <sup>3</sup> *respirable dust; See Pocket Guide App. A
TLV (USA)	Long-term value: 0.025* mg/m <sup>3</sup> *as respirable fraction
EL (Canada)	Long-term value: 0.025 mg/m <sup>3</sup> ACGIH A2; IARC 1
EV (Canada)	Long-term value: 0.10* mg/m <sup>3</sup>

(Cont'd. on page 6)

# Safety Data Sheet

according to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Revision: July 29, 2019

**Trade name: CertainTeed Finishing Products, Ready-Mix Joint Compounds,  
Ready-Mix Non-Aggregated Textures**

(Cont'd. of page 5)

LMPE (Mexico)	*respirable fraction Long-term value: 0.025* mg/m <sup>3</sup> A2, *fracción respirable <b>Note:</b> See section 15 for Dust Emission Study.
---------------	---

## Exposure controls

· **General protective and hygienic measures:** Avoid breathing dust.

· **Engineering controls:** Provide adequate ventilation.

### Breathing equipment:

Wear appropriate NIOSH respirator when ventilation is inadequate and occupational exposure limits are exceeded.

Particulate mask should filter at least 99% of airborne particles.

### Protection of hands:



Protective gloves

Gloves are advised for repeated or prolonged contact.

### Eye protection:



Safety glasses

· **Body protection:** Protective work clothing

### Limitation and supervision of exposure into the environment

No relevant information available.

· **Risk management measures** No relevant information available.

## 9 Physical and chemical properties

### Information on basic physical and chemical properties

#### Appearance:

· **Form:** Paste

· **Color:** Off-white

· **Odor:** Odorless

· **Odor threshold:** Not determined.

· **pH-value:** 7-8.5

· **Melting point/Melting range:** Not determined.

· **Boiling point/Boiling range:** Not determined.

· **Flash point:** Not applicable.

· **Flammability (solid, gaseous):** Product is not flammable.

· **Auto-ignition temperature:** Not determined.

· **Decomposition temperature:** 825 °C (1517 °F)

· **Danger of explosion:** Product does not present an explosion hazard.

(Cont'd. on page 7)

# Safety Data Sheet

according to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Revision: July 29, 2019

**Trade name: CertainTeed Finishing Products, Ready-Mix Joint Compounds,  
Ready-Mix Non-Aggregated Textures**

(Cont'd. of page 6)

- |   |                                    |
|---|------------------------------------|
| · <b>Explosion limits</b>                         |                                    |
| <b>Lower:</b>                                     | Not determined.                    |
| <b>Upper:</b>                                     | Not determined.                    |
| · <b>Oxidizing properties:</b>                    | Non-oxidizing.                     |
| · <b>Vapor pressure:</b>                          | Not applicable.                    |
| · <b>Density:</b>                                 |                                    |
| <b>Relative density:</b>                          | 0.8-1.7                            |
| <b>Vapor density:</b>                             | Not applicable.                    |
| <b>Evaporation rate:</b>                          | Not applicable.                    |
| · <b>Solubility in / Miscibility with Water:</b>  | Slightly soluble.                  |
| · <b>Partition coefficient (n-octanol/water):</b> | Not determined.                    |
| · <b>Viscosity</b>                                |                                    |
| <b>Dynamic:</b>                                   | Not applicable.                    |
| <b>Kinematic:</b>                                 | Not applicable.                    |
| · <b>Other information</b>                        | No relevant information available. |

## 10 Stability and reactivity

- **Reactivity:** The product is non-reactive under normal conditions of use, storage and transport.
- **Chemical stability:** Stable under normal temperatures and pressures.
- **Thermal decomposition / conditions to be avoided:**  
No decomposition if used and stored according to specifications.
- **Possibility of hazardous reactions** Reacts with strong acids.
- **Conditions to avoid** Moisture.
- **Incompatible materials** Strong acids
- **Hazardous decomposition products** Carbon monoxide and carbon dioxide

## 11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:** Based on available data, the classification criteria are not met.

### LD/LC50 values that are relevant for classification:

#### 4719-04-4 2,2',2''-(hexahydro-1,3,5-triazine-1,3,5-triyl)triethanol

Oral	LD50	750-1250 mg/kg (rat)
Inhalative	LC50/4h (dynamic)	0.37 mg/l (rat)

#### 55406-53-6 3-Iodo-2-propynylbutylcarbamate

Oral	LD50	1470 mg/kg (rat)
Dermal	LD50	>2000 mg/kg (rat)
Inhalative	LC50/4h	>6.89 mg/l (rat)

(Cont'd. on page 8)

# Safety Data Sheet

according to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Revision: July 29, 2019

**Trade name: CertainTeed Finishing Products, Ready-Mix Joint Compounds,  
Ready-Mix Non-Aggregated Textures**

(Cont'd. of page 7)

- **Primary irritant effect:**
- **On the skin:** Based on available data, the classification criteria are not met.
- **On the eye:** Based on available data, the classification criteria are not met.
- **Sensitization:**  
Contains 2,2',2''-(hexahydro-1,3,5-triazine-1,3,5-triyl)triethanol, 3-Iodo-2-propynylbutylcarbamate. May produce an allergic reaction.

· **IARC (International Agency for Research on Cancer):**

14808-60-7	Quartz (SiO <sub>2</sub> )	1
------------	----------------------------	---

· **NTP (National Toxicology Program):**

14808-60-7	Quartz (SiO <sub>2</sub> )	K
------------	----------------------------	---

· **OSHA-Ca (Occupational Safety & Health Administration):**

None of the ingredients are listed.

· **Probable route(s) of exposure:**

Ingestion.  
Inhalation.  
Eye contact.  
Skin contact.

· **Repeated dose toxicity:**

Long term inhalation of product dust may be harmful.  
Long-term inhalation of silica dusts may cause obstructive pulmonary disease including silicosis.

- **Germ cell mutagenicity:** Based on available data, the classification criteria are not met.

· **Carcinogenicity:**

Based on available data, the classification criteria are not met.  
CertainTeed Gypsum tested the dust emissions from sanding of products. The tests showed that respirable Crystalline silica was either not detected, or if detected, the concentration was below the occupational exposure limit. (See Section 15, Dust Emission Study)

- **Reproductive toxicity:** Based on available data, the classification criteria are not met.
- **STOT-single exposure:** Based on available data, the classification criteria are not met.
- **STOT-repeated exposure:** Based on available data, the classification criteria are not met.
- **Aspiration hazard:** Based on available data, the classification criteria are not met.

## 12 Ecological information

- **Toxicity**
- **Aquatic toxicity** No relevant information available.
- **Persistence and degradability** No relevant information available.
- **Bioaccumulative potential:** No relevant information available.
- **Mobility in soil:** No relevant information available.
- **Other adverse effects** No relevant information available.

## 13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:**  
Smaller quantities can be disposed of with household waste.

(Cont'd. on page 9)

## Safety Data Sheet

according to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Revision: July 29, 2019

**Trade name: CertainTeed Finishing Products, Ready-Mix Joint Compounds,  
Ready-Mix Non-Aggregated Textures**

(Cont'd. of page 8)

The user of this material has the responsibility to dispose of unused material, residues and containers in compliance with all relevant local, state and federal laws and regulations regarding treatment, storage and disposal for hazardous and nonhazardous wastes.

- **Uncleaned packagings**
- **Recommendation:** Disposal must be made according to official regulations.

### 14 Transport information

- |  |                 |
|--|-----------------|
| <b>UN-Number</b>   |                 |
| · DOT, ADR/RID/ADN, IMDG, IATA   | Not regulated.  |
| <b>UN proper shipping name</b>   |                 |
| · DOT, ADR/RID/ADN, IMDG, IATA   | Not regulated.  |
| <b>Transport hazard class(es)</b>  |                 |
| · DOT, ADR/RID/ADN, IMDG, IATA   |                 |
| · Class  | Not regulated.  |
| <b>Packing group</b>   |                 |
| · DOT, ADR/RID/ADN, IMDG, IATA   | Not regulated.  |
| <b>Environmental hazards</b>   |                 |
| · Marine pollutant:  | No              |
| <b>Special precautions for user</b>  | Not applicable. |
| <b>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b> | Not applicable. |

### 15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**

**Dust Emission Study:** CertainTeed Gypsum contracted with an independent third-party test laboratory to conduct industrial hygiene tests on the release of respirable Crystalline silica during the application and sanding of our joint compound products. Initially a bulk analysis was conducted on the majority of joint compounds to identify three products representative of the complete joint compound product line to be used in the application and sanding phase of the test program. The effects of three different grit abrasive papers (fine, medium and coarse) were evaluated with a manual hand pole method during the sanding operation. Air samples were collected within the breathing zone of the worker and within the test chamber during each sanding operation on multiple samples of each joint compound. These tests have shown that none of the air samples collected exceeded the OSHA PEL (Permissible Exposure Limit) or ACGIH® TLV® (Threshold Limit Value) for total or respirable dust. Respirable Crystalline silica was either not detected, or if detected, the concentration was below the OSHA Action Level of 25 µg/m<sup>3</sup> for all of the air samples collected. Testing has also shown that CertainTeed Dust Away technology offers the lowest levels of both nuisance and respirable dust air concentrations of all the compounds tested.

Further information: Marketing Technical Services, call 1-800-446-5284

(Cont'd. on page 10)

# Safety Data Sheet

according to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Revision: July 29, 2019

**Trade name: CertainTeed Finishing Products, Ready-Mix Joint Compounds,  
Ready-Mix Non-Aggregated Textures**

(Cont'd. of page 9)

· **United States (USA)**

· **SARA**

· **Section 302 (extremely hazardous substances):**

None of the ingredients are listed.

· **Section 355 (extremely hazardous substances):**

None of the ingredients are listed.

· **Section 313 (Specific toxic chemical listings):**

None of the ingredients are listed.

· **TSCA (Toxic Substances Control Act)**

All ingredients are listed or exempt.

· **Proposition 65 (California)**

· **Chemicals known to cause cancer:**

12174-11-7	Attapulgite (Palygorskite)
------------	----------------------------

14808-60-7	Quartz (SiO <sub>2</sub> )
------------	----------------------------

· **Chemicals known to cause developmental toxicity for females:**

None of the ingredients are listed.

· **Chemicals known to cause developmental toxicity for males:**

None of the ingredients are listed.

· **Chemicals known to cause developmental toxicity:**

None of the ingredients are listed.

· **EPA (Environmental Protection Agency):**

None of the ingredients are listed.

· **IARC (International Agency for Research on Cancer):**

14808-60-7	Quartz (SiO <sub>2</sub> )	1
------------	----------------------------	---

· **Canadian Domestic Substances List (DSL):**

All ingredients are listed or exempt.	*
---------------------------------------	---

## 16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Abbreviations and acronyms:**

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

CAS: Chemical Abstracts Service (division of the American Chemical Society)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

OSHA: Occupational Safety & Health Administration

Acute Tox. 4: Acute toxicity – Category 4

Acute Tox. 2: Acute toxicity – Category 2

Acute Tox. 3: Acute toxicity – Category 3

Eye Dam. 1: Serious eye damage/eye irritation – Category 1

Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A

(Cont'd. on page 11)

# Safety Data Sheet

according to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Revision: July 29, 2019

**Trade name: CertainTeed Finishing Products, Ready-Mix Joint Compounds,  
Ready-Mix Non-Aggregated Textures**

(Cont'd. of page 10)

Skin Sens. 1: Skin sensitisation – Category 1

Carc. 1A: Carcinogenicity – Category 1A

STOT RE 1: Specific target organ toxicity (repeated exposure) – Category 1

**Sources**Website, European Chemicals Agency ([echa.europa.eu](http://echa.europa.eu))Website, US EPA Substance Registry Services ([ofmpub.epa.gov/sor\\_internet/registry/substreg/home/overview/home.do](http://ofmpub.epa.gov/sor_internet/registry/substreg/home/overview/home.do))Website, Chemical Abstracts Registry, American Chemical Society ([www.cas.org](http://www.cas.org))

Patty's Industrial Hygiene, 6th ed., Rose, Vernon, ed. ISBN: 978-0-470-07488-6

Casarett and Doull's Toxicology: The Basic Science of Poisons, 8th Ed., Klaasen, Curtis D., ed., ISBN: 978-0-07-176923-5.

Safety Data Sheets, Individual Manufacturers

SDS Prepared by:

ChemTel Inc.

1305 North Florida Avenue

Tampa, Florida USA 33602-2902

Toll Free North America 1-888-255-3924 Intl. +01 813-248-0573

Website: [www.chemtelinc.com](http://www.chemtelinc.com)

**empack**Empack Spraytech Inc.  
98 Walker Drive  
Brampton, Ontario, L6T 4H6  
Canada  
905-792-6571**PRODUCT: emzone Brake & Parts Cleaner - The BIG Can - 482g****CODE: P6-045046****SECTION 01: CHEMICAL PRODUCT AND COMPANY IDENTIFICATION**

Product Item Numbers..... P6-045046  
 Product Identity..... emzone Brake & Parts Cleaner - The BIG Can - 482g  
 Manufacturer..... Empack Spraytech Inc.  
 98 Walker Drive  
 Brampton  
 Ontario  
 Canada  
 L6T 4H6  
 905-792-6571  
 24 hour emergency telephone number..... CHEM TREC: 800-424-9300.  
 Recommended Use..... Solvent degreaser.

**SECTION 02: HAZARDS IDENTIFICATION**

**Hazard Classification:**  
 Physical Hazards..... Flammable Aerosols - Category 1. Gases Under Pressure - Compressed gas.  
 Health Hazards..... Eye Damage/Irritation - Category 2B. Skin Irritation - Category 2. Specific Target Organ Toxicity, Single Exposure - Category 3. Aspiration Hazard - Category 1.  
 Environmental Hazards..... Acute Aquatic Hazard - Category 1. Chronic Aquatic Hazard - Category 1.

**Label Elements:**  
 Signal Word..... DANGER.  
 Hazard Statement..... Extremely flammable aerosol. Pressurized container: may burst if heated. Causes eye irritation. Causes skin irritation. May be fatal if swallowed and enters airways. May cause drowsiness or dizziness. Very toxic to aquatic life with long lasting effects. Causes damage to organs.

**Precautionary Statements:**  
 Prevention..... Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not spray on an open flame or other ignition source. Do not pierce or burn, even after use. Do not breathe dust/fume/gas/mist/vapours/spray. Use only outdoors or in a well-ventilated area. Avoid release to the environment. Wash hands thoroughly after handling. Wear protective gloves.

**Response.....** IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER if you feel unwell. IF SWALLOWED: Immediately call a POISON CENTER. Do NOT induce vomiting. IF ON SKIN: Wash with plenty of water. Take off contaminated clothing and wash before reuse. If skin irritation occurs: Get medical attention. Take off contaminated clothing and wash it before reuse. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. IF exposed or concerned: Call a POISON CENTER/doctor. Collect spillage.

**Storage.....** Keep container tightly closed. Protect from sunlight. Do not expose to temperatures exceeding 50°C /122°F. Store in a well-ventilated place. Store locked up.

**Disposal.....** Dispose of contents/ container in accordance with local/regional/national/international regulations.

**Hazard(s) not otherwise classified (HNOC)..** None Known.

**SECTION 03: COMPOSITION/INFORMATION ON INGREDIENTS**

HAZARDOUS INGREDIENTS	CAS #	WT. %
Heptane	142-82-5	60-100
Isopropyl Alcohol	67-63-0	5 - 10
Carbon Dioxide	124-38-9	1-5

PRODUCT: emzone Brake &amp; Parts Cleaner - The BIG Can - 482g

CODE: P6-045046

**SECTION 04: FIRST AID MEASURES**

Inhalation.....	If inhaled, remove to fresh air. If not breathing, give artificial respiration and obtain immediate medical assistance. If breathing is difficult, give oxygen and get medical attention. Do not give adrenaline, epinephrine or similar drugs following exposure to this product.
Skin Contact.....	Wash thoroughly with soap and lukewarm water.
Eye Contact.....	Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical attention if irritation persists.
Ingestion.....	Do not induce vomiting, get medical attention. Consult poison control center or physician IMMEDIATELY.
Most important symptoms/effects, acute and delayed	Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Direct contact with eyes may cause temporary irritation. Vapors have a narcotic effect and may cause headache, fatigue, dizziness and nausea. May cause redness and pain.
Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically. In case of shortness of breath give oxygen. Keep victim warm. Keep victim under observation. Symptoms may be delayed.

**SECTION 05: FIRE FIGHTING MEASURES**

Suitable Extinguishing Media.....	Dry chemical powder. Carbon dioxide. Foam, water spray or fog.
Unsuitable Extinguishing Media.....	Do not use water jet as an extinguisher, as this will spread the fire.
Specific Hazards Arising from the Chemical.	Contents under pressure. Pressurized container may explode when exposed to heat or flame.
Special Protective Equipment and Precautions for Firefighters	Firefighters must use standard protective equipment including flame retardant coat, helmet with water to prevent vapor pressure build up. For massive fire in cargo area, use unmanned hose holder or monitor nozzles, if possible. If not, withdraw and let fire burn out.
General Fire Hazards.....	Extremely flammable aerosol.

**SECTION 06: ACCIDENTAL RELEASE MEASURES**

Personal Precautions, Protective Equipment and Emergency Procedures	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Avoid walking through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see Section 08).
Methods and Materials for Containment and Cleaning Up	Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local/national regulations (see section 13). Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material.
Environmental Precautions.....	Keep out of drains, sewers, ditches, and waterways. Minimize use of water to prevent environmental contamination.

**SECTION 07: HANDLING AND STORAGE**

Precautions for Safe Handling.....	Pressurized container: Do not pierce or burn, even after use. Do not use if spray button is missing or defective. Do not spray on a naked flame or any other incandescent material. Do not smoke while using or until sprayed surface is thoroughly dry. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose empty containers to heat, sparks or open flames. Avoid contact with eyes, skin, and clothing. Avoid breathing vapour of this product. Avoid contact with skin and eyes. Avoid prolonged exposure. Use in well-ventilated areas.
Conditions for Safe Storage including any Incompatibilities	Store locked up. Pressurized container. Protect from sunlight and do not expose to temperatures exceeding 50°C (122°F). Do not puncture, incinerate or crush. Do not handle or store near an open flame, heat or other sources of ignition. Store away from incompatible materials (see Section 10).

**SECTION 08: EXPOSURE CONTROLS / PERSONAL PROTECTION**

INGREDIENTS	ACGIH TLV		PEL	OSHA PEL		REL	NIOSH
	TWA	STEL		STEL	STEL		
Heptane	400 ppm	500 ppm	500 ppm	Not available	Not available	85 ppm for n-Heptane, 440 ppm for a ceiling conc.	
Isopropyl Alcohol	400 ppm (983 mg/m3)	500 ppm (1230 mg/m3)	400 ppm (980 mg/m3)	500 ppm (1,225 mg/m3)	500 ppm (1,225 mg/m3)	400 ppm (TWA)	
Carbon Dioxide	5000 ppm	30000 ppm	9000 mg/m3	Not available	Not available	STEL: 30000ppm; TWA: 5000ppm	

PRODUCT: emzone Brake &amp; Parts Cleaner - The BIG Can - 482g

CODE: P6-045046

**SECTION 08: EXPOSURE CONTROLS / PERSONAL PROTECTION**

Appropriate Engineering Controls.....	Local exhaust ventilation required to maintain the point of use below the Threshold Limit Value if unprotected personnel are involved.
Individual Protection Measures:	
Eye/Face Protection.....	Do not get in eyes. Wear safety glasses with side-shields.
Skin Protection.....	Chemical resistant gloves are recommended. Avoid contact with the skin. Wear appropriate chemical resistant clothing.
Respiratory Protection.....	Use dust and mist respirator.
Thermal Hazards.....	None Known.
General Hygiene Considerations.....	When using, do not eat, drink or smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment prior to use.

**SECTION 09: PHYSICAL AND CHEMICAL PROPERTIES**

Form.....	Aerosol.
Physical Appearance.....	Clear mist.
Odor.....	Heptane.
Odor Threshold (ppm).....	N/A.
Specific Gravity (Liquid).....	0.680-0.700.
Specific Gravity (Aerosol).....	0.620- 0.660.
Aerosol Vapour Pressure (psig, 21°C).....	83-130.
Vapour Density (Air=1).....	> 1.
pH.....	N/A.
Boiling Point liquid (°C).....	98 °C ( 209°F).
Melting/Freezing Point (°C).....	N/A.
Flash Point (°C), Method.....	-4°C (25°F). Tag Closed Cup.
Flashback.....	Yes.
Evaporation Rate (n-Butyl Acetate = 1).....	N/A.
VOC Content.....	96wt% (669g/L - 5.59 lb/gal).
Solubility in water.....	Nil.
Aerosol Flame Projection.....	>100 cm.
Auto Ignition Temperature (°C).....	204°C (399°F).
Lower Flammable Limit (% Vol).....	1.0.
Upper Flammable Limit (% Vol).....	8.0.
Coefficient of Water/Oil Distribution.....	N/A.
Viscosity.....	N/A.

**SECTION 10: STABILITY AND REACTIVITY**

Reactivity .....	Product not reactive under normal conditions of use.
Chemical Stability.....	Material is stable under normal conditions.
Possibility of Hazardous Reactions.....	Will not occur.
Conditions to Avoid.....	Avoid sources of heat and flame, and electrostatic charge.
Incompatible Materials.....	Strong oxidizing agents. Strong acids.
Hazardous Decomposition Products.....	Carbon Oxides.

**SECTION 11: TOXICOLOGICAL INFORMATION**

INGREDIENTS	LC50	LD50
Heptane	103,000 mg/L (Rat,4hr)	>15,000 mg/kg (rat - oral); >2,000 mg/kg (Dermal,Rabbit)
Isopropyl Alcohol	>20,000 ppm (4hrs-rat)	4,700 - 5,800 mg/kg (oral,rat)
Carbon Dioxide	Not available	Not available
Information on Likely Routes of Exposure:		
Routes of entry - Inhalation.....	Yes.	
Routes of entry - Skin & Eye.....	Yes.	
Routes of entry - Ingestion.....	Yes.	
Routes of entry - Skin Absorption.....	Yes.	
Symptoms Related to the Physical, Chemical and Toxicological Characteristics	Irritant effects. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Defatting of the skin. Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting.	
Acute Toxicity.....	Toxic if inhaled.	
Skin Corrosion/Irritation.....	Causes skin irritation.	
Serious Eye Damage/Eye Irritation.....	Causes eye irritation.	
Respiratory or Skin Sensitization.....	Inhalation may cause respiratory tract irritation.	
Germ Cell Mutagenicity.....	No information is available.	
Carcinogenicity.....	None known.	

**PRODUCT: emzone Brake & Parts Cleaner - The BIG Can - 482g**

**CODE: P6-045046**

### SECTION 11: TOXICOLOGICAL INFORMATION

Reproductive Toxicity..... No information is available.  
 STOT - Single Exposure..... Specific target organ toxicity single exposure Category 3. May cause drowsiness and dizziness.  
 STOT - Repeated Exposure..... May cause damage to the liver and kidneys through prolonged or repeated exposure.  
 Aspiration Hazard..... Aspiration into the lungs during swallowing or subsequent vomiting may cause chemical pneumonitis, which can be fatal.  
 Chronic Effects..... Organic solvents may be absorbed into the body by inhalation and ingestion and cause permanent damage to the nervous system, including the brain. Frequent or prolonged contact may defat and dry the skin, leading to discomfort and dermatitis.

### SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity..... Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. This material and its container must be disposed of as hazardous waste. Avoid release to the environment. Heptane (CAS#:142-82-5): Toxicity to fish: LC50 1.284 mg/L, 96 hrs; Toxicity to other aquatic invertebrates: 0.1 mg/L, 96 hrs; Toxicity to algae: EL50 4.338 mg/L, 72 hrs.  
 Persistence and degradability ..... The product itself has not been tested.  
 Bioaccumulation Potential..... The product itself has not been tested.  
 Mobility in Soil..... The product itself has not been tested.  
 Other Adverse Effects..... None Known.

### SECTION 13: DISPOSAL CONSIDERATIONS

Appropriate Disposal Methods..... Dispose in accordance with local, provincial and federal regulations.

### SECTION 14: TRANSPORT INFORMATION

TDG (Canada- Road)..... AEROSOLS, Class 2.1, UN1950.  
 DOT (US-Road)..... AEROSOLS, Class 2.1, UN1950, LTD QTY, Consumer commodity ORM-D.  
 IMDG (International- Marine)..... AEROSOLS, Class 2.1, UN1950.  
 IATA (International- Air)..... AEROSOLS, Class 2.1, UN1950, LTD QTY.

### SECTION 15: REGULATORY INFORMATION

Canada Regulations..... WHMIS Classification. A: Compressed gas. B5: Flammable Aerosol. D2B: Material causing other toxic Materials.  
 Domestic Substances List (DSL)..... Yes.  
 US Regulations..... Environmental Protection Act: Constituents of this product are included on the TSCA inventory. This product is considered hazardous under the OSHA Hazard Communication Standard.

### SECTION 16: OTHER INFORMATION

Disclaimer..... The information contained herein is based on data considered accurate. No guarantee or warranty is expressed or implied regarding the accuracy of this data or the results obtained from the use thereof. The SDS provider assumes no responsibility for personal injury or property damage to vendors or users or third parties, caused by the material. Such vendors or users assume all risks with the use of the material. This product has been classified in accordance with the hazard criteria of the CPR and the SDS contains all the information required by the CPR. .  
 Abbreviations..... ACGIH: American Conference of Governmental Industrial Hygienists; CAS: Chemical Abstract Service; NIOSH: National Institute for Occupational Safety and Health, OSHA: Occupational Safety and Health Administration- USA; TSCA: Toxic Substances Control Act 1976-USA; PEL: Permissible Exposure Limit; REL: Recommended Exposure Limit; TLV: Threshold Limit Value; VOC: Volatile Organic Content; WHMIS: Workplace Hazardous Materials Information System STOT: Specific Target Organ Toxicity.  
 Prepared by ..... Regulatory Affairs  
 Latest Revision ..... JAN 03/2017

**empack**Empack Spraytech Inc.  
98 Walker Drive  
Brampton, Ontario, L6T 4H6  
Canada  
905-792-6571**PRODUCT: Emzone Foaming Glass Cleaner - 517g****CODE: P6-044005****SECTION 01: CHEMICAL PRODUCT AND COMPANY IDENTIFICATION**

Product Item Numbers..... P6-044005  
 Product Identity..... Emzone Foaming Glass Cleaner - 517g  
 Manufacturer..... Empack Spraytech Inc.  
 98 Walker Drive  
 Brampton  
 Ontario  
 Canada  
 L6T 4H6  
 905-792-6571  
 24 hour emergency telephone number..... CHEM TREC: 800-424-9300.  
 Recommended Use..... Cleans windows, mirrors, windshields, tile, porcelain, stainless steel, chrome.  
 Chemical Family..... Mixture.

**SECTION 02: HAZARDS IDENTIFICATION**

Hazard Classification:  
 Physical Hazards..... Aerosols - Category 3. Gases Under Pressure - Liquefied Gas .  
 Health Hazards..... Skin Irritation - Category 3. Eye Damage/Irritation - Category 2A. Skin Sensitization - Category 1.  
 Environmental Hazards..... Not Classified.  
 Label Elements:  
 Signal Word..... WARNING.  
 Hazard Statement..... Pressurized container: may burst if heated. Contains gas under pressure; may explode if heated. Causes mild skin irritation. Causes serious eye irritation. May cause an allergic skin reaction.  
 Precautionary Statements:  
 Prevention..... Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not pierce or burn, even after use. Wash hand thoroughly after handling. Avoid breathing dust/fume/gas/mist/vapours/spray. Contaminated work clothing must not be allowed out of the workplace. Wear protective gloves/protective clothing/eye protection/face protection.  
 Response..... IF ON SKIN: Wash with plenty of soap and water. If Skin Irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash it before reuse. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.  
 Storage..... Protect from sunlight. Do not expose to temperatures exceeding 50°C /122°F. Store in a well ventilated place .  
 Disposal..... Dispose of contents/ container in accordance with local/regional/national/international regulations.  
 Hazard(s) not otherwise classified (HNOC).. None Known.

**SECTION 03: COMPOSITION/INFORMATION ON INGREDIENTS**

HAZARDOUS INGREDIENTS	CAS #	WT. %
Isopropyl Alcohol	67-63-0	7-13
Isobutane	75-28-5	5-10
2-Butoxyethanol	111-76-2	3-7
Surfactants	Mix.	0.1-1

**SECTION 04: FIRST AID MEASURES**

Inhalation..... If inhaled, remove to fresh air. If not breathing, give artificial respiration and obtain immediate medical assistance.  
 Skin Contact..... Remove contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Consult a poison control centre or physician immediately.

PRODUCT: Emzone Foaming Glass Cleaner - 517g

CODE: P6-044005

**SECTION 04: FIRST AID MEASURES**

Eye Contact.....	Check for and remove contact lenses. Immediately flush eyes with water for a minimum of 15 minutes keeping eyelids open. Consult a doctor if any irritation occurs.
Ingestion.....	Ingestion is unlikely to occur. If swallowed do not induce vomiting because of risk of aspiration into the lungs. If aspiration is suspected obtain immediate medical attention.
Most important symptoms/effects, acute and delayed	Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Direct contact with eyes may cause temporary irritation. Vapors have a narcotic effect and may cause headache, fatigue, dizziness and nausea. May cause redness and pain.
Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically. In case of shortness of breath give oxygen. Keep victim warm. Keep victim under observation. Symptoms may be delayed.

**SECTION 05: FIRE FIGHTING MEASURES**

Suitable Extinguishing Media.....	Dry chemical powder. Carbon dioxide. Foam, water spray or fog.
Unsuitable Extinguishing Media.....	Do not use water jet as an extinguisher, as this will spread the fire.
Specific Hazards Arising from the Chemical.	In case of fire, the following can be released: Carbon Oxides (CO, CO2), Other unidentified Organic Compounds.
Special Protective Equipment and Precautions for Firefighters	Firefighters must use standard protective equipment including flame retardant coat, helmet with water to prevent vapor pressure build up. For massive fire in cargo area, use unmanned hose holder or monitor nozzles, if possible. If not, withdraw and let fire burn out.
General Fire Hazards.....	N/A.

**SECTION 06: ACCIDENTAL RELEASE MEASURES**

Personal Precautions, Protective Equipment and Emergency Procedures	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Avoid walking through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see Section 08).
Methods and Materials for Containment and Cleaning Up	Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local/national regulations (see section 13). Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material.
Environmental Precautions.....	Keep out of drains, sewers, ditches, and waterways. Minimize use of water to prevent environmental contamination.

**SECTION 07: HANDLING AND STORAGE**

Precautions for Safe Handling.....	Pressurized container: Do not pierce or burn, even after use. Do not use if spray button is missing or defective. Do not spray on a naked flame or any other incandescent material. Do not smoke while using or until sprayed surface is thoroughly dry. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose empty containers to heat, sparks or open flames. Avoid breathing vapour of this product. Avoid contact with skin and eyes. Avoid prolonged exposure. Use in well-ventilated areas.
Conditions for Safe Storage including any Incompatibilities	Store locked up. Pressurized container. Protect from sunlight and do not expose to temperatures exceeding 50°C (122°F). Do not puncture, incinerate or crush. Do not handle or store near an open flame, heat or other sources of ignition. Store away from incompatible materials (see Section 10).

**SECTION 08: EXPOSURE CONTROLS / PERSONAL PROTECTION**

INGREDIENTS	ACGIH TLV		OSHA PEL		NIOSH REL
	TWA	STEL	PEL	STEL	
Isopropyl Alcohol	400 ppm (980 mg/m <sup>3</sup> )	500 ppm (1,225 mg/m <sup>3</sup> )	400 ppm (980 mg/m <sup>3</sup> )	500 ppm (1,225 mg/m <sup>3</sup> )	400 ppm (980 mg/m <sup>3</sup> )
Isobutane	Not available	1,000 ppm	Not available	Not available	Not available
2-Butoxyethanol	20 ppm	Not available	50 ppm	Not available	Not available
Surfactants	Not available	Not available	Not available	Not available	Not available
Appropriate Engineering Controls.....	Local exhaust ventilation required to maintain the point of use below the Threshold Limit Value if unprotected personnel are involved.				
Individual Protection Measures:					
Eye/Face Protection.....	Chemical splash goggles are recommended.				
Skin Protection.....	Chemical resistant gloves are recommended. Avoid contact with the skin. Wear appropriate chemical resistant clothing.				
Respiratory Protection.....	Use dust and mist respirator.				

PRODUCT: Emzone Foaming Glass Cleaner - 517g

CODE: P6-044005

**SECTION 08: EXPOSURE CONTROLS / PERSONAL PROTECTION**

Thermal Hazards..... None Known.  
 General Hygiene Considerations..... When using, do not eat, drink or smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment prior to use.

**SECTION 09: PHYSICAL AND CHEMICAL PROPERTIES**

Form..... Aerosol.  
 Physical Appearance..... Clear liquid.  
 Odor..... Windex.  
 Odor Threshold (ppm)..... N/A.  
 Specific Gravity (Aerosol)..... 0.947-0.970.  
 Specific Gravity (Liquid)..... 0.975-1.00.  
 Aerosol Vapour Pressure (psig, 21°C)..... 40-60.  
 Vapour Density (Air=1)..... >1.  
 pH..... 7.0 - 8.0.  
 Boiling Point (propellant), ° C..... -12 °C (10 °F) - lit.  
 Melting/Freezing Point (°C)..... N/A.  
 Flashback..... N/A.  
 Flash Point, °C (Propellant), Method..... -83 °C (-117°F). Closed Cup.  
 Evaporation Rate (n-Butyl Acetate = 1)..... > 1 .  
 VOC Content..... Not available.  
 Solubility in water..... Miscible in water.  
 Aerosol Flame Projection..... N/A.  
 Auto Ignition Temperature (°C)..... 462. (Propellant).  
 Lower Flammable Limit (% Vol)..... 1.8. (Propellant).  
 Upper Flammable Limit (% Vol)..... 8.4. (Propellant).  
 Coefficient of Water/Oil Distribution..... N/A.  
 Viscosity..... N/A.

**SECTION 10: STABILITY AND REACTIVITY**

Reactivity ..... Product not reactive under normal conditions of use.  
 Chemical Stability..... Material is stable under normal conditions.  
 Possibility of Hazardous Reactions..... Will not occur.  
 Conditions to Avoid..... Avoid sources of heat and flame, and electrostatic charge.  
 Incompatible Materials..... Keep away from heat. Strong oxidizing agents.  
 Hazardous Decomposition Products..... See Section 05.

**SECTION 11: TOXICOLOGICAL INFORMATION**

INGREDIENTS	LC50	LD50
Isopropyl Alcohol	73 mg/L (Rat - 4hrs)	1,870 mg/kg (Oral - Rat); 4,059 mg/kg (Dermal - Rabbit)
Isobutane	658 mg/L (Rat - 4hrs)	Not available
2-Butoxyethanol	450 ppm (Rat - 4hrs)	470 mg/kg (Oral - Rat)
Surfactants	Not available	Not available

## Information on Likely Routes of Exposure:

Routes of entry - Inhalation..... Prolonged inhalation may be harmful.  
 Routes of entry - Skin & Eye..... Direct contact with eyes may cause temporary irritation.  
 Routes of entry - Ingestion..... Can cause irritation, nausea and vomiting.  
 Routes of entry - Skin Absorption..... 2-Butoxy ethanol may be absorbed through the skin in toxic amounts if contact is repeated and prolonged. These effects have not been observed in humans.

## Symptoms Related to the Physical, Chemical and Toxicological Characteristics

Acute Toxicity..... Harmful or fatal if swallowed. Irritating to the eyes,nose and throat. Skin contact may cause irritation.  
 Skin Corrosion/Irritation..... Causes skin irritation.  
 Serious Eye Damage/Eye Irritation..... Causes eye irritation.  
 Respiratory or Skin Sensitization..... N/A.  
 Germ Cell Mutagenicity..... No data available to indicate product or any components present at greater than 0.1% are mutagenic.  
 Carcinogenicity..... 2-Butoxyethanol (CAS#: 111-76-2): ACGIH-A3 Confirmed animal carcinogen with unknown relevance to humans; IARC-3 Not Classifiable as to carcinogens to humans.  
 Reproductive Toxicity..... No information is available.  
 STOT - Single Exposure..... Not classified.  
 STOT - Repeated Exposure..... Not classified.

PRODUCT: Emzone Foaming Glass Cleaner - 517g

CODE: P6-044005

**SECTION 11: TOXICOLOGICAL INFORMATION**

Aspiration Hazard..... Not classified.  
 Chronic Effects..... Prolonged inhalation may be harmful. May be harmful if absorbed through skin.

**SECTION 12: ECOLOGICAL INFORMATION**

Ecotoxicity..... May be dangerous for the environment. No data is available on the product itself. Should not be released into the environment. This product contains the following substance which may also be hazardous for the environment: Isopropanol (CAS#: 67-63-0): Toxicity to fish: LC50 9,640 mg/L, 96 hrs; Toxicity to other aquatic invertebrates: 5,102 mg/L, 96 hrs; Toxicity to algae: EL50 >2,000 mg/L, 72 hrs. 2-butoxyethanol (CAS#: 111-76-2): Not established.  
 Persistence and degradability ..... The product itself has not been tested.  
 Bioaccumulation Potential..... The product itself has not been tested.  
 Mobility in Soil..... The product itself has not been tested.  
 Other Adverse Effects..... None Known.

**SECTION 13: DISPOSAL CONSIDERATIONS**

Appropriate Disposal Methods..... This material and its container must be disposed of as hazardous waste. Avoid release to the environment. Spilled material and water rinses are classified as chemical waste and must be disposed of in accordance with current local, provincial and federal regulations. Contents under pressure. Do not puncture, incinerate or expose to heat, even when empty.

**SECTION 14: TRANSPORT INFORMATION**

TDG (Canada- Road)..... AEROSOLS, Class 2.2, UN1950.  
 DOT (US-Road)..... AEROSOLS, Class 2.2, UN1950, LTD QTY, Consumer Commodity ORM-D.  
 IMDG (International- Marine)..... AEROSOLS, Class 2.2, UN1950.  
 IATA (International- Air)..... AEROSOLS, Class 2.2, UN1950, LTD QTY .

**SECTION 15: REGULATORY INFORMATION**

Canada Regulations:..... WHMIS Classification. A: Compressed gas. D2B: Material causing other toxic Materials.  
 Canadian Environmental Protection Act ..... All ingredients listed appear on the Domestic Substances List (DSL).  
 (CEPA)  
 US Regulations  
 TSCA Inventory Status..... All components are listed on TSCA .  
 OSHA..... This product is considered hazardous under the Federal OSHA hazard communication standard.  
 California Proposition 65..... This product does not contain any chemical(s) known to the state of California to cause cancer or reproductivity toxicity.

**SECTION 16: OTHER INFORMATION**

Disclaimer..... The information contained herein is based on data considered accurate. No guarantee or warranty is expressed or implied regarding the accuracy of this data or the results obtained from the use thereof. The SDS provider assumes no responsibility for personal injury or property damage to vendors or users or third parties, caused by the material. Such vendors or users assume all risks with the use of the material. This product has been classified in accordance with the hazard criteria of the CPR and the SDS contains all the information required by the CPR. .  
 Abbreviations..... ACGIH: American Conference of Governmental Industrial Hygienists; CAS: Chemical Abstract Service; NIOSH: National Institute for Occupational Safety and Health, OSHA: Occupational Safety and Health Administration- USA; TSCA: Toxic Substances Control Act 1976-USA; PEL: Permissible Exposure Limit; REL: Recommended Exposure Limit; TLV: Threshold Limit Value; VOC: Volatile Organic Content; WHMIS: Workplace Hazardous Materials Information System STOT: Specific Target Organ Toxicity.  
 Prepared by ..... Regulatory Affairs  
 Latest Revision ..... OCT 20/2017



GARDNER-GIBSON  
 4161 E. 7th AVENUE  
 TAMPA, FL, 33605  
 USA  
 813-248-2101

**PRODUCT: ETERNA-KOTE S-100 SILICONE ROOF COATING**

**CODE: 5570**

**SECTION 01: IDENTIFICATION**

Supplier identifier..... Gardner-Gibson  
 4161 E. 7th Avenue  
 Tampa, FL 33605  
 USA  
 813-248-2101  
 Product identifier..... ETERNA-KOTE S-100 SILICONE ROOF COATING  
 Product code..... 5570  
 Product use..... Roof coating.  
 Emergency telephone number..... CANUTEC 24-hour number (613-996-6666). CHEMTREC 1-800-424-9300.

**SECTION 02: HAZARD IDENTIFICATION**



Hazard classification..... Flammable Liquids — Category 4. Skin Irritation — Category 2. Eye Irritation — Category 2A.  
 Signal word..... WARNING.  
 Hazard statement..... H227 Combustible liquid. H315 Causes skin irritation. H319 Causes serious eye irritation.  
 Precautionary statements..... P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P280 Wear protective gloves/protective clothing/eye protection/face protection. P264 Wash thoroughly after handling. P370+P378: In case of fire: Use dry chemical, alcohol foam, carbon dioxide or water spray to extinguish. . P302+P352 IF ON SKIN: Wash with plenty of soap and water. P321 Specific treatment (see section 4 of SDS). P332+P313 If skin irritation occurs: Get medical advice/attention. P362+P364 Take off contaminated clothing and wash before reuse. P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337+P313 If eye irritation persists: Get medical advice/attention. P403 Store in a well-ventilated place. P501 Dispose of contents/container to an approved waste disposal plant.  
 Other hazards..... None.  
 Comments..... Fillers are encapsulated and not expected to be released from product under normal conditions of use. Airborne exposures to hazardous dusts or mists may be generated by spraying, sanding or grinding.

**SECTION 03: COMPOSITION/INFORMATION ON INGREDIENTS**

HAZARDOUS INGREDIENTS	CAS #	WT. %
Titanium dioxide	13463-67-7	6
Methyltrimethylsiloxane	1185-55-3	3
Aminopropyltrimethoxysilane	13822-56-5	1
Crystalline silica, quartz	14808-60-7	0.5-1

**SECTION 04: FIRST-AID MEASURES**

Routes of exposure  
 Inhalation..... If symptoms develop move victim to fresh air. If symptoms persist, obtain medical attention. If breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Get medical attention immediately. Call a poison center or physician.  
 Ingestion..... Rinse mouth and then drink plenty of water. Do not induce vomiting. Seek medical attention if necessary.  
 Skin contact..... Wash off with soap and water. Get medical attention if irritation develops and persists. Take off contaminated clothing and wash before reuse.  
 Eye contact..... Do not rub eyes. Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Use fingers to ensure that eyelids are separated and that the eye is being irrigated. If irritation persists, contact a physician.

PRODUCT: ETERNA-KOTE S-100 SILICONE ROOF COATING

CODE: 5570

**SECTION 04: FIRST-AID MEASURES**

Most important symptoms and effects, both acute and delayed . The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11.  
 Medical attention and special treatment..... Note to physician: Treat according to symptoms (decontamination, vital functions), no known specific antidote. No special measures required.

**SECTION 05: FIRE-FIGHTING MEASURES**

Extinguishing media..... Use dry chemical, alcohol foam, carbon dioxide or water spray to extinguish. Do not use water jet as an extinguisher, as this will spread the fire.  
 Hazardous combustion products..... The substances/groups of substances mentioned can be released in case of fire.: Harmful vapours. Carbon oxides. Nitrogen oxides (NOx). Silicone compounds.  
 Special protective equipment and precautions Firefighters should be equipped with self-contained breathing apparatus and turn-out gear. Move containers from fire area if this can be done without risk. Cool closed containers exposed to fire with water spray.  
 Further information..... During fire, gases hazardous to health may be formed. In a fire or if heated, a pressure increase will occur and the container may burst.

**SECTION 06: ACCIDENTAL RELEASE MEASURES**

Personal precautions, protective equipment and emergency procedures Use personal protective clothing. Eliminate all sources of ignition. Ventilate area if indoors. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. No action shall be taken involving any personal risk or without suitable training.  
 Environmental precautions..... Prevent spilled material from entering the ground, water and/or air by using appropriate containment methods.  
 Methods and materials for containment and cleaning up Ensure adequate ventilation. Cover spill area with suitable absorbent material (e.g., sand, earth, sawdust, vermiculite, Oil-Dri, Kitty Litter, etc.). Sweep up material being careful not to raise dust. Place in an appropriate disposal container and seal tightly. Contaminated absorbent material may pose the same hazards as the spilled product. Dispose of absorbed material in accordance with regulations.

**SECTION 07: HANDLING AND STORAGE**

Handling precautions..... Avoid contact with skin and eyes. Keep container closed when not in use.  
 Storage needs..... Keep in a dry, cool and well-ventilated place. Avoid exposure to excessive heat, light, and air for prolonged periods of time.  
 Materials to avoid..... Keep away from oxidizing agents. Keep away from strong acids.

**SECTION 08: EXPOSURE CONTROLS / PERSONAL PROTECTION**

INGREDIENTS	TWA	ACGIH TLV STEL	PEL	OSHA PEL STEL	REL	NIOSH
Titanium dioxide	10 mg/m3	not available	15 mg/m3	not available		not available
Methyltrimethylsiloxane	not available	not available	not available	not available		not available
Aminopropyltrimethoxysilane	not available	not available	not available	not available		not available
Crystalline silica, quartz	0.025 mg/m3 (respirable fraction)	not available	not available	not available		0.05 mg/m3 (respirable dust)
Engineering controls.....	Good general ventilation (typically 10 air changes per hour) should be used.					
Individual protection measures						
Eye/type.....	Safety glasses with side-shields.					
Clothing/type.....	Wear suitable protective clothing. Normal work clothing (long sleeved shirts and long pants) is recommended.					
Gloves/ type.....	Wear chemical resistant protective gloves.					
Respiratory/type.....	Generally not required. Wear respiratory protection if ventilation is inadequate.					
Hygiene measures.....	Handle in accordance with good industrial hygiene and safety practice. Do not eat, drink, smoke or use cosmetics while working with this product. Upon completion of work, wash hands before eating, drinking, smoking or use of toilet facilities. Wear clean long legged, long sleeved work clothes. Remove soiled clothing and wash it thoroughly before reuse.					

PRODUCT: ETERNA-KOTE S-100 SILICONE ROOF COATING

CODE: 5570

## SECTION 09: PHYSICAL AND CHEMICAL PROPERTIES

Appearance.....	coarse liquid.
Color.....	white.
Odour.....	pungent odour.
Odour threshold.....	no data available.
pH.....	8.
Melting point (°C).....	not applicable.
Freezing point (°C).....	no data available.
Initial boiling point (°C).....	no data available.
Flash point (°C), Method.....	85 CC.
Evaporation rate.....	no data available.
Upper flammability limit (% vol).....	no data available.
Lower flammability limit (% vol).....	no data available.
Vapour pressure (mm Hg).....	5.3.
Vapour density (air=1).....	> 1.
Relative density/Specific Gravity.....	1.33.
Water solubility.....	dispersible.
Solubility in other solvents.....	no data available.
Partition coefficient — n-octanol/water.....	no data available.
Auto ignition temperature (°C).....	> 200 °C.
Thermal decomposition temperature.....	no data available.
Viscosity.....	4,000 cPs.
VOC g/l.....	<10.

## SECTION 10: STABILITY AND REACTIVITY

Reactivity.....	No hazardous reactions if stored and handled as prescribed/indicated.
Chemical stability.....	The product is stable if stored and handled as prescribed/indicated.
Possibility of hazardous reactions.....	No hazardous reactions when stored and handled according to instructions. The product is chemically stable.
Conditions to avoid.....	Exposure to air or moisture over prolonged periods. Prolonged heat/light/air exposure.
Incompatible materials.....	Acids, strong oxidizing agents.
Hazardous decomposition products.....	No hazardous decomposition products if stored and handled as prescribed/indicated. Toxic gases/fumes may be given off during burning or thermal decomposition.

## SECTION 11: TOXICOLOGICAL INFORMATION

INGREDIENTS	LC50	LD50
Titanium dioxide	not available	> 10,000 mg/kg (oral-rat)
Methyltrimethylsiloxane	not available	12,500 mg/kg (oral-rat); >9,600 mg/kg (dermal-rabbit)
Aminopropyltrimethoxysilane	not available	2,970 mg/kg (oral-rat); 11,300 mg/kg (dermal-rabbit)
Crystalline silica, quartz	not available	500 mg/kg (oral-rat)
Routes of exposure		
Inhalation.....	High airborne concentrations of vapors resulting from heating, misting or spraying may cause irritation of the respiratory tract and mucous membranes.	
Ingestion.....	May cause irritation of the stomach.	
Skin contact.....	Contact may cause skin irritation.	
Eye contact.....	Irritating to eyes. Symptoms may include discomfort or pain, excess blinking and tear production, with possible redness and swelling.	
Acute effects		
Acute oral toxicity.....	Acute toxicity estimate > 2,000 mg/kg. Method: calculation method. Virtually nontoxic after a single ingestion.	
Acute dermal toxicity.....	LD50 (Rabbit) : > 2,000 mg/kg. Method: calculation method. Virtually nontoxic after a single skin contact.	
Acute inhalation toxicity.....	Acute toxicity estimate : > 20 mg/l. Method: calculation method. Test atmosphere: vapour. Exposure time: 4 h. Virtually nontoxic by inhalation.	
Skin corrosion/irritation.....	Result: Moderate skin irritation.	
Serious eye damage/eye irritation.....	Result: Eye irritation.	
Respiratory or skin sensitisation.....	Non-sensitizing.	
Specific target organ toxicity (STOT) single exposure	Based on the available information there is no specific target organ toxicity to be expected after a single exposure.	
Aspiration hazard.....	No aspiration hazard expected.	
Chronic toxicity/effects		
Specific target organ toxicity (STOT) repeated exposure	Quartz and cristobalite: May cause damage to organs (lungs) through prolonged or repeated exposure (inhalation). Exposures to respirable crystalline silica are not expected during the normal use of this product.	

PRODUCT: ETERNA-KOTE S-100 SILICONE ROOF COATING

CODE: 5570

**SECTION 11: TOXICOLOGICAL INFORMATION**

Germ cell mutagenicity..... No known significant effects or critical hazards.  
Carcinogenicity..... In June, 1997, IARC classified crystalline silica (quartz and cristobalite) as a human carcinogen. IARC states that crystalline silica inhaled in the form of quartz or cristobalite from occupational sources is carcinogenic to humans (Group 1). Titanium dioxide is listed as IARC Group 2B (possibly carcinogenic to humans).  
Reproductive toxicity..... No known significant effects or critical hazards.  
Remarks..... Fillers are encapsulated and not expected to be released from product under normal conditions of use. Long term exposure to high levels of silica dust, which can occur only when sanding or abrading the dry film, may cause lung damage (silicosis) and possibly cancer. The product has not been tested. The statement has been derived from the properties of the individual components.

Remarks:

**SECTION 12: ECOLOGICAL INFORMATION**

Ecotoxicity..... May cause long-term adverse effects in the aquatic environment.  
Persistence and degradability..... The inhibition of the degradation activity of activated sludge is not anticipated when introduced to biological treatment plants in appropriate low concentrations.  
Bioaccumulative potential..... No data available.  
Mobility in soil..... No data available.  
Other adverse effects..... No data available.

**SECTION 13: DISPOSAL CONSIDERATIONS**

Disposal methods  
Waste disposal of substance..... Dispose of in accordance with national, state and local regulations.  
Container disposal ..... Dispose of in a licensed facility. Recommend crushing, puncturing or other means to prevent unauthorized use of used containers.

**SECTION 14: TRANSPORT INFORMATION**

TDG classification..... Not classified as a dangerous good under transport regulations.

**SECTION 15: REGULATORY INFORMATION**

WHMIS regulatory status..... This product has been classified in accordance with the hazard criteria of the Canadian Hazardous Products Regulations and the Safety Data Sheet contains all the information required by the Hazardous Products Regulations (WHMIS 2015). This product is WHMIS 2015 controlled.  
Canada inventory..... All components are listed or exempted.

**SECTION 16: OTHER INFORMATION**

Disclaimer..... The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification.  
Prepared by: ..... CanChem Consultant  
Preparation date..... JUN 03/2017

# Safety Data Sheet/ Fiche Signalétique – EZ GO

## Section 1 – Identification

**Product identifier:** E-Z Go

**Supplier:** Multi-Blend Ltd., 2720 Slough Street, Mississauga, Ontario, L4T 1G3, 905-678-9559, multiblend@bellnet.ca

**Recommended use:** Product Use.

**Emergency contact:** Canutec – 1-888-CAN-UTEC (226-8832) or 613-996-6666 or \*666 on a cellular phone.

## Section 2 – Hazard Identification

**Classification:** *WHMIS Information: This product is a WHMIS Hazardous product.*  
This product falls into the following classifications:

- Skin Irritation: Category 2 - H315
- Serious Eye Damage: Category 1 - H318
- Skin Sensitizer: Category 1 - H317
- Carcinogenicity: Category 2 - H351

**GHS Label Elements:**



Signal word: Danger

Hazard statement(s):

H315 Causes skin irritation.  
H317 May cause an allergic skin reaction.  
H318 Causes serious eye damage.  
H351 Suspected of causing cancer.

Precautionary statement(s):

P201 Obtain special instructions before use.  
P202 Do not handle until all safety precautions have been read and understood.  
P261 Avoid breathing mist/vapours/spray.  
P264 Wash hands thoroughly after handling.  
P272 Contaminated work clothing should not be allowed out of the workplace.  
P280 Wear protective gloves/protective clothing/eye protection/face protection.  
P302 + P352 IF ON SKIN: Wash with plenty water and soap.  
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P308 + P313 If exposed or concerned: Get medical advice/attention.  
P310 Immediately call a POISON CENTER/doctor.  
P333 + P313 If skin irritation or rash occurs: Get medical advice/attention.  
P362 + P364 Take off contaminated clothing and wash it before reuse.  
P405 Store locked up.  
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

**Emergency overview:** Orange liquid. Corrosive to eyes. May be irritating to skin. Ingestion may lead to irritation in mouth, esophagus and stomach lining. Contains an ingredient which may sensitize skin.

**Carcinogenic status:** Contains an ingredient suspected of causing cancer. TOXICOLOGICAL INFORMATION, section 11.

**Additional health hazards:** See TOXICOLOGICAL INFORMATION, section 11.

**Potential environmental effects:** See ECOLOGICAL INFORMATION, section 12.

## Section 3 – Composition/Information on ingredients

Ingredient	CAS	Concentration w/v%
d-Limonene (4-isopropenyl-1-methylcyclohexene)	5989-27-5	1-5%
Ethoxylated alcohol	Proprietary	1-5%
Coconut diethanolamide	68603-42-9	0.1-1%
Diethanolamine (2,2'-iminodiethanol)	111-42-2	0.1%-0.5%

# Safety Data Sheet/ Fiche Signalétique – EZ GO

## Section 4 – First Aid Measures

**Inhalation:** If unwell after inhalation, remove person to fresh air and keep at rest in a comfortable breathing position. If feeling persists, seek medical attention.  
**Skin contact:** Rinse skin thoroughly with water. If irritation persists, seek medical attention.  
**Eye contact:** Rinse eyes thoroughly with water for at least 15 minutes and seek immediate medical attention. Remove contact lenses if possible.  
**Ingestion:** Do NOT induce vomiting. Rinse mouth with water. Do not give anything by mouth to an unconscious person. If unwell, seek immediate medical attention.

## Section 5 – Fire Fighting Measures

**Flammability:** Non-flammable.  
**Recommended means of extinction:** As for surrounding materials.  
**Special procedures:** None known.  
**Hazardous combustion products:** None known.  
**Oxidizing properties:** No data available.

## Section 6 – Accidental Release Measures

**Personal precautions:** All personnel dealing with accidental release should take necessary precautions as outlined in EXPOSURE CONTROLS AND PERSONAL PROTECTION, Section 8.  
**Spill response:** Dike area and contain spill. Pump to container for recovery or disposal. Pick up with wet vacuum. (See DISPOSAL CONSIDERATIONS, Section 13).

## Section 7 – Handling and Storage

**Safe handling procedures:** Avoid contact with eyes, skin and clothing. Wash hands thoroughly after handling.  
**Safe storage procedures:** Store at room temperature. Keep from freezing.

## Section 8 – Exposure Controls and Personal Protection

Ingredient	Time-Weighted Average Limit (TWA)	Short-Term Exposure Limit (STEL) / Ceiling Limit (C)
Diethanolamine	1 mg/m <sup>3</sup>	-

**Engineering controls:** Good general ventilation should be used.

### Personal protective equipment (PPE):

**Skin:** Gloves made of rubber or vinyl should be used. Prior to use, user should confirm impermeability. Discard contaminated gloves. Wash and dry hands after use.

**Eyes:** Safety goggles or face shield should be used. Ensure equipment is properly fitted for the user. Equipment should be tested and approved under government standards. Contact lenses should not be worn when working with this material.

**Respiratory:** Not normally required. If in poorly ventilated areas, self contained breathing apparatus should be used. Ensure equipment is properly fitted for the user. Equipment should be tested and approved under government standards.

**Other:** If contact deemed possible, impermeable footwear and clothing should be used. Wash hands before breaks and when finished with chemical.

## Section 9 – Physical and Chemical Properties

**Physical state:** Liquid.  
**Appearance:** Orange.  
**Odour:** Citrus.  
**Odour Threshold:** No data available.  
**pH:** 5.0  
**Freezing point:** No data available.  
**Boiling point:** No data available.  
**Flash point:** No data available.  
**Flammability:** Not applicable.  
**Flammability limits:** Not applicable.

**Vapour pressure:** No data available.  
**Vapour density:** No data available.  
**Specific gravity:** 1.10  
**Solubility:** No data available.  
**Partition coefficient:** No data available.  
**Auto ignition temperature:** No data available.  
**Decomposition temperature:** No data available.  
**Viscosity:** 240000  
**Evaporation rate:** No data available.

## Section 10 – Stability and Reactivity

**Chemical stability:** Stable. See STORAGE AND HANDLING, Section 7  
**Hazardous reactions:** Decomposes to carbon dioxide or carbon monoxide.  
**Conditions to avoid:** Extreme heat and/or cold.  
**Incompatible materials:** Strong acids, strong oxidizers.

## Section 11 – Toxicological Properties

Ingredient	LD50 (Oral)	LD50 (Dermal)	LD50 (Inhalation)
d-Limonene	4400 (rat)	>5000 (rabbit)	No data
Ethoxylated alcohol	>2000 (rat)	No data	No data

## Safety Data Sheet/ Fiche Signalétique – EZ GO

Coconut diethanolamide	2700 (rat)	No data	No data
Diethanolamine	620 (rat)	7640 (rabbit)	No data

**Effects of acute exposure:** May cause severe eye irritation. May cause mild skin and respiratory irritation. May cause irritation in mouth, throat and abdomen upon ingestion.

**Effects of chronic exposure:** Long term exposure may cause damage to eyes, and serious rash and irritation to skin.

**Irritant:** Severely irritating to eyes and irritating to skin.

**Sensitization to material:** D-Limonene can be oxidized on contact with air to form a potent skin sensitizer. Skin sensitization may occur with whole formulation product.

**Carcinogenicity:** Coconut diethanolamide and diethanolamine are classified by IARC as Group 2B carcinogens (possibly carcinogenic to humans).

**Germ cell mutagenicity:** No known evidence of mutagenicity.

**Reproductive effects:** No known reproductive effects.

**Target organ effects (single exposure):** No data available.

**Target organ effects (repeated exposure):** No data available.

**Aspiration hazard:** No data available.

**Signs and symptoms of exposure:**

**Skin/eyes:** May cause reddening and irritation upon exposure. Permanent damage to eyes may result.

**Inhalation:** May cause irritation of respiratory tract.

**Ingestion:** May cause irritation of lips, mouth and throat. May cause nausea, vomiting and abdominal pain.

**Toxicological data:** No whole formulation data available.

**Estimated ATE:** >20000 mg/kg (Oral), >50000 mg/kg (Dermal)

**Synergistic materials:** No data available.

**Other important hazards:** No data available.

### Section 12 – Ecological Information

**Ecotoxicity:** No data available.

**Biodegradability:** No data available.

**Bioaccumulation:** No data available.

**Mobility in soil:** No data available.

**Other adverse effects:** No data available.

### Section 13 – Disposal Considerations

**Handling for disposal:** According to precautions outlined in HANDLING AND STORAGE, Section 7 and EXPOSURE CONTROLS and PERSONAL PROTECTION, Section 8.

**Methods of disposal:** Follow all applicable federal, state/provincial and municipal regulations. For specific information, contact your federal, state/provincial or local environmental agency.

### Section 14 – Transport information

**UN Number:** Not classified.

**Packing Group:** Not classified.

**Hazard Class:** Not classified.

**Additional precautions:** No special precautions required, normal care should apply.

### Section 15 – Regulatory Information

**WHMIS 2015:** Refer to HAZARDS IDENTIFICATION, Section 2

### Section 16 – Other information

LD: Lethal Dose, ATE: Acute Toxicity Estimate, WHMIS: Workplace Hazardous Materials Identification System

SDS Preparation: September 30, 2016

Contact Multi-Blend Ltd. (905-678-9559, multiblend@bellnet.ca) with questions or for support.

DISCLAIMER: The information contained herein is compiled from sources believed to be reliable. The manner and conditions of use and handling may involve other and additional considerations. We accept no responsibility for the accuracy, sufficiency and reliability of this information and disclaims any liability incurred in connection with the use of this product or the data given above.

## SAFETY DATA SHEET

### SECTION 1 - IDENTIFICATION

**Product identifier used on the label:** Facto HD40

**Other means of Identification:** 5840

**Recommended use of the chemical and restrictions on use:** For professional use only.

**Manufacturer/Supplier:**

Swish Maintenance Limited

**Address:**

2060 Fisher Dr.

Peterborough, On K9J 8N4

**Telephone:** 705-745-5763

**Fax:** 705-745-0220

24 Hr. Emergency Tel. #: **Infotrac 1-800-535-5053 (North America), 011-1-352-323-3500 (International)**

### SECTION 2 - HAZARDS IDENTIFICATION

**Classification of the chemical:**

Acute Toxicity Inhalation 4

Skin Corrosion/Irritation 2

Eye Damage/Irritation 1

Sensitization Skin

Specific Target Organ Toxicity (Single Exposure) 2

**Label elements:**

**Signal Word:** Danger

**Hazard statement(s)**

H315	Causes skin irritation
H317	May cause an allergic skin reaction
H318	Causes serious eye damage
H332	Harmful if inhaled
H371	May cause damage to organs

**Precautionary statement(s)**

P260	Do not breathe dust/fume/gas/mist/vapours/spray
P261	Avoid breathing dust/fume/gas/mist/vapours/spray
P264	Wash exposed areas thoroughly after handling
P270	Do not eat, drink or smoke when using this product
P271	Use only outdoors or in a well-ventilated area
P272	Contaminated work clothing should not be allowed out of the workplace
P280	Wear protective gloves/protective clothing/eye protection/face protection
P362	Take off contaminated clothing and wash before reuse

P363 Wash contaminated clothing before reuse  
 P405 Store locked up  
 P501 Dispose of contents/container in accordance with local regulation

**Hazard pictogram(s)**



**Other hazards not otherwise classified:** None Known

**Unknown Acute Toxicity:** <0.1%

**SECTION 3 - COMPOSITION/INFORMATION ON INGREDIENTS**

Chemical Name, Common Name & Synonyms:	CAS #	Concentration %
Alcohols, C9-11, ethoxylated(C9-11 PARETH-3)	68439-46-3	1-5
Tetrasodium EDTA	13235-36-4	1-5
D-Limonene	5989-27-5	1-5
N,N-Dimethyl-1-laurylamine-N-oxide	1643-20-5	1-5
Isopropyl Alcohol	67-63-0	1-5
Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides	68424-85-1	1-5
Ethanol	64-17-5	0.5-1.5
Sodium Carbonate	497-19-8	0.5-1.5
Sodium Metasilicate	6834-92-0	0.5-1.5

**\*\* If the chemical name/CAS # is "proprietary" and/or the weight % is shown as a range, this information had been withheld as a trade secret.**

**SECTION 4 - FIRST-AID MEASURES**

**Description of first aid measures:**

**If swallowed:** Rinse mouth. Do NOT induce vomiting. Immediately call a poison center or doctor/physician.

**If on skin (or hair):** Take off immediately all contaminated clothing. Rinse skin with water/shower, wash with soap and water. If skin irritation or a rash occurs: Get medical advice/attention. Wash contaminated clothing before reuse.

**If inhaled:** Remove person to fresh air and keep comfortable for breathing. Call a poison center or doctor/physician if you feel unwell

**If in eyes:** Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a doctor/physician.

**Most Important symptoms and effects, both acute and delayed:** Causes skin irritation, may cause an allergic, skin reaction, causes serious eye damage, harmful if inhaled, may cause damage to organs

**Indication of any immediate medical attention and special treatment needed:** Treat symptomatically

## SECTION 5 - FIRE-FIGHTING MEASURES

### Extinguishing media:

***Suitable extinguishing media:*** Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

***Unsuitable extinguishing media:*** Not determined

**Special hazards arising from the substance or mixture:** None known

**Flammability classification:** Not flammable

**Hazardous combustion products:** Carbon oxides, oxides of phosphorus other unidentified organic compounds.

### Special protective equipment and precautions for firefighters:

***Protective equipment for fire-fighters:*** Firefighters should wear proper protective equipment and self-contained breathing apparatus with full face piece operated in positive pressure mode.

***Special fire-fighting procedures:*** Move containers from fire area if safe to do so. Cool closed containers exposed to fire with water spray. Do not allow run-off from firefighting to enter drains or water courses. Dike for water control.

## SECTION 6 - ACCIDENTAL RELEASE MEASURES

**Personal precautions, protective equipment and emergency procedures:** All persons dealing with the clean-up should wear the appropriate chemically protective equipment. Keep people away from and upwind of spill/leak. Restrict access to area until completion of clean-up. Refer to protective measures listed in sections 7 and 8.

**Methods and material for containment and cleaning up:** Do not allow material to contaminate ground water system. If necessary, dike well ahead of the spill to prevent runoff into drains, sewers, or any natural waterway or drinking supply. Ventilate the area. Prevent further leakage or spillage if safe to do so. Soak up with inert absorbent material. Do not use combustible absorbents, such as sawdust. Pick up and transfer to properly labeled containers. Contaminated absorbent material may pose the same hazards as the spilled product. Contact the proper local authorities.

**Special spill response procedures:** If a spill/release in the US in excess of the EPA reportable quantity is made into the environment, immediately notify the national response center in the United States (phone: 1-800-424-8802).

## SECTION 7 - HANDLING AND STORAGE

**Precautions for safe handling:** Handle in accordance with good industrial hygiene and safety practice. Use protective equipment recommended in section 8. Avoid contact with skin, eyes or clothing. Do not breathe dust/fume/gas/mist/vapors/spray. Wash face, hands, and any exposed skin thoroughly after handling.

**Conditions for safe storage:** Keep container tightly closed and store in a cool, dry and well-ventilated place. Store locked up. Keep out of reach of children.

**Incompatible materials:** Oxidizing agents. Do not mix with other chemicals or cleaners

## SECTION 8 – EXPOSURE CONTROLS AND PERSONAL PROTECTION

Exposure Limits:					
				OSHA PEL	
Chemical Name	CAS #	TWA	STEL	PEL	STEL
Alcohols, C9-11, ethoxylated(C9-11 PARETH-3)	68439-46-3				
Tetrasodium EDTA	13235-36-4				
D-Limonene	5989-27-5	20 ppm	20 ppm		20 ppm
N,N-Dimethyl-1-laurylamine-N-oxide	1643-20-5				
Isopropyl Alcohol	67-63-0	400 ppm	400 ppm		400 ppm
Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides	68424-85-1				
Ethanol	64-17-5	1000 ppm	1000 ppm		1000 ppm
Sodium Carbonate	497-19-8				
Sodium Metasilicate	6834-92-0	10 mg/m <sup>3</sup>	10 mg/m <sup>3</sup>		10 mg/m <sup>3</sup>

### **Exposure controls:**

**Ventilation and engineering measures:** Use only in well-ventilated areas. Apply technical measures to comply with the occupational exposure limits. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction. In case of insufficient ventilation wear suitable respiratory equipment.

**Respiratory protection:** If airborne concentrations are above the permissible exposure limit or are not known, use NIOSH-approved respirators. Respirators should be selected based on the form and concentration of contaminants in air, and in accordance with OSHA (29 CFR 1910.134). Advice should be sought from respiratory protection specialists.

**Skin protection:** Wear protective gloves. Where extensive exposure to product is possible, use resistant coveralls, apron and boots to prevent contact. The suitability for a specific workplace should be discussed with the producers of the protective regimes.

**Eye face protection:** Wear eye/face protection. Wear as appropriate tightly fitting safety goggles; Safety glasses with side-shields.

**Other protective equipment:** Ensure that eyewash stations and safety showers are close to the workstation location. Other equipment may be required depending on workplace standards.

**General hygiene considerations:** Do not breathe vapours or spray mist. Avoid contact with skin, eyes and clothing. Do not eat, drink or smoke when using this product. Wash exposed areas thoroughly after handling. Remove and wash contaminated clothing before re-use. Handle in accordance with good industrial hygiene and safety practice.

## SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

**Appearance:** Clear orange liquid

**Odor:** Citrus

**Odor threshold:** No applicable information available

**pH:** 12.55

**Melting/Freezing point:** No applicable information available

**Initial boiling point and boiling range:** No applicable information available

**Flash point:** None to boiling

**Flashpoint (Method):** No applicable information available

**Evaporation rate (BuAe = 1):** Similar to water

**Flammability (solid, gas):** Not flammable

**Lower flammable limit (% by vol.):** Not Flammable

**Upper flammable limit (% by vol.):** Not Flammable

**Vapor pressure:** No applicable information available

**Vapor density:** No applicable information available

**Relative density:** 1.02

**Solubility in water:** Soluble

**Other solubility(ies):** No applicable information available

**Partition coefficient:** No applicable information available

**Auto ignition temperature:** No applicable information available

**Decomposition temperature:** No applicable information available

**Viscosity:** Similar to water

**Volatile organic Compounds (%VOC's):** None

**Other physical/chemical comments:** No applicable information available

## SECTION 10 - STABILITY AND REACTIVITY

**Reactivity:** Not normally reactive

**Chemical stability:** Stable

**Possibility of hazardous reactions:** No hazardous polymerization

**Conditions to avoid:** Keep out of reach of children. Do not use in areas without adequate ventilation. Avoid contact with incompatible materials.

**Incompatible materials:** Fluorine, strong oxidizing or reducing agents, bases, sulfur trioxide, phosphorus pentoxide

**Hazardous decomposition products:** None known. Refer to 'Hazardous Combustion Products' in Section 5

## SECTION 11 - TOXICOLOGICAL INFORMATION

### Information on likely routes of exposure:

**Routes of entry - inhalation:** Avoid breathing vapors or mists

**Routes of entry - skin & eye:** Avoid contact with skin or eyes

**Routes of entry - Ingestion:** Do not taste or swallow

### Potential Health Effects:

**Signs and symptoms of short term (acute) exposure:**

**Symptoms:** Please see section 4 of this SDS sheet for symptoms.

**Potential Chronic Health Effects:**

**Mutagenicity:** Not expected to be mutagenic in humans.

**Carcinogenicity:** No components are listed as carcinogens by ACGIH, IARC, OSHA or NTP.

**Reproductive effects:** No applicable information available

**Sensitization to material:** D-Limonene is known to have skin and respiratory sensitization effects.

**Specific target organ effects:** No data available to indicate product or components will have specific target organ effects.

**Medical conditions aggravated by overexposure:** Pre-existing skin or eye disorders.

**Toxicological data:**

See the following table for individual ingredient acute toxicity data.

Chemical name	CAS #	LD <sub>50</sub>	LD <sub>50</sub>	LC <sub>50</sub>
		(Oral, rat)	(Dermal. Rabbit)	(Inhal., rat)
Alcohols, C9-11, ethoxylated(C9-11 PARETH-3)	68439-46-3	>2000 mg/kg		
Tetrasodium EDTA	13235-36-4	630-1260 mg/kg		
D-Limonene	5989-27-5	4400 mg/kg	>5000 mg/kg	
N,N-Dimethyl-1-laurylamine-N-oxide	1643-20-5			
Isopropyl Alcohol	67-63-0	5000 mg/kg	12800 mg/kg	
Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides	68424-85-1			
Ethanol	64-17-5	7060 mg/kg		20000 ppm (10 hr)

Sodium Carbonate	497-19-8	4090 mg/kg		
Sodium Metasilicate	6834-92-0	1153 mg/kg		

\*All empty cells no applicable information available

Other important toxicological hazards: None reported.

## SECTION 12 - ECOLOGICAL INFORMATION

**Ecotoxicity:** No applicable information available.

**Persistence and degradability:** No applicable information available

**Bioaccumulation potential:** No applicable information available.

**Mobility in soil:** No applicable information available.

**Other Adverse Environmental effects:** No applicable information available.

## SECTION 13 - DISPOSAL CONSIDERATIONS

**Handling for disposal:** Handle in accordance with good industrial hygiene and safety practice. Refer to protective measures listed in sections 7 and 8. Empty containers retain residue (liquid and/or vapor) can be dangerous.

**Methods of disposal:** Dispose in accordance with all applicable federal, state, provincial and local regulations. Contact your local, state, provincial or federal environmental agency for specific rules.

**RCRA:** If this product, as supplied, becomes a waste in the United States, it may meet the criteria of a hazardous waste UN defined under RCRA, Title 40 CFR 261. It is the responsibility of the waste generator to determine the proper waste identification and disposal method. For disposal of unused or waste material, check with local, state and federal environmental agencies.

## SECTION 14 - TRANSPORTATION INFORMATION

**Special Shipping Information:** Keep from freezing.

**T.D.G. Classification:** Not regulated under T.D.G.

**D.O.T. Classification:** Not regulated under D.O.T.

## SECTION 15 - REGULATORY INFORMATION

**Occupational Health and Safety Regulations:**

**WHMIS 1988 Class:** Not regulated.

**OSHA & WHMIS:** SDS prepared pursuant to the Hazard Communication Standard (CFR29 1910.1200) and Canadian WHMIS 2015 regulations (Controlled Products Regulations under the Hazardous Product Act).

**Environmental Regulatory Lists:**

**SARA – Section 313 (Toxic Chemical Release Reporting) 40 CFR 372** – None of these ingredients are listed.

**CERCLA – Section 102 (Reportable Quantity) 40 CFR 302** – None of these ingredients are listed.

**RCRA 40CFR 261 (SUBPART D)** – None of these ingredients are listed.

**CLEAN WATER ACT – Section 311 (Reportable Quantity) 40 CFR 116** - None of these ingredients are listed.

**CLEAN AIR ACT – Section 312 (List of Hazardous Air Pollutants) 40 CFR 63 (Subpart C)** – None of these ingredients are listed.

**National Pollutant Release Inventory** – None of the ingredients are listed.

**Toxic Substances Control Act (TSCA)** – All the ingredients are registered on the Chemical Substance Inventory.

**Canadian Domestic Substance List (DSL)** – All the ingredients are registered on the DSL.

## SECTION 16 - OTHER INFORMATION

**Legend:**

**ACGIH:** American Conference of Governmental Industrial Hygienists

**CAS:** Chemical Abstract Services

**CERCLA:** Comprehensive Environmental Response, Compensation, and Liability Act of 1980

**CFR:** Code of Federal Regulations  
**CSA:** Canadian Standards Association  
**DOT:** Department of Transportation  
**ECOTOX:** U.S. EPA Ecotoxicology Database  
**EINECS:** European Inventory of Existing Commercial chemical Substances  
**EPA:** Environmental Protection Agency  
**HSDB:** Hazardous Substances Data Bank  
**IARC:** International Agency for Research on Cancer  
**IUCLID:** International Uniform Chemical Information Database  
**LC:** Lethal Concentration  
**LD:** Lethal Dose  
**NIOSH:** National Institute of Occupational Safety and Health  
**NTP:** National Toxicology Program  
**OECD:** Organization for Economic Co operation and Development  
**OSHA:** Occupational Safety and Health Administration  
**PEL:** Permissible exposure limit  
**RCRA:** Resource Conservation and Recovery Act  
**RTECS:** Registry of Toxic Effects of Chemical Substances  
**SARA:** Superfund Amendments and Reauthorization Act  
**SDS:** Safety Data Sheet Material Safety Data Sheet  
**STEL:** Short Term Exposure Limit  
**TOG:** Canadian Transportation of Dangerous Goods Act & Regulations  
**TLV:** Threshold Limit Values  
**TWA:** Time Weighted Average  
**WHMIS:** Workplace Hazardous Materials Identification System

**Prepared By:** Charlotte Technical Services Group

**Tel:** (705) 740 2880

### **DISCLAIMER**

Information for this material safety data sheet was obtained from sources considered technically accurate and reliable. While every effort has been made to ensure full disclosure of product hazards, in some cases data is not available and is so stated. Since conditions of actual product use are beyond control of this supplier, it is assumed that users of this material have been fully trained accordingly to the mandatory requirements of GHS. No warranty, expressed or implied, is made and supplier will not be liable for any losses, injuries or consequential damages which may result from the use of, or reliance on, any information contained within this form.

**END OF DOCUMENT**

# Safety Data Sheet

according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and  
OSHA GHS

Printing date 14.07.2015

Revision: 14.07.2015

## SECTION 1: Identification of the substance/mixture and of the company/undertaking

- **1.1 Product identifier**
- **Trade name: FERTAN Rust Remover**
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**  
No further relevant information available.
- **Application of the substance / the mixture** Rust remover/ rust-removing agent
- **Uses advised against** Contact manufacturer.
- **1.3 Details of the supplier of the Safety Data Sheet**
- **Manufacturer/Supplier:**  
CRP Industries  
35 Commerce Dr.  
Cranbury, NJ 08512  
(609) 578-4100
- **1.4 Emergency telephone number:**  
ChemTel Inc.  
(800)255-3924, +1 (813)248-0585

## SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**  
Classifications listed are applicable to the OSHA GHS Hazard Communication Standard (29CFR1910.1200).



corrosion

- Met. Corr.1 H290 May be corrosive to metals.
- Skin Corr. 1C H314 Causes severe skin burns and eye damage.
- Eye Dam. 1 H318 Causes serious eye damage.
- **Additional information:**  
There are no other hazards not otherwise classified that have been identified.  
0 % of the mixture consists of component(s) of unknown toxicity.

- 
- **2.2 Label elements**
  - **Labelling according to Regulation (EC) No 1272/2008**  
The product is additionally classified and labelled according to the Globally Harmonized System within the United States (GHS).  
The product is classified and labelled according to the CLP regulation.
  - **Hazard pictograms**



GHS05

- **Signal word** Danger

(Cont'd. on page 2)

# Safety Data Sheet

according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and  
OSHA GHS

Printing date 14.07.2015

Revision: 14.07.2015

**Trade name: FERTAN Rust Remover**

(Cont'd. from page 1)

- **Hazard-determining components of labelling:**

glycollic acid  
Terpene alcohol, ethoxylated, propoxylated  
Alcohols, C12-14, ethoxylated, propoxylated

- **Hazard statements**

H290 May be corrosive to metals.  
H314 Causes severe skin burns and eye damage.

- **Precautionary statements**

P264 Wash thoroughly after handling.  
P280 Wear protective gloves / eye protection.  
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P310 Immediately call a POISON CENTER/doctor.  
P332+P313 If skin irritation occurs: Get medical advice/attention.  
P337+P313 If eye irritation persists: Get medical advice/attention.  
P302+P352 IF ON SKIN: Wash with plenty of water.  
P406 Store in corrosive resistant container with a resistant inner liner.  
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

- **NFPA ratings (scale 0 - 4)**



Health = 2  
Fire = 0  
Reactivity = 0

- **HMIS-ratings (scale 0 - 4)**

HEALTH	2	Health = 2
FIRE	0	Fire = 0
REACTIVITY	0	Reactivity = 0

- **HMIS Long Term Health Hazard Substances**

None of the ingredients are listed.

- **2.3 Other hazards**

- **Results of PBT and vPvB assessment**

- **PBT:** Not applicable.
- **vPvB:** Not applicable.

## SECTION 3: Composition/information on ingredients

- **3.2 Mixtures**

- **Description:** Mixture of substances listed below with nonhazardous additions.

(Cont'd. on page 3)

# Safety Data Sheet

according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and  
OSHA GHS

Printing date 14.07.2015

Revision: 14.07.2015

Trade name: **FERTAN Rust Remover**

(Cont'd. from page 2)

**· Dangerous components:**

CAS: 77-92-9 EINECS: 201-069-1	citric acid ⚠ Eye Irrit. 2, H319	10-25%
CAS: 7664-38-2 EINECS: 231-633-2 Index number: 015-011-00-6	phosphoric acid ⚠ Skin Corr. 1B, H314	1-5%
CAS: 79-14-1 EINECS: 201-180-5	glycollic acid ⚠ Skin Corr. 1B, H314 ⚠ Acute Tox. 4, H332	1-5%
CAS: 68439-51-0	Alcohols, C12-14, ethoxylated, propoxylated ⚠ Eye Dam. 1, H318 ⚠ Aquatic Chronic 2, H411 ⚠ Skin Irrit. 2, H315	< 3,0%
CAS: 174955-61-4	Terpene alcohol, ethoxylated, propoxylated ⚠ Eye Dam. 1, H318 ⚠ Acute Tox. 4, H302	< 3,0%

**· Additional information:**

For the wording of the listed Hazard Statements refer to section 16.

For the listed ingredients, the identity and exact percentages are being withheld as a trade secret.

## SECTION 4: First aid measures

**· 4.1 Description of first aid measures**
**· General information:** No special measures required.

**· After inhalation:** Supply fresh air; consult doctor in case of complaints.

**· After skin contact:**

Immediately wash with water and soap and rinse thoroughly.

If skin irritation continues, consult a doctor.

**· After eye contact:**

Remove contact lenses if worn.

Rinse opened eye for several minutes under running water. Then consult a doctor.

**· After swallowing:**

Rinse out mouth and then drink plenty of water.

Do not induce vomiting; call for medical help immediately.

**· 4.2 Most important symptoms and effects, both acute and delayed**

Strong irritant with the danger of severe eye injury.

Caustic effect on skin and mucous membranes.

Gastric or intestinal disorders when ingested.

**· Hazards**

Causes serious eye damage.

Danger of gastric perforation.

**· 4.3 Indication of any immediate medical attention and special treatment needed**

Medical supervision for at least 48 hours.

(Cont'd. on page 4)

# Safety Data Sheet

according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and  
OSHA GHS

Printing date 14.07.2015

Revision: 14.07.2015

Trade name: FERTAN Rust Remover

(Cont'd. from page 3)

## SECTION 5: Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents:** Use fire extinguishing methods suitable to surrounding conditions.
- **For safety reasons unsuitable extinguishing agents:** None.
- **5.2 Special hazards arising from the substance or mixture**  
Formation of toxic gases is possible during heating or in case of fire.
- **5.3 Advice for firefighters**
- **Protective equipment:**  
Wear self-contained respiratory protective device.  
Wear fully protective suit.
- **Additional information** No further relevant information available.

## SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**  
Wear protective equipment. Keep unprotected persons away.  
For large spills, use respiratory protective device against the effects of fumes/dust/aerosol.  
Ensure adequate ventilation  
Particular danger of slipping on leaked/spilled product.
- **6.2 Environmental precautions:**  
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- **6.3 Methods and material for containment and cleaning up:**  
Use limestone to neutralize and absorb spill.  
Dispose contaminated material as waste according to section 13.  
Send for recovery or disposal in suitable receptacles.
- **6.4 Reference to other sections**  
See Section 7 for information on safe handling.  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.

## SECTION 7: Handling and storage

- **7.1 Precautions for safe handling**  
The usual precautionary measures are to be adhered to when handling chemicals.  
Avoid contact with the eyes and skin.  
Prevent formation of aerosols.  
Avoid splashes or spray in enclosed areas.  
Use only in well ventilated areas.
- **Information about fire - and explosion protection:** No special measures required.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:**  
Store only in the original receptacle.

(Cont'd. on page 5)

# Safety Data Sheet

according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and  
OSHA GHS

Printing date 14.07.2015

Revision: 14.07.2015

**Trade name: FERTAN Rust Remover**

(Cont'd. from page 4)

- Provide ventilation for receptacles.  
 Unsuitable material for receptacle: aluminium.  
 Unsuitable material for receptacle: steel.
- **Information about storage in one common storage facility:**  
 Store away from foodstuffs.  
 Store away from metals.  
 Do not store together with alkalis (caustic solutions).
  - **Further information about storage conditions:** None.
  - **7.3 Specific end use(s)** No further relevant information available.

## SECTION 8: Exposure controls/personal protection

- **Additional information about design of technical facilities:** No further data; see section 7.
- **8.1 Control parameters**

**Ingredients with limit values that require monitoring at the workplace:**

**7664-38-2 phosphoric acid**

IOELV (EU)	Short-term value: 2 mg/m <sup>3</sup> Long-term value: 1 mg/m <sup>3</sup>
PEL (USA)	Long-term value: 1 mg/m <sup>3</sup>
REL (USA)	Short-term value: 3 mg/m <sup>3</sup> Long-term value: 1 mg/m <sup>3</sup>
TLV (USA)	Short-term value: 3 mg/m <sup>3</sup> Long-term value: 1 mg/m <sup>3</sup>
EL (Canada)	Short-term value: 3 mg/m <sup>3</sup> Long-term value: 1 mg/m <sup>3</sup>
EV (Canada)	Short-term value: 3 mg/m <sup>3</sup> Long-term value: 1 mg/m <sup>3</sup>

- **DNELs** No further relevant information available.
- **PNECs** No further relevant information available.
- **Additional information:** The lists valid during the making were used as basis.
- **8.2 Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**  
 The usual precautionary measures are to be adhered to when handling chemicals.  
 Keep away from foodstuffs, beverages and feed.  
 Immediately remove all soiled and contaminated clothing.  
 Wash hands before breaks and at the end of work.  
 Avoid contact with the eyes and skin.
- **Respiratory protection:**  
 Not required under normal conditions of use.  
 For spills, respiratory protection may be advisable.  
 Use suitable respiratory protective device when aerosol or mist is formed.

(Cont'd. on page 6)

# Safety Data Sheet

according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and  
OSHA GHS

Printing date 14.07.2015

Revision: 14.07.2015

Trade name: FERTAN Rust Remover

(Cont'd. from page 5)

- **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation.

- **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

- **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

- **For the permanent contact gloves made of the following materials are suitable:**

Chloroprene rubber, CR

Natural rubber, NR

- **Eye protection:**

Contact lenses should not be worn.



Safety glasses

- **Body protection:** Protective work clothing

- **Limitation and supervision of exposure into the environment**

No further relevant information available.

- **Risk management measures**

See Section 7 for additional information.

No further relevant information available.

## SECTION 9: Physical and chemical properties

- **9.1 Information on basic physical and chemical properties**

- **General Information**

- **Appearance:**

**Form:**

Liquid

**Colour:**

Yellow tint

- **Odour:**

Characteristic

- **Odour threshold:**

Not determined.

- **pH-value (10 g/l) at 20 °C (68 °F):**

2,42 (1% Solution in Water)

- **Change in condition**

**Melting point/Melting range:**

Not Determined.

**Boiling point/Boiling range:**

100 - 105 °C (212 - 221 °F)

(Cont'd. on page 7)

## Safety Data Sheet

according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and  
OSHA GHS

Printing date 14.07.2015

Revision: 14.07.2015

Trade name: FERTAN Rust Remover

(Cont'd. from page 6)

- **Flash point:** Not applicable.
- **Flammability (solid, gaseous):** Not applicable.
- **Auto/Self-ignition temperature:** Not applicable.
- **Decomposition temperature:** Not determined.
- **Self-igniting:** Product is not self-igniting.
- **Danger of explosion:** Product does not present an explosion hazard.
- **Explosion limits:**
  - Lower: Not determined.
  - Upper: Not determined.
- **Vapour pressure at 20 °C (68 °F):** 23 hPa (17 mm Hg)
- **Density at 20 °C (68 °F):** 1,132 ± 0,010 g/cm<sup>3</sup> (9,447 ± 0,083 lbs/gal)
- **Relative density** Not determined.
- **Vapour density** Not determined.
- **Evaporation rate** Not determined.
- **Solubility in / Miscibility with water:** Fully miscible.
- **Partition coefficient (n-octanol/water):** Not determined.
- **Viscosity:**
  - Dynamic: Not determined.
  - Kinematic: Not determined.
- **9.2 Other information** No further relevant information available.

### SECTION 10: Stability and reactivity

- **10.1 Reactivity** No further relevant information available.
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:**  
No decomposition if used and stored according to specifications.
- **10.3 Possibility of hazardous reactions**  
Reacts with alkali (lyes).  
Reacts with certain metals.  
Toxic fumes may be released if heated above the decomposition point.
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:**  
Under fire conditions only:  
Carbon monoxide and carbon dioxide  
Phosphorus oxides (e.g. P<sub>2</sub>O<sub>5</sub>)

(Cont'd. on page 8)

# Safety Data Sheet

according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and  
OSHA GHS

Printing date 14.07.2015

Revision: 14.07.2015

Trade name: FERTAN Rust Remover

(Cont'd. from page 7)

## SECTION 11: Toxicological information

### · 11.1 Information on toxicological effects

#### · Acute toxicity

#### · LD/LC50 values relevant for classification:

##### 79-14-1 glycollic acid

Oral	LD50	2040 mg/kg (rat)
------	------	------------------

#### · Primary irritant effect:

#### · Skin corrosion/irritation

Causes severe skin burns and eye damage.

#### · Serious eye damage/irritation

Causes serious eye damage.

#### · Respiratory or skin sensitisation Based on available data, the classification criteria are not met.

#### · CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction):

#### · Germ cell mutagenicity

Based on available data, the classification criteria are not met.

#### · Carcinogenicity

Based on available data, the classification criteria are not met.

#### · Reproductive toxicity

Based on available data, the classification criteria are not met.

#### · STOT-single exposure

Based on available data, the classification criteria are not met.

#### · STOT-repeated exposure

Based on available data, the classification criteria are not met.

#### · Aspiration hazard

Based on available data, the classification criteria are not met.

## SECTION 12: Ecological information

### · 12.1 Toxicity

#### · Aquatic toxicity:

##### 68439-51-0 Alcohols, C12-14, ethoxylated, propoxylated

LC50	3,5 mg/l (daphnia)
	48h
	4,0 mg/l (pimephales promelas)
	96h

#### · 12.2 Persistence and degradability Easily biodegradable

#### · 12.3 Bioaccumulative potential Does not accumulate in organisms.

#### · 12.4 Mobility in soil No further relevant information available.

#### · Additional ecological information:

#### · General notes:

Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

Rinse off of bigger amounts into drains or the aquatic environment may lead to decreased pH-values. A low pH-value harms aquatic organisms. If the dilution of the use-level pH-value is considerably increased after use, the aqueous waste, emptied into drains, is only low water-dangerous.

#### · 12.5 Results of PBT and vPvB assessment

#### · PBT: Not applicable.

#### · vPvB: Not applicable.

(Cont'd. on page 9)

# Safety Data Sheet

according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and  
OSHA GHS

Printing date 14.07.2015

Revision: 14.07.2015

Trade name: FERTAN Rust Remover

- **12.6 Other adverse effects** No further relevant information available.

(Cont'd. from page 8)

## SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**

- **Recommendation**

Small amounts may be diluted with plenty of water and washed away. Dispose of larger amounts in accordance with Local Authority requirements.

Dilute concentrate with water and neutralize afterwards with suitable material (lime or chalk). The formed salts are inert and pose little hazard.

The user of this material has the responsibility to dispose of unused material, residues and containers in compliance with all relevant local, state and federal laws and regulations regarding treatment, storage and disposal for hazardous and nonhazardous wastes. Residual materials should be treated as hazardous.

- **Uncleaned packaging:**

- **Recommendation:** Disposal must be made according to local official regulations.

## SECTION 14: Transport information

- **14.1 UN-Number**

- **DOT, ADR, IMDG, IATA**

UN1760

- **14.2 UN proper shipping name**

- **DOT**

Corrosive liquids, n.o.s. (Phosphoric acid solution, glycollic acid)

- **ADR**

1760 CORROSIVE LIQUID, N.O.S. (PHOSPHORIC ACID, SOLUTION, glycollic acid)

- **IMDG, IATA**

CORROSIVE LIQUID, N.O.S. (PHOSPHORIC ACID, SOLUTION, glycollic acid)

- **14.3 Transport hazard class(es)**

- **DOT**



- **Class**

8 Corrosive substances.

- **Label**

8

---

- **ADR**



- **Class**

8 (C9) Corrosive substances.

(Cont'd. on page 10)

# Safety Data Sheet

according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and  
OSHA GHS

Printing date 14.07.2015

Revision: 14.07.2015

Trade name: FERTAN Rust Remover

(Cont'd. from page 9)

· Label

8

· IMDG, IATA



· Class

8 Corrosive substances.

· Label

8

· 14.4 Packing group

· DOT, ADR, IMDG, IATA

III

· 14.5 Environmental hazards:

· Marine pollutant:

No

· 14.6 Special precautions for user

Warning: Corrosive substances.

· Danger code (Kemler):

80

· EMS Number:

F-A,S-B

· Segregation groups

Acids

· 14.7 Transport in bulk according to Annex II of  
Marpol and the IBC Code

Not applicable.

· Transport/Additional information:

· ADR

· Limited quantities (LQ)

5L

· Excepted quantities (EQ)

Code: E1

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 1000 ml

· Transport category

3

· Tunnel restriction code

E

· UN "Model Regulation":

UN1760, CORROSIVE LIQUID, N.O.S.  
(PHOSPHORIC ACID, SOLUTION, glycollic acid), 8, III

## SECTION 15: Regulatory information

· 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

· United States (USA)

· SARA

· Section 355 (extremely hazardous substances):

None of the ingredients are listed.

· Section 313 (Specific toxic chemical listings):

7664-38-2 | phosphoric acid

· TSCA (Toxic Substances Control Act):

All ingredients are listed.

· Proposition 65 (California):

· Chemicals known to cause cancer:

None of the ingredients is listed.

(Cont'd. on page 11)

# Safety Data Sheet

according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and  
OSHA GHS

Printing date 14.07.2015

Revision: 14.07.2015

Trade name: FERTAN Rust Remover

(Cont'd. from page 10)

- **Chemicals known to cause reproductive toxicity for females:**

None of the ingredients are listed.

- **Chemicals known to cause reproductive toxicity for males:**

None of the ingredients are listed.

- **Chemicals known to cause developmental toxicity:**

None of the ingredients are listed.

- **Carcinogenic Categories**

- **EPA (Environmental Protection Agency)**

None of the ingredients are listed.

- **IARC (International Agency for Research on Cancer)**

None of the ingredients are listed.

- **TLV (Threshold Limit Value established by ACGIH)**

None of the ingredients are listed.

- **NIOSH-Ca (National Institute for Occupational Safety and Health)**

None of the ingredients are listed.

- **Canada**

- **Canadian Domestic Substances List (DSL)**

All ingredients listed on DSL or NDSL.

- **Canadian Ingredient Disclosure list (limit 0.1%)**

None of the ingredients are listed.

- **Canadian Ingredient Disclosure list (limit 1%)**

77-92-9 | citric acid

7664-38-2 | phosphoric acid

79-14-1 | glycollic acid

- **Other regulations, limitations and prohibitive regulations**

This product has been classified in accordance with hazard criteria of the Controlled Products Regulations and the SDS contains all the information required by the Controlled Products Regulations.

- **Substances of very high concern (SVHC) according to REACH, Article 57**

None of the ingredients are listed.

- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

## SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Relevant phrases**

H302 Harmful if swallowed.

H314 Causes severe skin burns and eye damage.

H315 Causes skin irritation.

(Cont'd. on page 12)

**Safety Data Sheet**  
 according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and  
 OSHA GHS

Printing date 14.07.2015

Revision: 14.07.2015

**Trade name: FERTAN Rust Remover**

(Cont'd. from page 11)

H318 Causes serious eye damage.  
 H319 Causes serious eye irritation.  
 H332 Harmful if inhaled.  
 H411 Toxic to aquatic life with long lasting effects.

· **Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)  
 IMDG: International Maritime Code for Dangerous Goods  
 DOT: US Department of Transportation  
 IATA: International Air Transport Association  
 GHS: Globally Harmonised System of Classification and Labelling of Chemicals  
 ACGIH: American Conference of Governmental Industrial Hygienists  
 EINECS: European Inventory of Existing Commercial Chemical Substances  
 ELINCS: European List of Notified Chemical Substances  
 CAS: Chemical Abstracts Service (division of the American Chemical Society)  
 NFPA: National Fire Protection Association (USA)  
 HMIS: Hazardous Materials Identification System (USA)  
 DNEL: Derived No-Effect Level (REACH)  
 PNEC: Predicted No-Effect Concentration (REACH)  
 LC50: Lethal concentration, 50 percent  
 LD50: Lethal dose, 50 percent  
 PBT: Persistent, Bioaccumulative and Toxic  
 SVHC: Substances of Very High Concern  
 vPvB: very Persistent and very Bioaccumulative  
 Met. Corr. 1: Corrosive to metals, Hazard Category 1  
 Acute Tox. 4: Acute toxicity, Hazard Category 4  
 Skin Corr. 1B: Skin corrosion/irritation, Hazard Category 1B  
 Skin Corr. 1C: Skin corrosion/irritation, Hazard Category 1C  
 Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2  
 Eye Dam. 1: Serious eye damage/eye irritation, Hazard Category 1  
 Eye Irrit. 2: Serious eye damage/eye irritation, Hazard Category 2  
 Aquatic Chronic 2: Hazardous to the aquatic environment - Chronic Hazard, Category 2

· **Sources**

SDS Prepared by:  
 ChemTel Inc.  
 1305 North Florida Avenue  
 Tampa, Florida USA 33602-2902  
 Toll Free North America 1-888-255-3924 Intl. +01 813-248-0573  
 Website: [www.chemtelinc.com](http://www.chemtelinc.com)



# Fiberlock Fiberset PM Clear 7475

## ICP Construction

Version No: 5.5

Safety Data Sheet according to OSHA HazCom Standard (2012) requirements

Issue Date: 02/10/2017

Print Date: 02/10/2017

S.GHS.USA.EN

## SECTION 1 IDENTIFICATION

### Product Identifier

Product name	Fiberlock Fiberset PM Clear 7475
Synonyms	Not Available
Other means of identification	Not Available

### Recommended use of the chemical and restrictions on use

Relevant identified uses	Post-Removal Surface Sealant
--------------------------	------------------------------

### Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party

Registered company name	ICP Construction
Address	150 Dascomb Road Massachusetts Andover United States
Telephone	978-623-9980
Fax	Not Available
Website	Not Available
Email	Not Available

### Emergency phone number

Association / Organisation	Chemtel
Emergency telephone numbers	1-800-255-3924
Other emergency telephone numbers	1-813-248-0585

## SECTION 2 HAZARD(S) IDENTIFICATION

### Classification of the substance or mixture

Classification	Eye Irritation Category 2A, Skin Sensitizer Category 1, Carcinogenicity Category 2, Acute Aquatic Hazard Category 2, Chronic Aquatic Hazard Category 2
----------------	--

### Label elements

GHS label elements	
--------------------	--

SIGNAL WORD **WARNING**

### Hazard statement(s)

H319	Causes serious eye irritation.
H317	May cause an allergic skin reaction.
H351	Suspected of causing cancer.
H411	Toxic to aquatic life with long lasting effects.

### Hazard(s) not otherwise specified

Not Applicable

### Precautionary statement(s) Prevention

P201	Obtain special instructions before use.
------	---

Continued...

P280	Wear protective gloves/protective clothing/eye protection/face protection.
P281	Use personal protective equipment as required.

**Precautionary statement(s) Response**

P308+P313	IF exposed or concerned: Get medical advice/attention.
P363	Wash contaminated clothing before reuse.
P302+P352	IF ON SKIN: Wash with plenty of soap and water.

**Precautionary statement(s) Storage**

P405	Store locked up.
------	------------------

**Precautionary statement(s) Disposal**

P501	Dispose of contents/container in accordance with local regulations.
------	---

**SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS****Substances**

See section below for composition of Mixtures

**Mixtures**

CAS No	%[weight]	Name
57-55-6	3-7	<u>propylene glycol</u>
1897-45-6	0.1-1	<u>chlorothalonil</u>
68412-54-4	0.1-1	<u>nonylphenol ethoxylate, branched</u>

**SECTION 4 FIRST-AID MEASURES****Description of first aid measures**

<b>Eye Contact</b>	<p>If this product comes in contact with the eyes:</p> <ul style="list-style-type: none"> <li>▶ Wash out immediately with fresh running water.</li> <li>▶ Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids.</li> <li>▶ Seek medical attention without delay; if pain persists or recurs seek medical attention.</li> <li>▶ Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.</li> </ul>
<b>Skin Contact</b>	<p>If skin contact occurs:</p> <ul style="list-style-type: none"> <li>▶ Immediately remove all contaminated clothing, including footwear.</li> <li>▶ Flush skin and hair with running water (and soap if available).</li> <li>▶ Seek medical attention in event of irritation.</li> </ul>
<b>Inhalation</b>	<ul style="list-style-type: none"> <li>▶ If fumes, aerosols or combustion products are inhaled remove from contaminated area.</li> <li>▶ Other measures are usually unnecessary.</li> </ul>
<b>Ingestion</b>	<ul style="list-style-type: none"> <li>▶ Immediately give a glass of water.</li> <li>▶ First aid is not generally required. If in doubt, contact a Poisons Information Centre or a doctor.</li> </ul>

**Most important symptoms and effects, both acute and delayed**

See Section 11

**Indication of any immediate medical attention and special treatment needed**

Treat symptomatically.

**SECTION 5 FIRE-FIGHTING MEASURES****Extinguishing media**

- ▶ There is no restriction on the type of extinguisher which may be used.
- ▶ Use extinguishing media suitable for surrounding area.

**Special hazards arising from the substrate or mixture**

<b>Fire Incompatibility</b>	None known.
-----------------------------	-------------

**Special protective equipment and precautions for fire-fighters**

<b>Fire Fighting</b>	<ul style="list-style-type: none"> <li>▶ Alert Fire Brigade and tell them location and nature of hazard.</li> <li>▶ Wear breathing apparatus plus protective gloves in the event of a fire.</li> <li>▶ Prevent, by any means available, spillage from entering drains or water courses.</li> <li>▶ Use fire fighting procedures suitable for surrounding area.</li> <li>▶ <b>DO NOT</b> approach containers suspected to be hot.</li> <li>▶ Cool fire exposed containers with water spray from a protected location.</li> <li>▶ If safe to do so, remove containers from path of fire.</li> <li>▶ Equipment should be thoroughly decontaminated after use.</li> </ul>
----------------------	---

<b>Fire/Explosion Hazard</b>	<ul style="list-style-type: none"> <li>▶ Non combustible.</li> <li>▶ Not considered a significant fire risk, however containers may burn.</li> </ul> May emit poisonous fumes. May emit corrosive fumes.
------------------------------	---

## SECTION 6 ACCIDENTAL RELEASE MEASURES

### Personal precautions, protective equipment and emergency procedures

See section 8

### Environmental precautions

See section 12

### Methods and material for containment and cleaning up

<b>Minor Spills</b>	<ul style="list-style-type: none"> <li>▶ Clean up all spills immediately.</li> <li>▶ Avoid breathing vapours and contact with skin and eyes.</li> <li>▶ Control personal contact with the substance, by using protective equipment.</li> <li>▶ Contain and absorb spill with sand, earth, inert material or vermiculite.</li> <li>▶ Wipe up.</li> <li>▶ Place in a suitable, labelled container for waste disposal.</li> </ul>
<b>Major Spills</b>	Moderate hazard. <ul style="list-style-type: none"> <li>▶ Clear area of personnel and move upwind.</li> <li>▶ Alert Fire Brigade and tell them location and nature of hazard.</li> <li>▶ Wear breathing apparatus plus protective gloves.</li> <li>▶ Prevent, by any means available, spillage from entering drains or water course.</li> <li>▶ Stop leak if safe to do so.</li> <li>▶ Contain spill with sand, earth or vermiculite.</li> <li>▶ Collect recoverable product into labelled containers for recycling.</li> <li>▶ Neutralise/decontaminate residue (see Section 13 for specific agent).</li> <li>▶ Collect solid residues and seal in labelled drums for disposal.</li> <li>▶ Wash area and prevent runoff into drains.</li> <li>▶ After clean up operations, decontaminate and launder all protective clothing and equipment before storing and re-using.</li> <li>▶ If contamination of drains or waterways occurs, advise emergency services.</li> </ul>

Personal Protective Equipment advice is contained in Section 8 of the SDS.

## SECTION 7 HANDLING AND STORAGE

### Precautions for safe handling

<b>Safe handling</b>	<ul style="list-style-type: none"> <li>▶ Avoid all personal contact, including inhalation.</li> <li>▶ Wear protective clothing when risk of exposure occurs.</li> <li>▶ Use in a well-ventilated area.</li> <li>▶ Avoid contact with moisture.</li> <li>▶ Avoid contact with incompatible materials.</li> <li>▶ <b>When handling, DO NOT eat, drink or smoke.</b></li> <li>▶ Keep containers securely sealed when not in use.</li> <li>▶ Avoid physical damage to containers.</li> <li>▶ Always wash hands with soap and water after handling.</li> <li>▶ Work clothes should be laundered separately. Launder contaminated clothing before re-use.</li> <li>▶ Use good occupational work practice.</li> <li>▶ Observe manufacturer's storage and handling recommendations contained within this SDS.</li> <li>▶ Atmosphere should be regularly checked against established exposure standards to ensure safe working conditions are maintained.</li> <li>▶ <b>DO NOT allow clothing wet with material to stay in contact with skin</b></li> </ul>
<b>Other information</b>	

### Conditions for safe storage, including any incompatibilities

<b>Suitable container</b>	<ul style="list-style-type: none"> <li>▶ Polyethylene or polypropylene container.</li> <li>▶ Packing as recommended by manufacturer.</li> <li>▶ Check all containers are clearly labelled and free from leaks.</li> </ul>
<b>Storage incompatibility</b>	<ul style="list-style-type: none"> <li>▶ Glycols and their ethers undergo violent decomposition in contact with 70% perchloric acid. This seems likely to involve formation of the glycol perchlorate esters (after scission of ethers) which are explosive, those of ethylene glycol and 3-chloro-1,2-propanediol being more powerful than glyceryl nitrate, and the former so sensitive that it explodes on addition of water.</li> </ul> None known

## SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

### Control parameters

#### OCCUPATIONAL EXPOSURE LIMITS (OEL)

#### INGREDIENT DATA

Not Available

#### EMERGENCY LIMITS

Ingredient	Material name	TEEL-1	TEEL-2	TEEL-3
propylene glycol	Polypropylene glycols	30 mg/m3	330 mg/m3	2,000 mg/m3
propylene glycol	Propylene glycol; (1,2-Propanediol)	30 mg/m3	1,300 mg/m3	7,900 mg/m3

Continued...

chlorothalonil	Chlorothalonil; (Tetrachloroisophthalonitrile)	0.13 mg/m3	1.4 mg/m3	8.6 mg/m3
nonylphenol ethoxylate, branched	Nonylphenoxy polyethoxyethanol	30 mg/m3	330 mg/m3	2,000 mg/m3

Ingredient	Original IDLH	Revised IDLH
propylene glycol	Not Available	Not Available
chlorothalonil	Not Available	Not Available
nonylphenol ethoxylate, branched	Not Available	Not Available

**Exposure controls**

<b>Appropriate engineering controls</b>	<p>Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well-designed engineering controls can be highly effective in protecting workers and will typically be independent of worker interactions to provide this high level of protection.</p> <p>The basic types of engineering controls are:</p> <p>Process controls which involve changing the way a job activity or process is done to reduce the risk.</p> <p>Enclosure and/or isolation of emission source which keeps a selected hazard "physically" away from the worker and ventilation that strategically "adds" and "removes" air in the work environment. Ventilation can remove or dilute an air contaminant if designed properly. The design of a ventilation system must match the particular process and chemical or contaminant in use.</p> <p>Employers may need to use multiple types of controls to prevent employee overexposure.</p> <p>Local exhaust ventilation usually required. If risk of overexposure exists, wear approved respirator. Correct fit is essential to obtain adequate protection. Supplied-air type respirator may be required in special circumstances. Correct fit is essential to ensure adequate protection.</p> <p>An approved self contained breathing apparatus (SCBA) may be required in some situations.</p> <p>Provide adequate ventilation in warehouse or closed storage area. Air contaminants generated in the workplace possess varying "escape" velocities which, in turn, determine the "capture velocities" of fresh circulating air required to effectively remove the contaminant.</p> <table border="1" style="width: 100%;"> <thead> <tr> <th>Type of Contaminant:</th> <th>Air Speed:</th> </tr> </thead> <tbody> <tr> <td>solvent, vapours, degreasing etc., evaporating from tank (in still air).</td> <td>0.25-0.5 m/s (50-100 f/min.)</td> </tr> <tr> <td>aerosols, fumes from pouring operations, intermittent container filling, low speed conveyer transfers, welding, spray drift, plating acid fumes, pickling (released at low velocity into zone of active generation)</td> <td>0.5-1 m/s (100-200 f/min.)</td> </tr> <tr> <td>direct spray, spray painting in shallow booths, drum filling, conveyer loading, crusher dusts, gas discharge (active generation into zone of rapid air motion)</td> <td>1-2.5 m/s (200-500 f/min.)</td> </tr> <tr> <td>grinding, abrasive blasting, tumbling, high speed wheel generated dusts (released at high initial velocity into zone of very high rapid air motion).</td> <td>2.5-10 m/s (500-2000 f/min.)</td> </tr> </tbody> </table> <p>Within each range the appropriate value depends on:</p> <table border="1" style="width: 100%;"> <thead> <tr> <th>Lower end of the range</th> <th>Upper end of the range</th> </tr> </thead> <tbody> <tr> <td>1: Room air currents minimal or favourable to capture</td> <td>1: Disturbing room air currents</td> </tr> <tr> <td>2: Contaminants of low toxicity or of nuisance value only.</td> <td>2: Contaminants of high toxicity</td> </tr> <tr> <td>3: Intermittent, low production.</td> <td>3: High production, heavy use</td> </tr> <tr> <td>4: Large hood or large air mass in motion</td> <td>4: Small hood-local control only</td> </tr> </tbody> </table> <p>Simple theory shows that air velocity falls rapidly with distance away from the opening of a simple extraction pipe. Velocity generally decreases with the square of distance from the extraction point (in simple cases). Therefore the air speed at the extraction point should be adjusted, accordingly, after reference to distance from the contaminating source. The air velocity at the extraction fan, for example, should be a minimum of 1-2 m/s (200-400 f/min) for extraction of solvents generated in a tank 2 meters distant from the extraction point. Other mechanical considerations, producing performance deficits within the extraction apparatus, make it essential that theoretical air velocities are multiplied by factors of 10 or more when extraction systems are installed or used.</p>	Type of Contaminant:	Air Speed:	solvent, vapours, degreasing etc., evaporating from tank (in still air).	0.25-0.5 m/s (50-100 f/min.)	aerosols, fumes from pouring operations, intermittent container filling, low speed conveyer transfers, welding, spray drift, plating acid fumes, pickling (released at low velocity into zone of active generation)	0.5-1 m/s (100-200 f/min.)	direct spray, spray painting in shallow booths, drum filling, conveyer loading, crusher dusts, gas discharge (active generation into zone of rapid air motion)	1-2.5 m/s (200-500 f/min.)	grinding, abrasive blasting, tumbling, high speed wheel generated dusts (released at high initial velocity into zone of very high rapid air motion).	2.5-10 m/s (500-2000 f/min.)	Lower end of the range	Upper end of the range	1: Room air currents minimal or favourable to capture	1: Disturbing room air currents	2: Contaminants of low toxicity or of nuisance value only.	2: Contaminants of high toxicity	3: Intermittent, low production.	3: High production, heavy use	4: Large hood or large air mass in motion	4: Small hood-local control only
	Type of Contaminant:	Air Speed:																			
solvent, vapours, degreasing etc., evaporating from tank (in still air).	0.25-0.5 m/s (50-100 f/min.)																				
aerosols, fumes from pouring operations, intermittent container filling, low speed conveyer transfers, welding, spray drift, plating acid fumes, pickling (released at low velocity into zone of active generation)	0.5-1 m/s (100-200 f/min.)																				
direct spray, spray painting in shallow booths, drum filling, conveyer loading, crusher dusts, gas discharge (active generation into zone of rapid air motion)	1-2.5 m/s (200-500 f/min.)																				
grinding, abrasive blasting, tumbling, high speed wheel generated dusts (released at high initial velocity into zone of very high rapid air motion).	2.5-10 m/s (500-2000 f/min.)																				
Lower end of the range	Upper end of the range																				
1: Room air currents minimal or favourable to capture	1: Disturbing room air currents																				
2: Contaminants of low toxicity or of nuisance value only.	2: Contaminants of high toxicity																				
3: Intermittent, low production.	3: High production, heavy use																				
4: Large hood or large air mass in motion	4: Small hood-local control only																				
<b>Personal protection</b>																					
<b>Eye and face protection</b>	<ul style="list-style-type: none"> <li>▶ Safety glasses with side shields.</li> <li>▶ Chemical goggles.</li> <li>▶ Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lenses or restrictions on use, should be created for each workplace or task. This should include a review of lens absorption and adsorption for the class of chemicals in use and an account of injury experience. Medical and first-aid personnel should be trained in their removal and suitable equipment should be readily available. In the event of chemical exposure, begin eye irrigation immediately and remove contact lens as soon as practicable. Lens should be removed at the first signs of eye redness or irritation - lens should be removed in a clean environment only after workers have washed hands thoroughly. [CDC NIOSH Current Intelligence Bulletin 59], [AS/NZS 1336 or national equivalent]</li> </ul>																				
<b>Skin protection</b>	See Hand protection below																				
<b>Hands/feet protection</b>	<ul style="list-style-type: none"> <li>▶ Wear chemical protective gloves, e.g. PVC.</li> <li>▶ Wear safety footwear or safety gumboots, e.g. Rubber</li> </ul> <p><b>NOTE:</b></p> <ul style="list-style-type: none"> <li>▶ The material may produce skin sensitisation in predisposed individuals. Care must be taken, when removing gloves and other protective equipment, to avoid all possible skin contact.</li> <li>▶ Contaminated leather items, such as shoes, belts and watch-bands should be removed and destroyed.</li> </ul> <p>The selection of suitable gloves does not only depend on the material, but also on further marks of quality which vary from manufacturer to manufacturer. Where the chemical is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.</p> <p>The exact break through time for substances has to be obtained from the manufacturer of the protective gloves and has to be observed when making a final choice.</p> <p>Personal hygiene is a key element of effective hand care. Gloves must only be worn on clean hands. After using gloves, hands should be washed and dried thoroughly. Application of a non-perfumed moisturizer is recommended.</p> <p>Suitability and durability of glove type is dependent on usage. Important factors in the selection of gloves include:</p> <ul style="list-style-type: none"> <li>- frequency and duration of contact,</li> </ul>																				

	<ul style="list-style-type: none"> <li>· chemical resistance of glove material,</li> <li>· glove thickness and</li> <li>· dexterity</li> </ul> <p>Select gloves tested to a relevant standard (e.g. Europe EN 374, US F739, AS/NZS 2161.1 or national equivalent).</p> <ul style="list-style-type: none"> <li>· When prolonged or frequently repeated contact may occur, a glove with a protection class of 5 or higher (breakthrough time greater than 240 minutes according to EN 374, AS/NZS 2161.10.1 or national equivalent) is recommended.</li> <li>· When only brief contact is expected, a glove with a protection class of 3 or higher (breakthrough time greater than 60 minutes according to EN 374, AS/NZS 2161.10.1 or national equivalent) is recommended.</li> <li>· Some glove polymer types are less affected by movement and this should be taken into account when considering gloves for long-term use.</li> <li>· Contaminated gloves should be replaced.</li> </ul> <p>For general applications, gloves with a thickness typically greater than 0.35 mm, are recommended.</p> <p>It should be emphasised that glove thickness is not necessarily a good predictor of glove resistance to a specific chemical, as the permeation efficiency of the glove will be dependent on the exact composition of the glove material. Therefore, glove selection should also be based on consideration of the task requirements and knowledge of breakthrough times.</p> <p>Glove thickness may also vary depending on the glove manufacturer, the glove type and the glove model. Therefore, the manufacturers' technical data should always be taken into account to ensure selection of the most appropriate glove for the task.</p> <p>Note: Depending on the activity being conducted, gloves of varying thickness may be required for specific tasks. For example:</p> <ul style="list-style-type: none"> <li>· Thinner gloves (down to 0.1 mm or less) may be required where a high degree of manual dexterity is needed. However, these gloves are only likely to give short duration protection and would normally be just for single use applications, then disposed of.</li> <li>· Thicker gloves (up to 3 mm or more) may be required where there is a mechanical (as well as a chemical) risk i.e. where there is abrasion or puncture potential</li> </ul> <p>Gloves must only be worn on clean hands. After using gloves, hands should be washed and dried thoroughly. Application of a non-perfumed moisturiser is recommended.</p>
<b>Body protection</b>	See Other protection below
<b>Other protection</b>	<ul style="list-style-type: none"> <li>▶ Overalls.</li> <li>▶ P.V.C. apron.</li> <li>▶ Barrier cream.</li> <li>▶ Skin cleansing cream.</li> <li>▶ Eye wash unit.</li> </ul>
<b>Thermal hazards</b>	Not Available

### Respiratory protection

Type A Filter of sufficient capacity (AS/NZS 1716 & 1715, EN 143:2000 & 149:2001, ANSI Z88 or national equivalent)

## SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

### Information on basic physical and chemical properties

Appearance	Text		
<b>Physical state</b>	Liquid	<b>Relative density (Water = 1)</b>	Not Available
<b>Odour</b>	Not Available	<b>Partition coefficient n-octanol / water</b>	Not Available
<b>Odour threshold</b>	Not Available	<b>Auto-ignition temperature (°C)</b>	Not Available
<b>pH (as supplied)</b>	8.5	<b>Decomposition temperature</b>	Not Available
<b>Melting point / freezing point (°C)</b>	Not Available	<b>Viscosity (cSt)</b>	Not Available
<b>Initial boiling point and boiling range (°C)</b>	Not Available	<b>Molecular weight (g/mol)</b>	Not Available
<b>Flash point (°C)</b>	Not Available	<b>Taste</b>	Not Available
<b>Evaporation rate</b>	Not Available	<b>Explosive properties</b>	Not Available
<b>Flammability</b>	Not Available	<b>Oxidising properties</b>	Not Available
<b>Upper Explosive Limit (%)</b>	Not Available	<b>Surface Tension (dyn/cm or mN/m)</b>	Not Available
<b>Lower Explosive Limit (%)</b>	Not Available	<b>Volatile Component (%vol)</b>	Not Available
<b>Vapour pressure (kPa)</b>	Not Available	<b>Gas group</b>	Not Available
<b>Solubility in water (g/L)</b>	Immiscible	<b>pH as a solution (1%)</b>	Not Available
<b>Vapour density (Air = 1)</b>	Not Available	<b>VOC g/L</b>	Not Available

## SECTION 10 STABILITY AND REACTIVITY

<b>Reactivity</b>	See section 7
<b>Chemical stability</b>	<ul style="list-style-type: none"> <li>▶ Unstable in the presence of incompatible materials.</li> <li>▶ Product is considered stable.</li> <li>▶ Hazardous polymerisation will not occur.</li> </ul>
<b>Possibility of hazardous reactions</b>	See section 7
<b>Conditions to avoid</b>	See section 7
<b>Incompatible materials</b>	See section 7
<b>Hazardous decomposition products</b>	See section 5

## SECTION 11 TOXICOLOGICAL INFORMATION

## Information on toxicological effects

Inhaled	The material is not thought to produce adverse health effects or irritation of the respiratory tract (as classified by EC Directives using animal models). Nevertheless, good hygiene practice requires that exposure be kept to a minimum and that suitable control measures be used in an occupational setting.
Ingestion	Ingestion of propylene glycol produced reversible central nervous system depression in humans following ingestion of 60 ml. Symptoms included increased heart-rate (tachycardia), excessive sweating (diaphoresis) and grand mal seizures in a 15 month child who ingested large doses (7.5 ml/day for 8 days) as an ingredient of vitamin preparation. Excessive repeated ingestions may cause hypoglycaemia (low levels of glucose in the blood stream) among susceptible individuals; this may result in muscular weakness, incoordination and mental confusion. Very high doses given during feeding studies to rats and dogs produce central nervous system depression (although one-third of that produced by ethanol), haemolysis and insignificant kidney changes. In humans propylene glycol is partly excreted unchanged in the urine and partly metabolised as lactic and pyruvic acid. Lactic acidosis may result. The material has <b>NOT</b> been classified by EC Directives or other classification systems as "harmful by ingestion". This is because of the lack of corroborating animal or human evidence.
Skin Contact	Skin contact is not thought to have harmful health effects (as classified under EC Directives); the material may still produce health damage following entry through wounds, lesions or abrasions. There is some evidence to suggest that this material can cause inflammation of the skin on contact in some persons. Open cuts, abraded or irritated skin should not be exposed to this material Entry into the blood-stream, through, for example, cuts, abrasions or lesions, may produce systemic injury with harmful effects. Examine the skin prior to the use of the material and ensure that any external damage is suitably protected.
Eye	This material can cause eye irritation and damage in some persons.
Chronic	There has been concern that this material can cause cancer or mutations, but there is not enough data to make an assessment. Skin contact with the material is more likely to cause a sensitisation reaction in some persons compared to the general population. Propylene glycol is thought, by some, to be a sensitising principal following the regular use of topical creams by eczema patients. A study of 866 persons using a formulation containing propylene glycol in a patch test indicated that propylene glycol caused primary irritation in 16% of exposed individuals probably caused by dehydration. Undiluted propylene glycol was tested on 1556 persons in a 24 hour patch test. 12.5% showed reactions which were largely toxic (70%) or allergic in nature (30%). Reaction responses reached their maximum on the second day or later. Reactions were seasonal in nature ranging from 17.8% in winter to 9.2% in other seasons. In a patch-test using 25 standard allergens conducted on 500 individuals, propylene glycol ranked fourth in sensitising response. 84 subjects were patch tested using 100% propylene glycol, as well as 2% and 5% in water. With undiluted material, 15% demonstrated a reaction, with 40% of the reactions being allergic in nature and 60% being irritant. In dilute solutions 5 of 248 subjects exhibited a reaction. Undiluted propylene glycol tested on the skin of man produced no irritation under open conditions but when applied under occlusive conditions, for 2 weeks, it produced severe erythema, oedema and vesicles, probably due to sweat retention and weak primary irritation. Predictive contact skin sensitisation tests indicate that propylene glycol is an intermediate grade sensitizer with an index of 1% of tested subjects. Groups of cats fed 5 gm/kg/day of propylene glycol for 14 weeks showed a significant dose-related increase in red blood cell Heinz body formation without any marked signs of haemolytic anaemia. The no-effect-level for cats without formation of Heinz bodies is 100-500 ml/kg. There is no evidence of anaemia or degenerative change. Groups of rats dosed orally with 0.5 or 10 mg/kg/day for 12 weeks had lowered food intake but no adverse effects on body weights. Erythrocytes were more fragile. Heinz bodies were not apparent. There is limited evidence that, skin contact with this product is more likely to cause a sensitisation reaction in some persons compared to the general population.

Fiberlock Fiberset PM Clear 7475	TOXICITY	IRRITATION
	Not Available	Not Available
propylene glycol	TOXICITY	IRRITATION
	Dermal (rabbit) LD50: >2000 mg/kg <sup>[1]</sup>	Eye (rabbit): 100 mg - mild
	Oral (rat) LD50: 20000 mg/kg <sup>[2]</sup>	Eye (rabbit): 500 mg/24h - mild
		Skin(human):104 mg/3d Intermit Mod Skin(human):500 mg/7days mild
chlorothalonil	TOXICITY	IRRITATION
	dermal (rat) LD50: >2500 mg/kg <sup>[2]</sup>	Not Available
	Inhalation (rat) LC50: 0.1 mg/l/4h. <sup>[2]</sup>	
	Inhalation (rat) LC50: 0.31 mg/L/1hr <sup>[2]</sup>	
	Oral (rat) LD50: 10000 mg/kg <sup>[2]</sup>	
nonylphenol ethoxylate, branched	TOXICITY	IRRITATION
	Dermal (rabbit) LD50: 2640 mg/kg <sup>[1]</sup>	Eye : Severe
	Oral (rat) LD50: >15 mg/kg <sup>[1]</sup>	Skin : Severe

**Legend:**

1. Value obtained from Europe ECHA Registered Substances - Acute toxicity 2.\* Value obtained from manufacturer's SDS. Unless otherwise specified data extracted from RTECS - Register of Toxic Effect of chemical Substances

PROPYLENE GLYCOL	The material may cause skin irritation after prolonged or repeated exposure and may produce on contact skin redness, swelling, the production of vesicles, scaling and thickening of the skin. The acute oral toxicity of propylene glycol is very low, and large quantities are required to cause perceptible health damage in humans. Serious toxicity generally occurs only at plasma concentrations over 1 g/L, which requires extremely high intake over a relatively short period of time. It would be nearly impossible to reach toxic levels by consuming foods or supplements, which contain at most 1 g/kg of PG.
------------------	--

<b>CHLOROTHALONIL</b>	<p>The following information refers to contact allergens as a group and may not be specific to this product. Contact allergies quickly manifest themselves as contact eczema, more rarely as urticaria or Quincke's oedema. The pathogenesis of contact eczema involves a cell-mediated (T lymphocytes) immune reaction of the delayed type.</p> <p>Asthma-like symptoms may continue for months or even years after exposure to the material ceases. This may be due to a non-allergenic condition known as reactive airways dysfunction syndrome (RADS) which can occur following exposure to high levels of highly irritating compound. Key criteria for the diagnosis of RADS include the absence of preceding respiratory disease, in a non-atopic individual, with abrupt onset of persistent asthma-like symptoms within minutes to hours of a documented exposure to the irritant.</p> <p>Chlorothalonil has low toxicity, according to animal testing. It irritates the skin and eye. Animal testing suggests that at sufficient doses it can cause cancer of the kidney and forestomach.</p> <p><b>WARNING:</b> This substance has been classified by the IARC as Group 2B: Possibly Carcinogenic to Humans. ADI: 0.01 mg/kg/day NOEL: 1.5 mg/kg/day</p>
<b>NONYLPHENOL ETHOXYLATE, BRANCHED</b>	<p>Human beings have regular contact with alcohol ethoxylates through a variety of industrial and consumer products such as soaps, detergents, and other cleaning products. Exposure to these chemicals can occur through ingestion, inhalation, or contact with the skin or eyes. Studies of acute toxicity show that volumes well above a reasonable intake level would have to occur to produce any toxic response.</p> <p>Both laboratory and animal testing has shown that there is no evidence for alcohol ethoxylates (AEs) causing genetic damage, mutations or cancer. No adverse reproductive or developmental effects were observed.</p> <p>Tri-ethylene glycol ethers undergo enzymatic oxidation to toxic alkoxy acids. They may irritate the skin and the eyes. At high oral doses, they may cause depressed reflexes, flaccid muscle tone, breathing difficulty and coma.</p>

<b>Acute Toxicity</b>	☒	<b>Carcinogenicity</b>	✔
<b>Skin Irritation/Corrosion</b>	☒	<b>Reproductivity</b>	☒
<b>Serious Eye Damage/Irritation</b>	✔	<b>STOT - Single Exposure</b>	☒
<b>Respiratory or Skin sensitisation</b>	✔	<b>STOT - Repeated Exposure</b>	☒
<b>Mutagenicity</b>	☒	<b>Aspiration Hazard</b>	☒

**Legend:** ✘ – Data available but does not fill the criteria for classification  
✔ – Data available to make classification  
☒ – Data Not Available to make classification

## SECTION 12 ECOLOGICAL INFORMATION

### Toxicity

Ingredient	Endpoint	Test Duration (hr)	Species	Value	Source
propylene glycol	LC50	96	Fish	710mg/L	4
propylene glycol	EC50	48	Crustacea	>1000mg/L	4
propylene glycol	EC50	96	Algae or other aquatic plants	10905.921mg/L	3
propylene glycol	EC50	384	Crustacea	311.145mg/L	3
propylene glycol	NOEC	168	Fish	98mg/L	4
chlorothalonil	LC50	96	Fish	0.0076mg/L	4
chlorothalonil	EC50	48	Crustacea	0.0066475mg/L	4
chlorothalonil	EC50	72	Algae or other aquatic plants	0.0068mg/L	4
chlorothalonil	BCF	336	Algae or other aquatic plants	0.02mg/L	4
chlorothalonil	EC10	48	Crustacea	0.0005839mg/L	4
chlorothalonil	NOEC	240	Crustacea	0.0003mg/L	4
nonylphenol ethoxylate, branched	LC50	96	Fish	0.136mg/L	2
nonylphenol ethoxylate, branched	NOEC	2184	Fish	ca.0.006mg/L	2

#### Legend:

Extracted from 1. IUCLID Toxicity Data 2. Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicity 3. EPIWIN Suite V3.12 - Aquatic Toxicity Data (Estimated) 4. US EPA, Ecotox database - Aquatic Toxicity Data 5. ECETOC Aquatic Hazard Assessment Data 6. NITE (Japan) - Bioconcentration Data 7. METI (Japan) - Bioconcentration Data 8. Vendor Data

Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Do NOT allow product to come in contact with surface waters or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment wash-waters.

Wastes resulting from use of the product must be disposed of on site or at approved waste sites.

Propylene glycol is known to exert high levels of biochemical oxygen demand (BOD) during degradation in surface waters. This process can adversely affect aquatic life by consuming oxygen needed by aquatic organisms for survival. Large quantities of dissolved oxygen (DO) in the water column are consumed when microbial populations decompose propylene glycol.

Sufficient dissolved oxygen levels in surface waters are critical for the survival of fish, macro-invertebrates, and other aquatic organisms. If oxygen concentrations drop below a minimum level, organisms emigrate, if able and possible, to areas with higher oxygen levels or eventually die. This effect can drastically reduce the amount of usable aquatic habitat. Reductions in DO levels can reduce or eliminate bottom-feeder populations, create conditions that favour a change in a community's species profile, or alter critical food-web interactions.

log Kow : -1.41 - -0.3

Half-life (hr) air : 32

Henry's atm m3 /mol: 1.20E-08

BOD 5: 0.995, 2.2%

ThOD : 1.685

BCF : <1

Bioaccumulation : not sig

processes Abiotic: photoxid

**DO NOT discharge into sewer or waterways.**

**Persistence and degradability**

Ingredient	Persistence: Water/Soil	Persistence: Air
propylene glycol	LOW	LOW
chlorothalonil	HIGH	HIGH

**Bioaccumulative potential**

Ingredient	Bioaccumulation
propylene glycol	LOW (BCF = 1)
chlorothalonil	LOW (BCF = 125)

**Mobility in soil**

Ingredient	Mobility
propylene glycol	HIGH (KOC = 1)
chlorothalonil	LOW (KOC = 2392)

**SECTION 13 DISPOSAL CONSIDERATIONS****Waste treatment methods**

<b>Product / Packaging disposal</b>	<ul style="list-style-type: none"> <li>▶ Containers may still present a chemical hazard/ danger when empty.</li> <li>▶ Return to supplier for reuse/ recycling if possible.</li> </ul> <p>Otherwise:</p> <ul style="list-style-type: none"> <li>▶ If container can not be cleaned sufficiently well to ensure that residuals do not remain or if the container cannot be used to store the same product, then puncture containers, to prevent re-use, and bury at an authorised landfill.</li> <li>▶ Where possible retain label warnings and SDS and observe all notices pertaining to the product.</li> </ul> <p>Legislation addressing waste disposal requirements may differ by country, state and/ or territory. Each user must refer to laws operating in their area. In some areas, certain wastes must be tracked.</p> <p>A Hierarchy of Controls seems to be common - the user should investigate:</p> <ul style="list-style-type: none"> <li>▶ Reduction</li> <li>▶ Reuse</li> <li>▶ Recycling</li> <li>▶ Disposal (if all else fails)</li> </ul> <p>This material may be recycled if unused, or if it has not been contaminated so as to make it unsuitable for its intended use. If it has been contaminated, it may be possible to reclaim the product by filtration, distillation or some other means. Shelf life considerations should also be applied in making decisions of this type. Note that properties of a material may change in use, and recycling or reuse may not always be appropriate.</p> <ul style="list-style-type: none"> <li>▶ <b>DO NOT allow wash water from cleaning or process equipment to enter drains.</b></li> <li>▶ It may be necessary to collect all wash water for treatment before disposal.</li> <li>▶ In all cases disposal to sewer may be subject to local laws and regulations and these should be considered first.</li> <li>▶ Where in doubt contact the responsible authority.</li> <li>▶ Recycle wherever possible.</li> <li>▶ Consult manufacturer for recycling options or consult local or regional waste management authority for disposal if no suitable treatment or disposal facility can be identified.</li> <li>▶ Dispose of by: burial in a land-fill specifically licensed to accept chemical and / or pharmaceutical wastes or incineration in a licensed apparatus (after admixture with suitable combustible material).</li> <li>▶ Decontaminate empty containers. Observe all label safeguards until containers are cleaned and destroyed.</li> </ul>
-------------------------------------	--

**SECTION 14 TRANSPORT INFORMATION****Labels Required**

<b>Marine Pollutant</b>	
-------------------------	---

**Land transport (DOT): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS****Air transport (ICAO-IATA / DGR): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS****Sea transport (IMDG-Code / GGVSee): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS****Transport in bulk according to Annex II of MARPOL and the IBC code**

Not Applicable

**SECTION 15 REGULATORY INFORMATION****Safety, health and environmental regulations / legislation specific for the substance or mixture**

PROPYLENE GLYCOL(57-55-6) IS FOUND ON THE FOLLOWING REGULATORY LISTS

US - Pennsylvania - Hazardous Substance List

US - Rhode Island Hazardous Substance List

US - Washington Toxic air pollutants and their ASIL, SQER and de minimis emission values

US AIHA Workplace Environmental Exposure Levels (WEELs)

US ATSDR Minimal Risk Levels for Hazardous Substances (MRLs)

US Spacecraft Maximum Allowable Concentrations (SMACs) for Airborne Contaminants

US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory

**CHLOROTHALONIL(1897-45-6) IS FOUND ON THE FOLLOWING REGULATORY LISTS**

International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs

US - California - Proposition 65 - Priority List for the Development of MADLs for Chemicals Causing Reproductive Toxicity

US - California Proposition 65 - Carcinogens

US - California Proposition 65 - No Significant Risk Levels (NSRLs) for Carcinogens

US - Massachusetts - Right To Know Listed Chemicals

US - New Jersey Right to Know - Special Health Hazard Substance List (SHHSL): Carcinogens

US - Pennsylvania - Hazardous Substance List

US - Washington Toxic air pollutants and their ASIL, SQER and de minimis emission values

US EPCRA Section 313 Chemical List

US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory

**NONYLPHENOL ETHOXYLATE, BRANCHED(68412-54-4) IS FOUND ON THE FOLLOWING REGULATORY LISTS**

US - Vermont Permissible Exposure Limits Table Z-1-A Transitional Limits for Air Contaminants

US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory

**Federal Regulations****Superfund Amendments and Reauthorization Act of 1986 (SARA)****SECTION 311/312 HAZARD CATEGORIES**

Immediate (acute) health hazard	Yes
Delayed (chronic) health hazard	Yes
Fire hazard	No
Pressure hazard	No
Reactivity hazard	No

**US. EPA CERCLA HAZARDOUS SUBSTANCES AND REPORTABLE QUANTITIES (40 CFR 302.4)**

None Reported

**State Regulations****US. CALIFORNIA PROPOSITION 65**

WARNING: This product contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm

**US - CALIFORNIA PREPOSITION 65 - CARCINOGENS & REPRODUCTIVE TOXICITY (CRT): LISTED SUBSTANCE**

Chlorothalonil Listed

National Inventory	Status
Australia - AICS	Y
Canada - DSL	Y
Canada - NDSL	N (chlorothalonil; propylene glycol; nonylphenol ethoxylate, branched)
China - IECSC	Y
Europe - EINEC / ELINCS / NLP	Y
Japan - ENCS	N (nonylphenol ethoxylate, branched)
Korea - KECI	Y
New Zealand - NZIoC	Y
Philippines - PICCS	Y
USA - TSCA	Y
<b>Legend:</b>	Y = All ingredients are on the inventory N = Not determined or one or more ingredients are not on the inventory and are not exempt from listing(see specific ingredients in brackets)

**SECTION 16 OTHER INFORMATION****CONTACT POINT**

\*\*PLEASE NOTE THAT TITANIUM DIOXIDE IS NOT PRESENT IN CLEAR OR NEUTRAL BASES\*\*

**Other information**

Classification of the preparation and its individual components has drawn on official and authoritative sources as well as independent review by the Chemwatch Classification committee using available literature references.

The SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings. Risks may be determined by reference to Exposures Scenarios. Scale of use, frequency of use and current or available engineering controls must be considered.

**Definitions and abbreviations**

PC— TWA: Permissible Concentration-Time Weighted Average

PC—STEL: Permissible Concentration-Short Term Exposure Limit

IARC: International Agency for Research on Cancer

ACGIH: American Conference of Governmental Industrial Hygienists

STEL: Short Term Exposure Limit

TEEL: Temporary Emergency Exposure Limit.

IDLH: Immediately Dangerous to Life or Health Concentrations

OSF: Odour Safety Factor

NOAEL :No Observed Adverse Effect Level  
LOAEL: Lowest Observed Adverse Effect Level  
TLV: Threshold Limit Value  
LOD: Limit Of Detection  
OTV: Odour Threshold Value  
BCF: BioConcentration Factors  
BEI: Biological Exposure Index

This document is copyright.

Apart from any fair dealing for the purposes of private study, research, review or criticism, as permitted under the Copyright Act, no part may be reproduced by any process without written permission from CHEMWATCH.

TEL (+61 3) 9572 4700.

# Flo-Perm Magnum Global Concentrate Antifreeze/Coolant

## SAFETY DATA SHEET

### SECTION 1: Identification

#### Product identifier

Product name	Flo-Perm Magnum Global Concentrate Antifreeze/Coolant
Part No.	92270, 92271
Recommended Use	Antifreeze/Coolant
Restrictions on Use	None known

#### Supplier's details

Name	Vulsay Industries Ltd.
Address	35 Regan Road Brampton, Ontario L7A 1B2 Canada

Telephone	905 846 2200
Fax	905 846 2249

**Emergency phone number(s)** 24 hours EMERGENCY Phone # - 1-800-468-1760

### SECTION 2: Hazard identification

#### Classification of the substance or mixture

- Acute toxicity, oral (chapter 3.1), Cat. 4
- Specific target organ toxicity, single exposure (chapter 3.8), Cat. 2
- Toxic to reproduction (chapter 3.7), Cat. 2
- Eye damage/irritation (chapter 3.3), Cat. 2B

#### GHS label elements, including precautionary statements

#### Pictogram



**Signal word** Warning

#### Hazard statement(s)

H302	Harmful if swallowed
H373	May cause damage to organs (kidneys) through prolonged or repeated exposure
H360	May damage fertility or the unborn child

## Flo-Perm Magnum Global Concentrate Antifreeze/Coolant SAFETY DATA SHEET

H320 Causes eye irritation

**Precautionary statement(s)**

P202	Do not handle until all safety precautions have been read and understood.
P201	Obtain special instructions before use.
P264	Wash hands thoroughly after handling.
P280	Wear protective gloves, protective clothing, eye protection.
P270	Do not eat, drink or smoke when using this product.
P260	Do not breathe mist, vapours, spray.
P301+P310	IF SWALLOWED: Immediately call a POISON CENTER/doctor.
P301+P330+P331	IF SWALLOWED: Rinse mouth. DO NOT induce vomiting.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.
P337+P313	If eye irritation persists: Get medical advice/attention.
P302+P352	IF ON SKIN: Wash with plenty of water.
P362+P364	Take off contaminated clothing and wash it before reuse.
P308+P313	IF exposed or concerned: Get medical advice/attention.
P501	Dispose of contents/container in accordance with local regulations

### SECTION 3: Composition/information on ingredients

Component	Concentration (volume)
ETHYLENE GLYCOL (CAS no.: 107-21-1; EC no.: 203-473-3; Index no.: 603-027-00-1)	90 - 97 %
DIETHYLENE GLYCOL (CAS no.: 111-46-6; EC no.: 203-872-2; Index no.: 603-140-00-6)	<=5%
Hydrated inorganic acid, organic acid salts (CAS no.: Mixture)	< 6 %
Water (CAS no.: 7732-18-5)	<5%

### SECTION 4: First-aid measures

**Description of necessary first-aid measures**

If inhaled	IMMEDIATELY leave the contaminated area; take deep breaths of fresh air. If symptoms (such as wheezing, coughing, shortness of breath, or burning in the mouth, throat, or chest) develop, call a physician and be prepared to transport the victim to a hospital. Provide proper respiratory protection to rescuers entering an unknown atmosphere. Whenever possible, Self-Contained Breathing Apparatus (SCBA) should be used; if not available, use a level of protection greater than or equal to that advised under Respirator Recommendation.
In case of skin contact	IMMEDIATELY flood affected skin with water while removing and isolating all contaminated clothing. Gently wash all affected skin areas thoroughly with soap and water. If symptoms such as redness or irritation develop, get medical attention.
In case of eye contact	First check the victim for contact lenses and remove if present. Flush victim's eyes with water or normal saline solution for 20 to 30 minutes while simultaneously calling a hospital or poison control center. Do not put any

## Flo-Perm Magnum Global Concentrate Antifreeze/Coolant SAFETY DATA SHEET

---

ointments, oils, or medication in the victim's eyes without specific instructions from a physician. Get medical attention immediately.

If swallowed

DO NOT INDUCE VOMITING. IMMEDIATELY call a hospital or poison control center. If the victim is conscious and not convulsing, give 1 or 2 glasses of water to dilute the chemical. Be prepared to transport the victim to a hospital if advised by a physician. If the victim is convulsing or unconscious, do not give anything by mouth, ensure that the victim's airway is open and lay the victim on his/her side with the head lower than the body. IMMEDIATELY transport the victim to a hospital.

### **Personal protective equipment for first-aid responders**

General advice: First Aid responders should pay attention to self-protection and use the recommended protective clothing (chemical resistant gloves, splash protection). If potential for exposure exists refer to Section 8 for specific personal protective equipment.

### **Most important symptoms/effects, acute and delayed**

Ethylene glycol may be acutely toxic following ingestion. Due to its low volatility and low dermal absorption rate, acute toxicity is unlikely following exposure to ethylene glycol by the inhalation or dermal routes.

Acute toxicity following ingestion of ethylene glycol manifests in three phases. The first is characterized by central nervous system (CNS) depression much like in ethanol intoxication, with features including dizziness, agitation, nystagmus, nausea, tachycardia, elevated blood pressure and vomiting between 0.5 and 12 hours. The second phase at around 12 hours after ingestion is characterized by cardiorespiratory effects, with the development of hyperpnoea, metabolic acidosis, dyspnoea, hyperventilation, tachycardia, cyanosis and elevated blood pressure. A third phase, involving renal toxicity may present 24–36 hours after ingestion with flank pain, renal angle tenderness, acute tubular necrosis, hypercalcaemia, hyperkalaemia and hypomagnesaemia. Oliguria or anuria may occur. Some investigators report a fourth stage characterized by delayed neurological dysfunction.

Death may occur after substantial exposures due to cardiopulmonary failure or CNS damage in later stages. Severe intoxication, if survived, may lead to neurological effects including facial paralysis, slurred speech, loss of motor skills and impaired vision.

### **Indication of immediate medical attention and special treatment needed, if necessary**

If several ounces (60 - 100 ml) of ethylene glycol have been ingested, early administration of ethanol may counter the toxic effects (metabolic acidosis, renal damage). Consider hemodialysis or peritoneal dialysis & thiamine 100 mg plus pyridoxine 50 mg intravenously every 6 hours. If ethanol is used, a therapeutically effective blood concentration in the range of 100 - 150 mg/dl may be achieved by a rapid loading dose followed by a continuous intravenous infusion. Consult standard literature for details of treatment. 4-Methyl pyrazole (Antizol®) is an effective blocker of alcohol dehydrogenase and should be used in the treatment of ethylene glycol (EG), di- or triethylene glycol (DEG, TEG), ethylene glycol butyl ether (EGBE), or methanol intoxication if available. Fomepizole protocol (Brent, J. et al., New England Journal of Medicine, Feb. 8, 2001, 344:6, p. 424-9): loading dose 15 mg/kg intravenously, follow by bolus dose of 10 mg/kg every 12 hours; after 48 hours, increase bolus dose to 15 mg/kg every 12 hours. Continue fomepizole until serum methanol, EG, DEG, TEG or EGBE are undetectable. The signs and symptoms of poisoning include anion gap metabolic acidosis, CNS depression, renal tubular injury, and possible late stage cranial nerve involvement. Respiratory symptoms, including pulmonary edema, may be delayed. Persons receiving significant exposure should be observed 24-48 hours for signs of respiratory distress. In severe poisoning, respiratory support with mechanical ventilation and positive end expiratory pressure may be required. Maintain adequate ventilation and oxygenation of the patient. If lavage is performed, suggest endotracheal and/or esophageal control. Danger from lung aspiration must be weighed against toxicity when considering emptying the stomach. If burn is present, treat as any thermal burn, after decontamination. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient

# Flo-Perm Magnum Global Concentrate Antifreeze/Coolant

## SAFETY DATA SHEET

### SECTION 5: Fire-fighting measures

#### **Suitable extinguishing media**

Water fog or fine spray. Dry chemical fire extinguishers. Carbon dioxide fire extinguishers. Foam. Alcohol resistant foams (ATC type) are preferred. General purpose synthetic foams (including AFFF) or protein foams may function, but will be less effective. Water spray may be used to flush spills away from fire and diluted spills to noncombustible proportions(see warning on water spray on hot glycol below.)

#### **Specific hazards arising from the chemical**

Hazardous Combustion Products: During a fire, smoke may contain the original material in addition to combustion products of varying composition which may be toxic and/or irritating.

Combustion products may include and are not limited to: Carbon monoxide. Carbon dioxide. Nitrogen oxides.

Unusual Fire and Explosion Hazards: Container may rupture from gas generation in a fire situation. Violent steam generation or eruption may occur upon application of direct water stream to hot liquids.

#### **Special protective actions for fire-fighters**

Water spray may cause foaming of hot glycol so indirect application of water spray or use of other extinguishing media should be used on hot glycol.

### SECTION 6: Accidental release measures

#### **Personal precautions, protective equipment and emergency procedures**

: Isolate area. Keep unnecessary and unprotected personnel from entering the area. Refer to Section 7, Handling, for additional precautionary measures. Use appropriate safety equipment. For additional information, refer to Section 8, Exposure Controls and Personal Protection. In case of spills, beware of slippery floors and surfaces.

#### **Environmental precautions**

Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. See Section 12, Ecological Information.

#### **Methods and materials for containment and cleaning up**

Contain spilled material if possible. Collect in suitable and properly labeled containers. Small spills: Absorb with inert absorbing material. Large spills: Dike area to contain spill. Pump into suitable and properly labeled containers. See Section 13, Disposal Considerations, for additional information

### SECTION 7: Handling and storage

#### **Precautions for safe handling**

Precautions for safe handling : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapor. Hygiene measures : Do not eat, drink or smoke when using this product. Wash affected areas thoroughly after handling.

#### **Conditions for safe storage, including any incompatibilities**

Storage conditions : Keep only in the original container in a cool, well ventilated place away from : Heat sources. Keep container closed when not in use. Product may become solid at temperatures below -18 °C (0 °F). Do not cut, drill, weld, use a blowtorch on, etc. containers even when empty. Do not store near food, foodstuffs, drugs or potable water supplies.

Incompatible products : Keep away from strong acids, strong bases and oxidizing agents.

Incompatible materials : Sources of ignition.

### SECTION 8: Exposure controls/personal protection

# Flo-Perm Magnum Global Concentrate Antifreeze/Coolant

## SAFETY DATA SHEET

### Control parameters

**CAS: 107-21-1 (EC: 203-473-3)**

ETHYLENE GLYCOL

ACGIH: 10 mg/m<sup>3</sup> TWA inhalation

**CAS: 111-46-6 (EC: 203-872-2)**

DIETHYLENE GLYCOL

ACGIH: 10 mg/m<sup>3</sup> TWA inhalation

### Appropriate engineering controls

General ventilation is sufficient in most cases. If general ventilation is not sufficient, use local exhaust ventilation.

### Individual protection measures, such as personal protective equipment (PPE)

#### Pictograms



#### Eye/face protection

Wear safety glasses or chemical goggles

#### Skin protection

Wear protective gloves

#### Body protection

Wear protective clothing such as apron is necessary

#### Respiratory protection

Not normally required if product is used as directed. : If exposed to levels above exposure limits wear appropriate respiratory protection.

## SECTION 9: Physical and chemical properties

### Information on basic physical and chemical properties

Appearance/form (physical state, color, etc.)	Clear, slightly viscous, light yellow colour liquid
Odor	No characteristic odor
Odor threshold	No data available.
pH	9 - 11
Melting point/freezing point	Lower then -15deg C (Ethylene Glycol)
Initial boiling point and boiling range	197 °C (Ethylene Glycol)
Flash point	111 °C TCC (Ethylene Glycol)
Evaporation rate	<0.01
Flammability (solid, gas)	Not applicable
Upper/lower flammability limits	Data not available
Vapor pressure	0.06 mm Hg (Ethylene Glycol)
Vapor density	2.1 (Ethylene Glycol)
Relative density (water =1 )	1.1 -1.15 @20° C]
Solubility	100% soluble in water

# Flo-Perm Magnum Global Concentrate Antifreeze/Coolant

## SAFETY DATA SHEET

Partition coefficient: n-octanol/water  
Auto-ignition temperature  
Decomposition temperature  
Viscosity  
Explosive properties  
Oxidizing properties

No data available.  
400 °C (Ethylene Glycol)  
No data available.  
16.9 cP @ 25°C (Ethylene Glycol)  
No data available.  
No data available.

### SECTION 10: Stability and reactivity

#### Reactivity

Not reactive under normal conditions

#### Chemical stability

Stable

#### Possibility of hazardous reactions

Hazardous polymerization will not occur

#### Conditions to avoid

Extremely high or low temperatures. Open flames, sparks, heat and ignition sources

#### Incompatible materials

Keep away from strong acids, strong bases and oxidizing materials

#### Hazardous decomposition products

Carbon dioxide, carbon monoxide, fume, aldehydes, ketones

### SECTION 11: Toxicological information

#### Information on toxicological effects

##### Acute toxicity

ETHYLENE GLYCOL

Acute oral LD50's = 4,700 mg/kg (rats)  
5,500 mg/kg (mouse)

LD50 Skin - Rabbit - 9,530 mg/kg

DIETHYLENE GLYCOL

LD50 Oral - Rat - 12,565 mg/kg

Citation: Sigma Aldrich SDS

LD50 Skin - Rabbit - 11,890 mg/kg

##### Skin corrosion/irritation

Not classified - Based on the pH and the irritation potential of this mixture's constituents, the mist or liquid can be expected to cause mild to moderate irritation of the skin.

##### Serious eye damage/irritation

Not classified - Based on the pH and irritation potential of this mixture's constituents, the mist or liquid can be expected to cause mild to moderate irritation or inflammation of the eyes

##### Respiratory or skin sensitization

# Flo-Perm Magnum Global Concentrate Antifreeze/Coolant

## SAFETY DATA SHEET

---

Not classified

### **Germ cell mutagenicity**

No data available. Not known to be a mutagen

### **Carcinogenicity**

Not classified

### **Reproductive toxicity**

Ethylene glycol is not classified as a human reproductive or developmental toxicant. However, fetal toxicity may arise secondary to maternal toxicity. It is unlikely that exposure to low concentrations of ethylene glycol would result in adverse effects in the fetus, though exposure should be minimized

### **STOT-single exposure**

If vaporized or sprayed: upper respiratory irritation and systemic effects.  
Ingestion: moderately toxic, may cause central nervous system effects, cardio pulmonary effects (metabolic acidosis) and kidney failure. Large amounts ingested may cause serious injury and death.  
Skin: Slight irritation but injury unlikely.

### **STOT-repeated exposure**

May cause damage to organs (kidneys) through repeated or prolonged exposure  
May cause dry skin on repeated exposure

### **Aspiration hazard**

Not classified

### **Additional information**

-----  
ETHYLENE GLYCOL: \*TOXICITY:

#### STANDARDS, REGULATIONS & RECOMMENDATIONS:

OSHA: Federal Register (1/19/89)  
Final Limit: Ceiling Limit 50 ppm [015,545,610]  
ACGIH: Ceiling Limit 50 ppm (vapor) [015,415,421,610]  
NIOSH Criteria Document: None  
NFPA Hazard Rating: Health (H): 1  
Flammability (F): 1  
Reactivity (R): 0  
H1: Materials only slightly hazardous to health (see NFPA for details).  
F1: Materials that must be preheated before ignition can occur (see NFPA for details).  
R0: Materials which are normally stable even under fire exposure conditions and which are not reactive with water (see NFPA for details).

-----  
DIETHYLENE GLYCOL: \*TOXICITY:

#### STANDARDS, REGULATIONS & RECOMMENDATIONS:

OSHA: None  
ACGIH: None

# Flo-Perm Magnum Global Concentrate Antifreeze/Coolant

## SAFETY DATA SHEET

NIOSH Criteria Document: None  
NFPA Hazard Rating: Health (H): 1  
Flammability (F): 1  
Reactivity (R): 0

H1: Materials only slightly hazardous to health (see NFPA for details).

F1: Materials that must be preheated before ignition can occur (see NFPA for details).

R0: Materials which are normally stable even under fire exposure conditions and which are not reactive with water (see NFPA for details).

### SECTION 12: Ecological information

#### Toxicity

Ecological information of the product : Data not available

Ethylene Glycol (107-21-1)  
EC50 Daphnia 1 > 10,000.00 mg/l (EC50; 24 h)  
LC50 fish 2 40,761.00 mg/l (LC50; 96 h; Salmo gairdneri)

Diethylene Glycol (111-46-6)  
LC50 fish 1 > 5,000.00 mg/l (LC50; 24 h)  
EC50 Daphnia 1 > 10,000.00 mg/l (EC50; 24 h)  
denatonium benzoate (3734-33-6)  
LC50 fish 1 > 1,000.00 mg/l (LC50; 96 h; Salmo gairdneri)  
EC50 Daphnia 1 13.00 mg/l (EC50; 48 h; Daphnia magna)

#### Persistence and degradability

Ethylene Glycol (107-21-1)  
Persistence and degradability Readily biodegradable in water. Biodegradable in the soil.  
Biochemical oxygen demand (BOD) 0.47 g O<sub>2</sub>/g substance  
Chemical oxygen demand (COD) 1.24 g O<sub>2</sub>/g substance  
ThOD 1.29 g O<sub>2</sub>/g substance  
BOD (% of ThOD) 0.36

Diethylene Glycol (111-46-6)  
Persistence and degradability Readily biodegradable in water. Biodegradable in the soil. Highly mobile in soil.  
Photolysis in the air.  
Biochemical oxygen demand (BOD) 0.02 g O<sub>2</sub>/g substance  
Chemical oxygen demand (COD) 1.51 g O<sub>2</sub>/g substance  
ThOD 1.51 g O<sub>2</sub>/g substance  
BOD (% of ThOD) 0.02

#### Bioaccumulative potential

Ethylene Glycol (107-21-1)  
BCF fish 1 10.00 (BCF; 72 h)  
BCF other aquatic organisms 1 0.21 - 0.6 (BCF)  
BCF other aquatic organisms 2 190.00 (BCF; 24 h)  
Log Pow -1.34 (Experimental value)  
Bioaccumulative potential Low potential for bioaccumulation (BCF < 500).

Diethylene Glycol (111-46-6)  
BCF fish 1 100.00 (BCF; Other; 3 days; Leuciscus melanotus; Static system; Fresh water; Experimental value)

# Flo-Perm Magnum Global Concentrate Antifreeze/Coolant

## SAFETY DATA SHEET

---

Log Pow -1.98 (Calculated; Other)  
Bioaccumulative potential Low potential for bioaccumulation (BCF < 500).

### **Mobility in soil**

Mobility: The product is miscible with water. May spread in water systems.

### **Results of PBT and vPvB assessment**

This substance is not classified as PBT or vPvB.

### **Other adverse effects**

No data available.

## **SECTION 13: Disposal considerations**

### **Disposal of the product**

DISPOSAL AND WASTE TREATMENT: Avoid release to the environment. Provincial and/or federal regulations may require that environmental and/or other agencies be notified of a spill incident. Spill area must be cleaned and restored to original condition, or to the satisfaction of authorities. Dispose of contents/container, in a safe manner, to appropriate waste disposal facility, in accordance with local/regional/national/international regulations.

## **SECTION 14: Transport information**

**Canadian TDG (Transportation of Dangerous Goods):** NOT REGULATED

### **DOT (US)**

UN Number: 3082

Class: 9

Packing Group: III

Proper Shipping Name: Environmentally hazardous substances, liquid, n.o.s.

Non Bulk: Not regulated by the US DOT in quantities under 5,000 lbs in any one inner package

### **IMDG: NOT REGULATED**

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Product Name: ETHYLENE GLYCOL

Ship Type: 3

Pollution Category: Y

**IATA: NOT REGULATED**

## **SECTION 15: Regulatory information**

### **Safety, health and environmental regulations specific for the product in question**

#### **Massachusetts Right To Know Components**

Chemical name: Ethylene glycol

CAS number: 107-21-1

#### **New Jersey Right To Know Components**

Common name: ETHYLENE GLYCOL

CAS number: 107-21-1



# Flo-Perm Magnum Global Concentrate Antifreeze/Coolant

## SAFETY DATA SHEET

---

### **Pennsylvania Right To Know Components**

Chemical name: 1,2-Ethanediol  
CAS number: 107-21-1

### **Canadian Domestic Substances List (DSL)**

All ingredients are listed on the DSL/NDSL

### **Toxic Substances Control Act (TSCA) Inventory**

All ingredients are listed on the TSCA inventory

### **California Prop. 65 Components**

Known to the state to cause reproductive toxicity

## **SECTION 16: Other information**

**SDS Prepared By:** Quality Assurance Department

**Phone #:** 905 846 2200

**Preparation date:** March 06, 2016

**Revision #:** First Issue

### **Disclaimer**

The recommendations and data presented herein are based on sources considered to be reliable. However, no warranty is expressed or implied regarding the accuracy of the data or the results obtained from the use of this information or the use of product. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.



# SAFETY DATA SHEET

## 1. Product and Company Identification

<b>Product identifier</b>	<b>Fluorescent Gas Leak Detector (4184-01, 4184-08, 4184-24, 4184-53)</b>
<b>Other means of identification</b>	Not available
<b>Recommended use</b>	Gas Leak Detector
<b>Recommended restrictions</b>	None known.
<b>Manufacturer information</b>	Nu-Calgon 2611 Schuetz Road St. Louis, MO 63043 US Phone: 314-469-7000 / 800-554-5499 Emergency Phone: 1-800-424-9300 (CHEMTREC)
<b>Supplier</b>	See above.

## 2. Hazards Identification

<b>Physical hazards</b>	Not classified.
<b>Health hazards</b>	Not classified.
<b>Environmental hazards</b>	Not classified.
<b>WHMIS 2015 defined hazards</b>	Not classified
<b>Label elements</b>	
<b>Hazard symbol</b>	None.
<b>Signal word</b>	None.
<b>Hazard statement</b>	The mixture does not meet the criteria for classification.
<b>Precautionary statement</b>	
<b>Prevention</b>	Observe good industrial hygiene practices.
<b>Response</b>	Wash hands after handling.
<b>Storage</b>	Store away from incompatible materials.
<b>Disposal</b>	Dispose of waste and residues in accordance with local authority requirements.
<b>WHMIS 2015: Health Hazard(s) not otherwise classified (HHNOC)</b>	None known
<b>WHMIS 2015: Physical Hazard(s) not otherwise classified (PHNOC)</b>	None known
<b>Hazard(s) not otherwise classified (HNOC)</b>	None known.
<b>Supplemental information</b>	Not applicable.

## 3. Composition/Information on Ingredients

### Mixture

<b>Chemical name</b>	<b>Common name and synonyms</b>	<b>CAS number</b>	<b>%</b>
1,2-Propanediol		57-55-6	10-30*

All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

<b>Composition comments</b>	US GHS: The exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200. *CANADA GHS: The exact percentage (concentration) of composition has been withheld as a trade secret.
-----------------------------	--

## 4. First Aid Measures

<b>Inhalation</b>	Not a normal route of exposure. If symptoms develop move victim to fresh air. If symptoms persist, obtain medical attention.
<b>Skin contact</b>	Flush with cool water. Wash with soap and water. Obtain medical attention if irritation persists.
<b>Eye contact</b>	Flush with cool water. Remove contact lenses, if applicable, and continue flushing. Obtain medical attention if irritation persists.

<b>Ingestion</b>	Do not induce vomiting. If vomiting occurs naturally, have victim lean forward to reduce risk of aspiration. Never give anything by mouth if victim is unconscious or is convulsing. Obtain medical attention.
<b>Most important symptoms/effects, acute and delayed</b>	Direct contact with eyes may cause temporary irritation.
<b>Indication of immediate medical attention and special treatment needed</b>	Treat symptomatically.
<b>General information</b>	Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.

---

### 5. Fire Fighting Measures

---

<b>Suitable extinguishing media</b>	Alcohol resistant foam. Dry chemical powder. Carbon dioxide (CO <sub>2</sub> ).
<b>Unsuitable extinguishing media</b>	Do not use water jet as an extinguisher, as this will spread the fire.
<b>Specific hazards arising from the chemical</b>	During fire, gases hazardous to health may be formed.
<b>Special protective equipment and precautions for firefighters</b>	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
<b>Fire-fighting equipment/instructions</b>	Move containers from fire area if you can do so without risk.
<b>Specific methods</b>	Use standard firefighting procedures and consider the hazards of other involved materials.
<b>General fire hazards</b>	No unusual fire or explosion hazards noted.
<b>Hazardous combustion products</b>	May include and are not limited to: Oxides of carbon. Oxides of nitrogen.

---

### 6. Accidental Release Measures

---

<b>Personal precautions, protective equipment and emergency procedures</b>	Keep out of low areas. Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. For personal protection, see section 8 of the SDS.
<b>Methods and materials for containment and cleaning up</b>	Stop the flow of material, if this is without risk.  Large Spills: Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Absorb in vermiculite, dry sand or earth and place into containers. Use water spray to reduce vapors or divert vapor cloud drift. Prevent entry into waterways, sewer, basements or confined areas. Following product recovery, flush area with water.  Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.  Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.
<b>Environmental precautions</b>	Avoid discharge into drains, water courses or onto the ground.

---

### 7. Handling and Storage

---

<b>Precautions for safe handling</b>	Ensure adequate ventilation. Avoid prolonged exposure. Use care in handling/storage. Avoid contact with eyes, skin and clothing.
<b>Conditions for safe storage, including any incompatibilities</b>	Keep away from heat, open flames or other sources of ignition. Store away from incompatible materials (see Section 10 of the SDS).

---

### 8. Exposure Controls/Personal Protection

---

#### Occupational exposure limits

##### Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents)

Components	Type	Value	Form
1,2-Propanediol (CAS 57-55-6)	TWA	155 mg/m <sup>3</sup>	Vapor and aerosol.
		10 mg/m <sup>3</sup>	Aerosol.
		50 ppm	Vapor and aerosol.

##### US. AIHA Workplace Environmental Exposure Level (WEEL) Guides

Components	Type	Value	Form
1,2-Propanediol (CAS 57-55-6)	TWA	10 mg/m <sup>3</sup>	Aerosol.

**Biological limit values** No biological exposure limits noted for the ingredient(s).

<b>Exposure guidelines</b>	See above
<b>Appropriate engineering controls</b>	Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.
<b>Individual protection measures, such as personal protective equipment</b>	
<b>Eye/face protection</b>	Safety goggles or glasses.
<b>Skin protection</b>	
<b>Hand protection</b>	Rubber gloves. Confirm with a reputable supplier first.
<b>Other</b>	As required by employer code. Wear suitable protective clothing.
<b>Respiratory protection</b>	Not normally required if good ventilation is maintained. Where exposure guideline levels may be exceeded, use an approved NIOSH respirator.
<b>Thermal hazards</b>	Not applicable.
<b>General hygiene considerations</b>	Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

---

## 9. Physical and Chemical Properties

---

<b>Appearance</b>	Clear
<b>Physical state</b>	Liquid.
<b>Form</b>	Liquid.
<b>Color</b>	Fluorescent Yellow
<b>Odor</b>	Characteristic
<b>Odor threshold</b>	Not available.
<b>pH</b>	8.7
<b>Melting point/freezing point</b>	Not available.
<b>Initial boiling point and boiling range</b>	Not available.
<b>Pour point</b>	Not available.
<b>Specific gravity</b>	1.02 or 8.48 lbs/gal
<b>Partition coefficient (n-octanol/water)</b>	Not available
<b>Flash point</b>	Not available.
<b>Evaporation rate</b>	Not available
<b>Flammability (solid, gas)</b>	Not applicable.
<b>Upper/lower flammability or explosive limits</b>	
<b>Flammability limit - lower (%)</b>	Not available
<b>Flammability limit - upper (%)</b>	Not available
<b>Explosive limit - lower (%)</b>	Not available.
<b>Explosive limit - upper (%)</b>	Not available.
<b>Vapor pressure</b>	Not available
<b>Vapor density</b>	Not available
<b>Relative density</b>	Not available.
<b>Solubility(ies)</b>	Not available.
<b>Auto-ignition temperature</b>	Not available
<b>Decomposition temperature</b>	Not available.
<b>Viscosity</b>	325 - 425 cPs

---

## 10. Stability and Reactivity

---

<b>Reactivity</b>	This product may react with strong oxidizing agents.
<b>Possibility of hazardous reactions</b>	No dangerous reaction known under conditions of normal use.
<b>Chemical stability</b>	Material is stable under normal conditions.
<b>Conditions to avoid</b>	Do not mix with other chemicals.
<b>Incompatible materials</b>	Strong oxidizing agents.

---

**11. Toxicological Information**

---

**Routes of exposure** Eye, Skin contact, Inhalation, Ingestion.

**Information on likely routes of exposure**

**Ingestion** May cause stomach distress, nausea or vomiting.  
**Inhalation** Prolonged inhalation may be harmful.  
**Skin contact** No adverse effects due to skin contact are expected.  
**Eye contact** Direct contact with eyes may cause temporary irritation.

**Symptoms related to the physical, chemical and toxicological characteristics** Direct contact with eyes may cause temporary irritation.

**Information on toxicological effects**

**Acute toxicity**

<b>Components</b>	<b>Species</b>	<b>Test Results</b>
1,2-Propanediol (CAS 57-55-6)		
<b>Acute</b>		
<i>Dermal</i>		
LD50	Rabbit	> 2000 mg/kg, 24 Hours 20800 mg/kg
<i>Inhalation</i>		
LC50	Not available	
<i>Oral</i>		
LD50	Dog	19000 mg/kg
	Guinea pig	184000 mg/kg 19700 mg/kg
	Mouse	24900 mg/kg 23900 mg/kg
	Rabbit	14800 mg/kg
	Rat	22000 mg/kg 20000 mg/kg

**Skin corrosion/irritation** Prolonged skin contact may cause temporary irritation.

**Exposure minutes** Not available.  
**Erythema value** Not available.  
**Oedema value** Not available.

**Serious eye damage/eye irritation** Direct contact with eyes may cause temporary irritation.

**Corneal opacity value** Not available.  
**Iris lesion value** Not available.  
**Conjunctival reddening value** Not available.  
**Conjunctival oedema value** Not available.  
**Recover days** Not available.

**Respiratory or skin sensitization**

**Respiratory sensitization** Not available.  
**Skin sensitization** This product is not expected to cause skin sensitization.

**Mutagenicity** No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

**Carcinogenicity** This product is not considered to be a carcinogen by IARC, NTP, or OSHA.

**US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)**

Not listed.

**Reproductive toxicity** This product is not expected to cause reproductive or developmental effects.

**Teratogenicity** Not available.

<b>Specific target organ toxicity - single exposure</b>	Not classified.
<b>Specific target organ toxicity - repeated exposure</b>	Not classified.
<b>Aspiration hazard</b>	Not available.
<b>Chronic effects</b>	Prolonged inhalation may be harmful.

---

## 12. Ecological Information

---

<b>Ecotoxicity</b>	See below		
<b>Ecotoxicological data Components</b>		<b>Species</b>	<b>Test Results</b>
1,2-Propanediol (CAS 57-55-6)			
Crustacea	EC50	Daphnia	10000 mg/L, 48 Hours
<b>Aquatic</b>			
Crustacea	EC50	Water flea (Daphnia magna)	> 10000 mg/L, 48 hours
Fish	LC50	Fathead minnow (Pimephales promelas)	710 mg/L, 96 hours
<b>Persistence and degradability</b>	No data is available on the degradability of this product.		
<b>Bioaccumulative potential</b>	No data available.		
<b>Mobility in soil</b>	No data available.		
<b>Mobility in general</b>	Not available.		
<b>Other adverse effects</b>	No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.		

---

## 13. Disposal Considerations

---

<b>Disposal instructions</b>	Collect and reclaim or dispose in sealed containers at licensed waste disposal site.
<b>Local disposal regulations</b>	Dispose in accordance with all applicable regulations.
<b>Hazardous waste code</b>	The waste code should be assigned in discussion between the user, the producer and the waste disposal company.
<b>Waste from residues / unused products</b>	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
<b>Contaminated packaging</b>	Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

---

## 14. Transport Information

---

<b>Transport of Dangerous Goods (TDG) Proof of Classification</b>	Classification Method: Classified as per Part 2, Sections 2.1 – 2.8 of the Transportation of Dangerous Goods Regulations. If applicable, the technical name and the classification of the product will appear below.
<b>U.S. Department of Transportation (DOT)</b>	Not regulated as dangerous goods.
<b>Transportation of Dangerous Goods (TDG - Canada)</b>	Not regulated as dangerous goods.
<b>IATA/ICAO (Air)</b>	Not regulated as dangerous goods.
<b>IMDG (Marine Transport)</b>	Not regulated as dangerous goods.

---

## 15. Regulatory Information

---

<b>Canadian federal regulations</b>	This product has been classified in accordance with the hazard criteria of the HPR and the SDS contains all the information required by the HPR.
<b>Export Control List (CEPA 1999, Schedule 3)</b>	Not listed.
<b>Greenhouse Gases</b>	Not listed.
<b>Precursor Control Regulations</b>	Not regulated.
<b>WHMIS 2015 Exemptions</b>	Not applicable

**US federal regulations**

**TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)**

The chemical listed in Section 3 is on the TSCA Chemical Substances Inventory.

**CERCLA Hazardous Substance List (40 CFR 302.4)**

Not listed.

**US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)**

Not listed.

**Superfund Amendments and Reauthorization Act of 1986 (SARA)**

**Hazard categories**  
 Immediate Hazard - No  
 Delayed Hazard - No  
 Fire Hazard - No  
 Pressure Hazard - No  
 Reactivity Hazard - No

**SARA 302 Extremely hazardous substance** No

**SARA 311/312 Hazardous chemical** No

**SARA 313 (TRI reporting)**  
 Not regulated.

**Other federal regulations**

**Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**

Not regulated.

**Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)**

Not regulated.

**US state regulations** See below

**US - Minnesota Haz Subs: Listed substance**

1,2-Propanediol (CAS 57-55-6) Listed.

**US - New Jersey RTK - Substances: Listed substance**

1,2-Propanediol (CAS 57-55-6)

**US - Texas Effects Screening Levels: Listed substance**

1,2-Propanediol (CAS 57-55-6) Listed.

**US. Massachusetts RTK - Substance List**

Not regulated.

**US. New Jersey Worker and Community Right-to-Know Act**

Not regulated.

**US. Pennsylvania Worker and Community Right-to-Know Law**

1,2-Propanediol (CAS 57-55-6)

**US. Rhode Island RTK**

1,2-Propanediol (CAS 57-55-6)

**US. California Proposition 65**

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

**Inventory status**

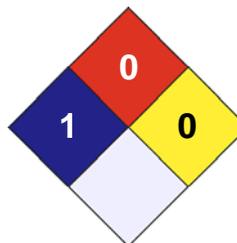
Country(s) or region	Inventory name	On inventory (yes/no)*
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

\*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

**16. Other Information**

LEGEND	
Severe	4
Serious	3
Moderate	2
Slight	1
Minimal	0

<b>HEALTH</b>	/ 1
<b>FLAMMABILITY</b>	0
<b>PHYSICAL HAZARD</b>	0
<b>PERSONAL PROTECTION</b>	X



**Disclaimer**

The information in the sheet was written based on the best knowledge and experience currently available. Information contained herein was obtained from sources considered technically accurate and reliable. While every effort has been made to ensure full disclosure of product hazards, in some cases data is not available and is so stated. Since conditions of actual product use are beyond control of the supplier, it is assumed that users of this material have been fully trained according to the requirements of all applicable legislation and regulatory instruments. No warranty, expressed or implied, is made and supplier will not be liable for any losses, injuries or consequential damages which may result from the use of or reliance on any information contained in this document.

**Issue date**

19-July-2018

**Version #**

01

**Effective date**

19-July-2018

**Prepared by**

Nu-Calgon Technical Service Phone: (314) 469-7000

**Other information**

For an updated SDS, please contact the supplier/manufacturer listed on the first page of the document.

Print Date: 05-11-2015

 FOSTER 32-80  
 802293PM

## SAFETY DATA SHEET

REVISION DATE: 04-30-2015

SUPERSEDES: 04-09-2015

### SECTION 1: IDENTIFICATION OF THE PRODUCT AND SUPPLIER

#### PRODUCT INFORMATION

**PRODUCT:** FOSTER 32-80  
**PRODUCT DESCRIPTION:** Coating  
**INTENDED USE:** Coating  
**PRODUCT IDENTIFIER:** 802293PM

#### COMPANY INFORMATION

H.B. Fuller Construction Products Inc.  
 1105 S. Frontenac Street  
 Aurora, IL 60504  
 Phone: 1-800-552-6225

Medical Emergency Phone Number (24 Hours): 1-888-853-1758  
 Transport Emergency Phone Number (CHEMTREC): 1-800-424-9300

### SECTION 2: HAZARDS IDENTIFICATION

#### GHS Hazard Symbols:



**GHS Classification:** Hazardous to the aquatic environment - Acute Category 2; Hazardous to the aquatic environment - Chronic Category 2  
**GHS Hazard Phrases:** May cause harm to breast-fed children.; Toxic to aquatic life.; Toxic to aquatic life with long lasting effects.  
**GHS Precautions:**  
**Safety Precautions:** Obtain special instructions before use. Do not breathe dust/fume/gas/mist/vapours/spray. Avoid contact during pregnancy/while nursing. Wash thoroughly after handling. Do no eat, drink or smoke when using this product. Avoid release to the environment.  
**First Aid Measures:** IF exposed or concerned: Get medical advice/attention. Collect spillage.  
**Disposal:** Dispose of contents/container in accordance with local/regional/national/international regulation for hazardous wastes.

### SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS #	PERCENT	Classification	Note
C14-17, chlorinated paraffin	85535-85-9	10 - 30	Aquatic Acute 1; H400 Aquatic Chronic 1; H410 Acute Tox. 4; H302	
Titanium dioxide	13463-67-7	1 - 5	Carc. 2; H351	* (see below)
Hydroxyethyl cellulose	9004-62-0	1 - 5	Eye Irrit. 2; H319 Skin Irrit. 2; H315 STOT SE 3; H335	

Print Date: 05-11-2015

FOSTER 32-80  
802293PM**SAFETY DATA SHEET**

\*This product contains one or more materials that may be hazardous when present as an airborne dust. During normal handling of the product, the material is encapsulated within the product and will not present an exposure risk. Once the product has reached its final state and is abraded or disturbed, dusting and exposure may occur.

Unlisted ingredients are not 'hazardous' per the Occupational Safety and Health Administration Hazard Communication Standard (29 CFR 1910.1200) and/or are not found on the Canadian Workplace Hazardous Materials Information System ingredient disclosure list. See Section 8 for exposure limit guidelines.

**SECTION 4: FIRST AID MEASURES**

**IF IN EYES:** Use an eye wash to remove a chemical from your eye regardless of the level of hazard. Flush the affected eye for at least twenty minutes. Tilt the head to prevent chemical from transferring to the uncontaminated eye. Seek medical advice after flushing.

**IF ON SKIN:** Wash with soap and water. Get medical attention if irritation develops or persists.

**IF INHALED:** Remove to fresh air. Call a physician if symptoms persist.

**IF SWALLOWED:** Do not induce vomiting. Seek medical attention if symptoms develop. Provide medical care provider with this MSDS. Induced vomiting may lead to aspiration of the material into the lungs potentially causing chemical pneumonitis that may be fatal.

**SECTION 5: FIRE FIGHTING MEASURES**

**EXTINGUISHING MEDIA:** Use water spray, foam, dry chemical or carbon dioxide.  
**UNUSUAL FIRE AND EXPLOSION HAZARDS:** There is a possibility of pressure buildup in closed containers when heated. Water spray may be used to cool the containers.  
**SPECIAL FIRE FIGHTING INSTRUCTIONS:** Persons exposed to products of combustion should wear self-contained breathing apparatus and full protective equipment.  
**HAZARDOUS COMBUSTION PRODUCTS:** Chlorine containing gases Carbon dioxide, Carbon monoxide

**SECTION 6: ACCIDENTAL RELEASE MEASURES**

**SPECIAL PROTECTION:** No adverse health effects expected from the clean-up of spilled material. Follow personal protective equipment recommendations found in Section 8 of this MSDS.  
**METHODS FOR CLEAN-UP:** Dike if necessary, contain spill with inert absorbent and transfer to containers for disposal. Keep spilled product out of sewers, watersheds, or water systems.

Transport Emergency Phone Number (CHEMTREC): 1-800-424-9300

**SECTION 7: HANDLING AND STORAGE**

**Handling:** No special handling instructions due to toxicity.

**Storage:** Store in a cool, dry place. Protect from freezing  
Consult the Technical Data Sheet for specific storage instructions.

**SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION****EXPOSURE LIMITS:**

Chemical Name	Note	ACGIH EXPOSURE LIMITS	OSHA PEL
---------------	------	-----------------------	----------

Print Date: 05-11-2015

FOSTER 32-80  
802293PM

**SAFETY DATA SHEET**

Calcium carbonate	* (see below)	No data available.	15 mg/m3 TWA (total dust); 5 mg/m3 TWA (respirable fraction)
Kaolin clay	* (see below)	2 mg/m3 TWA (particulate matter containing no asbestos and <1% crystalline silica, respirable fraction)	15 mg/m3 TWA (total dust); 5 mg/m3 TWA (respirable fraction)
Titanium dioxide	* (see below)	10 mg/m3 TWA	15 mg/m3 TWA (total dust)

\*This product contains one or more materials that may be hazardous when present as an airborne dust. During normal handling of the product, the material is encapsulated within the product and will not present an exposure risk. Once the product has reached its final state and is abraded or disturbed, dusting and exposure may occur.

**ENGINEERING CONTROL METHODS:**

- VENTILATION: Use local exhaust ventilation or other engineering controls to minimize exposures.
- EYE PROTECTION: Wear safety glasses when handling this product.
- SKIN PROTECTION: Not normally required. Wear chemically resistant gloves to prevent prolonged or repeated contact.
- GLOVES: Not normally required. Use nitrile gloves if conditions warrant.
- RESPIRATORY PROTECTION: Respiratory protection may be required to avoid overexposure when handling this product. Use a respirator if general room ventilation is not available or sufficient to eliminate symptoms. Respirators should be selected by and used following requirements found in OSHA's respirator standard (29 CFR 1910.134).

**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**

PHYSICAL STATE:	Liquid
COLOR:	Off-white
ODOR:	Sweet Mild
ODOR THRESHOLD:	Not established
pH:	Not established
FREEZING/MELTING POINT (deg. C):	Not established
BOILING POINT (deg. C):	Not established
FLASH POINT:	Non flammable
EVAPORATION RATE:	Not established
FLAMMABILITY:	Not a flammable solid or gas
UPPER EXPLOSIVE LIMIT (% in air):	Not established
LOWER EXPLOSIVE LIMIT (% in air):	Not established
VAPOR PRESSURE (mm Hg):	Not established
VAPOR DENSITY:	Not established
WEIGHT PER GALLON (lbs.):	10.40
SPECIFIC GRAVITY:	1.260
SOLUBILITY:	Not established
OCTANOL/WATER COEFFICIENT:	Not established
AUTOIGNITION TEMPERATURE:	Not established
DECOMPOSITION TEMPERATURE:	Not established
VISCOSITY:	No data available.
SOLIDS (% by weight):	51.3
VOC, weight percent	1.67
VOC, U.S. EPA Method 24, less water and exempt solvents (theoretically determined)	41g/liter of material

Print Date: 05-11-2015

FOSTER 32-80  
802293PM

## SAFETY DATA SHEET

### SECTION 10: STABILITY AND REACTIVITY

**STABILITY:** Stable under normal conditions.  
**CHEMICAL INCOMPATIBILITY:** Not established  
**HAZARDOUS POLYMERIZATION:** Will not occur.  
**HAZARDOUS DECOMPOSITION PRODUCTS:** Chlorine containing gases Carbon monoxide, carbon dioxide

### SECTION 11: TOXICOLOGICAL INFORMATION

#### Component Toxicity / Toxicology Data:

COMPONENT NAME	LD50/LC50
Water	ORAL LD50 RAT > 90 ML/KG
C14-17, chlorinated paraffin	ORAL LD50 RAT 2,000 MG/KG
Calcium carbonate	ORAL LD50 RAT 6,450 MG/KG
Titanium dioxide	ORAL LD50 RAT > 10,000 MG/KG

**This product is a mixture. Unless noted, the information below is based on components.**

Skin corrosion / irritation: Can cause minor skin irritation, defatting, and dermatitis.

Serious eye damage / irritation :Can cause minor irritation, tearing and reddening.

Respiratory / skin sensitization: No data available.

Germ cell mutagenicity: No data available.

Carcinogenicity: Contains a material that is suspected of causing cancer.

Reproductive toxicity: No data available.

Specific target organ toxicity-single exposure: No data available.

Respiratory irritation / Narcotic effects: No data available.

Specific target organ toxicity-repeated exposure: No data available.

Target organs potentially affected by exposure: Kidneys Liver Lungs

Aspiration hazard: No data available.

Medical Conditions Aggravated by Exposure: Liver disease, Kidney disease, Lung disease

### SECTION 12: ECOLOGICAL INFORMATION

**OVERVIEW:** No ecological information available for this product.  
**MOBILITY:** No data available.  
**PERSISTENCE:** No data available.  
**BIOACCUMULATION:** No data available.

**This product has not been tested for ecological effects. Relevant information for components is listed below:**

Component:	Ecotoxicity values:
No data available.	<b>Acute Toxicity (Fish):</b> <b>Acute Toxicity (Daphnia):</b> <b>Acute Toxicity (Algae):</b>

Print Date: 05-11-2015

FOSTER 32-80  
802293PM

## SAFETY DATA SHEET

### SECTION 13: DISPOSAL CONSIDERATIONS

To the best of our knowledge, this product does not meet the definition of hazardous waste under the U.S. EPA Hazardous Waste Regulations 40 CFR 261. Solidify and dispose of in an approved landfill. Consult state, local or provincial authorities for more restrictive requirements.

### SECTION 14: TRANSPORT INFORMATION

Consult Bill of Lading for transportation information.

US DOT:	NOT REGULATED
IATA:	NOT REGULATED
IMDG:	UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCES, LIQUID, N.O.S. (C14-C17 CHLORINATED PARAFFIN), 9, III, MARINE POLLUTANT

### SECTION 15: REGULATORY INFORMATION

#### INVENTORY STATUS

U.S. EPA TSCA:	This product is in compliance with the Toxic Substances Control Act's Inventory requirements.
CANADIAN CEPA DSL:	The components of this product are included on the DSL or are exempt from DSL requirements.
EUROPEAN REACH:	As a result of the introduction of REACH into Europe, this product cannot be imported into Europe unless the REACH requirements are met.
AUSTRALIA AICS:	This product is in compliance with the Australian Inventory of Chemical Substances requirements.
CHINA IECSC INVENTORY:	This product is in compliance with the Inventory of Existing Chemical Substances in China (IECSC) requirements.

If you need more information about the inventory status of this product call 651-236-5858.

This product may contain chemical substances that are regulated for export by various government agencies (such as the Environmental Protection Agency, the Bureau of Industry and Security, or the Drug Enforcement Administration, among others). Before exporting this product from the USA or Canada, we recommend you contact us at [reg.request@hbfuller.com](mailto:reg.request@hbfuller.com) to request an export review.

#### FEDERAL REPORTING

##### EPA SARA Title III Section 313

Unless listed below, this product does not contain toxic chemical(s) subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA) and 40 CFR part 372. EPA has advised that when a percentage range is listed the midpoint may be used to fulfill reporting obligations.

Chemical Name	CAS#	%

#### STATE REPORTING

##### Proposition 65, The Safe Drinking Water and Toxic Enforcement Act of 1986:

Unless listed below, this product does not contain known levels of any chemical known to the State of California to cause cancer or reproductive harm.

Chemical Name/List	CAS	Percent
Titanium dioxide (Carcinogen)	13463-67-7	1 - 5
Quartz (Carcinogen)	14808-60-7	0.01 - 0.1
Acetaldehyde (Carcinogen)	75-07-0	0.001 - 0.01
Formaldehyde (Carcinogen)	50-00-0	< 10 ppm
1,4-Dioxane (Carcinogen)	123-91-1	< 10 ppm
Methanol (Developmental toxin)	67-56-1	< 10 ppm

Print Date: 05-11-2015

FOSTER 32-80  
802293PM**SAFETY DATA SHEET**

---

**Substances of Very High Concern (SVHC) Content:**

Unless listed below, this product does not contain SVHC's.  
tert-Octylphenol, ethoxylated

**SECTION 16: OTHER INFORMATION**

---

---

SDS VERSION DATE: 04-30-2015

This Safety Data Sheet is prepared to comply with the United States Occupational Safety and Health Administration (OSHA) Hazard Communication Standard (29 CFR 1910.1200) and the Canadian Workplace Hazardous Materials Information System (WHMIS).

HMIS RATING: HEALTH -- 0 FLAMMABILITY -- 0 REACTIVITY -- 0

See SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for personal protective equipment recommendations.

Prepared by: The Global Regulatory Department

Phone: 651-236-5842

The information and recommendations set forth herein are believed to be accurate. Because some of the information is derived from information provided to H.B.Fuller Construction Products, Inc. from its suppliers, and because H.B.Fuller Construction Products, Inc. has no control over the conditions of handling and use, H.B.Fuller Construction Products, Inc. makes no warranty, expressed or implied, regarding the accuracy of the data or the results to be obtained from the use thereof. The information is supplied solely for your information and consideration, and H.B.Fuller Construction Products, Inc. assumes no responsibility for use or reliance thereon. It is the responsibility of the user of H.B.Fuller Construction Products, Inc. products to comply with all applicable federal, state and local laws and regulations.

**SAFETY DATA SHEET**

REVISION DATE: 01-25-2016

SUPERSEDES: 10-03-2014

**SECTION 1: IDENTIFICATION OF THE PRODUCT AND SUPPLIER****PRODUCT INFORMATION**

PRODUCT: FOSTER 40-80  
PRODUCT DESCRIPTION: Disinfectant  
INTENDED USE: Cleaner  
PRODUCT IDENTIFIER: 802320PM

**COMPANY INFORMATION**

H.B. Fuller Company  
1200 Willow Lake Boulevard  
Vadnais Heights, MN 55110  
Telephone: 888-423-8553

Medical Emergency Phone Number (24 Hours): 1-888-853-1758  
Transport Emergency Phone Number (CHEMTREC): 1-800-424-9300

**SECTION 2: HAZARDS IDENTIFICATION**

**GHS Classification:** This product is not classified as hazardous under GHS criteria.

**GHS Precautions:**

**Safety Precautions:** No special precautionary measures are required. Please read the entire Safety Data Sheet for other information regarding handling of this product.

**First Aid Measures:** IF SWALLOWED: Do not induce vomiting. Seek medical attention if symptoms develop. IF IN EYES: Use an eye wash to remove chemical from the eye. IF ON SKIN: Wash with soap and water. IF INHALED: Remove individual to fresh air after an airborne exposure if any symptoms develop.

**SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS**

Chemical Name	CAS #	PERCENT	Classification	Note
---------------	-------	---------	----------------	------

Unlisted ingredients are not 'hazardous' per the Occupational Safety and Health Administration Hazard Communication Standard (29 CFR 1910.1200) and/or are not found on the Canadian Workplace Hazardous Materials Information System ingredient disclosure list. See Section 8 for exposure limit guidelines.

**SECTION 4: FIRST AID MEASURES**

IF IN EYES: Flush eyes with plenty of water for at least 20 minutes retracting eyelids often. Tilt the head to prevent chemical from transferring to the uncontaminated eye. Get immediate medical attention.

IF ON SKIN: Wash with soap and water.

IF INHALED: Remove individual to fresh air after an airborne exposure if any symptoms develop, as a precautionary measure.

IF SWALLOWED: Do not induce vomiting. Seek medical attention if symptoms develop. Provide medical care provider with this MSDS. Induced vomiting may lead to aspiration of the material into the lungs potentially causing chemical pneumonitis that may be fatal.

**SAFETY DATA SHEET****SECTION 5: FIRE FIGHTING MEASURES**

EXTINGUISHING MEDIA:	Use water spray, foam, dry chemical or carbon dioxide.
UNUSUAL FIRE AND EXPLOSION HAZARDS:	There is a possibility of pressure buildup in closed containers when heated. Water spray may be used to cool the containers.
SPECIAL FIRE FIGHTING INSTRUCTIONS:	Persons exposed to products of combustion should wear self-contained breathing apparatus and full protective equipment.
HAZARDOUS COMBUSTION PRODUCTS:	Carbon dioxide, Carbon monoxide

**SECTION 6: ACCIDENTAL RELEASE MEASURES**

SPECIAL PROTECTION:	No adverse health effects expected from the clean-up of spilled material. Follow personal protective equipment recommendations found in Section 8 of this SDS.
METHODS FOR CLEAN-UP:	Dike if necessary, contain spill with inert absorbent and transfer to containers for disposal. Keep spilled product out of sewers, watersheds, or water systems.

Transport Emergency Phone Number (CHEMTREC): 1-800-424-9300

**SECTION 7: HANDLING AND STORAGE**

Handling:	No special handling instructions due to toxicity.
Storage:	Store in a cool, dry place. Protect from freezing. Consult the Technical Data Sheet for specific storage instructions.

**SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION****EXPOSURE LIMITS:**

Chemical Name	Note	ACGIH EXPOSURE LIMITS	OSHA PEL
No data available.			

**ENGINEERING CONTROL METHODS:**

VENTILATION:	General room ventilation might be required under normal conditions of use.
EYE PROTECTION:	Wear safety glasses with side shields when handling this product. Wear additional eye protection such as chemical splash goggles and/or face shield when the possibility exists for eye contact with splashing or spraying liquid, or airborne material. Have an eye wash station available.
SKIN PROTECTION:	Not normally considered a skin hazard. Where use can result in skin contact, practice good personal hygiene. Wash hands and other exposed areas with mild soap and water before eating, drinking, and when leaving work.
GLOVES:	Not normally required. Use nitrile gloves if conditions warrant.
RESPIRATORY PROTECTION:	No respiratory protection required under normal conditions of use.

**SAFETY DATA SHEET**

Respirators should be selected by and used following requirements found in OSHA's respirator standard (29 CFR 1910.134).

**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**

PHYSICAL STATE:	Liquid
COLOR:	Light Green
ODOR:	Fragrant
ODOR THRESHOLD:	Not established
pH:	9.7
FREEZING/MELTING POINT (deg. C):	Not established
BOILING POINT (deg. C):	Not established
FLASH POINT:	Non flammable
EVAPORATION RATE:	Not established
FLAMMABILITY:	Not a flammable solid or gas
UPPER EXPLOSIVE LIMIT (% in air):	Not established
LOWER EXPLOSIVE LIMIT (% in air):	Not established
VAPOR PRESSURE (mm Hg):	Not established
VAPOR DENSITY:	Not established
WEIGHT PER GALLON (lbs.):	8.32
SPECIFIC GRAVITY:	1.000
SOLUBILITY:	Not established
OCTANOL/WATER COEFFICIENT:	Not established
AUTOIGNITION TEMPERATURE:	Not established
DECOMPOSITION TEMPERATURE:	Not established
VISCOSITY:	No data available.
SOLIDS (% by weight):	0.2
VOC, weight percent	0.02
VOC, U.S. EPA Method 24, less water and exempt solvents (theoretically determined)	39.7g/liter of material

**SECTION 10: STABILITY AND REACTIVITY**

STABILITY:	Stable under normal conditions.
CHEMICAL INCOMPATIBILITY:	Not established
HAZARDOUS POLYMERIZATION:	Will not occur.
HAZARDOUS DECOMPOSITION PRODUCTS:	Carbon monoxide, carbon dioxide

**SECTION 11: TOXICOLOGICAL INFORMATION****Component Toxicity / Toxicology Data:**

COMPONENT NAME	LD50/LC50
No data available.	

**This product is a mixture. Unless noted, the information below is based on components.**

Skin corrosion / irritation: No irritation hazard in normal industrial use.

Serious eye damage / irritation :Can cause moderate irritation, tearing and reddening, but not likely to permanently injure eye tissue.

Respiratory / skin sensitization: No data available.

Germ cell mutagenicity: No data available.

**SAFETY DATA SHEET**

Carcinogenicity: No data available.

Reproductive toxicity: No data available.

Specific target organ toxicity-single exposure: No data available.

Respiratory irritation / Narcotic effects: No data available.

Specific target organ toxicity-repeated exposure: No data available.

Target organs potentially affected by exposure: No organs known to be damaged from exposure to this product.

Aspiration hazard: Not an aspiration hazard.

Medical Conditions Aggravated by Exposure: No medical conditions affected by exposure.

**SECTION 12: ECOLOGICAL INFORMATION**

OVERVIEW: No ecological information available for this product.  
MOBILITY: No data available.  
PERSISTENCE: No data available.  
BIOACCUMULATION: No data available.

**This product has not been tested for ecological effects. Relevant information for components is listed below:**

<b>Component:</b>	<b>Ecotoxicity values:</b>
No data available.	Acute Toxicity (Fish): Acute Toxicity (Daphnia): Acute Toxicity (Algae):

**SECTION 13: DISPOSAL CONSIDERATIONS**

To the best of our knowledge, this product does not meet the definition of hazardous waste under the U.S. EPA Hazardous Waste Regulations 40 CFR 261. Solidify and dispose of in an approved landfill. Consult state, local or provincial authorities for more restrictive requirements.

**SECTION 14: TRANSPORT INFORMATION**

Consult Bill of Lading for transportation information.

US DOT: NOT REGULATED  
IATA: NOT REGULATED  
IMDG: NOT REGULATED

**SECTION 15: REGULATORY INFORMATION****INVENTORY STATUS**

U.S. EPA TSCA: This product is in compliance with the Toxic Substances Control Act's Inventory requirements.

CANADIAN CEPA DSL: The components of this product are included on the DSL or are exempt from DSL requirements.

EUROPEAN REACH: As a result of the introduction of REACH into Europe, this product cannot be imported into Europe unless the REACH requirements are met.

AUSTRALIA AICS: This product is in compliance with the Australian Inventory of Chemical Substances requirements.

KOREAN TCCL: This product is in compliance with the Korean Existing Chemicals List requirements.

Print Date: 01-09-2017

FOSTER 40-80  
802320PM**SAFETY DATA SHEET**

If you need more information about the inventory status of this product call 651-236-5858.

This product may contain chemical substances that are regulated for export by various government agencies (such as the Environmental Protection Agency, the Bureau of Industry and Security, or the Drug Enforcement Administration, among others). Before exporting this product from the USA or Canada, we recommend you contact us at [reg.request@hbfuller.com](mailto:reg.request@hbfuller.com) to request an export review.

**FEDERAL REPORTING**

EPA SARA Title III Section 313

Unless listed below, this product does not contain toxic chemical(s) subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA) and 40 CFR part 372. EPA has advised that when a percentage range is listed the midpoint may be used to fulfill reporting obligations.

Chemical Name	CAS#	%
---------------	------	---

**STATE REPORTING**

Proposition 65, The Safe Drinking Water and Toxic Enforcement Act of 1986:

Unless listed below, this product does not contain known levels of any chemical known to the State of California to cause cancer or reproductive harm.

Chemical Name/List	CAS	Percent
--------------------	-----	---------

**Substances of Very High Concern (SVHC) Content:**

Unless listed below, this product does not contain SVHC's at 0.1% or greater, as of the version date of this SDS.

**SECTION 16: OTHER INFORMATION**

SDS VERSION DATE: 01-25-2016

This Safety Data Sheet is prepared to comply with the United States Occupational Safety and Health Administration (OSHA) Hazard Communication Standard (29 CFR 1910.1200) and the Canadian Workplace Hazardous Materials Information System (WHMIS).

HMIS RATING: HEALTH -- 0 FLAMMABILITY -- 0 REACTIVITY -- 0

See SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for personal protective equipment recommendations.

Prepared by: The Global Regulatory Department

Phone: 651-236-5842

The information and recommendations set forth herein are believed to be accurate. Because some of the information is derived from information provided to H.B. Fuller Construction Products, Inc. from its suppliers, and because H.B. Fuller Construction Products, Inc. has no control over the conditions of handling and use, H.B. Fuller Construction Products, Inc. makes no warranty, expressed or implied, regarding the accuracy of the data or the results to be obtained from the use thereof. The information is supplied solely for your information and consideration, and H.B. Fuller Construction Products, Inc. assumes no responsibility for use or reliance thereon. It is the responsibility of the user of H.B. Fuller Construction Products, Inc. products to comply with all applicable federal, state and local laws and regulations.

## 1 Identification

- **Product identifier**
- **Trade name:** **FS-ONE MAX**
- **Relevant identified uses of the substance or mixture and uses advised against** No further relevant information available.
- **Application of the substance / the mixture** Construction chemicals
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
Hilti (Canada) Corp.  
2360 Meadowpine Boulevard  
Mississauga, Ontario L5N 6S2  
Phone: (800) 363-4458  
Fax: (800) 363-4459
- **Information department:**  
chemicals.hse@hilti.com  
see section 16
- **Emergency telephone number:**  
Chem-Trec  
Tel.: 1 800 424 9300  
Hilti (Canada) Corp.  
Phone: (800) 363-4458  
Fax: (800) 363-4459

## 2 Hazard(s) identification

- **Classification of the substance or mixture** The product is not classified according to the Globally Harmonized System (GHS).
- **Label elements**
- **GHS label elements** Void
- **Hazard pictograms** Void
- **Signal word** Void
- **Hazard statements** Void
- **Hazard description:**
- **WHMIS classification -**
- **Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

## 3 Composition/information on ingredients

- **Chemical characterization: Mixtures**
- **Description:** .
- **Dangerous components:** Void
- **Additional information** For the wording of the listed risk phrases refer to section 16.

## 4 First-aid measures

- **Description of first aid measures**
- **General information** No special measures required.
- **After inhalation** Take affected persons into fresh air and keep quiet.
- **After skin contact** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact** Rinse opened eye for several minutes under running water. Then consult a doctor.
- **After swallowing** Seek immediate medical advice.
- **Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed** No further relevant information available.

## 5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents** CO<sub>2</sub>, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **Special hazards arising from the substance or mixture**  
In case of fire, the following can be released:  
Carbon monoxide (CO)  
Carbondioxide (CO<sub>2</sub>)
- **Advice for firefighters**
- **Protective equipment:** Ensure adequate ventilation

## 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**  
Ensure adequate ventilation  
Wear protective clothing.

Trade name: FS-ONE MAX

(Contd. of page 1)

- Particular danger of slipping on leaked/spilled product.
- **Environmental precautions:** Do not allow product to reach sewage system or any water course.
- **Methods and material for containment and cleaning up:**  
Pick up mechanically.  
Dispose contaminated material as waste according to item 13.
- **Reference to other sections**  
See Section 7 for information on safe handling  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.

## 7 Handling and storage

- **Precautions for safe handling** No special measures required.
- **Information about protection against explosions and fires:** No special measures required.
- **Conditions for safe storage, including any incompatibilities**
- **Storage**
- **Requirements to be met by storerooms and receptacles:** keep containers securely closed and dry, store at 5 - 25 °C / 41 - 77 °F
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** None.
- **Storage class** 10
- **Specific end use(s)** No further relevant information available.

## 8 Exposure controls/personal protection

- **Control parameters**
- **Components with limit values that require monitoring at the workplace:**  
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- **Additional information:** The lists that were valid during the creation were used as basis.

- **Exposure controls**
- **Personal protective equipment**
- **General protective and hygienic measures**  
The usual precautionary measures for handling chemicals should be followed.  
Avoid contact with the eyes and skin.  
Keep away from foodstuffs, beverages and feed.  
Wash hands before breaks and at the end of work.
- **Breathing equipment:** Not necessary if room is well-ventilated.
- **Protection of hands:**



Protective gloves.

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.  
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation  
EN 374

- **Material of gloves**  
Synthetic gloves  
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.
- **Penetration time of glove material**  
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **For the permanent contact gloves made of the following materials are suitable:** Nitrile rubber, NBR
- **Eye protection:**



Tightly sealed goggles.

EN 166 + EN 170

- **Body protection:**



Protective work clothing.

Trade name: FS-ONE MAX

(Contd. of page 2)

## 9 Physical and chemical properties

### · Information on basic physical and chemical properties

#### · General Information

#### · Appearance:

· **Form:** Pasty

· **Color:** Red

· **Odor:** Characteristic

· **Odour threshold:** Not determined.

· **pH-value:** Not determined.

#### · Change in condition

· **Melting point/Melting range:** Not determined.

· **Boiling point/Boiling range:** 100 °C (212 °F)

· **Flash point:** Not applicable

· **Flammability (solid, gaseous)** Not applicable.

#### · Ignition temperature:

· **Decomposition temperature:** Not determined.

· **Auto igniting:** Product is not selfigniting.

· **Danger of explosion:** Product does not present an explosion hazard.

#### · Explosion limits:

· **Lower:** Not determined.

· **Upper:** Not determined.

· **Vapor pressure at 20 °C (68 °F):** 23 hPa (17 mm Hg)

· **Density:** Not determined

· **Relative density** Not determined.

· **Vapour density** Not determined.

Not applicable.

· **Evaporation rate** Not determined.

#### · Solubility in / Miscibility with

· **Water:** Not miscible or difficult to mix

· **Partition coefficient (n-octanol/water):** Not determined.

#### · Viscosity:

· **dynamic:** Not determined.

· **kinematic:** Not determined.

#### · Solvent content:

· **Organic solvents:** 1.0 %

· **Water:** 18.5 %

· **Other information** No further relevant information available.

## 10 Stability and reactivity

### · Reactivity

#### · Chemical stability

· **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.

· **Possibility of hazardous reactions** No dangerous reactions known

· **Conditions to avoid** No further relevant information available.

· **Incompatible materials:** No further relevant information available.

· **Hazardous decomposition products:** No dangerous decomposition products known

## 11 Toxicological information

### · Information on toxicological effects

#### · Acute toxicity:

#### · Primary irritant effect:

· **on the skin:** No irritant effect.

· **on the eye:** No irritating effect.

· **Sensitization:** No sensitizing effects known.

#### · Additional toxicological information:

When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.

#### · Carcinogenic categories

#### · IARC (International Agency for Research on Cancer)

None of the ingredients is listed.

#### · NTP (National Toxicology Program)

None of the ingredients is listed.

(Contd. on page 4)

Trade name: FS-ONE MAX

(Contd. of page 3)

 · **OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.

### 12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

### 13 Disposal considerations

- **Waste treatment methods**
- **Recommendation** Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
- **European waste catalogue:**
- 08 00 00
- 08 04 00
- 08 04 10
- **Uncleaned packagings:**
- **Recommendation:** Dispose of packaging according to regulations on the disposal of packagings.

### 14 Transport information

- |  |                 |
|--|-----------------|
| · <b>UN-Number</b>   | Void            |
| · <b>DOT, TDG, ADN, IMDG, IATA</b>   | Void            |
| · <b>UN proper shipping name</b>   | Void            |
| · <b>DOT, TDG, ADN, IMDG, IATA</b>   | Void            |
| · <b>Transport hazard class(es)</b>  | Void            |
| · <b>DOT, TDG, ADN, IMDG, IATA</b>   | Void            |
| · <b>Class</b>   | Void            |
| · <b>Packing group</b>   | Void            |
| · <b>DOT, TDG, IMDG, IATA</b>  | Void            |
| · <b>Environmental hazards:</b>  | No              |
| · <b>Marine pollutant:</b>   | No              |
| · <b>Special precautions for user</b>  | Not applicable. |
| · <b>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b> | Not applicable. |
| · <b>UN "Model Regulation":</b>  | -               |

### 15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Sara**

 · **Section 313 (Specific toxic chemical listings):**

None of the ingredients are listed.

 · **TSCA (Toxic Substances Control Act):**

All ingredients are listed.

 · **Proposition 65:**

 · **Chemicals known to cause cancer:**

None of the ingredients are listed.

 · **Carcinogenicity categories**

 · **EPA (Environmental Protection Agency)**

None of the ingredients is listed.

 · **TLV (Threshold Limit Value established by ACGIH)**

None of the ingredients is listed.

 · **MAK (German Maximum Workplace Concentration)**

None of the ingredients is listed.

(Contd. on page 5)



# Material Safety Data Sheet

acc. to ISO 11014

Printing date 09/18/2014

Version number 1

Reviewed on 09/18/2014

Trade name: FS-ONE MAX

(Contd. of page 4)

· NIOSH-Ca (National Institute for Occupational Safety and Health)

None of the ingredients is listed.

· National regulations

· Information about limitation of use: Employment restrictions concerning young persons must be observed.

· Chemical safety assessment: not required.

## 16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· Department issuing MSDS:

Hilti Corporation

Business Unit Chemicals

Quality/Safety/Environment

FL-9494 Schaan / Liechtenstein

chemicals.hse@hilti.com

Tel.: +423 234 3004

FAX.: +423 234 3462

· Date of preparation / last revision 09/18/2014 / -

· Abbreviations and acronyms:

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

ACGIH: American Conference of Governmental Industrial Hygienists

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

WHMIS: Workplace Hazardous Materials Information System (Canada)

· \* Data compared to the previous version altered.

CA

# Fuel Stabilizer

## Safety Data Sheet

according to the Hazardous Products Regulation (February 11, 2015)

Date of issue: 04/19/2017

Revision date: 04/19/2017

Version: 1.0

### SECTION 1: Identification

#### 1.1. Product identifier

Product form : Mixtures  
Product name : Fuel Stabilizer  
Product code : 790

#### 1.2. Recommended use and restrictions on use

Recommended uses and restrictions : Gasoline additive

#### 1.3. Supplier

Kleen-Flo Tumbler ind. Ltd.  
75 Advance Boulevard  
L6T 4N1 Brampton - CANADA  
T 905-793-4311

#### 1.4. Emergency telephone number

Emergency number : CANUTEC (613) 996-6666

Guidelines for SDS Use: The product described in this SDS is a consumer product. It is safe for use by consumers as described on the product label under normal foreseeable conditions. This SDS is designed to provide additional valuable safety and handling information.

### SECTION 2: Hazard identification

#### 2.1. Classification of the substance or mixture

##### Classification (GHS-CA)

Flam. Liq. 2 H225  
Eye Irrit. 2A H319  
Carc. 2 H351  
STOT SE 3 H336  
Asp. Tox. 1 H304

#### 2.2. GHS Label elements, including precautionary statements

##### GHS-CA labelling

Hazard pictograms (GHS-CA) :



Signal word (GHS-CA) :

Danger

Hazard statements (GHS-CA) :

H225 - Highly flammable liquid and vapour  
H319 - Causes serious eye irritation  
H351 - Suspected of causing cancer  
H336 - May cause drowsiness or dizziness  
H304 - May be fatal if swallowed and enters airways

Precautionary statements (GHS-CA) :

P201 - Obtain special instructions before use  
P202 - Do not handle until all safety precautions have been read and understood.  
P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking  
P233 - Keep container tightly closed  
P240 - Ground/bond container and receiving equipment  
P241 - Use explosion-proof lighting, electrical, ventilating equipment  
P242 - Use only non-sparking tools  
P243 - Take action to prevent static discharges  
P261 - Avoid breathing dust, fume, gas, mist, spray, vapours  
P264 - Wash hands thoroughly after handling  
P271 - Use only outdoors or in a well-ventilated area  
P280 - Wear eye protection, face protection, protective gloves, protective clothing  
P308+P313 - IF EXPOSED OR CONCERNED: Get medical advice/attention  
P301+P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor  
P331 - Do NOT induce vomiting  
P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water  
P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing  
P312 - Call a POISON CENTER or doctor if you feel unwell

# Fuel Stabilizer

## Safety Data Sheet

according to the Hazardous Products Regulation (February 11, 2015)

P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
P337+P313 - If eye irritation persists: Get medical advice/attention  
P403+P235 - Store in a well-ventilated place. Keep cool  
P405 - Store locked up  
P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation

### 2.3. Other hazards

No additional information available

### 2.4. Unknown acute toxicity (GHS-CA)

Not applicable

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Not applicable

### 3.2. Mixtures

Name	Product identifier	%
Isopropyl alcohol	(CAS-No.) 67-63-0	60-80
Stoddard solvent	(CAS-No.) 8052-41-3	10-30
Nonane	(CAS-No.) 111-84-2	1-5
Benzene, 1,2,4-trimethyl-	(CAS-No.) 95-63-6	1-5

\*Hazardous constituents of Stoddard Solvent

Ethylbenzene	(CAS No) 100-41-4	0.12
Naphthalene	(CAS-No.) 91-20-3	0.12

## SECTION 4: First-aid measures

### 4.1. Description of first aid measures

First-aid measures after inhalation	: If inhaled and if breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.
First-aid measures after skin contact	: If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash clothing before re-using. Get medical attention if irritation develops and persists.
First-aid measures after eye contact	: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
First-aid measures after ingestion	: IF SWALLOWED: immediately call a POISON CENTER or doctor/physician. Do NOT induce vomiting.

### 4.2. Most important symptoms and effects (acute and delayed)

Symptoms/effects after inhalation	: May cause irritation to the respiratory tract. May cause drowsiness or dizziness.
Symptoms/effects after skin contact	: May cause skin irritation. Repeated exposure may cause skin dryness or cracking.
Symptoms/effects after eye contact	: Causes serious eye irritation. Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva.
Symptoms/effects after ingestion	: May be fatal if swallowed and enters airways. May result in aspiration into the lungs, causing chemical pneumonia. May cause gastrointestinal irritation, nausea, vomiting and diarrhea.

### 4.3. Immediate medical attention and special treatment, if necessary

Other medical advice or treatment	: Symptoms may be delayed. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
-----------------------------------	--

## SECTION 5: Fire-fighting measures

### 5.1. Suitable extinguishing media

Suitable extinguishing media	: Use extinguishing media appropriate for surrounding fire.
------------------------------	---

### 5.2. Unsuitable extinguishing media

Unsuitable extinguishing media	: Do not use a heavy water stream.
--------------------------------	------------------------------------

### 5.3. Specific hazards arising from the hazardous product

Fire hazard	: Highly flammable liquid and vapour. Products of combustion may include, and are not limited to: oxides of carbon.
Explosion hazard	: May form flammable/explosive vapour-air mixture.

### 5.4. Special protective equipment and precautions for fire-fighters

Firefighting instructions	: Use water spray or fog for cooling exposed containers.
---------------------------	--

# Fuel Stabilizer

## Safety Data Sheet

according to the Hazardous Products Regulation (February 11, 2015)

Protection during firefighting : Keep upwind of fire. Wear full fire fighting turn-out gear (full Bunker gear) and respiratory protection (SCBA). Vapors may be heavier than air and may travel along the ground to a distant ignition source and flash back.

### SECTION 6: Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures

General measures : Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Use special care to avoid static electric charges. Remove all sources of ignition.

#### 6.2. Methods and materials for containment and cleaning up

For containment : Eliminate every possible source of ignition. Absorb and/or contain spill with inert material (sand, vermiculite or other appropriate material), then place in suitable container. Do not flush into surface water or sewer system. Wear recommended personal protective equipment.

Methods for cleaning up : Sweep or shovel spills into appropriate container for disposal. Provide ventilation.

#### 6.3. Reference to other sections

For further information refer to section 8: "Exposure controls/personal protection"

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

Precautions for safe handling : Keep away from sources of ignition - No smoking. Avoid contact with skin and eyes. Avoid breathing dust/fume/gas/mist/vapours/spray. Do not swallow. Handle and open container with care. When using do not eat, drink or smoke. Take precautionary measures against static discharge. Use only non-sparking tools. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required. Use only outdoors or in a well-ventilated area.

Hygiene measures : Launder contaminated clothing before reuse. Wash hands before eating, drinking, or smoking.

Additional hazards when processed : Handle empty containers with care because residual vapours are flammable.

#### 7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Proper grounding procedures to avoid static electricity should be followed.

Storage conditions : Keep out of the reach of children. Keep container tightly closed. Store locked up. Store in a dry, cool and well-ventilated place.

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

Isopropyl alcohol (67-63-0)		
USA - ACGIH	ACGIH TWA (ppm)	200 ppm
USA - ACGIH	ACGIH STEL (ppm)	400 ppm
Stoddard solvent (8052-41-3)		
USA - ACGIH	ACGIH TWA (ppm)	100 ppm
Nonane (111-84-2)		
USA - ACGIH	ACGIH TWA (ppm)	200 ppm
Ethylbenzene (100-41-4)		
USA - ACGIH	ACGIH TWA (ppm)	20 ppm
Naphthalene (91-20-3)		
USA - ACGIH	ACGIH TWA (ppm)	10 ppm

#### 8.2. Appropriate engineering controls

Appropriate engineering controls : Ensure good ventilation of the work station.

Environmental exposure controls : Avoid release to the environment.

#### 8.3. Individual protection measures/Personal protective equipment

##### Hand protection:

Wear suitable gloves

##### Eye protection:

Wear approved eye protection (properly fitted dust- or splash-proof chemical safety goggles) and face protection (face shield).

##### Skin and body protection:

Wear suitable protective clothing

# Fuel Stabilizer

## Safety Data Sheet

according to the Hazardous Products Regulation (February 11, 2015)

### Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

### Other information:

Handle in accordance with good industrial hygiene and safety procedures. Do not eat, drink or smoke when using this product.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: Clear
Colour	: Light yellow
Odour	: Characteristic, alcohol
Odour threshold	: No data available
pH	: No data available
Relative evaporation rate (butylacetate=1)	: No data available
Relative evaporation rate (ether=1)	: No data available
Melting point	: No data available
Freezing point	: No data available
Boiling point	: 80 °C
Flash point	: 14 °C TCC
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: Highly flammable liquid and vapour
Vapour pressure	: No data available
Vapour pressure at 50 °C	: No data available
Relative density	: 0.788 - 0.792
Solubility	: No data available
Partition coefficient n-octanol/water	: No data available
Viscosity, kinematic	: No data available
Explosive limits	: No data available

### 9.2. Other information

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

Reactivity	: No dangerous reactions known under normal conditions of use.
Chemical stability	: Stable under normal conditions. May form flammable/explosive vapour-air mixture.
Possibility of hazardous reactions	: No dangerous reactions known under normal conditions of use.
Conditions to avoid	: Heat. Incompatible materials. Sources of ignition. Direct sunlight.
Incompatible materials	: Strong oxidizers.
Hazardous decomposition products	: May include, and are not limited to: oxides of carbon. May release flammable gases.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity (oral)	: Not classified.
Acute toxicity (dermal)	: Not classified.
Acute toxicity (inhalation)	: Not classified.

Isopropyl alcohol (67-63-0)	
LD50 oral rat	1870 mg/kg
LD50 dermal rabbit	4059 mg/kg
LC50 inhalation rat	72600 mg/m <sup>3</sup> (Exposure time: 4 h)
Nonane (111-84-2)	
LC50 inhalation rat	3200 ppm/4h
Benzene, 1,2,4-trimethyl- (95-63-6)	
LD50 oral rat	3280 mg/kg

# Fuel Stabilizer

## Safety Data Sheet

according to the Hazardous Products Regulation (February 11, 2015)

<b>Benzene, 1,2,4-trimethyl- (95-63-6)</b>	
LD50 dermal rabbit	> 3160 mg/kg
LC50 inhalation rat	18 g/m <sup>3</sup> (Exposure time: 4 h)
<b>Ethylbenzene (100-41-4)</b>	
LD50 oral rat	3500 mg/kg
LD50 dermal rabbit	15400 mg/kg
LC50 inhalation rat	17.4 mg/l/4h
<b>Naphthalene (91-20-3)</b>	
LD50 oral rat	1110 mg/kg
LD50 dermal rabbit	1120 mg/kg
LC50 inhalation rat	> 340 mg/m <sup>3</sup> (Exposure time: 1 h)

Skin corrosion/irritation	: Not classified.
Serious eye damage/irritation	: Causes serious eye irritation.
Respiratory or skin sensitization	: Not classified.
Germ cell mutagenicity	: Not classified.
Carcinogenicity	: Suspected of causing cancer.
Reproductive toxicity	: Not classified.
STOT-single exposure	: May cause drowsiness or dizziness.
STOT-repeated exposure	: Not classified.
Aspiration hazard	: May be fatal if swallowed and enters airways.
Other information	: Likely routes of exposure: ingestion, inhalation, skin and eye.
Symptoms/effects after inhalation	: May cause irritation to the respiratory tract. May cause drowsiness or dizziness.
Symptoms/effects after skin contact	: May cause skin irritation. Repeated exposure may cause skin dryness or cracking.
Symptoms/effects after eye contact	: Causes serious eye irritation. Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva.
Symptoms/effects after ingestion	: May be fatal if swallowed and enters airways. May result in aspiration into the lungs, causing chemical pneumonia. May cause gastrointestinal irritation, nausea, vomiting and diarrhea.

## SECTION 12: Ecological information

### 12.1. Toxicity

Ecology - general : May cause long-term adverse effects in the aquatic environment.

<b>Isopropyl alcohol (67-63-0)</b>	
LC50 fish 1	9640 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through])
LC50 fish 2	11130 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static])
EC50 Daphnia 1	13299 mg/l (Exposure time: 48 h - Species: Daphnia magna)
<b>Benzene, 1,2,4-trimethyl- (95-63-6)</b>	
LC50 fish 1	7.19 - 8.28 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through])
EC50 Daphnia 1	6.14 mg/l (Exposure time: 48 h - Species: Daphnia magna)
<b>Ethylbenzene (100-41-4)</b>	
LC50 fish 1	11.0 - 18.0 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [static])
LC50 fish 2	4.2 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [semi-static])
EC50 Daphnia 1	1.8 - 2.4 mg/l (Exposure time: 48 h - Species: Daphnia magna)
<b>Naphthalene (91-20-3)</b>	
LC50 fish 1	5.74 - 6.44 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through])
LC50 fish 2	1.6 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [flow-through])
EC50 Daphnia 1	2.16 mg/l (Exposure time: 48 h - Species: Daphnia magna)
EC50 Daphnia 2	1.96 mg/l (Exposure time: 48 h - Species: Daphnia magna [Flow through])

### 12.2. Persistence and degradability

<b>Fuel Stabilizer</b>	
Persistence and degradability	Not established.

### 12.3. Bioaccumulative potential

<b>Fuel Stabilizer</b>	
Bioaccumulative potential	Not established.
<b>Isopropyl alcohol (67-63-0)</b>	
Partition coefficient n-octanol/water	0.05 (at 25 °C)

# Fuel Stabilizer

## Safety Data Sheet

according to the Hazardous Products Regulation (February 11, 2015)

<b>Benzene, 1,2,4-trimethyl- (95-63-6)</b>	
Partition coefficient n-octanol/water	3.63
<b>Ethylbenzene (100-41-4)</b>	
BCF fish 1	15
Partition coefficient n-octanol/water	3.2
<b>Naphthalene (91-20-3)</b>	
BCF fish 1	30 - 430
Partition coefficient n-octanol/water	3.6

### 12.4. Mobility in soil

<b>Isopropyl alcohol (67-63-0)</b>	
Partition coefficient n-octanol/water	0.05 (at 25 °C)
<b>Benzene, 1,2,4-trimethyl- (95-63-6)</b>	
Partition coefficient n-octanol/water	3.63
<b>Ethylbenzene (100-41-4)</b>	
Partition coefficient n-octanol/water	3.2
<b>Naphthalene (91-20-3)</b>	
Partition coefficient n-octanol/water	3.6

### 12.5. Other adverse effects

Other information : No other effects known.

## SECTION 13: Disposal considerations

### 13.1. Disposal methods

Product/Packaging disposal recommendations : Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation. The generation of waste should be avoided or minimized wherever possible.

Additional information : Handle empty containers with care because residual vapours are flammable.

## SECTION 14: Transport information

### 14.1. Basic shipping description

In accordance with TDG

### Transportation of Dangerous Goods

This product is exempted under TDG section 1.17 as limited quantity and can be shipped as limited quantity.

### 14.2. Transport information/DOT

No additional information available

### 14.3. Air and sea transport

No additional information available

## SECTION 15: Regulatory information

### 15.1. National regulations

All components of this product are listed, or excluded from listing, on the Canadian DSL (Domestic Substances List) and NDSL (Non-Domestic Substances List) inventories.

### 15.2. International regulations

No additional information available

## SECTION 16: Other information

Date of issue : 04/19/2017

Revision date : 04/19/2017

# Fuel Stabilizer

## Safety Data Sheet

according to the Hazardous Products Regulation (February 11, 2015)

---

Other information : None.  
Prepared by : Kleen-Flo Tumbler Ind. Ltd.

*Disclaimer: We believe the statements, technical information and recommendations contained herein are reliable, but they are given without warranty or guarantee of any kind. The information contained in this document applies to this specific material as supplied. It may not be valid for this material if it is used in combination with any other materials. It is the user's responsibility to satisfy oneself as to the suitability and completeness of this information for the user's own particular use.*

# SAFETY DATA SHEET

## GASOLINE, UNLEADED



000003000644

Version 2.0

Revision Date 2017/04/20

Print Date 2017/04/20

### SECTION 1. IDENTIFICATION

Product name : GASOLINE, UNLEADED

Synonyms : Regular, Unleaded Gasoline (US Grade), Mid-Grade, Plus, Super, WinterGas, SummerGas, Supreme, SuperClean, SuperClean WinterGas, RegularClean, PlusClean, Premium, marked or dyed gasoline, TQRUL, transitional quality regular unleaded, BOB, Blendstock for Oxygenate Blending, Conventional Gasoline, RUL, MUL, SUL, PUL.

Product code : 100127, 100126, 101823, 100507, 101811, 101814, 100141, 101813, 101810, 101812, 100063, 101822, 100138, 101821, 100064, 101820, 101819, 100506, 101818, 101816, 101817, 100488

Manufacturer or supplier's details  
Petro-Canada  
P.O. Box 2844, 150 - 6th Avenue South-West  
Calgary Alberta T2P 3E3  
Canada

Emergency telephone number  
Suncor Energy: +1 403-296-3000;  
Canutec Transportation: 1-888- 226-8832 (toll-free) or 613-996-6666;  
Poison Control Centre: Consult local telephone directory for emergency number(s).

#### Recommended use of the chemical and restrictions on use

Recommended use : Unleaded gasoline is used in spark ignition engines including motor vehicles, inboard and outboard boat engines, small engines such as chain saws and lawn mowers, and recreational vehicles.

Prepared by : Product Safety: +1 905-804-4752

### SECTION 2. HAZARDS IDENTIFICATION

#### Emergency Overview

Appearance	Clear liquid.
Colour	Clear to slightly yellow or green, undyed liquid. May be dyed red for taxation purposes.
Odour	Gasoline

#### GHS Classification

Flammable liquids : Category 1

Skin irritation : Category 2

# SAFETY DATA SHEET

## GASOLINE, UNLEADED



000003000644

Version 2.0

Revision Date 2017/04/20

Print Date 2017/04/20

- Germ cell mutagenicity : Category 1B
- Carcinogenicity : Category 1A
- Reproductive toxicity : Category 2
- Specific target organ toxicity - single exposure : Category 3 (Central nervous system)
- Specific target organ toxicity - repeated exposure : Category 1
- Aspiration hazard : Category 1

### GHS label elements

- Hazard pictograms : 

- Signal word : Danger

- Hazard statements : Extremely flammable liquid and vapour.  
May be fatal if swallowed and enters airways.  
Causes skin irritation.  
May cause drowsiness or dizziness.  
May cause genetic defects.  
May cause cancer.  
Suspected of damaging the unborn child.  
Causes damage to organs ( ) through prolonged or repeated exposure.

- Precautionary statements : **Prevention:**  
Obtain special instructions before use.  
Do not handle until all safety precautions have been read and understood.  
Keep away from heat/sparks/open flames/hot surfaces. No smoking.  
Keep container tightly closed.  
Ground/bond container and receiving equipment.  
Use explosion-proof electrical/ ventilating/ lighting/ equipment.  
Use only non-sparking tools.  
Take precautionary measures against static discharge.  
Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.  
Wash skin thoroughly after handling.  
Do not eat, drink or smoke when using this product.  
Use only outdoors or in a well-ventilated area.  
Wear protective gloves/ protective clothing/ eye protection/ face protection.  
**Response:**  
IF SWALLOWED: Immediately call a POISON CENTER/doctor.  
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.  
IF INHALED: Remove person to fresh air and keep comfortable

# SAFETY DATA SHEET

## GASOLINE, UNLEADED



000003000644

Version 2.0

Revision Date 2017/04/20

Print Date 2017/04/20

for breathing. Call a POISON CENTER/doctor if you feel unwell.  
IF exposed or concerned: Get medical advice/ attention.  
Do NOT induce vomiting.  
If skin irritation occurs: Get medical advice/ attention.  
Take off contaminated clothing and wash before reuse.  
In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.

### Storage:

Store in a well-ventilated place. Keep container tightly closed.  
Store in a well-ventilated place. Keep cool.  
Store locked up.

### Disposal:

Dispose of contents/ container to an approved waste disposal plant.

### Potential Health Effects

- Primary Routes of Entry : Eye contact  
Ingestion  
Inhalation  
Skin contact
- Target Organs : Blood  
Immune system
- Inhalation : Inhalation may cause central nervous system effects.  
Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and in extreme cases, loss of consciousness.
- Skin : Causes skin irritation.
- Eyes : May irritate eyes.
- Ingestion : Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhoea.  
Aspiration hazard if swallowed - can enter lungs and cause damage.
- Chronic Exposure : Chronic exposure to benzene may result in increased risk of leukemia and other blood disorders.
- Aggravated Medical Condition : None known.

### Other hazards

None known.

### IARC

Group 1: Carcinogenic to humans

Benzene 71-43-2

### OSHA

OSHA specifically regulated carcinogen

Benzene 71-43-2

# SAFETY DATA SHEET

## GASOLINE, UNLEADED



000003000644

Version 2.0

Revision Date 2017/04/20

Print Date 2017/04/20

**NTP**

Known to be human carcinogen

Benzene

71-43-2

### SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

#### Hazardous components

Chemical name	CAS-No.	Concentration
gasoline, natural	8006-61-9	95 - 100 %
toluene	108-88-3	1 - 40 %
benzene	71-43-2	0.5 - 1.5 %
ethanol	64-17-5	0.1 - 0.3 %

### SECTION 4. FIRST AID MEASURES

- If inhaled : Artificial respiration and/or oxygen may be necessary.  
Move to fresh air.  
Seek medical advice.
- In case of skin contact : In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.  
Wash skin thoroughly with soap and water or use recognized skin cleanser.  
Wash clothing before reuse.  
Seek medical advice.
- In case of eye contact : Remove contact lenses.  
Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.  
Obtain medical attention.
- If swallowed : Rinse mouth with water.  
DO NOT induce vomiting unless directed to do so by a physician or poison control center.  
Never give anything by mouth to an unconscious person.  
Seek medical advice.
- Most important symptoms and effects, both acute and delayed : None known.
- Protection of first-aiders : First Aid responders should pay attention to self-protection and use the recommended protective clothing  
It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

# SAFETY DATA SHEET

## GASOLINE, UNLEADED



000003000644

Version 2.0

Revision Date 2017/04/20

Print Date 2017/04/20

---

### SECTION 5. FIREFIGHTING MEASURES

- Suitable extinguishing media : Dry chemical  
Carbon dioxide (CO<sub>2</sub>)  
Water fog.  
Foam
- Unsuitable extinguishing media : Do NOT use water jet.
- Specific hazards during fire-fighting : Cool closed containers exposed to fire with water spray.
- Hazardous combustion products : Carbon oxides (CO, CO<sub>2</sub>), nitrogen oxides (NO<sub>x</sub>), polynuclear aromatic hydrocarbons, phenols, aldehydes, ketones, smoke and irritating vapours as products of incomplete combustion.
- Further information : Prevent fire extinguishing water from contaminating surface water or the ground water system.
- 

### SECTION 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions, protective equipment and emergency procedures : Use personal protective equipment.  
Ensure adequate ventilation.  
Evacuate personnel to safe areas.  
Material can create slippery conditions.
- Environmental precautions : If the product contaminates rivers and lakes or drains inform respective authorities.
- Methods and materials for containment and cleaning up : Prevent further leakage or spillage if safe to do so.  
Remove all sources of ignition.  
Soak up with inert absorbent material.  
Non-sparking tools should be used.  
Ensure adequate ventilation.  
Contact the proper local authorities.
- 

### SECTION 7. HANDLING AND STORAGE

- Advice on safe handling : For personal protection see section 8.  
Smoking, eating and drinking should be prohibited in the application area.  
Use only with adequate ventilation.  
In case of insufficient ventilation, wear suitable respiratory equipment.  
Avoid spark promoters. Ground/bond container and equipment. These alone may be insufficient to remove static electricity.  
Avoid contact with skin, eyes and clothing.  
Do not ingest.  
Keep away from heat and sources of ignition.  
Keep container closed when not in use.

# SAFETY DATA SHEET

## GASOLINE, UNLEADED



000003000644

Version 2.0

Revision Date 2017/04/20

Print Date 2017/04/20

Conditions for safe storage : Store in original container.  
 Containers which are opened must be carefully resealed and kept upright to prevent leakage.  
 Keep in a dry, cool and well-ventilated place.  
 Keep in properly labelled containers.  
 To maintain product quality, do not store in heat or direct sunlight.

### SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

#### Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis		
gasoline, natural	8006-61-9	TWA	300 ppm 900 mg/m <sup>3</sup>	OSHA P0		
		STEL	500 ppm 1,500 mg/m <sup>3</sup>	OSHA P0		
		TWA	500 ppm 2,000 mg/m <sup>3</sup>	OSHA Z-1		
		STEL	500 ppm 1,500 mg/m <sup>3</sup>	CAL PEL		
		PEL	300 ppm 900 mg/m <sup>3</sup>	CAL PEL		
toluene	108-88-3	TWA	20 ppm	ACGIH		
		TWA	100 ppm 375 mg/m <sup>3</sup>	NIOSH REL		
		ST	150 ppm 560 mg/m <sup>3</sup>	NIOSH REL		
		TWA	200 ppm	OSHA Z-2		
		CEIL	300 ppm	OSHA Z-2		
		Peak	500 ppm (10 minutes)	OSHA Z-2		
		TWA	100 ppm 375 mg/m <sup>3</sup>	OSHA P0		
		STEL	150 ppm 560 mg/m <sup>3</sup>	OSHA P0		
		PEL	10 ppm 37 mg/m <sup>3</sup>	CAL PEL		
		C	500 ppm	CAL PEL		
		STEL	150 ppm 560 mg/m <sup>3</sup>	CAL PEL		
		benzene	71-43-2	TWA	0.5 ppm	ACGIH
				STEL	2.5 ppm	ACGIH
TWA	0.1 ppm			NIOSH REL		
ST	1 ppm			NIOSH REL		
TWA	10 ppm			OSHA Z-2		
CEIL	25 ppm			OSHA Z-2		
Peak	50 ppm (10 minutes)			OSHA Z-2		
PEL	1 ppm			OSHA CARC		
STEL	5 ppm			OSHA CARC		

# SAFETY DATA SHEET

## GASOLINE, UNLEADED



000003000644

Version 2.0

Revision Date 2017/04/20

Print Date 2017/04/20

		PEL	1 ppm	CAL PEL
		STEL	5 ppm	CAL PEL
ethanol	64-17-5	TWA	1,000 ppm 1,900 mg/m3	NIOSH REL
		TWA	1,000 ppm 1,900 mg/m3	OSHA Z-1
		TWA	1,000 ppm 1,900 mg/m3	OSHA P0
		STEL	1,000 ppm	ACGIH
		PEL	1,000 ppm 1,900 mg/m3	CAL PEL

### Biological occupational exposure limits

Components	CAS-No.	Control parameters	Biological specimen	Sam-pling time	Permissible concentra-tion	Basis
Toluene	108-88-3	Toluene	In blood	Prior to last shift of work-week	0.02 mg/l	ACGIH BEI
		Toluene	Urine	End of shift (As soon as possible after exposure ceases)	0.03 mg/l	ACGIH BEI

**Engineering measures** : Use only in well-ventilated areas.  
Ensure that eyewash station and safety shower are proximal to the work-station location.

### Personal protective equipment

**Respiratory protection** : Use respiratory protection unless adequate local exhaust ventilation is provided or exposure assessment demonstrates that exposures are within recommended exposure guidelines. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

**Filter type** : A NIOSH-approved air-purifying respirator with an organic vapour cartridge or canister may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits. Protection provided by air-purifying respirators is limited. Use a positive-pressure, air-supplied respirator if there is any potential for uncontrolled release, exposure levels are unknown, or any other circumstances where air-purifying respirators may not provide adequate protection.

**Hand protection**  
**Material** : polyvinyl alcohol (PVA), Viton(R). Consult your PPE provider for breakthrough times and the specific glove that is best for you based on your use patterns. It should be realized that eventually any material regardless of their imperviousness,

# SAFETY DATA SHEET

## GASOLINE, UNLEADED



000003000644

Version 2.0

Revision Date 2017/04/20

Print Date 2017/04/20

will get permeated by chemicals. Therefore, protective gloves should be regularly checked for wear and tear. At the first signs of hardening and cracks, they should be changed.

Remarks	: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.
Eye protection	: Wear face-shield and protective suit for abnormal processing problems.
Skin and body protection	: Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place.
Protective measures	: Wash contaminated clothing before re-use.
Hygiene measures	: Remove and wash contaminated clothing and gloves, including the inside, before re-use. Wash face, hands and any exposed skin thoroughly after handling.

### SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	: Clear liquid.
Colour	: Clear to slightly yellow or green, undyed liquid. May be dyed red for taxation purposes.
Odour	: Gasoline
Odour Threshold	: No data available
pH	: No data available
Pour point	: No data available
Boiling point/boiling range	: 25 - 225 °C (77 - 437 °F)
Flash point	: -50 - -38 °C (-58 - -36 °F) Method: Tagliabue.
Auto-Ignition Temperature	: 257 °C (495 °F)
Evaporation rate	: No data available
Flammability	: Extremely flammable in presence of open flames, sparks, shocks, and heat. Vapours are heavier than air and may travel considerable distance to sources of ignition and flash back. Rapid escape of vapour may generate static charge causing ignition. May accumulate in confined spaces.
Upper explosion limit	: 7.6 %(V)

# SAFETY DATA SHEET

## GASOLINE, UNLEADED



000003000644

Version 2.0

Revision Date 2017/04/20

Print Date 2017/04/20

Lower explosion limit	:	1.3 %(V)
Vapour pressure	:	< 802.5 mmHg (20 °C / 68 °F)
Relative vapour density	:	3
Relative density	:	0.685 - 0.8
Solubility(ies)		
Water solubility	:	insoluble
Partition coefficient: n-octanol/water	:	No data available
Viscosity		
Explosive properties	:	Do not pressurise, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition. Containers may explode in heat of fire. Vapours may form explosive mixtures with air.

---

### SECTION 10. STABILITY AND REACTIVITY

Possibility of hazardous reactions	:	Hazardous polymerisation does not occur. Stable under normal conditions.
Conditions to avoid	:	Extremes of temperature and direct sunlight.
Incompatible materials	:	Reactive with oxidising agents, acids and interhalogens.
Hazardous decomposition products	:	May release CO <sub>x</sub> , NO <sub>x</sub> , phenols, polycyclic aromatic hydrocarbons, aldehydes, ketones, smoke and irritating vapours when heated to decomposition.

---

### SECTION 11. TOXICOLOGICAL INFORMATION

#### Information on likely routes of exposure

Eye contact  
Ingestion  
Inhalation  
Skin contact

#### Acute toxicity

#### Product:

Acute oral toxicity	:	Remarks: No data available
Acute inhalation toxicity	:	Remarks: No data available
Acute dermal toxicity	:	Remarks: No data available

# SAFETY DATA SHEET

## GASOLINE, UNLEADED



000003000644

Version 2.0

Revision Date 2017/04/20

Print Date 2017/04/20

### Components:

#### **toluene:**

- Acute oral toxicity : LD50 (Rat): 5,580 mg/kg,
- Acute inhalation toxicity : LC50 (Rat): 7585 ppm  
Exposure time: 4 h  
Test atmosphere: dust/mist
- Acute dermal toxicity : LD50 (Rabbit): 12,125 mg/kg,

#### **benzene:**

- Acute oral toxicity : LD50 (Rat): 2,990 mg/kg,
- Acute inhalation toxicity : LC50 (Rat): 13700 ppm  
Exposure time: 4 h  
Test atmosphere: dust/mist
- Acute dermal toxicity : LD50 (Rabbit): > 8,240 mg/kg,

#### **ethanol:**

- Acute oral toxicity : LD50 (Rat): 7,060 mg/kg,
- Acute inhalation toxicity : LC50 (Rat): > 32380 ppm  
Exposure time: 4 h  
Test atmosphere: vapour

### **Skin corrosion/irritation**

#### Product:

Remarks: No data available

### **Serious eye damage/eye irritation**

#### Product:

Remarks: No data available

### **Respiratory or skin sensitisation**

No data available

### **Germ cell mutagenicity**

No data available

### **Carcinogenicity**

No data available

### **Reproductive toxicity**

No data available

### **STOT - single exposure**

No data available

# SAFETY DATA SHEET

## GASOLINE, UNLEADED



000003000644

Version 2.0

Revision Date 2017/04/20

Print Date 2017/04/20

---

### STOT - repeated exposure

No data available

---

## SECTION 12. ECOLOGICAL INFORMATION

### Ecotoxicity

#### Product:

Toxicity to fish : Remarks: No data available

Toxicity to daphnia and other aquatic invertebrates : Remarks: No data available

Toxicity to algae : Remarks: No data available

Toxicity to bacteria : Remarks: No data available

### Persistence and degradability

#### Product:

Biodegradability : Remarks: No data available

### Bioaccumulative potential

No data available

### Mobility in soil

No data available

### Other adverse effects

No data available

---

## SECTION 13. DISPOSAL CONSIDERATIONS

### Disposal methods

Waste from residues : The product should not be allowed to enter drains, water courses or the soil.  
Offer surplus and non-recyclable solutions to a licensed disposal company.  
Waste must be classified and labelled prior to recycling or disposal.  
Send to a licensed waste management company.  
Dispose of as hazardous waste in compliance with local and national regulations.  
Dispose of product residue in accordance with the instructions of the person responsible for waste disposal.

Contaminated packaging : Do not re-use empty containers.

# SAFETY DATA SHEET

## GASOLINE, UNLEADED



000003000644

Version 2.0

Revision Date 2017/04/20

Print Date 2017/04/20

---

### SECTION 14. TRANSPORT INFORMATION

#### International Regulations

##### IATA-DGR

UN/ID No. : UN 1203  
Proper shipping name : Gasoline  
Class : 3  
Packing group : II  
Labels : Class 3 - Flammable Liquid  
Packing instruction (cargo aircraft) : 364

##### IMDG-Code

UN number : UN 1203  
Proper shipping name : GASOLINE  
  
Class : 3  
Packing group : II  
Labels : 3  
EmS Code : F-E, S-E  
Marine pollutant : no

#### Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

#### National Regulations

##### 49 CFR

UN/ID/NA number : UN 1203  
Proper shipping name : Gasoline  
  
Class : 3  
Packing group : II  
Labels : Class 3 - Flammable Liquid  
ERG Code : 128  
Marine pollutant : no

---

### SECTION 15. REGULATORY INFORMATION

#### The components of this product are reported in the following inventories:

**DSL** On the inventory, or in compliance with the inventory  
**TSCA** All chemical substances in this product are either listed on the TSCA Inventory or are in compliance with a TSCA Inventory exemption.  
**EINECS** On the inventory, or in compliance with the inventory

# SAFETY DATA SHEET

## GASOLINE, UNLEADED



000003000644

Version 2.0

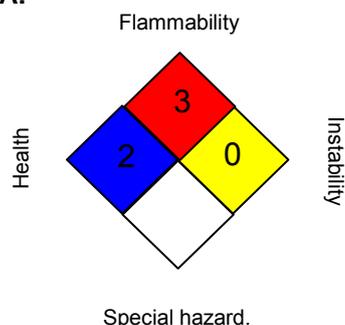
Revision Date 2017/04/20

Print Date 2017/04/20

### SECTION 16. OTHER INFORMATION

#### Further information

#### NFPA:



#### HMIS III:

HEALTH	3*
FLAMMABILITY	3
PHYSICAL HAZARD	0
PERSONAL PROTECTION	H

0 = not significant, 1 =Slight,  
2 = Moderate, 3 = High  
4 = Extreme, \* = Chronic

For Copy of SDS

: Internet: [www.petro-canada.ca/msds](http://www.petro-canada.ca/msds)  
Canada-wide: telephone: 1-800-668-0220; fax: 1-800-837-1228  
For Product Safety Information: 1 905-804-4752

Prepared by

: Product Safety: +1 905-804-4752

Revision Date

: 2017/04/20

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.



None required.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

#### Classified Ingredients

Ingredient(s)	CAS #	Weight %
Alcohol ethoxylates	68439-46-3	1 - 5%
Sodium lauryl ether sulfate	9004-82-4	0.5 - 1.5%

\*Exact percentages are being withheld as trade secret information

### 4. FIRST AID MEASURES

#### Undiluted Product:

**Eyes:** IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing for at least 15 minutes. If eye irritation persists: Get medical advice/attention.

**Skin:** No specific first aid measures are required.

**Inhalation:** No specific first aid measures are required.

**Ingestion:** IF SWALLOWED: Call a Poison Center (1-800-851-7145) or doctor/physician if you feel unwell.

**Most Important Symptoms/Effects:** Irritation.

**Immediate medical attention and special treatment needed:** Not applicable.

**Aggravated Medical Conditions:** None known.

#### Diluted Product:

**Eyes:** Rinse with plenty of water. If irritation occurs and persists, get medical attention.

**Skin:** No specific first aid measures are required.

**Inhalation:** No specific first aid measures are required.

**Ingestion:** IF SWALLOWED: Call a Poison Center (1-800-851-7145) or doctor/physician if you feel unwell.

### 5. FIRE-FIGHTING MEASURES

**Specific methods:** No special methods required.

**Suitable extinguishing media:** The product is not flammable. Extinguish fire using agent suitable for surrounding fire.

**Specific hazards:** None known.

**Special protective equipment for firefighters:** As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

**Extinguishing media which must not be used for safety reasons:** No information available.

### 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions:** Put on appropriate personal protective equipment (see Section 8.).

**Environmental precautions and clean-up methods:** Clean-up methods - large spillage. Absorb spill with inert material (e.g. dry sand or earth), then place in a chemical waste container. Use a water rinse for final clean-up.

### 7. HANDLING AND STORAGE

**Handling:** Avoid contact with eyes. Wash thoroughly after handling. FOR COMMERCIAL AND INDUSTRIAL USE ONLY.

**Storage:** Keep tightly closed in a dry, cool and well-ventilated place.

**Aerosol Level (if applicable):** Not applicable.

### 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**Exposure Guidelines:** This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

#### Undiluted Product:

**Engineering measures to reduce exposure:**

Good general ventilation should be sufficient to control airborne levels.

### Personal Protective Equipment

<b>Eye protection:</b>	Chemical-splash goggles.
<b>Hand protection:</b>	Chemical-resistant gloves.
<b>Skin and body protection:</b>	No personal protective equipment required under normal use conditions.
<b>Respiratory protection:</b>	No personal protective equipment required under normal use conditions.
<b>Hygiene measures:</b>	Handle in accordance with good industrial hygiene and safety practice.

### Diluted Product:

#### **Engineering measures to reduce exposure:**

Good general ventilation should be sufficient to control airborne levels.

### Personal Protective Equipment

<b>Eye protection:</b>	No personal protective equipment required under normal use conditions.
<b>Hand protection:</b>	No personal protective equipment required under normal use conditions.
<b>Skin and body protection:</b>	No personal protective equipment required under normal use conditions.
<b>Respiratory protection:</b>	No personal protective equipment required under normal use conditions.
<b>Hygiene measures:</b>	Handle in accordance with good industrial hygiene and safety practice.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Physical State:** Liquid

**Evaporation Rate:** No information available

**Odor threshold:** No information available.

**Melting point/range:** Not determined

**Autoignition temperature:** No information available

**Solubility in other solvents:** No information available

**Density:** 8.35 lbs/gal 1 Kg/L

**Bulk density:** No information available

**Flash point (°F):** >200°F > 93 °C

**Viscosity:** No information available

**VOC:** 0.3 % \*

**Flammability (Solid or Gas):** Not applicable

**Sustained combustion:** Not applicable

**Explosion limits: - upper:** Not determined - **lower:** Not determined

**Color:** Clear Blue

**Odor:** No Odor/Odorless

**Boiling point/range:** Not determined

**Decomposition temperature:** Not determined

**Solubility:** Completely Soluble

**Relative Density (relative to water):** 1.00

**Vapor density:** No information available

**Vapor pressure:** No information available.

**Partition coefficient (n-octanol/water):** No information available

**Elemental Phosphorus:** 0.0 % by wt.

**pH:** 7

**Corrosion to metals:** Not determined

**Dilution pH:** 7

**Dilution Flash Point (°F):** > 200 °F > 93.4 °C

**VOC % by wt. at use dilution:** 0.008%

\* - Title 17, California Code of Regulations, Division 3, Chapter 1, Subchapter 8.5, Article 2, Consumer Products, Sections 94508

## 10. STABILITY AND REACTIVITY

<b>Reactivity:</b>	Not Applicable
<b>Stability:</b>	The product is stable
<b>Hazardous decomposition products:</b>	None reasonably foreseeable.
<b>Materials to avoid:</b>	Do not mix with any other product or chemical unless specified in the use directions.
<b>Conditions to avoid:</b>	Do not freeze.

## 11. TOXICOLOGICAL INFORMATION

### Information on likely routes of exposure:

Skin contact, Inhalation, Ingestion, Eye contact

### Delayed, immediate, or chronic effects and symptoms from short and long-term exposure

**Skin contact:** May be mildly irritating to skin. Symptoms may include redness and/or transient discomfort.

**Eye contact:** Causes serious eye irritation. Symptoms may include pain, redness, and watering.

**Ingestion:** May be irritating to mouth, throat and stomach. Symptoms may include stomach pain and nausea.

**Inhalation:** May be irritating to nose, throat, and respiratory tract. Symptoms may include coughing and difficulty breathing.

**Sensitization:** No known effects.

**Target Organs (SE):** None known

**Target Organs (RE):** None known

**Numerical measures of toxicity**

ATE - Oral (mg/kg): >5000  
ATE - Inhalatory, mists (mg/l): >20

**12. ECOLOGICAL INFORMATION**

**Ecotoxicity:** No information available.

**Persistence and Degradability:** No information available.

**Bioaccumulation:** No information available.

**13. DISPOSAL CONSIDERATIONS**

**Waste from residues / unused products (undiluted product):** This product, as sold, if discarded or disposed, is not a hazardous waste according to Federal regulations (40 CFR 261.4 (b)(4)). Under RCRA, it is the responsibility of the user of the product to determine, at the time of disposal, whether the waste solution meets RCRA criteria for hazardous waste. Dispose in compliance with all Federal, state, provincial, and local laws and regulations.

**Waste from residues / unused products (diluted product):** This product, when diluted as stated on this SDS, is not a hazardous waste according to Federal regulations (40 CFR 261.4 (b)(4)). Under RCRA, it is the responsibility of the user of the product to determine, at the time of disposal, whether the waste solution meets RCRA criteria for hazardous waste. Dispose in compliance with all Federal, state, provincial, and local laws and regulations.

**RCRA Hazard Class (undiluted product):** Not Regulated

**RCRA Hazard Class (diluted product):** Not Regulated

**Contaminated Packaging:** Do not re-use empty containers.

**14. TRANSPORT INFORMATION**

**DOT/TDG/IMDG:** The information provided below is the full transportation classification for this product. This description does not account for the package size(s) of this product, that may fall under a quantity exception, according to the applicable transportation regulations. When shipping dangerous goods, please consult with your internal, certified hazardous materials specialist to determine if any exceptions can be applied to your shipment.

**DOT (Ground) Bill of Lading Description:** NOT REGULATED

**IMDG (Ocean) Bill of Lading Description:** NOT REGULATED

**15. REGULATORY INFORMATION**

**International Inventories at CAS# Level**

All components of this product are listed on the following inventories: U.S.A. (TSCA), Canada (DSL).

**RIGHT TO KNOW (RTK)**

Ingredient(s)	CAS #	MARTK:	NJRTK:	PARTK:	RIRTK:
Water	7732-18-5	-	-	-	-
Alcohol ethoxylates	68439-46-3	-	-	-	-
Sodium lauryl sulfate	151-21-3	-	-	-	-
Sodium lauryl ether sulfate	9004-82-4	-	-	-	-
Ethyl alcohol	64-17-5	X	X	X	-

**CERCLA/ SARA**

CAA HAP/CAA ODS/CWA Priority Pollutants: None

**Canadian Regulations**

## 16. OTHER INFORMATION

### **NFPA (National Fire Protection Association)**

Rating Scale: (Low Hazard) 0 - 4 (Extreme Hazard)

**Health** 2

**Flammability** 0

**Instability** 0

**Special Hazards** -

### **Diluted Product:**

**Health** 0

**Flammability** 0

**Instability** 0

**Special Hazards** -

**Revision:** 2019-05-20

**Version:** 07.0

**Reason for revision:** Not applicable  
**Prepared by:** North American Regulatory Affairs  
**Additional advice:** • Does not contain an added fragrance

*Notice to Reader: This document has been prepared using data from sources considered technically reliable. It does not constitute a warranty, express or implied, as to the accuracy of the information contained within. Actual conditions of use and handling are beyond seller's control. User is responsible to evaluate all available information when using product for any particular use and to comply with all Federal, State, Provincial and Local laws and regulations.*

# SAFETY DATA SHEET

## Goof Off Graffiti Remover VOC Spray

Page: 1

Printed: 09/11/2015

Revision: 09/11/2015

Supersedes Revision: 04/16/2015

### 1. PRODUCT AND COMPANY IDENTIFICATION

<b>Product Name:</b>	Goof Off Graffiti Remover VOC Spray	
<b>Company Name:</b>	W. M. Barr 2105 Channel Avenue Memphis, TN 38113	<b>Phone Number:</b> (901)775-0100
<b>Web site address:</b>	www.wmbarr.com	
<b>Emergency Contact:</b>	3E 24 Hour Emergency Contact	(800)451-8346
<b>Information:</b>	W.M. Barr Customer Service	(800)398-3892
<b>Intended Use:</b>	Removal of paint, marker, crayon, ink, lipstick, nail and shoe polish, and candle wax.	
<b>Product Code:</b>	FG670, FG672, FG672W	
<b>Additional Information</b>	This product is regulated by the United States Consumer Product Safety Commission and is subject to certain labeling requirements under the Federal Hazardous Substances Act. These requirements differ from the classification criteria and hazard information required for safety data sheets (SDS). The product label also includes other important information, including directions for use, and should always be read in its entirety prior to using the product.	

### 2. HAZARDS IDENTIFICATION

Flammable Aerosols, Category 1  
Gas Under Pressure, Liquefied gas  
Skin Corrosion/Irritation, Category 2  
Serious Eye Damage/Eye Irritation, Category 1  
Skin Sensitization, Category 1  
Germ Cell Mutagenicity, Category 1A  
Toxic To Reproduction, Category 1B  
Specific Target Organ Toxicity (single exposure), Category 3  
Aspiration Toxicity, Category 1  
Simple Asphyxiant

**GHS Signal Word:****Danger****GHS Hazard Phrases:**

H223: Flammable aerosol.  
H280: Containers gas under pressure; may explode if heated.  
H304: May be fatal if swallowed and enters airways.  
H315: Causes skin irritation.  
H317: May cause an allergic skin reaction.  
H318: Causes serious eye damage.  
H335: May cause respiratory irritation.  
H336: May cause drowsiness or dizziness.  
H340: May cause genetic defects.  
H360: May damage fertility or the unborn child.

**GHS Precaution Phrases:**

P201: Obtain special instructions before use.  
P202: Do not handle until all safety precautions have been read and understood.  
P210: Keep away from heat/sparks/open flames/hot surfaces. - No smoking.  
P211: Do not spray on an open flame or any other ignition source.  
P251: Pressurized container: Do not pierce or burn, even after use.  
P261: Avoid breathing gas/mist/vapors/spray.  
P264: Wash hands thoroughly after handling.  
P271: Use only outdoors or in a well-ventilated area.

# SAFETY DATA SHEET

## Goof Off Graffiti Remover VOC Spray

Page: 2

Printed: 09/11/2015

Revision: 09/11/2015

Supersedes Revision: 04/16/2015

### GHS Response Phrases:

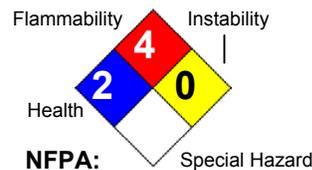
P272: Contaminated work clothing should not be allowed out of the workplace.  
P280: Wear protective gloves/protective clothing/eye protection/face protection.  
P281: Use personal protective equipment as required.  
P301+310: IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.  
P302+352: IF ON SKIN: Wash with plenty of soap and water.  
P304+340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.  
P305+351+338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P308+313: IF exposed or concerned: Get medical attention/advice.  
P310: Immediately call a POISON CENTER or doctor/physician.  
P321: Specific treatment see label.  
P331: Do NOT induce vomiting.  
P332+313: If skin irritation occurs, get medical advice/attention.  
P333+313: If skin irritation or rash occurs, seek medical advice/attention.  
P362: Take off contaminated clothing and wash before re-use.  
P363: Wash contaminated clothing before reuse.

### GHS Storage and Disposal Phrases:

P403+233: Store container tightly closed in well-ventilated place.  
P405: Store locked up.  
P410+403: Protect from sunlight and store in well-ventilated place.  
P412: Do not expose to temperatures exceeding 50 °C/122 °F.  
P501: Dispose of contents/container according to local, state and federal regulations.

### Hazard Rating System:

HEALTH	*	2
FLAMMABILITY		4
PHYSICAL		0
PPE		X



### HMIS:

### OSHA Regulatory Status:

This material is classified as hazardous under OSHA regulations.

### Potential Health Effects (Acute and Chronic):

#### INHALATION:

High concentrations may lead to central nervous system effects including, drowsiness, dizziness, nausea, headaches, paralysis, loss of consciousness, and death. High vapor concentrations are irritating to the eyes, nose, throat, and lungs. Intentional misuse by deliberately concentrating and inhaling solvents may be harmful or fatal.

#### EYE CONTACT:

Contact may cause moderate to severe irritation. May cause temporary corneal clouding.

#### SKIN CONTACT:

Prolonged or repeated contact can result in defatting, redness, drying of the skin which may result in skin irritation and dermatitis, burning sensation, and possible chemical burns to the skin.

#### INGESTION:

Aspiration hazard. If ingested or vomited, material may enter lungs and produce damage. May produce central nervous system effects, which include dizziness, loss of balance and coordination, nausea, vomiting, unconsciousness, coma and even death.

#### CHRONIC OVEREXPOSURE EFFECTS:

Reports have associated repeated and prolonged overexposure to solvents with neurological and other physiological damage. Intentional misuse by deliberately concentrating and inhaling solvents may be harmful or fatal.

**SAFETY DATA SHEET**  
**Goof Off Graffiti Remover VOC Spray**

Page: 3

Printed: 09/11/2015

Revision: 09/11/2015

Supersedes Revision: 04/16/2015

TARGET ORGANS OR SYSTEM DAMAGE: eye, respiratory system, nervous system, kidneys, blood-related effects

ROUTES OF ENTRY: inhalation, skin , ingestion

**Medical Conditions Generally** Diseases and disorders of the skin, eye, and lungs (asthma-like conditions).

**Aggravated By Exposure:**

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

CAS #	Hazardous Components (Chemical Name)	Concentration	RTECS #
67-64-1	Acetone {2-Propanone}	30.0 -60.0 %	AL3150000
872-50-4	N-Methyl-2-pyrrolidone {2-Pyrrolidinone, 1-Methyl-; 1-Methylazacyclopentan-2-one}	15.0 -30.0 %	UY5790000
68439-46-3	Alcohol ethoxylate (Alcohols, C9-11, Ethoxylated)	<10.0 %	AZ8100000
68476-86-8	Liquified petroleum gas, sweetened {propane, isobutane, n-butane}	<15.0 %	NA
NA	( Trade Secret )	< 3.0 %	NA
5989-27-5	d-Limonene	<10.0 %	GW6360000
66455-14-9	Alcohols, C12-13, ethoxylated	< 5.0 %	AZ0881666

**Additional Chemical Information** Specific percentage of composition is being withheld as a trade secret.

### 4. FIRST AID MEASURES

**Emergency and First Aid Procedures:**  
**Skin:**  
Remove contaminated clothing. Immediately wash skin thoroughly with large amounts of water and mild soap, if available. Seek medical attention if irritation develops or persists.

**Eyes:**  
Immediately begin to flush eyes with water, remove any contact lens. Continue to flush the eyes for at least 15 minutes. Seek medical attention.

**Inhalation:**  
Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get immediate medical attention.

**Ingestion:**  
If swallowed, do NOT induce vomiting. Seek immediate medical attention. Call a physician, poison control center, or hospital emergency room immediately. Never give anything by mouth to an unconscious person.

**Signs and Symptoms Of Exposure:** See Potential Health Effects.

**Note to Physician:** Treatment of overexposure should be directed at the control of symptoms and the clinical condition of the patient.

**SAFETY DATA SHEET**  
**Goof Off Graffiti Remover VOC Spray**

Page: 4

Printed: 09/11/2015

Revision: 09/11/2015

Supersedes Revision: 04/16/2015

## 5. FIRE FIGHTING MEASURES

<b>Flammability Classification:</b>	Level 3 Aerosol
<b>Flash Pt:</b>	0.00 F Method Used: Setaflash Closed Cup (Rapid Setaflash)
<b>Explosive Limits:</b>	LEL: 1.8% UEL: 9.5%
<b>Autoignition Pt:</b>	No data.
<b>Suitable Extinguishing Media:</b>	Use carbon dioxide, dry powder, water spray, or foam.
<b>Unsuitable Extinguishing Media:</b>	None known.
<b>Fire Fighting Instructions:</b>	As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH approved or equivalent) and full protective gear. Self-contained respiratory protection should be provided for fire fighters fighting fires in buildings or confined areas. Storage containers exposed to fire should be kept cool with water spray to prevent pressure build-up. Stay away from containers that have been exposed to intense heat or flame.
<b>Flammable Properties and Hazards:</b>	FLASHPOINT OF LIQUID CONCENTRATE: 0 F  FLASHPOINT OF PROPELLANT: -138.23 F (closed cup)

## 6. ACCIDENTAL RELEASE MEASURES

<b>Steps To Be Taken In Case Material Is Released Or Spilled:</b>	Vapors may cause flash fire or ignite explosively.  Clean up: Keep unnecessary people away; isolate hazard area and deny entry. Stay upwind, out of low areas, and ventilate closed spaces before entering. Shut off ignition sources; keep flares, smoking or flames out of hazard area. Use non-sparking tools. Use proper bonding and grounding methods for all equipment and processes. Keep out of waterways. Be cautious of vapors collecting in small enclosed spaces, sewers, low lying areas, confined spaces, etc.  Small spills: Take up with sand, earth or other noncombustible absorbent material and place in a plastic container where applicable.  Large spills: Dike far ahead of spill for later disposal.  Waste Disposal: Dispose in accordance with applicable local, state and federal regulations.
---	--

## 7. HANDLING AND STORAGE

<b>Precautions To Be Taken in Handling:</b>	Read carefully all cautions and directions on product label before use. Since empty container retains residue, follow all label warnings even after container is empty. Dispose of empty container according to all regulations. Do not reuse this container.  Do not use this product near any source of heat or open flame, furnace areas, pilot lights, stoves, etc.  Do not use in small enclosed spaces, such as basements and bathrooms. Vapors can accumulate and explode if ignited.
<b>Precautions To Be Taken in Storing:</b>	Store in a cool, dry place. Do not store near flames or at elevated temperatures. Store out of direct sunlight.

# SAFETY DATA SHEET

## Goof Off Graffiti Remover VOC Spray

Page: 5

Printed: 09/11/2015

Revision: 09/11/2015

Supersedes Revision: 04/16/2015

### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

CAS #	Partial Chemical Name	OSHA TWA	ACGIH TWA	Other Limits
67-64-1	Acetone {2-Propanone}	PEL: 1000 ppm	TLV: 500 ppm STEL: 750 ppm	No data.
872-50-4	N-Methyl-2-pyrrolidone {2-Pyrrolidinone, 1-Methyl-; 1-Methylazacyclopentan-2-one}	No data.	No data.	No data.
68439-46-3	Alcohol ethoxylate (Alcohols, C9-11, Ethoxylated)	No data.	No data.	No data.
68476-86-8	Liquified petroleum gas, sweetened {propane, isobutane, n-butane}	No data.	No data.	No data.
NA	( Trade Secret )	No data.	No data.	No data.
5989-27-5	d-Limonene	No data.	No data.	No data.
66455-14-9	Alcohols, C12-13, ethoxylated	No data.	No data.	No data.

**Respiratory Equipment (Specify Type):** For use in areas with inadequate ventilation or fresh air, wear a properly maintained and properly fitted NIOSH approved respirator for organic solvent vapors.

For OSHA controlled work places and other regular users - Use only with adequate ventilation under engineered air control systems designed to prevent exceeding the appropriate TLV.

A dust mask does not provide protection against vapors.

**Eye Protection:** Safety glasses, chemical goggles, or face shields are recommended to safeguard against potential eye contact, irritation, or injury. Chemical goggles or face shields are recommended when splashing or spraying of chemical is possible. A faceshield provides more protection to help reduce chemical contact to the face and eyes.

**Protective Gloves:** Wear gloves with as much resistance to the chemical ingredients as possible. Glove materials such as nitrile may provide protection. Glove selection should be based on chemicals being used and conditions of use. Consult your glove supplier for additional information. Gloves contaminated with product should be discarded and not reused.

**Other Protective Clothing:** Various application methods can dictate use of additional protective safety equipment, such as impermeable aprons, etc., to minimize exposure.

**Engineering Controls (Ventilation etc.):** Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits.

Use only with adequate ventilation to prevent buildup of vapors. Do not use in areas where vapors can accumulate and concentrate, such as basements, bathrooms or small enclosed areas. Whenever possible, use outdoors in an open air area. If using indoors open all windows and doors and maintain a cross ventilation of moving fresh air across the work area. If strong odor is noticed or you experience slight dizziness, headache, nausea or eye-watering -- STOP -- ventilation is inadequate. Leave area immediately and move to fresh air.

**Work/Hygienic/Maintenance Practices:** Wash hands thoroughly after use and before eating, drinking, or smoking.

Do not eat, drink, or smoke in the work area.

**SAFETY DATA SHEET**  
**Goof Off Graffiti Remover VOC Spray**

Page: 6  
Printed: 09/11/2015  
Revision: 09/11/2015  
Supersedes Revision: 04/16/2015

Discard any clothing or other protective equipment that cannot be decontaminated.

Facilities storing or handling this material should be equipped with an emergency eyewash and safety shower.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Physical States:</b>	<input checked="" type="checkbox"/> Gas <input checked="" type="checkbox"/> Liquid <input type="checkbox"/> Solid
<b>Appearance and Odor:</b>	Off-white, opaque.
<b>Melting Point:</b>	No data.
<b>Boiling Point:</b>	No data.
<b>Autoignition Pt:</b>	No data.
<b>Flash Pt:</b>	0.00 F    Method Used: Setaflash Closed Cup (Rapid Setaflash)
<b>Explosive Limits:</b>	LEL: 1.8%                      UEL: 9.5%
<b>Specific Gravity (Water = 1):</b>	0.89
<b>Density:</b>	7.423 LB/GL
<b>Vapor Pressure (vs. Air or mm Hg):</b>	No data.
<b>Vapor Density (vs. Air = 1):</b>	> 1
<b>Evaporation Rate:</b>	> 1
<b>Solubility in Water:</b>	Soluble
<b>Percent Volatile:</b>	93.0 % by weight.
<b>VOC / Volume:</b>	46.2700 % WT

## 10. STABILITY AND REACTIVITY

<b>Stability:</b>	Unstable <input type="checkbox"/> Stable <input checked="" type="checkbox"/>
<b>Conditions To Avoid - Instability:</b>	No data available.
<b>Incompatibility - Materials To Avoid:</b>	Strong oxidizers, strong acids, reactive metals (e.g. sodium, calcium, zinc, etc), materials reactive with hydroxyl compounds, copper alloys, alcohols, amines
<b>Hazardous Decomposition or Byproducts:</b>	Carbon monoxide, carbon dioxide, nitrogen oxides, oxides of citrus terpenes, aldehydes, flammable hydrocarbon fragments (e.g. acetylene)
<b>Possibility of Hazardous Reactions:</b>	Will occur <input type="checkbox"/> Will not occur <input checked="" type="checkbox"/>
<b>Conditions To Avoid - Hazardous Reactions:</b>	No data available.

**SAFETY DATA SHEET**  
**Goof Off Graffiti Remover VOC Spray**

Page: 7  
 Printed: 09/11/2015  
 Revision: 09/11/2015  
 Supersedes Revision: 04/16/2015

**11. TOXICOLOGICAL INFORMATION**

**Toxicological Information:** This product has not been tested as a whole. Refer to section 2 for acute and chronic effects.

**Carcinogenicity/Other Information:** CAS# 67-64-1:  
 Standard Draize Test, Eyes, Species: Rabbit, 20.00 MG, Severe.  
 Result:  
 Behavioral: Change in motor activity (specific assay).  
 Behavioral: Alteration of classical conditioning.  
 - American Journal of Ophthalmology., Ophthalmic Pub. Co., 435 N. Michigan Ave., Suite 1415, Chicago, IL 60611, Vol/p/yr: 29,1363, 1946

CAS# 872-50-4:  
 Reproductive Effects:, TDLo, Inhalation, Rat, 116.0 PPM, 6 H, multigenerations.  
 Result:  
 Effects on Embryo or Fetus: Fetotoxicity (except death, e.g., stunted fetus).  
 - Drug and Chemical Toxicology., Marcel Dekker, 270 Madison Ave., New York, NY 10016, Vol/p/yr: 18,271, 1995

Standard Draize Test, Eyes, Species: Rabbit, 100.0 MG, Moderate.  
 Result:  
 Blood:Other hemolysis with or without anemia.  
 Blood:Other changes.  
 Biochemical: Metabolism (Intermediary): Other proteins.  
 - Food and Chemical Toxicology., Pergamon Press Inc., Maxwell House, Fairview Park, Elmsford, NY 10523, Vol/p/yr: 26,475, 1988

CAS# 68439-46-3:  
 Acute toxicity, LD50, Oral, Rat, 1378. MG/KG.  
 Result:  
 Behavioral: Somnolence (general depressed activity).  
 Behavioral: Ataxia.  
 Gastrointestinal:Hypermotility, diarrhea.  
 - Journal of the American College of Toxicology., Mary Ann Liebert, Inc., New York, NY, Vol/p/yr: 10(4),427, 1991

ACGIH A4 - Not Classifiable as a Human Carcinogen.

CAS #	Hazardous Components (Chemical Name)	NTP	IARC	ACGIH	OSHA
67-64-1	Acetone {2-Propanone}	n.a.	n.a.	A4	n.a.
872-50-4	N-Methyl-2-pyrrolidone {2-Pyrrolidinone, 1-Methyl-; 1-Methylazacyclopentan-2-one}	n.a.	n.a.	n.a.	n.a.
68439-46-3	Alcohol ethoxylate (Alcohols, C9-11, Ethoxylated)	n.a.	n.a.	n.a.	n.a.
68476-86-8	Liquified petroleum gas, sweetened {propane, isobutane, n-butane}	n.a.	n.a.	n.a.	n.a.
NA	( Trade Secret )	n.a.	n.a.	n.a.	n.a.
5989-27-5	d-Limonene	n.a.	3	n.a.	n.a.
66455-14-9	Alcohols, C12-13, ethoxylated	n.a.	n.a.	n.a.	n.a.

# SAFETY DATA SHEET

## Goof Off Graffiti Remover VOC Spray

Page: 8  
 Printed: 09/11/2015  
 Revision: 09/11/2015  
 Supersedes Revision: 04/16/2015

### 12. ECOLOGICAL INFORMATION

**General Ecological Information:** No information available for this product as a whole.

### 13. DISPOSAL CONSIDERATIONS

**Waste Disposal Method:** Dispose of in accordance with local, state, and federal laws.

### 14. TRANSPORT INFORMATION

**LAND TRANSPORT (US DOT):**

**DOT Proper Shipping Name:** Consumer Commodity, ORM-D

**DOT Hazard Class:**

**UN/NA Number:**

**Additional Transport Information:**

### 15. REGULATORY INFORMATION

**EPA SARA (Superfund Amendments and Reauthorization Act of 1986) Lists**

CAS #	Hazardous Components (Chemical Name)	S. 302 (EHS)	S. 304 RQ	S. 313 (TRI)
67-64-1	Acetone {2-Propanone}	No	Yes 5000 LB	No
872-50-4	N-Methyl-2-pyrrolidone {2-Pyrrolidinone, 1-Methyl-; 1-Methylazacyclopentan-2-one}	No	No	Yes
68439-46-3	Alcohol ethoxylate (Alcohols, C9-11, Ethoxylated)	No	No	No
68476-86-8	Liquified petroleum gas, sweetened {propane, isobutane, n-butane}	No	No	No
NA	( Trade Secret )	No	No	No
5989-27-5	d-Limonene	No	No	No
66455-14-9	Alcohols, C12-13, ethoxylated	No	No	No

**This material meets the EPA 'Hazard Categories' defined for SARA Title III Sections 311/312 as indicated:**

<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Acute (immediate) Health Hazard
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Chronic (delayed) Health Hazard
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Fire Hazard
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Sudden Release of Pressure Hazard
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Reactive Hazard

CAS #	Hazardous Components (Chemical Name)	Other US EPA or State Lists
67-64-1	Acetone {2-Propanone}	CAA HAP,ODC: No; CWA NPDES: No; TSCA: Yes - Inventory, 4 Test; CA PROP.65: No
872-50-4	N-Methyl-2-pyrrolidone {2-Pyrrolidinone, 1-Methyl-; 1-Methylazacyclopentan-2-one}	CAA HAP,ODC: No; CWA NPDES: No; TSCA: Yes - Inventory, 4 Test, 12(b); CA PROP.65: Yes
68439-46-3	Alcohol ethoxylate (Alcohols, C9-11, Ethoxylated)	CAA HAP,ODC: No; CWA NPDES: No; TSCA: Yes - Inventory; CA PROP.65: No
68476-86-8	Liquified petroleum gas, sweetened {propane, isobutane, n-butane}	CAA HAP,ODC: No; CWA NPDES: No; TSCA: Yes - Inventory; CA PROP.65: No
NA	( Trade Secret )	CAA HAP,ODC: No; CWA NPDES: No; TSCA: Yes - Inventory; CA PROP.65: No
5989-27-5	d-Limonene	CAA HAP,ODC: No; CWA NPDES: No; TSCA: Yes - Inventory; CA PROP.65: No
66455-14-9	Alcohols, C12-13, ethoxylated	CAA HAP,ODC: No; CWA NPDES: No; TSCA: Yes - Inventory; CA PROP.65: No

**SAFETY DATA SHEET**  
**Goof Off Graffiti Remover VOC Spray**

Page: 9

Printed: 09/11/2015

Revision: 09/11/2015

Supersedes Revision: 04/16/2015

**16. OTHER INFORMATION**

**Revision Date:** 09/11/2015

**Preparer Name:** W.M. Barr EHS Dept (901)775-0100

**Additional Information About** No data available.

**This Product:**

**Company Policy or**

**Disclaimer:**

The information contained herein is presented in good faith and believed to be accurate as of the effective date shown above. This information is furnished without warranty of any kind. Employers should use this information only as a supplement to other information gathered by them and must make independent determination of suitability and completeness of information from all sources to assure proper use of these materials and the safety and health of employees. Any use of this data and information must be determined by the user to be in accordance with applicable federal, state and local laws and regulations.



# SAFETY DATA SHEET

DDP SPECIALTY ELECTRONIC MATERIALS US,  
INC.

**Product name:** GREAT STUFF™ Big Gap Filler Insulating  
Foam Sealant 12oz HC ES STW QP 144ct

**Issue Date:** 10/17/2018

**Print Date:** 02/27/2019

DDP SPECIALTY ELECTRONIC MATERIALS US, INC. encourages and expects you to read and understand the entire (M)SDS, as there is important information throughout the document. We expect you to follow the precautions identified in this document unless your use conditions would necessitate other appropriate methods or actions.

---

## 1. IDENTIFICATION

---

**Product name:** GREAT STUFF™ Big Gap Filler Insulating Foam Sealant 12oz HC ES STW QP 144ct

**Recommended use of the chemical and restrictions on use**

**Identified uses:** Polyurethane foam.

**COMPANY IDENTIFICATION**

DDP SPECIALTY ELECTRONIC MATERIALS US,  
INC.  
400 ARCOLA ROAD  
COLLEGEVILLE PA 19426-2914  
UNITED STATES

**Customer Information Number:**

800-258-2436  
SDSQuestion@dow.com

**EMERGENCY TELEPHONE NUMBER**

**24-Hour Emergency Contact:** 1 800 424 9300

**Local Emergency Contact:** 800-424-9300

---

## 2. HAZARDS IDENTIFICATION

---

**Hazard classification**

GHS classification in accordance with 29 CFR 1910.1200

Flammable aerosols - Category 2

Gases under pressure - Liquefied gas

Skin irritation - Category 2

Eye irritation - Category 2B

Respiratory sensitisation - Category 1

Skin sensitisation - Category 1

Effects on or via lactation

Specific target organ toxicity - single exposure - Category 3

Specific target organ toxicity - repeated exposure - Category 2 - Inhalation

**Label elements**

**Hazard pictograms**



Signal word: **DANGER!**

### Hazards

Flammable aerosol.

Contains gas under pressure; may explode if heated.

Causes skin and eye irritation.

May cause an allergic skin reaction.

May cause allergy or asthma symptoms or breathing difficulties if inhaled.

May cause respiratory irritation.

May cause harm to breast-fed children.

May cause damage to organs (Respiratory Tract) through prolonged or repeated exposure if inhaled.

### Precautionary statements

#### Prevention

Obtain special instructions before use.

Keep away from heat/sparks/open flames/hot surfaces. No smoking.

Do not spray on an open flame or other ignition source.

Pressurized container: Do not pierce or burn, even after use.

Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.

Avoid contact during pregnancy/ while nursing.

Wash skin thoroughly after handling.

Do not eat, drink or smoke when using this product.

Use only outdoors or in a well-ventilated area.

Contaminated work clothing should not be allowed out of the workplace.

Wear protective gloves.

In case of inadequate ventilation wear respiratory protection.

#### Response

IF ON SKIN: Wash with plenty of soap and water.

IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

IF exposed or concerned: Get medical advice/ attention.

If skin irritation or rash occurs: Get medical advice/ attention.

If eye irritation persists: Get medical advice/ attention.

Take off contaminated clothing and wash before reuse.

#### Storage

Store in a well-ventilated place. Keep container tightly closed.

Store locked up.

Protect from sunlight. Do not expose to temperatures exceeding 50 °C/ 122 °F.

#### Disposal

Dispose of contents/ container to an approved waste disposal plant.

**Other hazards**

No data available

---

---

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

---

---

This product is a mixture.

<b>Component</b>	<b>CASRN</b>	<b>Concentration</b>
Polymethylenepolyphenylisocyanate, propoxylated glycerin polymer	57029-46-6	>= 30.0 - <= 60.0 %
Diphenylmethane Diisocyanate, isomers and homologues	9016-87-9	>= 10.0 - <= 30.0 %
Polymethylenepolyphenyl polyisocyanate, polypropyleneglycol copolymer	53862-89-8	>= 10.0 - <= 30.0 %
Tris(1-chloro-2-propyl) phosphate	13674-84-5	>= 5.0 - <= 10.0 %
Paraffin waxes and Hydrocarbon waxes, chlorinated	63449-39-8	>= 5.0 - <= 10.0 %
Isobutane	75-28-5	>= 5.0 - <= 10.0 %
4,4'-Methylenediphenyl diisocyanate	101-68-8	>= 5.0 - <= 10.0 %
Methyl ether	115-10-6	>= 1.0 - <= 5.0 %
Propane	74-98-6	>= 1.0 - <= 5.0 %

*Note*

Note: CAS 101-68-8 is an MDI isomer that is part of CAS 9016-87-9.

---

---

**4. FIRST AID MEASURES**

---

---

**Description of first aid measures**

**General advice:**

First Aid responders should pay attention to self-protection and use the recommended protective clothing (chemical resistant gloves, splash protection). If potential for exposure exists refer to Section 8 for specific personal protective equipment.

**Inhalation:** Move person to fresh air. If not breathing, give artificial respiration; if by mouth to mouth use rescuer protection (pocket mask, etc). If breathing is difficult, oxygen should be administered by qualified personnel. Call a physician or transport to a medical facility.

**Skin contact:** Remove material from skin immediately by washing with soap and plenty of water. Remove contaminated clothing and shoes while washing. Seek medical attention if irritation persists. Wash clothing before reuse. An MDI skin decontamination study demonstrated that cleaning very soon after exposure is important, and that a polyglycol-based skin cleanser or corn oil may be more effective than soap and water. Discard items which cannot be decontaminated, including leather articles such as shoes, belts and watchbands. Suitable emergency safety shower facility should be available in work area.

**Eye contact:** Immediately flush eyes with water; remove contact lenses, if present, after the first 5 minutes, then continue flushing eyes for at least 15 minutes. Obtain medical attention without delay, preferably from an ophthalmologist. Suitable emergency eye wash facility should be immediately available.

**Ingestion:** If swallowed, seek medical attention. Do not induce vomiting unless directed to do so by medical personnel.

**Most important symptoms and effects, both acute and delayed:**

Aside from the information found under Description of first aid measures (above) and Indication of immediate medical attention and special treatment needed (below), any additional important symptoms and effects are described in Section 11: Toxicology Information.

**Indication of any immediate medical attention and special treatment needed**

**Notes to physician:** Excessive exposure may aggravate preexisting asthma and other respiratory disorders (e.g. emphysema, bronchitis, reactive airways dysfunction syndrome). Repeated excessive exposure may aggravate preexisting lung disease. Maintain adequate ventilation and oxygenation of the patient. May cause respiratory sensitization or asthma-like symptoms. Bronchodilators, expectorants and antitussives may be of help. Treat bronchospasm with inhaled beta2 agonist and oral or parenteral corticosteroids. Respiratory symptoms, including pulmonary edema, may be delayed. Persons receiving significant exposure should be observed 24-48 hours for signs of respiratory distress. Exposure may increase "myocardial irritability". Do not administer sympathomimetic drugs such as epinephrine unless absolutely necessary. If you are sensitized to diisocyanates, consult your physician regarding working with other respiratory irritants or sensitizers. Although cholinesterase depression has been reported with this material, it is not of benefit in determining exposure and need not be considered in the treatment of persons exposed to the material. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.

---

## **5. FIREFIGHTING MEASURES**

---

**Suitable extinguishing media:** Water fog or fine spray. Dry chemical fire extinguishers. Carbon dioxide fire extinguishers. Foam. Alcohol resistant foams (ATC type) are preferred. General purpose synthetic foams (including AFFF) or protein foams may function, but will be less effective.

**Unsuitable extinguishing media:** Do not use direct water stream. Straight or direct water streams may not be effective to extinguish fire.

**Special hazards arising from the substance or mixture**

**Hazardous combustion products:** During a fire, smoke may contain the original material in addition to combustion products of varying composition which may be toxic and/or irritating. Combustion products may include and are not limited to: Nitrogen oxides. Isocyanates. Hydrogen chloride. Carbon monoxide. Carbon dioxide. Hydrogen cyanide.

**Unusual Fire and Explosion Hazards:** Contains flammable propellant. Aerosol cans exposed to fire can rupture and become flaming projectiles. Propellant release may result in a fireball. Vapors are heavier than air and may travel a long distance and accumulate in low lying areas. Ignition and/or flash back may occur. Dense smoke is produced when product burns.

**Advice for firefighters**

**Fire Fighting Procedures:** Keep people away. Isolate fire and deny unnecessary entry. Stay upwind. Keep out of low areas where gases (fumes) can accumulate. Water may not be effective in extinguishing fire. Do not use direct water stream. May spread fire. Fight fire from protected location or safe distance. Consider the use of unmanned hose holders or monitor nozzles. Eliminate ignition sources. Move container from fire area if this is possible without hazard. Use water spray to cool fire-exposed containers and fire-affected zone until fire is out.

**Special protective equipment for firefighters:** Wear positive-pressure self-contained breathing apparatus (SCBA) and protective fire fighting clothing (includes fire fighting helmet, coat, trousers, boots, and gloves). Avoid contact with this material during fire fighting operations. If contact is likely, change to full chemical resistant fire fighting clothing with self-contained breathing apparatus. If this is not available, wear full chemical resistant clothing with self-contained breathing apparatus and fight fire from a remote location. For protective equipment in post-fire or non-fire clean-up situations, refer to the relevant sections.

---

## **6. ACCIDENTAL RELEASE MEASURES**

---

**Personal precautions, protective equipment and emergency procedures:** Evacuate area. Only trained and properly protected personnel must be involved in clean-up operations. Keep personnel out of low areas. Keep personnel out of confined or poorly ventilated areas. Keep upwind of spill. Ventilate area of leak or spill. No smoking in area. For large spills, warn public of downwind explosion hazard. Check area with combustible gas detector before reentering area. Ground and bond all containers and handling equipment. Eliminate all sources of ignition in vicinity of spill or released vapor to avoid fire or explosion. Vapor explosion hazard. Keep out of sewers. See Section 10 for more specific information. Use appropriate safety equipment. For additional information, refer to Section 8, Exposure Controls and Personal Protection. Confined space entry procedures must be followed before entering the area. Refer to section 7, Handling, for additional precautionary measures.

**Environmental precautions:** Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. See Section 12, Ecological Information. Spills or discharge to natural waterways is likely to kill aquatic organisms.

**Methods and materials for containment and cleaning up:** Contain spilled material if possible. Ground and bond all containers and handling equipment. Isolate area until gas has dispersed. Use non-sparking tools in cleanup operations. Eliminate all sources of ignition in vicinity of spill or released vapor to avoid fire or explosion. Check area with combustible gas detector before reentering area. Ground and bond all containers and handling equipment. Collect in suitable and properly labeled containers. Absorb with materials such as: Clay. Dirt. Milsorb®. Sand. Sawdust. Vermiculite. See Section 10 for more specific information. See Section 13, Disposal Considerations, for additional information.

## 7. HANDLING AND STORAGE

**Precautions for safe handling:** Keep away from heat, sparks and flame. Avoid breathing vapor. Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated contact with skin. Wash thoroughly after handling. Keep container closed. Use only with adequate ventilation. No smoking, open flames or sources of ignition in handling and storage area. Vapors are heavier than air and may travel a long distance and accumulate in low lying areas. Ignition and/or flash back may occur. Contents under pressure. Do not puncture or incinerate container. Containers, even those that have been emptied, can contain vapors. Do not cut, drill, grind, weld, or perform similar operations on or near empty containers. Do not enter confined spaces unless adequately ventilated. Never use air pressure for transferring product. Use of non-sparking or explosion-proof equipment may be necessary, depending upon the type of operation. See Section 8, EXPOSURE CONTROLS AND PERSONAL PROTECTION.

**Conditions for safe storage:** Minimize sources of ignition, such as static build-up, heat, spark or flame. Store in a dry place. See Section 10 for more specific information.

**Storage stability**

**Storage temperature:** 25 °C (77 °F)      **Storage Period:** 12 Month

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Control parameters**

If exposure limits exist, they are listed below. If no exposure limits are displayed, then no values are applicable.

Component	Regulation	Type of listing	Value/Notation
Isobutane	ACGIH	STEL	1,000 ppm
4,4'-Methylenediphenyl diisocyanate	Dow IHG	TWA	0.005 ppm
	Dow IHG	STEL	0.02 ppm
	ACGIH	TWA	0.005 ppm
	OSHA Z-1	C	0.2 mg/m3 0.02 ppm
Methyl ether	US WEEL	TWA	1,000 ppm
Propane	ACGIH		Asphyxiant
	OSHA Z-1	TWA	1,800 mg/m3 1,000 ppm
	CAL PEL	PEL	1,800 mg/m3 1,000 ppm

This material contains a simple asphyxiant which may displace oxygen. Insure adequate ventilation to prevent an oxygen deficient atmosphere.

The minimum requirement of 19.5% oxygen at sea level (148 torr O<sub>2</sub>, dry air) provides an adequate amount of oxygen for most work assignments.

**Exposure controls**

**Engineering controls:** Use only with adequate ventilation. Local exhaust ventilation may be necessary for some operations. Provide general and/or local exhaust ventilation to control airborne levels below the exposure guidelines. Exhaust systems should be designed to move the air away

from the source of vapor/aerosol generation and people working at this point. The odor and irritancy of this material are inadequate to warn of excessive exposure. Lethal concentrations may exist in areas with poor ventilation.

**Individual protection measures**

**Eye/face protection:** Use safety glasses (with side shields).

**Skin protection**

**Hand protection:** Use gloves chemically resistant to this material. Examples of preferred glove barrier materials include: Butyl rubber. Chlorinated polyethylene. Polyethylene. Ethyl vinyl alcohol laminate ("EVAL"). Examples of acceptable glove barrier materials include: Neoprene. Nitrile/butadiene rubber ("nitrile" or "NBR"). Viton. Polyvinyl chloride ("PVC" or "vinyl"). NOTICE: The selection of a specific glove for a particular application and duration of use in a workplace should also take into account all relevant workplace factors such as, but not limited to: Other chemicals which may be handled, physical requirements (cut/puncture protection, dexterity, thermal protection), potential body reactions to glove materials, as well as the instructions/specifications provided by the glove supplier.

**Other protection:** Use protective clothing chemically resistant to this material. Selection of specific items such as face shield, boots, apron, or full body suit will depend on the task.

**Respiratory protection:** Atmospheric levels should be maintained below the exposure guideline. When atmospheric levels may exceed the exposure guideline, use an approved air-purifying respirator equipped with an organic vapor sorbent and a particle filter. For situations where the atmospheric levels may exceed the level for which an air-purifying respirator is effective, use a positive-pressure air-supplying respirator (air line or self-contained breathing apparatus). For emergency response or for situations where the atmospheric level is unknown, use an approved positive-pressure self-contained breathing apparatus or positive-pressure air line with auxiliary self-contained air supply. In confined or poorly ventilated areas, use an approved self-contained breathing apparatus or positive pressure air line with auxiliary self-contained air supply.

The following should be effective types of air-purifying respirators: Organic vapor cartridge with a particulate pre-filter.

---

---

## **9. PHYSICAL AND CHEMICAL PROPERTIES**

---

**Appearance**

<b>Physical state</b>	Foam
<b>Color</b>	Yellow
<b>Odor</b>	Mild
<b>Odor Threshold</b>	No test data available
<b>pH</b>	<i>Not applicable</i>
<b>Melting point/range</b>	No test data available
<b>Freezing point</b>	No test data available
<b>Boiling point (760 mmHg)</b>	Not applicable
<b>Flash point</b>	<b>closed cup</b> -104 °C ( -155 °F) <i>Estimated.</i>
<b>Evaporation Rate (Butyl Acetate = 1)</b>	No test data available
<b>Flammability (solid, gas)</b>	Not expected to form explosive dust-air mixtures.

Lower explosion limit	No test data available
Upper explosion limit	No test data available
Vapor Pressure	1,151 kPa at 55 °C (131 °F) <i>Calculated.</i>
Relative Vapor Density (air = 1)	No test data available
Relative Density (water = 1)	1.06 <i>Estimated.</i>
Water solubility	Insoluble
Partition coefficient: n-octanol/water	No data available
Auto-ignition temperature	No test data available
Decomposition temperature	No test data available
Kinematic Viscosity	Not applicable
Explosive properties	Not explosive
Oxidizing properties	No
Molecular weight	No test data available

NOTE: The physical data presented above are typical values and should not be construed as a specification.

---

## 10. STABILITY AND REACTIVITY

---

**Reactivity:** No data available

**Chemical stability:** Stable under recommended storage conditions. See Storage, Section 7. Unstable at elevated temperatures.

**Possibility of hazardous reactions:** Can occur. Exposure to elevated temperatures can cause product to decompose and generate gas. This can cause pressure build-up and/or rupturing of closed containers. Acids.

**Conditions to avoid:** Avoid temperatures above 50 °C  
Elevated temperatures can cause container to vent and/or rupture. Exposure to elevated temperatures can cause product to decompose.

**Incompatible materials:** Avoid contact with: Acids. Alcohols. Amines. Ammonia. Bases. Metal compounds. Strong oxidizers. Products based on diisocyanates like TDI and MDI react with many materials to release heat. The reaction rate increases with temperature as well as with increased contact; these reactions can become violent. Contact is increased by stirring or if the other material acts as a solvent. Products based on diisocyanates such as TDI and MDI are not soluble in water and will sink to the bottom, but react slowly at the interface. The reaction forms carbon dioxide gas and a layer of solid polyurea. Reaction with water will generate carbon dioxide and heat.

**Hazardous decomposition products:** Decomposition products depend upon temperature, air supply and the presence of other materials. Toxic gases are released during decomposition.

---

## 11. TOXICOLOGICAL INFORMATION

---

*Toxicological information appears in this section when such data is available.*

**Acute toxicity**

**Acute oral toxicity**

Low toxicity if swallowed. Small amounts swallowed incidentally as a result of normal handling operations are not likely to cause injury; however, swallowing larger amounts may cause injury. Observations in animals include: Gastrointestinal irritation.

As product: Single dose oral LD50 has not been determined.

LD50, Rat, > 2,000 mg/kg Estimated.

**Acute dermal toxicity**

Prolonged skin contact is unlikely to result in absorption of harmful amounts.

As product: The dermal LD50 has not been determined.

LD50, Rabbit, > 2,000 mg/kg Estimated.

**Acute inhalation toxicity**

In confined or poorly ventilated areas, vapor can easily accumulate and can cause unconsciousness and death due to displacement of oxygen. Excessive exposure may cause irritation to upper respiratory tract (nose and throat) and lungs. May cause pulmonary edema (fluid in the lungs.) Effects may be delayed. May cause central nervous system depression. Symptoms of excessive exposure may be anesthetic or narcotic effects; dizziness and drowsiness may be observed. Excessive exposure may increase sensitivity to epinephrine and increase myocardial irritability (irregular heartbeats). Decreased lung function has been associated with overexposure to isocyanates.

The LC50 has not been determined.,

**Skin corrosion/irritation**

Prolonged contact may cause moderate skin irritation with local redness.

Material may stick to skin causing irritation upon removal.

May stain skin.

**Serious eye damage/eye irritation**

May cause moderate eye irritation.

May cause slight temporary corneal injury.

**Sensitization**

Skin contact may cause an allergic skin reaction.

Animal studies have shown that skin contact with isocyanates may play a role in respiratory sensitization.

May cause allergic respiratory reaction.

MDI concentrations below the exposure guidelines may cause allergic respiratory reactions in individuals already sensitized.

Asthma-like symptoms may include coughing, difficult breathing and a feeling of tightness in the chest. Occasionally, breathing difficulties may be life threatening.

**Specific Target Organ Systemic Toxicity (Single Exposure)**

Contains component(s) which are classified as specific target organ toxicant, single exposure, category 3.

**Specific Target Organ Systemic Toxicity (Repeated Exposure)**

Tissue injury in the upper respiratory tract and lungs has been observed in laboratory animals after repeated excessive exposures to MDI/polymeric MDI aerosols.

Contains component(s) which have been reported to cause effects on the following organs in animals: kidney  
Liver.

**Carcinogenicity**

Lung tumors have been observed in laboratory animals exposed to respirable aerosol droplets of MDI/Polymeric MDI (6 mg/m<sup>3</sup>) for their lifetime. Tumors occurred concurrently with respiratory irritation and lung injury. Current exposure guidelines are expected to protect against these effects reported for MDI.

**Teratogenicity**

In laboratory animals, MDI/polymeric MDI did not cause birth defects; other fetal effects occurred only at high doses which were toxic to the mother. Contains component(s) which caused birth defects in laboratory animals only at doses toxic to the mother.

**Reproductive toxicity**

Based on information for component(s): May cause harm to breastfed babies.

**Mutagenicity**

In vitro genetic toxicity studies were negative for component(s) tested. Genetic toxicity data on MDI are inconclusive. MDI was weakly positive in some in vitro studies; other in vitro studies were negative. Animal mutagenicity studies were predominantly negative.

**Aspiration Hazard**

Based on physical properties, not likely to be an aspiration hazard.

**Carcinogenicity**

**Component**  
**Paraffin waxes and Hydrocarbon waxes, chlorinated**

**List**  
IARC

**Classification**

Group 2B: Possibly carcinogenic to humans

US NTP

Reasonably anticipated to be a human carcinogen

---

---

**12. ECOLOGICAL INFORMATION**

---

*Ecotoxicological information appears in this section when such data is available.*

**Toxicity**

**Polymethylenepolyphenylisocyanate, propoxylated glycerin polymer**

**Acute toxicity to fish**

For this family of materials:

Material is practically non-toxic to aquatic organisms on an acute basis (LC50/EC50/EL50/LL50 >100 mg/L in the most sensitive species tested).

**Diphenylmethane Diisocyanate, isomers and homologues**

**Acute toxicity to fish**

The measured ecotoxicity is that of the hydrolyzed product, generally under conditions maximizing production of soluble species.

Material is practically non-toxic to aquatic organisms on an acute basis (LC50/EC50/EL50/LL50 >100 mg/L in the most sensitive species tested).

Based on information for a similar material:

LC50, Danio rerio (zebra fish), static test, 96 Hour, > 1,000 mg/l, OECD Test Guideline 203 or Equivalent

**Acute toxicity to aquatic invertebrates**

Based on information for a similar material:

EC50, Daphnia magna (Water flea), static test, 24 Hour, > 1,000 mg/l, OECD Test Guideline 202 or Equivalent

**Acute toxicity to algae/aquatic plants**

Based on information for a similar material:

NOEC, Desmodesmus subspicatus (green algae), static test, 72 Hour, Growth rate inhibition, 1,640 mg/l, OECD Test Guideline 201 or Equivalent

**Toxicity to bacteria**

Based on information for a similar material:

EC50, activated sludge, static test, 3 Hour, Respiration rates., > 100 mg/l

**Toxicity to soil-dwelling organisms**

EC50, Eisenia fetida (earthworms), Based on information for a similar material:, 14 d, > 1,000 mg/kg

**Toxicity to terrestrial plants**

EC50, Avena sativa (oats), Growth inhibition, 1,000 mg/l

EC50, Lactuca sativa (lettuce), Growth inhibition, 1,000 mg/l

**Polymethylenepolyphenyl polyisocyanate, polypropylene glycol copolymer**

**Acute toxicity to fish**

Not expected to be acutely toxic to aquatic organisms.

**Tris(1-chloro-2-propyl) phosphate**

**Acute toxicity to fish**

Material is slightly toxic to aquatic organisms on an acute basis (LC50/EC50 between 10 and 100 mg/L in the most sensitive species tested).

LC50, Lepomis macrochirus (Bluegill sunfish), static test, 96 Hour, 84 mg/l, OECD Test Guideline 203 or Equivalent

**Acute toxicity to aquatic invertebrates**

EC50, Daphnia magna (Water flea), 48 Hour, 131 mg/l

**Acute toxicity to algae/aquatic plants**

ErC50, Pseudokirchneriella subcapitata (green algae), static test, 96 Hour, Growth rate inhibition, 82 mg/l, OECD Test Guideline 201 or Equivalent

**Toxicity to bacteria**

EC50, activated sludge, Respiration inhibition, 3 Hour, 784 mg/l, OECD 209 Test

**Chronic toxicity to aquatic invertebrates**

NOEC, Daphnia magna (Water flea), semi-static test, 21 d, number of offspring, 32 mg/l

**Paraffin waxes and Hydrocarbon waxes, chlorinated**

**Acute toxicity to fish**

Material is highly toxic to aquatic organisms on an acute basis (LC50/EC50 between 0.1 and 1 mg/L in the most sensitive species tested).

LC50, Oncorhynchus mykiss (rainbow trout), 96 Hour, > 0.1 mg/l

**Chronic toxicity to fish**

Based on data from similar materials

NOEC, Oncorhynchus mykiss (rainbow trout), 60 d, 4.5 mg/l

**Isobutane**

**Acute toxicity to fish**

No relevant data found.

**4,4'-Methylenediphenyl diisocyanate**

**Acute toxicity to fish**

The measured ecotoxicity is that of the hydrolyzed product, generally under conditions maximizing production of soluble species.

Material is practically non-toxic to aquatic organisms on an acute basis (LC50/EC50/EL50/LL50 >100 mg/L in the most sensitive species tested).

Based on information for a similar material:

LC50, Danio rerio (zebra fish), static test, 96 Hour, > 1,000 mg/l, OECD Test Guideline 203 or Equivalent

**Acute toxicity to aquatic invertebrates**

Based on information for a similar material:

EC50, Daphnia magna (Water flea), static test, 24 Hour, > 1,000 mg/l, OECD Test Guideline 202 or Equivalent

**Acute toxicity to algae/aquatic plants**

Based on information for a similar material:

NOEC, Desmodesmus subspicatus (green algae), static test, 72 Hour, Growth rate inhibition, 1,640 mg/l, OECD Test Guideline 201 or Equivalent

**Toxicity to bacteria**

Based on information for a similar material:

EC50, activated sludge, static test, 3 Hour, Respiration rates., > 100 mg/l

**Toxicity to soil-dwelling organisms**

EC50, Eisenia fetida (earthworms), Based on information for a similar material:, 14 d, > 1,000 mg/kg

**Toxicity to terrestrial plants**

EC50, Avena sativa (oats), Growth inhibition, 1,000 mg/l

EC50, Lactuca sativa (lettuce), Growth inhibition, 1,000 mg/l

**Methyl ether**

**Acute toxicity to fish**

Material is practically non-toxic to aquatic organisms on an acute basis  
(LC50/EC50/EL50/LL50 >100 mg/L in the most sensitive species tested).  
LC50, Poecilia reticulata (guppy), semi-static test, 96 Hour, > 4,000 mg/l

**Acute toxicity to aquatic invertebrates**

LC50, Daphnia magna (Water flea), 48 Hour, > 4,000 mg/l, OECD Test Guideline 202 or Equivalent

**Propane**

**Acute toxicity to fish**

No relevant data found.

**Persistence and degradability**

**Polymethylenepolyphenylisocyanate, propoxylated glycerin polymer**

**Biodegradability:** For this family of materials: Material is readily biodegradable. Passes OECD test(s) for ready biodegradability.

**Diphenylmethane Diisocyanate, isomers and homologues**

**Biodegradability:** In the aquatic and terrestrial environment, material reacts with water forming predominantly insoluble polyureas which appear to be stable. In the atmospheric environment, material is expected to have a short tropospheric half-life, based on calculations and by analogy with related diisocyanates.

10-day Window: Not applicable

**Biodegradation:** 0 %

**Exposure time:** 28 d

**Method:** OECD Test Guideline 302C or Equivalent

**Polymethylenepolyphenyl polyisocyanate, polypropyleneglycol copolymer**

**Biodegradability:** Expected to degrade slowly in the environment.

**Tris(1-chloro-2-propyl) phosphate**

**Biodegradability:** Material is expected to biodegrade very slowly (in the environment). Fails to pass OECD/EEC tests for ready biodegradability. Material is ultimately biodegradable (reaches > 70% mineralization in OECD test(s) for inherent biodegradability).

10-day Window: Fail

**Biodegradation:** 14 %

**Exposure time:** 28 d

**Method:** OECD Test Guideline 301E or Equivalent

10-day Window: Not applicable

**Biodegradation:** 95 %

**Exposure time:** 64 d

**Method:** OECD Test Guideline 302A or Equivalent

**Theoretical Oxygen Demand:** 1.17 mg/mg

**Photodegradation**

**Test Type:** Half-life (indirect photolysis)

**Sensitization:** OH radicals

**Atmospheric half-life:** 0.24 d

**Method:** Estimated.

**Paraffin waxes and Hydrocarbon waxes, chlorinated**

**Biodegradability:** Expected to degrade slowly in the environment.

For similar material(s):

**Biodegradation:** 5 %

**Exposure time:** 28 d

**Method:** OECD Test Guideline 301D

**Theoretical Oxygen Demand:** 2.89 mg/mg

#### Isobutane

**Biodegradability:** Biodegradation may occur under aerobic conditions (in the presence of oxygen).

**Theoretical Oxygen Demand:** 3.58 mg/mg

#### **Photodegradation**

**Test Type:** Half-life (indirect photolysis)

**Sensitization:** OH radicals

**Atmospheric half-life:** 4.4 d

**Method:** Estimated.

#### 4,4'-Methylenediphenyl diisocyanate

**Biodegradability:** In the aquatic and terrestrial environment, material reacts with water forming predominantly insoluble polyureas which appear to be stable. In the atmospheric environment, material is expected to have a short tropospheric half-life, based on calculations and by analogy with related diisocyanates.

10-day Window: Not applicable

**Biodegradation:** 0 %

**Exposure time:** 28 d

**Method:** OECD Test Guideline 302C or Equivalent

#### Methyl ether

**Biodegradability:** Material is expected to biodegrade very slowly (in the environment). Fails to pass OECD/EEC tests for ready biodegradability.

10-day Window: Fail

**Biodegradation:** 5 %

**Exposure time:** 28 d

**Method:** OECD Test Guideline 301A or Equivalent

**Theoretical Oxygen Demand:** 2.08 mg/mg

#### **Photodegradation**

**Test Type:** Half-life (indirect photolysis)

**Sensitization:** OH radicals

**Atmospheric half-life:** 6.4 d

**Method:** Estimated.

#### Propane

**Biodegradability:** No relevant data found.

**Theoretical Oxygen Demand:** 3.64 mg/mg

#### **Photodegradation**

**Test Type:** Half-life (indirect photolysis)  
**Sensitization:** OH radicals  
**Atmospheric half-life:** 8.4 d  
**Method:** Estimated.

#### Bioaccumulative potential

##### Polymethylenepolyphenylisocyanate, propoxylated glycerin polymer

**Bioaccumulation:** No relevant data found.

##### Diphenylmethane Diisocyanate, isomers and homologues

**Bioaccumulation:** Bioconcentration potential is low (BCF < 100 or Log Pow < 3). Reacts with water. In the aquatic and terrestrial environment, movement is expected to be limited by its reaction with water forming predominantly insoluble polyureas.

**Bioconcentration factor (BCF):** 92 Cyprinus carpio (Carp) 28 d

##### Polymethylenepolyphenyl polyisocyanate, polypropyleneglycol copolymer

**Bioaccumulation:** In the aquatic and terrestrial environment, movement is expected to be limited by its reaction with water forming predominantly insoluble polyureas.

##### Tris(1-chloro-2-propyl) phosphate

**Bioaccumulation:** Bioconcentration potential is low (BCF < 100 or Log Pow < 3).

**Partition coefficient: n-octanol/water(log Pow):** 2.59 Measured

**Bioconcentration factor (BCF):** 0.8 - 4.6 Cyprinus carpio (Carp) 42 d Measured

##### Paraffin waxes and Hydrocarbon waxes, chlorinated

**Bioaccumulation:** Bioconcentration potential is low (BCF less than 100 or log Pow greater than 7).

**Partition coefficient: n-octanol/water(log Pow):** 7.4 Estimated.

##### Isobutane

**Bioaccumulation:** Bioconcentration potential is low (BCF < 100 or Log Pow < 3).

**Partition coefficient: n-octanol/water(log Pow):** 2.76 Measured

##### 4,4'-Methylenediphenyl diisocyanate

**Bioaccumulation:** Bioconcentration potential is low (BCF < 100 or Log Pow < 3). Reacts with water. In the aquatic and terrestrial environment, movement is expected to be limited by its reaction with water forming predominantly insoluble polyureas.

**Bioconcentration factor (BCF):** 92 Cyprinus carpio (Carp) 28 d

##### Methyl ether

**Bioaccumulation:** Bioconcentration potential is low (BCF < 100 or Log Pow < 3).

**Partition coefficient: n-octanol/water(log Pow):** 0.10 Measured

##### Propane

**Bioaccumulation:** Bioconcentration potential is low (BCF < 100 or Log Pow < 3).

**Partition coefficient: n-octanol/water(log Pow):** 2.36 Measured

#### Mobility in soil

##### Polymethylenepolyphenylisocyanate, propoxylated glycerin polymer

No relevant data found.

**Diphenylmethane Diisocyanate, isomers and homologues**

In the aquatic and terrestrial environment, movement is expected to be limited by its reaction with water forming predominantly insoluble polyureas.

**Polymethylenepolyphenyl polyisocyanate, polypropyleneglycol copolymer**

In the aquatic and terrestrial environment, movement is expected to be limited by its reaction with water forming predominantly insoluble polyureas.

**Tris(1-chloro-2-propyl) phosphate**

Potential for mobility in soil is slight (Koc between 2000 and 5000).

**Partition coefficient (Koc):** 1300 Estimated.

**Paraffin waxes and Hydrocarbon waxes, chlorinated**

Given its very low Henry's constant, volatilization from natural bodies of water or moist soil is not expected to be an important fate process.

Expected to be relatively immobile in soil (Koc > 5000).

**Partition coefficient (Koc):** > 5000 Estimated.

**Isobutane**

Potential for mobility in soil is very high (Koc between 0 and 50).

**Partition coefficient (Koc):** 35 Estimated.

**4,4'-Methylenediphenyl diisocyanate**

In the aquatic and terrestrial environment, movement is expected to be limited by its reaction with water forming predominantly insoluble polyureas.

**Methyl ether**

Potential for mobility in soil is very high (Koc between 0 and 50).

**Partition coefficient (Koc):** 1.29 - 14 Estimated.

**Propane**

Potential for mobility in soil is very high (Koc between 0 and 50).

**Partition coefficient (Koc):** 24 - 460 Estimated.

---

---

## **13. DISPOSAL CONSIDERATIONS**

---

**Disposal methods:** DO NOT DUMP INTO ANY SEWERS, ON THE GROUND, OR INTO ANY BODY OF WATER. All disposal practices must be in compliance with all Federal, State/Provincial and local laws and regulations. Regulations may vary in different locations. Waste characterizations and compliance with applicable laws are the responsibility solely of the waste generator. AS YOUR SUPPLIER, WE HAVE NO CONTROL OVER THE MANAGEMENT PRACTICES OR MANUFACTURING PROCESSES OF PARTIES HANDLING OR USING THIS MATERIAL. THE INFORMATION PRESENTED HERE PERTAINS ONLY TO THE PRODUCT AS SHIPPED IN ITS INTENDED CONDITION AS DESCRIBED IN MSDS SECTION: Composition Information. FOR UNUSED & UNCONTAMINATED PRODUCT, the preferred options include sending to a licensed, permitted: Incinerator or other thermal destruction device.

---

## 14. TRANSPORT INFORMATION

---

### DOT

Proper shipping name	Aerosols
UN number	UN 1950
Class	2.1
Packing group	

### Classification for SEA transport (IMO-IMDG):

Proper shipping name	AEROSOLS
UN number	UN 1950
Class	2.1
Packing group	
Marine pollutant	Paraffin waxes and Hydrocarbon waxes, chlorinated
Transport in bulk according to Annex I or II of MARPOL 73/78 and the IBC or IGC Code	Consult IMO regulations before transporting ocean bulk

### Classification for AIR transport (IATA/ICAO):

Proper shipping name	Aerosols, flammable
UN number	UN 1950
Class	2.1
Packing group	

This information is not intended to convey all specific regulatory or operational requirements/information relating to this product. Transportation classifications may vary by container volume and may be influenced by regional or country variations in regulations. Additional transportation system information can be obtained through an authorized sales or customer service representative. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the material.

---

## 15. REGULATORY INFORMATION

---

### Superfund Amendments and Reauthorization Act of 1986 Title III (Emergency Planning and Community Right-to-Know Act of 1986) Sections 311 and 312

Flammable (gases, aerosols, liquids, or solids)  
Gases under pressure  
Skin corrosion or irritation  
Serious eye damage or eye irritation  
Respiratory or skin sensitisation  
Reproductive toxicity  
Specific target organ toxicity (single or repeated exposure)

**Superfund Amendments and Reauthorization Act of 1986 Title III (Emergency Planning and Community Right-to-Know Act of 1986) Section 313**

This product contains the following substances which are subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and which are listed in 40 CFR 372.

<b>Components</b>	<b>CASRN</b>
Diphenylmethane Diisocyanate, isomers and homologues	9016-87-9
4,4'-Methylenediphenyl diisocyanate	101-68-8

**Pennsylvania Worker and Community Right-To-Know Act:**

The following chemicals are listed because of the additional requirements of Pennsylvania law:

<b>Components</b>	<b>CASRN</b>
Isobutane	75-28-5
Methyl ether	115-10-6
Propane	74-98-6

**California Prop. 65**

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

**United States TSCA Inventory (TSCA)**

All components of this product are in compliance with the inventory listing requirements of the U.S. Toxic Substances Control Act (TSCA) Chemical Substance Inventory.

---

---

**16. OTHER INFORMATION**

---

---

**Revision**

Identification Number: 157914 / A749 / Issue Date: 10/17/2018 / Version: 8.1

Most recent revision(s) are noted by the bold, double bars in left-hand margin throughout this document.

**Legend**

ACGIH	USA. ACGIH Threshold Limit Values (TLV)
Asphyxiant	Asphyxiant
C	Ceiling
CAL PEL	California permissible exposure limits for chemical contaminants (Title 8, Article 107)
Dow IHG	Dow Industrial Hygiene Guideline
OSHA Z-1	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
PEL	Permissible exposure limit
STEL	Short term exposure limit
TWA	Time weighted average
US WEEL	USA. Workplace Environmental Exposure Levels (WEEL)

**Full text of other abbreviations**

AICS - Australian Inventory of Chemical Substances; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; EHS - Extremely Hazardous Substance; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; HMIS - Hazardous Materials Identification System; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ - Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

#### **Information Source and References**

This SDS is prepared by Product Regulatory Services and Hazard Communications Groups from information supplied by internal references within our company.

DDP SPECIALTY ELECTRONIC MATERIALS US, INC. urges each customer or recipient of this (M)SDS to study it carefully and consult appropriate expertise, as necessary or appropriate, to become aware of and understand the data contained in this (M)SDS and any hazards associated with the product. The information herein is provided in good faith and believed to be accurate as of the effective date shown above. However, no warranty, express or implied, is given. Regulatory requirements are subject to change and may differ between various locations. It is the buyer's/user's responsibility to ensure that his activities comply with all federal, state, provincial or local laws. The information presented here pertains only to the product as shipped. Since conditions for use of the product are not under the control of the manufacturer, it is the buyer's/user's duty to determine the conditions necessary for the safe use of this product. Due to the proliferation of sources for information such as manufacturer-specific (M)SDSs, we are not and cannot be responsible for (M)SDSs obtained from any source other than ourselves. If you have obtained an (M)SDS from another source or if you are not sure that the (M)SDS you have is current, please contact us for the most current version.

US

# Safety Data Sheet

## Per GHS Standard Format

### SECTION 1: CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

#### Product Identifier

**Product Name:** Grip-Tack™ No. 6408 Clear

**Recommended Use of Product:** Lockdown & Adhesive for Lead & Asbestos

#### Information on the Supplier of the Safety Data Sheet

Manufactured For:  
Fiberlock Technologies  
150 Dascomb Road  
Andover, MA 01810

Emergency Telephone Numbers:  
CHEM TEL: (U.S.): 1-800-255-3924  
(Outside the U.S.): 813-248-0585

P: 978-623-9980 F: 978-475-6205

### SECTION 2: HAZARDS IDENTIFICATION

Signal Word: **WARNING**



#### GHS Label Statements

Hazard Statements:

Can cause mild skin irritation.

Can cause eye irritation.

#### GHS Classifications

This product is considered hazardous by The 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Eye Irritation-C

Skin Irritation-Category 2

#### PRECAUTIONARY STATEMENTS

**Prevention:** Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protection (eye protection, gloves) during application. When grinding/sanding dry films, wear respiratory protection.

**Response:** If on skin or hair, wash with plenty of soap and water. Remove/Take off immediately all contaminated clothing. If in eyes, rinse cautiously for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. If inhaled, remove victim to fresh air. If exposed or concerned, immediately call a poison control center.

**Storage:** Store locked up. Store in corrosive resistant/container with a resistant inner liner. Keep away from incompatibles. Store in well ventilated area. Store away from foodstuffs. Keep containers. Securely sealed and protected against physical damage. Store away from sources of heat or ignition. Keep dry and protect from direct sunlight. Protect from freezing.

Extremely corrosive in presence of copper, brass and stainless steel. Highly corrosive in presence of aluminum. Mild corrosive effect on bronze. Corrosive to ferrous metals and alloys. Non-corrosive in presence of glass.

**Disposal:** Whatever cannot be saved for recovery or recycling should be disposed of according to relevant local, state and federal government regulations. Dispose container as hazardous waste.

### **SECTION 3: COMPOSITION INFORMATION ON INGREDIENTS**

<u>Chemical Name</u>	<u>CAS No.</u>	<u>Weight, %</u>
Ammonium Hydroxide, ACS	1336-21-6	<0.1
Water	7732-18-5	45-60
Proprietary polymer	confidential	40-55

### **SECTION 4: FIRST AID MEASURES**

#### **General Advice**

Show this safety data sheet to the doctor in attendance. Immediate medical attention is required.

#### **Eye Contact**

Protect unexposed eye. Rinse or flush exposed eye gently using water for 15-20 minutes. Remove contact lenses while rinsing. Seek medical attention if irritation persists or if concerned.

#### **Skin Contact**

Wash hands and exposed skin with soap and plenty of water. Seek medical attention if irritation persists or concerned.

#### **Inhalation**

Loosen clothing as necessary and position individual in a comfortable position. Move exposed to fresh air. Give artificial respiration if necessary. If breathing is difficult give oxygen. Seek medical assistance if cough or other symptoms appear.

#### **Ingestion**

Rinse mouth thoroughly. Do not induce vomiting. Never give anything by mouth to an unconscious person. Seek medical attention if irritation persists or if concerned.

#### **Most important symptoms and effects, both acute and delayed**

#### **Most Important Symptoms and Effects**

Irritation, Headache, Nausea, Shortness of breath; 1336-21-6: Upper respiratory tract irritation, eye damage

#### **Indication of any immediate medical attention and special treatment needed**

#### **Notes to Physician**

If seeking medical attention provide SDS document to physician. Physician should treat symptomatically.

## SECTION 5: FIRE-FIGHTING MEASURES

**Suitable Extinguishing Media:** Use water, dry chemical, chemical foam, carbon dioxide, or alcohol-resistant foam.

**Specific Hazards Arising from the Chemical:** Thermal decomposition can lead to release of irritating gases and vapors.

**Protective Equipment and Precautions for Firefighters:** Wear protective eyewear, gloves, and clothing. Refer to Section 8. Wear chemical protective clothing and positive pressure self-contained breathing apparatus (SCBA).

**Additional Information (Precautions):** Avoid inhaling gases, fumes, dust, mist, vapor, and aerosols. Avoid contact with skin, eyes, and clothing.

## SECTION 6: ACCIDENTAL RELEASE MEASURES

### **Personal Precautions, Protective Equipment and Emergency Procedures**

**Personal Precautions:** Ensure adequate ventilation. Ensure that air-handling systems are operational.

**Other Information:** Refer to protective measures listed in Sections 7 & 8.

### **Environmental Precautions**

**Environmental Precautions:** Should not be released into environment. Prevent from reaching drains, sewer, or waterway.

### **Methods and Material for Containment and Cleaning Up**

Wear protective eyewear, gloves, and clothing. Refer to Section 8. Containerize for disposal. Refer to Section 13. If necessary use trained response staff or contractor. Evacuate personnel to safe areas. Keep in suitable closed containers for disposal. Absorb with suitable material.

## SECTION 7: HANDLING AND STORAGE

### **Precautions for Safe Handling**

**Handling:** Avoid contact with skin, eyes, and clothing. Follow good hygiene procedures when handling chemical materials. Refer to Section 8. Follow proper disposal methods. Refer to Section 13. Do not eat, drink, smoke, or use personal products when handling chemical substances.

### **Conditions for Safe Storage, Including any Incompatibilities**

Store in a cool location. Keep away from food and beverages. Protect from freezing and physical damage. Provide ventilation for containers. Keep container tightly sealed. Store away from incompatible materials.

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### Exposure Guidelines

#### Appropriate Engineering Controls

Emergency eye wash fountains and safety showers should be available in the immediate vicinity of use or handling. Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapor and mists below the applicable workplace exposure limits (Occupational Exposure Limits-OELs) indicated above.

#### Individual Protection Measures, such as Personal Protective Equipment

**Eye/Face Protection:** Wear equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166 (EU). Safety glasses or goggles are appropriate eye protection.

**Skin and Body Protection:** Select glove material impermeable and resistant to the substance. Select glove material based on rates of diffusion and degradation. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Use proper glove removal technique without touching outer surface. Avoid skin contact with used gloves. Wear protective clothing.

**Respiratory Protection:** Not required under normal conditions of use. Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. When necessary use NIOSH approved breathing equipment.

**Hygiene Measures:** Perform routine housekeeping. Wash hands before breaks and at the end of work. Avoid contact with skin, eyes, and clothing. Before wearing wash contaminated clothing. Do not eat, drink or smoke in work areas.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

**Appearance (Physical state, color):** Liquid. White, color when dry

**Odor:** Slight, sweet

**Odor Threshold:** Not determined

<u>Property</u>	<u>Values</u>	<u>Remarks/Method</u>
pH	6-9	None known
Melting/freezing point	Approximately 0°C	None known
Boiling point/boiling range	100°C at 17 mm Hg	None known
Flash Point (closed cup)	Not determined	None known
Evaporation rate	Not determined	None known
Flammability (solid, gas)	Not determined	None known
Flammability Limit in Air		
Upper flammability limit	Not determined	None known
Lower flammability limit	Not determined	None known
Vapor pressure	17 mm HG @20°C	None known
Vapor density	<1	None known
Relative density	Not determined	

Specific Gravity	No data available	None known
Solubilities	Miscible	None known
Partition coefficient: n-octanol/water	Not determined	None known
Autoignition temperature	Not determined	None known
Decomposition temperature	>177°C	None known
Kinematic viscosity	Not determined	None known
Dynamic viscosity	Not determined	None known
Density	1.00-1.03	None known
Recommended storage temp.	1.0°C-49°C	None known

## SECTION 10: STABILITY AND REACTIVITY

### Reactivity

Nonreactive under normal conditions.

### Conditions to Avoid

Incompatible materials.

### Chemical Stability

Stable under normal conditions

### Possibility of Hazardous Reactions

None under normal processing

## SECTION 11: TOXICOLOGICAL INFORMATION

### Acute Toxicity

Oral:	1336-21-6	Ammonium Hydroxide: LDSO: 350 mg/kg (rat)
-------	-----------	---

Chronic Toxicity: No additional information.

Corrosion Irritation: No additional information.

Sensitization:	Skin Sens. 1
Single Target Organ (STOT):	No additional information.
Numerical Measures:	No additional information.
Carcinogenicity:	No additional information.
Mutagenicity:	No additional information.
Reproductive Toxicity:	No additional information.

## SECTION 12: ECOLOGICAL INFORMATION

**Ecotoxicity:** No information available

**Persistence and Degradability:** No information available

**Bioaccumulation Potential:** No information available

**Other Adverse Effects:** No information available

## SECTION 13: DISPOSAL CONSIDERATIONS

**Waste Disposal Recommendations:** Contact a licensed professional waste disposal service to dispose of this material. Dispose of empty containers as unused product. Product or containers must not be disposed with household garbage. It is the responsibility of the waste generator to properly characterize all waste materials according to applicable regulatory entities (US40CFR262.11). Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations. Ensure complete and accurate classification.

## SECTION 14: TRANSPORT INFORMATION

### **UN-Number**

Not Regulated, non-hazardous water-based polymer emulsion.

### **UN Proper Shipping Name**

Not Regulated, non-hazardous water-based polymer emulsion.

**Transport Hazard class(es) Packing Group:** Not Regulated

**Environmental Hazard:** None known, contain spills and avoid ground water sources with run-off

**Transport in bulk:** Spills should be contained if they do occur

**Special precautions for user:** This is a non-hazardous, water-based polymer emulsion. There are no special precautions. This is a white liquid, so as with any material, spills should be avoided.

## SECTION 15: REGULATORY INFORMATION

### **United States (USA)**

**SARA Section 311/312 (Specific toxic chemical listings):** Acute

**SARA Section 313 (Specific toxic chemical listings):** 1336-21-6 Ammonium hydroxide

**RCRA (hazardous waste code):** None of the ingredients is listed

**TSCA (Toxic Substances Control Act):** All ingredients are listed.

**CERCLA (Comprehensive Environmental Response, Compensation, and Liability Act):** 1336-21-6 Ammonium Hydroxide

### **Proposition 65 (California):**

**Chemicals known to cause cancer:** None of the ingredients is listed

**Chemicals known to cause reproductive toxicity for females:** None of the ingredients is listed

**Chemicals known to cause reproductive toxicity for males:** None of the ingredients is listed

**Chemicals known to cause developmental toxicity:** None of the ingredients is listed

### **Canada**

**Canadian Domestic Substances List (DSL):** All ingredients are listed.

**Canadian NPRI Ingredient Disclosure list (limit 0.1%):** None of the ingredients is listed

**Canadian NPRI Ingredient Disclosure list (limit 1%):** 1336-21-6 Ammonium hydroxide

## SECTION 16: OTHER INFORMATION

NFPA	Health Hazards 1	Flammability 0	Instability 0	Special Hazard -
HMIS	Health Hazards 1	Flammability 0	Physical Hazard 0	Personal Protection A

This product has been classified in accordance with hazard criteria of the Controlled Products Regulations and the SDS contains all the information required by the Controlled Products Regulations.

Note: The responsibility to provide a safe workplace remains with the user. The user should consider the health hazards and safety information contained herein as a guide and should take those precautions required in an individual operation to instruct employees and develop work practice procedures for a safe work environment. The information contained herein is, to the best of our knowledge and belief, accurate. However, since the conditions of handling and use are beyond our control, we make no guarantee of results, and assume no liability for damages incurred by the use of this material. It is the responsibility of the user to comply with all applicable laws and regulations applicable to this material.

**WARNING!** If you scrape, sand or remove old paint, you may release lead dust. LEAD IS TOXIC. EXPOSURE TO LEAD DUST CAN CAUSE SERIOUS ILLNESS, SUCH AS BRAIN DAMAGE, ESPECIALLY IN CHILDREN. PREGNANT WOMEN SHOULD ALSO AVOID EXPOSURE. Wear NIOSH-approved respirator to control lead exposure. Clean up carefully with a HEPA vacuum and wet mop. Before you start, find out how to protect yourself and your family by contacting the National Lead Information Hotline at 1-800-424-LEAD (5323) or log on to: [www.epa.gov/lead](http://www.epa.gov/lead)

### Abbreviations and Acronyms:

IMDG: International Maritime Code for Dangerous Goods PNEC: Predicted No-Effect Concentration (REACH) CFR: Code of Federal Regulations (USA)

SARA: Superfund Amendments and Reauthorization Act (USA) RCRA: Resource Conservation and Recovery Act (USA)

TSCA: Toxic Substances Control Act (USA)

NPRI: National Pollutant Release Inventory (Canada) DOT: US Department of Transportation IATA: International Air Transport Association

GHS: Globally Harmonized System of Classification and Labelling of Chemicals ACGIH: American Conference of Governmental Industrial Hygienists

CAS: Chemical Abstracts Service (division of the American Chemical Society) NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

WHMIS: Workplace Hazardous Materials Information System (Canada) DNEL: Derived No-Effect Level (REACH)

# Heavy Duty Antifreeze/Coolant 50/50 Premixed

## SECTION 1. IDENTIFICATION

Product Identifier	Heavy Duty Antifreeze/Coolant 50/50 Premixed
Other Means of Identification	16-474, 16-474GD, 16-475, 26-479, 26-479-1000, 26-479PC, 36-474E, 36-474STP, 36-474STPEXP, 36-478FS-1000, 36-478FS-1500, 36-478FS-1600, 86-474, 86-478, 86-479, BULK-16240HD-50, BULK-16280-50, BULK-86280-50, BULK-TRUCK26479
Recommended Use	Please refer to Product label.
Restrictions on Use	None known.
Manufacturer / Supplier	Recochem Inc., 850 Montee de Liesse, Montreal, QC, H4T 1P4, Compliance and Regulatory Department, 905-878-5544, www.recochem.com
Emergency Phone No.	CANUTEC, 613-996-6666, 24 Hours
SDS No.	1554

## SECTION 2. HAZARDS IDENTIFICATION

### GHS Classification

Acute toxicity (Oral) - Category 4; Reproductive Toxicity - Category 1B; Specific target organ toxicity (repeated exposure) - Category 2

### GHS Label Elements



Signal Word:  
Danger

### Hazard Statement(s):

H302 Harmful if swallowed.  
H360 May damage fertility or the unborn child.  
H373 May cause damage to organs (kidneys) through prolonged or repeated exposure following skin contact and/or if swallowed.

### Precautionary Statement(s):

#### Prevention:

P201 Obtain special instructions before use.  
P202 Do not handle until all safety precautions have been read and understood.  
P260 Do not breathe fume, mist, vapours, spray.  
P264 Wash hands and skin thoroughly after handling.  
P270 Do not eat, drink or smoke when using this product.  
P280 Wear protective gloves/protective clothing/eye protection/face protection.

#### Response:

P301 + P310 IF SWALLOWED: Immediately call a POISON CENTRE/doctor.

---

Product Identifier: Heavy Duty Antifreeze/Coolant 50/50 Premixed  
SDS No.: 1554  
Date of Preparation: October 01, 2015

P330 Rinse mouth.  
P308 + P313 IF exposed or concerned: Get medical advice/attention.  
P314 Get medical advice/attention if you feel unwell.

Storage:  
Store in a well ventilated place. Keep cool. Keep container tightly closed. Store locked up.

Disposal:  
Dispose of contents/container in accordance with applicable regional, national and local laws and regulations.  
Other Hazards  
None known.

### SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Mixture:

Chemical Name	CAS No.	%	Other Identifiers
Ethylene glycol	107-21-1	40-70	
Sodium Salt of Boron Acid	CBI*		

Notes

The specific chemical identity and/or exact percentage of composition (concentration) has been withheld as a trade secret.

### SECTION 4. FIRST-AID MEASURES

First-aid Measures

Inhalation

Remove source of exposure or move to fresh air. Call a Poison Centre or doctor if you feel unwell or are concerned.

Skin Contact

Take off contaminated clothing, shoes and leather goods (e.g. watchbands, belts). Wash gently and thoroughly with lukewarm, gently flowing water and mild soap for 5 minutes. Call a Poison Centre or doctor if you feel unwell or are concerned. Clean clothing, shoes and leather goods.

Eye Contact

If eye irritation persists, get medical advice/attention. Immediately rinse the contaminated eye(s) with lukewarm, gently flowing water for 15-20 minutes, while holding the eyelid(s) open.

Ingestion

Rinse mouth with water. Call a Poison Centre or doctor if you feel unwell or are concerned.

Most Important Symptoms and Effects, Acute and Delayed

If swallowed: There are 3 stages of effects, which can overlap. Early symptoms can include upset stomach, slurred speech, clumsiness, drowsiness, and convulsions. Second stage symptoms can include rapid heartbeat and breathing, bluish lips and skin, fluid in the lungs and heart failure. In the last stage, there can be kidney stones and kidney damage with lower back pain, and increased then decreased urine production. There may be delayed nervous system effects such as paralysis of the face, clumsiness, impaired hearing and blurred vision. Death can occur at any stage.

Immediate Medical Attention and Special Treatment

Target Organs

Digestive system, nervous system, heart, digestive system, kidneys, skin.

Special Instructions

The signs and symptoms in ethylene glycol poisoning are those of metabolic acidosis, central nervous system depression and kidney injury. Clinical chemistry may reveal anion-gap metabolic acidosis and uremia. Treatment with ethanol to inhibit the metabolism of glycol to oxalate. Early administration of ethanol may counter the toxic

Product Identifier: Heavy Duty Antifreeze/Coolant 50/50 Premixed  
SDS No.: 1554  
Date of Preparation: October 01, 2015

effects of ethylene glycol (cardiopulmonary effects attributed to metabolic acidosis and renal damage). Hemodialysis or peritoneal dialysis have been of benefit. Pre-existing respiratory and skin disorders may be aggravated by over-exposure to this product. Treat symptomatically and supportively.

Medical Conditions Aggravated by Exposure

Dermatitis.

## SECTION 5. FIRE-FIGHTING MEASURES

### Extinguishing Media

Suitable Extinguishing Media

Carbon dioxide, dry chemical powder or appropriate foam.

Unsuitable Extinguishing Media

None known.

### Specific Hazards Arising from the Chemical

Can ignite if strongly heated.

In a fire, the following hazardous materials may be generated: irritating chemicals.

### Special Protective Equipment and Precautions for Fire-fighters

Review Section 6 (Accidental Release Measures) for important information on responding to leaks/spills.

See Skin Protection in Section 8 (Exposure Controls/Personal Protection) for advice on suitable chemical protective materials.

## SECTION 6. ACCIDENTAL RELEASE MEASURES

### Personal Precautions, Protective Equipment, and Emergency Procedures

Use the personal protective equipment recommended in Section 8 of this safety data sheet.

### Environmental Precautions

Do not allow into any sewer, on the ground or into any waterway.

### Methods and Materials for Containment and Cleaning Up

Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see section 13). Use spark-proof tools and explosion-proof equipment. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see section 1 for emergency contact information and section 13 for waste disposal.

## SECTION 7. HANDLING AND STORAGE

### Precautions for Safe Handling

Put on appropriate personal protective equipment (see section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapour or mist. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use non-sparking tools. Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material. Empty containers retain product residue and can be hazardous. Do not reuse container.

### Conditions for Safe Storage

Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see section 10) and food and drink. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and

---

Product Identifier: Heavy Duty Antifreeze/Coolant 50/50 Premixed

SDS No.: 1554

Page 03 of 08

Date of Preparation: October 01, 2015

sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

## SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Control Parameters

Chemical Name	ACGIH TLV®		OSHA PEL		AIHA WEEL	
	TWA	STEL	TWA	Ceiling	8-hr TWA	TWA
Ethylene glycol	10 mg/m <sup>3</sup>	100 mg/m <sup>3</sup>	Not established	50 ppm		
Sodium Salt of Boron Acid	Not established	Not established	Not established	Not established		

### Appropriate Engineering Controls

The hazard potential of this product is relatively low. General ventilation is usually adequate. Use local exhaust ventilation, if general ventilation is not adequate to control amount in the air.

### Individual Protection Measures

#### Eye/Face Protection

Not required but it is good practice to wear safety glasses or chemical safety goggles.

#### Skin Protection

Wear chemical protective clothing e.g. gloves, aprons, boots.

Nitrile rubber.

#### Respiratory Protection

Not normally required if product is used as directed. For non-routine or emergency situations: wear a NIOSH approved air-purifying respirator with an appropriate cartridge.

## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

### Basic Physical and Chemical Properties

Appearance	Clear violet liquid.
Odour	Not available
Odour Threshold	Not available
pH	10 - 11 (100% solution)
Melting Point/Freezing Point	-37 °C (-35 °F) (melting); -37 °C (-35 °F) (freezing)
Initial Boiling Point/Range	129 °C (264 °F)
Flash Point	Not available
Evaporation Rate	Not available
Flammability (solid, gas)	Not applicable
Upper/Lower Flammability or Explosive Limit	21.6 - 22.0% (Ethylene glycol) (upper); Not available (lower)
Vapour Pressure	Not available
Vapour Density (air = 1)	Not available
Relative Density (water = 1)	1.06 - 1.09 at 20 °C
Solubility	Not available in water; Soluble in all proportions in ketones (e.g. acetone).
Partition Coefficient, n-Octanol/Water (Log Kow)	Not available
Auto-ignition Temperature	Not available
Decomposition Temperature	Not available
Viscosity	Not available (kinematic); Not available (dynamic)

### Other Information

Product Identifier: Heavy Duty Antifreeze/Coolant 50/50 Premixed  
 SDS No.: 1554  
 Date of Preparation: October 01, 2015



There are 3 stages of effects, which can overlap. Early symptoms can include upset stomach, slurred speech, clumsiness, drowsiness, and convulsions. Second stage symptoms can include rapid heartbeat and breathing, bluish lips and skin, fluid in the lungs and heart failure. In the last stage, there can be kidney stones and kidney damage with lower back pain, and increased then decreased urine production. There may be delayed nervous system effects such as paralysis of the face, clumsiness, impaired hearing and blurred vision. Death can occur at any stage.

**Aspiration Hazard**

Not known to be an aspiration hazard.

**STOT (Specific Target Organ Toxicity) - Repeated Exposure**

May cause dermatitis. Symptoms may include dry, red, cracked skin (dermatitis).

May cause Following skin contact and/or if swallowed: harmful effects on the kidneys.

**Respiratory and/or Skin Sensitization**

Not known to be a respiratory sensitizer. Not known to be a skin sensitizer.

**Carcinogenicity**

Chemical Name	IARC	ACGIH®	NTP	OSHA
Ethylene glycol	Not Listed	A4	Not Listed	Not Listed
Sodium Salt of Boron Acid	Not Listed	A4	Not Listed	Not Listed

**Reproductive Toxicity**

**Development of Offspring**

If swallowed: at high concentrations animal studies show effects on the offspring. Known to cause: decreased weight. Embryotoxic (late resorptions) teratogenic(external, soft tissue and skeletal defects) may harm the unborn child. (Sodium Salt of Boron Acid)

**Sexual Function and Fertility**

May cause effects on sexual function and/or fertility. (Sodium Salt of Boron Acid)

**Effects on or via Lactation**

No information was located.

**Germ Cell Mutagenicity**

Not known to be a mutagen.

**Interactive Effects**

No information was located.

**Other Information**

TOXIC SUBSTANCE: KEEP AWAY FROM ANIMALS AND SMALL CHILDREN.

**SECTION 12. ECOLOGICAL INFORMATION**

**Toxicity**

**Acute Aquatic Toxicity**

Chemical Name	LC50 Fish	EC50 Crustacea	ErC50 Aquatic Plants	ErC50 Algae
Ethylene glycol	18500 mg/L (Oncorhynchus mykiss (rainbow trout); 96-hour; fresh water)	74000 mg/L (Daphnia magna (water flea); 24 hr)		
Sodium Salt of Boron Acid	Not available	Not available		

**Chronic Aquatic Toxicity**

Chemical Name	NOEC Fish	EC50 Fish	NOEC Crustacea	EC50 Crustacea

Ethylene glycol	39140 mg/L (Oncorhynchus mykiss (rainbow trout))		24000 mg/L (Daphnia magna (water flea))	
Sodium Salt of Boron Acid	Not available	Not available		

#### Persistence and Degradability

No information was located.

#### Bioaccumulative Potential

This product and its degradation products are not expected to bioaccumulate.

#### Mobility in Soil

No information was located.

#### Other Adverse Effects

There is no information available.

## SECTION 13. DISPOSAL CONSIDERATIONS

#### Disposal Methods

The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe way. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

## SECTION 14. TRANSPORT INFORMATION

Not regulated under Canadian TDG Regulations.

Regulation	UN No.	Proper Shipping Name	Transport Hazard Class(es)	Packing Group
US DOT	3082	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID (Ethylene glycol)	9	III

Environmental Hazards Not applicable (Ethylene glycol)

Special Precautions for User Please note: In single containers of 5000 lbs capacity or less this product is exempt from DOT regulations (non regulated). Does not require label or placards. Regulated Quantity (RQ)= 5000 lbs (2268 kg) (as ethylene glycol) For bulk shipments equal to or greater than Regulated Quantity (RQ), please adhere to classification as outlined in DOT Classification section.

Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

## SECTION 15. REGULATORY INFORMATION

#### Safety, Health and Environmental Regulations

##### Canada

Domestic Substances List (DSL) / Non-Domestic Substances List (NDSL)

All ingredients are listed on the DSL/NDSL.

##### USA

Toxic Substances Control Act (TSCA) Section 8(b)

All ingredients are listed on the TSCA Inventory.

Additional USA Regulatory Lists

Product Identifier: Heavy Duty Antifreeze/Coolant 50/50 Premixed

SDS No.: 1554

Date of Preparation: October 01, 2015

California Proposition 65:

WARNING: This product contains chemicals known to the State of California to cause birth defects.

WARNING: This product contains chemicals known to the State of California to cause Reproductive Toxicity.

## SECTION 16. OTHER INFORMATION

SDS Prepared By Compliance and Regulatory Department

Phone No. 905-878-5544

Date of Preparation October 01, 2015

Additional Information We are committed to uphold the Industry Consumer Ingredient Communication Voluntary Initiative.  
Please send us your request by visiting our website at [www.recochem.com](http://www.recochem.com).

Ingredients present (intentionally added ingredients) at a concentration of greater than one percent (1%) shall be listed in descending order of predominance. Ingredients present at a concentration of not more than one percent shall be listed but may be disclosed without respect to order of predominance.

Disclaimer Notice to reader: To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

---

Product Identifier: Heavy Duty Antifreeze/Coolant 50/50 Premixed

SDS No.: 1554

Page 08 of 08

Date of Preparation: October 01, 2015



# SAFETY DATA SHEET

Issue Date 21-Dec-2015

Revision Date 21-Dec-2015

Version 1

## 1. IDENTIFICATION

### Product identifier

**Product Name** HENRY BLUESKIN LVC SPRAY PRIMER

### Other means of identification

**Product Code** HE573737

**UN/ID no** UN3161

**Synonyms** None

### Recommended use of the chemical and restrictions on use

**Recommended Use** Adhesives and/or sealants

**Uses advised against** No information available

### Details of the supplier of the safety data sheet

#### **Manufacturer Address**

HENRY COMPANY  
999 N. Sepulveda Blvd., Suite 800  
El Segundo, CA 90245-2716  
Web Site: [www.henry.com](http://www.henry.com) [www.ca.henry.com](http://www.ca.henry.com)

### Emergency telephone number

**Company Phone Number** 800-486-1278

**Emergency Telephone** CHEMTREC: 800-424-9300

CHEMTREC: 703-527-3887

CANUTEC: 613-966-6666

## 2. HAZARDS IDENTIFICATION

### Classification

#### **OSHA Regulatory Status**

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2
Reproductive toxicity	Category 2
Specific target organ toxicity (single exposure)	Category 3
Specific target organ toxicity (repeated exposure)	Category 2
Flammable aerosols	Category 1

### Label elements

#### **Emergency Overview**

#### **Danger**

#### **Hazard statements**

Causes skin irritation

Causes serious eye irritation

Suspected of damaging fertility or the unborn child

May cause drowsiness or dizziness

May cause damage to organs through prolonged or repeated exposure

Extremely flammable aerosol

**Appearance** Liquefied gas**Physical state** Aerosol**Odor** Petroleum distillates Ester**Precautionary Statements - Prevention**

Obtain special instructions before use  
 Do not handle until all safety precautions have been read and understood  
 Use personal protective equipment as required  
 Wash face, hands and any exposed skin thoroughly after handling  
 Use only outdoors or in a well-ventilated area  
 Do not breathe dust/fume/gas/mist/vapors/spray  
 Keep away from heat/sparks/open flames/hot surfaces. - No smoking  
 Pressurized container: Do not pierce or burn, even after use  
 Do not spray on an open flame or other ignition source

**Precautionary Statements - Response**

IF exposed or concerned: Get medical advice/attention  
 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
 If eye irritation persists: Get medical advice/attention  
 IF ON SKIN: Wash with plenty of soap and water  
 If skin irritation occurs: Get medical advice/attention  
 Take off contaminated clothing and wash before reuse  
 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing

**Precautionary Statements - Storage**

Store locked up  
 Store in a well-ventilated place. Keep container tightly closed  
 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F

**Precautionary Statements - Disposal**

Dispose of contents/container to an approved waste disposal plant

**Hazards not otherwise classified (HNOC)**

Not applicable

**Other Information**

Harmful to aquatic life with long lasting effects.

**Unknown acute toxicity**

36% of the mixture consists of ingredient(s) of unknown toxicity

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

**Substance**

Not applicable

**Mixture**

Chemical Name	CAS No	Weight-%
Methyl acetate *	79-20-9	30 - 60
Synthetic Polymer Blend *	Proprietary	15 - 40
Benzene, 1-chloro-4-(trifluoromethyl)- *	98-56-6	5 - 10
Propane *	74-98-6	5 - 10
Isobutane *	75-28-5	5 - 10

Hexane *	110-54-3	1 - 5
----------	----------	-------

\*The exact percentage (concentration) of composition has been withheld as a trade secret.

#### 4. FIRST AID MEASURES

##### Description of first aid measures

<b>General advice</b>	In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible). If symptoms persist, call a physician.
<b>Eye contact</b>	Keep eye wide open while rinsing. Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. If symptoms persist, call a physician.
<b>Skin contact</b>	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. If symptoms persist, call a physician. Wash contaminated clothing before reuse.
<b>Inhalation</b>	Remove to fresh air. If breathing is irregular or stopped, administer artificial respiration. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. If symptoms persist, call a physician.
<b>Ingestion</b>	Call a physician or poison control center immediately. Do not induce vomiting without medical advice. Rinse mouth. Never give anything by mouth to an unconscious person.
<b>Self-protection of the first aider</b>	Remove all sources of ignition. Use personal protective equipment as required.

##### Most important symptoms and effects, both acute and delayed

<b>Symptoms</b>	May cause redness and tearing of the eyes. Coughing and/ or wheezing. May cause skin irritation. Drowsiness. Dizziness.
-----------------	---

##### Indication of any immediate medical attention and special treatment needed

<b>Note to physicians</b>	Treat symptomatically.
---------------------------	------------------------

#### 5. FIRE-FIGHTING MEASURES

##### Suitable extinguishing media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Dry chemical, CO<sub>2</sub>, sand, earth, water spray or regular foam.

**Unsuitable extinguishing media** Do not use a solid water stream as it may scatter and spread fire.

##### Specific hazards arising from the chemical

Most vapors are heavier than air. They will spread along ground and collect in low or confined areas (sewers, basements, tanks). Flash back possible over considerable distance. Containers may explode when heated. Thermal decomposition can lead to release of irritating and toxic gases and vapors.

##### Explosion data

**Sensitivity to Mechanical Impact** None.

**Sensitivity to Static Discharge** May be ignited by heat, sparks or flames.

##### Protective equipment and precautions for firefighters

Cool containers with flooding quantities of water until well after fire is out. As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

#### 6. ACCIDENTAL RELEASE MEASURES

##### Personal precautions, protective equipment and emergency procedures

<b>Personal precautions</b>	Remove all sources of ignition. Evacuate personnel to safe areas. Ensure adequate
-----------------------------	---

ventilation, especially in confined areas. Use personal protective equipment as required. Keep people away from and upwind of spill/leak.

**For emergency responders**

Be aware that gases can spread at ground level (heavier than air) and pay attention to the wind direction. Pay attention to flashback. Remove all sources of ignition. Use personal protective equipment as required.

**Environmental precautions****Environmental precautions**

Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. Do not flush into surface water or sanitary sewer system.

**Methods and material for containment and cleaning up****Methods for containment**

Prevent further leakage or spillage if safe to do so. Cover powder spill with plastic sheet or tarp to minimize spreading. Dike far ahead of liquid spill for later disposal.

**Methods for cleaning up**

Dam up. Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Pick up and transfer to properly labeled containers. Use only non-sparking tools.

## 7. HANDLING AND STORAGE

**Precautions for safe handling****Advice on safe handling**

Ensure adequate ventilation, especially in confined areas. Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity). Take precautionary measures against static discharges. Use spark-proof tools and explosion-proof equipment. Use personal protective equipment as required. Do not breathe dust/fume/gas/mist/vapors/spray. Contents under pressure. Do not puncture or incinerate cans.

**Conditions for safe storage, including any incompatibilities****Storage Conditions**

Keep tightly closed in a dry and cool place. Keep in properly labeled containers. Keep containers tightly closed in a cool, well-ventilated place.

**Incompatible materials**

Strong oxidizing agents. Strong acids. Strong bases.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Control parameters****Exposure Guidelines**

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Methyl acetate 79-20-9	STEL: 250 ppm TWA: 200 ppm	TWA: 200 ppm TWA: 610 mg/m <sup>3</sup>	IDLH: 3100 ppm TWA: 200 ppm TWA: 610 mg/m <sup>3</sup> STEL: 250 ppm STEL: 760 mg/m <sup>3</sup>
Benzene, 1-chloro-4-(trifluoromethyl)- 98-56-6	TWA: 2.5 mg/m <sup>3</sup> F	TWA: 2.5 mg/m <sup>3</sup> F TWA: 2.5 mg/m <sup>3</sup> dust	-
Propane 74-98-6	: See Appendix F: Minimal Oxygen Content	TWA: 1000 ppm TWA: 1800 mg/m <sup>3</sup>	IDLH: 2100 ppm TWA: 1000 ppm TWA: 1800 mg/m <sup>3</sup>
Isobutane 75-28-5	STEL: 1000 ppm	-	TWA: 800 ppm TWA: 1900 mg/m <sup>3</sup>
Hexane 110-54-3	TWA: 50 ppm S*	TWA: 500 ppm TWA: 1800 mg/m <sup>3</sup>	IDLH: 1100 ppm TWA: 50 ppm TWA: 180 mg/m <sup>3</sup>

NIOSH IDLH *Immediately Dangerous to Life or Health*

**Appropriate engineering controls**

**Engineering Controls**                      Showers  
 Eyewash stations  
 Ventilation systems.

**Individual protection measures, such as personal protective equipment**

**Eye/face protection**                      Wear safety glasses with side shields (or goggles).

**Skin and body protection**                Wear protective gloves and protective clothing.

**Respiratory protection**                    If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

**General Hygiene Considerations**        When using do not eat, drink or smoke. Regular cleaning of equipment, work area and clothing is recommended.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Information on basic physical and chemical properties**

<b>Physical state</b>	Aerosol	<b>Odor</b>	Petroleum distillates Ester
<b>Appearance</b>	Liquefied gas	<b>Odor threshold</b>	No information available
<b>Color</b>	beige		

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
<b>pH</b>	No information available	
<b>Melting point / freezing point</b>	No information available	
<b>Boiling point / boiling range</b>	< 0 °C / 32 °F	
<b>Flash point</b>	-104 °C / -155 °F	(based on components)
<b>Evaporation rate</b>	> 1	
<b>Flammability (solid, gas)</b>	No information available	
<b>Flammability Limit in Air</b>		
<b>Upper flammability limit:</b>	16	
<b>Lower flammability limit:</b>	1.2	
<b>Vapor pressure</b>	>180 mmHg	@ 25 °C
<b>Vapor density</b>	2.8	- (Air = 1)
<b>Relative density</b>	0.86	
<b>Water solubility</b>	slightly soluble	
<b>Solubility in other solvents</b>	No information available	
<b>Partition coefficient</b>	No information available	
<b>Autoignition temperature</b>	223 °C / 433 °F	
<b>Decomposition temperature</b>	No information available	
<b>Kinematic viscosity</b>	> 100 mm <sup>2</sup> /s	@ 40 °C
<b>Dynamic viscosity</b>	No information available	
<b>Explosive properties</b>	Not an explosive	
<b>Oxidizing properties</b>	Not applicable	

**Other Information**

<b>Softening point</b>	No information available
<b>Molecular weight</b>	No information available
<b>VOC Content (%)</b>	No information available
<b>Density</b>	No information available
<b>Bulk density</b>	No information available

## 10. STABILITY AND REACTIVITY

**Reactivity**

No data available

**Chemical stability**

Stable under recommended storage conditions.

**Possibility of Hazardous Reactions**

None under normal processing.

**Conditions to avoid**

Heat, flames and sparks. Elevated Temperature.

**Incompatible materials**

Strong oxidizing agents. Strong acids. Strong bases.

**Hazardous Decomposition Products**

Thermal decomposition can lead to release of irritating and toxic gases and vapors. Carbon dioxide (CO<sub>2</sub>). Carbon monoxide.

## 11. TOXICOLOGICAL INFORMATION

**Information on likely routes of exposure**

**Product Information**

<b>Inhalation</b>	May cause irritation of respiratory tract. May cause drowsiness or dizziness.
<b>Eye contact</b>	Irritating to eyes.
<b>Skin contact</b>	Irritating to skin.
<b>Ingestion</b>	No data available.

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Methyl acetate 79-20-9	> 5 g/kg ( Rat )	> 5 g/kg ( Rabbit )	= 16000 ppm ( Rat ) 4 h
Benzene, 1-chloro-4-(trifluoromethyl)- 98-56-6	= 13 g/kg ( Rat )	> 2 mL/kg ( Rabbit )	= 33 mg/L ( Rat ) 4 h
Propane 74-98-6	-	-	= 658 mg/L ( Rat ) 4 h
Isobutane 75-28-5	-	-	= 658 mg/L ( Rat ) 4 h
Hexane 110-54-3	= 25 g/kg ( Rat )	= 3000 mg/kg ( Rabbit )	= 48000 ppm ( Rat ) 4 h

**Information on toxicological effects**

**Symptoms** Vapors may cause drowsiness and dizziness. Coughing and/ or wheezing. May cause redness and tearing of the eyes. May cause skin irritation.

**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

<b>Sensitization</b>	No information available.
<b>Germ cell mutagenicity</b>	No information available.
<b>Carcinogenicity</b>	No information available.
<b>Reproductive toxicity</b>	Contains a known or suspected reproductive toxin.
<b>STOT - single exposure</b>	Target Organs. Respiratory system. Central nervous system.
<b>STOT - repeated exposure</b>	May cause disorder and damage to the. Central nervous system.
<b>Chronic toxicity</b>	Avoid repeated exposure.
<b>Target Organ Effects</b>	Respiratory system, Eyes, Skin, Central nervous system, Peripheral Nervous System (PNS).
<b>Neurological effects</b>	Intentional misuse by deliberately concentrating and inhaling contents may be harmful or fatal.
<b>Aspiration hazard</b>	No information available.

**Numerical measures of toxicity - Product Information**

The following values are calculated based on chapter 3.1 of the GHS document .

ATEmix (oral)	7,367.00 mg/kg
ATEmix (dermal)	5,053.00 mg/kg
ATEmix (inhalation-gas)	1,439,107.72
ATEmix (inhalation-vapor)	25,180.00 mg/l

## 12. ECOLOGICAL INFORMATION

### Ecotoxicity

Harmful to aquatic life with long lasting effects

50 % of the mixture consists of components(s) of unknown hazards to the aquatic environment

Chemical Name	Algae/aquatic plants	Fish	Crustacea
Methyl acetate 79-20-9	120: 72 h Desmodesmus subspicatus mg/L EC50	295 - 348: 96 h Pimephales promelas mg/L LC50 flow-through 250 - 350: 96 h Brachydanio rerio mg/L LC50 static	1026.7: 48 h Daphnia magna mg/L EC50
Benzene, 1-chloro-4-(trifluoromethyl)- 98-56-6	-	11.5 - 15.8: 48 h Lepomis macrochirus mg/L LC50 static	3.68: 48 h Daphnia magna mg/L EC50
Hexane 110-54-3	-	2.1 - 2.98: 96 h Pimephales promelas mg/L LC50 flow-through	1000: 24 h Daphnia magna mg/L EC50

### Persistence and degradability

Not readily biodegradable.

### Bioaccumulation

Bioaccumulative potential.

Chemical Name	Partition coefficient
Methyl acetate 79-20-9	0.18
Benzene, 1-chloro-4-(trifluoromethyl)- 98-56-6	3.7
Propane 74-98-6	2.3
Isobutane 75-28-5	2.88

### Other adverse effects

No information available

## 13. DISPOSAL CONSIDERATIONS

### Waste treatment methods

#### Disposal of wastes

This material, as supplied, is a hazardous waste according to federal regulations (40 CFR 261). Dispose of in accordance with federal, state and local regulations.

#### Contaminated packaging

Pressurized container: Do not pierce or burn, even after use. Do not reuse container.

#### US EPA Waste Number

D001

This product contains one or more substances that are listed with the State of California as a hazardous waste.

Chemical Name	California Hazardous Waste Status
Methyl acetate 79-20-9	Toxic Ignitable
Hexane 110-54-3	Toxic Ignitable

## 14. TRANSPORT INFORMATION

**DOT**

UN/ID no UN3161  
 Proper shipping name Liquefied gas, flammable, n.o.s.  
 Hazard Class 2.1  
 Special Provisions T50  
 Description UN3161, Liquefied gas, flammable, n.o.s. (Propane, Isobutane), 2.1  
 Emergency Response Guide Number 115

**TDG**

UN/ID no UN3161  
 Proper shipping name Liquefied gas, flammable, n.o.s.  
 Hazard Class 2.1  
 Description UN3161, Liquefied gas, flammable, n.o.s. (Propane, Isobutane), 2.1

**IATA**

Forbidden BY PASSENGER AIR  
 UN/ID no UN3161  
 Proper shipping name Liquefied gas, flammable, n.o.s.  
 Hazard Class 2.1  
 ERG Code 10L  
 Special Provisions A1  
 Description UN3161, Liquefied gas, flammable, n.o.s. (Propane, Isobutane), 2.1

**IMDG**

UN/ID no UN3161  
 Proper shipping name Liquefied gas, flammable, n.o.s.  
 Hazard Class 2.1  
 EmS-No F-D, S-U  
 Special Provisions 274  
 Description UN3161, Liquefied gas, flammable, n.o.s. (Propane, Isobutane), 2.1

<b>15. REGULATORY INFORMATION</b>
-----------------------------------

All components used in this product are on the TSCA Inventory and the Canadian DSL.

**International Inventories**

TSCA	Complies
DSL/NDL	Complies
EINECS/ELINCS	Complies
IECSC	Complies
KECL	Complies
PICCS	Complies
AICS	Complies

**Legend:**

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory  
 DSL/NDL - Canadian Domestic Substances List/Non-Domestic Substances List  
 EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances  
 ENCS - Japan Existing and New Chemical Substances  
 IECSC - China Inventory of Existing Chemical Substances  
 KECL - Korean Existing and Evaluated Chemical Substances  
 PICCS - Philippines Inventory of Chemicals and Chemical Substances  
 AICS - Australian Inventory of Chemical Substances

**US Federal Regulations****SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

Chemical Name	SARA 313 - Threshold Values %
Hexane - 110-54-3	1.0

**SARA 311/312 Hazard Categories**

Acute health hazard	Yes
Chronic Health Hazard	Yes
Fire hazard	Yes
Sudden release of pressure hazard	Yes
Reactive Hazard	No

**CWA (Clean Water Act)**

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

**CERCLA**

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

Chemical Name	Hazardous Substances RQs	CERCLA/SARA RQ	Reportable Quantity (RQ)
Hexane 110-54-3	5000 lb	-	RQ 5000 lb final RQ RQ 2270 kg final RQ

**US State Regulations****California Proposition 65**

This product does not contain any Proposition 65 chemicals

**U.S. State Right-to-Know Regulations**

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Methyl acetate 79-20-9	X	X	X
Benzene, 1-chloro-4-(trifluoromethyl)- 98-56-6	X	-	X
Propane 74-98-6	X	X	X
Isobutane 75-28-5	X	X	X
Hexane 110-54-3	X	X	X

**U.S. EPA Label Information**

EPA Pesticide Registration Number Not applicable

**16. OTHER INFORMATION, INCLUDING DATE OF PREPARATION OF THE LAST REVISION**

<b>NFPA</b>	Health hazards 2	Flammability 4	Instability 0	Physical and Chemical Properties *
<b>HMIS</b>	Health hazards 2*	Flammability 4	Physical hazards 1	Personal protection X
<i>Chronic Hazard Star Legend</i>		<i>* = Chronic Health Hazard</i>		

Issue Date 21-Dec-2015

Revision Date 21-Dec-2015

**Revision Note**

No information available

**Disclaimer**

The information provided in this Material Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

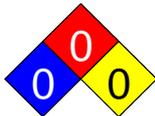
End of Safety Data Sheet

## 1 Identification

- **Product identifier**
- **Trade name:**  
**Hilti Firestop Acrylic Sealant CFS-S ACR**  
**CP 606**
- **Relevant identified uses of the substance or mixture and uses advised against**
- **Sector of Use SU19** Building and construction work
- **Application of the substance / the mixture** Construction chemicals
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
Hilti, Inc.  
5400 South 122nd East Ave.  
US-Tulsa, OK 74146  
Phone: (800) 879-8000  
Fax: (800) 879-7000  
Español: (800) 879-5000
- **Information department:**  
chemicals.hse@hilti.com  
see section 16
- **Emergency telephone number:**  
Tox Info Suisse - 24 h Service  
Tel.: 0041 / 44 251 51 51 (international)
- Chem-Trec  
Tel.: 1 800 424 9300

## 2 Hazard(s) identification

- **Classification of the substance or mixture** The product is not classified according to the Globally Harmonized System (GHS).
- **Classification according to Directive 67/548/EEC or Directive 1999/45/EC** not applicable
- **Classification system:**  
The classification was made according to the latest editions of the EU-lists, and expanded upon from company and literature data.
- **Label elements**
- **GHS label elements** Void
- **Hazard pictograms** Void
- **Signal word** Void
- **Hazard statements** Void
- **Classification system**
- **NFPA ratings (scale 0-4)**



Health = 0  
Fire = 0  
Reactivity = 0

- **Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

## 3 Composition/information on ingredients

- **Chemical characterization: Mixtures**
- **Description:** Acrylat-dispersion

**Dangerous components:**

57-55-6 propane-1,2-diol

&lt;2.5%

- **Additional information** For the wording of the listed risk phrases refer to section 16.

## 4 First-aid measures

- **Description of first aid measures**
- **General information** No special measures required.
- **After inhalation** Take affected persons into fresh air and keep quiet.
- **After skin contact** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact** Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing** Seek immediate medical advice.
- **Information for doctor**
- **Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed** No further relevant information available.

US

(Contd. on page 2)

**5 Fire-fighting measures**

- **Extinguishing media**
- **Suitable extinguishing agents** CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **Special hazards arising from the substance or mixture**  
In case of fire, the following can be released:  
Carbon monoxide (CO)  
Carbondioxide (CO2)
- **Advice for firefighters**
- **Protective equipment:** Ensure adequate ventilation

**6 Accidental release measures**

- **Personal precautions, protective equipment and emergency procedures**  
Wear protective clothing.  
Ensure adequate ventilation  
Particular danger of slipping on leaked/spilled product.
- **Environmental precautions:** No special measures required.
- **Methods and material for containment and cleaning up:**  
Pick up mechanically.  
Dispose contaminated material as waste according to item 13.
- **Reference to other sections**  
See Section 7 for information on safe handling  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.

**7 Handling and storage**

- **Handling**
- **Precautions for safe handling** Ensure good ventilation/exhaustion at the workplace.
- **Information about protection against explosions and fires:** No special measures required.
- **Conditions for safe storage, including any incompatibilities**
- **Storage**
- **Requirements to be met by storerooms and receptacles:** keep containers securely closed and dry, store at 5 - 25 °C / 41 - 77 °F
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** None.
- **Storage class** 11
- **Specific end use(s)** No further relevant information available.

**8 Exposure controls/personal protection**

- **Control parameters**
- **Components with limit values that require monitoring at the workplace:**

<b>57-55-6 propane-1,2-diol</b>
WEEL   Long-term value: 10 mg/m <sup>3</sup>

· **Additional information:** The lists that were valid during the creation were used as basis.

- **Exposure controls**
- **Personal protective equipment**
- **General protective and hygienic measures**  
The usual precautionary measures for handling chemicals should be followed.  
Avoid contact with the eyes and skin.  
Keep away from foodstuffs, beverages and feed.  
Wash hands before breaks and at the end of work.
- **Breathing equipment:** Not necessary if room is well-ventilated.
- **Protection of hands:**



Protective gloves.

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.  
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.  
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation  
EN 374

- **Material of gloves**  
Nitrile rubber, NBR  
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.
- **Penetration time of glove material**  
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

(Contd. of page 2)

## · Eye protection:



Tightly sealed goggles.

EN 166 + EN 170

## · Body protection:



Protective work clothing.

## 9 Physical and chemical properties

## · Information on basic physical and chemical properties

## · General Information

## · Appearance:

· Form:	Pasty
· Color:	According to product specification
· Odor:	Characteristic
· Odour threshold:	Not determined.

· pH-value: Not applicable.

## · Change in condition

· Melting point/Melting range:	Not determined.
· Boiling point/Boiling range:	undetermined

· Flash point: Not applicable

· Flammability (solid, gaseous) Not determined.

## · Ignition temperature:

· Decomposition temperature: Not determined.

· Auto igniting: Product is not selfigniting.

· Danger of explosion: Product does not present an explosion hazard.

## · Explosion limits:

· Lower:	Not determined.
· Upper:	Not determined.

· Vapor pressure: Not determined.

 · Density at 20 °C (68 °F): 1.55 g/cm<sup>3</sup> (12.935 lbs/gal) (DIN 51757)

· Relative density Not determined.

· Vapour density Not applicable.

· Evaporation rate Not applicable.

 · Solubility in / Miscibility with  
· Water: Not miscible or difficult to mix

· Partition coefficient (n-octanol/water): Not determined.

## · Viscosity:

· dynamic:	Not applicable.
· kinematic:	Not applicable.

· Other information VOC Content: 71 g/l (EPA Method 24)

## 10 Stability and reactivity

## · Reactivity

## · Chemical stability

· Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.

· Possibility of hazardous reactions No dangerous reactions known

· Conditions to avoid No further relevant information available.

· Incompatible materials: No further relevant information available.

· Hazardous decomposition products: No dangerous decomposition products known

## 11 Toxicological information

## · Information on toxicological effects

## · Acute toxicity:

## · Primary irritant effect:

· on the skin: No irritant effect.

· on the eye: No irritating effect.

(Contd. on page 4)

(Contd. of page 3)

 · **Sensitization:** No sensitizing effects known.

 · **Additional toxicological information:**

When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.

 · **IARC (International Agency for Research on Cancer)**

None of the ingredients is listed.

 · **NTP (National Toxicology Program)**

None of the ingredients is listed

 · **OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.

## 12 Ecological information

 · **Toxicity**

 · **Aquatic toxicity:** No further relevant information available.

 · **Persistence and degradability** No further relevant information available.

 · **Behavior in environmental systems:**

 · **Bioaccumulative potential** No further relevant information available.

 · **Mobility in soil** No further relevant information available.

 · **Additional ecological information:**

 · **General notes:** Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

 · **Results of PBT and vPvB assessment**

 · **PBT:** Not applicable.

 · **vPvB:** Not applicable.

 · **Other adverse effects** No further relevant information available.

## 13 Disposal considerations

 · **Waste treatment methods**

 · **Recommendation**

For disposal, local regulations issued by the authorities must be observed.

Smaller quantities can be disposed of with household waste.

 · **European waste catalogue:**

08 04 10 | waste adhesives and sealants other than those mentioned in 08 04 09

 · **Uncleaned packagings:**

 · **Recommendation:**

Disposal must be made according to official regulations.

Dispose of packaging according to regulations on the disposal of packagings.

## 14 Transport information

 · **UN-Number**

 · **DOT, ADR, ADN, IMDG, IATA**

Void

 · **UN proper shipping name**

 · **DOT, ADR, ADN, IMDG, IATA**

Void

 · **Transport hazard class(es)**

 · **DOT, ADR, ADN, IMDG, IATA**

 · **Class**

Void

 · **Packing group**

 · **DOT, ADR, IMDG, IATA**

Void

 · **Environmental hazards:**

 · **Marine pollutant:**

No

 · **Special precautions for user**

Not applicable.

 · **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**

Not applicable.

 · **UN "Model Regulation":**

-

## 15 Regulatory information

 · **Safety, health and environmental regulations/legislation specific for the substance or mixture**

 · **Sara**

 · **Section 355 (Extremely hazardous substances):**

None of the ingredients is listed.

 · **Section 313 (Specific toxic chemical listings):**

None of the ingredients are listed.

(Contd. on page 5)

(Contd. of page 4)

· **TSCA (Toxic Substances Control Act):**

All ingredients are listed.

· **Proposition 65:**· **Chemicals known to cause cancer:**

None of the ingredients are listed.

· **Carcinogen categories**· **EPA (Environmental Protection Agency)**

None of the ingredients is listed.

· **TLV (Threshold Limit Value established by ACGIH)**

None of the ingredients is listed.

· **MAK (German Maximum Workplace Concentration)**

None of the ingredients is listed.

· **NIOSH-Ca (National Institute for Occupational Safety and Health)**

None of the ingredients is listed.

· **Chemical safety assessment:** not required.**16 Other information**

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Department issuing SDS:**

Hilti Corporation  
Business Unit Chemicals  
Quality/Safety/Environment  
FL-9494 Schaan / Liechtenstein

chemicals.hse@hilti.com

Tel.: +423 234 3004

FAX.: +423 234 3462

· **Date of preparation / last revision** 05/18/2015 / 2· **Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)  
IMDG: International Maritime Code for Dangerous Goods  
DOT: US Department of Transportation  
IATA: International Air Transport Association  
ACGIH: American Conference of Governmental Industrial Hygienists  
EINECS: European Inventory of Existing Commercial Chemical Substances  
ELINCS: European List of Notified Chemical Substances  
CAS: Chemical Abstracts Service (division of the American Chemical Society)  
NFPA: National Fire Protection Association (USA)

· \* **Data compared to the previous version altered.**

Permatex, Inc.  
10 Columbus Blvd.  
Hartford, CT 06106 USA  
Telephone: 1-87-Permatex  
(877) 376-2839  
Emergency: 800-255-3924  
International Emergency: 813-348-0585

## Material Safety Data Sheet

### 1. PRODUCT IDENTIFICATION

**Product Name:** 78E HYDRAULIC JACK OIL 1QT CN  
**Item No:** 80054  
**Product Type:** Lubricant

### 2. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients	Percent	ACGIH 8 Hr. TWA:	OSHA 8 Hr. TWA:
DISTILLATES (PETROLEUM), HYDROTREATED HEAVY NAPHTHENIC 64742-52-5	90-100	5 mg/m <sup>3</sup> mist	5 mg/m <sup>3</sup> mist
POLYMETHACRYLATE DISPERSION MIXTURE	1-10	Not Listed	Not Listed

### 3. HAZARDS IDENTIFICATION

**Toxicity:** May cause eye, skin and respiratory irritation. Prolonged skin contact may result in dermatitis in sensitive individuals. Aspiration hazard if swallowed.  
**Primary Routes of Entry:** Eye and skin contact, ingestion, inhalation.  
**Signs and Symptoms of Exposure:** Overexposure may cause eye and skin redness. Inhaling may cause mild irritation to the nose, throat and respiratory tract and may result in central nervous system (CNS) depression.

**Medical Conditions Recognized as Being Aggravated by Exposure:** Preexisting pulmonary and dermatological disorders

### 4. FIRST AID MEASURES

**Ingestion:** If swallowed, DO NOT induce vomiting. Keep individual calm. Obtain medical attention.  
**Inhalation:** If inhaled, remove to fresh air. If not breathing give artificial respiration, preferably mouth-to-mouth. If breathing is difficult give oxygen. Get medical attention..  
**Skin Contact:** Remove contaminated clothing. Wash area with soap and water. If irritation persists, seek medical attention.  
**Eye Contact:** In case of contact, immediately flush eyes with plenty of water for at least 15 minutes and get medical attention if irritation persists.

### 5. FIRE FIGHTING MEASURES

**Flash Point (°F/C):** Greater than 200 degrees F.  
**Recommended Extinguishing Media:** Carbon Dioxide, Dry Chemicals, Foam.  
**Special Fire-Fighting Procedures:** Firefighters should wear self-contained breathing apparatus.  
**Hazardous Products Formed by Fire or Thermal Decomposition:** Carbon monoxide, Carbon dioxide,  
**Unusual Fire/Explosion Hazards:** Closed containers may rupture or explode when exposed to extreme heat.  
**Lower Explosive Limit:** Not determined.  
**Upper Explosive Limit:** Not determined.

### 6. ACCIDENTAL RELEASE MEASURES

**Spill Procedures:** Maintain good ventilation. Take up with an inert absorbent. Store in a closed waste container until disposal. Residues may be cleaned up with soap and water.

### 7. HANDLING AND STORAGE

**Storage:** Store away from heat, sparks or open flame. Do not store at temperatures above 120 degrees F.  
**Handling:** Avoid prolonged skin contact. Keep away from eyes. Do not inhale vapors.

## **8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

**Eyes:** Safety glasses or goggles.  
**Skin:** Oil resistant neoprene or plastic gloves.  
**Ventilation:** General; local exhaust ventilation as necessary to control any air contaminants to within their exposure limits during the use of this product.  
**Respiratory Protection:** An approved respirator (i.e. NIOSH, etc.) should be worn when exposures are expected to exceed the applicable limits.

## **9. PHYSICAL AND CHEMICAL PROPERTIES**

**Appearance:** Amber liquid  
**Odor:** Mild petroleum odor.  
**Boiling Point (°F):** More than 500 degrees F.  
**pH:** Does not apply  
**Solubility in Water:** Nil  
**Specific Gravity:** 0.905 @ 15 degrees C.  
**VOC Content(Wt.%):** 21.6% by weight; 195 g/l  
**Vapor Pressure:** Less than 5 mm Hg  
**Vapor Density (Air=1):** Greater than 1  
**Evaporation Rate:** <1 (butyl acetate = 1)

## **10. STABILITY AND REACTIVITY**

**Chemical Stability:** Stable at normal conditions  
**Hazardous Polymerization:** WILL NOT OCCUR  
**Incompatibilities:** Strong oxidizers.  
**Conditions to Avoid:** High temperatures.  
**Hazardous Products Formed by Fire or Thermal Decomposition:** Carbon monoxide, Carbon dioxide,

## **11. TOXICOLOGICAL INFORMATION**

See Section 3

## **12. ECOLOGICAL INFORMATION**

No data available

## **13. DISPOSAL CONSIDERATIONS**

**Recommended Method of Disposal:** Disposal should be made in accordance with federal, state and local regulations.  
**US EPA Waste Number:** NH - Not a RCRA Hazardous Waste Material

## **14. TRANSPORTATION INFORMATION**

DOT (49CFR 172)

### **Domestic Ground Transport**

**DOT Shipping Name:** Unrestricted  
**Hazard Class:** NONE  
**UN/ID Number:** None  
**Marine Pollutant:** None

### **IATA**

**Proper Shipping Name:** Unrestricted  
**Class or Division:** None  
**UN/NA Number:** None

### **IMDG**

**Proper Shipping:** Unrestricted  
**Hazard Class:** None  
**UN Number:** None

## **15. REGULATORY INFORMATION**

**SARA 313 Chemicals:** The following component(s) is listed as a SARA Section 313 Toxic Chemical.

**SARA 313 Information**  
NONE

**CALIFORNIA PROP 65:**

WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

**TSCA Inventory Status:**

**Listed on Inventory:** YES All components of this product are listed (or exempt) on the EPA TSCA inventory.

**16. OTHER INFORMATION**

**Estimated NFPA Rating:** HEALTH 1, FLAMMABILITY 1, REACTIVITY 0

**Estimated HMIS Classification:** HEALTH 1, FLAMMABILITY 1, PHYSICAL HAZARD 0

NFPA is a registered trademark of the National Fire Protection Assn.

HMIS is a registered trademark of the National Paint and Coatings Assn.

**Prepared By:** Denise Boyd, Health and Safety Manager  
**Company:** Permatex, Inc. 10 Columbus Blvd. Hartford, CT USA  
06106

**Revision Date:** 03/03/2004

**Revision** 2

**Number:**

**Telephone Number:** 1-87-Permatex (877) 376-2839

# Hydrogen Sulfide

## Safety Data Sheet P-4611

This SDS conforms to U.S. Code of Federal Regulations 29 CFR 1910.1200, Hazard Communication.

Date of issue: 01/01/1979    Revision date: 10/17/2016    Supersedes: 03/20/2015

### SECTION 1: Product and company identification

#### 1.1. Product identifier

Product form : Substance  
 Name : Hydrogen Sulfide  
 CAS No : 7783-06-4  
 Formula : H<sub>2</sub>S  
 Other means of identification : Sulfuretted hydrogen, sulfur hydride, hydrosulfuric acid, hepatic gas, stink damp

#### 1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture : Industrial use. Use as directed.

#### 1.3. Details of the supplier of the safety data sheet

Praxair, Inc.  
 10 Riverview Drive  
 Danbury, CT 06810-6268 - USA  
 T 1-800-772-9247 (1-800-PRAXAIR) - F 1-716-879-2146  
[www.praxair.com](http://www.praxair.com)

#### 1.4. Emergency telephone number

Emergency number : Onsite Emergency: 1-800-645-4633

CHEMTREC, 24hr/day 7days/week  
 — Within USA: 1-800-424-9300, Outside USA: 001-703-527-3887  
 (collect calls accepted, Contract 17729)

### SECTION 2: Hazard identification

#### 2.1. Classification of the substance or mixture

##### GHS-US classification

Flam. Gas 1 H220  
 Liquefied gas H280  
 Acute Tox. 2 (Inhalation: gas) H330  
 STOT SE 3 H335  
 Aquatic Acute 1 H400

#### 2.2. Label elements

##### GHS-US labeling

Hazard pictograms (GHS-US) :



Signal word (GHS-US) :

DANGER

Hazard statements (GHS-US) :

H220 - **EXTREMELY FLAMMABLE GAS**  
 H280 - CONTAINS GAS UNDER PRESSURE; MAY EXPLODE IF HEATED  
 H330 - FATAL IF INHALED  
 H335 - MAY CAUSE RESPIRATORY IRRITATION  
 H400 - VERY TOXIC TO AQUATIC LIFE  
 CGA-HG04 - MAY FORM EXPLOSIVE MIXTURES WITH AIR  
 CGA-HG11 - SYMPTOMS MAY BE DELAYED  
 CGA-HG16 - EXTENDED EXPOSURE TO GAS REDUCES THE ABILITY TO SMELL SULFIDES

Precautionary statements (GHS-US) :

P202 - Do not handle until all safety precautions have been read and understood  
 P210 - Keep away from Heat, Open flames, Sparks, Hot surfaces. - No smoking  
 P260 - Do not breathe gas

# Hydrogen Sulfide

## Safety Data Sheet P-4611

This SDS conforms to U.S. Code of Federal Regulations 29 CFR 1910.1200, Hazard Communication.

Date of issue: 01/01/1979 Revision date: 10/17/2016 Supersedes: 03/20/2015

P271+P403 - Use and store only outdoors or in a well-ventilated place  
 P273 - Avoid release to the environment  
 P280+P284 - Wear protective gloves, protective clothing, eye protection, respiratory protection, and/or face protection  
 P377 - Leaking gas fire: Do not extinguish, unless leak can be stopped safely  
 P381 - Eliminate all ignition sources if safe to do so  
 P405 - Store locked up  
 P501 - Dispose of contents/container in accordance with container Supplier/owner instructions  
 CGA-PG05 - Use a back flow preventive device in the piping  
 CGA-PG20+CGA-PG10 - Use only with equipment of compatible materials of construction and rated for cylinder pressure  
 CGA-PG12 - Do not open valve until connected to equipment prepared for use  
 CGA-PG18 - When returning cylinder, install leak tight valve outlet cap or plug  
 CGA-PG06 - Close valve after each use and when empty  
 CGA-PG29 - Do not depend on odor to detect the presence of gas  
 CGA-PG02 - Protect from sunlight when ambient temperature exceeds 52°C (125°F)

### 2.3. Other hazards

Other hazards not contributing to the classification : Contact with liquid may cause cold burns/frostbite.

### 2.4. Unknown acute toxicity (GHS US)

No data available

## SECTION 3: Composition/Information on ingredients

### 3.1. Substance

Name	Product identifier	%
Hydrogen Sulfide (Main constituent)	(CAS No) 7783-06-4	100

### 3.2. Mixture

Not applicable

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

First-aid measures after inhalation : Remove to fresh air and keep at rest in a position comfortable for breathing. If not breathing, give artificial respiration. If breathing is difficult, trained personnel should give oxygen. Call a physician.

First-aid measures after skin contact : The liquid may cause frostbite. For exposure to liquid, immediately warm frostbite area with warm water not to exceed 105°F (41°C). Water temperature should be tolerable to normal skin. Maintain skin warming for at least 15 minutes or until normal coloring and sensation have returned to the affected area. In case of massive exposure, remove clothing while showering with warm water. Seek medical evaluation and treatment as soon as possible.

First-aid measures after eye contact : Immediately flush eyes thoroughly with water for at least 15 minutes. Hold the eyelids open and away from the eyeballs to ensure that all surfaces are flushed thoroughly. Contact an ophthalmologist immediately.

First-aid measures after ingestion : Ingestion is not considered a potential route of exposure.

### 4.2. Most important symptoms and effects, both acute and delayed

No additional information available

### 4.3. Indication of any immediate medical attention and special treatment needed

Obtain medical assistance. Treat with corticosteroid spray as soon as possible after inhalation.

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

Suitable extinguishing media : Carbon dioxide, Dry chemical, Water spray or fog. Use extinguishing media appropriate for surrounding fire.

# Hydrogen Sulfide

## Safety Data Sheet P-4611

This SDS conforms to U.S. Code of Federal Regulations 29 CFR 1910.1200, Hazard Communication.

Date of issue: 01/01/1979    Revision date: 10/17/2016    Supersedes: 03/20/2015

### 5.2. Special hazards arising from the substance or mixture

- Fire hazard : **EXTREMELY FLAMMABLE GAS**. If venting or leaking gas catches fire, do not extinguish flames. Flammable vapors may spread from leak, creating an explosive reignition hazard. Vapors can be ignited by pilot lights, other flames, smoking, sparks, heaters, electrical equipment, static discharge, or other ignition sources at locations distant from product handling point. Explosive atmospheres may linger. Before entering an area, especially a confined area, check the atmosphere with an appropriate device.
- Explosion hazard : **EXTREMELY FLAMMABLE GAS**. Forms explosive mixtures with air and oxidizing agents.
- Reactivity : No reactivity hazard other than the effects described in sub-sections below.

### 5.3. Advice for firefighters

- Firefighting instructions : **DANGER! Toxic, flammable liquefied gas**
- Evacuate all personnel from the danger area. Use self-contained breathing apparatus (SCBA) and protective clothing. Immediately cool containers with water from maximum distance. Stop flow of gas if safe to do so, while continuing cooling water spray. Remove ignition sources if safe to do so. Remove containers from area of fire if safe to do so. On-site fire brigades must comply with OSHA 29 CFR 1910.156 and applicable standards under 29 CFR 1910 Subpart L—Fire Protection.
- Special protective equipment for fire fighters : Standard protective clothing and equipment (Self Contained Breathing Apparatus) for fire fighters.
- Other information : Containers are equipped with a pressure relief device. (Exceptions may exist where authorized by DOT.).

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

- General measures : **DANGER! Toxic, flammable liquefied gas** . Forms explosive mixtures with air and oxidizing agents. Immediately evacuate all personnel from danger area. Use self-contained breathing apparatus where needed. Remove all sources of ignition if safe to do so. Reduce vapors with fog or fine water spray, taking care not to spread liquid with water. Shut off flow if safe to do so. Ventilate area or move container to a well-ventilated area. Flammable vapors may spread from leak and could explode if reignited by sparks or flames. Explosive atmospheres may linger. Before entering area, especially confined areas, check atmosphere with an appropriate device.

#### 6.1.1. For non-emergency personnel

No additional information available

#### 6.1.2. For emergency responders

No additional information available

### 6.2. Environmental precautions

Try to stop release. Reduce vapor with fog or fine water spray. Prevent waste from contaminating the surrounding environment. Prevent soil and water pollution. Dispose of contents/container in accordance with local/regional/national/international regulations. Contact supplier for any special requirements.

### 6.3. Methods and material for containment and cleaning up

No additional information available

### 6.4. Reference to other sections

See also sections 8 and 13.

# Hydrogen Sulfide

## Safety Data Sheet P-4611

This SDS conforms to U.S. Code of Federal Regulations 29 CFR 1910.1200, Hazard Communication.

Date of issue: 01/01/1979 Revision date: 10/17/2016 Supersedes: 03/20/2015

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

- Precautions for safe handling : Leak-check system with soapy water; never use a flame
- All piped systems and associated equipment must be grounded
- Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use only non-sparking tools. Use only explosion-proof equipment
- Wear leather safety gloves and safety shoes when handling cylinders. Protect cylinders from physical damage; do not drag, roll, slide or drop. While moving cylinder, always keep in place removable valve cover. Never attempt to lift a cylinder by its cap; the cap is intended solely to protect the valve. When moving cylinders, even for short distances, use a cart (trolley, hand truck, etc.) designed to transport cylinders. Never insert an object (e.g. wrench, screwdriver, pry bar) into cap openings; doing so may damage the valve and cause a leak. Use an adjustable strap wrench to remove over-tight or rusted caps. Slowly open the valve. If the valve is hard to open, discontinue use and contact your supplier. Close the container valve after each use; keep closed even when empty. Never apply flame or localized heat directly to any part of the container. High temperatures may damage the container and could cause the pressure relief device to fail prematurely, venting the container contents. For other precautions in using this product, see section 16.

#### 7.2. Conditions for safe storage, including any incompatibilities

- Storage conditions : Store only where temperature will not exceed 125°F (52°C). Post "No Smoking/No Open Flames" signs in storage and use areas. There must be no sources of ignition. Separate packages and protect against potential fire and/or explosion damage following appropriate codes and requirements (e.g. NFPA 30, NFPA 55, NFPA 70, and/or NFPA 221 in the U.S.) or according to requirements determined by the Authority Having Jurisdiction (AHJ). Always secure containers upright to keep them from falling or being knocked over. Install valve protection cap, if provided, firmly in place by hand when the container is not in use. Store full and empty containers separately. Use a first-in, first-out inventory system to prevent storing full containers for long periods. For other precautions in using this product, see section 16
- OTHER PRECAUTIONS FOR HANDLING, STORAGE, AND USE:** When handling product under pressure, use piping and equipment adequately designed to withstand the pressures to be encountered. Never work on a pressurized system. Use a back flow preventive device in the piping. Gases can cause rapid suffocation because of oxygen deficiency; store and use with adequate ventilation. If a leak occurs, close the container valve and blow down the system in a safe and environmentally correct manner in compliance with all international, federal/national, state/provincial, and local laws; then repair the leak. Never place a container where it may become part of an electrical circuit.

#### 7.3. Specific end use(s)

None.

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

Hydrogen Sulfide (7783-06-4)		
ACGIH	ACGIH TLV-TWA (ppm)	1 ppm
ACGIH	ACGIH TLV-STEL (ppm)	5 ppm
USA OSHA	OSHA PEL (Ceiling) (ppm)	20 ppm
USA IDLH	US IDLH (ppm)	100 ppm

#### 8.2. Exposure controls

- Appropriate engineering controls : Use corrosion-resistant equipment. Use an explosion-proof local exhaust system. Local exhaust and general ventilation must be adequate to meet exposure standards. MECHANICAL (GENERAL): **Inadequate - Use only in a closed system.** Use explosion proof equipment and lighting.
- Eye protection : Wear safety glasses when handling cylinders; vapor-proof goggles and a face shield during cylinder changeout or whenever contact with product is possible. Select eye protection in accordance with OSHA 29 CFR 1910.133.

# Hydrogen Sulfide

## Safety Data Sheet P-4611

This SDS conforms to U.S. Code of Federal Regulations 29 CFR 1910.1200, Hazard Communication.

Date of issue: 01/01/1979    Revision date: 10/17/2016    Supersedes: 03/20/2015

Skin and body protection	: Wear metatarsal shoes and work gloves for cylinder handling, and protective clothing where needed. Wear appropriate chemical gloves during cylinder changeout or wherever contact with product is possible. Select per OSHA 29 CFR 1910.132, 1910.136, and 1910.138.
Respiratory protection	: When workplace conditions warrant respirator use, follow a respiratory protection program that meets OSHA 29 CFR 1910.134, ANSI Z88.2, or MSHA 30 CFR 72.710 (where applicable). Use an air-supplied or air-purifying cartridge if the action level is exceeded. Ensure that the respirator has the appropriate protection factor for the exposure level. If cartridge type respirators are used, the cartridge must be appropriate for the chemical exposure. For emergencies or instances with unknown exposure levels, use a self-contained breathing apparatus (SCBA).
Thermal hazard protection	: Wear cold insulating gloves when transfilling or breaking transfer connections. Standard EN 511 - Cold insulating gloves. None necessary.

### SECTION 9: Physical and chemical properties

#### 9.1. Information on basic physical and chemical properties

Physical state	: Gas
Appearance	: Colorless gas. Colorless liquid at low temperature or under high pressure.
Molecular mass	: 34 g/mol
Color	: Colorless.
Odor	: Odor can persist. Poor warning properties at low concentrations. Rotten eggs.
Odor threshold	: Odor threshold is subjective and inadequate to warn for overexposure.
pH	: Not applicable.
Relative evaporation rate (butyl acetate=1)	: No data available
Relative evaporation rate (ether=1)	: Not applicable.
Melting point	: -86 °C
Freezing point	: No data available
Boiling point	: -60.3 °C
Flash point	: Not applicable.
Critical temperature	: 100.4 °C
Auto-ignition temperature	: 260 °C
Decomposition temperature	: No data available
Flammability (solid, gas)	: 4.3 - 46 vol %
Vapor pressure	: 1880 kPa
Critical pressure	: 8940 kPa
Relative vapor density at 20 °C	: No data available
Relative density	: No data available
Relative gas density	: 1.2
Solubility	: Water: 3980 mg/l
Log Pow	: Not applicable.
Log Kow	: Not applicable.
Viscosity, kinematic	: Not applicable.
Viscosity, dynamic	: Not applicable.
Explosive properties	: Not applicable.
Oxidizing properties	: None.
Explosion limits	: No data available

#### 9.2. Other information

Gas group	: Liquefied gas
Additional information	: Gas/vapor heavier than air. May accumulate in confined spaces, particularly at or below ground level

# Hydrogen Sulfide

## Safety Data Sheet P-4611

This SDS conforms to U.S. Code of Federal Regulations 29 CFR 1910.1200, Hazard Communication.

Date of issue: 01/01/1979 Revision date: 10/17/2016 Supersedes: 03/20/2015

### SECTION 10: Stability and reactivity

#### 10.1. Reactivity

No reactivity hazard other than the effects described in sub-sections below.

#### 10.2. Chemical stability

Stable under normal conditions.

#### 10.3. Possibility of hazardous reactions

May react violently with oxidants. Can form explosive mixture with air.

#### 10.4. Conditions to avoid

Avoid moisture in installation systems. Keep away from heat/sparks/open flames/hot surfaces. – No smoking.

#### 10.5. Incompatible materials

Ammonia. Bases. Bromine pentafluoride. Chlorine trifluoride. chromium trioxide. (and heat). Copper. (powdered). Fluorine. Lead. Lead oxide. Mercury. Nitric acid. Nitrogen trifluoride. nitrogen sulfide. Organic compounds. Oxidizing agents. Oxygen difluoride. Rubber. Sodium. (and moisture). Water.

#### 10.6. Hazardous decomposition products

Thermal decomposition may produce : Sulfur. Hydrogen.

### SECTION 11: Toxicological information

#### 11.1. Information on toxicological effects

Acute toxicity : Inhalation:gas: FATAL IF INHALED.

Hydrogen Sulfide ( \f )7783-06-4	
LC50 inhalation rat (mg/l)	700 mg/m <sup>3</sup> (Exposure time: 4 h)
LC50 inhalation rat (ppm)	356 ppm/4h
ATE US (gases)	356.000 ppmV/4h
ATE US (vapors)	0.990 mg/l/4h
ATE US (dust, mist)	0.990 mg/l/4h

Skin corrosion/irritation : Not classified  
pH: Not applicable.

Serious eye damage/irritation : Not classified  
pH: Not applicable.

Respiratory or skin sensitization : Not classified

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

Reproductive toxicity : Not classified

Specific target organ toxicity (single exposure) : MAY CAUSE RESPIRATORY IRRITATION.

Specific target organ toxicity (repeated exposure) : Not classified

Aspiration hazard : Not classified

### SECTION 12: Ecological information

#### 12.1. Toxicity

Ecology - general : VERY TOXIC TO AQUATIC LIFE.

Hydrogen Sulfide (7783-06-4)	
LC50 fish 1	0.0448 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [flow-through])
LC50 fish 2	0.016 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through])

# Hydrogen Sulfide

## Safety Data Sheet P-4611

This SDS conforms to U.S. Code of Federal Regulations 29 CFR 1910.1200, Hazard Communication.

Date of issue: 01/01/1979    Revision date: 10/17/2016    Supersedes: 03/20/2015

### 12.2. Persistence and degradability

Hydrogen Sulfide (7783-06-4)	
Persistence and degradability	Not applicable for inorganic gases.

### 12.3. Bioaccumulative potential

Hydrogen Sulfide (7783-06-4)	
BCF fish 1	(no bioaccumulation expected)
Log Pow	Not applicable.
Log Kow	Not applicable.
Bioaccumulative potential	No data available.

### 12.4. Mobility in soil

Hydrogen Sulfide (7783-06-4)	
Mobility in soil	No data available.
Ecology - soil	Because of its high volatility, the product is unlikely to cause ground or water pollution.

### 12.5. Other adverse effects

- Other adverse effects : May cause pH changes in aqueous ecological systems.
- Effect on ozone layer : None
- Effect on the global warming : No known effects from this product

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

- Regional legislation (waste) : U.S. - RCRA (Resource Conservation & Recovery Act) - Hazardous Constituents - Appendix VIII to 40 CFR 261. U.S. - RCRA (Resource Conservation & Recovery Act) - U Series Wastes - Acutely Toxic Wastes & Other Hazardous Characteristics.
- Waste disposal recommendations : Do not attempt to dispose of residual or unused quantities. Return container to supplier.

## SECTION 14: Transport information

- In accordance with DOT
- Transport document description : UN1053 Hydrogen sulfide, 2.3
- UN-No.(DOT) : UN1053
- Proper Shipping Name (DOT) : Hydrogen sulfide
- Class (DOT) : 2.3 - Class 2.3 - Poisonous gas 49 CFR 173.115
- Hazard labels (DOT) : Poison Gas  
2.3 - Poison gas  
2.1 - Flammable gas



- DOT Special Provisions (49 CFR 172.102) : 2 - This material is poisonous by inhalation (see 171.8 of this subchapter) in Hazard Zone B (see 173.116(a) or 173.133(a) of this subchapter), and must be described as an inhalation hazard under the provisions of this subchapter  
 B9 - Bottom outlets are not authorized  
 B14 - Each bulk packaging, except a tank car or a multi-unit-tank car tank, must be insulated with an insulating material so that the overall thermal conductance at 15.5 C (60 F) is no more than 1.5333 kilojoules per hour per square meter per degree Celsius (0.075 Btu per hour per square foot per degree Fahrenheit) temperature differential. Insulating materials must not promote corrosion to steel when wet  
 N89 - When steel UN pressure receptacles are used, only those bearing the "H" mark are authorized

### Additional information

- Emergency Response Guide (ERG) Number : 117

# Hydrogen Sulfide

## Safety Data Sheet P-4611

This SDS conforms to U.S. Code of Federal Regulations 29 CFR 1910.1200, Hazard Communication.

Date of issue: 01/01/1979    Revision date: 10/17/2016    Supersedes: 03/20/2015

Other information	: No supplementary information available.
Special transport precautions	: Avoid transport on vehicles where the load space is not separated from the driver's compartment. Ensure vehicle driver is aware of the potential hazards of the load and knows what to do in the event of an accident or an emergency. Before transporting product containers: - Ensure there is adequate ventilation. - Ensure that containers are firmly secured. - Ensure cylinder valve is closed and not leaking. - Ensure valve outlet cap nut or plug (where provided) is correctly fitted. - Ensure valve protection device (where provided) is correctly fitted.

### Transport by sea

UN-No. (IMDG)	: 1053
Proper Shipping Name (IMDG)	: HYDROGEN SULPHIDE
Class (IMDG)	: 2 - Gases
MFAG-No	: 117

### Air transport

UN-No. (IATA)	: 1053
Proper Shipping Name (IATA)	: Hydrogen sulphide
Class (IATA)	: 2
Civil Aeronautics Law	: Gases under pressure/Gases toxic under pressure

## SECTION 15: Regulatory information

### 15.1. US Federal regulations

Hydrogen Sulfide (7783-06-4)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
Listed on the United States SARA Section 302	
Subject to reporting requirements of United States SARA Section 313	
CERCLA RQ	100 lb
SARA Section 302 Threshold Planning Quantity (TPQ)	500 lb
SARA Section 311/312 Hazard Classes	Sudden release of pressure hazard Immediate (acute) health hazard Fire hazard Delayed (chronic) health hazard
SARA Section 313 - Emission Reporting	1.0 %

### 15.2. International regulations

#### CANADA

Hydrogen Sulfide (7783-06-4)
Listed on the Canadian DSL (Domestic Substances List)

#### EU-Regulations

Hydrogen Sulfide (7783-06-4)
Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

# Hydrogen Sulfide

## Safety Data Sheet P-4611

This SDS conforms to U.S. Code of Federal Regulations 29 CFR 1910.1200, Hazard Communication.

Date of issue: 01/01/1979    Revision date: 10/17/2016    Supersedes: 03/20/2015

### 15.2.2. National regulations

#### Hydrogen Sulfide (7783-06-4)

Listed on the AICS (Australian Inventory of Chemical Substances)  
 Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)  
 Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory  
 Listed on the Korean ECL (Existing Chemicals List)  
 Listed on NZIoC (New Zealand Inventory of Chemicals)  
 Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)  
 Listed on the Canadian IDL (Ingredient Disclosure List)  
 Listed on INSQ (Mexican National Inventory of Chemical Substances)

### 15.3. US State regulations

#### Hydrogen Sulfide(7783-06-4)

U.S. - California - Proposition 65 - Carcinogens List	No
U.S. - California - Proposition 65 - Developmental Toxicity	No
U.S. - California - Proposition 65 - Reproductive Toxicity - Female	No
U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No
State or local regulations	U.S. - Massachusetts - Right To Know List U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List U.S. - Pennsylvania - RTK (Right to Know) List

## SECTION 16: Other information

#### Other information

: When you mix two or more chemicals, you can create additional, unexpected hazards. Obtain and evaluate the safety information for each component before you produce the mixture. Consult an industrial hygienist or other trained person when you evaluate the end product. Before using any plastics, confirm their compatibility with this product

Praxair asks users of this product to study this SDS and become aware of the product hazards and safety information. To promote safe use of this product, a user should (1) notify employees, agents, and contractors of the information in this SDS and of any other known product hazards and safety information, (2) furnish this information to each purchaser of the product, and (3) ask each purchaser to notify its employees and customers of the product hazards and safety information

The opinions expressed herein are those of qualified experts within Praxair, Inc. We believe that the information contained herein is current as of the date of this Safety Data Sheet. Since the use of this information and the conditions of use are not within the control of Praxair, Inc, it is the user's obligation to determine the conditions of safe use of the product

Praxair SDSs are furnished on sale or delivery by Praxair or the independent distributors and suppliers who package and sell our products. To obtain current SDSs for these products, contact your Praxair sales representative, local distributor, or supplier, or download from [www.praxair.com](http://www.praxair.com). If you have questions regarding Praxair SDSs, would like the document number and date of the latest SDS, or would like the names of the Praxair suppliers in your area, phone or write the Praxair Call Center (Phone: 1-800-PRAXAIR/1-800-772-9247; Address: Praxair Call Center, Praxair, Inc, P.O. Box 44, Tonawanda, NY 14151-0044)

PRAXAIR and the Flowing Airstream design are trademarks or registered trademarks of Praxair Technology, Inc. in the United States and/or other countries.

# Hydrogen Sulfide

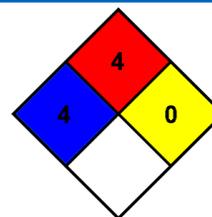
## Safety Data Sheet P-4611

This SDS conforms to U.S. Code of Federal Regulations 29 CFR 1910.1200, Hazard Communication.

Date of issue: 01/01/1979    Revision date: 10/17/2016    Supersedes: 03/20/2015

---

NFPA health hazard	: 4 - Very short exposure could cause death or serious residual injury even though prompt medical attention was given.
NFPA fire hazard	: 4 - Will rapidly or completely vaporize at normal pressure and temperature, or is readily dispersed in air and will burn readily.
NFPA reactivity	: 0 - Normally stable, even under fire exposure conditions, and are not reactive with water.



### HMIS III Rating

Health	: 2 Moderate Hazard - Temporary or minor injury may occur
Flammability	: 4 Severe Hazard
Physical	: 2 Moderate Hazard

SDS US (GHS HazCom 2012) - Praxair

*This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.*



# SAFETY DATA SHEET

Issue Date 26-Mar-2009

Revision Date 31-Oct-2016

## 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product identifier

Product Name Ingersoll Rand XL300 Compressor Oil  
Part nos. 32268443, 37949757, 32268435, 32268419

Other means of identification

Product Code AROOBU91

Synonyms None

Recommended use of the chemical and restrictions on use

Recommended Use Lubricant.  
Uses advised against No information available

Details of the supplier of the safety data sheet

Manufacturer Address  
Spectrum Lubricants Corporation 500 Industrial Park Drive, Selmer, TN 38375-3276 USA

Emergency telephone number

Company Phone Number 800-264-6457  
24 Hour Emergency Phone Number North America: CHEMTREC 800-424-9300 after 5:00 pm CST or 1-703-527-3887

## 2. HAZARDS IDENTIFICATION

Classification

Serious eye damage/eye irritation Category 2B

Label elements

Emergency Overview

Warning

Hazard statements  
Causes eye irritation

Appearance Viscous

Physical state Liquid

Odor Mild Petroleum

Precautionary Statements - Prevention

Wash face, hands and any exposed skin thoroughly after handling.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses (if present and easy to do). Continue rinsing. If eye irritation persists: Get medical advice/attention

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No.	Weight-%	Trade Secret
Petroleum distillates, hydrotreated heavy paraffinic	64742-54-7	90-99	

\* The exact percentage (concentration) of composition has been withheld as a trade secret.

### 4. FIRST AID MEASURES

#### First aid measures

<b>Eye contact</b>	Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.
<b>Skin Contact</b>	If skin irritation persists, call a physician. Wash contaminated clothing before reuse. Wash with soap and water.
<b>Inhalation</b>	Remove to fresh air.
<b>Ingestion</b>	Do NOT induce vomiting. Get medical attention. Drink 1 or 2 glasses of water.

#### Most important symptoms and effects, both acute and delayed

**Symptoms** No information available.

#### Indication of any immediate medical attention and special treatment needed

**Note to physicians** Treat symptomatically.

### 5. FIRE-FIGHTING MEASURES

#### Suitable extinguishing media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

**Unsuitable extinguishing media** Caution: Use of water spray when fighting fire may be inefficient.

#### Specific hazards arising from the chemical

No information available.

#### Explosion data

**Sensitivity to Mechanical Impact** None.

**Sensitivity to Static Discharge** None.

#### Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

#### UNUSUAL FIRE & EXPLOSION HAZARDS

Toxic Fumes may be evolved on burning or exposure to heat. Pressure may increase in overheated closed containers. Store below 120°F

### 6. ACCIDENTAL RELEASE MEASURES

#### Personal precautions, protective equipment and emergency procedures

Personal precautions Use personal protective equipment as required. Ensure adequate ventilation, especially in confined areas. Stop leak if you can do it without risk,

#### Environmental precautions

Environmental precautions See Section 12 for additional ecological information.

#### Methods and material for containment and cleaning up

Methods for containment Prevent further leakage or spillage if safe to do so.

Methods for cleaning up Soak up with inert absorbent material. Prevent product from entering drains. Pick up and transfer to properly labeled containers.

Prevention of secondary hazards Clean contaminated objects and areas thoroughly observing environmental regulations.

## **7. HANDLING AND STORAGE**

#### Precautions for safe handling

Advice on safe handling Handle in accordance with good industrial hygiene and safety practice. Avoid breathing fume/mist/vapors/spray.

#### Conditions for safe storage, including any incompatibilities

Storage Conditions Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity). Keep containers tightly closed in a dry, cool and well-ventilated place. Store at temperatures not exceeding 120°F.

Incompatible materials Incompatible with oxidizing agents. Incompatible with strong acids and bases.

## **8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

#### Control parameters

Exposure Guidelines This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

#### Appropriate engineering controls

Engineering Controls Showers  
Eyewash stations  
Ventilation systems.

#### Individual protection measures. such as personal protective equipment

Eye/face protection Wear safety glasses with side shields (or goggles).

Skin and body protection Wear protective nitrile or Neoprene™ gloves.

Respiratory protection No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

General Hygiene Considerations Do not eat, drink or smoke when using this product.

## **9. PHYSICAL AND CHEMICAL PROPERTIES**

#### Information on basic physical and chemical properties

Physical state Liquid

<b>Appearance</b>	Viscous	<b>Odor</b>	Mild Petroleum
<b>Color</b>	Light amber	<b>Odor threshold</b>	No information available

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	Essentially Neutral	
Melting point/freezing point	No information available	
Boiling point / boiling range	No information available	
Flash point	415°F	
Evaporation rate	Less than 0.01 (@1ATM and 25°C. n-butyl acetate=1	
Flammability (solid, gas)	No information available	
Flammability Limit in Air		
Upper flammability limit:	10% (Estimated Value)	
Lower flammability limit:	1% (Estimated Value)	
Vapor pressure	Less than 0.01 mm HG	
Vapor density	Greater than 1 (Air=1)	
Specific Gravity	0.890 lbs/gal: 7.41	
Water solubility	Insoluble in water	
Solubility in other solvents	No information available	
Partition coefficient	No information available	
Autoignition temperature	No information available	
Decomposition temperature	No information available	
Kinematic viscosity	140-160 cSt@ 40°C	No information available
Dynamic viscosity	No information available	No information available
Explosive properties	No information available	No information available
Oxidizing properties	No information available	No information available

**Other Information**

Softening point	No information available
Molecular weight	No information available
VOC Content (%)	Negligible
Density	No information available
Bulk density	No information available

**10. STABILITY AND REACTIVITY**

**Reactivity** Not  
Applicable

**Chemical stability**  
Stable under recommended storage conditions.

**Possibility of Hazardous Reactions**  
None under normal processing.

**Hazardous polymerization**                      Hazardous polymerization does not occur.

**Conditions to avoid**  
Strong oxidizing agents. Heat, flames and sparks.

**Incompatible materials**  
Incompatible with oxidizing agents. Incompatible with strong acids and bases.

**Hazardous Decomposition Products**  
Thermal decomposition can lead to release of irritating and toxic gases and vapors.

**11. TOXICOLOGICAL INFORMATION**

**Information on likely routes of exposure**

Product Information	No data available
Inhalation	Avoid breathing vapors or mists. Inhalation of vapors in high concentration may cause irritation of respiratory system.
Eye contact	Contact with eyes may cause irritation.
Skin Contact	Prolonged contact may cause redness and irritation.
Ingestion	Unlikely to cause harm if accidentally swallowed in small doses, though larger quantities may cause nausea and diarrhea.

Information on toxicological effects

Symptoms No information available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation	Irritating to skin.
Serious eye damage/eye irritation	Irritating to eyes.
Irritation	May cause skin and eye irritation. PROLONGED OR REPEATED CONTACT MAY DRY SKIN AND CAUSE IRRITATION.
Sensitization	No information available.
Germ cell mutagenicity	No information available.
Carcinogenicity	No information available.

Chemical Name	ACGIH	IARC	NTP	OSHA
Petroleum distillates, hydrotreated heavy paraffinic 64742-54-7	A2	Group 1		X

Reproductive toxicity	No information available.
STOT - single exposure	No information available.
STOT - repeated exposure	No information available.
Aspiration hazard	No information available.

Numerical measures of toxicity - Product Information

<b>12. ECOLOGICAL INFORMATION</b>
-----------------------------------

Ecotoxicity

Harmful to aquatic life with long lasting effects

0.03% of the mixture consists of component(s) of unknown hazards to the aquatic environment

Chemical Name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Petroleum distillates, hydrotreated heavy paraffinic 64742-54-7		5000: 96 h Oncorhynchus mykiss mg/L LC50		1000: 48 h Daphnia magna mg/L EC50

Persistence and degradabilityOther adverse effects

No information available

<b>13. DISPOSAL CONSIDERATIONS</b>
------------------------------------

Waste treatment methods

Disposal of wastes	Disposal should be in accordance with applicable regional, national and local laws and regulations.
Contaminated packaging	Do not reuse container.

<b>14. TRANSPORT INFORMATION</b>
----------------------------------

DOT Not regulated

ICAO (air) Not regulated

IATA Not regulated

<b>15. REGULATORY INFORMATION</b>
-----------------------------------

International Inventories

TSCA	A	l	l	c	o	m	p	o	n	e	n	t	s	o	f	t	h	i	s				
DSL/NDSL	m	a	t	e	r	i	a	l	a	r	e	o	n	t	h	e	U	S	T	S	C	A	
EINECS/ELINCS	I	n	v	e	n	t	o	r	a	r	e	e	x	e	m	p	t	.					
ENCS	D	o	e	s	n	o	t	c	o	m	p	l	y	D	o	e	s	n	o	t			
IECSC	c	o	m	p	l	y	D	o	e	s	n	o	t	c	o	m	p	l	y	D	o	e	s
KECL	n	o	t	c	o	m	p	l	y	D	o	e	s	n	o	t	c	o	m	p	l	y	
PICCS	D	o	e	s	n	o	t	c	o	m	p	l	y	D	o	e	s	n	o	t			
AICS	c	o	m	p	l	y																	

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory  
 DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List  
 EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances  
 ENCS - Japan Existing and New Chemical Substances  
 IECSC - China Inventory of Existing Chemical Substances  
 KECL - Korean Existing and Evaluated Chemical Substances  
 PICCS - Philippines Inventory of Chemicals and Chemical Substances  
 AICS - Australian Inventory of Chemical Substances

US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

SARA 311/312 Hazard Categories

Acute health hazard	No
Chronic Health Hazard	No
Fire hazard	No
Sudden release of pressure hazard	No
Reactive Hazard	No

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

US State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals

U.S. State Right-to-Know Regulations

U.S. EPA Label Information

EPA Pesticide Registration Number Not Applicable

**16. OTHER INFORMATION**

<u>NFPA</u> —	Health hazards 1	Flammability 1	Instability 0	Physical and Chemical Properties -
<u>HMIS</u>	Health hazards 1	Flammability 1	Physical hazards 0	Personal protection X

Issue Date 26-Mar-2009

Revision Date 28-Oct-2013

Revision Note

No information available

Disclaimer

The information provided in this Material Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet



Revision Date: 8/13/2018

## Rust-Oleum Multi Component Product Information Sheet

**276981 CONSAV 1GLK INSTAPATCH is a multi component product composed of the following individual chemical components:**

276981A InstaPatch Part A 2V Gray 2 qt

276981B CONSAV 1GLK INSTAPATCH

SDSs for each component follow this cover sheet.

### Transportation Information

	<u>Domestic (USDOT)</u>	<u>International (IMDG)</u>	<u>Air (IATA)</u>	<u>TDG (Canada)</u>
<b>UN Number:</b>	N.A.	N.A.	N.A.	N.A.
<b>Proper Shipping Name:</b>	Not Regulated	Not Regulated	Not Regulated	Not Regulated
<b>Hazard Class:</b>	N.A.	N.A.	N.A.	N.A.
<b>Packing Group:</b>	N.A.	N.A.	N.A.	N.A.
<b>Limited Quantity:</b>	No	No	No	No
<b>Finished Good Schedule B Harmonized Tariff Code</b>		2929.10.8010		

# Safety Data Sheet



## 1. Identification

<b>Product Name:</b>	InstaPatch Part A 2V Gray 2 qt	<b>Revision Date:</b>	8/13/2018
<b>Product Identifier:</b>	276981A	<b>Supercedes Date:</b>	9/5/2017
<b>Recommended Use:</b>	Concrete Patch/Part A		
<b>Supplier:</b>	Rust-Oleum Corporation 11 Hawthorn Parkway Vernon Hills, IL 60061 USA	<b>Manufacturer:</b>	Rust-Oleum Corporation 11 Hawthorn Parkway Vernon Hills, IL 60061 USA
	Rust-Oleum Canada (ROCA) 200 Confederation Parkway Concord, ON L4K 4T8 Canada Emergency Phone: 800-387-3625		
<b>Preparer:</b>	Regulatory Department		
<b>Emergency Telephone:</b>	24 Hour Hotline: 847-367-7700		

## 2. Hazard Identification

### Classification

### Symbol(s) of Product



### Signal Word

Danger

### GHS HAZARD STATEMENTS

Flammable liquid, category 4	H227	Combustible liquid
Carcinogenicity, category 2	H351	Suspected of causing cancer.
STOT, single exposure, category 3, RTI	H335	May cause respiratory irritation.
STOT, repeated exposure, category 2	H373	May cause damage to organs through prolonged or repeated exposure.
Acute Toxicity, Inhalation, category 4	H332	Harmful if inhaled.
Skin Irritation, category 2	H315	Causes skin irritation.

Eye Irritation, category 2	H319	Causes serious eye irritation.
Skin Sensitizer, category 1	H317	May cause an allergic skin reaction.
Respiratory Sensitizer, category 1	H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.

**GHS LABEL PRECAUTIONARY STATEMENTS**

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P370+P378	In case of fire: Use alcohol film forming foam, carbon dioxide, dry chemical, dry sand to extinguish.
P403+P235	Store in a well-ventilated place. Keep cool.
P501	Dispose of contents/container in accordance with local, regional and national regulations.
P201	Obtain special instructions before use.
P308+P313	IF exposed or concerned: Get medical advice/attention.
P405	Store locked up.
P271	Use only outdoors or in a well-ventilated area.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P312	Call a POISON CENTER or doctor/physician if you feel unwell.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P260	Do not breathe dust/fume/gas/mist/vapors/spray.
P264	Wash hands thoroughly after handling.
P302+P352	IF ON SKIN: Wash with plenty of soap and water.
P321	For specific treatment see label
P332+P313	If skin irritation occurs: Get medical advice/attention.
P362+P364	Take off contaminated clothing and wash it before reuse.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P337+P313	If eye irritation persists: Get medical advice/attention.
P272	Contaminated work clothing should not be allowed out of the workplace.
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P285	In case of inadequate ventilation wear respiratory protection.
P342+P311	If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.

**GHS SDS PRECAUTIONARY STATEMENTS**

P363 Wash contaminated clothing before reuse.

### 3. Composition / Information On Ingredients

**HAZARDOUS SUBSTANCES**

<u>Chemical Name</u>	<u>CAS-No.</u>	<u>Wt.%</u>	<u>GHS Symbols</u>	<u>GHS Statements</u>
4,4'-Diphenylmethane Diisocyanate (MDI)	101-68-8	39	GHS07-GHS08	H315-317-319-332-334-335-351-373
Polymethylene Polyphenyl Isocyanate	9016-87-9	32	GHS07	H332
Naphtha (petroleum), heavy aromatic	64742-94-5	19	GHS07-GHS08	H304-312
2,4'-Diphenylmethane Diisocyanate	5873-54-1	7.9	GHS07-GHS08	H315-317-319-332-334-335-351-373
Naphthalene	91-20-3	1.7	GHS06-GHS08	H302-312-330-351

### 4. First-Aid Measures

**FIRST AID - EYE CONTACT:** Immediately flush eyes with plenty of water for at least 15 minutes holding eyelids open. Get medical attention. Do NOT allow rubbing of eyes or keeping eyes closed.

**FIRST AID - SKIN CONTACT:** Wash skin with soap and water. Remove contaminated clothing. Get medical attention if irritation develops or persists.

**FIRST AID - INHALATION:** Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get immediate medical attention. Do NOT use mouth-to-mouth resuscitation. If you experience difficulty in breathing, leave the area to obtain fresh air. If continued difficulty is experienced, get medical assistance immediately.

**FIRST AID - INGESTION:** If swallowed, get medical attention.

### 5. Fire-Fighting Measures

**EXTINGUISHING MEDIA:** Alcohol Film Forming Foam, Carbon Dioxide, Dry Chemical, Dry Sand, Water Fog

**UNUSUAL FIRE AND EXPLOSION HAZARDS:** No unusual fire or explosion hazards noted. Closed containers may explode when exposed to extreme heat due to buildup of steam. Keep containers tightly closed. Combustible liquid and vapor.

**SPECIAL FIREFIGHTING PROCEDURES:** Evacuate area and fight fire from a safe distance. Use water spray to keep fire-exposed containers cool. Containers may explode when heated.

**Special Fire and Explosion Hazard (Combustible Dust):** No Information

### 6. Accidental Release Measures

**STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED:** Dispose of according to local, state (provincial) and federal regulations. Do not incinerate closed containers. Remove all sources of ignition, ventilate area and remove with inert absorbent and non-sparking tools.

## 7. Handling and Storage

**HANDLING:** Wash thoroughly after handling. Wash hands before eating. Remove contaminated clothing and launder before reuse. Use only with adequate ventilation. Follow all SDS and label precautions even after container is emptied because it may retain product residues. Avoid breathing fumes, vapors, or mist. Avoid contact with eyes, skin and clothing.

**STORAGE:** Store in a dry, well ventilated place. Keep container tightly closed when not in use. Keep containers tightly closed. Isolate from heat, electrical equipment, sparks and open flame. Avoid excess heat.

**Advice on Safe Handling of Combustible Dust:** No Information

## 8. Exposure Controls / Personal Protection

Chemical Name	CAS-No.	Weight % Less Than	ACGIH TLV- TWA	ACGIH TLV- STEL	OSHA PEL-TWA	OSHA PEL- CEILING
4,4'-Diphenylmethane Diisocyanate (MDI)	101-68-8	40.0	0.005 ppm	N.E.	N.E.	0.02 ppm
Polymethylene Polyphenyl Isocyanate	9016-87-9	35.0	N.E.	N.E.	N.E.	N.E.
Naphtha (petroleum), heavy aromatic	64742-94-5	20.0	N.E.	N.E.	N.E.	N.E.
2,4'-Diphenylmethane Diisocyanate	5873-54-1	10.0	N.E.	N.E.	N.E.	N.E.
Naphthalene	91-20-3	5.0	10 ppm	N.E.	10 ppm	N.E.

### PERSONAL PROTECTION

**ENGINEERING CONTROLS:** Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits. Prevent build-up of vapors by opening all doors and windows to achieve cross-ventilation.

**RESPIRATORY PROTECTION:** A respiratory protection program that meets OSHA 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant a respirator's use.

**SKIN PROTECTION:** Use gloves to prevent prolonged skin contact. Nitrile or Neoprene gloves may afford adequate skin protection.

**EYE PROTECTION:** Use safety eyewear designed to protect against splash of liquids.

**OTHER PROTECTIVE EQUIPMENT:** Refer to safety supervisor or industrial hygienist for further guidance regarding types of personal protective equipment and their applications.

**HYGIENIC PRACTICES:** Wash thoroughly with soap and water before eating, drinking or smoking. Remove contaminated clothing immediately and launder before reuse.

**Engineering Measures for Combustible Dust:** No Information

## 9. Physical and Chemical Properties

<b>Appearance:</b>	Liquid	<b>Physical State:</b>	Liquid
<b>Odor:</b>	Aromatic	<b>Odor Threshold:</b>	N.E.
<b>Relative Density:</b>	1.142	<b>pH:</b>	N.A.
<b>Freeze Point, °C:</b>	N.D.	<b>Viscosity:</b>	N.D.
<b>Solubility in Water:</b>	Negligible	<b>Partition Coefficient, n-octanol/ water:</b>	N.D.
<b>Decomposition Temp., °C:</b>	N.D.	<b>Explosive Limits, vol%:</b>	1.0 - 6.0
<b>Boiling Range, °C:</b>	177 - 300	<b>Flash Point, °C:</b>	61
<b>Flammability:</b>	Supports Combustion	<b>Auto-ignition Temp., °C:</b>	N.D.
<b>Evaporation Rate:</b>	Slower than Ether	<b>Vapor Pressure:</b>	N.D.
<b>Vapor Density:</b>	Heavier than Air		

(See "Other information" Section for abbreviation legend)

## 10. Stability and Reactivity

**CONDITIONS TO AVOID:** No Information

**INCOMPATIBILITY:** Incompatible with strong oxidizing agents, strong acids and strong alkalis.

**HAZARDOUS DECOMPOSITION:** When heated to decomposition, it emits acrid smoke and irritating fumes. Contains solvents which may form carbon monoxide, carbon dioxide, and formaldehyde.

**HAZARDOUS POLYMERIZATION:** Will not occur under normal conditions.

**STABILITY:** This product is stable under normal storage conditions.

## 11. Toxicological Information

**EFFECTS OF OVEREXPOSURE - EYE CONTACT:** Substance causes moderate eye irritation.

**EFFECTS OF OVEREXPOSURE - SKIN CONTACT:** May cause skin sensitization, an allergic reaction, which becomes evident upon re-exposure to this material. Substance may cause slight skin irritation.

**EFFECTS OF OVEREXPOSURE - INHALATION:** May cause allergic respiratory reaction. MAY AGGRAVATE PRE-EXISTING LUNG CONDITIONS, E.G., ASTHMA-LIKE DISORDERS. High gas, vapor, mist or dust concentrations may be harmful if inhaled. Avoid breathing fumes, spray, vapors, or mist. High vapor concentrations are irritating to the eyes, nose, throat and lungs. Prolonged or excessive inhalation may cause respiratory tract irritation.

**EFFECTS OF OVEREXPOSURE - INGESTION:** Irritating to the nose, throat and respiratory tract. Harmful if swallowed.

**EFFECTS OF OVEREXPOSURE - CHRONIC HAZARDS:** Individuals with lung or breathing problems or prior reaction to isocyanates must not be exposed to vapor or spray mist. Vapor and spray mist harmful. Overexposure may cause lung damage. May cause allergic skin and respiratory reaction, effects may be permanent. Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage.

**PRIMARY ROUTE(S) OF ENTRY:** Eye Contact, Ingestion, Inhalation, Skin Absorption, Skin Contact

### ACUTE TOXICITY VALUES

The acute effects of this product have not been tested. Data on individual components are tabulated below:

<u>CAS-No.</u>	<u>Chemical Name</u>	<u>Oral LD50</u>	<u>Dermal LD50</u>	<u>Vapor LC50</u>
101-68-8	4,4'-Diphenylmethane Diisocyanate (MDI)	31600 mg/kg Rat	N.E.	N.E.
9016-87-9	Polymethylene Polyphenyl Isocyanate	49000 mg/kg Rat	>9400 mg/kg Rabbit	11 mg/l
64742-94-5	Naphtha (petroleum), heavy aromatic	>5000 mg/kg Rat	>1795 mg/kg Rabbit	36 mg/L Rat
91-20-3	Naphthalene	1110 mg/kg Rat	1120 mg/kg Rabbit	>.3 mg/L Rat

N.E. - Not Established

## 12. Ecological Information

**ECOLOGICAL INFORMATION:** Product is a mixture of listed components.

## 13. Disposal Information

**DISPOSAL INFORMATION:** Do not incinerate closed containers. Dispose of material in accordance to local, state, and federal regulations and ordinances. Do not allow to enter waterways, wastewater, soil, storm drains or sewer systems.

## 14. Transport Information

	<u>Domestic (USDOT)</u>	<u>International (IMDG)</u>	<u>Air (IATA)</u>	<u>TDG (Canada)</u>
<b>UN Number:</b>	N.A.	N.A.	N.A.	N.A.
<b>Proper Shipping Name:</b>	Not Regulated	Not Regulated	Not Regulated	Not Regulated
<b>Hazard Class:</b>	N.A.	N.A.	N.A.	N.A.
<b>Packing Group:</b>	N.A.	N.A.	N.A.	N.A.
<b>Limited Quantity:</b>	No	No	No	No

## 15. Regulatory Information



# Safety Data Sheet



## 1. Identification

<b>Product Name:</b>	InstaPatch Part B Gray 2V 2qt	<b>Revision Date:</b>	8/13/2018
<b>Product Identifier:</b>	276981B	<b>Supercedes Date:</b>	9/5/2017
<b>Recommended Use:</b>	InstaPatch Part B/ Activator		
<b>Supplier:</b>	Rust-Oleum Corporation 11 Hawthorn Parkway Vernon Hills, IL 60061 USA	<b>Manufacturer:</b>	Rust-Oleum Corporation 11 Hawthorn Parkway Vernon Hills, IL 60061 USA
	Rust-Oleum Canada (ROCA) 200 Confederation Parkway Concord, ON L4K 4T8 Canada Emergency Phone: 800-387-3625		
<b>Preparer:</b>	Regulatory Department		
<b>Emergency Telephone:</b>	24 Hour Hotline: 847-367-7700		

## 2. Hazard Identification

### Classification

### Symbol(s) of Product



### Signal Word

Warning

### Possible Hazards

43% of the mixture consists of ingredient(s) of unknown acute toxicity.

### GHS HAZARD STATEMENTS

Flammable liquid, category 4	H227	Combustible liquid
Carcinogenicity, category 2	H351	Suspected of causing cancer.
Acute Toxicity, Inhalation, category 4	H332	Harmful if inhaled.

### GHS LABEL PRECAUTIONARY STATEMENTS

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P280	Wear protective gloves/protective clothing/eye protection/face protection.

P370+P378	In case of fire: Use alcohol film forming foam, carbon dioxide, dry chemical, dry sand to extinguish.
P403+P235	Store in a well-ventilated place. Keep cool.
P501	Dispose of contents/container in accordance with local, regional and national regulations.
P201	Obtain special instructions before use.
P308+P313	IF exposed or concerned: Get medical advice/attention.
P405	Store locked up.
P261	Avoid breathing dust/fume/gas/mist/vapors/spray.
P271	Use only outdoors or in a well-ventilated area.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P312	Call a POISON CENTER or doctor/physician if you feel unwell.

### 3. Composition / Information On Ingredients

#### HAZARDOUS SUBSTANCES

<u>Chemical Name</u>	<u>CAS-No.</u>	<u>Wt.%</u>	<u>GHS Symbols</u>	<u>GHS Statements</u>
Tetrahydroxypropylethylenediamine	102-60-3	43	Not Available	Not Available
Naphtha (petroleum), heavy aromatic	64742-94-5	24	GHS07-GHS08	H304-312
diisodecyl phthalate	26761-40-0	24	GHS07	H332
Naphthalene	91-20-3	2.2	GHS06-GHS08	H302-312-330-351

### 4. First-Aid Measures

**FIRST AID - EYE CONTACT:** Immediately flush eyes with plenty of water for at least 15 minutes holding eyelids open. Get medical attention. Do NOT allow rubbing of eyes or keeping eyes closed.

**FIRST AID - SKIN CONTACT:** Wash skin with soap and water. Remove contaminated clothing. Get medical attention if irritation develops or persists.

**FIRST AID - INHALATION:** Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get immediate medical attention. Do NOT use mouth-to-mouth resuscitation. If you experience difficulty in breathing, leave the area to obtain fresh air. If continued difficulty is experienced, get medical assistance immediately.

**FIRST AID - INGESTION:** If swallowed, get medical attention.

### 5. Fire-Fighting Measures

**EXTINGUISHING MEDIA:** Alcohol Film Forming Foam, Carbon Dioxide, Dry Chemical, Dry Sand, Water Fog

**UNUSUAL FIRE AND EXPLOSION HAZARDS:** No unusual fire or explosion hazards noted. Closed containers may explode when exposed to extreme heat due to buildup of steam. Keep containers tightly closed. Combustible liquid and vapor.

**SPECIAL FIREFIGHTING PROCEDURES:** Evacuate area and fight fire from a safe distance. Use water spray to keep fire-exposed containers cool. Containers may explode when heated.

**Special Fire and Explosion Hazard (Combustible Dust):** No Information

## 6. Accidental Release Measures

**STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED:** Dispose of according to local, state (provincial) and federal regulations. Do not incinerate closed containers. Remove all sources of ignition, ventilate area and remove with inert absorbent and non-sparking tools.

## 7. Handling and Storage

**HANDLING:** Wash thoroughly after handling. Wash hands before eating. Remove contaminated clothing and launder before reuse. Use only with adequate ventilation. Follow all SDS and label precautions even after container is emptied because it may retain product residues. Avoid breathing fumes, vapors, or mist. Avoid contact with eyes, skin and clothing.

**STORAGE:** Store in a dry, well ventilated place. Keep container tightly closed when not in use. Keep containers tightly closed. Isolate from heat, electrical equipment, sparks and open flame. Avoid excess heat.

**Advice on Safe Handling of Combustible Dust:** No Information

## 8. Exposure Controls / Personal Protection

Chemical Name	CAS-No.	Weight % Less Than	ACGIH TLV- TWA	ACGIH TLV- STEL	OSHA PEL-TWA	OSHA PEL- CEILING
Tetrahydroxypropylethylenediamine	102-60-3	45.0	N.E.	N.E.	N.E.	N.E.
Naphtha (petroleum), heavy aromatic	64742-94-5	25.0	N.E.	N.E.	N.E.	N.E.
diisodecyl phthalate	26761-40-0	25.0	N.E.	N.E.	N.E.	N.E.
Naphthalene	91-20-3	5.0	10 ppm	N.E.	10 ppm	N.E.

### PERSONAL PROTECTION

**ENGINEERING CONTROLS:** Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits. Prevent build-up of vapors by opening all doors and windows to achieve cross-ventilation.

**RESPIRATORY PROTECTION:** A respiratory protection program that meets OSHA 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant a respirator's use.

**SKIN PROTECTION:** Use gloves to prevent prolonged skin contact. Nitrile or Neoprene gloves may afford adequate skin protection.

**EYE PROTECTION:** Use safety eyewear designed to protect against splash of liquids.

**OTHER PROTECTIVE EQUIPMENT:** Refer to safety supervisor or industrial hygienist for further guidance regarding types of personal protective equipment and their applications.

**HYGIENIC PRACTICES:** Wash thoroughly with soap and water before eating, drinking or smoking. Remove contaminated clothing immediately and launder before reuse.

**Engineering Measures for Combustible Dust:** No Information

## 9. Physical and Chemical Properties

<b>Appearance:</b>	Liquid	<b>Physical State:</b>	Liquid
<b>Odor:</b>	Solvent Like	<b>Odor Threshold:</b>	N.E.
<b>Relative Density:</b>	0.971	<b>pH:</b>	N.A.
<b>Freeze Point, °C:</b>	N.D.	<b>Viscosity:</b>	N.D.
<b>Solubility in Water:</b>	Slight	<b>Partition Coefficient, n-octanol/ water:</b>	N.D.
<b>Decomposition Temp., °C:</b>	N.D.	<b>Explosive Limits, vol%:</b>	1.0 - 6.0
<b>Boiling Range, °C:</b>	177 - 267	<b>Flash Point, °C:</b>	61
<b>Flammability:</b>	Supports Combustion	<b>Auto-ignition Temp., °C:</b>	N.D.
<b>Evaporation Rate:</b>	Slower than Ether	<b>Vapor Pressure:</b>	N.D.
<b>Vapor Density:</b>	Heavier than Air		

(See "Other information" Section for abbreviation legend)

## 10. Stability and Reactivity

**CONDITIONS TO AVOID:** No Information

**INCOMPATIBILITY:** Incompatible with strong oxidizing agents, strong acids and strong alkalis.

**HAZARDOUS DECOMPOSITION:** When heated to decomposition, it emits acrid smoke and irritating fumes. Contains solvents which may form carbon monoxide, carbon dioxide, and formaldehyde.

**HAZARDOUS POLYMERIZATION:** Will not occur under normal conditions.

**STABILITY:** This product is stable under normal storage conditions.

## 11. Toxicological Information

**EFFECTS OF OVEREXPOSURE - EYE CONTACT:** Substance causes moderate eye irritation.

**EFFECTS OF OVEREXPOSURE - SKIN CONTACT:** Substance may cause slight skin irritation.

**EFFECTS OF OVEREXPOSURE - INHALATION:** High gas, vapor, mist or dust concentrations may be harmful if inhaled. Avoid breathing fumes, spray, vapors, or mist. High vapor concentrations are irritating to the eyes, nose, throat and lungs. Prolonged or excessive inhalation may cause respiratory tract irritation.

**EFFECTS OF OVEREXPOSURE - INGESTION:** Irritating to the nose, throat and respiratory tract. Harmful if swallowed.

**EFFECTS OF OVEREXPOSURE - CHRONIC HAZARDS:** Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage.

**PRIMARY ROUTE(S) OF ENTRY:** Eye Contact, Ingestion, Inhalation, Skin Absorption, Skin Contact

### ACUTE TOXICITY VALUES

The acute effects of this product have not been tested. Data on individual components are tabulated below:

<u>CAS-No.</u>	<u>Chemical Name</u>	<u>Oral LD50</u>	<u>Dermal LD50</u>	<u>Vapor LC50</u>
102-60-3	Tetrahydroxypropylethylenediamine	11200 mg/kg Rat	N.E.	N.E.
64742-94-5	Naphtha (petroleum), heavy aromatic	>5000 mg/kg Rat	>1795 mg/kg Rabbit	36 mg/L Rat
26761-40-0	diisodecyl phthalate	64000 mg/kg Rat	>3160 mg/kg Rabbit	>12.54 mg/L Rat
91-20-3	Naphthalene	1110 mg/kg Rat	1120 mg/kg Rabbit	>.3 mg/L Rat

N.E. - Not Established

## 12. Ecological Information

**ECOLOGICAL INFORMATION:** Product is a mixture of listed components.

## 13. Disposal Information

**DISPOSAL INFORMATION:** Do not incinerate closed containers. Dispose of material in accordance to local, state, and federal regulations and ordinances. Do not allow to enter waterways, wastewater, soil, storm drains or sewer systems.

## 14. Transport Information

	<u>Domestic (USDOT)</u>	<u>International (IMDG)</u>	<u>Air (IATA)</u>	<u>TDG (Canada)</u>
<b>UN Number:</b>	N.A.	N.A.	N.A.	N.A.
<b>Proper Shipping Name:</b>	Not Regulated	Not Regulated	Not Regulated	Not Regulated
<b>Hazard Class:</b>	N.A.	N.A.	N.A.	N.A.
<b>Packing Group:</b>	N.A.	N.A.	N.A.	N.A.
<b>Limited Quantity:</b>	No	No	No	No

## 15. Regulatory Information

**U.S. Federal Regulations:****CERCLA - SARA Hazard Category**

This product has been reviewed according to the EPA 'Hazard Categories' promulgated under Sections 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III) and is considered, under applicable definitions, to meet the following categories:

Flammable (gases, aerosols, liquids, or solids), Carcinogenicity, Acute Toxicity (any route of exposure)

**Sara Section 313:**

This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendment and Reauthorization Act of 1986 and 40 CFR part 372:

<u>Chemical Name</u>	<u>CAS-No.</u>
Naphthalene	91-20-3

**Toxic Substances Control Act:**

This product contains the following chemical substances subject to the reporting requirements of TSCA 12(b) if exported from the United States:

No TSCA 12(b) components exist in this product.

**16. Other Information****HMIS RATINGS**

Health: 2\*      Flammability: 2      Physical Hazard: 0      Personal Protection: X

**NFPA RATINGS**

Health: 2      Flammability: 2      Instability: 0

Volatile Organic Compounds      3 g/L

SDS REVISION DATE:      8/13/2018

REASON FOR REVISION:      Revision Description Changed  
    Product Composition Changed  
    Substance and/or Product Properties Changed in Section(s):  
    01 - Identification  
    02 - Hazard Identification  
    05 - Fire-fighting Measures  
    09 - Physical & Chemical Properties  
    14 - Transport Information  
    15 - Regulatory Information  
    16 - Other Information  
    Revision Statement(s) Changed

Legend: N.A. - Not Applicable, N.E. - Not Established, N.D. - Not Determined

The manufacturer believes, to the best of its knowledge, information and belief, the information contained herein to be accurate and reliable as of the date of this safety data sheet. However, because the conditions of handling, use, and storage of these materials are beyond our control, we assume no responsibility or liability for personal injury or property damage incurred by the use of these materials. The manufacturer makes no warranty, expressed or implied, regarding the accuracy or reliability of the data or results obtained from their use. All materials may present unknown hazards and should be used with caution. The information and recommendations in this material safety data sheet are offered for the users' consideration and examination. It is the responsibility of the user to determine the final suitability of this information and to comply with all applicable international, federal, state, and local laws and regulations.



## Section 3: HAZARDS IDENTIFICATION - continued:

Chronic / Long Term Effects: No data.

Signs and Symptoms of Overexposure: Ingestion may cause nausea, vomiting and diarrhea. Prolonged dermal exposure may cause drying of the skin.

Target Organ Effects: No data.

Reproductive/Developmental Information: No data.

Carcinogenic Information: This material is not listed as a carcinogen by IARC, NTP or OSHA.

---

## Section 4: FIRST AID MEASURES

EYES: Immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention if irritation persists.

SKIN: Flush skin with plenty of water for at least 15 minutes. Get medical attention if irritation persists.

INHALATION: No specific treatment is necessary since this material is not likely to be hazardous by inhalation.

INGESTION: Give large quantities of water or milk. Induce vomiting. Get medical attention.

---

## Section 5: FIRE FIGHTING MEASURES

Flash Point: none (TCC)

Extinguishing Media: Use appropriate methods for combating surrounding fire.

Special Fire Fighting Instructions: Wear a self contained breathing apparatus with a full face piece operated in the positive pressure demand mode.

---

## Section 6: ACCIDENTAL RELEASE MEASURES

Absorb spill with inert material. Flush area well with water to remove trace residue. Surfaces may become slippery after spillage.

---

## Section 7: HANDLING AND STORAGE

Store in a cool, dry area. Keep from freezing. Keep container closed when not in use. Keep out of reach of children.

---

## Section 8: EXPOSURE CONTROLS and PERSONAL PROTECTION

Eye Protection: Wear safety glasses or goggles.

MSDS Number: CL79Q

Skin Protection: To prevent repeated or prolonged contact, wear impervious gloves (made from rubber, nitrile or neoprene).

Respiratory Protection: No special requirements are needed for this material.

Engineering Controls: Use general ventilation.

---

**Section 9: PHYSICAL AND CHEMICAL PROPERTIES**

Appearance and Odor: Clear, blue liquid with pleasant fragrance

pH Concentrate: 10.2

Solubility in Water: Complete

Vapor Pressure [mmHg]: n/e

Evaporation Rate (Butyl Acetate=1): n/a

Vapor Density [Air=1]: n/e

Specific Gravity [H2O=1]: 1.0

Boiling Point: > 212 F

---

**Section 10: REACTIVITY**

Stability: Stable

Hazardous Polymerization: Will not occur

Conditions to avoid: High temperature

Hazardous Decomposition Products: CO, CO2

Incompatibility: Strong acids, oxidizers

---

**Section 11: TOXICOLOGICAL INFORMATION**

No data

---

**Section 12: ECOLOGICAL INFORMATION**

No data

---

**Section 13: DISPOSAL CONSIDERATIONS**

Waste Disposal Method:

Waste must be disposed of in accordance with federal, state and local environmental control regulations.

---

**Section 14: TRANSPORTATION INFORMATION**

D.O.T. Shipping Name / Class:

Not regulated

---

**Section 15: REGULATORY INFORMATION**

U.S. Federal Regulations:

TSCA (Toxic Substances Control Act): The intentional ingredients of product are listed.

MSDS Number: CL79Q

Title III Section 311/312 Hazardous Categories - 40 CFR 370.2:

ACUTE (X) Chronic ( ) Fire ( ) Pressure ( ) Reactive ( ) Not Applicable ( )

(1) Title III Section 302/304 Extremely Hazardous Substances - 40 CFR 355 Appendix A

(2) Title III Section 313 Toxic Chemicals - 40 CFR 372.65

If indicated under Section 2 of this MSDS, this product contains toxic chemicals subject to the reporting requirements of Section 313 of the Emergency Planning & Community Right to Know Act of 1986. This information must be included in all MSDS that are copied and distributed for this material.

RCRA Status: Under RCRA, it is the responsibility of the product user to determine at the time of disposal, whether a material containing the product or derived from the product should be classified as a hazardous waste. If this product becomes a hazardous waste it would be assigned RCRA Code(s)  
none

State and Local Regulations: Certain states maintain their own ingredient lists which differ slightly from the Federal standards. If indicated under Section 2 of this MSDS, states listed below may have regulations on ingredients contained in this product. Check with your state for any additional regulations.

(3) California proposition 65 (Safe Drinking Water &amp; Toxic Enforcement Act of 1986)

(4) Massachusetts (Hazardous Substance Disclosure by Employers)

---

**Section 16: OTHER INFORMATION**

This information was compiled from current manufacturer's MSDS's of the component parts of the product.

Disclaimer: The Manufacturer believes that the information contained in the Material Safety Data Sheet is accurate. The suggested procedures are based on experience as of the date of publication. They are not necessarily all inclusive nor fully adequate in every circumstance. Also, the suggestions should not be confused with, nor followed in violation of applicable laws, regulations, rules or insurance requirements.

# Kleen-Start Starting Fluid

## SAFETY DATA SHEET

According to Canada's Hazardous Products Regulations (HPR) SOR/2015-17

### SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

**Product identifier**

Trade Name Kleen start starting fluid  
Product Code 730

**Relevant identified uses of the substance or mixture and uses advised against**

Identified Use(s) Engine starting aid  
Uses Advised Against None

Company Identification Kleen-Flo Tumbler Ind. Ltd.  
75 Advance Blvd. Brampton, ON  
L6T 4N1

Telephone 905-793-4311  
Fax 905-793-4318

**Emergency telephone number**

Emergency Phone No. **CANUTEC: 613-996-6666**

### SECTION 2: HAZARDS IDENTIFICATION

**Classification of the substance or mixture**

HPR/WHIMIS 2015/GHS Classification

Flam. Aerosol 1; Compressed dissolved gas; Asp. Tox. 1; Carc. 2; Repr. 2;  
STOT SE 3; Skin Irrit. 2

**Label elements****Hazard Symbol****Signal word(s)**

**DANGER**

**Hazard Statement(s)**

Extremely flammable aerosol.  
Contains gas under pressure; may explode if heated.  
May cause drowsiness or dizziness.  
Causes skin irritation.  
Suspected of causing cancer.  
Suspected of damaging the unborn child.  
May be fatal if swallowed and enters airways

Obtain special instructions before use.  
Do not handle until all safety precautions have been read and understood.  
Keep away from heat/sparks/open flames/hot surfaces. – No smoking.  
Do not spray on an open flame or other ignition source.  
Do not pierce or burn, even after use.  
Protect from sunlight and do not expose to temperatures exceeding 50 °C/122 °F.  
Avoid breathing dust/fume/gas/mist/vapours/spray.  
Wear protective gloves/protective clothing/eye protection/face protection.  
Wash hands and exposed skin thoroughly after handling.  
Toxic to aquatic life. Harmful to aquatic life with long lasting effects.

**Other hazards:****Additional Information:**

None

# Kleen-Start Starting Fluid

## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Ingredient(s)	% wt. *	CAS No.	Hazard classification
Heptane, branched, cyclic and linear	40 - 50	426260-76-6	Flam. Liq. 2; H225 Asp. Tox. 1; H304 Skin Irrit. 2; H315 STOT SE 3; H336 Aquatic Acute 2; H401 Aquatic Chronic 3; H412
Diethyl ether	40 - 50	60-29-7	Flam. Liq. 1; H224 Acute Tox. 4; H302 STOT SE 3; H336
Carbon dioxide	5 - 10	124-38-9	Compressed dissolved gas; H280
Ethanol	1-5	64-17-5	Flam. Liq. 2; H225 Eye Irrit. 2; H319
Chloroethane	0.1-1	75-00-3	Flam. Gas 1; H220 Carc. 2; H351
Toluene	0.1-1	108-88-3	Flam. Liq. 2; H225 Repr. 2; H361 Skin Irrit. 2; H315 Eye Irrit. 2; H319 Asp. Tox. 1; H304 STOT SE 3; H336 STOT RE 2; H373 Aquatic Acute 2; H401 Aquatic Chronic 3; H412

**Additional Information** - Substances in the product which may present a health or environmental hazard, or which have been assigned occupational exposure limits, are detailed below.: None

\* The exact percentage withheld as a trade secret in accordance with 29 CFR 1910.1200.

## SECTION 4: FIRST AID MEASURES



### Description of first aid measures

Inhalation	Move person to fresh air. If breathing is labored, administer oxygen. If symptoms persist, obtain medical attention.
Skin Contact	Wash with plenty of water. If skin irritation or rash occurs: Get medical advice/attention. Take off contaminated clothing and wash before reuse.
Eye Contact	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists, get medical advice/attention.
Ingestion	Do not give anything by mouth to an unconscious person. Seek medical treatment. Do NOT induce vomiting.

### Most important symptoms and effects, both acute and delayed

Aspiration into the lungs may cause chemical pneumonitis, which can be fatal.

### Indication of any immediate medical attention and special treatment needed

IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. Do NOT induce vomiting.

# Kleen-Start Starting Fluid

## SECTION 5: FIRE-FIGHTING MEASURES

### Extinguishing Media

- Suitable Extinguishing Media
- Unsuitable Extinguishing Media

Extinguish with carbon dioxide, dry chemical, foam or water spray.  
Do not use water jet.

### Special hazards arising from the substance or mixture

Contains gas under pressure; may explode if heated.

### Advice for fire-fighters

A self contained breathing apparatus and suitable protective clothing should be worn in fire conditions. Keep containers cool by spraying with water if exposed to fire.

## SECTION 6: ACCIDENTAL RELEASE MEASURES

### Personal precautions, protective equipment and emergency procedures

Eliminate sources of ignition. Avoid contact with skin and eyes. Wear protective gloves/protective clothing/eye protection/face protection. Avoid breathing gas / vapours.

### Environmental precautions

Prevent liquid entering sewers, basements and work pits. Avoid release to the environment.

### Methods and material for containment and cleaning up

Cover spills with inert absorbent material. Transfer to a container for disposal or recovery.

### Reference to other sections Additional Information

None  
None

## SECTION 7: HANDLING AND STORAGE

### Precautions for safe handling

Wear protective gloves/eye protection. Wash hands and exposed skin thoroughly after handling. Avoid release to the environment. Protect from sunlight and do not expose to temperatures exceeding 50 °C/122 °F.

### Conditions for safe storage, including any incompatibilities

- Storage temperature Keep in a cool, well ventilated place. Store at temperatures not exceeding 50 °C / 122 °F.
- Incompatible materials This product should be stored away from sources of strong heat or oxidizing chemicals.

### Specific end use(s)

Engine starting aid

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### Occupational Exposure Limits

SUBSTANCE.	CAS No.	(8hr TWA)		(STEL)		Note:
		OEL (Canada)	TLV (ACGIH)	OEL (Canada)	TLV (ACGIH)	
Heptane, branched, cyclic and linear	426260-76-6	400 ppm	400 ppm	500 ppm	500 ppm	----
Carbon dioxide	124-38-9	5,000 ppm	5,000 ppm	30,000 ppm	30,000 ppm	#
Diethyl ether	60-29-7	400 ppm	400 ppm	500 ppm	500 ppm	----
Chloroethane	75-00-3	100 ppm	100 ppm	-----	-----	*A3

\*Assure minimum oxygen content of work atmosphere. \*A3 = Confirmed Animal Carcinogen with Unknown Relevance to Humans

### Recommended monitoring method

NIOSH 1500 (hydrocarbons, B.P. 36 - 126 °C); NIOSH 6603 (Carbon dioxide); NIOSH 1610 (Ethyl ether); NIOSH 2519 (Ethyl chloride)

### Exposure controls

#### Appropriate engineering controls

Provide adequate ventilation to ensure that the occupational exposure limit is not exceeded.

#### Personal protection equipment

# Kleen-Start Starting Fluid

Eye/face protection



Wear protective eyewear (goggles, face shield, or safety glasses).

Skin protection (Hand protection/ Other)



Wear suitable gloves if prolonged skin contact is likely. Check with protective equipment manufacturer's data. Use gloves only once.

Respiratory protection



In case of insufficient ventilation, wear suitable respiratory equipment. Check with protective equipment manufacturer's data.

Thermal hazards

Not normally required. Use gloves with insulation for thermal protection, when needed.

**Environmental Exposure Controls**

Avoid release to the environment.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

### Information on basic physical and chemical properties

Appearance	Liquid
Color	Colorless
Odor	Sweetish, Hydrocarbon-like
Odor Threshold (ppm)	Not available
pH (Value)	Not available
Melting Point (°C) / Freezing Point (°C)	Not available
Boiling point/boiling range (°C):	34 - 35 (Diethylether)
Flash Point (°C)	-45 (Diethylether)
Evaporation Rate	Not available
Flammability (solid, gas)	Extremely flammable
Explosive Limit Ranges	1.85% - 36.5% v/v (Diethylether)
Vapor pressure (Pascal)	$7.16 \times 10^4$ (Diethylether)
Vapor Density (Air=1)	Not available
Density (g/ml)	Not available
Solubility (Water)	Not available
Solubility (Other)	Not available
Partition Coefficient (n-Octanol/water)	Not available
Auto Ignition Point (°C)	175 (Diethylether)
Decomposition Temperature (°C)	Not available
Kinematic Viscosity (cSt)	<20 @ 40 °C
Explosive properties	Not available
Oxidizing properties	Not available
<b>Other information</b>	Not available

## SECTION 10: STABILITY AND REACTIVITY

<b>Reactivity</b>	Stable under normal conditions.
<b>Chemical stability</b>	Stable.
<b>Possibility of hazardous reactions</b>	None anticipated.
<b>Conditions to avoid</b>	Avoid contact with heat and ignition sources.
<b>Incompatible materials</b>	Strong oxidizing agents
<b>Hazardous decomposition product(s)</b>	Carbon monoxide, Carbon dioxide, Acrid smoke

## SECTION 11: TOXICOLOGICAL INFORMATION

**Exposure routes:** Inhalation, Skin Contact, Eye Contact

# Kleen-Start Starting Fluid

## Information on toxicological effects

Heptane, branched, cyclic and linear (CAS# 426260-76-6) - By analogy with similar materials:

<b>Acute toxicity</b>	Oral: LD50 >5 g/kg-bw Dermal: LD50 >2 g/kg-bw Inhalation: LC50 = 65 - 103 mg/L (Vapour), 4-hr. rat May cause drowsiness or dizziness. May be fatal if swallowed and enters airways.
<b>Irritation/Corrosivity</b>	Causes skin irritation. Repeated exposure may cause skin dryness or cracking. May cause eye irritation.
<b>Sensitisation</b>	It is not a skin sensitiser.
<b>Repeated dose toxicity</b>	NOAEC: 12350 mg/m <sup>3</sup> (2 yr, inhal., rat, Systemic effects) LOAEC: 1650 mg/m <sup>3</sup> (2 hr, inhal., rat, CNS effects) May cause drowsiness or dizziness.
<b>Carcinogenicity</b>	No data. It is unlikely to present a carcinogenic hazard to man.

NTP	IARC	ACGIH	OSHA	NIOSH
No.	No.	No.	No.	No.

<b>Mutagenicity</b>	There is no evidence of mutagenic potential.
<b>Toxicity for reproduction</b>	No information available

Diethyl Ether (CAS# 60-29-7):

<b>Acute toxicity</b>	Oral: LD50 = 1600 mg/kg-bw (rat) Dermal: LD50 >20000 mg/kg-bw (rabbit) May cause drowsiness or dizziness.
<b>Irritation/Corrosivity</b>	Non-irritant to skin and eye.
<b>Sensitisation</b>	It is not a skin sensitiser.
<b>Repeated dose toxicity</b>	Not to be expected.
<b>Carcinogenicity</b>	Not to be expected.

NTP	IARC	ACGIH	OSHA	NIOSH
No.	No.	No.	No.	No.

<b>Mutagenicity</b>	Not to be expected.
<b>Toxicity for reproduction</b>	Not to be expected.

Toluene (CAS#108-88-3):

<b>Acute toxicity</b>	Oral LD50 = 5580 mg/kg (rat) Dermal LD50 >5000 mg/kg (rabbit) Inhalation LC50 (4 hour(s)) 28.1 mg/l (rat) - Vapours may cause drowsiness and dizziness.
<b>Irritation / Corrosivity</b>	Causes serious eye irritation. Causes skin irritation.
<b>Sensitisation</b>	It is not a skin sensitiser.
<b>Repeated dose toxicity</b>	Inhalation NOAEC = 1131 mg/m <sup>3</sup> (rat), 2 Year(s) - May cause damage to organs through prolonged or repeated exposure: neuropsychological effects, auditory dysfunction and effects on colour vision.
<b>Carcinogenicity</b>	It is unlikely to present a carcinogenic hazard to man.

NTP	IARC	ACGIH	OSHA	NIOSH
No.	No.	No.	No.	No.

<b>Mutagenicity</b>	There is no evidence of mutagenic potential.
<b>Reproductive toxicity</b>	Suspected of damaging the unborn child. NOAEC: 2.8 mg/liter (rat)

Chloroethane (CAS# 75-00-3)

**Carcinogenicity**

# Kleen-Start Starting Fluid

NTP	IARC	ACGIH	OSHA	NIOSH
Clear Evidence in Female Mice	No.	A3 - Confirmed Animal Carcinogen	No.	Yes.

## SECTION 12: ECOLOGICAL INFORMATION

### Ecotoxicity

Heptane, branched, cyclic and linear (CAS# 426260-76-6) - By analogy with similar materials:

Acute toxicity	LL50 (96 hour): >13.4 mg/L ( <i>Oncorhynchus mykiss</i> ) EL50 (48 hour): 3 mg/l ( <i>Daphnia magna</i> , mobility) EC50 (96 hour): 13 mg/l ( <i>Pseudokirchnerella subcapitata</i> )
Long Term Toxicity	NOELR (28 days) 1.5 mg/l ( <i>Fish</i> ) QSAR LOEC (21 days): 0.32 mg/l ( <i>Daphnia magna</i> ) NOEL (96 hour) 6.3 mg/l (Algae)

## SECTION 13: DISPOSAL CONSIDERATIONS

<b>Waste treatment methods</b>	Disposal should be in accordance with local, state or national legislation. Consult an accredited waste disposal contractor or the local authority for advice.
--------------------------------	--

## SECTION 14: TRANSPORT INFORMATION

	Land transport (TDG)	Sea transport (IMDG)	Air transport (ICAO/IATA)
<b>UN number</b>	1950	1950	1950
<b>Proper Shipping Name</b>	Aerosols, flammable	Aerosols, flammable	Aerosols, flammable
<b>Transport hazard class(es)</b>	2.1	2.1	2.1
<b>Packing group</b>	Not applicable	Not applicable	Not applicable
<b>Environmental hazards</b>	None assigned	None assigned	None assigned
<b>Special precautions for user</b>	None assigned	None assigned	None assigned

Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code: Not applicable

## SECTION 15: REGULATORY INFORMATION

### Safety, health and environmental regulations/legislation specific for the substance or mixture:

This product has been classified in accordance to CPR Section 12 and the MSDS contains all the information required by the HPR.

Canada (DSL/NDL) - All chemicals listed.

## SECTION 16: OTHER INFORMATION

The following sections contain revisions or new statements: 1-16.

Date of preparation: May 3, 2017

# Kleen-Start Starting Fluid

## Hazard Statement(s) and Risk Phrases Listed in: SECTION 2:/ SECTION 3:

### Hazard Statement(s)

- H220: Extremely flammable gas.
- H224: Extremely flammable liquid and vapour.
- H225: Highly flammable liquid and vapor.
- H280: Contains gas under pressure; may explode if heated.
- H302: Harmful if swallowed.
- H304: May be fatal if swallowed and enters airways.
- H315: Causes skin irritation.
- H319: Causes serious eye irritation.
- H336: May cause drowsiness or dizziness.
- H351: Suspected of causing cancer.
- H361d Suspected of damaging the unborn child.
- H373: May cause damage to organs through prolonged or repeated exposure.
- H401: Toxic to aquatic life.
- H412: Harmful to aquatic life with long lasting effects.

**Training advice:** None.

**Guidelines for SDS use:** The product described in this SDS is a consumer product. It is safe for use by consumers as described on the product label under normal foreseeable conditions. This SDS is designed to provide additional valuable safety and handling information.

Disclaimer: We believe the statements, technical information and recommendations contained herein are reliable, but they are given without warranty or guarantee of any kind. The information contained in this document applies to this specific material as supplied. It may not be valid for this material if it is used in combination with any other materials. It is the user's responsibility to satisfy oneself as to the suitability and completeness of this information for the user's own particular use.

# MATERIAL SAFETY DATA SHEET

## Lloyds Laboratories Inc.

**Kleens-It Citrus Base Cleaner Degreaser (Liquid)**  
**Part # 52104, 52120, 52145**

### SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

**PRODUCT NAME:** Kleens-It Citrus Base Cleaner Degreaser      **PRODUCT USE:** Cleaner

**MANUFACTURER:** Lloyds Laboratories Inc.      **SUPPLIER:** Lloyds Laboratories Inc.

**ADDRESS:** 613, Neal Drive, Peterborough, Ontario, K9J 6X7      **ADDRESS:** 613, Neal Drive, Peterborough, Ontario, K9J 6X7

**EMERGENCY #:** 1 800 361-6766      **EMERGENCY #:** 1 800 361-6766

### SECTION II: INGREDIENT INFORMATION

Ingredients	CAS#	Wt%	OSHA-TWA	ACGIH-TWA	LD <sub>50</sub>
d-Limonene	94266-47-4	1-5 %	Not Established	8h twa=30 ppm AIHA Standard	>5,000 mg/kg( Oral/Rat)

### SECTION III: HAZARDOUS IDENTIFICATION

**Route of Entry:** Eye, skin contact, ingestion.

**Potential Health Effects:**

**Eyes:** Causes irritation to the eyes.

**Skin:** Prolonged or repeated contact can cause irritation.

**Inhalation:** May cause nose, throat and respiratory tract irritation

**Ingestion:** May cause irritation to mouth, esophagus and stomach. May cause gastric tract disorder and/or damage.

**Chronic Effects:**

**Carcinogenicity:** No ingredients listed IARC or NTP or ACGIC. Non hazardous by WHMIS/OSHA criteria.

**Teratogenicity, Mutagenicity, Reproductive Effects:** The ingredients in this product were found not to be mutagenic when tested by the Ames Assay, (OECD Guidelines for chemical testing, sec.471).

**Skin:** Repeated or prolonged exposures to dilutions can cause drying, defatting and dermatitis.

# MATERIAL SAFETY DATA SHEET

## Lloyds Laboratories Inc.

**Kleens-It Citrus Base Cleaner Degreaser (Liquid)**  
**Part # 52104, 52120, 52145**

### SECTION IV: FIRST AID MEASURES

**Eye Contact:** Immediately flush with water for 15 minutes. Holding eyelids open during flushing. If irritation persists, repeat flushing and obtain medical attention immediately.

**Skin Contact:** Flush with water. Seek medical attention if irritation persists. Remove contaminated clothing and launder before reuse.

**Inhalation:** Move victim to fresh air. If conscious, have victim take deep, slow breaths. Seek medical attention if symptoms persist.

**Ingestion:** DO NOT INDUCE VOMITING. Rinse mouth with water, then drink one glass of water. Seek medical attention. Do not give anything to victim if unconscious or convulsing.

### SECTION V: FIRE FIGHTING MEASURES

**Flammability:** Flammable.

**Flash Point deg (C,TCC):** 50°C.

**Means of Extinction:** As appropriate for surrounding fire. Use water, dry chemical, carbon dioxide or foam.

**Special Fire Hazards:** Fire fighters should wear self contained breathing apparatus as for surrounding fire.

**Autoignition temperature:** Not applicable.

**Flame propagation or burning rate of solid:** Not applicable.

**Sensitivity to static discharge:** Not applicable.

**Unusual Fire and Explosion Hazards:** None expected. As per surrounding fire.

**Hazardous decomposition products:** Oxides of carbon, oxides of nitrogen.

### SECTION VI: ACCIDENTAL RELEASE MEASURES

**Leak and Spill Procedures:** Before attempting clean up, refer to the hazard data provided above. Small spills may be absorbed with non reactive absorbent and placed in suitable, covered, labeled container. For large quantities, dispose of in accordance with local, provincial/ state or federal regulations. For large spills prevent from entering sewers and waterways. For large spills provide diking to prevent spreading.

### SECTION VII: HANDLING AND STORAGE

**Storage Requirements:** KEEP OUT OF REACH OF CHILDREN. Store in a closed container away from incompatible materials which include alkalis, oxidizing materials, reducing sugars and Ammonia Salts.  
Storage temperature C Ambient to 35 C (must be stored above 4 C at all times).  
Transport temperature C Ambient to 35 C (must be stored above 4 C at all times).

# MATERIAL SAFETY DATA SHEET

## Lloyds Laboratories Inc.

### Kleens-It Citrus Base Cleaner Degreaser (Liquid) Part # 52104, 52120, 52145

Keep container closed. Handle and open container with care. Store in a well ventilated place away from incompatible materials. Do not store near open flame. Do not reuse empty containers.

#### SECTION VIII: EXPOSURE CONTROL/PERSONAL PROTECTION

**Gloves:** Impervious gloves are recommended.  
**Eye Protection:** Splash goggles are recommended.  
**Respiratory Protection:** Not normally required if good ventilation is maintained.  
**Other Protective Equipment:** As required by employer code. Eye bath, safety shower, protective clothing.  
**Engineering Controls:** General ventilation normally required

#### SECTION IX: PHYSICAL AND CHEMICAL PROPERTIES

<b>Boiling Point (deg C)</b>	100	<b>Specific Gravity (H<sub>2</sub>O = 1):</b>	1.02-1.03	<b>Evaporation Rate (water=1):</b>	Similar
<b>% Volatile (Wt%):</b>	> 90 %	<b>Solubility in water:</b>	Insoluble	<b>pH (as supplied):</b>	8.0-11.0
<b>Physical State:</b>	Liquid	<b>Viscosity:</b>	Water like		
<b>Appearance / Odour:</b>	Transparent clear orange with typical citrus odour				

#### SECTION X: STABILITY AND REACTIVITY

**Conditions for Chemical Instability:** Stable.  
**Incompatible Materials:** Strong oxidizing agents, strong acids and alkalies.  
**Hazardous Decomposition Products:** Oxides of Carbon, Oxides of Nitrogen when heated.

#### SECTION XI: TOXICOLOGICAL INFORMATION

See Section II for LD 50 for individual components.

#### SECTION XII: ECOLOGICAL INFORMATION

**Biodegradability:** All organic ingredients are biodegradable as per Ready Biodegradability Closed bottle test (OECD 301 D, also known as the US EPA as OPPTS 835.3100 (Fate, Transport and Transformation Test Guidelines) and as such full formulation would be expected to be the same.

#### SECTION XIII: DISPOSAL CONSIDERATIONS

# MATERIAL SAFETY DATA SHEET

## Lloyds Laboratories Inc.

### Kleens-It Citrus Base Cleaner Degreaser (Liquid) Part # 52104, 52120, 52145

Dispose of in accordance to all local, provincial/state and federal regulations.

#### SECTION XIV: TRANSPORTATION

**T.D.G. Classification:** Not regulated.  
**D.O.T. Classification:** Not regulated.

#### SECTION XV: REGULATORY INFORMATION

##### Occupational Health and Safety

###### Regulations:

###### WHMIS Class:

Class D Division 2B, B3.

###### OSHA & WHMIS:

MSDS prepared pursuant to the Hazard Communication Standard (CFR29.1920.1200) and Canadian WHMIS regulations.

##### Environmental Regulatory Lists:

###### SARA – Section 313 (Toxic Chemical Release Reporting) 40 CFR 372:

None of these ingredients are listed.

###### CERCLA – Section 102 (Reportable Quantity) 40 CFR 302:

None of the ingredients are listed.

###### RCRA 40 CFR 261 (Subpart D):

None of the ingredients are listed.

###### CLEAN WATER ACT – Section 311

None of these ingredients are listed.

###### (Reportable Qty) 40 CFR 116:

###### CLEAN AIR ACT – Section 312 (List of Hazardous Pollutants) 40 CFR 63 (Subpart C):

None of these ingredients are listed.

###### National Pollutant Release Inventory:

None of these ingredients are listed.

###### Toxic Substances Control Act (TSCA):

All ingredients are registered on the Chemical Substances Inventory.

###### Canadian Domestic Substance List (DSL):

All ingredients are registered on the DSL.

#### SECTION XVI: OTHER INFORMATION

<b>Date:</b> June 7, 2016	<b>Prepared By:</b> Technical Services Group	<b>Telephone:</b> 1 800 361-6766
---------------------------	--	----------------------------------

##### Disclaimer:

Information for this material safety data sheet was obtained from sources considered technically accurate and reliable. While every effort has been made to ensure full disclosure of product hazards, in some cases data is not available and is so stated. Since conditions of actual product use are beyond the control of supplier, it is assumed that users of this material; have been fully trained according to the mandatory requirements of WHMIS. No warranty, expressed or implied, is made and supplier will not be liable for any losses, injuries for consequential damages, which may result from the use or reliance on any information contained in this form. If user requires independent information on ingredients in this or other material, we recommend contact with the

**MATERIAL SAFETY DATA SHEET**  
**Lloyds Laboratories Inc.**

**Kleens-It Citrus Base Cleaner Degreaser (Liquid)**  
**Part # 52104, 52120, 52145**

Canadian Centre for Occupational Health and Safety (CCOHS) in Hamilton, Ontario (905-572-4400)  
or CSST in Montreal, Quebec (514-873-3990).

Canadian Krown Dealers Inc.  
35 Magnum Dr.  
Schomberg, Ontario, L0G 1T0  
Canada  
(905)939-8750 / 1(800)267-5744

**PRODUCT: Krown Fast-Acting Penetrant (Krown The Solution) - 400 g**

**CODE: KR-002010**

### SECTION 01: IDENTIFICATION

Product Identity..... Krown Fast-Acting Penetrant (Krown The Solution) - 400 g  
Product Item Numbers..... KR-002010  
Manufacturer..... Empack Spraytech Inc.  
98 Walker Drive  
Brampton  
Ontario  
Canada  
L6T 4H6  
905-792-6571  
24 hour emergency telephone number..... In Canada: Call CANUTEC (613) 996-6666 - In The United States: Call CHEMTREC (800) 424-9300.  
Recommended Use..... Lubricant, Penetrant, Rust Inhibitor.  
Chemical Family..... Mixture.

### SECTION 02: HAZARD IDENTIFICATION



Label Elements:  
Signal Word..... DANGER.  
Hazard Classification:  
Physical Hazards..... Flammable Aerosols - Category 1. Gases Under Pressure - Liquefied Gas .  
Health Hazards..... Not Classified.  
Environmental Hazards..... Not Classified.  
Hazard Statement..... H222:Extremely flammable aerosol (1). H229:Pressurized container: may burst if heated (1). H280:Contains gas under pressure; may explode if heated (L).  
Precautionary Statements:  
Prevention..... P210:Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P211:Do not spray on an open flame or other ignition source. P251:Do not pierce or burn, even after use.  
Response..... None .  
Storage..... P410+P412:Protect from sunlight. Do not expose to temperatures exceeding 50°C /122°F. P403:Store in a well ventilated place .  
Disposal..... P501:Dispose of contents/container in accordance with local, regional, national, and/or international regulations.  
Hazard(s) not otherwise classified (HNOC) None Known.  
Classified according to:..... Canada's Hazardous Products Act/Hazardous Products Regulations (WHMIS 2015) and Occupational Safety and Health Administration (OSHA).

### SECTION 03: COMPOSITION/INFORMATION ON INGREDIENTS

HAZARDOUS INGREDIENTS	CAS #	WT. %
Isobutane	75-28-5	10-30
Propane	74-98-6	7-13

### SECTION 04: FIRST-AID MEASURES

Inhalation..... If inhaled, remove to fresh air. If not breathing, give artificial respiration and obtain immediate medical assistance.  
Skin Contact..... Immediately flush the contaminated skin with soap and water. If this chemical penetrates clothing, immediately remove the clothing and flush the skin with water. If irritation persists after washing, get medical attention .  
Eye Contact..... Check for and remove contact lenses. Immediately flush eyes with water for a minimum of 15 minutes keeping eyelids open. Consult a doctor if any irritation occurs.  
Ingestion..... If swallowed, call a Poison Control Center or doctor immediately. Do not induce vomiting.  
Most important symptoms/effects, acute .. N/A.  
and delayed

**PRODUCT: Krown Fast-Acting Penetrant (Krown The Solution) - 400 g****CODE: KR-002010****SECTION 04: FIRST-AID MEASURES**

Indication of immediate medical attention and special treatment needed Provide general supportive measures and treat symptomatically. In case of shortness of breath give oxygen. Keep victim warm. Keep victim under observation. Symptoms may be delayed.

**SECTION 05: FIRE-FIGHTING MEASURES**

Suitable Extinguishing Media..... Dry chemical powder. Carbon dioxide. Foam, water spray or fog.  
 Unsuitable Extinguishing Media..... Do not use water jet as an extinguisher, as this will spread the fire.  
 Specific Hazards Arising from the Chemical In case of fire, the following can be released: Carbon Oxides (CO, CO<sub>2</sub>), Other unidentified Organic Compounds.  
 Special Protective Equipment and Precautions for Firefighters ..... Firefighters must use standard protective equipment including flame retardant coat, helmet with water to prevent vapor pressure build up. Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Remove undamaged containers from immediate hazard area if it is safe to do.  
 General Fire Hazards..... Extremely flammable aerosol.

**SECTION 06: ACCIDENTAL RELEASE MEASURES**

Personal Precautions, Protective Equipment and Emergency Procedures ..... No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Avoid walking through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see Section 08).  
 Methods and Materials for Containment .. and Cleaning Up Wash with plenty of water.  
 Environmental Precautions..... Keep out of drains, sewers, ditches, and waterways. Minimize use of water to prevent environmental contamination.

**SECTION 07: HANDLING AND STORAGE**

Precautions for Safe Handling..... Avoid breathing vapours or mists. Never pierce, drill, grind, cut, saw or weld any empty container. Do not eat or drink while working. See Section 08 for Protective Personal Equipments.  
 Conditions for Safe Storage including any Incompatibilities Keep container tightly closed in a dry, cool and well-ventilated place. Keep away from heat, sparks, and flame. Do not store in direct sunlight.

**SECTION 08: EXPOSURE CONTROLS / PERSONAL PROTECTION**

INGREDIENTS	TWA	ACGIH TLV STEL	PEL	OSHA PEL STEL	REL	NIOSH
Isobutane	Not available	1,000 ppm	Not available	Not available	Not available	Not available
Propane	Not available	Not available	1,000 ppm	Not available	Not available	Not available
Appropriate Engineering Controls.....	Local exhaust ventilation required to maintain the point of use below the Threshold Limit Value if unprotected personnel are involved. Ensure that eyewash stations and safety showers are available.					
Individual Protection Measures:						
Eye/Face Protection.....	Chemical splash goggles are recommended.					
Skin Protection.....	Use appropriate protective clothing to avoid skin contact if required.					
Respiratory Protection.....	None known.					
Thermal Hazards.....	None known.					
General Hygiene Considerations.....	When using, do not eat, drink or smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment prior to use.					

**SECTION 09: PHYSICAL AND CHEMICAL PROPERTIES**

Form..... Aerosol.  
 Physical Appearance..... Thin Blue Liquid.  
 Odor..... N/A.  
 Odor Threshold (ppm)..... N/A.  
 Specific Gravity (Aerosol)..... 0.772-0.802.  
 Specific Gravity (Liquid)..... 0.850-0.890.  
 Vapour Density (Air=1)..... Heavier than air.  
 Aerosol Vapour Pressure (psig, 21°C)..... 65-75.  
 pH..... N/A.  
 Boiling Point (Propellant), ° C..... -31.61 to -11.72.  
 Melting / Freezing point (°C), liquid..... -20.

**PRODUCT: Krown Fast-Acting Penetrant (Krown The Solution) - 400 g****CODE: KR-002010****SECTION 09: PHYSICAL AND CHEMICAL PROPERTIES**

Flash Point (°C), Method..... -104 °C (-156°F). Estimated. (Propellant).  
 Flashback..... N/A.  
 Evaporation Rate (n-Butyl Acetate = 1)..... N/A.  
 VOC Content..... N/A.  
 Solubility in water..... Insoluble.  
 Auto Ignition Temperature (°C)..... 460°C (860°F). (Propellant).  
 Lower Flammable Limit (% Vol)..... 1.8. (Propellant).  
 Upper Flammable Limit (% Vol)..... 9.5. (Propellant).  
 Coefficient of Water/Oil Distribution..... N/A.  
 Viscosity..... 100 MPa-s. (Liquid).

**SECTION 10: STABILITY AND REACTIVITY**

Reactivity ..... No hazardous reactions.  
 Chemical Stability..... Stable under the recommended storage and handling conditions.  
 Possibility of Hazardous Reactions..... It may catch fire on contact with oxidizing mineral acids.  
 Conditions to Avoid..... Heat, flames, sparks.  
 Incompatible Materials..... None known.  
 Hazardous Decomposition Products..... In combustion emits toxic fumes.

**SECTION 11: TOXICOLOGICAL INFORMATION**

INGREDIENTS	LC50	LD50
Isobutane	658 mg/L (Rat - 4hrs)	Not available
Propane	658 mg/L (Rat - 4hrs)	Not available
Information on Likely Routes of Exposure:		
Routes of entry - Inhalation.....	Yes.	
Routes of entry - Skin & Eye.....	Yes.	
Routes of entry - Ingestion.....	No.	
Routes of entry - Skin Absorption.....	No.	
Symptoms Related to the Physical, Chemical and Toxicological Characteristics		
Acute Toxicity.....	N/A.	
Skin Corrosion/Irritation.....	Causes mild skin irritation. Prolonged contact may be more irritating.	
Serious Eye Damage/Eye Irritation.....	May irritate eyes.	
Respiratory or Skin Sensitization.....	N/A.	
Germ Cell Mutagenicity.....	No data available to indicate product or any components present at greater than 0.1% are mutagenic.	
Carcinogenicity.....	N/A.	
Reproductive Toxicity.....	Based on available data, the classification criteria are not met.	
STOT - Single Exposure.....	No data available .	
STOT - Repeated Exposure.....	No data available .	
Aspiration Hazard.....	Aspiration into the lungs during swallowing or subsequent vomiting may cause chemical pneumonitis, which can be fatal.	
Chronic Effects.....	No known adverse effects .	

**SECTION 12: ECOLOGICAL INFORMATION**

Ecotoxicity..... May be dangerous for the environment. No data is available on the product itself. Should not be released into the environment.  
 Persistence and degradability ..... The product itself has not been tested.  
 Bioaccumulation Potential..... The product itself has not been tested.  
 Mobility in Soil..... The product itself has not been tested.  
 Other Adverse Effects..... None Known.

**SECTION 13: DISPOSAL CONSIDERATIONS**

Appropriate Disposal Methods..... This material and its container must be disposed of as hazardous waste. Avoid release to the environment. Spilled material and water rinses are classified as chemical waste and must be disposed of in accordance with current local, provincial and federal regulations.

**SECTION 14: TRANSPORT INFORMATION**

TDG (Canada- Road)..... UN1950, AEROSOLS, Class 2.1.  
 DOT (US-Road)..... UN1950, AEROSOLS, Class 2.1, LTD QTY, Consumer Commodity ORM-D.  
 IMDG (International- Marine)..... UN1950, AEROSOLS, Class 2.1.  
 IATA (International- Air)..... UN1950, AEROSOLS, Class 2.1, LTD QTY.

**PRODUCT: Krown Fast-Acting Penetrant (Krown The Solution) - 400 g**

**CODE: KR-002010**

**SECTION 15: REGULATORY INFORMATION**

Canada Regulations:.....	WHMIS Classification. A: Compressed gas. B5: Flammable aerosol.
Canadian Environmental Protection Act ... (CEPA)	All ingredients listed appear on the Domestic Substances List (DSL).
US Regulations.....	Environmental Protection Act: Constituents of this product are included on the TSCA inventory. This product is considered hazardous under the OSHA Hazard Communication Standard.

**SECTION 16: OTHER INFORMATION**

Disclaimer.....	The information contained herein is based on data considered accurate. No guarantee or warranty is expressed or implied regarding the accuracy of this data or the results obtained from the use thereof. The SDS provider assumes no responsibility for personal injury or property damage to vendors or users or third parties, caused by the material. Such vendors or users assume all risks with the use of the material. This product has been classified in accordance with the hazard criteria of the CPR and the SDS contains all the information required by the CPR. .
Abbreviations.....	ACGIH: American Conference of Governmental Industrial Hygienists; CAS: Chemical Abstract Service; NIOSH: National Institute for Occupational Safety and Health, OSHA: Occupational Safety and Health Administration- USA; TSCA: Toxic Substances Control Act 1976-USA; PEL: Permissible Exposure Limit; REL: Recommended Exposure Limit; TLV: Threshold Limit Value; VOC: Volatile Organic Content; WHMIS: Workplace Hazardous Materials Information System STOT: Specific Target Organ Toxicity.
Prepared by .....	Regulatory Affairs
Latest Revision .....	OCT 04/2018

# SAFETY DATA SHEET

## KROWN T40

### 1. PRODUCT AND COMPANY INFORMATION

KROWN CORPORATE  
35 MAGNUM DRIVE  
SCHOMBERG, ON L0G 1T0  
PHONE: (905) 939-8750  
(800)-267-5744

WHMIS: NON-CONTROLLED  
TRADE NAME: T40  
PRODUCT CODE: NOT APPLICABLE  
CAS NUMBER: MIXTURE. NOT APPLICABLE  
SYNONYMS: NONE  
FORMULA: NOT APPLICABLE  
CHEMICAL FAMILY: PETROLEUM HYDROCARBON  
PRIMARY PRODUCT USE: RUST INHIBITOR  
CHEMICAL EMERGENCIES (DAY OR NIGHT) CALL CANUTEC: (613) 996-6666

### 2. HAZARDS IDENTIFICATION

APPEARANCE: DARK VISCOUS OIL  
ODOR: NONE  
PRINCIPLE HAZARDS: NONE

SEE SECTION 11 FOR COMPLETE HEALTH HAZARD INFORMATION

### 3. COMPOSITION / INFORMATION ON INGREDIENTS

HAZARDOUS INGREDIENTS: NONE

COMPOSITION	CAS NO.	%W/W	TOXICITY
-------------	---------	------	----------

### 4. FIRST AID MEASURES

#### FIRST AID FOR EYES:

IMMEDIATELY WASH THE EYES WITH FLOWING WATER FOR SEVERAL MINUTES. REMOVE CONTACT LENSES, IF PRESENT AND EASY TO DO. INSURE PROPER IRRIGATION BY OCCASIONALLY LIFTING UPPER AND LOWER EYELIDS. IF EYE IRRITATION PERSISTS, SEEK MEDICAL ATTENTION.

#### FIRST AID FOR SKIN:

REMOVE CONTAMINATED CLOTHING AND WASH AFFECTED AREAS WITH PLENTY OF WATER. IF REDNESS OR SKIN IRRITATION PERSISTS, SEEK MEDICAL ATTENTION. WASH CLOTHING BEFORE REUSE.

#### FIRST AID FOR INHALATION:

GET VICTIM TO FRESH AIR. GIVE ARTIFICIAL RESPIRATION OR OXYGEN IF BREATHING HAS STOPPED OR IS DIFFICULT. GET PROMPT MEDICAL ATTENTION. DO NOT GIVE FLUIDS IF VICTIM IS UNCONSCIOUS.

#### FIRST AID FOR INGESTION:

IF INGESTED, DO NOT INDUCE VOMITING. GET IMMEDIATE MEDICAL ASSISTANCE.

## 5. FIRE FIGHTING MEASURES

FLASH POINT: > 185°C COC

AUTOIGNITION TEMP: > 210°C COC

FLAMMABLE LIMITS: LOWER: N/E UPPER: N/E

EXTINGUISHING MEDIA: WATER FOG, CO2, DRY CHEMICAL, ALCOHOL FOAM.

### SPECIAL FIREFIGHTING INSTRUCTION:

DO NOT USE FULL WATER JET. USE SELF-CONTAINED BREATHING APPARATUS AND FULL PROTECTIVE CLOTHING. DO NOT ENTER FIRE AREA WITHOUT PROPER PROTECTION. USE WATER SPRAY TO COOL FIRE-EXPOSED CONTAINERS. FIGHT FIRE FROM AS FAR AWAY AS POSSIBLE. COLLECT CONTAMINATED FIRE-FIGHTING WATER SEPARATELY. PREVENT FIRE-FIGHTING RUN-OFF FROM REACHING SEWERS OR BODIES OF WATER AS IT MAY CONTAIN CHEMICALS WHICH ARE HAZARDOUS TO THE ENVIRONMENT.

### UNUSUAL FIRE AND EXPOSION HAZARDS:

TREAT AS AN OIL FIRE.

### HAZARDOUS COMBUSTION PRODUCTS:

CARBON MONOXIDE

## 6. ACCIDENTAL RELEASE MEASURES

### STEPS TO BE TAKEN IN CASE OF SPILL OR LEAK:

DYKE AND RECOVER. USE ABSORBANT MATERIAL. CONSULT AN EXPERT ON THE DISPOSAL OF RECOVERED MATERIAL. ENSURE DISPOSAL IN COMPLIANCE WITH GOVERNMENT REGULATIONS AND ENSURE CONFORMITY TO LOCAL DISPOSAL REGULATIONS. NOTIFY APPROPRIATE AUTHORITIES IMMEDIATELY. TAKE ALL ACTION NECESSARY TO PREVENT AND REMEDY THE ADVERSE EFFECTS OF THE SPILL. PREVENT SPILLS FROM ENTERING WATER COURSES OR SEWERS.

## 7. HANDLING AND STORAGE

### HANDLING AND STORAGE INFORMATION:

KEEP CONTAINER CLOSED. HANDLE OPEN CONTAINERS WITH CARE. STORE IN A COOL, WELL VENTILATED PLACE AWAY FROM OPEN FLAME AND INCOMPATIBLE MATERIALS. DO NOT HANDLE OR STORE NEAR AN OPEN FLAME OR OTHER SOURCES OF IGNITION. USE PROPER GROUNDING PROCEDURES. DO NOT PRESSURIZE, CUT, HEAT OR WELD "EMPTY" CONTAINERS. DO NOT REUSE EMPTY CONTAINERS WITHOUT COMMERCIAL CLEANING OR RECONDITIONING.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE LIMITS: 5 MG/M3 (ACGIH recommendation - nuisance mist)

RESPIRATORY PROTECTION: DUST MASK RECOMMENDED WHEN AEROSOLIZING PRODUCT.

PROTECTIVE GLOVES: NITRILE GLOVES RECOMMENDED.

EYE PROTECTION: SAFETY GLASSES WITH SIDE SHIELDS.

### ENGINEERING CONTROLS:

USE IN A WELL VENTILATED AREA. PROVIDE MECHANICAL VENTILATION OF CONFINED SPACES.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE: LIQUID  
FLASH POINT: >185°C COC  
UFL: N.D.  
LFL: N.D.  
AUTOIGNITION POINT: >210°C COC  
EXPLOSION DATA: MATERIAL DOES NOT HAVE EXPLOSIVE PROPERTIES.  
VAPOUR PRESSURE: N.D.  
VAPOUR DENSITY: HEAVIER THAN AIR  
pH: N.A.  
SPECIFIC GRAVITY: 0.89 G/CC  
WATER SOLUBILITY: NONE  
EVAPORATION RATE: n-BUTYL ACETATE = 1: N.D.  
VISCOSITY: 6.3 cSt @ 100°C APPROX.  
BOILING POINT: N.D.  
MELTING POINT: - 3°C

The above data are typical values and do not constitute a specification.

## 10. STABILITY AND REACTIVITY

STABILITY: STABLE  
CONDITIONS TO AVOID: NOT DETERMINED  
HAZARDOUS POLYMERIZATION: WILL NOT OCCUR  
INCOMPATIBILITIES: STRONG OXIDIZING AGENTS  
HAZARDOUS DECOMPOSITION: THERMAL DECOMPOSITION MAY PRODUCE CARBON MONOXIDE.

## 11. TOXICOLOGICAL INFORMATION

EYE IRRITATION: SLIGHTLY IRRITANT  
SKIN IRRITATION: NON-IRRITATING.  
RESPIRATORY IRRITATION: MAY CAUSE NOSE AND THROAT IRRITATION.  
DERMAL TOXICITY: N.D.  
DERMAL SENSITIZATION:  
PROLONGED OR REPEATED SKIN CONTACT AS FROM CLOTHING WET WITH MATERIAL MAY CAUSE DERMATITIS.

### **-CHRONIC EXPOSURE -**

CHRONIC TOXICITY: NO DATA AVAILABLE TO INDICATE PRODUCT IS A CHRONIC HEALTH HAZARD.  
CARCINOGENICITY: NOT EXPECTED.  
MUTAGENICITY: NOT EXPECTED  
REPRODUCTIVE TOXICITY: NOT EXPECTED  
TERATOGENICITY: NOT EXPECTED

OTHER: NONE KNOWN

## 12. ECOLOGICAL INFORMATION

FRESHWATER FISH TOXICITY: NOT DETERMINED  
FRESHWATER INVERTIBRATES TOXICITY: NOT DETERMINED  
ALGAL INHIBITION: NOT DETERMINED  
SALTWATER FISH TOXICITY: NOT DETERMINED  
SALTWATER INVERTIBRATES TOXICITY: NOT DETERMINED  
BACTERIA TOXICITY: NOT DETERMINED  
MISCELLANEOUS TOXICITY: NOT DETERMINED

### ENVIRONMENTAL FATE

BIODEGRADATION: EXPECTED TO BE EXTREMELY LIMITED  
BIOACCUMULATION: NOT EXPECTED TO BIOCONCENTRATE  
SOIL MOBILITY: NOT DETERMINED.

## 13. DISPOSAL CONSIDERATIONS

### WASTE DISPOSAL CONSIDERATIONS:

THIS PRODUCT, IF DISCARDED, IS NOT A HAZARDOUS WASTE. RECOMMEND THAT PRODUCT BE DISPOSED OF BY INCINERATION IN AN APPROVED FACILITY. FOLLOW APPLICABLE LOCAL, STATE, AND FEDERAL REGULATIONS.

## 14. TRANSPORT INFORMATION

CANADIAN TRANSPORTATION OF DANGEROUS GOODS: NOT REGULATED.  
U.S. D.O.T.: NOT REGULATED  
ADR, RID, IMDG, ICAO, IATA – THIS PRODUCT IS NOT REGULATED BY ADR, RID, IMDG, ICAO, IATA

## 15. REGULATORY INFORMATION

CANADA: ALL COMPONENTS ARE ON THE DOMESTIC SUBSTANCES LIST OR ARE EXEMPT.

"This product has been classified in accordance with the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR"

USA: ALL COMPONENTS OF THIS PRODUCT ARE REGISTERED UNDER TSCA OR ARE EXEMPT.

EU:

ALL COMPONENTS OF THIS PRODUCT ARE IN COMPLIANCE WITH THE EC SEVENTH AMENDMENT DIRECTIVE 92/32/EEC.

## 16. OTHER INFORMATION

CANADA HMIS CODES: H=1, F=1, R=0  
WHMIS: NOT CONTROLLED.  
US NFPA CODES: H=1, F=1, R=0, SPECIAL = N/E  
REVISION DATE: 08 January 2018

# SAFETY DATA SHEET

A03731007

## Section 1. Identification

**Product name** : KRYLON® Industrial QUIK-MARK™ Solvent-Based Inverted Marking Paint (APWA)  
Bright Orange

**Product code** : A03731007

**Other means of identification** : Not available.

**Product type** : Aerosol.

**Relevant identified uses of the substance or mixture and uses advised against**  
Not applicable.

**Manufacturer** : Krylon Products Group  
101 Prospect Avenue NW  
Cleveland, OH 44115

**Emergency telephone number of the company** : (216) 566-2917

**Product Information Telephone Number** : (800) 247-3266

**Regulatory Information Telephone Number** : (216) 566-2902

**Transportation Emergency Telephone Number** : (800) 424-9300

## Section 2. Hazards identification

**OSHA/HCS status** : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

**Classification of the substance or mixture** : FLAMMABLE AEROSOLS - Category 1  
GASES UNDER PRESSURE - Compressed gas  
SKIN CORROSION/IRRITATION - Category 2  
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A  
CARCINOGENICITY - Category 2  
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3  
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3  
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (lungs) - Category 1  
ASPIRATION HAZARD - Category 1

Percentage of the mixture consisting of ingredient(s) of unknown oral toxicity: 56%  
Percentage of the mixture consisting of ingredient(s) of unknown dermal toxicity: 56%  
Percentage of the mixture consisting of ingredient(s) of unknown inhalation toxicity: 53.2%

### GHS label elements

#### Hazard pictograms



**Signal word** : Danger

**Date of issue/Date of revision** : 6/11/2018 **Date of previous issue** : 3/8/2018

A03731007

KRYLON® Industrial QUIK-MARK™ Solvent-Based Inverted Marking Paint (APWA)  
Bright Orange

**Version** : 9 1/14

SHW-85-NA-GHS-US

## Section 2. Hazards identification

**Hazard statements** : Extremely flammable aerosol.  
Contains gas under pressure; may explode if heated.  
Causes serious eye irritation.  
Causes skin irritation.  
Suspected of causing cancer.  
May be fatal if swallowed and enters airways.  
May cause respiratory irritation.  
May cause drowsiness or dizziness.  
Causes damage to organs through prolonged or repeated exposure. (lungs)

### Precautionary statements

**Prevention** : Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves. Wear eye or face protection. Wear protective clothing. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not spray on an open flame or other ignition source. Use only outdoors or in a well-ventilated area. Do not breathe dust or mist. Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling. Pressurized container: Do not pierce or burn, even after use.

**Response** : Get medical attention if you feel unwell. IF exposed or concerned: Get medical attention. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or physician if you feel unwell. IF SWALLOWED: Immediately call a POISON CENTER or physician. Do NOT induce vomiting. IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing and wash it before reuse. If skin irritation occurs: Get medical attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention.

**Storage** : Store locked up. Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F. Store in a well-ventilated place.

**Disposal** : Dispose of contents and container in accordance with all local, regional, national and international regulations.

**Supplemental label elements** DELAYED EFFECTS FROM LONG TERM OVEREXPOSURE. Contains solvents which can cause permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal. WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm. FOR INDUSTRIAL USE ONLY.

Please refer to the SDS for additional information. Keep out of reach of children. Keep upright in a cool, dry place. Do not discard empty can in trash compactor.

**Hazards not otherwise classified** : DANGER: Rags, steel wool, other waste soaked with this product, and sanding residue may spontaneously catch fire if improperly discarded. Immediately place rags, steel wool, other waste soaked with this product, and sanding residue in a sealed, water-filled, metal container. Dispose of in accordance with local fire regulations.

## Section 3. Composition/information on ingredients

**Substance/mixture** : Mixture

**Other means of identification** : Not available.

### CAS number/other identifiers

Ingredient name	% by weight	CAS number
Lt. Aliphatic Hydrocarbon Solvent	≥25 - ≤50	64742-89-8
Propane	≥10 - ≤25	74-98-6
Calcium Carbonate	≤10	1317-65-3
Butane	≤10	106-97-8
Talc	≤10	14807-96-6
n-Butyl Acetate	≤3	123-86-4
Titanium Dioxide	≤1	13463-67-7
Mineral Spirits 140-Flash	<1	64742-88-7
Xylene	≤0.3	1330-20-7

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

## Section 3. Composition/information on ingredients

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

## Section 4. First aid measures

### Description of necessary first aid measures

- Eye contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If necessary, call a poison center or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- Skin contact** : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Continue to rinse for at least 10 minutes. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** : Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Aspiration hazard if swallowed. Can enter lungs and cause damage. Do not induce vomiting. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

### Most important symptoms/effects, acute and delayed

#### Potential acute health effects

- Eye contact** : Causes serious eye irritation.
- Inhalation** : Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness. May cause respiratory irritation.
- Skin contact** : Causes skin irritation.
- Ingestion** : Can cause central nervous system (CNS) depression. May be fatal if swallowed and enters airways.

#### Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:  
pain or irritation  
watering  
redness
- Inhalation** : Adverse symptoms may include the following:  
respiratory tract irritation  
coughing  
nausea or vomiting  
headache  
drowsiness/fatigue  
dizziness/vertigo  
unconsciousness
- Skin contact** : Adverse symptoms may include the following:  
irritation  
redness

## Section 4. First aid measures

**Ingestion** : Adverse symptoms may include the following:  
nausea or vomiting

### Indication of immediate medical attention and special treatment needed, if necessary

- Notes to physician** : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- Specific treatments** : No specific treatment.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

See toxicological information (Section 11)

## Section 5. Fire-fighting measures

### Extinguishing media

- Suitable extinguishing media** : Use an extinguishing agent suitable for the surrounding fire.
- Unsuitable extinguishing media** : None known.

**Specific hazards arising from the chemical** : Extremely flammable aerosol. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Gas may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back, causing fire or explosion. Bursting aerosol containers may be propelled from a fire at high speed.

**Hazardous thermal decomposition products** : Decomposition products may include the following materials:  
carbon dioxide  
carbon monoxide  
nitrogen oxides  
halogenated compounds  
metal oxide/oxides

**Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

**Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

## Section 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. In the case of aerosols being ruptured, care should be taken due to the rapid escape of the pressurized contents and propellant. If a large number of containers are ruptured, treat as a bulk material spillage according to the instructions in the clean-up section. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
- For emergency responders** : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

**Environmental precautions** :

## Section 6. Accidental release measures

Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

### Methods and materials for containment and cleaning up

- Small spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
- Large spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

## Section 7. Handling and storage

### Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C. Do not pierce or burn, even after use. Avoid exposure - obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not swallow. Avoid breathing gas. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Empty containers retain product residue and can be hazardous.
- Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
- Conditions for safe storage, including any incompatibilities** : Store in accordance with local regulations. Store away from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Protect from sunlight. Store locked up. Eliminate all ignition sources. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

## Section 8. Exposure controls/personal protection

### Control parameters

#### Occupational exposure limits (OSHA United States)

Ingredient name	Exposure limits
Lt. Aliphatic Hydrocarbon Solvent Propane	None. <b>NIOSH REL (United States, 10/2016).</b> TWA: 1000 ppm 10 hours. TWA: 1800 mg/m <sup>3</sup> 10 hours. <b>OSHA PEL (United States, 6/2016).</b> TWA: 1000 ppm 8 hours. TWA: 1800 mg/m <sup>3</sup> 8 hours. <b>ACGIH TLV (United States, 3/2017). Oxygen Depletion [Asphyxiant].</b>
Calcium Carbonate	<b>NIOSH REL (United States, 10/2016).</b> TWA: 5 mg/m <sup>3</sup> 10 hours. Form: Respirable

## Section 8. Exposure controls/personal protection

Butane	<p>fraction TWA: 10 mg/m<sup>3</sup> 10 hours. Form: Total <b>OSHA PEL (United States, 6/2016).</b> TWA: 5 mg/m<sup>3</sup> 8 hours. Form: Respirable fraction TWA: 15 mg/m<sup>3</sup> 8 hours. Form: Total dust <b>NIOSH REL (United States, 10/2016).</b> TWA: 800 ppm 10 hours. TWA: 1900 mg/m<sup>3</sup> 10 hours. <b>ACGIH TLV (United States, 3/2017).</b> STEL: 1000 ppm 15 minutes. <b>NIOSH REL (United States, 10/2016).</b> TWA: 2 mg/m<sup>3</sup> 10 hours. Form: Respirable fraction <b>ACGIH TLV (United States, 3/2017).</b> TWA: 2 mg/m<sup>3</sup> 8 hours. Form: Respirable fraction <b>NIOSH REL (United States, 10/2016).</b> TWA: 150 ppm 10 hours. TWA: 710 mg/m<sup>3</sup> 10 hours. STEL: 200 ppm 15 minutes. STEL: 950 mg/m<sup>3</sup> 15 minutes. <b>OSHA PEL (United States, 6/2016).</b> TWA: 150 ppm 8 hours. TWA: 710 mg/m<sup>3</sup> 8 hours. <b>ACGIH TLV (United States, 3/2017).</b> STEL: 150 ppm 15 minutes. TWA: 50 ppm 8 hours. <b>ACGIH TLV (United States, 3/2017).</b> TWA: 10 mg/m<sup>3</sup> 8 hours. <b>OSHA PEL (United States, 6/2016).</b> TWA: 15 mg/m<sup>3</sup> 8 hours. Form: Total dust <b>OSHA PEL (United States, 6/2016).</b> TWA: 100 ppm 8 hours. TWA: 400 mg/m<sup>3</sup> 8 hours. <b>ACGIH TLV (United States, 3/2017).</b> TWA: 100 ppm 8 hours. TWA: 434 mg/m<sup>3</sup> 8 hours. STEL: 150 ppm 15 minutes. STEL: 651 mg/m<sup>3</sup> 15 minutes. <b>OSHA PEL (United States, 6/2016).</b> TWA: 100 ppm 8 hours. TWA: 435 mg/m<sup>3</sup> 8 hours.</p>
Talc	
n-Butyl Acetate	
Titanium Dioxide	
Mineral Spirits 140-Flash	
Xylene	

### Occupational exposure limits (Canada)

Ingredient name	Exposure limits
Propane	<p><b>CA Alberta Provincial (Canada, 4/2009).</b> 8 hrs OEL: 1000 ppm 8 hours. <b>CA British Columbia Provincial (Canada, 6/2017).</b> TWA: 1000 ppm 8 hours. <b>CA Quebec Provincial (Canada, 1/2014).</b> TWA<sub>EV</sub>: 1000 ppm 8 hours. TWA<sub>EV</sub>: 1800 mg/m<sup>3</sup> 8 hours. <b>CA Ontario Provincial (Canada, 7/2015).</b> TWA: 1000 ppm 8 hours. <b>CA Saskatchewan Provincial (Canada, 7/2013).</b> STEL: 1250 ppm 15 minutes. TWA: 1000 ppm 8 hours.</p>

## Section 8. Exposure controls/personal protection

Butane	<p><b>CA Alberta Provincial (Canada, 4/2009).</b> 8 hrs OEL: 1000 ppm 8 hours.</p> <p><b>CA British Columbia Provincial (Canada, 6/2017).</b> TWA: 600 ppm 8 hours. STEL: 750 ppm 15 minutes.</p> <p><b>CA Quebec Provincial (Canada, 1/2014).</b> TWA: 800 ppm 8 hours. TWA: 1900 mg/m<sup>3</sup> 8 hours.</p> <p><b>CA Ontario Provincial (Canada, 7/2015).</b> TWA: 800 ppm 8 hours.</p> <p><b>CA Saskatchewan Provincial (Canada, 7/2013).</b> STEL: 1250 ppm 15 minutes. TWA: 1000 ppm 8 hours.</p>
n-Butyl Acetate	<p><b>CA Alberta Provincial (Canada, 4/2009).</b> 15 min OEL: 200 ppm 15 minutes. 15 min OEL: 950 mg/m<sup>3</sup> 15 minutes. 8 hrs OEL: 150 ppm 8 hours. 8 hrs OEL: 713 mg/m<sup>3</sup> 8 hours.</p> <p><b>CA British Columbia Provincial (Canada, 6/2017).</b> TWA: 20 ppm 8 hours.</p> <p><b>CA Ontario Provincial (Canada, 7/2015).</b> TWA: 150 ppm 8 hours. STEL: 200 ppm 15 minutes.</p> <p><b>CA Quebec Provincial (Canada, 1/2014).</b> TWA: 150 ppm 8 hours. TWA: 713 mg/m<sup>3</sup> 8 hours. STEL: 200 ppm 15 minutes. STEL: 950 mg/m<sup>3</sup> 15 minutes.</p> <p><b>CA Saskatchewan Provincial (Canada, 7/2013).</b> STEL: 200 ppm 15 minutes. TWA: 150 ppm 8 hours.</p>

### Occupational exposure limits (Mexico)

Ingredient name	Exposure limits
Propane	<p><b>NOM-010-STPS-2014 (Mexico, 4/2016).</b> TWA: 1000 ppm 8 hours.</p>
Butane	<p><b>NOM-010-STPS-2014 (Mexico, 4/2016).</b> TWA: 1000 ppm 8 hours.</p>
n-Butyl Acetate	<p><b>NOM-010-STPS-2014 (Mexico, 4/2016).</b> TWA: 150 ppm 8 hours. STEL: 200 ppm 15 minutes.</p>

### Appropriate engineering controls

- : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

### Environmental exposure controls

- : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

### Individual protection measures

## Section 8. Exposure controls/personal protection

- Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
- Eye/face protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.
- Skin protection**
- Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
- Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.
- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

## Section 9. Physical and chemical properties

### Appearance

- Physical state** : Liquid.
- Color** : Not available.
- Odor** : Not available.
- Odor threshold** : Not available.
- pH** : 7
- Melting point/freezing point** : Not available.
- Boiling point/boiling range** : Not available.
- Flash point** : Closed cup: -29°C (-20.2°F) [Pensky-Martens Closed Cup]
- Evaporation rate** : 1.5 (butyl acetate = 1)
- Flammability (solid, gas)** : Not available.
- Lower and upper explosive (flammable) limits** : Lower: 0.9%  
Upper: 9.5%
- Vapor pressure** : 101.3 kPa (760 mm Hg) [at 20°C]
- Vapor density** : 1 [Air = 1]
- Relative density** : 0.85
- Solubility** : Not available.
- Partition coefficient: n-octanol/water** : Not available.
- Auto-ignition temperature** : Not available.
- Decomposition temperature** : Not available.
- Viscosity** : Kinematic (40°C (104°F)): <0.205 cm<sup>2</sup>/s (<20.5 cSt)
- Molecular weight** : Not applicable.

## Section 9. Physical and chemical properties

### Aerosol product

Type of aerosol : Spray  
Heat of combustion : 23.053 kJ/g

## Section 10. Stability and reactivity

Reactivity : No specific test data related to reactivity available for this product or its ingredients.

Chemical stability : The product is stable.

Possibility of hazardous reactions : Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions to avoid : Avoid all possible sources of ignition (spark or flame).

Incompatible materials : No specific data.

Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## Section 11. Toxicological information

### Information on toxicological effects

#### Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Butane	LC50 Inhalation Vapor	Rat	658000 mg/m <sup>3</sup>	4 hours
	LD50 Dermal	Rabbit	>17600 mg/kg	-
n-Butyl Acetate	LD50 Oral	Rat	10768 mg/kg	-
	LC50 Inhalation Gas.	Rat	5000 ppm	4 hours
Xylene	LD50 Oral	Rat	4300 mg/kg	-

#### Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Talc	Skin - Mild irritant	Human	-	72 hours 300 Micrograms Intermittent	-
n-Butyl Acetate	Eyes - Moderate irritant	Rabbit	-	100 milligrams	-
	Skin - Moderate irritant	Rabbit	-	24 hours 500 milligrams	-
Titanium Dioxide	Skin - Mild irritant	Human	-	72 hours 300 Micrograms Intermittent	-
	Eyes - Mild irritant	Rabbit	-	87 milligrams	-
Xylene	Eyes - Severe irritant	Rabbit	-	24 hours 5 milligrams	-
	Skin - Mild irritant	Rat	-	8 hours 60 microliters	-
	Skin - Moderate irritant	Rabbit	-	24 hours 500 milligrams	-
	Skin - Moderate irritant	Rabbit	-	100 Percent	-

#### Sensitization

Not available.

#### Mutagenicity

Not available.

#### Carcinogenicity

## Section 11. Toxicological information

Not available.

### Classification

Product/ingredient name	OSHA	IARC	NTP
Talc	-	3	-
Titanium Dioxide	-	2B	-
Xylene	-	3	-

### Reproductive toxicity

Not available.

### Teratogenicity

Not available.

### Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
Lt. Aliphatic Hydrocarbon Solvent	Category 3	Not applicable.	Respiratory tract irritation and Narcotic effects
Propane	Category 3	Not applicable.	Respiratory tract irritation and Narcotic effects
Calcium Carbonate	Category 3	Not applicable.	Respiratory tract irritation
Butane	Category 3	Not applicable.	Respiratory tract irritation and Narcotic effects
n-Butyl Acetate	Category 3	Not applicable.	Narcotic effects
Mineral Spirits 140-Flash	Category 3	Not applicable.	Respiratory tract irritation and Narcotic effects
Xylene	Category 3	Not applicable.	Respiratory tract irritation

### Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
Lt. Aliphatic Hydrocarbon Solvent	Category 2	Not determined	Not determined
Propane	Category 2	Not determined	Not determined
Butane	Category 2	Not determined	Not determined
Talc	Category 1	Inhalation	lungs
Mineral Spirits 140-Flash	Category 1	Not determined	Not determined
Xylene	Category 2	Not determined	Not determined

### Aspiration hazard

Name	Result
Lt. Aliphatic Hydrocarbon Solvent	ASPIRATION HAZARD - Category 1
Propane	ASPIRATION HAZARD - Category 1
Butane	ASPIRATION HAZARD - Category 1
Mineral Spirits 140-Flash	ASPIRATION HAZARD - Category 1
Xylene	ASPIRATION HAZARD - Category 1

**Information on the likely routes of exposure** : Not available.

**Potential acute health effects**

- Eye contact** : Causes serious eye irritation.
- Inhalation** : Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness. May cause respiratory irritation.
- Skin contact** : Causes skin irritation.
- Ingestion** : Can cause central nervous system (CNS) depression. May be fatal if swallowed and enters airways.

**Symptoms related to the physical, chemical and toxicological characteristics**

- Eye contact** : Adverse symptoms may include the following:
  - pain or irritation
  - watering
  - redness
- Inhalation** : Adverse symptoms may include the following:
  - respiratory tract irritation
  - coughing
  - nausea or vomiting
  - headache
  - drowsiness/fatigue
  - dizziness/vertigo
  - unconsciousness
- Skin contact** : Adverse symptoms may include the following:
  - irritation
  - redness
- Ingestion** : Adverse symptoms may include the following:
  - nausea or vomiting

**Delayed and immediate effects and also chronic effects from short and long term exposure**

**Short term exposure**

- Potential immediate effects** : Not available.
- Potential delayed effects** : Not available.

**Long term exposure**

- Potential immediate effects** : Not available.
- Potential delayed effects** : Not available.

**Potential chronic health effects**

Not available.

- General** : Causes damage to organs through prolonged or repeated exposure.
- Carcinogenicity** : Suspected of causing cancer. Risk of cancer depends on duration and level of exposure.
- Mutagenicity** : No known significant effects or critical hazards.
- Teratogenicity** : No known significant effects or critical hazards.
- Developmental effects** : No known significant effects or critical hazards.
- Fertility effects** : No known significant effects or critical hazards.

**Numerical measures of toxicity**

**Acute toxicity estimates**

Not available.

## Section 12. Ecological information

### Toxicity

Product/ingredient name	Result	Species	Exposure
Lt. Aliphatic Hydrocarbon Solvent	Acute LC50 >100000 ppm Fresh water	Fish - Oncorhynchus mykiss	96 hours
	Acute LC50 32 mg/l Marine water	Crustaceans - Artemia salina	48 hours
n-Butyl Acetate	Acute LC50 18000 µg/l Fresh water	Fish - Pimephales promelas	96 hours
Titanium Dioxide	Acute LC50 >1000000 µg/l Marine water	Fish - Fundulus heteroclitus	96 hours
	Acute LC50 8500 µg/l Marine water	Crustaceans - Palaemonetes pugio	48 hours
	Acute LC50 13400 µg/l Fresh water	Fish - Pimephales promelas	96 hours
Xylene			

### Persistence and degradability

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
n-Butyl Acetate	-	-	Readily
Xylene	-	-	Readily

### Bioaccumulative potential

Product/ingredient name	LogP <sub>ow</sub>	BCF	Potential
Lt. Aliphatic Hydrocarbon Solvent	-	10 to 2500	high
Xylene	-	8.1 to 25.9	low

### Mobility in soil

**Soil/water partition coefficient (K<sub>oc</sub>)** : Not available.

**Other adverse effects** : No known significant effects or critical hazards.

## Section 13. Disposal considerations

**Disposal methods** : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Do not puncture or incinerate container.

## Section 14. Transport information

	DOT Classification	TDG Classification	Mexico Classification	IATA	IMDG
<b>UN number</b>	UN1950	UN1950	UN1950	UN1950	UN1950
<b>UN proper shipping name</b>	AEROSOLS	AEROSOLS	AEROSOLS	AEROSOLS, flammable	AEROSOLS
<b>Transport hazard class(es)</b>	2.1 	2.1 	2.1 	2.1 	2.1 

## Section 14. Transport information

<b>Packing group</b>	-	-	-	-	-
<b>Environmental hazards</b>	No.	No.	No.	No.	No.
<b>Additional information</b>	-  <b>ERG No.</b> 126	Product classified as per the following sections of the Transportation of Dangerous Goods Regulations: 2.13-2.17 (Class 2). <b>ERG No.</b> 126	-  <b>ERG No.</b> 126	The environmentally hazardous substance mark may appear if required by other transportation regulations.	<b>Emergency schedules</b> F-D, S-U

**Special precautions for user :** Multi-modal shipping descriptions are provided for informational purposes and do not consider container sizes. The presence of a shipping description for a particular mode of transport (sea, air, etc.), does not indicate that the product is packaged suitably for that mode of transport. All packaging must be reviewed for suitability prior to shipment, and compliance with the applicable regulations is the sole responsibility of the person offering the product for transport. People loading and unloading dangerous goods must be trained on all of the risks deriving from the substances and on all actions in case of emergency situations.

**Transport in bulk according to Annex II of MARPOL and the IBC Code :** Not available.

**Proper shipping name :** Not available.  
**Ship type :** Not available.  
**Pollution category :** Not available.

## Section 15. Regulatory information

**SARA 313**

SARA 313 (40 CFR 372.45) supplier notification can be found on the Environmental Data Sheet.

**California Prop. 65**

WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

## Section 16. Other information

**Hazardous Material Information System (U.S.A.)**

<b>Health</b>	*	3
<b>Flammability</b>		4
<b>Physical hazards</b>		3

The customer is responsible for determining the PPE code for this material. For more information on HMIS® Personal Protective Equipment (PPE) codes, consult the HMIS® Implementation Manual.

**Caution:** HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings and the associated label are not required on SDSs or products leaving a facility under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered trademark and service mark of the American Coatings Association, Inc.

**Procedure used to derive the classification**

## Section 16. Other information

Classification	Justification
FLAMMABLE AEROSOLS - Category 1	On basis of test data
GASES UNDER PRESSURE - Compressed gas	Calculation method
SKIN CORROSION/IRRITATION - Category 2	Calculation method
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A	Calculation method
CARCINOGENICITY - Category 2	Calculation method
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3	Calculation method
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3	Calculation method
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (lungs) - Category 1	Calculation method
ASPIRATION HAZARD - Category 1	Calculation method

### History

**Date of printing** : 6/11/2018

**Date of issue/Date of revision** : 6/11/2018

**Date of previous issue** : 3/8/2018

**Version** : 9

**Key to abbreviations** : ATE = Acute Toxicity Estimate  
BCF = Bioconcentration Factor  
GHS = Globally Harmonized System of Classification and Labelling of Chemicals  
IATA = International Air Transport Association  
IBC = Intermediate Bulk Container  
IMDG = International Maritime Dangerous Goods  
LogPow = logarithm of the octanol/water partition coefficient  
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)  
UN = United Nations

### Notice to reader

It is recommended that each customer or recipient of this Safety Data Sheet (SDS) study it carefully and consult resources, as necessary or appropriate, to become aware of and understand the data contained in this SDS and any hazards associated with the product. This information is provided in good faith and believed to be accurate as of the effective date herein. However, no warranty, express or implied, is given. The information presented here applies only to the product as shipped. The addition of any material can change the composition, hazards and risks of the product. Products shall not be repackaged, modified, or tinted except as specifically instructed by Sherwin-Williams, including but not limited to the incorporation of non Sherwin-Williams products or the use or addition of products in proportions not specified by Sherwin-Williams. Regulatory requirements are subject to change and may differ between various locations and jurisdictions. The customer/buyer/user is responsible to ensure that his activities comply with all country, federal, state, provincial or local laws. The conditions for use of the product are not under the control of the manufacturer; the customer/buyer/user is responsible to determine the conditions necessary for the safe use of this product. The customer/buyer/user should not use the product for any purpose other than the purpose shown in the applicable section of this SDS without first referring to the supplier and obtaining written handling instructions. Due to the proliferation of sources for information such as manufacturer-specific SDS, the manufacturer cannot be responsible for SDSs obtained from any other source.



Revision Number: 001.2

Issue date: 04/01/2015

**1. PRODUCT AND COMPANY IDENTIFICATION**

**Product name:** LePage® Carpenter's Glue  
**Product use:** Adhesive  
**Company address:** Henkel Canada Corporation  
 2515 Meadowpine Boulevard  
 Mississauga, Ontario L5N 6C3

**IDH number:** 442184  
**Region:** Canada  
**Contact information:**  
 Telephone: 905.814.6511  
 MEDICAL EMERGENCY Phone: Poison Control Center  
 1-877-671-4608 (toll free) or 1-303-592-1711  
 TRANSPORT EMERGENCY Phone: CHEMTREC  
 1-800-424-9300 (toll free) or 1-703-527-3887  
 Internet: www.henkelna.com

**2. HAZARDS IDENTIFICATION**

**EMERGENCY OVERVIEW**

**Physical state:** Liquid  
**Color:** Opaque, Yellow  
**Odor:** Characteristic

**WHMIS hazard class:** D.2.A, D.2.B

**CAUTION:** MAY CAUSE SLIGHT EYE, SKIN OR RESPIRATORY TRACT IRRITATION ON REPEATED CONTACT.  
 MAY CAUSE GASTROINTESTINAL IRRITATION IF SWALLOWED.

**Relevant routes of exposure:** Skin, Inhalation, Eyes

**Potential Health Effects**

**Inhalation:** May cause slight irritation.  
**Skin contact:** May cause mild skin irritation.  
**Eye contact:** May cause mild irritation  
**Ingestion:** May cause gastrointestinal tract irritation if swallowed. Not expected under normal conditions of use.

**Existing conditions aggravated by exposure:** None known

See Section 11 for additional toxicological information.

**3. COMPOSITION / INFORMATION ON INGREDIENTS**

Hazardous components	CAS NUMBER	%
Boric acid	10043-35-3	0.1 - 1

**4. FIRST AID MEASURES**

**Inhalation:** Move to fresh air. If not breathing, give artificial respiration. Get immediate medical attention.

**Skin contact:** Immediately wash skin thoroughly with soap and water. Remove contaminated clothing and footwear. Get immediate medical attention.

**Eye contact:** Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get immediate medical attention.

**Ingestion:** DO NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get immediate medical attention.

## 5. FIRE FIGHTING MEASURES

**Flash point:** Not applicable

**Autoignition temperature:** Not determined

**Flammable/Explosive limits - lower:** Not determined

**Flammable/Explosive limits - upper:** Not determined

**Extinguishing media:** Use media appropriate for surrounding material.

**Special firefighting procedures:** Firefighters should wear self-contained breathing apparatus. Water may be ineffective, but may be used to cool exposed containers to prevent pressure build-up and possible auto-ignition or explosion when exposed to extreme heat. If water is used, fog nozzles are preferable.

**Unusual fire or explosion hazards:** None identified.

**Hazardous combustion products:** Smoke. Oxides of carbon.

**Sensitivity to Mechanical Impact:** None

**Sensitivity to static discharge:** None

## 6. ACCIDENTAL RELEASE MEASURES

Use personal protection recommended in Section 8, isolate the hazard area and deny entry to unnecessary and unprotected personnel.

**Environmental precautions:** Prevent further leakage or spillage if safe to do so. Do not allow material to contaminate ground water system. Do not allow product to enter sewer or waterways.

**Clean-up methods:** Keep unnecessary personnel away. Ensure adequate ventilation. Wear appropriate protective equipment and clothing during clean-up. Dispose of contaminated material as waste according to Section 13.

## 7. HANDLING AND STORAGE

**Handling:** Avoid breathing vapors or mists of this product. Use only in well-ventilated areas. Wash thoroughly after handling.

**Storage:** Protect from freezing.

For information on product shelf life, please review labels on container or check the Technical Data Sheet.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Employers should complete an assessment of all workplaces to determine the need for, and selection of, proper exposure controls and protective equipment for each task performed.

Hazardous components	ACGIH TLV	OSHA PEL	AIHA WEEL	OTHER
Boric acid	6 mg/m <sup>3</sup> STEL Inhalable fraction. 2 mg/m <sup>3</sup> TWA Inhalable fraction.	None	None	None

**Engineering controls:** Work should be done in an adequately ventilated area (i.e., ventilation sufficient to maintain concentrations below one half of the PEL and other relevant standards). Local exhaust ventilation is recommended when general ventilation is not sufficient to control airborne contamination.

**Respiratory protection:** Use NIOSH approved respirator if there is potential to exceed exposure limit(s). Observe OSHA regulations for respirator use (29 CFR 1910.134).

**Eye/face protection:** Safety goggles or safety glasses with side shields. Full face protection should be used if the potential for splashing or spraying of product exists.

**Skin protection:** Use impermeable gloves and protective clothing as necessary to prevent skin contact. Wear suitable protective clothing.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Physical state:** Liquid  
**Color:** Opaque, Yellow  
**Odor:** Characteristic  
**Odor threshold:** Not available.  
**pH:** 4 - 5  
**Vapor pressure:** 101.3 kPa  
**Boiling point/range:** 100 °C (212°F)  
**Melting point/ range:** Not determined  
**Specific gravity:** 1.08  
**Vapor density:** Not determined  
**Flash point:** Not applicable  
**Flammable/Explosive limits - lower:** Not determined  
**Flammable/Explosive limits - upper:** Not determined  
**Autoignition temperature:** Not determined  
**Evaporation rate:** 0.36 (Butyl acetate = 1)  
**Solubility in water:** Dispersible  
**Partition coefficient (n-octanol/water):** Not determined  
**VOC content:** < 0.45 % (by weight)

## 10. STABILITY AND REACTIVITY

**Stability:** Normally stable.

**Hazardous reactions:** Will not occur.

**Hazardous decomposition products:** Smoke. Oxides of carbon.

**Incompatible materials:** This product may react with strong acids, bases and oxidizing agents.

**Conditions to avoid:** Store away from incompatible materials.

## 11. TOXICOLOGICAL INFORMATION

**Toxicologically synergistic products:** Not available.

Refer to the following for Irritancy of Product, Sensitization to Product, Carcinogenicity, Reproductive Toxicity, Teratogenicity, and Mutagenicity.

Hazardous components	NTP Carcinogen	IARC Carcinogen	OSHA Carcinogen (Specifically Regulated)	ACGIH Carcinogen
Boric acid	No	No	No	Group A4

Hazardous components	LD50s and LC50s	Health Effects/Target Organs
Boric acid	Oral LD50 (RAT) = 2,660 mg/kg Dermal LD50 (RABBIT) = > 2,000 mg/kg Inhalation LC50 (RAT, 4 h) = > 0.002 mg/l	Behavioral, Central nervous system, Developmental, Gastrointestinal, Irritant, Kidney, Liver, Reproductive, Skin, Less weight gain and food intake.

## 12. ECOLOGICAL INFORMATION

**Ecological information:** Not available.

## 13. DISPOSAL CONSIDERATIONS

Information provided is for unused product only.

**Recommended method of disposal:** Legal disposition of wastes is the responsibility of the owner/generator of the waste. Applicable federal, state and/or local regulations must be followed during treatment, storage, or disposal of waste containing this product.

## 14. TRANSPORT INFORMATION

### Canada Transportation of Dangerous Goods - Ground

**Proper shipping name:** Not regulated  
**Hazard class or division:** None  
**Identification number:** None  
**Packing group:** None

### International Air Transportation (ICAO/IATA)

**Proper shipping name:** Not regulated  
**Hazard class or division:** None  
**Identification number:** None  
**Packing group:** None

### Water Transportation (IMO/IMDG)

**Proper shipping name:** Not regulated  
**Hazard class or division:** None  
**Identification number:** None  
**Packing group:** None

## 15. REGULATORY INFORMATION

### Canada Regulatory Information

**CEPA DSL/NDL Status:** All components are listed on or are exempt from listing on the Canadian Domestic Substances List.

### United States Regulatory Information

**TSCA 8 (b) Inventory Status:** All components are listed or are exempt from listing on the Toxic Substances Control Act Inventory.

## 16. OTHER INFORMATION

This material safety data sheet contains changes from the previous version in sections: Reviewed MSDS. Reissued with new date.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulation (CPR), and the MSDS contains all the information required by the CPR.

**Prepared by:** Jennifer Altman, Sr. Regulatory Affairs Specialist

**DISCLAIMER:** The data contained herein are furnished for information only and are believed to be reliable. However, Henkel Corporation and its affiliates ("Henkel") does not assume responsibility for any results obtained by persons over whose methods Henkel has no control. It is the user's responsibility to determine the suitability of Henkel's products or any production methods mentioned herein for a particular purpose, and to adopt such precautions as may be advisable for the protection of property and persons against any hazards that may be involved in the handling and use of any Henkel's products. In light of the foregoing, Henkel specifically disclaims all warranties, express or implied, including warranties of merchantability and fitness for a particular purpose, arising from sale or use of Henkel's products. Henkel further disclaims any liability for consequential or incidental damages of any kind, including lost profits.



Revision Number: 005.0

Issue date: 02/07/2019

**1. PRODUCT AND COMPANY IDENTIFICATION**

**Product name:** LePage® PL Premium 100% Polyurethane Construction Adhesive  
**IDH number:** 1403221  
**Product type/use:** 1-component-polyurethane adhesive  
**Restriction of Use:** None identified  
**Region:** United States  
**Company address:** Henkel Corporation, One Henkel Way, Rocky Hill, Connecticut 06067  
**Contact information:** Telephone: +1 (860) 571-5100  
 MEDICAL EMERGENCY Phone: Poison Control Center 1-877-671-4608 (toll free) or 1-303-592-1711  
 TRANSPORT EMERGENCY Phone: CHEMTREC 1-800-424-9300 (toll free) or 1-703-527-3887  
 Internet: www.henkelna.com

**2. HAZARDS IDENTIFICATION**

**EMERGENCY OVERVIEW**

**DANGER:** CAUSES SKIN IRRITATION.  
 MAY CAUSE AN ALLERGIC SKIN REACTION.  
 CAUSES SERIOUS EYE IRRITATION.  
 MAY CAUSE ALLERGY OR ASTHMA SYMPTOMS OR BREATHING DIFFICULTIES IF INHALED.  
 MAY CAUSE RESPIRATORY IRRITATION.  
 CAUSES DAMAGE TO ORGANS THROUGH PROLONGED OR REPEATED EXPOSURE.

HAZARD CLASS	HAZARD CATEGORY
SKIN IRRITATION	2
EYE IRRITATION	2A
RESPIRATORY SENSITIZATION	1
SKIN SENSITIZATION	1
SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE	3
SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE	1

**PICTOGRAM(S)**



**Precautionary Statements**

**Prevention:** Do not breathe dust or fumes. Wash affected area thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Contaminated work clothing should not be allowed out of the workplace. Wear protective gloves, eye protection, and face protection. In case of inadequate ventilation wear respiratory protection.

**Response:** IF ON SKIN: Wash with plenty of water. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or physician if you feel unwell. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If skin irritation or rash occurs: Get medical attention. If eye irritation persists: Get medical attention. If experiencing respiratory symptoms: Call a poison center or physician. Take off contaminated clothing.

**Storage:** Store in a well-ventilated place. Keep container tightly closed. Store locked up.

**Disposal:** Dispose of contents and/or container according to Federal, State/Provincial and local governmental regulations.

Classification complies with OSHA Hazard Communication Standard (29 CFR 1910.1200) and is consistent with the provisions of the United Nations Globally Harmonized System of Classification and Labeling of Chemicals (GHS).

See Section 11 for additional toxicological information.

### 3. COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous Component(s)	CAS Number	Percentage*
Talc	14807-96-6	>= 40 - < 50
Methylenebis(phenylisocyanate)	101-68-8	>= 10 - < 20
Hydrocarbon C11-25 dearomatized	64742-46-7	1 - 5
Methylene bisphenyl isocyanate	26447-40-5	1 - 5

\* Exact percentages may vary or are trade secret. Concentration range is provided to assist users in providing appropriate protections.

### 4. FIRST AID MEASURES

**Inhalation:** If inhaled, immediately remove the affected person to fresh air. Immediate medical treatment necessary.

**Skin contact:** Wash affected area immediately with soap and water. If symptoms develop and persist, get medical attention. Remove contaminated clothes.

**Eye contact:** In case of contact with the eyes, rinse immediately with plenty of water for 15 minutes, and seek immediate medical attention.

**Ingestion:** Do not induce vomiting. Rinse the mouth. Drink plenty of water. Immediate medical advice necessary.

**Symptoms:** See Section 11.

**Notes to physician:** An individual having a dermal or pulmonary sensitization reaction to this material should be removed from further exposure to any diisocyanate. Treatment based on judgement of the physician in response to reactions of the patient.

### 5. FIRE FIGHTING MEASURES

**Extinguishing media:** Water fog. Foam Carbon dioxide.

**Special firefighting procedures:** Wear self-contained breathing apparatus and full protective clothing, such as turn-out gear. In case of fire, keep containers cool with water spray.

**Unusual fire or explosion hazards:** None known.

**Hazardous combustion products:** Nitrous gases Irritating fumes. Isocyanate vapors.

### 6. ACCIDENTAL RELEASE MEASURES

Use personal protection recommended in Section 8, isolate the hazard area and deny entry to unnecessary and unprotected personnel.

**Environmental precautions:** Do not empty into drains / surface water / ground water.

**Clean-up methods:**

Ensure adequate ventilation. Scrape up spilled material and place in a closed container for disposal. Wear suitable protective clothing, gloves and eye/face protection.

## 7. HANDLING AND STORAGE

**Handling:**

Avoid contact with eyes, skin and clothing. Avoid extreme temperatures. Exposure to vapors of heated MDI can be extremely dangerous. Wash thoroughly after handling. Protect from moisture. Use only with adequate ventilation.

**Storage:**

For safe storage, store between 15 °C (59°F) and 30 °C (86°F) Avoid moisture. Keep in a cool, well ventilated area away from heat, sparks and open flame. Keep container tightly closed until ready for use.

For information on product shelf life, please review labels on container or check the Technical Data Sheet.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Employers should complete an assessment of all workplaces to determine the need for, and selection of, proper exposure controls and protective equipment for each task performed.

Hazardous Component(s)	ACGIH TLV	OSHA PEL	AIHA WEEL	OTHER
Talc	2 mg/m3 TWA Respirable fraction.	0.1 mg/m3 TWA Respirable. 2.4 MPPCF TWA Respirable. 20 MPPCF TWA	None	50 ppm
Methylenebis(phenylisocyanate)	0.005 ppm TWA	0.02 ppm (0.2 mg/m3) Ceiling	None	None
Hydrocarbon C11-25 dearomatized	5 mg/m3 TWA Inhalable fraction.	5 mg/m3 PEL Mist.	None	None
Methylene bisphenyl isocyanate	None	None	None	None

**Engineering controls:**

Local exhaust ventilation is recommended when general ventilation is not sufficient to control airborne contamination below occupational exposure limits.

**Respiratory protection:**

Observe OSHA regulations for respirator use (29 CFR 1910.134). Use a NIOSH approved air-purifying respirator if the potential to exceed established exposure limits exists. Respirator with combination filter for vapor/particulate. However, due to the poor warning properties of MDI, proper fit and timely replacement of filter elements must be ensured.

**Eye/face protection:**

Safety glasses with side-shields. Full face protection should be used if the potential for splashing or spraying of product exists.

**Skin protection:**

Suitable protective clothing

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Physical state:**

Highly viscous, Solid

**Color:**

Tan

**Odor:**

Mild

**Odor threshold:**

Not available.

**pH:**

Neutral, Weakly, Alkaline

**Vapor pressure:**

Not available.

**Boiling point/range:**

172 - 341 °C (341.6 - 645.8 °F)no method

**Melting point/ range:**

Not applicable

**Specific gravity:**

1.294 - 1.378

**Vapor density:**

Heavier than air

**Flash point:**

> 93.34 °C (> 200.01 °F)

**Flammable/Explosive limits - lower:**

1.6 %

**Flammable/Explosive limits - upper:**

10.2 %

<b>Autoignition temperature:</b>	No information available.
<b>Flammability:</b>	Not applicable
<b>Evaporation rate:</b>	Not available.
<b>Solubility in water:</b>	Slightly soluble
<b>Partition coefficient (n-octanol/water):</b>	Not available.
<b>VOC content:</b>	< 3 %; 76 g/l (by weight, calculated using CARB method; g/L less water, less exempts calculated using SCAQMD method)
<b>Viscosity:</b>	Not available.
<b>Decomposition temperature:</b>	Not available.

## 10. STABILITY AND REACTIVITY

<b>Stability:</b>	Stable under normal conditions of storage and use.
<b>Hazardous reactions:</b>	Contact with moisture, other materials that react with isocyanates, or temperatures above 350° F (177° C), may cause polymerization.
<b>Hazardous decomposition products:</b>	Irritating and/or toxic fumes and gases may be emitted upon the product's decomposition. nitrogen oxides Aromatic isocyanates. carbon oxides.
<b>Incompatible materials:</b>	Oxidizing agents. Alcohols. Water.
<b>Reactivity:</b>	Not available.
<b>Conditions to avoid:</b>	Avoid moisture. Keep away from open flames, hot surfaces and sources of ignition. Prolonged exposure to heat.

## 11. TOXICOLOGICAL INFORMATION

**Relevant routes of exposure:** Inhalation, Skin, Eyes, Ingestion

### Potential Health Effects/Symptoms

<b>Inhalation:</b>	As a result of previous repeated overexposures or a single large dose, certain individuals will develop isocyanate sensitization (chemical asthma) which will cause them to react to a later exposure to isocyanate at levels well below the TLV. Chronic overexposure to isocyanates has been reported to cause lung damage. Dryness of nasal passages, sore throat, cough, tightness of chest, shortness of breath. Persons suffering from allergic reactions to isocyanates should avoid contact with the product. This product may cause sensitization by inhalation and skin contact. May cause respiratory tract irritation.
<b>Skin contact:</b>	Contact with skin can cause irritation and allergic reaction (sensitization) in some individuals. This product may discolor the skin.
<b>Eye contact:</b>	Contact with eyes will cause irritation.
<b>Ingestion:</b>	Ingestion of this product may cause nausea, vomiting and diarrhea.

Hazardous Component(s)	LD50s and LC50s	Immediate and Delayed Health Effects
Talc	None	Irritant, Lung, Some evidence of carcinogenicity
Methylenebis(phenylisocyanate)	Inhalation LC50 (Rat, 4 h) = 0.38 mg/l	Irritant, Respiratory, Allergen
Hydrocarbon C11-25 dearomatized	None	Irritant
Methylene bisphenyl isocyanate	None	Allergen, Irritant, Mutagen, Respiratory

Hazardous Component(s)	NTP Carcinogen	IARC Carcinogen	OSHA Carcinogen (Specifically Regulated)
Talc	No	Group 2B	No
Methylenebis(phenylisocyanate)	No	No	No
Hydrocarbon C11-25 dearomatized	No	No	No
Methylene bisphenyl isocyanate	No	No	No

## 12. ECOLOGICAL INFORMATION

Ecological information: Not available.

## 13. DISPOSAL CONSIDERATIONS

Information provided is for unused product only.

Recommended method of disposal: Dispose of according to Federal, State and local governmental regulations.

Hazardous waste number: It is the responsibility of the user to determine if an item is hazardous as defined in the Resource Conservation and Recovery Act (RCRA) at the time of disposal. Product uses, transformations, mixtures, processes, etc., may render the resulting material hazardous, under the criteria of ignitability, corrosivity, reactivity and toxicity characteristics of the Toxicity Characteristics Leaching Procedure (TCLP) 40 CFR 261.20-24.

## 14. TRANSPORT INFORMATION

The transport information provided in this section only applies to the material/formulation itself, and is not specific to any package/configuration.

### U.S. Department of Transportation Ground (49 CFR)

Proper shipping name: Not regulated  
Hazard class or division: None  
Identification number: None  
Packing group: None

### International Air Transportation (ICAO/IATA)

Proper shipping name: Not regulated  
Hazard class or division: None  
Identification number: None  
Packing group: None

### Water Transportation (IMO/IMDG)

Proper shipping name: Not regulated  
Hazard class or division: None  
Identification number: None  
Packing group: None

## 15. REGULATORY INFORMATION

### United States Regulatory Information

TSCA 8 (b) Inventory Status: All components are listed or are exempt from listing on the Toxic Substances Control Act Inventory.

TSCA 12 (b) Export Notification: None above reporting de minimis

CERCLA/SARA Section 302 EHS: None above reporting de minimis.

CERCLA/SARA Section 311/312: Immediate Health, Delayed Health

CERCLA/SARA Section 313: This product contains the following toxic chemicals subject to the reporting requirements of section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 (40 CFR 372). Methylenebis(phenylisocyanate) (CAS# 101-68-8).

California Proposition 65: No California Proposition 65 listed chemicals are known to be present.

### Canada Regulatory Information

CEPA DSL/NDL Status: All components are listed on or are exempt from listing on the Canadian Domestic Substances List.

## 16. OTHER INFORMATION

**This safety data sheet contains changes from the previous version in sections:** This Safety Data Sheet contains changes from the previous version in Section(s): 9

**Prepared by:** Product Safety and Regulatory Affairs

**Issue date:** 02/07/2019

**DISCLAIMER:** The data contained herein are furnished for information only and are believed to be reliable. However, Henkel Corporation and its affiliates ("Henkel") does not assume responsibility for any results obtained by persons over whose methods Henkel has no control. It is the user's responsibility to determine the suitability of Henkel's products or any production methods mentioned herein for a particular purpose, and to adopt such precautions as may be advisable for the protection of property and persons against any hazards that may be involved in the handling and use of any Henkel's products. In light of the foregoing, Henkel specifically disclaims all warranties, express or implied, including warranties of merchantability and fitness for a particular purpose, arising from sale or use of Henkel's products. Henkel further disclaims any liability for consequential or incidental damages of any kind, including lost profits.

This Safety Data Sheet has been generated based on OSHA Hazard Communication Standard (29 CFR 1910.1200) and provides information in accordance with U.S. federal law only. No warranty or representation of any kind is given with respect to the substantive or export laws of any other jurisdiction or country. Please confirm that the information provided herein conforms to the substantive export or other law of any other jurisdiction prior to export. Please contact Henkel Product Safety and Regulatory Affairs for additional assistance.



Revision Number: 005.1

Issue date: 03/08/2017

**1. PRODUCT AND COMPANY IDENTIFICATION**

**Product name:** LOCTITE LB 8008 C5-A known as C5-A® Copper Based Anti-Seize  
**IDH number:** 234263  
**Product type:** Lubricant  
**Item number:** 51147  
**Restriction of Use:** None identified  
**Region:** United States  
**Company address:**  
 Henkel Corporation  
 One Henkel Way  
 Rocky Hill, Connecticut 06067  
**Contact information:**  
 Telephone: (860) 571-5100  
 MEDICAL EMERGENCY Phone: Poison Control Center  
 1-877-671-4608 (toll free) or 1-303-592-1711  
 TRANSPORT EMERGENCY Phone: CHEMTREC  
 1-800-424-9300 (toll free) or 1-703-527-3887  
 Internet: www.henkelna.com

**2. HAZARDS IDENTIFICATION**

**EMERGENCY OVERVIEW**

**DANGER:** CAUSES SKIN IRRITATION.  
 MAY CAUSE AN ALLERGIC SKIN REACTION.  
 CAUSES SERIOUS EYE DAMAGE.

HAZARD CLASS	HAZARD CATEGORY
SKIN IRRITATION	2
SERIOUS EYE DAMAGE	1
SKIN SENSITIZATION	1

**PICTOGRAM(S)**



**Precautionary Statements**

**Prevention:** Avoid breathing vapors, mist, or spray. Wash affected area thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Wear protective gloves, eye protection, and face protection.  
**Response:** IF ON SKIN: Wash with plenty of water. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If skin irritation or rash occurs: Get medical attention. Take off contaminated clothing.  
**Storage:** Not prescribed  
**Disposal:** Dispose of contents and/or container according to Federal, State/Provincial and local governmental regulations.

Classification complies with OSHA Hazard Communication Standard (29 CFR 1910.1200) and is consistent with the provisions of the United Nations Globally Harmonized System of Classification and Labeling of Chemicals (GHS).

See Section 11 for additional toxicological information.

**3. COMPOSITION / INFORMATION ON INGREDIENTS**

Hazardous Component(s)	CAS Number	Percentage*
------------------------	------------	-------------

Calcium dihydroxide	1305-62-0	10 - 20
Distillates (petroleum), hydrotreated heavy naphthenic	64742-52-5	10 - 20
Petroleum distillates, hydrotreated, light naphthenic	64742-53-6	10 - 20
Copper	7440-50-8	10 - 20
Graphite	7782-42-5	5 - 10
Quartz (SiO <sub>2</sub> )	14808-60-7	0.1 - 1

\* Exact percentages may vary or are trade secret. Concentration range is provided to assist users in providing appropriate protections.

#### 4. FIRST AID MEASURES

<b>Inhalation:</b>	Move to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. If symptoms develop and persist, get medical attention.
<b>Skin contact:</b>	Wash with soap and water. If symptoms develop and persist, get medical attention.
<b>Eye contact:</b>	Immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention.
<b>Ingestion:</b>	Do not induce vomiting. Get medical attention.
<b>Symptoms:</b>	See Section 11.

#### 5. FIRE FIGHTING MEASURES

<b>Extinguishing media:</b>	Water spray (fog), foam, dry chemical or carbon dioxide.
<b>Special firefighting procedures:</b>	None
<b>Unusual fire or explosion hazards:</b>	None
<b>Hazardous combustion products:</b>	Oxides of carbon.

#### 6. ACCIDENTAL RELEASE MEASURES

Use personal protection recommended in Section 8, isolate the hazard area and deny entry to unnecessary and unprotected personnel.

<b>Environmental precautions:</b>	Do not allow material to contaminate ground water system.
<b>Clean-up methods:</b>	Scrape up as much material as possible. Clean residue with soap and water.

#### 7. HANDLING AND STORAGE

<b>Handling:</b>	Use only with adequate ventilation. Avoid contact with eyes, skin and clothing. Keep container closed. Wash thoroughly after handling.
<b>Storage:</b>	Keep in a cool, well ventilated area.

**For information on product shelf life, please review labels on container or check the Technical Data Sheet.**

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Employers should complete an assessment of all workplaces to determine the need for, and selection of, proper exposure controls and protective equipment for each task performed.

Hazardous Component(s)	ACGIH TLV	OSHA PEL	AIHA WEEL	OTHER
Calcium dihydroxide	5 mg/m3 TWA	5 mg/m3 PEL Respirable fraction. 15 mg/m3 PEL Total dust.	None	None
Distillates (petroleum), hydrotreated heavy naphthenic	5 mg/m3 TWA Inhalable fraction. 5 mg/m3 TWA mist 10 mg/m3 STEL mist	5 mg/m3 TWA mist 500 ppm (2,000 mg/m3) PEL 5 mg/m3 PEL Mist.	None	None
Petroleum distillates, hydrotreated, light naphthenic	5 mg/m3 TWA Inhalable fraction.	5 mg/m3 PEL Mist. 500 ppm (2,000 mg/m3) PEL	None	None
Copper	0.2 mg/m3 TWA (as Cu) Fume. 1 mg/m3 TWA (as Cu) Dust and mist.	1 mg/m3 PEL (as Cu) Dust and mist. 0.1 mg/m3 PEL (as Cu) Fume.	None	None
Graphite	2 mg/m3 TWA Respirable fraction.	5 mg/m3 PEL Respirable fraction. 15 mg/m3 PEL Total dust. 15 MPPCF TWA	None	None
Quartz (SiO <sub>2</sub> )	0.025 mg/m3 TWA Respirable fraction.	2.4 MPPCF TWA Respirable. 0.1 mg/m3 TWA Respirable. 0.05 mg/m3 TWA (Respirable dust.) (Respirable dust.) 0.025 mg/m3 OSHA_ACT (Respirable dust.) 0.05 mg/m3 PEL Respirable dust.	None	None

**Engineering controls:**

Use local ventilation if general ventilation is insufficient to maintain vapor concentration below established exposure limits.

**Respiratory protection:**

Use NIOSH approved respirator if there is potential to exceed exposure limit(s). Observe OSHA regulations for respirator use (29 CFR 1910.134).

**Eye/face protection:**

Safety goggles or safety glasses with side shields. Full face protection should be used if the potential for splashing or spraying of product exists.

**Skin protection:**

Use impermeable gloves and protective clothing as necessary to prevent skin contact.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Physical state:</b>	Paste
<b>Color:</b>	Copper
<b>Odor:</b>	Mild
<b>Odor threshold:</b>	Not available.
<b>pH:</b>	Not applicable
<b>Vapor pressure:</b>	< 5.0 mm hg
<b>Boiling point/range:</b>	> 260 °C (> 500°F)
<b>Melting point/ range:</b>	Not available.
<b>Specific gravity:</b>	1.30
<b>Vapor density:</b>	Heavier than air.
<b>Flash point:</b>	> 93 °C (> 199.4 °F)

<b>Flammable/Explosive limits - lower:</b>	Not determined
<b>Flammable/Explosive limits - upper:</b>	Not determined
<b>Autoignition temperature:</b>	Not determined
<b>Flammability:</b>	Not applicable
<b>Evaporation rate:</b>	Slower than ether.
<b>Solubility in water:</b>	Insoluble
<b>Partition coefficient (n-octanol/water):</b>	Not determined
<b>VOC content:</b>	< 3 % Estimated
<b>Viscosity:</b>	Not available.
<b>Decomposition temperature:</b>	Not available.

## 10. STABILITY AND REACTIVITY

<b>Stability:</b>	Stable at normal conditions.
<b>Hazardous reactions:</b>	Will not occur.
<b>Hazardous decomposition products:</b>	Hydrocarbons. Oxides of carbon.
<b>Incompatible materials:</b>	Strong acids and strong bases. Oxidizing agents.
<b>Reactivity:</b>	Not available.
<b>Conditions to avoid:</b>	Prolonged exposure to heat.

## 11. TOXICOLOGICAL INFORMATION

<b>Relevant routes of exposure:</b>	Skin, Inhalation, Eyes, Ingestion
-------------------------------------	-----------------------------------

**Potential Health Effects/Symptoms**

**Inhalation:** Inhalation of copper fumes may result in metal fume fever. Symptoms include metallic taste, discoloration of skin or hair. May cause respiratory tract irritation. Contains crystalline silica (quartz), which is classified as a possible carcinogen. However, the crystalline silica present in this product is encapsulated in the liquid and will only be liberated if the product is sanded or abraded, and even then what is liberated will not be pure crystalline silica. Appropriate precautions, however, should be taken if the product is sanded or abraded to prevent personnel from breathing the dust.

**Skin contact:** Causes skin irritation. May cause allergic skin reaction.

**Eye contact:** Causes serious eye damage.

**Ingestion:** May cause gastrointestinal tract irritation if swallowed.

Hazardous Component(s)	LD50s and LC50s	Immediate and Delayed Health Effects
Calcium dihydroxide	Oral LD50 (Rat) = 7,340 mg/kg	Irritant, Corrosive
Distillates (petroleum), hydrotreated heavy naphthenic	None	Irritant
Petroleum distillates, hydrotreated, light naphthenic	None	Irritant
Copper	None	Allergen, Blood, Central nervous system, Developmental, Gastrointestinal, Immune system, Irritant, Kidney, Liver, Mutagen, Sensory, Skin
Graphite	None	Lung
Quartz (SiO2)	None	Immune system, Lung, Some evidence of carcinogenicity

Hazardous Component(s)	NTP Carcinogen	IARC Carcinogen	OSHA Carcinogen (Specifically Regulated)
Calcium dihydroxide	No	No	No
Distillates (petroleum), hydrotreated heavy naphthenic	No	No	No
Petroleum distillates, hydrotreated, light naphthenic	No	No	No
Copper	No	No	No
Graphite	No	No	No
Quartz (SiO2)	Known To Be Human Carcinogen.	Group 1	Yes

**12. ECOLOGICAL INFORMATION**

**Ecological information:** Not available.

## 13. DISPOSAL CONSIDERATIONS

Information provided is for unused product only.

**Recommended method of disposal:** Follow all local, state, federal and provincial regulations for disposal.

**Hazardous waste number:** Not a RCRA hazardous waste.

## 14. TRANSPORT INFORMATION

The transport information provided in this section only applies to the material/formulation itself, and is not specific to any package/configuration.

### U.S. Department of Transportation Ground (49 CFR)

**Proper shipping name:** Environmentally hazardous substance, liquid, n.o.s. (Copper)  
**Hazard class or division:** 9  
**Identification number:** UN 3082  
**Packing group:** III  
**Marine pollutant:** Copper  
**DOT Hazardous Substance(s):** Copper

### International Air Transportation (ICAO/IATA)

**Proper shipping name:** Environmentally hazardous substance, liquid, n.o.s.  
**Hazard class or division:** 9  
**Identification number:** UN 3082  
**Packing group:** III

### Water Transportation (IMO/IMDG)

**Proper shipping name:** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Copper)  
**Hazard class or division:** 9  
**Identification number:** UN 3082  
**Packing group:** III  
**Marine pollutant:** Copper

## 15. REGULATORY INFORMATION

### United States Regulatory Information

**TSCA 8 (b) Inventory Status:** All components are listed or are exempt from listing on the Toxic Substances Control Act Inventory.

**TSCA 12 (b) Export Notification:** None above reporting de minimis

**CERCLA/SARA Section 302 EHS:** None above reporting de minimis.

**CERCLA/SARA Section 311/312:** Immediate Health, Delayed Health

**CERCLA/SARA Section 313:** This product contains the following toxic chemicals subject to the reporting requirements of section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 (40 CFR 372). Copper (CAS# 7440-50-8).

**CERCLA Reportable quantity:** Copper (CAS# 7440-50-8) 5,000 lbs. (2,270 kg)

**California Proposition 65:** This product contains a chemical known in the State of California to cause cancer.

### Canada Regulatory Information

**CEPA DSL/NDL Status:** All components are listed on or are exempt from listing on the Canadian Domestic Substances List.

## 16. OTHER INFORMATION

This safety data sheet contains changes from the previous version in sections: New Safety Data Sheet format.

**Prepared by:** Timothy Pratt, Regulatory Affairs Specialist

**Issue date:** 03/08/2017

**DISCLAIMER:** The data contained herein are furnished for information only and are believed to be reliable. However, Henkel Corporation and its affiliates ("Henkel") does not assume responsibility for any results obtained by persons over whose methods Henkel has no control. It is the user's responsibility to determine the suitability of Henkel's products or any production methods mentioned herein for a particular purpose, and to adopt such precautions as may be advisable for the protection of property and persons against any hazards that may be involved in the handling and use of any Henkel's products. In light of the foregoing, Henkel specifically disclaims all warranties, express or implied, including warranties of merchantability and fitness for a particular purpose, arising from sale or use of Henkel's products. Henkel further disclaims any liability for consequential or incidental damages of any kind, including lost profits.



## Safety Data Sheet

Page 1 of 7

LOCTITE 243

SDS No. : 153494

V001.3

Date of issue: 31.01.2017

### Section 1. Identification of the substance/preparation and of the company/undertaking

**Product name:** LOCTITE 243

**Intended use:** Anaerobic Sealant

**Supplier:**  
Henkel Australia Pty Ltd  
135-141 Canterbury Road  
Kilsyth, Victoria, 3137  
Australia

Phone: +61 (3) 9724 6444

**Emergency information:** 24 HOUR EMERGENCY CONTACT NUMBER: 1800 032 379

### Section 2. Hazards identification

**Classification of the substance or mixture**

Hazardous according to the criteria of Safe Work Australia.

**GHS Classification:**

**Hazard Class**  
Skin sensitizer

**Hazard Category**  
Category 1

**Hazard pictogram:**



**Signal word:** Warning

**Hazard statement(s):** H317 May cause an allergic skin reaction.

**Precautionary Statement(s):**  
**Prevention:**

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.  
P272 Contaminated work clothing should not be allowed out of the workplace.  
P280 Wear protective gloves.

**Response:** P302+P352 IF ON SKIN: Wash with plenty of water.  
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.  
P363 Wash contaminated clothing before reuse.

**Disposal:** P501 Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations.

**Dangerous Goods information:**

Not classified as Dangerous Goods according to the criteria of the Australian Code for the Transport of Dangerous Goods by Road and Rail (ADG Code).

**Section 3. Composition / information on ingredients**

**General chemical description:** Mixture  
**Type of preparation:** Product based on polyethylene glycol dimethacrylate.

**Identity of ingredients:**

Chemical ingredients	CAS-No.	Proportion
Maleic acid	110-16-7	< 1 %
non hazardous ingredients~		60- 100 %

**Section 4. First aid measures**

**Ingestion:** Rinse mouth, do not induce vomiting, consult a doctor.

**Skin:** Rinse with running water and soap.  
Seek medical advice.

**Eyes:** Rinse immediately with plenty of running water (for 10 minutes). Seek medical attention if necessary.

**Inhalation:** Move to fresh air. If symptoms persist, seek medical advice.

**First Aid facilities:** Eye wash  
Normal washroom facilities

**Medical attention and special treatment:** Treat symptomatically.

**Section 5. Fire fighting measures**

**Suitable extinguishing media:** If product is involved in fire extinguish with dry powder, foam or carbon dioxide.

**Decomposition products in case of fire::** In the event of a fire, carbon monoxide (CO), carbon dioxide (CO<sub>2</sub>) and nitrogen oxides (NO<sub>x</sub>) can be released.  
Irritating organic vapours.

**Particular danger in case of fire::** None

**Special protective equipment for fire-fighters:** Wear self-contained breathing apparatus and full protective clothing, such as turn-out gear.

**Additional fire fighting advice:** In case of fire, keep containers cool with water spray.

**Section 6. Accidental release measures**

**Personal precautions:** Avoid skin and eye contact.  
Ensure adequate ventilation.

**Environmental precautions:** Do not let product enter drains.

**Clean-up methods:** For small spills wipe up with paper towel and place in container for disposal.  
For large spills absorb onto inert absorbent material and place in sealed container for disposal.

### Section 7. Handling and storage

<b>Precautions for safe handling:</b>	Use only in well-ventilated areas. Prevent contact with eyes, skin and clothing. Do not breathe vapor and mist. Wash thoroughly after handling.
<b>Conditions for safe storage:</b>	Ensure good ventilation/extraction. Store in original containers at 8-21°C (46.4-69.8°F) and do not return residual materials to containers as contamination may reduce the shelf life of the bulk product. Store in a cool, well-ventilated place. Do not expose to direct heat. Store in sealed original container.

### Section 8. Exposure controls / personal protection

**National exposure standards:**

None

<b>Engineering controls:</b>	Ensure good ventilation/suction at the workplace.
<b>Eye protection:</b>	Wear protective glasses.
<b>Skin protection:</b>	Wear suitable protective clothing. Wear impervious (neoprene) gloves, impervious apron.  Please note that in practice the working life of chemical resistant gloves may be considerably reduced as a result of many influencing factors (e.g. temperature). Suitable risk assessment should be carried out by the end user. If signs of wear and tear are noticed then the gloves should be replaced.
<b>Respiratory protection:</b>	Use only in well-ventilated areas. If inhalation risk exists, wear a respirator or air supplied mask complying with the requirements of AS/NZS 1715 and AS/NZS 1716.

### Section 9. Physical and chemical properties

<b>Appearance:</b>	blue Liquid
<b>Odor:</b>	characteristic
<b>pH:</b>	6.5 - 8.5
<b>Specific gravity:</b>	1.08
<b>Boiling point:</b>	> 149 °C (> 300.2 °F)
<b>Flash point:</b>	> 93 °C (> 199.4 °F)
(Tagliabue closed cup)	
<b>Vapor pressure:</b>	0.133 mbar
(; 27.0 °C (80.6 °F))	
<b>Density:</b>	1.08 g/cm <sup>3</sup>
<b>Solubility in water:</b>	Partially soluble (23 °C)
<b>VOC content (2004/42/EC)</b>	0.00 % (VOCV 814.018 VOC regulation CH)
<b>VOC content:</b>	0.73 % 7.21 g/l

**Section 10. Stability and reactivity**

<b>Conditions to avoid:</b>	Keep away from heat, spark and flame.
<b>Incompatible materials:</b>	Strong alkalis. Reducing agents. Oxygen scavengers. Oxidizing agents. Other polymerization initiators. Strong oxidizing agents.
<b>Hazardous decomposition products:</b>	In case of fire toxic gases can be released.  Irritating vapors. Oxides of carbon.
<b>Hazardous polymerization:</b>	Will not occur.

**Section 11. Toxicological information**

<b>Health Effects:</b>	
<b>Ingestion:</b>	May be harmful if swallowed.
<b>Skin:</b>	May cause mild skin irritation. Symptoms may include redness, edema, drying, defatting and cracking of the skin. May cause skin sensitization.
<b>Eyes:</b>	May cause mild irritation
<b>Inhalation:</b>	May cause respiratory tract irritation.
<b>Aggravated med. condition:</b>	Eye, skin, and respiratory disorders.

**Acute toxicity:**

Hazardous components CAS-No.	Value type	Value	Route of application	Exposure time	Species	Method
Maleic acid 110-16-7	LD50	708 mg/kg	oral		rat	not specified
	LD50	1,560 mg/kg	dermal		rabbit	not specified

**Skin corrosion/irritation:**

Hazardous components CAS-No.	Result	Exposure time	Species	Method
Maleic acid 110-16-7	irritating	24 h	human	Patch Test

**Serious eye damage/irritation:**

Hazardous components CAS-No.	Result	Exposure time	Species	Method
Maleic acid 110-16-7	highly irritating		rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)

**Respiratory or skin sensitization:**

Hazardous components CAS-No.	Result	Test type	Species	Method
Maleic acid 110-16-7	sensitising	Mouse local lymphnode assay (LLNA)	mouse	OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay)
Maleic acid 110-16-7	sensitising	Guinea pig maximisation test	guinea pig	OECD Guideline 406 (Skin Sensitisation)

**Germ cell mutagenicity:**

Hazardous components CAS-No.	Result	Type of study / Route of administration	Metabolic activation / Exposure time	Species	Method
Maleic acid 110-16-7	negative negative	bacterial reverse mutation assay (e.g Ames test) mammalian cell gene mutation assay	no data with and without		Ames Test OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)

**Repeated dose toxicity:**

Hazardous components CAS-No.	Result	Route of application	Exposure time / Frequency of treatment	Species	Method
Maleic acid 110-16-7	NOAEL= $\geq$ 40 mg/kg	oral: feed	90 ddaily	rat	OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)

**Section 12. Ecological information**

**General ecological information:** Do not empty into drains, soil or bodies of water.

**Toxicity:**

Hazardous components CAS-No.	Value type	Value	Acute Toxicity Study	Exposure time	Species	Method
Maleic acid 110-16-7	LC50	> 245 mg/l	Fish	48 h	Leuciscus idus	DIN 38412-15
Maleic acid 110-16-7	EC50	42.81 mg/l	Daphnia	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Maleic acid 110-16-7	EC50	74.35 mg/l	Algae	72 h	Pseudokirchnerella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)

**Persistence and degradability:**

Hazardous components CAS-No.	Result	Route of application	Degradability	Method
Maleic acid 110-16-7	readily biodegradable	aerobic	97.08 %	OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test)

**Bioaccumulative potential / Mobility in soil:**

Hazardous components CAS-No.	LogPow	Bioconcentration factor (BCF)	Exposure time	Species	Temperature	Method
---------------------------------	--------	----------------------------------	------------------	---------	-------------	--------

Maleic acid 110-16-7	-1.3			20 °C	OECD Guideline 107 (Partition Coefficient (n-octanol / water), Shake Flask Method)
-------------------------	------	--	--	-------	--

### Section 13. Disposal considerations

- Waste disposal of product:** Dispose of in accordance with local and national regulations.
- Disposal for uncleaned package:** After use, tubes, cartons and bottles containing residual product should be disposed of as chemically contaminated waste in an authorised legal land fill site or incinerated.

### Section 14. Transport information

**Road and Rail Transport:**

Dangerous Goods information: Not classified as Dangerous Goods according to the criteria of the Australian Code for the Transport of Dangerous Goods by Road and Rail (ADG Code).

**General information:**

Not hazardous according to RID, ADR, ADN, IMDG, IATA-DGR.

### Section 15. Regulatory information

- SUSMP Poisons Schedule** None
- AICS:** All components are listed or are exempt from listing on the Australian Inventory of Chemical Substances (AICS).

### Section 16. Other information

- Abbreviations/acronyms:** ADGC - Australian Dangerous Goods Code  
IMDG: International Maritime Dangerous Goods code  
IATA-DGR: International Air Transport Association – Dangerous Goods Regulations
- Reason for issue:** Reviewed SDS. Reissued with new date. involved chapters: 1 - 16
- Date of previous issue:** 03.04.2014
- Disclaimer:**

The percentage weight (% w/w) of ingredients is not to be taken as a specification guaranteed by Henkel Australia Pty. Limited, but only as an approximate guide to the content of hazardous ingredients in the material. The information contained herein does not constitute a guarantee by Henkel Australia Pty. Limited concerning the properties of the material. The information contained in the Safety Data Sheet is offered in good faith and has been developed from what is believed to be accurate and reliable sources. The information is offered without warranty, representation, inducement or licence and Henkel Australia Pty. Limited assumes no legal responsibility for reliance upon same. Henkel Australia Pty. Limited disclaims any liability for loss, injury or damage incurred in connection with the use of the material or its associated Safety Data Sheet. This information is not to be construed as a representation that the material is suitable for any particular purpose or use except those conditions and warranties implied by either Commonwealth or State statutes. Customers are encouraged to make their own enquiries as to the material's characteristics and, where appropriate, to conduct their own tests in the specific context of the material's intended use.

**SAFETY DATA SHEET**

**SECTION 1 : IDENTIFICATION**

Product Name: **Low-Lustre Sealer No. 986**  
 Product Code: 986  
 SDS Manufacturer Number: 986  
 Manufacturer Name: BEHR Process Corporation  
 Address: 1801 E. St. Andrew Place  
 Santa Ana, CA 92705  
 General Phone Number: (714) 545-7101  
 General Fax Number: (714) 241-1002  
 Customer Service Phone Number: (800) 854-0133 ext. 2  
 CHEMTREC: For emergencies in the US, call CHEMTREC: 800-424-9300  
 Canutec: In Canada, call CANUTEC: (613) 996-6666 (call collect)  
 SDS Creation Date: November 15, 2006  
 SDS Revision Date: October 20, 2017  
 (M)SDS Format:

**SECTION 2 : HAZARD(S) IDENTIFICATION**

GHS Pictograms:



Signal Word: Warning.

GHS Class: Eye Irritant, Category 2B.  
Skin Irritant, Category 2.

Hazard Statements: Causes eye irritation.  
Causes skin irritation.

Precautionary Statements: Wear protective clothing, gloves, eye, and face protection.  
Do not eat, drink or smoke when using this product.  
Wash hands thoroughly after handling.  
Take off contaminated clothing and wash it before reuse.  
Dispose of unused contents, container, and other contaminated wastes in accordance with local, state, federal, and provincial regulations.  
**If in eyes:** Rinse cautiously with water for several minutes and remove contacts if present and easy to do. Continue rinsing and get medical attention if eye irritation persists.  
**If on skin:** Wash with plenty of soap and water.  
**If swallowed:** Rinse mouth and get medical attention if you feel unwell.

Emergency Overview: Irritant.

Route of Exposure: Eyes. Skin. Inhalation. Ingestion.

Potential Health Effects:

Eye: Causes eye irritation.  
Skin: Causes skin irritation.  
Inhalation: Prolonged or excessive inhalation may cause respiratory tract irritation.  
Ingestion: May be harmful if swallowed. May cause vomiting.

Chronic Health Effects: Prolonged or repeated contact may cause skin irritation.

Signs/Symptoms: Overexposure may cause headaches and dizziness.

Target Organs: Eyes. Skin. Respiratory system. Digestive system.

Aggravation of Pre-Existing Conditions: None generally recognized.

**SECTION 3 : COMPOSITION/INFORMATION ON INGREDIENTS**

Chemical Name	CAS#	Ingredient Percent	EC Num.
2,2,4-Trimethyl-1,3-Pentanediol Monoisobutyrate	25265-77-4	1 - 5 by weight	246-771-9

**SECTION 4 : FIRST AID MEASURES**

<b>Eye Contact:</b>	Immediately flush eyes with plenty of water for at least 15 to 20 minutes. Ensure adequate flushing of the eyes by separating the eyelids with fingers. Remove contacts if present and easy to do. Continue rinsing. Get medical attention, if irritation or symptoms of overexposure persists.
<b>Skin Contact:</b>	Immediately wash skin with soap and plenty of water. Get medical attention if irritation develops or persists.
<b>Inhalation:</b>	If inhaled, remove to fresh air. If not breathing, give artificial respiration or give oxygen by trained personnel. Seek immediate medical attention.
<b>Ingestion:</b>	If swallowed, do NOT induce vomiting. Call a physician or poison control center immediately. Never give anything by mouth to an unconscious person.

## SECTION 5 : FIRE FIGHTING MEASURES

<b>Flash Point:</b>	None.
<b>Lower Flammable/Explosive Limit:</b>	Not applicable.
<b>Upper Flammable/Explosive Limit:</b>	Not applicable.
<b>Extinguishing Media:</b>	Use alcohol resistant foam, carbon dioxide, dry chemical, or water fog or spray when fighting fires involving this material.
<b>Protective Equipment:</b>	As in any fire, wear Self-Contained Breathing Apparatus (SCBA), MSHA/NIOSH (approved or equivalent) and full protective gear.

### **NFPA Ratings:**

NFPA Health:	1
NFPA Flammability:	1
NFPA Reactivity:	0

## SECTION 6 : ACCIDENTAL RELEASE MEASURES

<b>Personal Precautions:</b>	Evacuate area and keep unnecessary and unprotected personnel from entering the spill area. Use proper personal protective equipment as listed in Section 8.
<b>Environmental Precautions:</b>	Avoid runoff into storm sewers, ditches, and waterways.
<b>Methods for containment:</b>	Contain spills with an inert absorbent material such as soil or sand. Prevent from spreading by covering, diking or other means. Provide ventilation.
<b>Methods for cleanup:</b>	Clean up spills immediately observing precautions in the protective equipment section. Place into a suitable container for disposal. Provide ventilation. After removal, flush spill area with soap and water to remove trace residue.

## SECTION 7 : HANDLING and STORAGE

<b>Handling:</b>	Use with adequate ventilation. Avoid breathing vapor and contact with eyes, skin and clothing.
<b>Storage:</b>	Store in a cool, dry, well ventilated area away from sources of heat, combustible materials, and incompatible substances. Keep container tightly closed when not in use.
<b>Hygiene Practices:</b>	Wash thoroughly after handling. Avoid contact with eyes and skin. Avoid inhaling vapor or mist.

## SECTION 8: EXPOSURE CONTROLS, PERSONAL PROTECTION

<b>Engineering Controls:</b>	Use appropriate engineering control such as process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits. Good general ventilation should be sufficient to control airborne levels. Where such systems are not effective wear suitable personal protective equipment, which performs satisfactorily and meets OSHA or other recognized standards. Consult with local procedures for selection, training, inspection and maintenance of the personal protective equipment.
<b>Eye/Face Protection:</b>	Wear appropriate protective glasses or splash goggles as described by 29 CFR 1910.133, OSHA eye and face protection regulation, or the European standard EN 166.
<b>Skin Protection Description:</b>	Chemical-resistant gloves and chemical goggles, face-shield and synthetic apron or coveralls should be used to prevent contact with eyes, skin or clothing.
<b>Respiratory Protection:</b>	A NIOSH approved air-purifying respirator with an organic vapor cartridge or canister may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits. Protection provided by air purifying respirators is limited. Use a positive pressure air supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air purifying respirators may not provide adequate protection.
<b>Other Protective:</b>	Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.
<b>PPE Pictograms:</b>	



### EXPOSURE GUIDELINES

## SECTION 9 : PHYSICAL and CHEMICAL PROPERTIES

Physical State:	Liquid.
Color:	opaque.
Odor:	Slight.
Odor Threshold:	Not applicable.
Boiling Point:	>99°F (>37°C)
Melting Point:	Not applicable.
Density:	8.51 Lbs/gal
Solubility:	Not applicable.
Vapor Density:	Not applicable.
Vapor Pressure:	Not applicable.
Evaporation Rate:	Not applicable.
pH:	7 - 10
Viscosity:	50-140
Coefficient of Water/Oil Distribution:	Not applicable.
Flammability:	Not applicable.
Flash Point:	None.
VOC Content:	Material VOC: 28 gm/L(Includes Water) Coating VOC.:98 gm/L(Excludes Water)

## SECTION 10 : STABILITY and REACTIVITY

Chemical Stability:	Stable under normal temperatures and pressures.
Hazardous Polymerization:	Not reported.
Conditions to Avoid:	Heat, flames, incompatible materials, and freezing or temperatures below 32 deg. F.
Incompatible Materials:	Oxidizing agents. Strong acids and alkalis.

## SECTION 11 : TOXICOLOGICAL INFORMATION

### 2,2,4-Trimethyl-1,3-Pentanediol Monoisobutyrate :

Ingestion:	Oral - Rat LD50 - Lethal dose, 50 percent kill: 3200 mg/kg [Details of toxic effects not reported other than lethal dose value] (RTECS)
------------	---

## SECTION 12 : ECOLOGICAL INFORMATION

Ecotoxicity:	No ecotoxicity data was found for the product.
Environmental Fate:	No environmental information found for this product.

## SECTION 13 : DISPOSAL CONSIDERATIONS

Waste Disposal:	Consult with the US EPA Guidelines listed in 40 CFR Part 261.3 for the classifications of hazardous waste prior to disposal. Furthermore, consult with your state and local waste requirements or guidelines, if applicable, to ensure compliance. Arrange disposal in accordance to the EPA and/or state and local guidelines.
-----------------	---

## SECTION 14 : TRANSPORT INFORMATION

DOT Shipping Name:	Not restricted as a dangerous good.
DOT UN Number:	Not restricted as a dangerous good.
IATA Shipping Name:	Not restricted as a dangerous good.
IATA UN Number:	Not restricted as a dangerous good.
Canadian Shipping Name:	Not restricted as a dangerous good.
Canadian UN Number:	Not restricted as a dangerous good.
IMDG UN Number :	Not restricted as a dangerous good.
IMDG Shipping Name :	Not restricted as a dangerous good.

ADR UN Number: Not restricted as a dangerous good.  
ADR Shipping Name : Not restricted as a dangerous good.

---

## SECTION 15 : REGULATORY INFORMATION

---

Canada WHMIS: This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by the Controlled Products Regulations.

**2,2,4-Trimethyl-1,3-Pentanediol Monoisobutyrate :**

TSCA Inventory Status: Listed  
Canada DSL: Listed  
EC Number: 246-771-9

---

## SECTION 16 : ADDITIONAL INFORMATION

---

**HMIS Ratings:**

HMIS Health Hazard: 1  
HMIS Fire Hazard: 1  
HMIS Reactivity: 0  
HMIS Other: x

SDS Creation Date: November 15, 2006  
SDS Revision Date: October 20, 2017  
SDS Revision Notes: "Quarterly formula update"  
SDS Format:  
SDS Author: Actio Corporation

Copyright© 1996-2018 Enviance. All Rights Reserved.



**Precaution(s):** Wear eye and skin protection before handling. Do not breathe mist/vapors/spray. Use in a well ventilated area. Wear protective gloves/protective clothing. IF IN EYES: Flush with water for 15 minutes and consult a physician. Do no ingest. IF SWALLOWED: Do NOT induce vomiting. Immediately call a POISON CENTER or doctor/physician.

**Disposal:** Keep out of waterways. Check local, national, and international regulations for proper disposal

**HMIS (estimated):**      **Health – 3**      **Fire – 1**      **Instability – 0**

*\*Classified based on human experience and epistemological data, not based on strict application of the GHS criteria*

### 3. Composition/Information on Ingredients

#### Hazardous Ingredients:

Component	CAS No.	Conc (wt%)
Diethylene Glycol	111-46-6	20 – 40
2-(2-propoxyethoxy)ethanol	6881-94-3	0 – 30
2-(2-butoxyethoxy)ethanol	112-34-5	0 – 20
Ethoxytriglycol	112-50-5	0 – 20
Butoxytriglycol	143-22-6	30 – 70
Additives	Proprietary	< 1

### 4. First Aid Measures

**Eyes** Remove contact lenses, if worn. Rinse with running water for at least 15 minutes, lifting upper and lower eyelids occasionally. Seek medical attention.

**Skin** Remove affected clothing and launder before reuse. Wash affected area for at least 15 minutes with soap and running water. Prolonged or repeated exposure may cause defatting of the skin – symptoms include redness, dryness, cracking

**Inhalation** Remove exposed person to fresh air immediately. Restore or assist breathing, if necessary. Get medical attention immediately if symptoms of CNS depression or intoxication develop

**Ingestion** Do NOT induce vomiting. If conscious, give two full glasses of water. If a significant volume has been swallowed, get medical attention immediately.

Swallowing large amounts of diethylene glycol is potentially lethal. Immediate symptoms may include severe abdominal cramping, diarrhea, vomiting, intoxication, and hypertension. Infrequent urination and other cardiac, neurological, and renal effects of metabolic acidosis, hyponatremia, or hyperkalemia may develop. Diethylene glycol has been known to cause metabolic acidosis leading to kidney and liver failure, neurological complications, and death.

**Additional Info** Note to physician: Treat for diethylene glycol poisoning

**Specific Treatments** Immediately treat with hemodialysis. Diethylene glycol is metabolized by NAD-dependent alcohol dehydrogenase and aldehyde dehydrogenase into 2-hydroxyethoxyacetaldehyde and 2-hydroxyethoxyacetic acid, respectively. Administering NAD-dependent alcohol dehydrogenase inhibitors such as ethanol or fomepizole may slow the production of harmful metabolites.

## 5. Fire Fighting Measures

**NFPA (estimated):** Health – 2 Fire – 1 Instability – 0

**Flash Point** 93°C / 199°F (calculated)

**Extinguishing Media** For small fires use alcohol foam, dry chemical or CO<sub>2</sub>. For large fires apply large (flooding) quantities of water from as far away as possible in a spray or mist.

**Unsuitable Media** Water jet may be ineffective

**Firefighting Procedures:** Wear a self-contained breathing apparatus if necessary based on concentrations of smoke. Material will produce primarily oxides of carbon as combustion products.

**Unusual Hazards** Not Determined

## 6. Accidental Release Measures

**Personal precautions, protective equipment, and emergency procedures:** Ventilate if released in a confined area. Avoid breathing mists/vapors/spray. Product may present slipping hazard if left on the floor. Beware of vapors pooling in low areas to explosive concentrations.

**Environmental precautions:** Avoid release to the environment. Prevent from entering into soil, ditches, sewers, waterways or groundwater

**Methods for removal:** Use an explosion-proof pump to remove bulk liquid. Residual liquid can be absorbed on inert material. Dispose of contaminated adsorbent as hazardous waste. Wash the area with water after excess product and adsorbent is removed.

## 7. Handling and Storage

**Max. Handling Temp:** Not determined

**Procedures:** Use in a well ventilated area. Avoid breathing mists/vapors/spray. Avoid handling hot product where possible. Use appropriate personal protective equipment to avoid contact with skin and eyes. Note the location of nearest emergency shower and eye wash station before use. Store with the lid tightly closed in a cool, dry, well-ventilated place. Product is hygroscopic and effectiveness may diminish if opened product is stored for long periods of time. Dispose of spilled or used material in accordance with local, regional, national, and international regulations.

**Max Store Temp:** Do not store or handle at elevated temperatures.

## 8. Exposure Controls/Personal Protection

### Exposure Limits

#### US

#### Guidelines by component

*Diethylene Glycol (CAS# 111-46-6)*

OSHA TWA: 10mg/m<sup>3</sup>

*Ethanolamine (CAS# 141-43-5)*

ACGIH TWA: 3 ppm

ACGIH STEL: 6 ppm

OSHA TWA: 3 ppm

OSHA STEL: 6 ppm

NIOSH TWA: 3 ppm

NIOSH STEL: 6 ppm

**Other Exposure Limits:** Not determined

**Engineering Controls:** Use in a well ventilated area. Local and general ventilation should keep methanol vapor concentration below permissible limits. Where exposure potential exceeds recommended limits, use a NIOSH/OSHA approved supplied air respirator

as recommended. Vapors are heavier than air and will tend to accumulate in low-lying areas.

### Personal Protective Equipment

- Respiratory:** Use a NIOSH or CEN approved full-face respirator with multi-purpose combination or type ABEK respirator cartridges as a backup to engineering controls. If the respiratory is the only means of protection, use a full-face supplied air respirator
- Eye:** Use tightly-fitting chemical splash goggles. Use face shield, especially where splashing is likely to occur
- Gloves:** Use nitrile, butyl, viton, or fluoroelastomer gloves. Even appropriate materials may degrade after prolonged exposure with product.
- Clothing:** Use chemical resistant pants and jackets, preferably of butyl or nitrile rubber
- Other:** Locate the nearest eyewash station and safety shower before handling this product. Limit exposure whenever possible.
- Hygiene:** Wash thoroughly after handling this product.

## 9. Physical and Chemical Properties

<b>Appearance</b>	Clear, pale yellow liquid
<b>Odor</b>	Mild, sweet odor
<b>Odor threshold</b>	Not determined
<b>pH</b>	7 - 11
<b>Melting Point</b>	< -50°C / -58°F
<b>Initial Boiling Pt</b>	> 210°C / 410°F
<b>Flash Point</b>	93°C / 199°F
<b>Evaporation Rate</b>	Not determined
<b>Upper Flammable Lm</b>	Not determined
<b>Lower Flammable Lm</b>	Not determined
<b>Explosive Data</b>	Vapors may form explosive mixtures with air
<b>Vapor Pressure</b>	0.09 hPa (0.07 mmHg) @ 20° (68°F)
<b>Vapor Density</b>	> 5 (Air = 1)
<b>Volatile Organics</b>	Not determined
<b>Density</b>	1.05 mg/cu. cm @15.6°C
<b>Solubility</b>	Miscible in water, alcohol; sparingly soluble in some organic solvents
<b>K<sub>ow</sub></b>	Not determined
<b>Viscosity</b>	1.8 mm/s <sup>2</sup> @ 100°C
<b>Autoignition Point</b>	Not determined
<b>Decomposition Temp</b>	Not determined

## 10. Stability and Reactivity

<b>Stability</b>	Material is normally stable at ambient temperatures and pressures.
<b>Decomposition Temp</b>	Not determined
<b>Incompatibility</b>	Keep away from strong oxidizers and strong acids/bases. Keep away from zinc or other active metals
<b>Polymerization</b>	Will not occur
<b>Thermal Decomposition</b>	Primarily oxidizes to carbon dioxide in normal combustion conditions. In lower oxygen environments carbon monoxide, formaldehyde, or formic acid may be formed.
<b>Conditions to Avoid</b>	Vapors may catch fire – keep away from strong oxidizers, acids, bases as well as heat/sparks/open flames/hot surfaces

## 11. Toxicological Information

### - Acute Exposure -

<b>Eye Irritation</b>	Expected to cause mild to moderate irritation of the eye if exposed to liquid or in high vapor concentrations. May cause irritation, tearing, or burning of the eyes.
<b>Skin Irritation</b>	Expected to be mildly irritating to the skin. Symptoms of irritation may include redness, drying, and cracking of the skin.
<b>Respiratory Irritation</b>	High vapor concentrations may cause transient irritation to the respiratory system.
<b>Dermal Toxicity</b>	This product can be absorbed through the skin, but is of low order of toxicity. Limit exposure to skin where possible.
<b>Inhalation Toxicity</b>	Toxicity is similar to that for oral ingestion, though this exposure mode is far less likely to occur.
<b>Oral Toxicity</b>	Toxic or fatal if ingested. Symptoms of diethylene glycol poisoning include severe abdominal cramping, diarrhea, vomiting, sweating, confusion, cardiac abnormalities, neurological abnormalities, infrequent urination, intoxication or CNS depression. If left untreated, product will metabolize to cause metabolic acidosis, renal failure, hyperkalemia, hyponatremia, parylsis, cardiac failure, or death. Seek medical attention immediately for poisoning. If ingested, DO NOT wait for symptoms to develop before getting treatment.
<b>Aspiration Hazard</b>	This product has a very low viscosity and may be fatal if aspirated into the airways. Do NOT induce vomiting, as this increases risk of aspiration.

### - Chronic Exposure -

<b>Chronic Toxicity</b>	This product may cause dryness or defatting of the skin, dermatitis, or may aggravate existing skin conditions.
-------------------------	---

<b>Carcinogenicity</b>	This product and its components are NOT listed by the IARC, NTP, ACGIH, or OSHA as carcinogens
<b>Mutagenicity</b>	Available information does not suggest that this product is a germ cell mutagen
<b>Reproductive Toxicity</b>	Available information does not suggest that this product is a reproductive toxin.
<b>Teratogenicity</b>	Diethylene glycol has produced birth defects in rats at concentrations that are toxic to the mother.
<b>- Additional Information -</b>	
<b>Target organ toxicity</b>	Product is toxic to organs: Kidneys, liver, central nervous system, heart. Metabolic products of diethylene glycol produce acidosis and organ toxicity effects. In some cases, other metabolic abnormalities have been reported such as hyponatremia and hyperkalemia leading to nerve and cardiac damage.
<b>Synergistic effects</b>	Though specific data is not available, ethanol is a competing substrate for NAD-dependent alcohol dehydrogenase and may slow the product of harmful metabolic products of diethylene glycol.
<b>Pharmacokinetics</b>	No data available

## 12. Ecological Information

### - Environmental Toxicity -

<b>Freshwater Fish</b>	Acute LD50 > 75.2 g/L (96h)
<b>Freshwater Invertebrates</b>	Acute LD50 > 10g/l (24h)
<b>Algae</b>	Not determined
<b>Saltwater Fish</b>	Not determined
<b>Saltwater Invertebrates</b>	Not determined
<b>Bacteria</b>	Not determined
<b>Miscellaneous</b>	Not determined

### - Environmental Fate -

<b>Biodegradation</b>	No data available. Expected to biodegrade rapidly and degrade by photo-oxidative reactions with the air
<b>Bioaccumulation</b>	Product is very mobile in soil and water and is somewhat volatile – it is not expected to bioaccumulate.
<b>Soil Mobility</b>	Product has high mobility in soil, slowly evaporates at environmentally relevant temperatures
<b>Other Effects</b>	Not determined

## 13. Disposal Considerations

### Disposal Considerations

All disposal practices must be in accordance with local, regional, national, and international regulations. Store material for disposal as indicated in Section 7.

Disposal by controlled incineration or by secure land fill may be acceptable – review applicable regulations or regulatory bodies before making disposal decisions.

### Contaminated Containers or Packaging

Empty containers are likely to contain flammable vapors or explosive mixtures of vapor and air. Do NOT weld, cut, or grind empty containers. Rinse empty containers with water and dispose of in accordance with local, regional, national, and international regulations

## 14. Transportation Information

Description shown may not apply to all shipping situations. Consult applicable shipping codes to determine any additional shipping requirements

**US DOT** Not dangerous goods

**IMDG** Not dangerous goods

**ICAO/IATA** Not dangerous goods

## 15. Regulatory Information

### - Global Chemical Inventories/Regulations -

<b>USA</b>	All components of this material are on the US TSCA
<b>Other TSCA Reg.</b>	None known
<b>EU</b>	Components of this product and similar mixtures are registered under REACH. Consult the European Chemicals Agency regarding REACH registration, reporting, and other legal requirements for methanol solutions before importing to the EU.
<b>New Zealand</b>	May require notification before sale under New Zealand Regulations
<b>Canada</b>	All components of this product are listed on the Canadian Domestic Substances List (DSL).
<b>Canada WHMIS</b>	B3

### - Other U.S. Federal Regulations -

<b>SARA Ext. Haz. Subst.</b>	No components listed as Extremely Hazardous Substances list. See 40 CFR 355
<b>SARA Sect. 313</b>	2-(2-butoxyethoxy)ethanol (CAS # 112-34-5) and ethoxytriglycol (CAS # 112-50-5) are subject to reporting under SARA Title III, Section 313. See 40 CFR 372

<b>SARA 311/312 Class</b>	<i>Acute Hazard</i>	- YES
	<i>Chronic Hazard</i>	- NO
	<i>Fire Hazard</i>	- NO

**CERCLA Haz. Sub.** *Reactivity Hazard* - NO  
No components listed. See 40 CFR 302

**CA Prop 65** **- State Regulations -**  
This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other reproductive harm.

<b>Right to Know Component</b>	<b>Right to Know States</b>
2-(2-propoxyethoxy)ethanol (CAS # 6881-94-3)	NJ, PA
Diethylene glycol (CAS # 111-46-6)	NJ, PA
Butoxytriglycol (CAS # 134-22-6)	NJ, PA
Ethoxytriglycol (CAS # 112-50-5)	NJ, PA
Poly(1,2-dihydro-2,2,4-trimethylquinoline) (CAS # 26780-96-1)	NJ, PA
2-(2-butoxyethoxy)ethanol (CAS # 112-34-5)	NJ, PA
Ethanolamine (CAS # 141-43-5)	NJ, PA, MA
Benzotriazole (CAS # 95-14-7)	NJ, PA, MA
Sodium Nitrate (CAS # 7631-99-4)	NJ, PA

**- Other -**

## 16. Other Information

Revision updates may be in many sections and the MSDS should be read in its entirety.  
Prepared according to the UN Globally Harmonized System for the Classification and Labeling of Chemicals (GHS).

**Disclaimer:** The information presented herein has been compiled from sources considered to be dependable and is accurate to the best knowledge. Master, makes no warranty whatsoever expressed or implied of merchantability or fitness for the particular purpose, regarding the accuracy of such data or the results to be obtained from the use thereof. Master, assumes no legal responsibility for use or reliance upon this data. Since this information may be applied under conditions beyond our control and with which we may be unfamiliar and since data made available subsequent to the date hereof may suggest modifications of the information, we do not assume any responsibility for the results of its use. This information is furnished upon condition that the person receiving it shall make his own determination of the suitability of the material for his particular purpose.



CEMENT &amp; CONCRETE PRODUCTS™

## A12: Water Based Products

**SAFETY DATA SHEET**  
(Complies with OSHA 29 CFR 1910.1200)

### SECTION I: PRODUCT IDENTIFICATION

The QUIKRETE® Companies  
One Securities Centre  
3490 Piedmont Road, Suite 1300  
Atlanta, GA 30305

Emergency Telephone Number  
(770) 216-9580  
Information Telephone Number  
(770) 216-9580

SDS A12  
Revision: Feb-16

#### **QUIKRETE® Product Name**

MORTAR REPAIR  
CONCRETE REPAIR  
BLACKTOP REPAIR

#### **Code #**

8620-05, -09  
8620-10, -13  
8630-10, -15

**Product Use:** Acrylic cosmetic crack filler for concrete, mortar or asphalt.

### SECTION II - HAZARD IDENTIFICATION

**Hazard-determining components of labeling:** Acrylic polymer

#### **2.1 Classification of the substance or mixture**

Skin Irritation – Category 2  
Eye Irritation – Category 2B  
Specific Target Organ Toxicity – Repeat Exposure Category 2  
Acute Oral Toxicity – Category 4

#### **2.2a Signal word** Warning

#### **2.2b Hazard Statements**

Causes skin irritation  
Causes eye irritation  
May cause respiratory irritation  
Harmful if swallowed

**QUIKRETE****CEMENT & CONCRETE PRODUCTS™**

## 2.2c Pictograms



## 2.2d Precautionary statements

Do not handle until all safety precautions have been read and understood.

Wear protective gloves/eye protection/clothing.

Wash thoroughly after handling. Do not eat, drink or smoke when using this product.

Use only in a well-ventilated area.

Do not breathe dust / vapors / fumes

If on skin (or hair): Immediately take off all contaminated clothing and wash before reuse. Rinse skin or hair with water.

If in eyes: Rinse cautiously with water for several minutes; remove contact lenses if easy to do; continue rinsing.

If inhaled: Remove person to fresh air and keep comfortable for breathing.

If swallowed: Rinse mouth; do NOT induce vomiting.

**Immediately seek medical advice or attention if symptoms are significant or persist.**

Dispose of contents and container in accordance with all regulations.

## 2.3 Additional Information

**2.3a HNOC – Hazards not otherwise classified:** Not applicable

**2.3b Unknown Acute Toxicity:** None

### 2.3C WHMIS Classification

Does not meet classification criteria.

### 2.3d Label Elements According To WHMIS

#### Hazard Symbols

None

#### Signal Word

None



**CEMENT & CONCRETE PRODUCTS™**

### SECTION III - HAZARDOUS INGREDIENTS/IDENTITY INFORMATION

<u>Hazardous Components</u>	<u>CAS No.</u>	<u>% by Weight</u>
Calcium Carbonate	1317-65-3	40-60
Acrylic Polymeric Resin	Not Hazardous	40-60
Water	7732-18-5	10-30
Titanium Dioxide	13463-67-7	1-2
Butyl Benzyl Phthalate	86-68-7	1-2

Composition ranges provided due to batch-to-batch variability.  
None of the constituents of this product are of unknown toxicity.

### SECTION IV – FIRST AID MEASURES

#### 4.1 Description of the first-aid measures

##### General information:

**After inhalation:** Remove person to fresh air and keep comfortable for breathing.

**After skin contact:** If on skin (or hair): Immediately take off all contaminated clothing and wash before reuse. Rinse skin or hair with water.

**After eye contact:** If in eyes: Rinse cautiously with water for several minutes; remove contact lenses if easy to do; continue rinsing.

**After swallowing:** If swallowed: Rinse mouth; do NOT induce vomiting. Never give anything by mouth to an unconscious person.

#### 4.2 Most important symptoms/effects, acute and delayed

**Inhalation:** May cause respiratory tract irritation.

**Skin contact:** May cause skin irritation.

**Eye Contact:** May cause eye irritation

**Ingestion:** Harmful if large amounts are ingested. Ingestion of may cause discomfort and/or distress, nausea or vomiting.

#### 4.3 Indication of immediate medical attention and special treatment needed:

Immediately seek medical advice or attention if symptoms are significant or persist.

### SECTION V - FIRE FIGHTING MEASURES

**5.1 Flammability of the Product:** Non-flammable and non-combustible

**5.2 Suitable extinguishing agents:** Treat for surrounding material

**5.3 Special hazards arising from the substance or mixture:** None



**CEMENT & CONCRETE PRODUCTS™**

**5.3a Products of Combustion:** None

**5.3b Explosion Hazards in Presence of Various Substances:** Non-explosive in presence of shocks

---

## SECTION VI – ACCIDENTAL RELEASE MEASURES

---

**6.1 Personal precautions, protective equipment and emergency procedures:** Wear personal protective equipment (See section VIII). Keep unprotected persons away.

**6.2 Methods and material for containment and cleaning up:**

Do not allow to enter sewers/ surface or ground water. Dispose of unwanted materials and containers properly in accordance with all regulations.

---

## SECTION VII - PRECAUTIONS FOR SAFE HANDLING AND STORAGE

---

**7.1 Handling**

**Precautions for safe handling:** Wear appropriate PPE (See section 8). Do not mix with other chemical products, except as indicated by the manufacturer. Do not get in eyes, on skin or clothing. Good housekeeping is important to prevent accumulation of dust.

**7.2 Storage**

**Requirements to be met by storerooms and receptacles:** No special requirements.

**Information about storage in one common storage facility:** Not required.

**Further information about storage conditions:** Keep out of the reach of children. Keep container tightly closed and prevent exposure to humidity. Do not allow water to contact the product until time of use to preserve product utility.

---

## SECTION VIII – EXPOSURE CONTROL MEASURES / PERSONAL PROTECTION

---

**8.1 Components with limit values that require monitoring at the workplace:**

Hazardous Components	CAS No.	PEL (OSHA) mg/M <sup>3</sup>	TLV (ACGIH) mg/M <sup>3</sup>
None			

**8.2 Exposure Controls**

Use ventilation adequate to keep exposures below recommended exposure limits.

**8.3 General protective and hygienic measures**

Keep away from foodstuffs, beverages and feed. Immediately remove all soiled and contaminated clothing. Wash hands before breaks and at the end of work. Avoid contact with the eyes and skin.



**CEMENT & CONCRETE PRODUCTS™**

### 8.3a Personal protective equipment

#### Protection of hands:

Wear gloves of adequate length to offer appropriate skin protection from incidental contact. Nitrile, Butyl and PVC gloves have been found to offer adequate protection for incidental contact.

#### Eye protection:

Wear approved eye protection properly fitted dust- or splash-proof chemical safety glasses.

#### Respiratory protection:

No respiratory protection required under normal conditions of use.

---

## SECTION IX - PHYSICAL/CHEMICAL CHARACTERISTICS

---

### General Information

<b>Appearance</b>	Form: Paste Color: Gray, Beige or Black Odor: Ether / Ammonia
<b>pH-value at 20°C (68 °F):</b>	Not Available
<b>Boiling point/Boiling range:</b>	>212°F (>100°C)
<b>Auto igniting:</b>	Product is not self-igniting.
<b>Vapor pressure at 21°C (70°F)</b>	<1 (water)
<b>Density at 25°C (77 °F):</b>	1.6 to 1.8
<b>Solubility in / Miscibility with Water:</b>	Miscible
<b>VOC content:</b>	VOC <1.5% by weight; VOC<0.1 g/L per EPA Method 24.

---

## SECTION X – STABILITY AND REACTIVITY

---

### 10.1 Reactivity

No dangerous reaction known under conditions of normal use.

### 10.2 Chemical stability

Stable under normal storage conditions. Keep in dry storage.

### 10.3 Possibility of hazardous reaction

No dangerous reaction known under conditions of normal use.

### 10.4 Thermal decomposition / conditions to be avoided

No decomposition if used according to specifications.

### 10.5 Incompatible materials

Bromine trifluoride, lithium



**CEMENT & CONCRETE PRODUCTS™**

## 10.6 Hazardous Decomposition or By-products

---

### SECTION XI – TOXICOLOGICAL INFORMATION

---

**11.1 Exposure Routes:** Ingestion.

**11.2 Symptoms related to physical/chemical/toxicological characteristics:**

**Ingestion:** Harmful if swallowed.

**11.3 Delayed, immediate and chronic effects of short-term and long-term exposure**

#### Short Term

Skin Corrosion/Irritation: Not applicable

Serious Eye Damage/Irritation: Not applicable

Respiratory Sensitization: Not applicable

Skin Sensitization: Not applicable

Specific Target Organ Toxicity-Single Exposure: Not applicable

Aspiration Hazard: Not Applicable

Ingestion: Harmful if swallowed

#### Long Term

Carcinogenicity: Not applicable

Germ Cell Mutagenicity: Not applicable

Reproductive Toxicity: Not applicable

Specific Target Organ Toxicity- Repeated Exposure: (Category 2) May cause respiratory irritation.

Synergistic/Antagonistic Effects: Not applicable

---

### SECTION XII – ECOLOGICAL INFORMATION

---

#### 12.1 Ecotoxicity

This material is not expected to be harmful to the ecology.

#### 12.2 Persistence and degradability

Dissolved into water

#### 12.3 Bioaccumulative potential:

Not expected to occur

#### 12.4 Mobility in soil

This material is expected to have very high mobility in soil. It does not absorb to most soil types.



**CEMENT & CONCRETE PRODUCTS™**

### 12.5 Other Adverse Effects

No further relevant information available.

---

## SECTION XIII – DISPOSAL CONSIDERATIONS

---

### 13.1 Waste Disposal Method

The packaging and material may be land filled; however, material should be covered to minimize generation of airborne dust. This product is not classified as a hazardous waste under the authority of the RCRA (40CFR 261) or CERCLA (40CFR 117&302). Disposal must be made in accordance with local, state and federal regulations.

### 13.2 Other disposal considerations

#### Uncleaned packaging

**Recommendation:** Disposal must be made in accordance with local, state and federal regulations.

**Recommended cleansing agent:** Water, if necessary with cleansing agents.

---

## SECTION XIV – TRANSPORT INFORMATION

---

	<b>DOT (U.S.)</b>	<b>TDG (Canada)</b>
<b>UN-Number</b>	Not Regulated	Not Regulated
<b>UN proper shipping name</b>	Not Regulated	Not Regulated
<b>Transport Hazard Class(es)</b>	Not Regulated	Not Regulated
<b>Packing Group (if applicable)</b>	Not Regulated	Not Regulated

### 14.1 Environmental hazards:

Not Available

### 14.2 Transport in bulk according to Annex II of Marpol 73/78 and the IBC Code

Not available

### 14.3 Special precautions for user

Do not handle until all safety precautions have been read and understood.

---

## SECTION XV – OTHER REGULATORY INFORMATION

---

### 15.1 Safety, Health and Environmental Regulations/Legislations specific for the chemical

#### Canada

**WHMIS Classification:** Considered to be a non-hazardous material under the Hazardous Products Act as defined by the Controlled Products Regulations and subject to the requirements of Health Canada's Workplace Hazardous Material Information (WHMIS). This

**CEMENT & CONCRETE PRODUCTS™**

document complies with the WHMIS requirements of the Hazardous Products Act (HPA) and the CPR.

**15.2 US Federal Information**

**SARA 302/311/312/313 Components**

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302, 311, 312 or 313.

**15.3 State Right to Know Laws**

**California Prop. 65 Components**

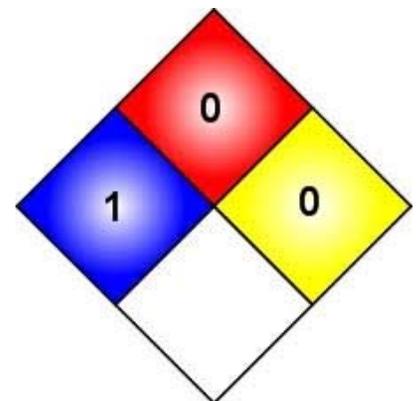
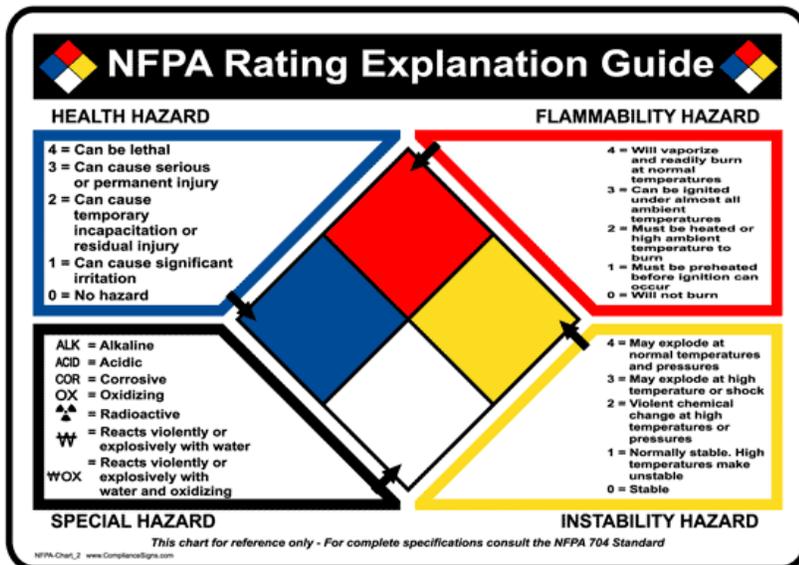
**WARNING:** This product does not contain chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

**15.4 Global Inventories**

**DSL** All components of this product are on the Canadian DSL list.

**TSCA No.:** All constituents are listed in the TSCA inventory.

**15.5 NFPA Ratings**





**CEMENT & CONCRETE PRODUCTS™**

---

**SECTION XVI – OTHER INFORMATION**

---

**Last Updated: February 18, 2016**

**NOTE:** The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, express or implied, is made with respect to the information contained herein. We accept no responsibility and disclaim all liability for any harmful effects which may be caused by exposure to silica contained in our products.

Prepared by

The QUIKRETE® Companies

Phone (800) 282-5828

[www.QUIKRETE.com](http://www.QUIKRETE.com)

**End of SDS**

**Material Safety Data Sheet**

According to the Controlled Product Regulations

---

**1. MATERIAL AND COMPANY IDENTIFICATION**

**Material Name** : MotoMaster 2 Cycle Oil  
**Uses** : Engine oil.  
**Product Code** : 001B1849

**Manufacturer/Supplier** : **Shell Canada Products**  
400 - 4th Avenue S.W  
Calgary AB T2P 0J4  
Canada

**Telephone** : (+1) 8006611600  
**Fax** : (+1) 4033848345

**Emergency Telephone Number**  
: CHEMTREC (24 hr): (+1) 800-424-9300  
CANUTEC (24 hr): (+1) 613-996-6666

---

**2. COMPOSITION/INFORMATION ON INGREDIENTS**

**Mixture Description:** : Highly refined mineral oils, polyolefins, additives and kerosine or similar hydrocarbon solvent.

The highly refined mineral oil contains <3% (w/w) DMSO-extract, according to IP346.

Refer to Chapter 8 for Occupational Exposure Guidelines.

---

**3. HAZARDS IDENTIFICATION**

**WHMIS Class/Description** : THIS PRODUCT IS NOT A WHMIS CONTROLLED SUBSTANCE.

**Routes of Exposure** : Skin and eye contact are the primary routes of exposure although exposure may occur following accidental ingestion.

**Health Hazards** : Not expected to be a health hazard when used under normal conditions. Prolonged or repeated skin contact without proper cleaning can clog the pores of the skin resulting in disorders such as oil acne/folliculitis. Used oil may contain harmful impurities.

**Signs and Symptoms** : Oil acne/folliculitis signs and symptoms may include formation of black pustules and spots on the skin of exposed areas. Ingestion may result in nausea, vomiting and/or diarrhoea.

**Safety Hazards** : Not classified as flammable but will burn.

**Environmental Hazards** : Not classified as dangerous for the environment.

---

**4. FIRST AID MEASURES**

**General Information** : Not expected to be a health hazard when used under normal

**Material Safety Data Sheet**

According to the Controlled Product Regulations

<b>Inhalation</b>	: conditions. : No treatment necessary under normal conditions of use. If symptoms persist, obtain medical advice.
<b>Skin Contact</b>	: Remove contaminated clothing. Flush exposed area with water and follow by washing with soap if available. If persistent irritation occurs, obtain medical attention.
<b>Eye Contact</b>	: Flush eye with copious quantities of water. If persistent irritation occurs, obtain medical attention.
<b>Ingestion</b>	: In general no treatment is necessary unless large quantities are swallowed, however, get medical advice.
<b>Advice to Physician</b>	: Treat symptomatically.

**5. FIRE FIGHTING MEASURES**

Clear fire area of all non-emergency personnel.

<b>Flash point</b>	: Typical 112 °C / 234 °F (COC)
<b>Upper / lower Flammability or Explosion limits</b>	: Typical 1 - 10 %(V)(based on mineral oil)
<b>Auto ignition temperature</b>	: > 320 °C / 608 °F
<b>Hazardous Combustion Products and Specific Hazards</b>	: Hazardous combustion products may include: A complex mixture of airborne solid and liquid particulates and gases (smoke). Carbon monoxide. Unidentified organic and inorganic compounds.
<b>Suitable Extinguishing Media</b>	: Foam, water spray or fog. Dry chemical powder, carbon dioxide, sand or earth may be used for small fires only.
<b>Unsuitable Extinguishing Media</b>	: Do not use water in a jet.
<b>Protective Equipment for Firefighters</b>	: Proper protective equipment including breathing apparatus must be worn when approaching a fire in a confined space.

**6. ACCIDENTAL RELEASE MEASURES**

<b>Protective Measures</b>	: Avoid contact with skin and eyes. Use appropriate containment to avoid environmental contamination. Prevent from spreading or entering drains, ditches or rivers by using sand, earth, or other appropriate barriers.
<b>Clean Up Methods</b>	: Slippery when spilt. Avoid accidents, clean up immediately. Prevent from spreading by making a barrier with sand, earth or other containment material. Reclaim liquid directly or in an absorbent. Soak up residue with an absorbent such as clay, sand or other suitable material and dispose of properly.
<b>Additional Advice</b>	: Local authorities should be advised if significant spillages cannot be contained.

**7. HANDLING AND STORAGE**

<b>General Precautions</b>	: Use local exhaust ventilation if there is risk of inhalation of vapours, mists or aerosols. Properly dispose of any contaminated rags or cleaning materials in order to prevent
----------------------------	---

**Material Safety Data Sheet**

According to the Controlled Product Regulations

- fires. Use the information in this data sheet as input to a risk assessment of local circumstances to help determine appropriate controls for safe handling, storage and disposal of this material.
- Handling** : Avoid prolonged or repeated contact with skin. Avoid inhaling vapour and/or mists. When handling product in drums, safety footwear should be worn and proper handling equipment should be used.
- Storage** : Keep container tightly closed and in a cool, well-ventilated place. Use properly labelled and closeable containers. Store at ambient temperature.
- Recommended Materials** : For containers or container linings, use mild steel or high density polyethylene.
- Unsuitable Materials** : PVC.
- Additional Information** : Polyethylene containers should not be exposed to high temperatures because of possible risk of distortion.

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

If the American Conference of Governmental Industrial Hygienists (ACGIH) value is provided on this document, it is provided for information only.

**Occupational Exposure Limits**

Material	Source	Type	ppm	mg/m3	Notation
Oil mist, mineral	ACGIH	TWA(Inhalable fraction.)		5 mg/m3	

Consult local authorities for acceptable exposure limits within their jurisdiction.

- Exposure Controls** : The level of protection and types of controls necessary will vary depending upon potential exposure conditions. Select controls based on a risk assessment of local circumstances. Appropriate measures include: Adequate ventilation to control airborne concentrations. Where material is heated, sprayed or mist formed, there is greater potential for airborne concentrations to be generated.
- Personal Protective Equipment** : Personal protective equipment (PPE) should meet recommended national standards. Check with PPE suppliers.
- Respiratory Protection** : No respiratory protection is ordinarily required under normal conditions of use. In accordance with good industrial hygiene practices, precautions should be taken to avoid breathing of material. If engineering controls do not maintain airborne concentrations to a level which is adequate to protect worker health, select respiratory protection equipment suitable for the specific conditions of use and meeting relevant legislation. Check with respiratory protective equipment suppliers. Where

**Material Safety Data Sheet**

According to the Controlled Product Regulations

	air-filtering respirators are suitable, select an appropriate combination of mask and filter. Select a filter suitable for combined particulate/organic gases and vapours [boiling point >65°C(149 °F)].
<b>Hand Protection</b>	: Where hand contact with the product may occur the use of gloves approved to relevant standards (e.g. Europe: EN374, US: F739) made from the following materials may provide suitable chemical protection: PVC, neoprene or nitrile rubber gloves. Suitability and durability of a glove is dependent on usage, e.g. frequency and duration of contact, chemical resistance of glove material, glove thickness, dexterity. Always seek advice from glove suppliers. Contaminated gloves should be replaced. Personal hygiene is a key element of effective hand care. Gloves must only be worn on clean hands. After using gloves, hands should be washed and dried thoroughly. Application of a non-perfumed moisturizer is recommended.
<b>Eye Protection</b>	: Wear safety glasses or full face shield if splashes are likely to occur.
<b>Protective Clothing</b>	: Skin protection not ordinarily required beyond standard issue work clothes.
<b>Monitoring Methods</b>	: Monitoring of the concentration of substances in the breathing zone of workers or in the general workplace may be required to confirm compliance with an OEL and adequacy of exposure controls. For some substances biological monitoring may also be appropriate.
<b>Environmental Exposure Controls</b>	: Minimise release to the environment. An environmental assessment must be made to ensure compliance with local environmental legislation.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

Appearance	: Blue. Liquid at room temperature.
Odour	: Slight hydrocarbon.
Odour threshold	: Data not available
pH	: Not applicable.
Initial Boiling Point and Boiling Range	: > 280 °C / 536 °F estimated value(s)
Pour point	: Typical -45 °C / -49 °F
Vapour pressure	: < 0.5 Pa at 20 °C / 68 °F (estimated value(s))
Specific gravity	: Typical 0.86 at 15 °C / 59 °F
Density	: Typical 860 kg/m <sup>3</sup> at 15 °C / 59 °F
Water solubility	: Negligible.
n-octanol/water partition coefficient (log Pow)	: > 6 (based on information on similar products)
Kinematic viscosity	: Typical 21.8 mm <sup>2</sup> /s at 40 °C / 104 °F
Vapour density (air=1)	: > 1 (estimated value(s))
Evaporation rate (nBuAc=1)	: Data not available

## Material Safety Data Sheet

According to the Controlled Product Regulations

---

**10. STABILITY AND REACTIVITY**

<b>Stability</b>	: Stable.
<b>Conditions to Avoid</b>	: Extremes of temperature and direct sunlight.
<b>Materials to Avoid</b>	: Strong oxidising agents.
<b>Hazardous Decomposition Products</b>	: Hazardous decomposition products are not expected to form during normal storage.
<b>Hazardous Polymerisation</b>	: No
<b>Sensitivity to Mechanical Impact</b>	: No
<b>Sensitivity to Static Discharge</b>	: No

---

**11. TOXICOLOGICAL INFORMATION**

<b>Basis for Assessment</b>	: Information given is based on data on the components and the toxicology of similar products.
<b>Routes of Exposure</b>	: Skin and eye contact are the primary routes of exposure although exposure may occur following accidental ingestion.
<b>Acute Oral Toxicity</b>	: Expected to be of low toxicity: LD50 > 5000 mg/kg , Rat.
<b>Acute Dermal Toxicity</b>	: Expected to be of low toxicity: LD50 > 5000 mg/kg , Rabbit.
<b>Acute Inhalation Toxicity</b>	: Not considered to be an inhalation hazard under normal conditions of use.
<b>Skin Irritation</b>	: Expected to be slightly irritating. Prolonged or repeated skin contact without proper cleaning can clog the pores of the skin resulting in disorders such as oil acne/folliculitis.
<b>Eye Irritation</b>	: Expected to be slightly irritating.
<b>Respiratory Irritation</b>	: Inhalation of vapours or mists may cause irritation.
<b>Sensitisation</b>	: Not expected to be a skin sensitiser.
<b>Repeated Dose Toxicity</b>	: Not expected to be a hazard.
<b>Mutagenicity</b>	: Not considered a mutagenic hazard.
<b>Carcinogenicity</b>	: Product contains mineral oils of types shown to be non-carcinogenic in animal skin-painting studies. Highly refined mineral oils are not classified as carcinogenic by the International Agency for Research on Cancer (IARC). Other components are not known to be associated with carcinogenic effects.
<b>Reproductive and Developmental Toxicity</b>	: Not expected to be a hazard.
<b>Additional Information</b>	: Used oils may contain harmful impurities that have accumulated during use. The concentration of such impurities will depend on use and they may present risks to health and the environment on disposal. ALL used oil should be handled with caution and skin contact avoided as far as possible. Continuous contact with used engine oils has caused skin cancer in animal tests.

**Material Safety Data Sheet**

According to the Controlled Product Regulations

---

**12. ECOLOGICAL INFORMATION**

Ecotoxicological data have not been determined specifically for this product. Information given is based on a knowledge of the components and the ecotoxicology of similar products.

- Acute Toxicity** : Poorly soluble mixture. May cause physical fouling of aquatic organisms. Expected to be practically non toxic: LL/EL/IL50 > 100 mg/l (to aquatic organisms) (LL/EL50 expressed as the nominal amount of product required to prepare aqueous test extract). Mineral oil is not expected to cause any chronic effects to aquatic organisms at concentrations less than 1 mg/l.
- Mobility** : Liquid under most environmental conditions. Floats on water. If it enters soil, it will adsorb to soil particles and will not be mobile.
- Persistence/degradability** : Expected to be not readily biodegradable. Major constituents are expected to be inherently biodegradable, but the product contains components that may persist in the environment.
- Bioaccumulation** : Contains components with the potential to bioaccumulate.
- Other Adverse Effects** : Product is a mixture of non-volatile components, which are not expected to be released to air in any significant quantities. Not expected to have ozone depletion potential, photochemical ozone creation potential or global warming potential.

---

**13. DISPOSAL CONSIDERATIONS**

- Material Disposal** : Recover or recycle if possible. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste classification and disposal methods in compliance with applicable regulations. Do not dispose into the environment, in drains or in water courses.
- Container Disposal** : Dispose in accordance with prevailing regulations, preferably to a recognised collector or contractor. The competence of the collector or contractor should be established beforehand.
- Local Legislation** : Disposal should be in accordance with applicable regional, national, and local laws and regulations.

---

**14. TRANSPORT INFORMATION****Canadian Road and Rail Shipping Classification**

This product is not regulated under the Canadian Transportation of Dangerous Goods Regulations for transport by road and rail.

## Material Safety Data Sheet

According to the Controlled Product Regulations

---

### 15. REGULATORY INFORMATION

The regulatory information is not intended to be comprehensive. Other regulations may apply to this material.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

**WHMIS Class/Description** : THIS PRODUCT IS NOT A WHMIS CONTROLLED SUBSTANCE.

#### Inventory Status

**EINECS** : All components listed or polymer exempt.  
**TSCA** : All components listed.  
**DSL** : All components listed.

---

### 16. OTHER INFORMATION

**MSDS Version Number** : 1.1  
**MSDS Effective Date** : 2014-12-18  
**MSDS Revisions** : A vertical bar (|) in the left margin indicates an amendment from the previous version.  
**MSDS Regulation** : The content and format of this (M)SDS is in accordance with the Controlled Product Regulations.  
**MSDS Prepared By** : Shell Product Stewardship; 1-800-661-1600  
**MSDS Distribution** : The information in this document should be made available to all who may handle the product.  
**Disclaimer** : The information contained herein is based on our current knowledge of the underlying data and is intended to describe the product for the purpose of health, safety and environmental requirements only. No warranty or guarantee is expressed or implied regarding the accuracy of these data or the results to be obtained from the use of the product.



# Shell Canada Limited Material Safety Data Sheet

Effective Date: 2010-11-01

Supersedes: 2007-11-14

## 1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT: **MOTOMASTER ATF**  
SYNONYMS: Automatic Transmission Fluid  
PRODUCT USE: Lubricating oil  
PRODUCT CODE: **460-712**

### SUPPLIER

Shell Canada Limited (SCL)  
P.O. Box 100, Station M  
400-4th Ave. S.W.  
Calgary, AB Canada  
T2P 2H5

### TELEPHONE NUMBERS

Shell Emergency Number  
**CANUTEC 24 HOUR EMERGENCY NUMBER**  
For general information:

1-800-661-7378  
1-613-996-6666  
1-800-661-1600  
[www.shell.ca](http://www.shell.ca)

This MSDS was prepared by the Toxicology and Product Stewardship Section of Shell Canada Limited.

\*An asterisk in the product name designates a trade-mark of Shell Brands International AG. Used under license.

## 2. COMPOSITION / INFORMATION ON INGREDIENTS

THIS PRODUCT IS NOT A WHMIS CONTROLLED SUBSTANCE.

See Section 8 for Occupational Exposure Guidelines.

## 3. HAZARDS IDENTIFICATION

**Physical Description:** Liquid Red Colour Slight Hydrocarbon Odour  
**Routes of Exposure:** Exposure will most likely occur through skin contact or from inhalation of mechanically or thermally generated oil mists.

### Hazards:

This product is not expected to be irritating and has a low level of toxicity under normal use.

Inhalation of oil mist or vapours from hot oil may cause irritation of the upper respiratory tract.

For further information on health effects, see Section 11.

## 4. FIRST AID MEASURES

**Eyes:** Flush eyes with water for at least 15 minutes while holding eyelids open. If irritation occurs and persists, obtain medical attention.

**Skin:** Wipe excess from skin. Wash contaminated skin with mild soap and water for at least 15 minutes. If irritation occurs and persists, obtain medical attention. If material is injected under the skin, get medical attention promptly to prevent serious damage; do not wait for symptoms to develop.

**Ingestion:** Not normally required; obtain medical attention if large amounts have been ingested. Do not induce vomiting. If vomiting occurs spontaneously, keep head below hips to prevent aspiration of liquid into the lungs.

- Inhalation:** Remove victim from further exposure. Additional first aid treatment is not ordinarily required.
- Notes to Physician:** In general, lubricating oils have low oral toxicity. High pressure injection under the skin may have serious consequences and may require urgent treatment.

### 5. FIRE FIGHTING MEASURES

- Extinguishing Media:** Dry Chemical  
Carbon Dioxide  
Foam  
Water Fog
- Firefighting Instructions:** Caution, spilled material is slippery. Material will not burn unless preheated. Product will float and can be reignited on surface of water. Do not use a direct stream of water as it may spread fire. Use water to cool fire exposed containers. Water may be used to flush spills away from exposure. Do not enter confined fire space without adequate protective clothing and an approved positive pressure self-contained breathing apparatus.
- Hazardous Combustion Products:** Carbon monoxide, carbon dioxide and dense smoke are produced on combustion.

### 6. ACCIDENTAL RELEASE MEASURES

Eliminate all ignition sources. Isolate hazard area and restrict access. Avoid prolonged or repeated contact with skin. Wear appropriate breathing apparatus (if applicable) and protective clothing. Stop leak only if safe to do so. Spilled material is slippery. Dike and contain land spills; contain spills to water by booming. For large spills remove by mechanical means and place in containers. Adsorb residue or small spills with adsorbent material and remove to non-leaking containers for disposal. Notify appropriate environmental agency(ies). After area has been cleaned up to the satisfaction of regulatory authorities, flush area with water to remove trace residue. Dispose of recovered material as noted under Disposal Considerations.

### 7. HANDLING AND STORAGE

- Handling:** Avoid excessive heat, formation of oil mist, breathing of vapours and mist of hot oil and prolonged or repeated contact with skin. Wash with soap and water prior to eating, drinking, smoking, applying cosmetics or using toilet facilities. Launder contaminated clothing prior to reuse.
- Storage:** Store in a cool, dry, well ventilated area, away from heat and ignition sources.

### 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

The following information, while appropriate for this product, is general in nature. The selection of personal protective equipment will vary depending on the conditions of use.

#### OCCUPATIONAL EXPOSURE LIMITS (Current ACGIH TLV/TWA unless otherwise noted):

The exposure limits listed here are provided for guidance only. Consult local, provincial and territorial authorities for specific values.

Mineral oil, pure, highly and severely refined, excluding metal working fluids: 5 mg/m<sup>3</sup> (inhalable fraction)

- Mechanical Ventilation:** Not normally required. Local ventilation is recommended if oil mist is present or if exposure limit is exceeded. Make up air should always be supplied to balance air exhausted (either generally or locally).

#### PERSONAL PROTECTIVE EQUIPMENT:

<b>Eye Protection:</b>	No special eye protection is routinely necessary. Wear safety glasses as appropriate.
<b>Skin Protection:</b>	Not normally needed. Chemically-resistant gloves should be worn for frequent or prolonged contact with this product.
<b>Respiratory Protection:</b>	Not normally required under intended conditions of use. If airborne concentration is high (e.g. when product is heated), use a NIOSH-approved chemical cartridge respirator with organic vapour cartridges in combination with a P95 particulate filter.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Physical State:</b>	Liquid	<b>Odour:</b>	Slight Hydrocarbon Odour
<b>Appearance:</b>	Red Colour	<b>Odour Threshold:</b>	Not available
<b>Pour Point</b>	< -42 °C	<b>Boiling Point</b>	> 315 °C
<b>Vapour Pressure (absolute):</b>		<b>Vapour Density (air = 1):</b>	Not available
<b>Density:</b>		<b>Flash Point</b>	COC > 180 °C
<b>Specific Gravity (Water = 1):</b>		<b>Lower Flammable Limit:</b>	Not available
<b>pH:</b>	Not applicable	<b>Upper Flammable Limit:</b>	Not available
<b>Viscosity:</b>	6.5 - 7.7 mm <sup>2</sup> /s @ 100 °C	<b>Auto-ignition Temperature:</b>	Not available
<b>Evaporation Rate (n-BuAc = 1):</b>	Not available	<b>Partition Coefficient (log K<sub>ow</sub>):</b>	Not available
<b>Water Solubility:</b>	Insoluble	<b>Molecular Weight:</b>	
<b>Other Solvents:</b>	Hydrocarbon Solvents	<b>Formula:</b>	

## 10. STABILITY AND REACTIVITY

<b>Chemically Stable:</b>	Yes	<b>Hazardous Polymerization:</b>	No
<b>Sensitive to Mechanical Impact:</b>	No	<b>Sensitive to Static Discharge:</b>	No
<b>Hazardous Decomposition Products:</b>	Hazardous decomposition products are not expected to form during normal storage.		
<b>Incompatible Materials:</b>	Avoid strong oxidizing agents.		
<b>Conditions of Reactivity:</b>	Avoid excessive heat, formation of vapours or mists.		

## 11. TOXICOLOGICAL INFORMATION

<b>Routes of Exposure:</b>	Exposure will most likely occur through skin contact or from inhalation of mechanically or thermally generated oil mists.
<b>Irritancy:</b>	This product is not a primary skin irritant after exposure of short duration, is not a skin sensitizer and is not irritating to the eyes.
<b>Acute Toxicity:</b>	This product is not expected to be irritating and has a low level of toxicity under normal use.
<b>Chronic Effects:</b>	Prolonged and repeated contact with skin can cause defatting and drying of the skin resulting in skin irritation and dermatitis. Long term intensive exposure to oil mist may cause benign lung fibrosis.

## 12. ECOLOGICAL INFORMATION

<b>Environmental Effects:</b>	The immediate effect of a release is the physical impairment of the environment from the coating of surfaces, resulting in the disruption of oxygen, water and light to flora and fauna. Do not allow product or runoff from fire control to enter storm or sanitary
-------------------------------	--

**Biodegradability:** sewers, lakes, rivers, streams, or public waterways. Block off drains and ditches.  
Not readily biodegradable.

**13. DISPOSAL CONSIDERATIONS**

Waste management priorities (depending on volumes and concentration of waste) are: 1. recycle (reprocess), 2. energy recovery 3. incineration, 4. disposal at a licenced waste disposal facility. Do not attempt to combust waste on-site.

**14. TRANSPORT INFORMATION**

**Canadian Road and Rail Shipping Classification:**

This product is not regulated under the Canadian Transportation of Dangerous Goods Regulations for transport by road and rail.

**15. REGULATORY INFORMATION**

**This product has been classified in accordance with the hazard criteria of the *Controlled Products Regulations (CPR)* and the MSDS contains all the information required by the CPR.**

**DSL/NDSL Status:** THIS PRODUCT IS NOT A WHMIS CONTROLLED SUBSTANCE.  
This product, or all components, are listed on the Domestic Substances List, as required under the Canadian Environmental Protection Act. This product and/or all components are listed on the U.S. EPA TSCA Inventory.

**Other Regulatory Status:** The regulatory information is not intended to be comprehensive. Other regulations may apply to this material.

**16. OTHER INFORMATION**

**Revisions:** This MSDS has been reviewed and updated. Changes have been made to: Section 6  
Section 7 Section 8 Section 10 Section 11 Section 12 Section 15

# SAFETY DATA SHEET

## 1. Identification

**Product identifier** 038-3810-6MOTOMASTER BELT-DRESSING, 170G

### Other means of identification

**Product code** 1000018406

**Recommended use** Not available.

**Recommended restrictions** None known.

### Manufacturer/Importer/Supplier/Distributor information

#### Manufacturer

**Company name** CANADIAN TIRE CORPORATION

**Address**  
PO Box 770  
Station K  
Toronto, ON M4P 2V8  
Canada

**Telephone** General Assistance 1-866-746-7287

**E-mail** Not available.

**Emergency phone number** Emergency - US 1-866-836-8855

Emergency - Outside US 1-952-852-4646

**Supplier** Not available.

## 2. Hazard(s) identification

**Physical hazards** Flammable aerosols Category 1

**Health hazards** Skin corrosion/irritation Category 2

Reproductive toxicity Category 2

Specific target organ toxicity, single exposure Category 3 narcotic effects

Specific target organ toxicity, repeated exposure Category 2

Aspiration hazard Category 1

### Label elements



**Signal word** Danger

**Hazard statement** Extremely flammable aerosol. May be fatal if swallowed and enters airways. Causes skin irritation. May cause drowsiness or dizziness. Suspected of damaging fertility or the unborn child. May cause damage to organs through prolonged or repeated exposure.

### Precautionary statement

**Prevention** Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not spray on an open flame or other ignition source. Do not pierce or burn, even after use. Do not breathe mist or vapor. Wash thoroughly after handling. Use only outdoors or in a well-ventilated area. Wear protective gloves/protective clothing/eye protection/face protection.

**Response** IF SWALLOWED: Immediately call a POISON CENTER/doctor. Do NOT induce vomiting. IF ON SKIN: Wash with plenty of water. IF INHALED: Remove person to fresh air and keep comfortable for breathing. IF exposed or concerned: Get medical advice/attention. Call a POISON CENTER/doctor if you feel unwell. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash it before reuse.

**Storage** Store in a well-ventilated place. Keep container tightly closed. Store locked up. Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F.

**Disposal** Dispose of contents/container in accordance with local/regional/national/international regulations.

<b>Environmental hazards</b>	Hazardous to the aquatic environment, acute hazard	Category 2
	Hazardous to the aquatic environment, long-term hazard	Category 2
<b>Other hazards</b>	None known.	
<b>Supplemental information</b>	None.	

### 3. Composition/information on ingredients

#### Mixtures

Chemical name	Common name and synonyms	CAS number	%
Toluene		108-88-3	40.401
Naphtha, (Petroleum), Hydrotreated Light		64742-49-0	11.785
Isobutane		75-28-5	10.06
Propane		74-98-6	9.94
n-Heptane		142-82-5	4.846
Other components below reportable levels			22.9672

All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

### 4. First-aid measures

<b>Inhalation</b>	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.
<b>Skin contact</b>	Remove contaminated clothing. Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention. Wash contaminated clothing before reuse.
<b>Eye contact</b>	Rinse with water. Get medical attention if irritation develops and persists.
<b>Ingestion</b>	Call a physician or poison control center immediately. Rinse mouth. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.
<b>Most important symptoms/effects, acute and delayed</b>	Aspiration may cause pulmonary edema and pneumonitis. May cause drowsiness and dizziness. Headache. Nausea, vomiting. Skin irritation. May cause redness and pain. Prolonged exposure may cause chronic effects.
<b>Indication of immediate medical attention and special treatment needed</b>	Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.
<b>General information</b>	IF exposed or concerned: Get medical advice/attention. If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance.

### 5. Fire-fighting measures

<b>Suitable extinguishing media</b>	Foam. Powder. Carbon dioxide (CO <sub>2</sub> ).
<b>Unsuitable extinguishing media</b>	Do not use water jet as an extinguisher, as this will spread the fire.
<b>Specific hazards arising from the chemical</b>	Contents under pressure. Pressurized container may explode when exposed to heat or flame. During fire, gases hazardous to health may be formed.
<b>Special protective equipment and precautions for firefighters</b>	Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.
<b>Fire fighting equipment/instructions</b>	Move containers from fire area if you can do so without risk. Containers should be cooled with water to prevent vapor pressure build up. For massive fire in cargo area, use unmanned hose holder or monitor nozzles, if possible. If not, withdraw and let fire burn out.
<b>Specific methods</b>	Use standard firefighting procedures and consider the hazards of other involved materials. Move containers from fire area if you can do so without risk. In the event of fire and/or explosion do not breathe fumes.
<b>General fire hazards</b>	Extremely flammable aerosol.

## 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures

Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Do not breathe mist or vapor. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

### Methods and materials for containment and cleaning up

Refer to attached safety data sheets and/or instructions for use. Stop leak if you can do so without risk. Move the cylinder to a safe and open area if the leak is irreparable. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material. Prevent entry into waterways, sewer, basements or confined areas. Cover with plastic sheet to prevent spreading. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. For waste disposal, see section 13 of the SDS.

### Environmental precautions

Avoid release to the environment. Inform appropriate managerial or supervisory personnel of all environmental releases. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground.

## 7. Handling and storage

### Precautions for safe handling

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Pressurized container: Do not pierce or burn, even after use. Do not use if spray button is missing or defective. Do not spray on a naked flame or any other incandescent material. Do not smoke while using or until sprayed surface is thoroughly dry. Do not cut, weld, solder, drill, grind, or expose containers to heat, flame, sparks, or other sources of ignition. All equipment used when handling the product must be grounded. Do not re-use empty containers. Do not breathe mist or vapor. Avoid contact with eyes, skin, and clothing. Pregnant or breastfeeding women must not handle this product. Should be handled in closed systems, if possible. Use only in well-ventilated areas. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Avoid release to the environment. Observe good industrial hygiene practices.

### Conditions for safe storage, including any incompatibilities

Level 3 Aerosol.

Store locked up. Pressurized container. Protect from sunlight and do not expose to temperatures exceeding 50°C/122 °F. Do not puncture, incinerate or crush. Do not handle or store near an open flame, heat or other sources of ignition. This material can accumulate static charge which may cause spark and become an ignition source. Store away from incompatible materials (see Section 10 of the SDS).

## 8. Exposure controls/personal protection

### Occupational exposure limits

#### US. ACGIH Threshold Limit Values

Components	Type	Value
Isobutane (CAS 75-28-5)	STEL	1000 ppm
n-Heptane (CAS 142-82-5)	STEL	500 ppm
	TWA	400 ppm
Toluene (CAS 108-88-3)	TWA	20 ppm

#### Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2)

Components	Type	Value
n-Heptane (CAS 142-82-5)	STEL	2050 mg/m <sup>3</sup>
		500 ppm
	TWA	1640 mg/m <sup>3</sup>
		400 ppm
Propane (CAS 74-98-6)	TWA	1000 ppm
Toluene (CAS 108-88-3)	TWA	188 mg/m <sup>3</sup>
		50 ppm

#### Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended)

Components	Type	Value
n-Heptane (CAS 142-82-5)	STEL	500 ppm
	TWA	400 ppm
Toluene (CAS 108-88-3)	TWA	20 ppm

**Canada. Manitoba OELs (Reg. 217/2006, The Workplace Safety And Health Act)**

Components	Type	Value
Isobutane (CAS 75-28-5)	STEL	1000 ppm
n-Heptane (CAS 142-82-5)	STEL	500 ppm
	TWA	400 ppm
Toluene (CAS 108-88-3)	TWA	20 ppm

**Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents)**

Components	Type	Value
Isobutane (CAS 75-28-5)	TWA	800 ppm
Toluene (CAS 108-88-3)	TWA	20 ppm

**Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment)**

Components	Type	Value
n-Heptane (CAS 142-82-5)	STEL	2050 mg/m3
		500 ppm
		1640 mg/m3
Propane (CAS 74-98-6)	TWA	400 ppm
		1800 mg/m3
Toluene (CAS 108-88-3)	TWA	1000 ppm
		188 mg/m3
		50 ppm

**Biological limit values****ACGIH Biological Exposure Indices**

Components	Value	Determinant	Specimen	Sampling Time
Toluene (CAS 108-88-3)	0.3 mg/g	o-Cresol, with hydrolysis	Creatinine in urine	*
	0.03 mg/l	Toluene	Urine	*
	0.02 mg/l	Toluene	Blood	*

\* - For sampling details, please see the source document.

**Exposure guidelines****Canada - Alberta OELs: Skin designation**

Toluene (CAS 108-88-3) Can be absorbed through the skin.

**Canada - Quebec OELs: Skin designation**

Toluene (CAS 108-88-3) Can be absorbed through the skin.

**Canada - Saskatchewan OELs: Skin designation**

Toluene (CAS 108-88-3) Can be absorbed through the skin.

**Appropriate engineering controls**

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eye wash facilities and emergency shower must be available when handling this product.

**Individual protection measures, such as personal protective equipment**

**Eye/face protection** Chemical respirator with organic vapor cartridge and full facepiece.

**Skin protection**

**Hand protection** Wear appropriate chemical resistant gloves. Suitable gloves can be recommended by the glove supplier.

**Other**

Wear appropriate chemical resistant clothing. Use of an impervious apron is recommended.

**Respiratory protection**

Chemical respirator with organic vapor cartridge and full facepiece.

**Thermal hazards**

Wear appropriate thermal protective clothing, when necessary.

**General hygiene considerations**

Observe any medical surveillance requirements. When using do not smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

**9. Physical and chemical properties****Appearance**

<b>Physical state</b>	Liquid.
<b>Form</b>	Aerosol.
<b>Color</b>	Not available.
<b>Odor</b>	Not available.
<b>Odor threshold</b>	Not available.
<b>pH</b>	Not available.
<b>Melting point/freezing point</b>	Not available.
<b>Initial boiling point and boiling range</b>	159.14 °F (70.64 °C) estimated
<b>Flash point</b>	-156.0 °F (-104.4 °C) PROPELLANT estimated
<b>Evaporation rate</b>	Not available.
<b>Flammability (solid, gas)</b>	Not applicable.
<b>Upper/lower flammability or explosive limits</b>	
<b>Flammability limit - lower (%)</b>	1.3 % estimated
<b>Flammability limit - upper (%)</b>	8.3 % estimated
<b>Explosive limit - lower (%)</b>	Not available.
<b>Explosive limit - upper (%)</b>	Not available.
<b>Vapor pressure</b>	Not available.
<b>Vapor density</b>	Not available.
<b>Relative density</b>	Not available.
<b>Solubility(ies)</b>	
<b>Solubility (water)</b>	Not available.
<b>Partition coefficient (n-octanol/water)</b>	Not available.
<b>Auto-ignition temperature</b>	844.89 °F (451.6 °C) estimated
<b>Decomposition temperature</b>	Not available.
<b>Viscosity</b>	Not available.
<b>Other information</b>	
<b>Explosive properties</b>	Not explosive.
<b>Flammability class</b>	Flammable IB estimated
<b>Oxidizing properties</b>	Not oxidizing.
<b>Specific gravity</b>	0.586 estimated

## 10. Stability and reactivity

<b>Reactivity</b>	The product is stable and non-reactive under normal conditions of use, storage and transport.
<b>Chemical stability</b>	Material is stable under normal conditions.
<b>Possibility of hazardous reactions</b>	Hazardous polymerization does not occur.
<b>Conditions to avoid</b>	Avoid temperatures exceeding the flash point. Contact with incompatible materials.
<b>Incompatible materials</b>	Strong oxidizing agents. Nitrates. Fluorine. Chlorine.
<b>Hazardous decomposition products</b>	No hazardous decomposition products are known.

## 11. Toxicological information

### Information on likely routes of exposure

<b>Inhalation</b>	May cause damage to organs through prolonged or repeated exposure by inhalation. May cause drowsiness and dizziness. Headache. Nausea, vomiting.
<b>Skin contact</b>	Causes skin irritation.
<b>Eye contact</b>	Direct contact with eyes may cause temporary irritation.
<b>Ingestion</b>	Droplets of the product aspirated into the lungs through ingestion or vomiting may cause a serious chemical pneumonia.

**Symptoms related to the physical, chemical and toxicological characteristics**

Aspiration may cause pulmonary edema and pneumonitis. May cause drowsiness and dizziness. Headache. Nausea, vomiting. Skin irritation. May cause redness and pain.

**Information on toxicological effects**

**Acute toxicity**

May be fatal if swallowed and enters airways. Narcotic effects.

<b>Components</b>	<b>Species</b>	<b>Test Results</b>
Isobutane (CAS 75-28-5)		
<b>Acute</b>		
<b>Inhalation</b>		
LC50	Mouse	1237 mg/l, 120 Minutes 52 %, 120 Minutes
	Rat	1355 mg/l
Naphtha, (Petroleum), Hydrotreated Light (CAS 64742-49-0)		
<b>Acute</b>		
<b>Dermal</b>		
LD50	Guinea pig; Rabbit	> 9.4 ml/kg, 24 Hours
	Rabbit	> 1900 mg/kg, 24 Hours
<b>Inhalation</b>		
LC50	Rat	> 5000 mg/m3, 4 Hours > 4980 mg/m3 > 4980 mg/m3, 4 Hours > 4.96 mg/l, 4 Hours 13700 ppm, 4 Hours
<b>Oral</b>		
LD50	Rat	4820 mg/kg
n-Heptane (CAS 142-82-5)		
<b>Acute</b>		
<b>Dermal</b>		
LD50	Rabbit	> 2000 mg/kg, 24 Hours
<b>Inhalation</b>		
LC50	Rat	> 29.29 mg/l, 4 Hours
<b>Oral</b>		
LD50	Rat	> 5000 mg/kg
Propane (CAS 74-98-6)		
<b>Acute</b>		
<b>Inhalation</b>		
LC50	Mouse	1237 mg/l, 120 Minutes 52 %, 120 Minutes
	Rat	1355 mg/l 658 mg/l/4h
Toluene (CAS 108-88-3)		
<b>Acute</b>		
<b>Dermal</b>		
LD50	Rabbit	> 5000 mg/kg, 24 Hours
<b>Inhalation</b>		
LC50	Mouse	6405 - 7436 ppm, 6 Hours 5320 ppm, 8 Hours
	Rat	5879 - 6281 ppm, 6 Hours 25.7 mg/l, 4 Hours

Components	Species	Test Results
<b>Oral</b> LD50	Rat	> 5000 mg/kg

\* Estimates for product may be based on additional component data not shown.

<b>Skin corrosion/irritation</b>	Causes skin irritation.
<b>Serious eye damage/eye irritation</b>	Direct contact with eyes may cause temporary irritation.
<b>Respiratory or skin sensitization</b>	
<b>Respiratory sensitization</b>	Not a respiratory sensitizer.
<b>Skin sensitization</b>	This product is not expected to cause skin sensitization.
<b>Germ cell mutagenicity</b>	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

## Carcinogenicity

### ACGIH Carcinogens

Toluene (CAS 108-88-3) A4 Not classifiable as a human carcinogen.

### Canada - Manitoba OELs: carcinogenicity

TOLUENE (CAS 108-88-3) Not classifiable as a human carcinogen.

### IARC Monographs. Overall Evaluation of Carcinogenicity

Toluene (CAS 108-88-3) 3 Not classifiable as to carcinogenicity to humans.

<b>Reproductive toxicity</b>	Suspected of damaging fertility or the unborn child.
<b>Specific target organ toxicity - single exposure</b>	May cause drowsiness and dizziness.
<b>Specific target organ toxicity - repeated exposure</b>	May cause damage to organs through prolonged or repeated exposure.
<b>Aspiration hazard</b>	May be fatal if swallowed and enters airways.
<b>Chronic effects</b>	May cause damage to organs through prolonged or repeated exposure.

## 12. Ecological information

**Ecotoxicity** Toxic to aquatic life with long lasting effects.

Components	Species	Test Results
n-Heptane (CAS 142-82-5)		
<b>Aquatic</b>		
Fish	LC50	Mozambique tilapia (Tilapia mossambica) 375 mg/l, 96 hours
Toluene (CAS 108-88-3)		
<b>Aquatic</b>		
Algae	IC50	433.0001 mg/L, 72 Hours
Crustacea	EC50	Daphnia 7.645 mg/L, 48 Hours
		Water flea (Daphnia magna) 5.46 - 9.83 mg/l, 48 hours
Fish	LC50	Coho salmon, silver salmon (Oncorhynchus kisutch) 8.11 mg/l, 96 hours

\* Estimates for product may be based on additional component data not shown.

**Persistence and degradability** No data is available on the degradability of this product.

### Bioaccumulative potential

#### Partition coefficient n-octanol / water (log Kow)

Isobutane	2.76
n-Heptane	4.66
Propane	2.36
Toluene	2.73

**Mobility in soil** No data available.

**Other adverse effects** No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

### 13. Disposal considerations

<b>Disposal instructions</b>	Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Contents under pressure. Do not puncture, incinerate or crush. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.
<b>Local disposal regulations</b>	Dispose in accordance with all applicable regulations.
<b>Hazardous waste code</b>	The waste code should be assigned in discussion between the user, the producer and the waste disposal company.
<b>Waste from residues / unused products</b>	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
<b>Contaminated packaging</b>	Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal. Do not re-use empty containers.

### 14. Transport information

#### TDG

<b>UN number</b>	UN1950
<b>UN proper shipping name</b>	AEROSOLS, flammable
<b>Transport hazard class(es)</b>	
<b>Class</b>	2.1
<b>Subsidiary risk</b>	-
<b>Packing group</b>	Not applicable.
<b>Environmental hazards</b>	Yes
<b>Special precautions for user</b>	Read safety instructions, SDS and emergency procedures before handling. This product meets the exemption requirements and may be shipped as a limited quantity.

#### IATA

<b>UN number</b>	UN1950
<b>UN proper shipping name</b>	Aerosols, flammable
<b>Transport hazard class(es)</b>	
<b>Class</b>	2.1
<b>Subsidiary risk</b>	-
<b>Label(s)</b>	2.1
<b>Packing group</b>	Not applicable.
<b>Environmental hazards</b>	Yes
<b>ERG Code</b>	10L
<b>Special precautions for user</b>	Read safety instructions, SDS and emergency procedures before handling. Read safety instructions, SDS and emergency procedures before handling.
<b>Other information</b>	
<b>Passenger and cargo aircraft</b>	Allowed with restrictions.
<b>Cargo aircraft only</b>	Allowed with restrictions.

#### IMDG

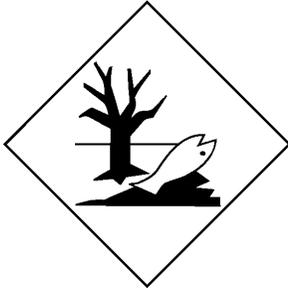
<b>UN number</b>	UN1950
<b>UN proper shipping name</b>	AEROSOLS
<b>Transport hazard class(es)</b>	
<b>Class</b>	2.1
<b>Subsidiary risk</b>	-
<b>Label(s)</b>	None
<b>Packing group</b>	Not applicable.
<b>Environmental hazards</b>	
<b>Marine pollutant</b>	Yes
<b>EmS</b>	F-D, S-U
<b>Special precautions for user</b>	Read safety instructions, SDS and emergency procedures before handling. Read safety instructions, SDS and emergency procedures before handling.

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code** Not applicable.

IATA; IMDG; TDG



Marine pollutant



General information

IMDG Regulated Marine Pollutant.

## 15. Regulatory information

### Canadian regulations

#### Controlled Drugs and Substances Act

Not regulated.

#### Export Control List (CEPA 1999, Schedule 3)

Not listed.

#### Greenhouse Gases

Not listed.

#### Precursor Control Regulations

Toluene (CAS 108-88-3)

Class B

### International regulations

#### Stockholm Convention

Not applicable.

#### Rotterdam Convention

Not applicable.

#### Kyoto protocol

Not applicable.

#### Montreal Protocol

Not applicable.

#### Basel Convention

Not applicable.

### International Inventories

#### Country(s) or region

#### Inventory name

#### On inventory (yes/no)\*

Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	No
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes

Country(s) or region	Inventory name	On inventory (yes/no)*
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

\*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)  
A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

## 16. Other Information

<b>Issue date</b>	08-23-2017
<b>Version #</b>	01
<b>Disclaimer</b>	The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.
<b>Revision information</b>	Product and Company Identification: Alternate Trade Names

**Material Safety Data Sheet**

According to the Controlled Product Regulations

**1. MATERIAL AND COMPANY IDENTIFICATION**

**Material Name** : **Motomaster Compressor Oil 32**  
**Uses** : Compressor oil.  
**Product Code** : 001D6872

**Manufacturer/Supplier** : **Shell Canada Products**  
 400 - 4th Avenue S.W  
 Calgary AB T2P 0J4  
 Canada

**Telephone** : (+1) 8006611600  
**Fax** : (+1) 4033848345

**Emergency Telephone Number**  
 : CHEMTREC (24 hr): (+1) 800-424-9300  
 CANUTEC (24 hr): (+1) 613-996-6666

**2. COMPOSITION/INFORMATION ON INGREDIENTS**

**Mixture Description** : Highly refined mineral oils and additives.

The highly refined mineral oil contains <3% (w/w) DMSO-extract, according to IP346.

Refer to Chapter 8 for Occupational Exposure Guidelines.

**3. HAZARDS IDENTIFICATION**

**WHMIS Class/Description** : THIS PRODUCT IS NOT A WHMIS CONTROLLED SUBSTANCE.

**Routes of Exposure** : Skin and eye contact are the primary routes of exposure although exposure may occur following accidental ingestion.

**Health Hazards** : Not expected to be a health hazard when used under normal conditions. Prolonged or repeated skin contact without proper cleaning can clog the pores of the skin resulting in disorders such as oil acne/folliculitis. Used oil may contain harmful impurities.

**Signs and Symptoms** : Oil acne/folliculitis signs and symptoms may include formation of black pustules and spots on the skin of exposed areas. Ingestion may result in nausea, vomiting and/or diarrhoea.

**Safety Hazards** : Not classified as flammable but will burn.

**Environmental Hazards** : Not classified as dangerous for the environment.

**4. FIRST-AID MEASURES**

**General Information** : Not expected to be a health hazard when used under normal conditions.

**Material Safety Data Sheet**

According to the Controlled Product Regulations

- Inhalation** : No treatment necessary under normal conditions of use. If symptoms persist, obtain medical advice.
- Skin Contact** : Remove contaminated clothing. Flush exposed area with water and follow by washing with soap if available. If persistent irritation occurs, obtain medical attention.
- Eye Contact** : Flush eye with copious quantities of water. If persistent irritation occurs, obtain medical attention.
- Ingestion** : In general no treatment is necessary unless large quantities are swallowed, however, get medical advice.
- Advice to Physician** : Treat symptomatically.

**5. FIRE-FIGHTING MEASURES**

Clear fire area of all non-emergency personnel.

- Flash point** : > 230 °C / 446 °F
- Upper / lower Flammability or Explosion limits** : Typical 1 - 10 %(V)(based on mineral oil)
- Auto ignition temperature** : > 320 °C / 608 °F
- Hazardous Combustion Products and Specific Hazards** : Hazardous combustion products may include: A complex mixture of airborne solid and liquid particulates and gases (smoke). Carbon monoxide may be evolved if incomplete combustion occurs. Unidentified organic and inorganic compounds.
- Suitable Extinguishing Media** : Foam, water spray or fog. Dry chemical powder, carbon dioxide, sand or earth may be used for small fires only.
- Unsuitable Extinguishing Media** : Do not use water in a jet.
- Protective Equipment for Firefighters** : Proper protective equipment including breathing apparatus must be worn when approaching a fire in a confined space.

**6. ACCIDENTAL RELEASE MEASURES**

- Protective Measures** : Avoid contact with skin and eyes. Use appropriate containment to avoid environmental contamination. Prevent from spreading or entering drains, ditches or rivers by using sand, earth, or other appropriate barriers.
- Clean Up Methods** : Slippery when spilt. Avoid accidents, clean up immediately. Prevent from spreading by making a barrier with sand, earth or other containment material. Reclaim liquid directly or in an absorbent. Soak up residue with an absorbent such as clay, sand or other suitable material and dispose of properly.
- Additional Advice** : Local authorities should be advised if significant spillages cannot be contained.

**7. HANDLING AND STORAGE**

- General Precautions** : Use local exhaust ventilation if there is risk of inhalation of vapours, mists or aerosols. Use the information in this data sheet as input to a risk assessment of local circumstances to

**Material Safety Data Sheet**

According to the Controlled Product Regulations

- Handling** : help determine appropriate controls for safe handling, storage and disposal of this material.
- Storage** : Avoid prolonged or repeated contact with skin. Avoid inhaling vapour and/or mists. When handling product in drums, safety footwear should be worn and proper handling equipment should be used. Properly dispose of any contaminated rags or cleaning materials in order to prevent fires.
- Product Transfer** : Keep container tightly closed and in a cool, well-ventilated place. Use properly labelled and closeable containers. Store at ambient temperature.
- Recommended Materials** : This material has the potential to be a static accumulator. Proper grounding and bonding procedures should be used during all bulk transfer operations.
- Unsuitable Materials** : For containers or container linings, use mild steel or high density polyethylene.
- Additional Information** : PVC.
- Additional Information** : Polyethylene containers should not be exposed to high temperatures because of possible risk of distortion.

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

If the American Conference of Governmental Industrial Hygienists (ACGIH) value is provided on this document, it is provided for information only.

**Occupational Exposure Limits**

Material	Source	Type	ppm	mg/m3	Notation
Oil mist, mineral	ACGIH	TWA(Inhalable fraction.)		5 mg/m3	

Consult local authorities for acceptable exposure limits within their jurisdiction.

**Biological Exposure Index (BEI)**

No biological limit allocated.

- Exposure Controls** : The level of protection and types of controls necessary will vary depending upon potential exposure conditions. Select controls based on a risk assessment of local circumstances. Appropriate measures include: Adequate ventilation to control airborne concentrations. Where material is heated, sprayed or mist formed, there is greater potential for airborne concentrations to be generated. Define procedures for safe handling and maintenance of controls. Educate and train workers in the hazards and control measures relevant to normal activities associated with this product. Ensure appropriate selection, testing and maintenance of equipment

**Material Safety Data Sheet**

According to the Controlled Product Regulations

used to control exposure, e.g. personal protective equipment, local exhaust ventilation. Drain down system prior to equipment break-in or maintenance. Retain drain downs in sealed storage pending disposal or for subsequent recycle. Always observe good personal hygiene measures, such as washing hands after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Discard contaminated clothing and footwear that cannot be cleaned. Practice good housekeeping.

- Personal Protective Equipment** : Personal protective equipment (PPE) should meet recommended national standards. Check with PPE suppliers.
- Respiratory Protection** : No respiratory protection is ordinarily required under normal conditions of use. In accordance with good industrial hygiene practices, precautions should be taken to avoid breathing of material. If engineering controls do not maintain airborne concentrations to a level which is adequate to protect worker health, select respiratory protection equipment suitable for the specific conditions of use and meeting relevant legislation. Check with respiratory protective equipment suppliers. Where air-filtering respirators are suitable, select an appropriate combination of mask and filter. Select a filter suitable for combined particulate/organic gases and vapours [boiling point >65°C(149 °F)].
- Hand Protection** : Where hand contact with the product may occur the use of gloves approved to relevant standards (e.g. Europe: EN374, US: F739) made from the following materials may provide suitable chemical protection: PVC, neoprene or nitrile rubber gloves. Suitability and durability of a glove is dependent on usage, e.g. frequency and duration of contact, chemical resistance of glove material, dexterity. Always seek advice from glove suppliers. Contaminated gloves should be replaced. Personal hygiene is a key element of effective hand care. Gloves must only be worn on clean hands. After using gloves, hands should be washed and dried thoroughly. Application of a non-perfumed moisturizer is recommended. For continuous contact we recommend gloves with breakthrough time of more than 240 minutes with preference for > 480 minutes where suitable gloves can be identified. For short-term/splash protection we recommend the same, but recognise that suitable gloves offering this level of protection may not be available and in this case a lower breakthrough time may be acceptable so long as appropriate maintenance and replacement regimes are followed. Glove thickness is not a good predictor of glove resistance to a chemical as it is dependent on the exact composition of the glove material. Glove thickness should be typically greater than 0.35 mm depending on the glove make and model.
- Eye Protection** : Wear safety glasses or full face shield if splashes are likely to occur.
- Protective Clothing** : Skin protection not ordinarily required beyond standard issue

**Material Safety Data Sheet**

According to the Controlled Product Regulations

<b>Monitoring Methods</b>	<p>work clothes.</p> <p>: Monitoring of the concentration of substances in the breathing zone of workers or in the general workplace may be required to confirm compliance with an OEL and adequacy of exposure controls. For some substances biological monitoring may also be appropriate. Validated exposure measurement methods should be applied by a competent person and samples analysed by an accredited laboratory. Examples of sources of recommended exposure measurement methods are given below or contact the supplier. Further national methods may be available.</p> <p>National Institute of Occupational Safety and Health (NIOSH), USA: Manual of Analytical Methods <a href="http://www.cdc.gov/niosh/">http://www.cdc.gov/niosh/</a> Occupational Safety and Health Administration (OSHA), USA: Sampling and Analytical Methods <a href="http://www.osha.gov/">http://www.osha.gov/</a> Health and Safety Executive (HSE), UK: Methods for the Determination of Hazardous Substances <a href="http://www.hse.gov.uk/">http://www.hse.gov.uk/</a> Institut für Arbeitsschutz Deutschen Gesetzlichen Unfallversicherung (IFA), Germany. <a href="http://www.dguv.de/inhalt/index.jsp">http://www.dguv.de/inhalt/index.jsp</a> L'Institut National de Recherche et de Sécurité, (INRS), France <a href="http://www.inrs.fr/accueil">http://www.inrs.fr/accueil</a></p>
<b>Environmental Exposure Controls</b>	<p>: Take appropriate measures to fulfil the requirements of relevant environmental protection legislation. Avoid contamination of the environment by following advice given in Chapter 6. If necessary, prevent undissolved material from being discharged to waste water. Waste water should be treated in a municipal or industrial waste water treatment plant before discharge to surface water. Local guidelines on emission limits for volatile substances must be observed for the discharge of exhaust air containing vapour.</p>

**9. PHYSICAL AND CHEMICAL PROPERTIES**

Appearance	: Light brown. Liquid at room temperature.
Odour	: Slight hydrocarbon.
Odour threshold	: Data not available
pH	: Not applicable.
Initial Boiling Point and Boiling Range	: > 280 °C / 536 °F estimated value(s)
Pour point	: Typical -30 °C / -22 °F
Vapour pressure	: < 0.5 Pa at 20 °C / 68 °F (estimated value(s))
Specific gravity	: Typical 0.87
Density	: Typical 869 kg/m <sup>3</sup>
Water solubility	: Negligible.
n-octanol/water partition coefficient (log Pow)	: > 6 (based on information on similar products)
Kinematic viscosity	: Typical 30 - 35 mm <sup>2</sup> /s at 40 °C / 104 °F

**Material Safety Data Sheet**

According to the Controlled Product Regulations

Vapour density (air=1) : > 1 (estimated value(s))  
 Electrical conductivity : This material is not expected to be a static accumulator.  
 Evaporation rate (nBuAc=1) : Data not available

**10. STABILITY AND REACTIVITY**

**Stability** : Stable.  
**Conditions to Avoid** : Extremes of temperature and direct sunlight.  
**Materials to Avoid** : Strong oxidising agents.  
**Hazardous Decomposition Products** : Hazardous decomposition products are not expected to form during normal storage.  
**Hazardous** : No  
**Polymerisation**  
**Sensitivity to Mechanical Impact** : No  
**Sensitivity to Static Discharge** : No

**11. TOXICOLOGICAL INFORMATION**

**Basis for Assessment** : Information given is based on data on the components and the toxicology of similar products. Unless indicated otherwise, the data presented is representative of the product as a whole, rather than for individual component(s).  
**Routes of Exposure** : Skin and eye contact are the primary routes of exposure although exposure may occur following accidental ingestion.  
**Acute Oral Toxicity** : Expected to be of low toxicity: LD50 > 5000 mg/kg , Rat.  
**Acute Dermal Toxicity** : Expected to be of low toxicity: LD50 > 5000 mg/kg , Rabbit.  
**Acute Inhalation Toxicity** : Not considered to be an inhalation hazard under normal conditions of use.  
**Skin Irritation** : Expected to be slightly irritating.  
**Eye Irritation** : Expected to be slightly irritating.  
**Respiratory Irritation** : Inhalation of vapours or mists may cause irritation.  
**Sensitisation** : Not expected to be a skin sensitiser.  
**Repeated Dose Toxicity** : Not expected to be a hazard.  
**Mutagenicity** : Not considered a mutagenic hazard.  
**Carcinogenicity** : Not expected to be carcinogenic. Product contains mineral oils of types shown to be non-carcinogenic in animal skin-painting studies. Highly refined mineral oils are not classified as carcinogenic by the International Agency for Research on Cancer (IARC).

Material	Carcinogenicity Classification
Highly refined mineral oil (IP346 <3%)	ACGIH Group A4: Not classifiable as a human carcinogen.
Highly refined mineral oil (IP346 <3%)	IARC 3: Not classifiable as to carcinogenicity to humans.
Highly refined mineral oil (IP346 <3%)	GHS / CLP: No carcinogenicity classification

**Material Safety Data Sheet**

According to the Controlled Product Regulations

- Reproductive and Developmental Toxicity** : Not expected to be a hazard.
- Additional Information** : Used oils may contain harmful impurities that have accumulated during use. The concentration of such impurities will depend on use and they may present risks to health and the environment on disposal.  
ALL used oil should be handled with caution and skin contact avoided as far as possible.

**12. ECOLOGICAL INFORMATION**

Ecotoxicological data have not been determined specifically for this product. Information given is based on a knowledge of the components and the ecotoxicology of similar products. Unless indicated otherwise, the data presented is representative of the product as a whole, rather than for individual component(s).

- Acute Toxicity** : Poorly soluble mixture. May cause physical fouling of aquatic organisms. Expected to be practically non toxic: LL/EL/IL50 > 100 mg/l (to aquatic organisms) LL/EL50 expressed as the nominal amount of product required to prepare aqueous test extract. Mineral oil is not expected to cause any chronic effects to aquatic organisms at concentrations less than 1 mg/l.
- Mobility** : Liquid under most environmental conditions. If it enters soil, it will adsorb to soil particles and will not be mobile. Floats on water.
- Persistence/degradability** : Expected to be not readily biodegradable. Major constituents are expected to be inherently biodegradable, but the product contains components that may persist in the environment.
- Bioaccumulation** : Contains components with the potential to bioaccumulate.
- Other Adverse Effects** : Product is a mixture of non-volatile components, which are not expected to be released to air in any significant quantities. Not expected to have ozone depletion potential, photochemical ozone creation potential or global warming potential.

**13. DISPOSAL CONSIDERATIONS**

- Material Disposal** : Recover or recycle if possible. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste classification and disposal methods in compliance with applicable regulations. Do not dispose into the environment, in drains or in water courses.
- Container Disposal** : Dispose in accordance with prevailing regulations, preferably to a recognised collector or contractor. The competence of the collector or contractor should be established beforehand.
- Local Legislation** : Disposal should be in accordance with applicable regional, national, and local laws and regulations.

**Material Safety Data Sheet**

According to the Controlled Product Regulations

**14. TRANSPORT INFORMATION**

**Canadian Road and Rail Shipping Classification**

This product is not regulated under the Canadian Transportation of Dangerous Goods Regulations for transport by road and rail.

Additional Information : MARPOL Annex 1 rules apply for bulk shipments by sea.

**15. REGULATORY INFORMATION**

The regulatory information is not intended to be comprehensive. Other regulations may apply to this material.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

**WHMIS Class/Description** : THIS PRODUCT IS NOT A WHMIS CONTROLLED SUBSTANCE.

**Inventory Status**

**EINECS** : All components listed or polymer exempt.  
**TSCA** : All components listed.  
**DSL** : All components listed.

**16. OTHER INFORMATION**

**SDS Version Number** : 1.1  
**SDS Effective Date** : 2014-03-10  
**SDS Revisions** : A vertical bar (|) in the left margin indicates an amendment from the previous version.  
**SDS Regulation** : The content and format of this (M)SDS is in accordance with the Controlled Product Regulations.  
**SDS Prepared By** : Shell Product Stewardship; 1-800-661-1600  
**SDS Distribution** : The information in this document should be made available to all who may handle the product.  
**Disclaimer** : The information contained herein is based on our current knowledge of the underlying data and is intended to describe the product for the purpose of health, safety and environmental requirements only. No warranty or guarantee is expressed or implied regarding the accuracy of these data or the results to

**Material Safety Data Sheet**

According to the Controlled Product Regulations

be obtained from the use of the product.

# SAFETY DATA SHEET

Motomaster Extreme Pressure Gear Oil, SAE 80W-90



## Section 1. Identification

**Product identifier** : Motomaster Extreme Pressure Gear Oil, SAE 80W-90  
**Other means of identification** : Gear oil  
**Material uses** : Gear Oil  
**Code** : 623222436

**Supplier's details** : CITGO Petroleum Corporation  
P.O. Box 4689  
Houston, TX 77210  
sdsvend@citgo.com

**Emergency telephone number (with hours of operation)** : Technical Contact: (800) 248-4684  
Medical Emergency: (832) 486-4700  
CHEMTREC Emergency: (800) 424-9300  
(United States Only)

## Section 2. Hazard identification

**Classification of the substance or mixture** : Not classified.

### GHS label elements

**Signal word** : No signal word.

**Hazard statements** : No known significant effects or critical hazards.

### Precautionary statements

**General** : Avoid contact with eyes, skin and clothing. Thoroughly wash exposed areas and clothing with soap and water. IF IN EYES: Rinse cautiously with water for several minutes. IF SWALLOWED: Do not induce vomiting. If you feel unwell, seek medical attention and show the label when possible. Keep out of reach of children.

**Prevention** : Not applicable.

**Response** : Not applicable.

**Storage** : Store in a dry place and/or in closed container. Store in accordance with all local, regional, national and international regulations.

**Disposal** : Dispose of contents and container in accordance with all local, regional, national and international regulations.

**Supplemental label elements** : Percentage of the mixture consisting of ingredient(s) of unknown toxicity: 50%

## Section 3. Composition/information on ingredients

**Substance/mixture** : Mixture

**Other means of identification** : Gear oil

### CAS number/other identifiers

**CAS number** : Not applicable.

**Product code** : 623222436

Ingredient name	% (w/w)	CAS number
Residual oils (petroleum), solvent-dewaxed	30 - 60	64742-62-7
Distillates (petroleum), hydrotreated heavy paraffinic	30 - 60	64742-54-7

## Section 3. Composition/information on ingredients

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

## Section 4. First-aid measures

### Description of necessary first aid measures

- Eye contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
- Skin contact** : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
- Ingestion** : Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.

### Most important symptoms/effects, acute and delayed

#### Potential acute health effects

- Eye contact** : No known significant effects or critical hazards.
- Inhalation** : No known significant effects or critical hazards.
- Skin contact** : No known significant effects or critical hazards.
- Ingestion** : No known significant effects or critical hazards.

#### Over-exposure signs/symptoms

- Eye contact** : No specific data.
- Inhalation** : No specific data.
- Skin contact** : No specific data.
- Ingestion** : No specific data.

### Indication of immediate medical attention and special treatment needed, if necessary

- Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- Specific treatments** : Treat symptomatically and supportively.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training.

See toxicological information (Section 11)

## Section 5. Fire-fighting measures

### Extinguishing media

- Suitable extinguishing media** : Use an extinguishing agent suitable for the surrounding fire.
- Unsuitable extinguishing media** : None known.

**Specific hazards arising from the chemical** : In a fire or if heated, a pressure increase will occur and the container may burst.

- Hazardous thermal decomposition products** : Decomposition products may include the following materials:  
carbon dioxide  
carbon monoxide  
sulfur oxides  
phosphorus oxides

## Section 5. Fire-fighting measures

- Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

## Section 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment.

- For emergency responders** : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

- Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

### Methods and materials for containment and cleaning up

- Small spill** : Stop leak if without risk. Move containers from spill area. Absorb with an inert material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

- Large spill** : Stop leak if without risk. Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

## Section 7. Handling and storage

### Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8).
- Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

- Conditions for safe storage, including any incompatibilities** : Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

## Section 8. Exposure controls/personal protection

### Control parameters

#### Occupational exposure limits

## Section 8. Exposure controls/personal protection

Ingredient name	Exposure limits
Residual oils (petroleum), solvent-dewaxed	<b>CA Alberta Provincial (Canada, 4/2009).</b> 8 hrs OEL: 5 mg/m <sup>3</sup> 8 hours. Form: Mist 15 min OEL: 10 mg/m <sup>3</sup> 15 minutes. Form: Mist <b>CA Quebec Provincial (Canada, 12/2012).</b> TWAEV: 5 mg/m <sup>3</sup> 8 hours. Form: mist STEV: 10 mg/m <sup>3</sup> 15 minutes. Form: mist <b>CA Ontario Provincial (Canada, 1/2013).</b> TWA: 5 mg/m <sup>3</sup> 8 hours. Form: mist STEL: 10 mg/m <sup>3</sup> 15 minutes. Form: mist
Distillates (petroleum), hydrotreated heavy paraffinic	<b>CA Alberta Provincial (Canada, 4/2009).</b> 8 hrs OEL: 5 mg/m <sup>3</sup> 8 hours. Form: Mist 15 min OEL: 10 mg/m <sup>3</sup> 15 minutes. Form: Mist <b>CA Quebec Provincial (Canada, 1/2014).</b> TWAEV: 5 mg/m <sup>3</sup> 8 hours. Form: mist STEV: 10 mg/m <sup>3</sup> 15 minutes. Form: mist <b>CA Ontario Provincial (Canada, 7/2015).</b> TWA: 5 mg/m <sup>3</sup> 8 hours. Form: mist STEL: 10 mg/m <sup>3</sup> 15 minutes. Form: mist

- Appropriate engineering controls** : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.
- Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, vapor controls, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

### Individual protection measures

- Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
- Eye/face protection** : Safety glasses equipped with side shields are recommended as minimum protection in industrial settings. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles. Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If inhalation hazards exist, a full-face respirator may be required instead.
- Skin protection**
- Hand protection** : Chemical-resistant gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.
- Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Other skin protection** : Avoid skin contact with liquid. Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. Leather boots are not protective for liquid contact.
- Respiratory protection** : Avoid inhalation of gases, vapors, mists or dusts. Use a properly fitted, air-purifying or supplied-air respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

## Section 9. Physical and chemical properties

### Appearance

<b>Physical state</b>	: Liquid.
<b>Color</b>	: Amber to dark amber
<b>Odor</b>	: Petroleum.
<b>Odor threshold</b>	: Not available.
<b>pH</b>	: Not available.
<b>Melting point</b>	: Not available.
<b>Boiling point</b>	: Not available.
<b>Flash point</b>	: Closed cup: 174°C (345.2°F) [Pensky-Martens [ASTM D-93]] Open cup: 231°C (447.8°F) [Cleveland.]
<b>Evaporation rate</b>	: <1 (n-butyl acetate. = 1)
<b>Flammability (solid, gas)</b>	: Not available.
<b>Lower and upper explosive (flammable) limits</b>	: Lower: 1% Upper: 7%
<b>Vapor pressure</b>	: <0.0013 kPa (<0.01 mm Hg) [room temperature]
<b>Vapor density</b>	: >1 [Air = 1]
<b>Relative density</b>	: 0.89
<b>Solubility</b>	: Insoluble in the following materials: cold water and hot water.
<b>Partition coefficient: n-octanol/water</b>	: Not available.
<b>Auto-ignition temperature</b>	: 400°C (752°F)
<b>Decomposition temperature</b>	: Not available.
<b>Viscosity</b>	: Kinematic (room temperature): 1.48 cm <sup>2</sup> /s (148 cSt) Kinematic (40°C (104°F)): 1.39 cm <sup>2</sup> /s (139 cSt)

## Section 10. Stability and reactivity

<b>Reactivity</b>	: Not expected to be Explosive, Self-Reactive, Self-Heating, or an Organic Peroxide under US GHS Definition(s).
<b>Chemical stability</b>	: The product is stable.
<b>Possibility of hazardous reactions</b>	: Under normal conditions of storage and use, hazardous reactions will not occur.
<b>Conditions to avoid</b>	: No specific data.
<b>Incompatible materials</b>	: No specific data.
<b>Hazardous decomposition products</b>	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## Section 11. Toxicological information

### Information on toxicological effects

#### Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Distillates (petroleum), hydrotreated heavy paraffinic	LD50 Oral	Rat	>5000 mg/kg	-

#### Irritation/Corrosion

Not available.

## Section 11. Toxicological information

### Sensitization

Not available.

### Mutagenicity

Not available.

### Carcinogenicity

Not available.

### Reproductive toxicity

Not available.

### Teratogenicity

Not available.

### Specific target organ toxicity (single exposure)

Not available.

### Specific target organ toxicity (repeated exposure)

Not available.

### Aspiration hazard

Not available.

**Information on the likely routes of exposure** : Routes of entry anticipated: Dermal.

### Potential acute health effects

**Eye contact** : No known significant effects or critical hazards.  
**Inhalation** : No known significant effects or critical hazards.  
**Skin contact** : No known significant effects or critical hazards.  
**Ingestion** : No known significant effects or critical hazards.

### Symptoms related to the physical, chemical and toxicological characteristics

**Eye contact** : No specific data.  
**Inhalation** : No specific data.  
**Skin contact** : No specific data.  
**Ingestion** : No specific data.

### Delayed and immediate effects and also chronic effects from short and long term exposure

#### Short term exposure

**Potential immediate effects** : Not available.  
**Potential delayed effects** : Not available.

#### Long term exposure

**Potential immediate effects** : Not available.  
**Potential delayed effects** : Not available.

### Potential chronic health effects

Not available.

**General** : No known significant effects or critical hazards.  
**Carcinogenicity** : No known significant effects or critical hazards.  
**Mutagenicity** : No known significant effects or critical hazards.  
**Teratogenicity** : No known significant effects or critical hazards.

## Section 11. Toxicological information

**Developmental effects** : No known significant effects or critical hazards.

**Fertility effects** : No known significant effects or critical hazards.

### Numerical measures of toxicity

#### Acute toxicity estimates

Route	ATE value
Dermal	5607.4 mg/kg

## Section 12. Ecological information

### Toxicity

Not available.

### Persistence and degradability

Not available.

### Bioaccumulative potential

Not available.

### Mobility in soil

**Soil/water partition coefficient (K<sub>oc</sub>)** : Not available.

**Other adverse effects** : No known significant effects or critical hazards.

## Section 13. Disposal considerations

**Disposal methods** : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

## Section 14. Transport information

	<b>TDG Classification</b>	<b>DOT Classification</b>	<b>ADR/RID</b>	<b>IMDG</b>	<b>IATA</b>
<b>UN number</b>	Not regulated.	Not regulated.	Not regulated.	Not regulated.	Not regulated.
<b>UN proper shipping name</b>	-	-	-	-	-
<b>Transport hazard class(es)</b>	-	-	-	-	-
<b>Packing group</b>	-	-	-	-	-

## Section 14. Transport information

Environmental hazards	No.	No.	No.	No.	No.
Additional information	-	-	-	-	-

**Special precautions for user** : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

**Transport in bulk according to Annex II of MARPOL and the IBC Code** : Not available.

## Section 15. Regulatory information

### Canadian lists

**Canadian NPRI** : None of the components are listed.

**CEPA Toxic substances** : None of the components are listed.

**Canada inventory** : All components are listed or exempted.

### International regulations

#### Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

#### Montreal Protocol (Annexes A, B, C, E)

Not listed.

#### Stockholm Convention on Persistent Organic Pollutants

Not listed.

#### Rotterdam Convention on Prior Inform Consent (PIC)

Not listed.

#### UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

### Inventory list

**Australia** : All components are listed or exempted.

**China** : All components are listed or exempted.

**Europe** : All components are listed or exempted.

**Japan** : **Japan inventory (ENCS):** All components are listed or exempted.  
**Japan inventory (ISHL):** Not determined.

**Malaysia** : Not determined.

**New Zealand** : All components are listed or exempted.

**Philippines** : All components are listed or exempted.

**Republic of Korea** : All components are listed or exempted.

**Taiwan** : Not determined.

**Turkey** : Not determined.

**United States** : All components are listed or exempted.

## Section 16. Other information

### History

**Date of printing** : 4/25/2016

**Date of issue/Date of revision** : 4/25/2016

**Date of previous issue** : 4/19/2016

**Version** : 0.02

### Key to abbreviations

: ATE = Acute Toxicity Estimate  
 BCF = Bioconcentration Factor  
 GHS = Globally Harmonized System of Classification and Labelling of Chemicals  
 IATA = International Air Transport Association  
 IBC = Intermediate Bulk Container  
 IMDG = International Maritime Dangerous Goods  
 LogPow = logarithm of the octanol/water partition coefficient  
 MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)  
 UN = United Nations  
 HPR = Hazardous Products Regulations

### Procedure used to derive the classification

Classification	Justification
Not classified.	

**References** : Not available.

✔ Indicates information that has changed from previously issued version.

### Notice to reader

THE INFORMATION IN THIS SAFETY DATA SHEET (SDS) WAS OBTAINED FROM SOURCES WHICH WE BELIEVE ARE RELIABLE. HOWEVER, THE INFORMATION IS PROVIDED WITHOUT ANY WARRANTY, EXPRESSED OR IMPLIED REGARDING ITS CORRECTNESS OR ACCURACY. SOME INFORMATION PRESENTED AND CONCLUSIONS DRAWN HEREIN ARE FROM SOURCES OTHER THAN DIRECT TEST DATA ON THE SUBSTANCE ITSELF. THIS SDS WAS PREPARED AND IS TO BE USED ONLY FOR THIS PRODUCT. IF THE PRODUCT IS USED AS A COMPONENT IN ANOTHER PRODUCT, THIS SDS INFORMATION MAY NOT BE APPLICABLE. USERS SHOULD MAKE THEIR OWN INVESTIGATIONS TO DETERMINE THE SUITABILITY OF THE INFORMATION OR PRODUCTS FOR THEIR PARTICULAR PURPOSE OR APPLICATION.

THE CONDITIONS OR METHODS OF HANDLING, STORAGE, USE, AND/OR DISPOSAL OF THE PRODUCT ARE BEYOND OUR CONTROL AND MAY BE BEYOND OUR KNOWLEDGE. FOR THIS AND OTHER REASONS, WE DO NOT ASSUME RESPONSIBILITY AND EXPRESSLY DISCLAIM LIABILITY FOR ANY LOSS, DAMAGE OR EXPENSE ARISING OUT OF OR IN ANY WAY CONNECTED WITH HANDLING, STORAGE, USE OR DISPOSAL OF THE PRODUCT.

CITGO is a registered trademark of CITGO Petroleum Corporation

# SAFETY DATA SHEET



Issuing Date: 30-Apr-2015

Revision Date: 30-Apr-2015

Version 1

## 1. IDENTIFICATION

**Product Name** Mr. Clean Liquid Muscle Multi-Purpose Cleaner Crisp Lemon Scent

**Product ID:** 96402351\_RET\_NG

**Product Type:** Finished Product - Consumer (Retail) Use Only

**Recommended Use** Hard Surface Cleaner

**Restrictions on Use** Use only as directed on label.

**Manufacturer** PROCTER & GAMBLE - Fabric and Home Care Division  
Ivorydale Technical Centre  
5289 Spring Grove Avenue  
Cincinnati, Ohio 45217-1087 USA

Procter & Gamble Inc.  
P.O. Box 355, Station A  
Toronto, ON M5W 1C5  
1-800-331-3774

**E-mail Address** pgsds.im@pg.com

**Emergency Telephone** Transportation (24 HR)  
CHEMTREC - 1-800-424-9300  
(U.S./ Canada) or 1-703-527-3887  
Mexico toll free in country: 800-681-9531

## 2. HAZARD IDENTIFICATION

"Consumer Products", as defined by the US Consumer Product Safety Act and which are used as intended (typical consumer duration and frequency), are exempt from the OSHA Hazard Communication Standard (29 CFR 1910.1200). This SDS is being provided as a courtesy to help assist in the safe handling and proper use of the product.

**This product is classified under 29CFR 1910.1200(d) and the Canadian Hazardous Products Regulation as follows:**

**Hazard Category**

**Eye Damage / Irritation** Category 2B

**Signal Word** WARNING

**Hazard Statements** Causes eye irritation

**Hazard pictograms** None

**Precautionary Statements - Prevention** Wash hands thoroughly after handling

**Precautionary Statements - Response** IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
If eye irritation persists: Get medical advice/attention  
IF SWALLOWED:  
Drink 1 or 2 glasses of water

**Precautionary Statements - Storage** None

**Precautionary Statements - Disposal** None

**Hazards not otherwise classified (HNOC)** None

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients are listed according to 29CFR 1910.1200 Appendix D and the Canadian Hazardous Products Regulation

Chemical Name	Synonyms	Trade Secret	CAS-No	Weight %
Alcohols, C9-11, ethoxylated	-	No	68439-46-3	5 - 10
Benzenesulfonic acid, mono-C10-16-alkyl derivs., sodium salts	-	No	68081-81-2	1 - 5
Lauramine Oxide	-	No	70592-80-2	1 - 5
Limonene	-	No	5989-27-5	0.1 - 1.0

### 4. FIRST AID MEASURES

**First aid measures for different exposure routes**

**Eye contact** Rinse with plenty of water. Get medical attention immediately if irritation persists.

**Skin contact** Rinse with plenty of water. Get medical attention if irritation develops and persists.

**Ingestion** Drink 1 or 2 glasses of water. Do NOT induce vomiting. Get medical attention immediately if symptoms occur.

**Inhalation** Move to fresh air. If symptoms persist, call a physician.

**Most important symptoms/effects, acute and delayed** None under normal use conditions.

**Indication of immediate medical attention and special treatment needed, if necessary**

**Notes to Physician** Treat symptomatically.

### 5. FIRE-FIGHTING MEASURES

**Suitable extinguishing media** Dry chemical, CO<sub>2</sub>, alcohol-resistant foam or water spray.

**Unsuitable Extinguishing Media** None.

**Special hazard** None known.

**Special protective equipment for** As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH

fire-fighters (approved or equivalent) and full protective gear.

Specific hazards arising from the chemical None.

## 6. ACCIDENTAL RELEASE MEASURES

### Personal precautions, protective equipment and emergency procedures

**Personal precautions** Use personal protective equipment. Do not get in eyes, on skin, or on clothing.

**Advice for emergency responders** Use personal protective equipment as required.

### Methods and materials for containment and cleaning up

**Methods for containment** Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal.

**Methods for cleaning up** Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).

## 7. HANDLING AND STORAGE

### Precautions for safe handling

**Advice on safe handling** Use personal protective equipment as required. Keep container closed when not in use. Never return spills in original containers for re-use. Keep out of the reach of children.

### Conditions for safe storage, including any incompatibilities

**Storage Conditions** Keep containers tightly closed in a dry, cool and well-ventilated place.

**Incompatible products** None known.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Control parameters

**Exposure Guidelines** No exposure limits noted for ingredient(s).

### Exposure controls

**Engineering Measures** **Distribution, Workplace and Household Settings:**  
Ensure adequate ventilation

**Product Manufacturing Plant (needed at Product-Producing Plant ONLY):**  
Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction

### Personal Protective Equipment

**Eye Protection** **Distribution, Workplace and Household Settings:**  
No special protective equipment required

**Product Manufacturing Plant (needed at Product-Producing Plant ONLY):**  
Use appropriate eye protection

**Hand Protection**

**Distribution, Workplace and Household Settings:**

No special protective equipment required

**Product Manufacturing Plant (needed at Product-Producing Plant ONLY):**

Protective gloves

**Skin and Body Protection**

**Distribution, Workplace and Household Settings:**

No special protective equipment required

**Product Manufacturing Plant (needed at Product-Producing Plant ONLY):**

Wear suitable protective clothing

**Respiratory Protection**

**Distribution, Workplace and Household Settings:**

No special protective equipment required

**Product Manufacturing Plant (needed at Product-Producing Plant ONLY):**

In case of insufficient ventilation wear suitable respiratory equipment

**9. PHYSICAL AND CHEMICAL PROPERTIES**

**Physical State @20°C**

liquid

**Appearance**

colored liquid

**Odor**

Perfume

**Odor threshold**

No information available

Property

Values

Note

**pH value**

10.3

**Melting/freezing point**

0 °C / 32 °F

**Boiling point/boiling range**

100 °C / 212 °F

**Flash point**

> 77 °C / > 170 °F

Closed cup Product is an aqueous solution containing <= 24% alcohol and > 50% water

**Evaporation rate**

No information available

**Flammability (solid, gas)**

No information available

**Flammability Limits in Air**

Upper flammability limit

No information available

Lower Flammability Limit

No information available

**Vapor pressure**

No information available

**Vapor density**

No information available

**Relative density**

1.0 g/cm<sup>3</sup>

**Water solubility**

completely soluble

**Solubility in other solvents**

No information available

**Partition coefficient: n-octanol/water** No information available

**Autoignition temperature** No information available

**Decomposition temperature** No information available

**Viscosity of Product** No information available

**VOC Content (%)**

Products comply with US state and federal regulations for VOC content in consumer products.

**10. STABILITY AND REACTIVITY**

**Reactivity**

None under normal use conditions.

**Stability**

Stable under normal conditions.

**Hazardous polymerization**

Hazardous polymerization does not occur.

**Hazardous Reactions**

None under normal processing.

**Conditions to Avoid** None under normal processing.

**Materials to avoid** None in particular.

**Hazardous Decomposition Products** None under normal use.

## 11. TOXICOLOGICAL INFORMATION

### Product Information

Information on likely routes of exposure

<b>Inhalation</b>	No known effect.
<b>Skin contact</b>	No known effect.
<b>Ingestion</b>	No known effect.
<b>Eye contact</b>	Irritating to eyes.

### Delayed and immediate effects as well as chronic effects from short and long-term exposure

<b>Acute toxicity</b>	No known effect.
<b>Skin corrosion/irritation</b>	No known effect.
<b>Serious eye damage/eye irritation</b>	Irritating to eyes.
<b>Skin sensitization</b>	No known effect.
<b>Respiratory sensitization</b>	No known effect.
<b>Germ cell mutagenicity</b>	No known effect.
<b>Neurological Effects</b>	No known effect.
<b>Reproductive toxicity</b>	No known effect.
<b>Developmental toxicity</b>	No known effect.
<b>Teratogenicity</b>	No known effect.
<b>STOT - single exposure</b>	No known effect.
<b>STOT - repeated exposure</b>	No known effect.
<b>Target Organ Effects</b>	No known effect.
<b>Aspiration hazard</b>	No known effect.
<b>Carcinogenicity</b>	No known effect.

### JAP Component Information

Chemical Name	CAS-No	LD50 Oral	LD50 Dermal	LC50 Inhalation
Benzenesulfonic acid, mono-C10-16-alkyl derivs., sodium salts	68081-81-2	1090.00 mg/kg (rat)	-	-

## 12. ECOLOGICAL INFORMATION

### Ecotoxicity

The product is not expected to be hazardous to the environment.

**Persistence and degradability** No information available.

**Bioaccumulative potential** No information available.

**Mobility** No information available.

**Other adverse effects** No information available.

## 13. DISPOSAL CONSIDERATIONS

### Waste treatment

**Waste from Residues / Unused Products** Disposal should be in accordance with applicable regional, national and local laws and regulations.

**Contaminated packaging** Disposal should be in accordance with applicable regional, national and local laws and regulations.

**California Hazardous Waste Codes (non-household setting)** 331

**14. TRANSPORT INFORMATION**

**DOT** Not regulated

**IMDG** Not regulated

**IATA** Not regulated

**15. REGULATORY INFORMATION**

**U.S. Federal Regulations**

**SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

**CERCLA**

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302):

Chemical Name	CAS-No	Hazardous Substances RQs	Extremely Hazardous Substances RQs	CERCLA/SARA 302 TPQ
Sodium hydroxide	1310-73-2	1000 lb	-	

**Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)**

This product does not contain any substances regulated as hazardous air pollutants (HAPS) under Section 112 of the Clean Air Act Amendments of 1990.

**Clean Water Act**

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42):

Chemical Name	CAS-No	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Sodium hydroxide	1310-73-2	1000 lb	-	-	X

**California Proposition 65**

This product is not subject to warning labeling under California Proposition 65.

**U.S. State Regulations (RTK)**

This product does not contain any substances regulated by state right-to-know regulations

**International Inventories**

**United States**

All intentionally-added components of this product(s) are listed on the US TSCA Inventory.

**Canada**

This product is in compliance with CEPA for import by P&G.

**Legend**

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory

**CEPA** - Canadian Environmental Protection Act

## 16. OTHER INFORMATION

**Issuing Date:** 30-Apr-2015

**Revision Date:** 30-Apr-2015

**Disclaimer**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

**End of SDS**

# SAFETY DATA SHEET

## Nashua 357 Spray Adhesive



### Section 1. Identification

- Product code / Name** : Nashua 357 Spray Adhesive
- Product description** : Premium Web Spray Adhesive
- Relevant identified uses of the substance or mixture and uses advised against**
- Identified uses** : Adhesive
- Uses advised against** : Not applicable
- Supplier/Manufacturer** : Berry Global, Inc.  
2320 Bowling Green Road  
Franklin, KY 42134
- Email** : regulatoryaffairs@berryglobal.com
- Emergency telephone number (with hours of operation)** : Chemtrec 24 Hour Emergency Response Number +1-800-424-9300 CCN22955  
+1-800-248-7659 M-F 8AM-5PM

### Section 2. Hazards identification

- OSHA/HCS status** : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
- Classification of the substance or mixture** : FLAMMABLE AEROSOLS - Category 1  
GASES UNDER PRESSURE - Compressed gas  
SKIN IRRITATION - Category 2  
EYE IRRITATION - Category 2A  
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3  
Percentage of the mixture consisting of ingredient(s) of unknown toxicity: 12.6%

#### GHS label elements

**Hazard pictograms** :



- Signal word** : Danger
- Hazard statements** : Extremely flammable aerosol.  
Contains gas under pressure; may explode if heated.  
Causes serious eye irritation.  
Causes skin irritation.  
May cause drowsiness or dizziness.

#### Precautionary statements

- Prevention** : Wear protective gloves. Wear eye or face protection. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not spray on an open flame or other ignition source. Use only outdoors or in a well-ventilated area. Avoid breathing vapor. Wash hands thoroughly after handling. Pressurized container: Do not pierce or burn, even after use.
- Response** : IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or physician if you feel unwell. IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing and wash it before reuse. If skin irritation occurs: Get medical attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention.
- Storage** : Store locked up. Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F. Store in a well-ventilated place.

## Section 2. Hazards identification

**Disposal** : Dispose of contents and container in accordance with all local, regional, national and international regulations.

**Hazards not otherwise classified** : None known.

## Section 3. Composition/information on ingredients

**Substance/mixture** : Mixture

Hazardous ingredients Name	%	CAS number
acetone	≥10 - ≤25	67-64-1
methyl acetate	≤10	79-20-9
heptane	≤3	142-82-5
Non-hazardous ingredients Name	%	CAS number
propane	10 - 25	74-98-6
butane	10 - 25	106-97-8
Dimethyl Ether	3 - 5	115-10-6
4-chloro- $\alpha,\alpha$ -trifluorotoluene	3 - 5	98-56-6

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

## Section 4. First aid measures

### Description of necessary first aid measures

- Eye contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If necessary, call a poison center or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- Skin contact** : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Continue to rinse for at least 10 minutes. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** : Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention. If necessary, call a poison center or physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

### Most important symptoms/effects, acute and delayed

#### Potential acute health effects

- Eye contact** : Causes serious eye irritation.
- Inhalation** : Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness.
- Skin contact** : Causes skin irritation.
- Ingestion** : Can cause central nervous system (CNS) depression.

#### Over-exposure signs/symptoms

## Section 4. First aid measures

- Eye contact** : Adverse symptoms may include the following:  
pain or irritation  
watering  
redness
- Inhalation** : Adverse symptoms may include the following:  
respiratory tract irritation  
coughing  
nausea or vomiting  
headache  
drowsiness/fatigue  
dizziness/vertigo  
unconsciousness
- Skin contact** : Adverse symptoms may include the following:  
irritation  
redness
- Ingestion** : No specific data.

### Indication of immediate medical attention and special treatment needed, if necessary

- Notes to physician** : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- Specific treatments** : No specific treatment.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

See toxicological information (Section 11)

## Section 5. Fire-fighting measures

### Extinguishing media

- Suitable extinguishing media** : Use an extinguishing agent suitable for the surrounding fire.
- Unsuitable extinguishing media** : None known.

- Specific hazards arising from the chemical** : Extremely flammable aerosol. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Gas may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back, causing fire or explosion. Bursting aerosol containers may be propelled from a fire at high speed. Runoff to sewer may create fire or explosion hazard.

- Hazardous thermal decomposition products** : Decomposition products may include the following materials:  
carbon dioxide  
carbon monoxide  
halogenated compounds  
carbonyl halides

- Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

## Section 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. In the case of aerosols being ruptured, care should be taken due to the rapid escape of the pressurized contents and propellant. If a large number of containers are ruptured, treat as a bulk material spillage according to the instructions in the clean-up section. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
- For emergency responders** : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials.
- Environmental precautions** : Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

### Methods and materials for containment and cleaning up

- Spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

## Section 7. Handling and storage

### Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C. Do not pierce or burn, even after use. Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing gas. Avoid breathing vapor or mist. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Empty containers retain product residue and can be hazardous.
- Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

- Conditions for safe storage, including any incompatibilities** : Store in accordance with local regulations. Store away from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Protect from sunlight. Store locked up. Eliminate all ignition sources. Use appropriate containment to avoid environmental contamination.

## Section 8. Exposure controls/personal protection

### Control parameters

### Occupational exposure limits

## Section 8. Exposure controls/personal protection

Ingredient name	Exposure limits
acetone	<p><b>ACGIH TLV (United States, 3/2016).</b> TWA: 250 ppm 8 hours. STEL: 500 ppm 15 minutes.</p> <p><b>OSHA PEL 1989 (United States, 3/1989).</b> TWA: 750 ppm 8 hours. TWA: 1800 mg/m<sup>3</sup> 8 hours. STEL: 1000 ppm 15 minutes. STEL: 2400 mg/m<sup>3</sup> 15 minutes.</p> <p><b>NIOSH REL (United States, 10/2013).</b> TWA: 250 ppm 10 hours. TWA: 590 mg/m<sup>3</sup> 10 hours.</p> <p><b>OSHA PEL (United States, 6/2016).</b> TWA: 1000 ppm 8 hours. TWA: 2400 mg/m<sup>3</sup> 8 hours.</p>
methyl acetate	<p><b>ACGIH TLV (United States, 3/2016).</b> TWA: 200 ppm 8 hours. TWA: 606 mg/m<sup>3</sup> 8 hours. STEL: 250 ppm 15 minutes. STEL: 757 mg/m<sup>3</sup> 15 minutes.</p> <p><b>OSHA PEL 1989 (United States, 3/1989).</b> TWA: 200 ppm 8 hours. TWA: 610 mg/m<sup>3</sup> 8 hours. STEL: 250 ppm 15 minutes. STEL: 760 mg/m<sup>3</sup> 15 minutes.</p> <p><b>NIOSH REL (United States, 10/2013).</b> TWA: 200 ppm 10 hours. TWA: 610 mg/m<sup>3</sup> 10 hours. STEL: 250 ppm 15 minutes. STEL: 760 mg/m<sup>3</sup> 15 minutes.</p> <p><b>OSHA PEL (United States, 6/2016).</b> TWA: 200 ppm 8 hours. TWA: 610 mg/m<sup>3</sup> 8 hours.</p>
heptane	<p><b>ACGIH TLV (United States, 3/2016).</b> TWA: 400 ppm 8 hours. TWA: 1640 mg/m<sup>3</sup> 8 hours. STEL: 500 ppm 15 minutes. STEL: 2050 mg/m<sup>3</sup> 15 minutes.</p> <p><b>OSHA PEL 1989 (United States, 3/1989).</b> TWA: 400 ppm 8 hours. TWA: 1600 mg/m<sup>3</sup> 8 hours. STEL: 500 ppm 15 minutes. STEL: 2000 mg/m<sup>3</sup> 15 minutes.</p> <p><b>NIOSH REL (United States, 10/2013).</b> TWA: 85 ppm 10 hours. TWA: 350 mg/m<sup>3</sup> 10 hours. CEIL: 440 ppm 15 minutes. CEIL: 1800 mg/m<sup>3</sup> 15 minutes.</p> <p><b>OSHA PEL (United States, 6/2016).</b> TWA: 500 ppm 8 hours. TWA: 2000 mg/m<sup>3</sup> 8 hours.</p>

### Appropriate engineering controls

: Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

## Section 8. Exposure controls/personal protection

**Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

### Individual protection measures

**Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

**Eye/face protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.

### Skin protection

**Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

**Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.

**Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

**Respiratory protection** : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

## Section 9. Physical and chemical properties

**Physical state** : Liquid. [Aerosol. Liquefied compressed gas.]

**Color** : Not available.

**Odor** : Not available.

**Odor threshold** : Not available.

**pH** : Not available.

**Melting point** : Not available.

**Boiling point** : 67.05°C (152.7°F)

**Flash point** : Open cup: -104.4°C (-155.9°F)

**Evaporation rate** : Not applicable.

**Flammability (solid, gas)** : Not applicable.

**Lower and upper explosive (flammable) limits** : Lower: 2.2%  
Upper: 11.4%

**Vapor pressure** : Not available.

**Vapor density** : Not applicable.

**Relative density** : Not available.

**Solubility** : Not available.

**Partition coefficient: n-octanol/water** : Not applicable.

## Section 9. Physical and chemical properties

**Auto-ignition temperature** : 385.69°C (726.2°F)

**Decomposition temperature** : Not available.

**Viscosity** : Not applicable.

### Aerosol product

**Type of aerosol** : Spray

**Heat of combustion** : 22.82 kJ/g

## Section 10. Stability and reactivity

**Reactivity** : No specific test data related to reactivity available for this product or its ingredients.

**Chemical stability** : The product is stable.

**Possibility of hazardous reactions** : Under normal conditions of storage and use, hazardous reactions will not occur.

**Conditions to avoid** : Avoid all possible sources of ignition (spark or flame).

**Incompatible materials** : No specific data.

**Hazardous decomposition products** : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## Section 11. Toxicological information

### Information on toxicological effects

#### Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
acetone	LD50 Oral	Rat	5800 mg/kg	-
methyl acetate	LD50 Dermal	Rabbit	>5 g/kg	-
	LD50 Oral	Rat	>5 g/kg	-
heptane	LC50 Inhalation Gas.	Rat	48000 ppm	4 hours
	LC50 Inhalation Vapor	Rat	103 g/m <sup>3</sup>	4 hours

#### Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
acetone	Eyes - Mild irritant	Human	-	186300 parts per million	-
	Eyes - Mild irritant	Rabbit	-	10 microliters	-
	Eyes - Moderate irritant	Rabbit	-	24 hours 20 milligrams	-
	Eyes - Severe irritant	Rabbit	-	20 milligrams	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
methyl acetate	Skin - Mild irritant	Rabbit	-	395 milligrams	-
	Eyes - Moderate irritant	Rabbit	-	24 hours 100 milligrams	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
	Skin - Moderate irritant	Rabbit	-	24 hours 20 milligrams	-

#### Sensitization

No known significant effects or critical hazards.

#### Mutagenicity

No known significant effects or critical hazards.

## Section 11. Toxicological information

### Carcinogenicity

No known significant effects or critical hazards.

### Reproductive toxicity

No known significant effects or critical hazards.

### Teratogenicity

No known significant effects or critical hazards.

### Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
acetone	Category 3	Not applicable.	Narcotic effects
methyl acetate	Category 3	Not applicable.	Narcotic effects
heptane	Category 3	Not applicable.	Narcotic effects

### Specific target organ toxicity (repeated exposure)

No known significant effects or critical hazards.

### Aspiration hazard

Name	Result
heptane	ASPIRATION HAZARD - Category 1

### Symptoms related to the physical, chemical and toxicological characteristics

- Eye contact** : Adverse symptoms may include the following:  
 pain or irritation  
 watering  
 redness
- Inhalation** : Adverse symptoms may include the following:  
 respiratory tract irritation  
 coughing  
 nausea or vomiting  
 headache  
 drowsiness/fatigue  
 dizziness/vertigo  
 unconsciousness
- Skin contact** : Adverse symptoms may include the following:  
 irritation  
 redness
- Ingestion** : No specific data.

### Delayed and immediate effects and also chronic effects from short and long term exposure

#### Short term exposure

**Potential immediate effects** : Not applicable.

**Potential delayed effects** : Not applicable.

#### Long term exposure

**Potential immediate effects** : Not applicable.

**Potential delayed effects** : Not applicable.

#### Potential chronic health effects

No known significant effects or critical hazards.

**General** : No known significant effects or critical hazards.

**Carcinogenicity** : No known significant effects or critical hazards.

**Mutagenicity** : No known significant effects or critical hazards.

## Section 11. Toxicological information

- Teratogenicity** : No known significant effects or critical hazards.  
**Developmental effects** : No known significant effects or critical hazards.  
**Fertility effects** : No known significant effects or critical hazards.

### Numerical measures of toxicity

#### Acute toxicity estimates

Not applicable.

## Section 12. Ecological information

### Toxicity

Product/ingredient name	Result	Species	Exposure
acetone	Acute EC50 20.565 mg/l Marine water	Algae - Ulva pertusa	96 hours
	Acute LC50 6000000 µg/l Fresh water	Crustaceans - Gammarus pulex	48 hours
	Acute LC50 10000 µg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 5600 ppm Fresh water	Fish - Poecilia reticulata	96 hours
	Chronic NOEC 4.95 mg/l Marine water	Algae - Ulva pertusa	96 hours
	Chronic NOEC 0.016 ml/L Fresh water	Crustaceans - Daphniidae	21 days
	Chronic NOEC 0.1 ml/L Fresh water	Daphnia - Daphnia magna - Neonate	21 days
methyl acetate	Chronic NOEC 5 µg/l Marine water	Fish - Gasterosteus aculeatus - Larvae	42 days
	Acute LC50 320000 µg/l Fresh water	Fish - Pimephales promelas	96 hours
	Acute LC50 375000 µg/l Fresh water	Fish - Oreochromis mossambicus	96 hours
heptane			

### Persistence and degradability

Not applicable.

### Bioaccumulative potential

Product/ingredient name	LogP <sub>ow</sub>	BCF	Potential
acetone	-0.23	-	low
methyl acetate	0.18	-	low
heptane	4.66	552	high

### Mobility in soil

- Soil/water partition coefficient (K<sub>oc</sub>)** : Not applicable.

- Other adverse effects** : No known significant effects or critical hazards.

## Section 13. Disposal considerations

- Disposal methods** : The generation of waste should be avoided or minimized wherever possible. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. Do not puncture or incinerate container. Dispose of according to all federal, state and local applicable regulations.

### United States - RCRA Toxic hazardous waste "U" List

Ingredient	CAS #	Status	Reference number
Acetone (I); 2-Propanone (I)	67-64-1	Listed	U002

## Section 14. Transport information

	DOT Classification	TDG Classification	Mexico Classification	ADR/RID	IMDG	IATA
<b>UN number</b>	UN1950	UN1950	UN1950	UN1950	UN1950	UN1950
<b>UN proper shipping name</b>	AEROSOLS	AEROSOLS	AEROSOLS	AEROSOLS	AEROSOLS	Aerosols, flammable
<b>Transport hazard class(es)</b>	2.1 	2.1  	2.1 	2  	2.1  	2.1 
<b>Packing group</b>	-	-	-	-	-	-
<b>Environmental hazards</b>	Yes. The environmentally hazardous substance mark is not required.	Yes. The environmentally hazardous substance mark is not required.	Yes. The environmentally hazardous substance mark is not required.	Yes. The environmentally hazardous substance mark is not required.	Yes.	Yes. The environmentally hazardous substance mark is not required.
<b>Additional information</b>	<b>Reportable quantity</b> 20394 lbs / 9258.9 kg [4632.5 gal / 17535.8 L] Package sizes shipped in quantities less than the product reportable quantity are not subject to the RQ (reportable quantity) transportation requirements.	Product classified as per the following sections of the Transportation of Dangerous Goods Regulations: 2.13-2.17 (Class 2), 2.7 (Marine pollutant mark).  The marine pollutant mark is not required when transported by road or rail.	-	The environmentally hazardous substance mark is not required when transported in sizes of ≤5 L or ≤5 kg.  <b>Tunnel code</b> (D)	The marine pollutant mark is not required when transported in sizes of ≤5 L or ≤5 kg.	The environmentally hazardous substance mark may appear if required by other transportation regulations.

## Section 15. Regulatory information

### U.S. Federal regulations

**Clean Air Act (CAA) 112 regulated flammable substances:** propane; butane; dimethyl ether

**TSCA** : All components are listed or exempted.

**Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs)** : Not listed

**Clean Air Act Section 602 Class I Substances** : Not listed

**Clean Air Act Section 602 Class II Substances** : Not listed

**Clean Air Act Section 602 Class II Substances** : Not listed

**SARA 302/304**

## Section 15. Regulatory information

### Composition/information on ingredients

No ingredients were found.

**SARA 304 RQ** : Not applicable.

### SARA 311/312

**Classification** : Fire hazard  
Sudden release of pressure  
Immediate (acute) health hazard

### Composition/information on ingredients

Name	%	Fire hazard	Sudden release of pressure	Reactive	Immediate (acute) health hazard	Delayed (chronic) health hazard
acetone	24.517	Yes.	No.	No.	Yes.	No.
methyl acetate	8.381	Yes.	No.	No.	Yes.	No.
heptane	2.354	Yes.	No.	No.	Yes.	No.

### Canada

**WHMIS (Canada)** : Class B-2: Flammable liquid  
Class B-5: Flammable aerosol.  
Class D-2B: Material causing other toxic effects (Toxic).

### Canadian lists

**Canadian NPRI** : The following components are listed: Volatile organic compounds; Propane; Butane (all isomers); Dimethylether; Volatile organic compounds; Heptane (all isomers)

**CEPA Toxic substances** : The following components are listed: Volatile organic compounds; Volatile organic compounds

**Canada inventory** : All components are listed or exempted.

### International lists

#### National inventory

**Australia** : All components are listed or exempted.

**China** : All components are listed or exempted.

**Europe** : All components are listed or exempted.

**Japan** : **Japan inventory (ENCS)**: All components are listed or exempted.  
**Japan inventory (ISHL)**: All components are listed or exempted.

**Malaysia** : Not determined.

**New Zealand** : All components are listed or exempted.

**Philippines** : All components are listed or exempted.

**Republic of Korea** : All components are listed or exempted.

**Taiwan** : All components are listed or exempted.

## Section 16. Other information

### History

**Date of issue/Date of revision** : 4/10/2017

**Date of previous issue** : 3/28/2017

**Version** : 1.01

**Key to abbreviations** : ATE = Acute Toxicity Estimate  
BCF = Bioconcentration Factor  
GHS = Globally Harmonized System of Classification and Labelling of Chemicals  
IATA = International Air Transport Association  
IMDG = International Maritime Dangerous Goods  
LogPow = logarithm of the octanol/water partition coefficient  
UN = United Nations

## Section 16. Other information

✔ Indicates information that has changed from previously issued version.

### [Notice to reader](#)

All statements, technical information and recommendations set forth herein are based on information or tests which Berry Global believes to be reliable as of the date of this Safety Data Sheet. **NOTHING CONTAINED IN THIS SAFETY DATA SHEET IS A REPRESENTATION, GUARANTEE OR WARRANTY OF ANY KIND.** Berry Global does not assume any liability with respect to the accuracy and/or completeness of the information provided herein. Recipients of this information should be familiar with the regulatory requirements applicable to this product and their intended use of it and they should make their own determination as to the information's suitability and completeness for their particular application(s). The data in this Safety Data Sheet pertains only to the specific material referred to herein and does not relate to use in combination with any other material or in any process.



MATERIAL SAFETY DATA SHEET

MSDS Number: 1501C

Section 1 PRODUCT AND COMPANY IDENTIFICATION

Trade Name: OATEY CANADIAN PREMIUM ABS YELLOW CEMENT
Product Nos.: 31500, 31501, 31502, 31503, 31504
Product Use: Cement for ABS Plastic Pipe
Formula: ABS Resin in Solvent Solution
Synonyms: ABS Plastic Pipe Cement
Firm Name & Address: Oatey Company 4700 West 160th Street, Cleveland, Ohio 44135
Firm Phone No: (216) 267-7100
Emergency Phone Nos.: For Emergency First Aid call 1-877-740-5015. For chemical transportation emergencies ONLY, call Chemtrec at 1-800-424-9300. Outside the U.S. 1-703-527-3887.
Prepared by: Technical Department
Preparation Date: 09/11/2015

Section 2 HAZARDS IDENTIFICATION

Emergency Overview:
Yellow liquid with an ether-like odor. Extremely flammable liquid and vapor. Vapors may cause flash fire. May cause eye and skin irritation. Inhalation of vapors or mist may cause respiratory irritation and central nervous system effects. Swallowing may cause irritation, nausea, vomiting, diarrhea and kidney or liver disorders. Aspiration hazard. May be fatal if swallowed. Symptoms may be delayed.

Section 3 COMPOSITION/INFORMATION ON INGREDIENTS

Table with 6 columns: INGREDIENTS, %wt/wt, CAS NUMBER, ACGIH TLV TWA, OSHA PEL TWA, OTHER. Rows include Methyl Ethyl Ketone, Acetone, and ABS Resin (Non-hazardous).

OSHA Hazard Classification: Flammable, irritant, organ effects

Section 4 FIRST AID MEASURES

Skin: Remove contaminated clothing immediately. Wash all exposed areas with soap and water. Get medical attention if irritation develops. Remove dried cement with Oatey Plumber's Hand Cleaner or baby oil.
Eyes: If material gets into eyes or if fumes cause irritation, immediately flush eyes with plenty of water until chemical is removed. If irritation persists, get medical attention immediately.
Inhalation: If symptoms of exposure develop, remove to fresh air. If breathing becomes difficult, administer oxygen. Administer artificial respiration if breathing has stopped. Seek immediate medical attention.
Ingestion: DO NOT INDUCE VOMITING. Rinse mouth with water. Never give anything by mouth to a person who is unconscious or drowsy. Get immediate medical attention by calling a Poison Control Center, or hospital emergency room. If medical advice cannot be obtained, then take the person and product to the nearest medical emergency treatment center or hospital.

**Section 5 FIRE FIGHTING MEASURES**  
Flashpoint / Method: 14 - 23 Degrees F. (-10 to -5 Degrees C) / CCCFP  
Flammability: LEL = 1.8 % Volume, UEL = 11.8 % Volume  
Extinguishing Media: Use dry chemical, CO2, or foam to extinguish fire. Cool fire exposed container with water. Water may be ineffective as an extinguishing agent.  
Special Fire Fighting Procedure: Firefighters should wear positive pressure self-contained breathing apparatus and full protective clothing for fires in areas where chemicals are used or stored  
Unusual Fire And Explosion Hazards: Extremely flammable liquid. Keep away from heat and all sources of ignition including sparks, flames, lighted cigarettes and pilot lights. Containers may rupture or explode in the heat of a fire. Vapors are heavier than air and may travel to a remote ignition source and flash back. This product contains tetrahydrofuran that may form explosive organic peroxide when exposed to air or light or with age.  
Hazardous Decomposition Products: Combustion will produce toxic and irritating vapors including carbon monoxide, carbon dioxide and hydrogen chloride.

**Section 6 ACCIDENTAL RELEASE MEASURES**  
Spill or Leak Procedures: Remove all sources of ignition and ventilate area. Stop leak if it can be done without risk. Personnel cleaning up the spill should wear appropriate personal protective equipment, including respirators if vapor concentrations are high. Soak up spill with an inert absorbent such as sand, earth or other non-combusting material. Put absorbent material in covered, labeled metal containers. Prevent liquid from entering watercourses, sewers and natural waterways. Report releases to authorities as required. See Section 13 for disposal information.

**Section 7 HANDLING AND STORAGE**  
Handling: Avoid contact with eyes, skin and clothing. Avoid breathing vapors or mists. Use with adequate ventilation (equivalent to outdoors). Wash thoroughly after handling. Do not eat, drink or smoke in the work area. Keep product away from heat, sparks, flames and all other sources of ignition. No smoking in storage or use areas. Keep containers closed when not in use.  
Storage: Store in a cool, dry, well-ventilated area away from incompatible materials. Keep containers closed when not in use.  
Other: "Empty" containers retain product residue and can be hazardous. Follow all MSDS precautions in handling empty containers. Do not cut or weld on or near empty or full containers.

**Section 8 EXPOSURE CONTROLS/PERSONAL PROTECTION**  
Ventilation: Open doors & windows. Provide ventilation capable of maintaining emissions at the point of use below recommended exposure limits. If used in enclosed area, use exhaust fans. Exhaust fans should be explosion-proof or set up in a way that flammable concentrations of solvent vapors are not exposed to electrical fixtures or hot surfaces.  
Respiratory Protection: For operations where the exposure limit may be exceeded, a NIOSH approved organic vapor respirator or supplied air respirator is recommended. Equipment selection depends on contaminant type and concentration, select in accordance with 29 CFR 1910.134 and good industrial hygiene practice. For firefighting, use self-contained breathing apparatus.  
Skin Protection: Rubber gloves are suitable for normal use of the product. For long exposures chemical resistant gloves may be required such as 4H(tm) or Silver Shield(tm) to avoid prolonged skin contact.  
Eye Protection: Safety glasses with side shields or safety goggles.

**Section 9****PHYSICAL AND CHEMICAL PROPERTIES**

Boiling Point: 151 Degrees F / 66 Degrees C  
Melting Point: Not applicable  
Vapor Pressure: 145 mmHg @ 20 Degrees C  
Vapor Density: (Air = 1) 2.5  
Volatile Components: 65-75%  
Solubility In Water: Negligible  
pH: Not applicable  
Specific Gravity: 0.88 +/- 0.02 @ 20 Degrees C  
Evaporation Rate: (BUAC = 1) = 5.5 - 8.0  
Appearance: Yellow  
Odor: Sharp, penetrating odor  
Will Dissolve In: Methyl Ethyl Ketone  
Material Is: Liquid

**Section 10 STABILITY AND REACTIVITY**

Stability: Stable.  
Conditions To Avoid: Avoid heat, sparks, flames and other sources of ignition.  
Avoid:  
Hazardous Decomposition: Combustion will produce toxic and irritating vapors including carbon monoxide, carbon dioxide and hydrogen chloride.  
Products:  
Incompatibility/ Materials To Avoid: Oxidizing agents, alkalis, amines, ammonia, acids, chlorine compounds, chlorinated inorganics (potassium, calcium and sodium hypochlorite) and hydrogen peroxides. May attack plastic, resins and rubber.  
Hazardous Polymerization: Will not occur.

**Section 11 TOXICOLOGICAL INFORMATION**

Inhalation: Vapors or mists may cause mucous membrane and respiratory irritation, coughing, headache, dizziness, dullness, nausea, shortness of breath and vomiting. High concentrations may cause central nervous system depression, narcosis and unconsciousness. May cause kidney, liver and lung damage.  
Skin: May cause irritation with redness, itching and pain. Methyl ethyl ketone and cyclohexanone may be absorbed through the skin causing effects similar to those listed under inhalation.  
Eye: Vapors may cause irritation. Direct contact may cause irritation with redness, stinging and tearing of the eyes. May cause eye damage.  
Ingestion: Swallowing may cause abdominal pain, nausea, vomiting and diarrhea. Aspiration during swallowing or vomiting can cause chemical pneumonia and lung damage. May cause kidney and liver damage.  
Chronic Toxicity: Prolonged or repeated overexposure cause dermatitis and damage to the kidney, liver, lungs and central nervous system.  
Toxicity Data:  
Acetone: Oral rat LD50: 5,800 mg/kg  
Inhalation rat LC50: 50,100 mg/m3/8 hours  
Cyclohexanone: Oral rat LD50: 1,620 mg/kg  
Inhalation rat LC50: 8,000 ppm/4 hours  
Skin rabbit LD50: 1 mL/kg  
Tetrahydrofuran: Oral rat LD50: 1,650 mg/kg  
Inhalation rat LC50: 21,000 ppm/3 hours  
Methyl Ethyl Ketone: Oral rat LD50: 2,737 mg/kg  
Inhalation rat LC50: 23,500 mg/m3/8 hours  
Skin rabbit LD50: 6,480 mg/kg  
Sensitization: None of the components are known to cause sensitization.  
Carcinogenicity: None of the components are listed as a carcinogen or suspect carcinogen by NTP, IARC or OSHA. The National Toxicology Program has reported that exposure of mice and rats to tetrahydrofuran (THF) vapor levels up to 1800 ppm 6 hr/day, 5 days/week for their lifetime caused an increased incidence of kidney tumors in male rats and liver tumors in female mice. The significance of these findings for human health is unclear at this time, and

may be related to "species specific" effects. Elevated incidences of tumors in humans have not been reported for THF. ACGIH has classified cyclohexanone (CYH) and tetrahydrofuran as "A3," Confirmed Animal Carcinogens with Unknown Relevance to Humans.

Mutagenicity: Cyclohexanone has been positive in bacterial and mammalian assays. Acetone, methyl ethyl ketone and tetrahydrofuran are generally thought not to be mutagenic.

Reproductive Toxicity: Methyl ethyl ketone and cyclohexanone have been shown to cause embryofetal toxicity and birth defects in laboratory animals. Acetone and tetrahydrofuran has been found to cause adverse developmental effects only when exposure levels cause other toxic effects to the mother.

Medical Conditions Aggravated By Exposure: Persons with pre-existing skin, lung, kidney or liver disorders may be at increased risk from exposure to this product.

#### Section 12 ECOLOGICAL INFORMATION

This product is not expected to be toxic to aquatic organisms.

Cyclohexanone: 96 hour LC50 values for fish is over 100 mg/l.

Tetrahydrofuran: 96 hour LC50 fathead minnow: 2160 mg/L.

Acetone: 96 hour LC50 for fish is greater than 100 mg/L.

Methyl Ethyl Ketone: 96 hour LC50 for fish is greater than 100 mg/L.

VOC Information: This product emits VOC's (volatile organic compounds) in its use. Make sure that use of this product complies with local VOC emission regulations, where they exist.

VOC Level: Maximum 325 g/L per SCAQMD Test Method 316A.

#### Section 13 DISPOSAL CONSIDERATIONS

Waste Disposal: Dispose in accordance with current local, state and federal regulations.

RCRA Hazardous Waste Number: U002, U057, U159, U213

EPA Hazardous Waste ID Number: D001, D035, F003, F0005

EPA Hazard Waste Number: Ignitable Waste. Toxic Waste (Methyl Ethyl Ketone content)

#### Section 14 TRANSPORT INFORMATION

DOT	<u>Less than 1 Liter (0.3 gal)</u>	<u>Greater than 1 Liter (0.3 gal)</u>
UN/NA Number:	None	UN1133
Proper Shipping Name:	Consumer Commodity	Adhesives
Hazard Class:	ORM-D	3
Packing Group:	None	PGII
Hazard Labels:	None	Flammable Liquid
IMDG		
UN Number:	UN1133	UN1133
Proper Shipping Name:	Adhesives	Adhesives
Hazard Class:	3	3
Packing Group:	II	II
Label:	None (Limited Quantities are expected from labeling)	Class 3 (Flammable Liquid)
Flashpoint (deg C)	-10 to -5 Degrees C	-10 to -5 Degrees C

2008 North American Emergency Response Guidebook Number: 127

**Section 15 REGULATORY INFORMATION**

Hazard Category for Acute Health, Chronic Health, Flammable  
Section 311/312:

Section 302 This product does not contain chemicals regulated under SARA Section 302.  
Extremely Hazardous  
Substances (TPQ):  
Section 313 Toxic This product does not contain chemicals subject to SARA Title III Section  
Chemicals: 313 Reporting requirements.  
CERCLA 103 Spills of this product over the RQ (reportable quantity) must be reported  
Reportable to the National Response Center. The RQ for the product, based on the RQ  
Quantity: for Methyl Ethyl Ketone (60% maximum) of 5,000 lbs, is 8,333 lbs.  
Many states have more stringent release reporting requirements. Report  
spills required under federal, state and local regulations.  
California This product does not contain any chemicals subject to California  
Proposition 65: Proposition 65 regulations.  
  
TSCA Inventory All of the components of this product are listed on the TSCA inventory.  
Canadian WHIMS Class B, Division 2; Class D, Division 2, Subdivision B; Class D,  
Classification: Division 2, Subdivision A. This product has been classified in accordance  
with the hazard criteria of the Controlled Products Regulations (CPR) and  
the MSDS contains all the information required by the CPR.

**Section 16 OTHER INFORMATION**

NFPA and HMIS:  
NFPA Hazard Signal: Health: 2 Flammability: 3 Reactivity: 1 Special: None  
HMIS Hazard Signal: Health: 2\* Flammability: 3 Reactivity: 1 PPE: G

Disclaimer:  
The information herein has been compiled from sources believed to be reliable, up-to-date, and  
is accurate to the best of our knowledge. However, we cannot give any guarantees regarding  
information from other sources, and expressly do not make warranties, nor assume any liability  
for its use.

Template: tmpl-cn-e1

Permatex, Inc.  
 10 Columbus Blvd.  
 Hartford, CT 06106 USA  
 Telephone: 1-87-Permatex  
 (877) 376-2839  
 Emergency: 800-255-3924  
 International Emergency: 813-248-0585

## Material Safety Data Sheet

### 1. PRODUCT IDENTIFICATION

Product Name: 36053 ONE TOUCH ALL WHEEL CARE WHEEL CLEANER 20OZ AE  
 Item No: AWC20-6  
 Product Type: Aerosol cleaner

### 2. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient	Weight Percent	ACGIH TLV:	OSHA PEL:
WATER 7732-18-5	80-90	Not Listed	Not Listed
BUTANE 106-97-8	1-10	1000 ppm TWA	800 ppm TWA; 1900 mg/m <sup>3</sup> TWA
PROPANE 74-98-6	1-10	1000 ppm TWA	1000 ppm TWA; 1800 mg/m <sup>3</sup> TWA

### 3. HAZARDS IDENTIFICATION

Toxicity: May cause eye, skin and respiratory irritation.  
 Primary Routes of Entry: Eye and skin contact, ingestion, inhalation  
 Signs and Symptoms of Exposure: Overexposure may cause eye and skin redness.

Medical Conditions Recognized as Being Aggravated by Exposure: None known.

### 4. FIRST AID MEASURES

Ingestion: If swallowed, DO NOT induce vomiting. Keep individual calm. Obtain medical attention.  
 Inhalation: If inhaled, remove from area to fresh air. Get medical attention if respiratory irritation develops or if breathing becomes difficult.  
 Skin Contact: Remove contaminated clothing. Wash area with soap and water. If irritation persists, seek medical attention.  
 Eye Contact: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes and get medical attention if irritation persists.

### 5. FIRE FIGHTING MEASURES

Flash Point (°F/C): No flame projection  
 Recommended Extinguishing Media: Carbon Dioxide, Dry Chemicals, Foam.  
 Special Fire-Fighting Procedures: Water spray may be ineffective on flames but should be used to keep fire-exposed containers cool. Firefighters should wear self-contained breathing apparatus.  
 Hazardous Products of Combustion: Oxides of carbon, Ammonia  
 Unusual Fire/Explosion Hazards: Exposure to temperatures over 120 degrees F. may cause bursting or venting. Do not puncture or incinerate container. Keep containers cool. Use equipment or shielding to protect personnel from bursting containers.  
 Lower Explosive Limit: 1.8  
 Upper Explosive Limit: 9.5

### 6. ACCIDENTAL RELEASE MEASURES

Spill Procedures: Eliminate all sources of ignition. Maintain good ventilation. Take up with an inert absorbent. Store in a closed waste container until disposal. Prevent from entering waterways or sewers.

### 7. HANDLING AND STORAGE

Storage: Store away from heat, sparks or open flame. Do not store at temperatures above 120 degrees F. Exposure to high temperatures may cause container to burst. Store in accordance with NFPA 30B for Level 1 Aerosols.  
 Handling: Avoid contact with skin and eyes. Use only in a well ventilated area.

## **8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

<b>Eyes:</b>	Safety glasses or goggles
<b>Skin:</b>	Not normally required when using an aerosol. Wear chemical resistant gloves if repeated skin contact occurs or causes irritation.
<b>Ventilation:</b>	General; local exhaust ventilation as necessary to control any air contaminants to within their exposure limits (or to the lowest feasible levels when limits have not been established) during the use of this product.
<b>Respiratory Protection:</b>	If used indoors on a continuous basis, use a NIOSH-approved cartridge type respirator.

## **9. PHYSICAL AND CHEMICAL PROPERTIES**

<b>Appearance:</b>	White foam
<b>Odor:</b>	SLIGHT
<b>Boiling Point:</b>	>200°F
<b>pH:</b>	12.5-13.5
<b>Solubility in Water:</b>	SOLUBLE
<b>Specific Gravity:</b>	0.99-1.02
<b>VOC Content(Wt.%):</b>	5% by weight
<b>Vapor Pressure:</b>	Not determined
<b>Vapor Density (Air=1):</b>	>1 (air = 1)
<b>Evaporation Rate:</b>	<1 (butyl acetate = 1)

## **10. STABILITY AND REACTIVITY**

<b>Chemical Stability:</b>	Stable at normal conditions
<b>Hazardous Polymerization:</b>	WILL NOT OCCUR.
<b>Incompatibilities:</b>	Avoid contact with strong oxidizers.
<b>Conditions to Avoid:</b>	Do not expose to heat or store at temperatures above 120 F
<b>Hazardous Products of Combustion:</b>	Oxides of carbon, Ammonia

## **11. TOXICOLOGICAL INFORMATION**

See Section 3

## **12. ECOLOGICAL INFORMATION**

No data available

## **13. DISPOSAL CONSIDERATIONS**

<b>Recommended Method of Disposal:</b>	Dispose of in accordance with local, state and federal regulations. This container may be recycled in aerosol recycling centers. Before offering for recycling, empty the can by using the product according to the label. If recycling is not available, wrap the container and discard in the trash.
<b>US EPA Waste Number:</b>	D001 as per 40CFR 261.21

## **14. TRANSPORTATION INFORMATION**

DOT (49CFR 172)

### **Domestic Ground Transport**

<b>DOT Shipping Name:</b>	CONSUMER COMMODITY
<b>Hazard Class:</b>	ORM-D
<b>UN/ID Number:</b>	None
<b>Marine Pollutant:</b>	None

### **IATA**

<b>Proper Shipping Name:</b>	Consumer Commodity (Not more than 1 liter)
<b>Class or Division:</b>	Class 9
<b>UN/NA Number:</b>	ID 8000

### **IMDG**

<b>Proper Shipping:</b>	Aerosols, Limited Quantity
<b>Hazard Class:</b>	Class 2.2
<b>UN Number:</b>	UN 1950

## **15. REGULATORY INFORMATION**

SARA 313 Chemicals: The following component(s) is listed as a SARA Section 313 Toxic Chemical.

**Product Name:** 36053 ONE TOUCH ALL WHEEL CARE  
WHEEL CLEANER 20OZ AE

**Item No:** AWC20-6

NONE

**CALIFORNIA PROP 65:**

No California Prop 65 chemicals are known to be present.

**TSCA Inventory Status:**

Listed on Inventory: YES All components of this product are listed (or exempt) on the EPA TSCA inventory.

**16. OTHER INFORMATION**

Estimated NFPA Rating: HEALTH 1, FLAMMABILITY 1, REACTIVITY 0

Estimated HMIS Classification: HEALTH 1, FLAMMABILITY 1, PHYSICAL HAZARD 0

NFPA is a registered trademark of the National Fire Protection Assn.

HMIS is a registered trademark of the National Paint and Coatings Assn.

**Prepared By:** Denise Boyd, Health and Safety Manager

**Company:** Permatest, Inc. 10 Columbus Blvd. Hartford, CT USA 06106

**Revision Date:** January/17/2007

**Revision** 3

**Number:**

# SAFETY DATA SHEET

## OUTBOARD MOTOR OIL



000003000691

Version 2.0

Revision Date 2018/09/25

Print Date 2018/09/25

### SECTION 1. IDENTIFICATION

Product name : OUTBOARD MOTOR OIL  
Product code : POMDRM, POMC24, POMC16, POMC12, POM, POMBLK

Manufacturer or supplier's details  
Petro-Canada America Lubricants Inc.  
115N Oak Park Avenue #1C  
Oak Park IL 60301-1366  
United States

Emergency telephone number  
Petro-Canada Lubricants Inc.: +1 905-403-5770;  
CHEMTREC Transport Emergency: 1-800-424-9300;  
Poison Control Centre: Consult local telephone directory for emergency number(s).

#### Recommended use of the chemical and restrictions on use

Recommended use : Ashless 2-cycle engine oil designed to lubricate water-cooled two-cycle engines. For use where TC-W3(R) oils are recommended.

Prepared by : Product Safety: +1 905-491-0565

### SECTION 2. HAZARDS IDENTIFICATION

#### Emergency Overview

Appearance	viscous liquid
Colour	blue green
Odour	Hydrocarbon.

#### GHS Classification

Not a hazardous substance or mixture.

#### GHS label elements

Not a hazardous substance or mixture.

#### Potential Health Effects

Primary Routes of Entry : Eye contact  
Ingestion  
Inhalation  
Skin contact

Aggravated Medical Condition : None known.

# SAFETY DATA SHEET

## OUTBOARD MOTOR OIL



000003000691

Version 2.0

Revision Date 2018/09/25

Print Date 2018/09/25

### Other hazards

None known.

### IARC

No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

### OSHA

No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

### NTP

No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

## SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

### Hazardous components

Chemical name	CAS-No.	Concentration
distillates (petroleum), hydrotreated light paraffinic	64742-55-8	30 - 50 %
lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based, high viscosity	72623-85-9	30 - 50 %
distillates (petroleum), hydrotreated heavy paraffinic	64742-54-7	20 - 30 %
Highly refined mineral oil		1 - 5 %

## SECTION 4. FIRST AID MEASURES

- If inhaled : Move to fresh air.  
Artificial respiration and/or oxygen may be necessary.  
Seek medical advice.
- In case of skin contact : In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.  
Wash skin thoroughly with soap and water or use recognized skin cleanser.  
Wash clothing before reuse.  
Seek medical advice.
- In case of eye contact : Remove contact lenses.  
Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.  
Obtain medical attention.
- If swallowed : Rinse mouth with water.

# SAFETY DATA SHEET

## OUTBOARD MOTOR OIL



000003000691

Version 2.0

Revision Date 2018/09/25

Print Date 2018/09/25

---

DO NOT induce vomiting unless directed to do so by a physician or poison control center.  
Never give anything by mouth to an unconscious person.  
Seek medical advice.

Most important symptoms and effects, both acute and delayed : First aider needs to protect himself.

---

### SECTION 5. FIREFIGHTING MEASURES

- Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
- Unsuitable extinguishing media : No information available.
- Specific hazards during fire-fighting : Cool closed containers exposed to fire with water spray.
- Hazardous combustion products : Carbon oxides (CO, CO<sub>2</sub>), nitrogen oxides (NO<sub>x</sub>), sulphur oxides (SO<sub>x</sub>), aldehydes, hydrocarbons, smoke and irritating vapours as products of incomplete combustion.
- Further information : Prevent fire extinguishing water from contaminating surface water or the ground water system.
- 

### SECTION 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions, protective equipment and emergency procedures : Use personal protective equipment.  
Ensure adequate ventilation.  
Evacuate personnel to safe areas.  
Material can create slippery conditions.
- Environmental precautions : Do not allow uncontrolled discharge of product into the environment.
- Methods and materials for containment and cleaning up : Prevent further leakage or spillage if safe to do so.  
Remove all sources of ignition.  
Soak up with inert absorbent material.  
Non-sparking tools should be used.  
Ensure adequate ventilation.  
Contact the proper local authorities.
- 

### SECTION 7. HANDLING AND STORAGE

- Advice on safe handling : For personal protection see section 8.  
Smoking, eating and drinking should be prohibited in the application area.  
Use only with adequate ventilation.

# SAFETY DATA SHEET

## OUTBOARD MOTOR OIL



000003000691

Version 2.0

Revision Date 2018/09/25

Print Date 2018/09/25

In case of insufficient ventilation, wear suitable respiratory equipment.  
Avoid contact with skin, eyes and clothing.  
Do not ingest.  
Keep away from heat and sources of ignition.  
Keep container closed when not in use.

Conditions for safe storage : Store in original container.  
Containers which are opened must be carefully resealed and kept upright to prevent leakage.  
Keep in a dry, cool and well-ventilated place.  
Keep in properly labelled containers.  
To maintain product quality, do not store in heat or direct sunlight.

### SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

#### Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based, high viscosity	72623-85-9	TWA (Mist)	5 mg/m <sup>3</sup>	OSHA Z-1
		TWA (Inhalable fraction)	5 mg/m <sup>3</sup>	ACGIH
		TWA (Mist)	5 mg/m <sup>3</sup>	OSHA P0
		TWA (Mist)	5 mg/m <sup>3</sup>	NIOSH REL
		ST (Mist)	10 mg/m <sup>3</sup>	NIOSH REL

**Engineering measures** : No special ventilation requirements. Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

#### Personal protective equipment

Respiratory protection : Use respiratory protection unless adequate local exhaust ventilation is provided or exposure assessment demonstrates that exposures are within recommended exposure guidelines. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Filter type : organic vapour

Hand protection  
Material : neoprene, nitrile, polyvinyl alcohol (PVA), Viton(R).

Remarks : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling

# SAFETY DATA SHEET

## OUTBOARD MOTOR OIL



000003000691

Version 2.0

Revision Date 2018/09/25

Print Date 2018/09/25

---

	chemical products if a risk assessment indicates this is necessary.
Eye protection	: Wear face-shield and protective suit for abnormal processing problems.
Skin and body protection	: Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place.
Protective measures	: Wash contaminated clothing before re-use.
Hygiene measures	: Remove and wash contaminated clothing and gloves, including the inside, before re-use. Wash face, hands and any exposed skin thoroughly after handling.

---

### SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	: viscous liquid
Colour	: blue green
Odour	: Hydrocarbon.
Odour Threshold	: No data available
pH	: No data available
Pour point	: -48 °C (-54 °F)
Boiling point/boiling range	: No data available
Flash point	: 134 °C (273 °F) Method: Pensky-Martens closed cup
Fire Point	: 170 °C (338 °F)
Auto-Ignition Temperature	: No data available
Evaporation rate	: No data available
Flammability	: Low fire hazard. This material must be heated before ignition will occur.
Upper explosion limit	: No data available
Lower explosion limit	: No data available
Vapour pressure	: No data available
Relative vapour density	: No data available
Relative density	: No data available
Density	: 0.868 kg/l (15 °C / 59 °F)
Solubility(ies)	

# SAFETY DATA SHEET

## OUTBOARD MOTOR OIL



000003000691

Version 2.0

Revision Date 2018/09/25

Print Date 2018/09/25

---

Water solubility	:	insoluble
Partition coefficient: n-octanol/water	:	No data available
Viscosity		
Viscosity, kinematic	:	55.6 cSt (40 °C / 104 °F)
		8.8 cSt (100 °C / 212 °F)
Explosive properties	:	Do not pressurise, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition.

---

### SECTION 10. STABILITY AND REACTIVITY

Possibility of hazardous reactions	:	Hazardous polymerisation does not occur. Stable under normal conditions.
Conditions to avoid	:	No data available
Incompatible materials	:	Reactive with oxidising agents, reducing agents and acids.
Hazardous decomposition products	:	May release CO <sub>x</sub> , SO <sub>x</sub> , hydrocarbons, methacrylate monomers, asphyxiants, smoke and irritating vapours when heated to decomposition.

---

### SECTION 11. TOXICOLOGICAL INFORMATION

#### Information on likely routes of exposure

Eye contact  
Ingestion  
Inhalation  
Skin contact

#### Acute toxicity

##### Product:

Acute oral toxicity	:	Remarks: No data available
Acute inhalation toxicity	:	Remarks: No data available
Acute dermal toxicity	:	Remarks: No data available

##### Components:

##### **distillates (petroleum), hydrotreated light paraffinic:**

Acute oral toxicity	:	LD50 (Rat): > 5,000 mg/kg,
---------------------	---	----------------------------

# SAFETY DATA SHEET

## OUTBOARD MOTOR OIL



000003000691

Version 2.0

Revision Date 2018/09/25

Print Date 2018/09/25

---

Acute inhalation toxicity : LC50 (Rat): > 5 mg/l  
Exposure time: 4 h  
Test atmosphere: dust/mist

Acute dermal toxicity : LD50 (Rabbit): > 2,000 mg/kg,

**lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based, high viscosity:**

Acute oral toxicity : LD50 (Rat): > 5,000 mg/kg,

Acute inhalation toxicity : LC50 (Rat): > 5.2 mg/l  
Exposure time: 4 h  
Test atmosphere: dust/mist

Acute dermal toxicity : LD50 (Rabbit): > 2,000 mg/kg,

### **Skin corrosion/irritation**

**Product:**

Remarks: No data available

### **Serious eye damage/eye irritation**

**Product:**

Remarks: No data available

### **Respiratory or skin sensitisation**

No data available

### **Germ cell mutagenicity**

No data available

### **Carcinogenicity**

No data available

### **Reproductive toxicity**

No data available

### **STOT - single exposure**

No data available

### **STOT - repeated exposure**

No data available

No data available

# SAFETY DATA SHEET

## OUTBOARD MOTOR OIL



000003000691

Version 2.0

Revision Date 2018/09/25

Print Date 2018/09/25

---

### SECTION 12. ECOLOGICAL INFORMATION

#### Ecotoxicity

##### Product:

Toxicity to fish :  
Remarks: No data available

Toxicity to daphnia and other :  
aquatic invertebrates : Remarks: No data available

Toxicity to algae :  
Remarks: No data available

Toxicity to bacteria : Remarks: No data available

#### Persistence and degradability

##### Product:

Biodegradability : Remarks: No data available

#### Bioaccumulative potential

No data available

#### Mobility in soil

No data available

#### Other adverse effects

No data available

---

### SECTION 13. DISPOSAL CONSIDERATIONS

#### Disposal methods

Waste from residues : The product should not be allowed to enter drains, water courses or the soil.  
Offer surplus and non-recyclable solutions to a licensed disposal company.  
Waste must be classified and labelled prior to recycling or disposal.  
Send to a licensed waste management company.  
Dispose of product residue in accordance with the instructions of the person responsible for waste disposal.

---

### SECTION 14. TRANSPORT INFORMATION

#### International Regulations

##### IATA-DGR

Not regulated as a dangerous good

# SAFETY DATA SHEET

## OUTBOARD MOTOR OIL



000003000691

Version 2.0

Revision Date 2018/09/25

Print Date 2018/09/25

### IMDG-Code

Not regulated as a dangerous good

### Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

### National Regulations

#### 49 CFR

Not regulated as a dangerous good

Not applicable for product as supplied.

## SECTION 15. REGULATORY INFORMATION

The components of this product are reported in the following inventories:

#### DSL

On the inventory, or in compliance with the inventory

#### TSCA

All chemical substances in this product are either listed on the TSCA Inventory or are in compliance with a TSCA Inventory exemption.

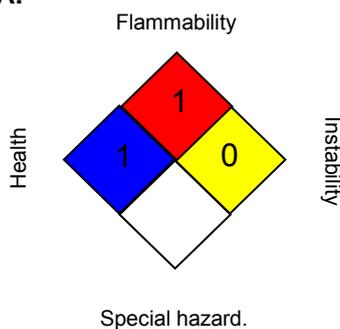
#### EINECS

On the inventory, or in compliance with the inventory

## SECTION 16. OTHER INFORMATION

### Further information

#### NFPA:



#### HMIS III:

HEALTH	1
FLAMMABILITY	1
PHYSICAL HAZARD	0
PERSONAL PROTECTION	B

0 = not significant, 1 = Slight,  
2 = Moderate, 3 = High  
4 = Extreme, \* = Chronic

For Copy of SDS

: Internet: [lubricants.petro-canada.com/sds](http://lubricants.petro-canada.com/sds)  
United States, telephone: 1-800-268-5850; fax: 1-800-201-6285  
For Product Safety Information: 1 905-491-0565

# SAFETY DATA SHEET

## OUTBOARD MOTOR OIL



000003000691

Version 2.0

Revision Date 2018/09/25

Print Date 2018/09/25

---

Prepared by : Product Safety: +1 905-491-0565

Revision Date : 2018/09/25

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.



## MATERIAL SAFETY DATA SHEET

---

Date Prepared: January 25, 2003  
Supersedes: February 25, 2000  
MSDS Number: 8082

---

### 1. PRODUCT INFORMATION

Product Identifier: ESSO OUTBOARD OIL

Application and Use:  
Mineral oil for gasoline two-stroke engines

Product Description:

A mixture of refined petroleum lubricant basestocks and petroleum solvent plus additives

---

#### REGULATORY CLASSIFICATION

WHMIS:  
Class B, Division 3: Combustible Liquids.

CEPA: CANADIAN ENVIRONMENTAL PROTECTION ACT  
All components of this product are either on the Domestic Substances List (DSL) or are exempt.

TDG INFORMATION (RAIL/ROAD):  
Not Regulated in Canada.

Please be aware that other regulations may apply.

---

#### TELEPHONE NUMBERS

Emergency 24 hr. (519) 339-2145  
Technical Info. (800) 268-3183

#### MANUFACTURER/SUPPLIER:

IMPERIAL OIL  
Products Division  
240 4th Avenue S.W.  
Calgary, Alberta  
T2P 3M9

---

## 2. REGULATED COMPONENTS

The following components are defined in accordance with sub-paragraph 13(a) (i) to (iv) or paragraph 14(a) of the Hazardous Products Act:

NAME	%	CAS #
Light hydrotreated distillate	55-65 % V/	64742-47-8 LD50:>5g/Kg,orl,rat LD50:>3 g/Kg,skn,rbt

---

## 3. TYPICAL PHYSICAL & CHEMICAL PROPERTIES

Physical State: Liquid  
 Specific gravity: not available  
 Viscosity: 29.00 cSt at 40 deg C  
 Vapour Density: not available  
 Boiling Point: 340 to 615 deg C  
 Evaporation rate: <0.1 (1= n-butylacetate)  
 Solubility in water: negligible  
 Freezing/Pour Point: -36 deg C ASTM D97  
 Odour Threshold: not available  
 Vapour Pressure: <0.1 kPa at 20 deg C  
 Density: 0.89 g/cc at 15 deg C  
 Appearance/odour: Dark blue oil, petroleum odour.

---

## 4. HEALTH HAZARD INFORMATION

### NATURE OF HAZARD

#### INHALATION:

Negligible hazard at normal temperatures (up to 38 deg C).  
 Elevated temperatures or mechanical action may form vapours, mists or fumes which may be irritating to the eyes, nose, throat and lungs.  
 High vapour concentrations are irritating to the eyes, nose, throat and lungs; may cause headaches and dizziness; may be anesthetic and may cause other central nervous system effects.  
 Avoid breathing vapours or mists.

#### EYE CONTACT:

Slightly irritating, but will not injure eye tissue.

#### SKIN CONTACT:

Low toxicity.  
 Frequent or prolonged contact may irritate the skin and cause a skin rash (dermatitis).

#### INGESTION:

Low toxicity.

**ACUTE TOXICITY DATA:**

Based upon animal test data from similar materials and products, the acute toxicity of this product is expected to be:

Oral : LD50 > 5000 mg/kg (Rat)  
Dermal : LD50 > 2000 mg/kg (Rabbit)

**OCCUPATIONAL EXPOSURE LIMIT:**

Manufacturer Recommends:

For total organic vapor, 300 ppm recommended based on Light Hydrotreated Distillate.

For oil mists, 5 mg/m3 recommended based on the ACGIH TLV.

Local regulated limits may vary.

---

## 5. FIRST AID MEASURES

**INHALATION:**

In emergency situations use proper respiratory protection to immediately remove the affected victim from exposure. Administer artificial respiration if breathing has stopped. Keep at rest. Call for prompt medical attention.

**EYE CONTACT:**

Flush eyes with large amounts of water until irritation subsides. If irritation persists, get medical attention.

**SKIN CONTACT:**

Flush with large amounts of water. Use soap if available. Remove severely contaminated clothing (including shoes) and launder before reuse.

If irritation persists, seek medical attention.

**INGESTION:**

If swallowed, DO NOT induce vomiting. Keep at rest. Get prompt medical attention.

---

## 6. PREVENTIVE AND CORRECTIVE MEASURES

**PERSONAL PROTECTION:**

The selection of personal protective equipment varies, depending upon conditions of use.

In open systems where contact is likely, wear safety goggles, chemical-

resistant overalls, and chemically impervious gloves.

Where only incidental contact is likely, wear safety glasses with side shields. No other special precautions are necessary provided skin/eye contact is avoided.

Where concentrations in air may exceed the occupational exposure limits given in Section 4 and where engineering, work practices or other means of exposure reduction are not adequate, approved respirators may be necessary to prevent overexposure by inhalation.

**ENGINEERING CONTROLS:**

The use of local exhaust ventilation is recommended to control emissions near the source. Laboratory samples should be handled in a fumehood. Provide mechanical ventilation of confined spaces.

**HANDLING, STORAGE AND SHIPPING:**

Keep containers closed. Handle and open containers with care.

Store in a cool, well ventilated place away from incompatible materials. In keeping with good personal hygiene practices, wash hands thoroughly after handling the material.

Do not handle or store near an open flame, sources of heat, or sources of ignition.

Store and load at normal (up to 38 deg C) temperature and at atmospheric pressure.

Empty containers may contain product residue. Do not pressurize cut, heat, or weld empty containers. Do not reuse empty containers without commercial cleaning or reconditioning.

**LAND SPILL:**

Eliminate source of ignition. Keep public away. Prevent additional discharge of material, if possible to do so without hazard.

Prevent spills from entering sewers, watercourses or low areas. Contain spilled liquid with sand or earth. Do not use combustible materials such as sawdust.

Recover by pumping (use an explosion proof motor or hand pump), or by using a suitable absorbent.

Consult an expert on disposal of recovered material. Ensure disposal in compliance with government requirements and ensure conformity to local disposal regulations. Notify the appropriate authorities immediately. Take all additional action necessary to prevent and remedy the adverse effects of the spill.

**WATER SPILL:**

Remove from surface by skimming or with suitable absorbents. If allowed by local authorities and environmental agencies, sinking and/or suitable dispersants may be used in unconfined waters.

Consult an expert on disposal of recovered material. Ensure disposal in compliance with government requirements and ensure conformity to local disposal regulations. Notify the appropriate authorities immediately. Take all additional action necessary to prevent and remedy the adverse effects of the spill.

## 7. FIRE AND EXPLOSION HAZARD

Flashpoint and method: 80 deg C PMCC ASTM D93

Autoignition: NA Flammable Limits: LEL: NA UEL: NA

### GENERAL HAZARDS:

Combustible Liquid; may form combustible mixtures at or above the flash point.

Decomposes; flammable/toxic gases will form at elevated temperatures (thermal decomposition).

Toxic gases will form upon combustion.

### FIRE FIGHTING:

Use water spray to cool fire exposed surfaces and to protect personnel. Shut off fuel to fire.

Use foam, dry chemical or water spray to extinguish fire.

Respiratory and eye protection required for fire fighting personnel.

Avoid spraying water directly into storage containers due to danger of boilover.

A self-contained breathing apparatus (SCBA) should be used for all indoor fires and any significant outdoor fires. For small outdoor fires, which may easily be extinguished with a portable fire extinguisher, use of an SCBA may not be required.

### HAZARDOUS COMBUSTION PRODUCTS:

Smoke, carbon monoxide, carbon dioxide and trace amounts of oxides of nitrogen and sulphur

Various metal oxides

---

## 8. REACTIVITY DATA

### STABILITY:

This product is stable. Hazardous polymerization will not occur.

### INCOMPATIBLE MATERIALS AND CONDITIONS TO AVOID:

Strong oxidizing agents

### HAZARDOUS DECOMPOSITION:

Smoke, carbon monoxide, carbon dioxide and trace amounts of oxides of nitrogen and sulphur

Various metal oxides

---

## 9. NOTES

REVISION SUMMARY:

Since 25 February 2000, this MSDS has been revised in Section(s):

7

---

## 10. PREPARATION

Date Prepared: January 25, 2003  
Prepared by: Lubricants & Specialties  
IMPERIAL OIL  
Products Division  
240 4th Avenue S.W.  
Calgary, Alberta  
T2P 3M9  
(800) 268-3183

---

CAUTION: " The information contained herein relates only to this product or material and may not be valid when used in combination with any other product or material or in any process. If the product is not to be used for a purpose or under conditions which are normal or reasonably foreseeable, this information cannot be relied upon as complete or applicable. For greater certainty, uses other than those described in Section 1 must be reviewed with the supplier. The information contained herein is based on the information available at the indicated date of preparation. This MSDS is for the use of Imperial Oil customers and their employees and agents only. Any further distribution of this MSDS by Imperial Oil customers is prohibited without the written consent of Imperial Oil."

# Material Safety Data Sheet

24 Hour Assistance:  
1-847-367-7700  
ROC.

## Section 1 - Chemical Product / Company Information

Product Name: Flat Black  
Identification Number: 208336  
Product Use/Class: Rust Preventive Enamel/Alkyd  
Supplier: Orgill Incorporated  
2100 Latham Street  
Memphis, TN 38109  
USA  
Preparer: Department, Regulatory

Revision Date: 12/11/2002

Manufacturer: ROC Sales Inc.  
8105 95th St.  
Pleasant Prairie, WI 53158  
USA

## Section 2 - Composition / Information On Ingredients

<u>Chemical Name</u>	<u>CAS Number</u>	<u>Weight % Less Than</u>	<u>ACGIH TLV-TWA</u>	<u>ACGIH TLV-STEL</u>	<u>OSHA PEL-TWA</u>	<u>OSHA PEL-CEILING</u>
Calcium Carbonate	1317-65-3	50.0	10mg/m3	N.E.	15mg/m3	N.E.
Stoddard Solvents	8052-41-3	30.0	100ppm	N.E.	100ppm	N.E.
Carbon Black	1333-86-4	5.0	3.5 mg/m3	N.E.	3.5 mg/m3	N.E.

## Section 3 - Hazards Identification

\*\*\* Emergency Overview \*\*\*: Harmful if inhaled. May affect the brain or nervous system causing dizziness, headache or nausea. Combustible liquid and vapor. Harmful if swallowed. Causes eye irritation. Vapors irritating to eyes and respiratory tract.

Effects Of Overexposure - Eye Contact: Causes eye irritation.

Effects Of Overexposure - Skin Contact: May cause skin irritation.

Effects Of Overexposure - Inhalation: High vapor concentrations are irritating to the eyes, nose, throat and lungs. May cause headaches and dizziness. Harmful if inhaled.

Effects Of Overexposure - Ingestion: Aspiration hazard if swallowed; can enter lungs and cause damage. Substance may be harmful if swallowed.

Effects Of Overexposure - Chronic Hazards: Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage.

Contains carbon black. Chronic inflammation, lung fibrosis, and lung tumors have been observed in some rats experimentally exposed for long periods of time to excessive concentrations of carbon black and several insoluble fine dust particles. Tumors have not been observed in other animal species (i.e., mouse and hamper) under similar circumstances and study conditions. Epidemiological studies of North American workers show no evidence of clinically significant adverse health effects due to occupational exposure to

carbon black.

Carbon black is listed as a Group 2B-"Possibly carcinogenic to humans" by IARC and is proposed to be listed as A4- "not classified as a human carcinogen" by the American Conference of Governmental Industrial Hygienists. Significant exposure is not anticipated during brush application or drying. Risk of overexposure depends on duration and level of exposure to dust from repeated sanding of surfaces or spray mist and the actual concentration of carbon black in the formula.

Primary Route(s) Of Entry: Skin Contact, Skin Absorption, Inhalation, Eye Contact

## **Section 4 - First Aid Measures**

First Aid - Eye Contact: Hold eyelids apart and flush with plenty of water for at least 15 minutes. Get medical attention.

First Aid - Skin Contact: Wash with soap and water. Get medical attention if irritation develops or persists.

First Aid - Inhalation: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get immediate medical attention.

First Aid - Ingestion: Aspiration hazard: Do not induce vomiting or give anything by mouth because this material can enter the lungs and cause severe lung damage. Get immediate medical attention.

## **Section 5 - Fire Fighting Measures**

Flash Point: 104 F  
(Setaflash)

LOWER EXPLOSIVE LIMIT: 1.0 %  
UPPER EXPLOSIVE LIMIT : 22.7 %

Extinguishing Media: Dry Chemical, Foam, Water Fog

Unusual Fire And Explosion Hazards: Keep containers tightly closed.

Special Firefighting Procedures: Water may be used to cool closed containers to prevent pressure buildup and possible autoignition or explosion. Evacuate area and fight fire from a safe distance.

## **Section 6 - Accidental Release Measures**

Steps To Be Taken If Material Is Released Or Spilled: Dispose of according to local, state (provincial) and federal regulations. Do not incinerate closed containers. Contain spilled liquid with sand or earth. DO NOT use combustible materials such as sawdust.

## **Section 7 - Handling And Storage**

Handling: Wash thoroughly after handling. Wash hands before eating. Avoid contact with eyes. Avoid breathing vapor or mist. Follow all MSDS/label precautions even after container is emptied because it may retain product residues.

Storage: Keep containers tightly closed. Isolate from heat, electrical equipment, sparks and open flame. Keep away from heat, sparks, flame and sources of ignition. Keep container closed when not in use.

## **Section 8 - Exposure Controls / Personal Protection**

Engineering Controls: Prevent build-up of vapors by opening all doors and windows to achieve cross-ventilation. Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits.

Respiratory Protection: A NIOSH/MSHA approved air purifying respirator with an organic vapor cartridge or canister may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits.

Protection provided by air purifying respirators is limited. Use a positive pressure air supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air purifying respirators may not provide adequate protection. A respiratory protection program that meets OSHA 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant a respirator's use.

Skin Protection: Nitrile or Neoprene gloves may afford adequate skin protection. Use impervious gloves to prevent skin contact and absorption of this material through the skin.

Eye Protection: Use safety eyewear designed to protect against splash of liquids.

Other protective equipment: Refer to safety supervisor or industrial hygienist for further information regarding personal protective equipment and its application.

Hygienic Practices: Wash thoroughly with soap and water before eating, drinking or smoking.

## Section 9 - Physical And Chemical Properties

Boiling Range:	231 - 401 F	Vapor Density:	Heavier than Air
Odor:	Solvent Like	Odor Threshold:	ND
Appearance:	Black Liquid	Evaporation Rate:	Slower than Ether
Solubility in H2O:	Slight		
Freeze Point:	ND	Specific Gravity:	1.321
Vapor Pressure:	ND	PH:	NE
Physical State:	Liquid		

(See section 16 for abbreviation legend)

## Section 10 - Stability And Reactivity

Conditions To Avoid: Avoid all possible sources of ignition.

Incompatibility: Incompatible with strong oxidizing agents, strong acids and strong alkalies.

Hazardous Decomposition: When heated to decomposition it emits acrid smoke and irritating fumes. By open flame, carbon monoxide and carbon dioxide.

Hazardous Polymerization: Will not occur under normal conditions.

Stability: This product is stable under normal storage conditions.

## Section 11 - Toxicological Information

Product LD50: ND

### Chemical Name

Calcium Carbonate  
Stoddard Solvents  
Carbon Black

Product LC50: ND

### LD50

ND  
4900mg/kg(rat)  
N.A.

### LC50

ND  
N.E.  
N.A.

## Section 12 - Ecological Information

Ecological Information: Product is a mixture of listed components.

## Section 13 - Disposal Information

Disposal Information: Dispose of material in accordance to local, state and federal regulations and ordinances. Do not allow to enter storm drains or sewer systems.

## Section 14 - Transportation Information

DOT Proper Shipping Name:	Paint	Packing Group:	III
DOT Technical Name:	---	Hazard Subclass:	---
DOT Hazard Class:	3	Resp. Guide Page:	127
DOT UN/NA Number:	UN 1263		

## Section 15 - Regulatory Information

### CERCLA - SARA Hazard Category

This product has been reviewed according to the EPA "Hazard Categories" promulgated under Sections 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III) and is considered, under applicable definitions, to meet the following categories:

IMMEDIATE HEALTH HAZARD, CHRONIC HEALTH HAZARD, FIRE HAZARD

### SARA Section 313:

Listed below are the substances (if any) contained in this product that are subject to the reporting requirements of Section 313 of Title III of the Superfund Amendment and Reauthorization Act of 1986 and 40 CFR part 372:

### Toxic Substances Control Act:

Listed below are the substances (if any) contained in this product that are subject to the reporting requirements of TSCA 12(B) if exported from the United States:

### U.S. State Regulations: As follows -

#### New Jersey Right-to-Know:

The following materials are non-hazardous, but are among the top five components in this product.

<u>Chemical Name</u>	<u>CAS Number</u>
ALKYD RESIN SOLUTION	66070-60-8

#### Pennsylvania Right-to-Know:

The following non-hazardous ingredients are present in the product at greater than 3%.

<u>Chemical Name</u>	<u>CAS Number</u>
ALKYD RESIN SOLUTION	66070-60-8

**California Proposition 65:**

Warning: The following ingredients present in the product are known to the state of California to cause Cancer:

**Chemical Name**

Silicon Dioxide (Quartz)

**CAS Number**

14808-60-7

Warning: The following ingredients present in the product are known to the state of California to cause birth defects, or other reproductive hazards.

**Chemical Name**

Toluene

**CAS Number**

108-88-3

**International Regulations: As follows -**

**CANADIAN WHMIS:**

This MSDS has been prepared in compliance with Controlled Product Regulations except for the use of the 16 headings.

**CANADIAN WHMIS CLASS:** B3 D2B

**Section 16 - Other Information**

**HMIS Ratings:**

Health: 2\*

Flammability: 2

Reactivity: 0

Personal Protection: X

**VOLATILE ORGANIC COMPOUNDS, g/l:** 402

**REASON FOR REVISION:** Regulatory Update

**Legend:** N.A. - Not Applicable, N.E. - Not Established, N.D. - Not Determined

The information contained on this MSDS has been checked and should be accurate. However, it is the responsibility of the user to comply with all Federal, State, and Local laws and regulations.



DISTRIBUTED BY: **Josef Gas.**

## MATERIAL SAFETY DATA SHEET

PRODUCT IDENTIFIER: **OXYGEN, REFRIGERATED LIQUID**

Product Name(s): LIQUID OXYGEN Formula: O<sub>2</sub>

Synonym(s): L.O.X. Chemical Family: ELEMENT

PRODUCT USE(S): To provide life support to hospital/ Home patients, to increase rate of combustion or burning in industrial appl. To replace chlorine for pulp bleaching  
W.H.M.I.S. Classification Class(es): A, C

---

### HAZARDOUS INGREDIENTS:

INGREDIENT PARAMETERS	C.A.S. / P.I.N. NUMBER(S)	CONC. % VOL./VOL.	L.D. 50 (Species & Route)	L.C. 50 (Species & Route)
OXYGEN	7782447/1073	APPR. 100	NOT APPL.	NOT APPL.

---

### PHYSICAL DATA

PHYSICAL STATE: Gas @ N.T.P.  
ODOUR AND APPEARANCE: Colourless and Odourless  
ODOUR THRESHOLD: NONE  
SPECIFIC GRAVITY (air=1): 1.14 (@ Boiling Point)  
VAPOUR PRESSURE: Container Rated Pressure  
VAPOUR DENSITY: 1.05  
EVAPORATION RATE: Not Applicable  
BOILING POINT: -183.0°C  
FREEZING POINT: -218.4°C  
pH: Not Applicable  
COEFFICIENT OF WATER/OIL DISTRIBUTION: Not Available  
SOLUBILITY IN WATER: 0.0489(vol./vol.)  
% VOLATILES: 100

FOR TRANSPORT EMERGENCY CALL COLLECT CANUTEC TEL: 1-613-996-6666

UYI 113-2

## FIRE OR EXPLOSION HAZARDS

CONDITIONS OF FLAMMABILITY:	NONE. Oxygen will support or sustain combustion of other materials. Some materials that do not burn in air may ignite when the Oxygen concentration increase above 21%.		
MEANS OF EXTINCTION:	Cool containers with water spray. Extinguish surrounding fire(s). Oxygen will not burn but it will sustain the combustion of surrounding materials.		
FLASH POINT:	NONE		
UPPER FLAMMABLE LIMIT:	NONE	LOWER FLAMMABILITY LIMIT:	NONE
AUTOIGNITION TEMPERATURE:	NONE		
HAZARDOUS COMBUSTION PRODUCTS:	NONE		
SENSITIVITY TO MECHANICAL IMPACT:	NONE		
SENSITIVITY TO STATIC DISCHARGE:	NONE		
SPECIAL PROCEDURES:	Evacuate areas where a leak or a spill is present. Fight surrounding fires as the case may be. Do not use water on the source of leak to avoid ice formation that may obstruct the operation of Safety Relief Devices.		

---

## REACTIVITY DATA

CONDITIONS OF CHEMICAL UNSTABILITY:	NONE
INCOMPATIBILITY:	All combustible, organic materials. All reducing agents. Alkali metals.
CONDITIONS OF REACTIVITY:	Oxygen reacts readily with most organic compounds.
HAZARDOUS DECOMPOSITION PRODUCTS:	NONE

---

## TOXICOLOGICAL PROPERTIES

ROUTE OF ENTRY	
SKIN (CONTACT):	YES
SKIN (ABSORPTION):	NO
EYE CONTACT:	YES
INHALATION:	YES
INGESTION:	YES
EFFECTS OF ACUTE EXPOSURE:	Exposure to PURE oxygen (for prolonged periods at pressures higher than atmospheric) may cause nausea, dizziness, pulmonary damages, epileptic seizures, death. Such effects have been reported as a function of the pressure. Acute exposure to Liquid oxygen is unlikely since the product will vaporize at room temperatures. Short term contact with Liquid oxygen may cause frostbite.
EFFECTS OF CHRONIC EXPOSURE:	NONE KNOWN
EXPOSURE LIMITS:	Not applicable
IRRITANCY:	Lung irritant when PURE and at pressures higher than atmospheric.
SENSITIZATION:	NONE
CARCINOGENICITY:	NONE
REPRODUCTIVE TOXICITY:	NONE
TERATOGENICITY:	NONE
MUTAGENICITY:	NONE
TOXIC SYNERGISTIC PRODUCTS:	NONE

UYI 113-3

## FIRST AID

EYE: Contact with Liquid Oxygen may cause frostbite. Rinse with lukewarm water for 15 minutes. Obtain medical attention.  
INGESTION: Contact with Liquid Oxygen may cause frostbite. Rinse with lukewarm water for 15 minutes. Obtain medical attention.  
INHALATION: Exposure to PURE Oxygen for a prolonged period (from 5 minutes @ 100psig. to 5 hours @ 1 atm.) have been reported to cause pulmonary irritation, edema. Reduce pressure, move to fresh air where possible. Obtain medical attention.  
SKIN: Contact with Liquid Oxygen may cause frostbite. Rinse with lukewarm water for 15 minutes. Obtain medical attention.

## PREVENTIVE MEASURES

### PERSONAL PROTECTION

EYE: Faceshield to prevent contact with cold liquid.  
HAND: Insulated gloves to prevent contact with cold liquid or insulated containers.  
FEET: Safety footwear where applicable.  
CLOTHING: Long sleeves, trousers recommended.  
RESPIRATOR: Not applicable.

ENGINEERING CONTROLS: Provide ventilation. Keep oil, grease, combustible materials away.

SPILL AND LEAK PROCEDURE: Remove all sources of ignition. Clear the area, Spills on combustible surfaces may cause a fire hazard. Ventilate for 2 hours after the frost has disappeared on the surface before walking on it. Try to stop the leak at source if without risk. Gas will dissipate depending on the site/area ventilation. Verify oxygen concentration prior to re-entry.

WASTE DISPOSAL: No wastes may be generated other than empty containers

HANDLING PROCEDURES & EQUIPMENT: Keep away from Oil, Grease, Combustible, Flammable materials. Use appropriate carts for moving containers. Secure container when in use. Close the container valve when NOT in use, or when empty.

STORAGE REQUIREMENTS: Store in well ventilated areas. Keep away from sources of ignition. Keep containers upright.

SPECIAL SHIPPING INFORMATION: Transport upright in well-ventilated vehicle. Do not transport in trunk of enclosed vehicle. Commercial (cylinders) quantities may NOT be transported in passenger compartments.

---

T.D.G. SHIPPING NAME: Oxygen, Refrigerated Liquid T.D.G. CLASSIFICATION CLASS(ES): 2.2 (5.1)

T.D.G. P.I.N. / U.N. : 1073

PREPARED BY: **JOSEF GAS**  
TEL: (416) 658-1212  
EFFECTIVE DATE: JANUARY 1 2016



Fire Protection Products, Inc.  
3198 Lionshead Avenue  
Carlsbad, CA 92010  
Phone: (760) 599-1168  
Fax: (800) 344-3775

# SAFETY DATA SHEET

Last Updated: 07-20-2015

Section 1		IDENTIFICATION
<b>PipeFit®</b>		
<u>PipeFit Pint BIC</u> <u>PipeFit Qt. Flat top</u> <u>PipeFit Qt. BIC</u>	<u>PipeFit 5 gal</u> <u>PipeFit 55 gal</u>	
<u>Manufacturer Information</u> Fire Protection Products, Inc. 3198 Lionshead Avenue Carlsbad, CA 92010 Phone: (760) 599-1168 Fax: 1-800-344-3775	<u>Emergency Contact</u> CHEMTREC 1300 Wilson Boulevard Arlington, VA 22209-2380 Phone: (800)424-9300 International: +1 (703) 527-3887	
<b>Product Use</b>	Pipe thread sealant	
Section 2		HAZARDS IDENTIFICATION
<b>Hazard Classification</b>	Non-hazardous	
Eye Irrit. 2A, H319 Aquatic Acute 1, H400 Aquatic Chronic 3, H412	Warning	
<b>Hazard Statements</b>	Causes eye irritation May cause skin irritation May cause respiratory irritation	
<b>Precautionary Statements</b>	Avoid contact with skin and eyes. Do not breathe fumes. Always wash hands immediately after handling this product, and once again before leaving the workplace.	
<b>Prevention</b>	Avoid contact with skin and eyes. Wear suitable gloves. Do not eat, drink, or smoke when using this product.	

<b>Response</b>	<p>IF ON SKIN: Wash with plenty of soap and water. If skin irritation occurs; get medical advice/attention.</p> <p>IF INHALED: Remove person to fresh air and keep comfortable during breathing.</p> <p>IF IN EYES: Immediately flush eyes with plenty of water. Irrigate copiously with clean, fresh water for at least 15 minutes, holding the eyelids apart. Obtain medical attention if pain, blinking or redness persists.</p> <p>Never give anything by mouth to an unconscious person. Get medical attention/advice if you feel unwell.</p>	
<b>Storage</b>	<p>Storage conditions: Keep container closed when not in use.</p> <p>Incompatible products: Strong acids. Strong bases. Strong oxidizers. Solvents.</p> <p>Heat and ignition sources: Keep away from heat, sparks and flame.</p> <p>Prohibitions on mixed storage: Incompatible materials.</p> <p>Storage area: Store in dry, cool, well-ventilated area.</p>	
<b>Disposal</b>	<p>Sewage disposal recommendations: Do not dispose of waste into sewer.</p> <p>Waste disposal recommendations: Dispose in a safe manner in accordance with local/national regulations.</p> <p>Ecology - waste materials: Avoid release to the environment.</p>	
<b>Section 3 COMPOSITION/INFORMATION ON INGREDIENTS</b>		
<b>Component Name</b>	<b>CAS Number</b>	<b>0 - 0.22</b>
Phosphorodithioic acid, O,O-di-C1-14- alkyl esters, zinc salts	68649-42-3	0 - 0.22
<b>Section 4 FIRST AID MEASURES</b>		
<b>Inhalation</b>	May cause irritation, coughing, shortness of breath.	
<b>Skin</b>	Wash with plenty of soap and water. If skin irritation occurs; get medical advice/attention.	
<b>Eye</b>	Immediately flush eyes with plenty of water. Irrigate copiously with clean, fresh water for at least 15 minutes, holding the eyelids apart. Obtain medical attention if pain, blinking or redness persists.	
<b>Ingestion</b>	Get medical advice/attention if you feel unwell.	
<b>Symptoms</b>	Inhalation may cause: irritation, coughing, shortness of breath.	
<b>Medical Care</b>	Treat symptomatically. Never give anything by mouth to an unconscious person. Get medical attention/advice if you feel unwell.	
<b>Section 5 FIRE FIGHTING MEASURES</b>		
<b>Flash Point</b>	150 °C	
<b>Extinguishing Media</b>	Carbon dioxide. Dry chemical. Foam. Water Spray.	
<b>Special Firefighting Procedures/Equipment</b>	<p>Firefighting instructions: Cool adjacent structures and containers with water spray to protect and prevent ignition.</p> <p>Protection during firefighting: Do not enter fire area without proper protective equipment, including respiratory protection. Use self-contained breathing apparatus. Remove all unprotected personnel.</p>	
<b>Unusual Fire and Explosion Hazards</b>	<p>Fire hazard: Burning produces irritating, toxic and noxious fumes.</p> <p>Explosion hazard: Product is not explosive.</p> <p>Reactivity: No dangerous reactions known.</p>	

<b>Additional Information</b>	No known unsuitable extinguishing media.		
<b>Section 6</b>		<b>ACCIDENTAL RELEASE MEASURES</b>	
<b>Personal Precautions</b>	General Measures: Avoid contact with skin and eyes. Wear suitable gloves. Emergency Responders: Wear suitable gloves. Evacuate unnecessary personnel. Stop leak if safe to do so. Ventilate area.		
<b>Environmental Precautions</b>	Prevent entry to sewers and public waters.		
<b>Methods and Materials Use for Containment</b>	Do not allow minor leaks or spills to accumulate on walking surfaces. Contain and collect as any solid.		
<b>Methods for Clean Up</b>	Section 13: disposal information. Section 7: safe handling.		
<b>Section 7</b>		<b>HANDLING AND STORAGE</b>	
<b>Handling</b>	Avoid contact with skin and eyes. Do not breathe fume. Always wash your hands immediately after handling this product, and once again before leaving the workplace. Do not eat, drink or smoke when using this product.		
<b>Storage</b>	Storage conditions: Keep container closed when not in use. Incompatible products: Strong acids. Strong bases. Strong oxidizers. Solvents. Heat and ignition sources: Keep away from heat, sparks and flame. Prohibitions on mixed storage: Incompatible materials. Storage area: Store in dry, cool, well-ventilated area.		
<b>Section 8</b>		<b>EXPOSURE CONTROLS/ PERSONAL PROTECTION</b>	
<b>Exposure Guidelines</b>			
<b>Components</b>	<b>CAS-No.</b>	<b>Type</b>	<b>Value</b>
Phosphorodithioic acid, O,O-di-C1-14-alkyl esters, zinc salts	68649-42-3	ACGIH: not applicable OSHA: not applicable	No established limit.
<b>Engineering Controls</b>	Avoid creating mist or spray. Ensure good ventilation of the work station.		
<b>Personal Protection</b>	Eye protection: None under normal use.		
	Hand protection: In case of repeated or prolonged contact wear gloves.		
	Respiratory Protection: None under normal use.		
<b>General Measures</b>	Keep out of reach of children. Do not eat, drink or smoke when using this product.		
<b>Section 9</b>		<b>PHYSICAL AND CHEMICAL PROPERTIES</b>	
<b>Appearance:</b> White paste		<b>Evaporation Rate:</b> No data available	
<b>Odor:</b> Mild		<b>Flammability:</b> No data available	
<b>Odor Threshold:</b> No data available		<b>Upper/lower Flammability and/or Explosive Limits:</b> No data available	
<b>pH:</b> No data available		<b>Vapor Pressure:</b> No data available	
<b>Melting Point/Freezing Point:</b> No data available		<b>Vapor Density:</b> No data available	
<b>Boiling Point and Boiling Range:</b> 177 °C		<b>Relative Density:</b> 1.48	

<b>Flash Point:</b> 150 °C	<b>Solubility:</b> Insoluble in water
<b>Partition Coefficient:</b> No data available	<b>Auto-Ignition Temperature:</b> No data available
<b>Decomposition Temperature:</b> No data available	<b>Viscosity:</b> No data available
<b>VOC content:</b> 0 g/L	
<b>Section 10 STABILITY AND REACTIVITY</b>	
<b>Reactivity</b>	No dangerous reactions known.
<b>Chemical Stability</b>	Stable under normal conditions.
<b>Possibility of Hazardous Reactions</b>	Hazardous polymerization will not occur.
<b>Conditions to Avoid</b>	Heat and open flame.
<b>Incompatible Materials</b>	Strong acids. Strong bases. Strong oxidizers. Solvents.
<b>Hazardous Decomposition</b>	Carbon oxides (CO, CO <sub>2</sub> ). Hydrogen fluoride. Perfluoro- carbon olefins.
<b>Section 11 TOXICOLOGICAL INFORMATION</b>	
<b>Ingestion Toxicity</b>	0.22 percent of the mixture consists of ingredient(s) of unknown acute toxicity. LD50 oral rat: 26100 mg/kg ATE CLP (oral) 26100.000 mg/kg bodyweight
<b>Skin Toxicity</b>	Not Classified.
<b>Eye Irritation</b>	Not Classified.
<b>Respiratory Irritation</b>	Not Classified.
<b>Chronic Toxicity</b>	Not Classified.
<b>Carcinogenicity</b>	Not Classified.
<b>Other</b>	Potential adverse human health effects and symptoms: AFTER INHALATION: may cause irritation, coughing, shortness of breath. LIKELY ROUTES OF EXPOSURE: ingestion, skin and eye contact.
<b>Section 12 ECOLOGICAL INFORMATION</b>	
<b>Ecotoxicity</b>	Phosphorodithioic acid, O,O-di-C1-14-alkyl esters, zinc salts (68649-42-3) LC50 fish 1 10 (10 - 35) mg/l Pimephales promelas OECD GDL 203 (water accomodated fraction) EC50 Daphnia 1 1 (1 - 1.5) mg/l OECD GDL 202 (water accomodated fraction) NOEC (acute) 10 mg/l Pimephales promelas OECD GDL 203 (water accomodated fraction) NOEC chronic crustacea < 1 mg/l
<b>Degradability</b>	Not readily biodegradable.

<b>Other</b>	N/A
<b>Section 13</b> <span style="float: right;"><b>DISPOSAL CONSIDERATIONS</b></span>	
<b>Waste Disposal Method</b>	Sewage disposal recommendations: Do not dispose of waste into sewer. Waste disposal recommendations: Dispose in a safe manner in accordance with local/national regulations. Ecology - waste materials: Avoid release to the environment.
<b>Section 14</b> <span style="float: right;"><b>TRANSPORT INFORMATION</b></span>	
<b>UN Number</b>	Not applicable
<b>UN Proper Shipping Name</b>	Not applicable
<b>Transport Hazard Class</b>	In accordance with DOT and TDG. Not considered a dangerous good for transport regulations.
<b>Canadian Transportation of Dangerous Goods</b>	Listed on the Canadian DSL (Domestic Substances List) inventory.
<b>Marine Pollutants</b>	Do not dispose of waste into sewer.
<b>Special Precautions</b>	No additional information available.
<b>Section 15</b> <span style="float: right;"><b>REGULATORY INFORMATION</b></span>	
<b>TSCA Status</b>	Phosphorodithioic acid, O,O-di-C1-14-alkyl esters, zinc salts (68649-42-3) Listed on the United States TSCA (Toxic Substances Control Act) inventory
<b>SARA 311/312 Hazards</b>	Exposure under fire conditions would offer no hazard beyond that of ordinary combustible materials.
	Must be preheated before ignition can occur.
	Normally stable, even under fire exposure conditions, and not reactive with water.
<b>California Prop 65</b>	Not applicable.
<b>DSL Status (Canada)</b>	Phosphorodithioic acid, O,O-di-C1-14-alkyl esters, zinc salts (68649-42-3) Listed on the Canadian DSL (Domestic Substances List) inventory.
<b>Section 16</b> <span style="float: right;"><b>OTHER INFORMATION</b></span>	
<b>Additional Information</b>	There are no Red List materials included in this product.
<b>Prepared By</b>	Human Resource Department
<b>Revised Date</b>	7/20/15
<b>Disclaimer</b>	Although the information and recommendations set forth herein are presented in good faith and believed to be correct as of the date hereof, Fire Protection Products, Inc. makes no representations as to the completeness or accuracy thereof. Fire Protection Products, Inc. makes no warranty whatsoever, expressed or implied, of merchantability or fitness for the particular purpose since the conditions of use are beyond our control. Fire Protection Products, Inc. assumes no responsibility for injury to recipient or to third persons for any damage to any property and recipient.

# Safety Data Sheet

## Per GHS Standard Format

### SECTION 1: CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

#### Product Identifier

**Product Name:** Piranha 4 No. 5740

**Recommended Use of Product:** Paint Remover

#### Information on the Supplier of the Safety Data Sheet

Manufactured For:  
Fiberlock Technologies, Inc.  
150 Dascomb Road  
Andover, MA 01810  
P: 800-342-3755 F: 978-475-6205

Emergency Telephone Numbers:  
CHEM TEL: (U.S.): 1-800-255-3924  
(Outside the U.S.): 813-248-0585

### SECTION 2: HAZARDS IDENTIFICATION

Signal Word: **DANGER**



#### **GHS Classifications**

This product is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Flammable liquids – Category 4

Eye irritation – Category 2A

Reproductive toxicity – Category 1B

Specific target organ systemic toxicity (single exposure) – Category 3

#### **GHS Label Statements**

Hazard Statements:

Harmful if swallowed.

Causes eye irritation on contact.

Avoid skin contact.

#### **PRECAUTIONARY STATEMENTS**

**Prevention:** Obtain special instructions before use. Keep away from heat/sparks/open flames/hot surfaces. No smoking. Avoid breathing dust/fume/gas/mist/vapors/spray. Wash hands thoroughly after handling. Use only outdoors or in a well-ventilated area. Wear protective gloves/protective clothing/eye protection/face protection.

**Response:** In case of fire: Use dry chemical, carbon dioxide, water spray, or alcohol-resistant foam. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. IF exposed or concerned: Get medical advice/attention.  
**Storage:** Store in a well-ventilated place. Keep container tightly closed. Keep cool.  
**Disposal:** Dispose of contents/container in accordance with local/regional/national/international regulations.

### **Potential Health Effects**

**Eye:** May cause eye irritation. Symptoms including stinging, tearing and redness.

**Skin:** Short contact may cause slight reddening or no irritation. Prolonged or frequently repeated contact can cause irritation, defatting, dermatitis and may result in absorption of harmful amounts. Some ingredients in this product may be absorbed through intact skin and product toxic effects similar to swallowing.

**Ingestion:** Ingestion can cause severe internal irritation.

**Inhalation:** If mists or vapors are generated at high concentrations, may cause pallor, nausea, anesthetic or narcotic effects, blurred vision and irritation of the upper respiratory passages.

**Chronic Overexposure Information:** No data available

**Teratology and Reproduction Information:** n-methyl-2-pyrrolidone, a component of this product, was reported to be fetotoxic and to increase the incidence of skeletal abnormalities when administered dermally to rats at a dosage of 750 mg/kg during gestation (Fund. and Appl. Tox 2:73-6, 1982)

**Aggravation of Pre-Existing Conditions:** Skin contact may aggravate existing skin disease.

## **SECTION 3: COMPOSITION INFORMATION ON INGREDIENTS**

<u>Chemical Name</u>	<u>CAS No.</u>	<u>Weight, %</u>
n-methyl-2-pyrrolidone Exposure guidelines not listed	872-50-4	45-50
dimethyl adipate Exposure guidelines not listed	627-93-0	40-45
d-limonene Exposure guidelines not listed	5989-27-5	0-5

## **SECTION 4: FIRST AID MEASURES**

### **Eye Contact**

Flood with plenty of water with eyelids held open for at least 15 minutes and get medical attention promptly.

### **Skin Contact**

Remove contaminated clothing. Wash exposed area with soap and water. If symptoms persist, seek medical attention. Launder clothing before reuse.

### **Inhalation**

If symptoms develop, immediately move individual away from exposure and into fresh air. Seek immediate medical attention.

### **Ingestion**

Immediately give 1 or 2 glasses of water and call physician, hospital emergency room or poison control center for way to induce vomiting. Get medical attention promptly. Never give anything by mouth to an unconscious person. Aspiration of material into lungs can cause chemical pneumonitis which can be fatal.

### **Notes to Physician**

This material is an aspiration hazard. Potential danger from aspiration must be weighed against possible oral toxicity when deciding whether to induce vomiting.

## **SECTION 5: FIRE-FIGHTING MEASURES**

**Flammable Properties:** This product may burn, but will not ignite readily.

**Hazardous Combustion Products:** May form carbon dioxide and carbon monoxide, various hydrocarbons.

**Extinguishing Media:** Water fog, regular foam, carbon dioxide or dry chemical.

**Firefighting Procedures:** Keep personnel removed and upwind of fire. Wear full protective equipment. Wear self-contained breathing apparatus. Cool container with water spray.

## **SECTION 6: ACCIDENTAL RELEASE MEASURES**

**Small Spill:** Absorb liquid on paper, vermiculite, floor absorbent, or other absorbent material and shovel into containers.

**Large Spill:** Wipe or scrape up any material. Wash area thoroughly with detergent and water; ventilate adequately with good fresh air movement at floor level.

**Environmental Precautions:** No special precautions.

**Methods for Containment and Cleaning Up:** Absorb the liquid and scrub the area with detergent and water.

## **SECTION 7: HANDLING AND STORAGE**

### **Precautions for Safe Handling**

**Handling:** Wash thoroughly after handling.

## **Conditions for Safe Storage, Including any Incompatibilities**

**Storage:** Keep container tightly closed.

## **SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

**Airborne Exposure Limits:** See Section 3.

**Engineering Controls:** None required when used as intended.

### **Personal Protective Equipment**

**Eye/Face Protection:** Chemical goggles or safety glasses with side shield.

**Skin and Body Protection:** Use chemical-resistant gloves, if needed, to avoid prolonged or repeated skin contact.

**Respiratory Protection:** Wear an approved respirator if mists are generated.

## **SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**

**Appearance:** Thick liquid

**Odor:** Typical pine terpene

<b><u>Property</u></b>	<b><u>Values</u></b>
pH (1% in h20)	7-8
Melting/freezing point	No data available
Boiling point/boiling range	200°F
Flash Point	>200°F Method: Setafash closed cup
Evaporation rate	Less than ether
Flammability (solid, gas)	No data available
Upper explosive limit	No data available
Lower explosive limit	No data available
Vapor pressure	<1 mmHg 20°C
Vapor density	Heavier than air
Specific Gravity	1.042
Water Solubility	Dispersible
Solubility in other solvents	No data available
Partition coefficient: n-octanol/water	No data available
Autoignition temperature	No data available

## **SECTION 10: STABILITY AND REACTIVITY**

### **Chemical Stability (Conditions to Avoid)**

Stable

### **Incompatibility**

Avoid contact with strong oxidizing agents.

### **Possibility of Hazardous Reactions**

None under normal processing.

### **Hazardous Decomposition Products**

Carbon dioxide and carbon monoxide, various hydrocarbons.

### **Hazardous Polymerization**

Hazardous polymerization will not occur.

## **SECTION 11: TOXICOLOGICAL INFORMATION**

**Acute:** This product has not been tested as a whole.

**Subchronic:** This product has not been tested as a whole.

**Chronic/Carcinogenicity:** Not listed by ACGIH, IARC, NIOSH, NTP or OSHA.

**Routes of Exposure:** Inhalation, skin absorption, skin contact, eye contact and ingestion.

## **SECTION 12: ECOLOGICAL INFORMATION**

**Environmental Fate:** This product has no known adverse effect on ecology.

## **SECTION 13: DISPOSAL CONSIDERATIONS**

**Waste Disposal Method:** Small quantities may be deposited in general trash and residue flushed down drain with water. Large spills must be disposed of in accordance with local, state and federal regulations.

## **SECTION 14: TRANSPORT INFORMATION**

Land Transport (DOT)

Not regulated

## **SECTION 15: REGULATORY INFORMATION**

### **US Federal Regulations**

**TSCA:** The intentional ingredients of this product are listed.

**OSHA:** The intentional ingredients of this product are listed.

**CERCLA: SARA Hazard Category: Immediate/Health**

- Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains chemicals (marked in section 3) which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.
- Reportable Quantity: None of the chemicals in this material have an RQ.

### **US State Regulations**

**California Proposition 65:** The following statement is made in order to comply with the California Safe Drinking Water and Toxic Enforcement Act of 1986. This product contains a chemical(s) known to the state of California to cause cancer, birth defects, or other reproductive harm.

**Volatile Organic Compounds:** 50% by weight; 520 g/l, 4.33 lbs/g

## **SECTION 16: OTHER INFORMATION**

**NFPA Ratings:** 1, 1, 0

**Manufacturer Disclaimer:** Judgement of potential hazards of this product is based on information available about individual components listed under section 3 – Ingredients. Direct testing of mixture has not been done. Flash point has been tested. Information given herein is believed to be accurate and is given in good faith. However, no warranty either expressed or implied is made. It is strongly suggested that users confirm in advance of need that the information is current and applicable to their situation.

**WARNING!** If you scrape, sand or remove old paint, you may release lead dust. LEAD IS TOXIC. EXPOSURE TO LEAD DUST CAN CAUSE SERIOUS ILLNESS, SUCH AS BRAIN DAMAGE, ESPECIALLY IN CHILDREN. PREGNANT WOMEN SHOULD ALSO AVOID EXPOSURE. Wear NIOSH-approved respirator to control lead exposure. Clean up carefully with a HEPA vacuum and wet mop. Before you start, find out how to protect yourself and your family by contacting the National Lead Information Hotline at 1-800-424-LEAD (5323) or log on to: [www.epa.gov/lead](http://www.epa.gov/lead)

# SAFETY DATA SHEET

2319S v5.0  
en/US



## 1. Identification of the substance/mixture and of the company/undertaking

<b>Product name</b>	Plastic Cleaner	
<b>Product code</b>	2319S	Formula Date: 2005-11-08
<b>Intended use</b>	Cleaning agent for professional use	
	Axalta Coating Systems, LLC Applied Corporate Center 50 Applied Bank Boulevard, Suite 300 US Glen Mills, PA 19342	
<b>Telephone</b>	Product information	(855) 6-AXALTA
	Medical emergency	(855) 274-5698
	Transportation emergency	(800) 424-9300 (CHEMTREC)

## 2. Hazards identification

This preparation is hazardous per the following GHS criteria

### GHS-Classification

Flammable liquids	Category 2
Skin corrosion/irritation	Category 1A
Serious eye damage/eye irritation	Category 2A
Target Organ Systemic Toxicant - Single exposure	Category 3

Endpoints which are "not classified", "cannot classified" and "not applicable" are not shown.

### GHS-Labeling



Hazard symbols

Signal word

Danger

Hazard statements

Highly flammable liquid and vapour.  
May cause drowsiness or dizziness.  
Causes severe skin burns and eye damage.  
Causes serious eye irritation.

Precautionary statements

Keep away from heat/sparks/open flames/hot surfaces. - No smoking.  
Ground/bond container and receiving equipment.  
Use explosion-proof electrical/ventilating/lighting equipment.  
Use only non-sparking tools.  
Take precautionary measures against static discharge.  
Use only outdoors or in a well-ventilated area.  
Wear protective gloves/protective clothing/eye protection/face protection.  
Do not breathe dust or mist.  
IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
Immediately call a POISON CENTER or doctor/ physician.  
IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower.  
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
IF SWALLOWED: rinse mouth. Do NOT induce vomiting.  
Specific treatment (see supplemental first aid instructions on this label).  
If eye irritation persists: Get medical advice/ attention.

## SAFETY DATA SHEET

2319S v5.0  
en/US



Store in a well-ventilated place. Keep container tightly closed.  
Store locked up.  
Dispose of contents/container in accordance with local regulations.

### Other hazards which do not result in classification

Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal.

### The following percentage of the mixture consists of ingredient(s) with unknown acute toxicity:

0 %

## 3. Composition/information on ingredients

mixture of solvents

### Components

CAS-No.	Chemical Name	Concentration
67-63-0	Isopropyl alcohol	70 - 81%
64-19-7	Acetic acid	4 - 15%

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

Non-regulated ingredients 20 - 30%

OSHA Hazardous: Yes

## 4. First aid measures

### Eye contact

Remove contact lenses. Irrigate copiously with clean, fresh water for at least 15 minutes, holding the eyelids apart. Seek medical advice.

### Skin contact

Do NOT use solvents or thinners. Take off all contaminated clothing immediately. Wash skin thoroughly with soap and water or use recognized skin cleanser. If skin irritation persists, call a physician.

### Inhalation

Avoid inhalation of vapour or mist. Move to fresh air in case of accidental inhalation of vapours. If breathing is irregular or stopped, administer artificial respiration. If unconscious place in recovery position and seek medical advice. If symptoms persist, call a physician.

### Ingestion

If swallowed, seek medical advice immediately and show this container or label. Do NOT induce vomiting. Keep at rest.

### Most Important Symptoms/effects, acute and delayed

#### Inhalation

May cause nose and throat irritation. May cause nervous system depression characterized by the following progressive steps: headache, dizziness, nausea, staggering gait, confusion, unconsciousness. Reports have associated repeated and prolonged overexposure to solvents with permanent brain and nervous system damage.

## SAFETY DATA SHEET

2319S v5.0  
en/US



### Ingestion

May result in gastrointestinal distress.

### Skin or eye contact

May cause irritation or burning of the eyes. Repeated or prolonged liquid contact may cause skin irritation with discomfort and dermatitis.

### Indication of Immediate medical attention and special treatment needed if necessary

No data available on the product. See section 3 and 11 for hazardous ingredients found in the product.

## 5. Firefighting measures

### Suitable extinguishing media

Universal aqueous film-forming foam, Carbon dioxide (CO<sub>2</sub>), Dry chemical

### Extinguishing media which shall not be used for safety reasons

High volume water jet

### Hazardous combustion products

CO, CO<sub>2</sub>, smoke, and oxides of any heavy metals that are reported in "Composition, Information on Ingredients" section.

### Fire and Explosion Hazards

Flammable liquid. Vapor/air mixture will burn when an ignition source is present.

### Special Protective Equipment and Fire Fighting Procedures

Full protective flameproof clothing should be worn as appropriate. Wear self contained breathing apparatus for fire fighting if necessary. In the event of fire, cool tanks with water spray. Do not allow run-off from fire fighting to enter public sewer systems or public waterways.

## 6. Accidental release measures

### Procedures for cleaning up spills or leaks

Ventilate area. Remove sources of ignition. Prevent skin and eye contact and breathing of vapor. Wear a properly fitted air-purifying respirator with organic vapor cartridges (NIOSH approved TC-23C), eye protection, gloves and protective clothing. Confine, remove with inert absorbent, and dispose of properly.

### Environmental precautions

Do not let product enter drains. Notify the respective authorities in accordance with local law in the case of contamination of rivers, lakes or waste water systems.

## 7. Handling and storage

### Precautions for safe handling

Observe label precautions. Keep away from heat, sparks, flame, static discharge and other sources of ignition. VAPORS MAY CAUSE FLASH FIRE. Close container after each use. Ground containers when pouring. Do not transfer contents to bottles or unlabeled containers. Wash thoroughly after handling and before eating or smoking. Do not store above 49 °C (120 °F). If material is a coating: do not sand, flame cut, braze or weld dry coating without a NIOSH approved air purifying respirator with particulate filters or appropriate ventilation, and gloves. Combustible dust clouds may be created where operations produce fine material (dust). Avoid formation of significant deposits of material as they may become airborne and form combustible dust clouds. Build up of fine material should be cleaned using gentle sweeping or vacuuming in accordance with best practices. Cleaning methods (e.g. compressed air) which can generate potentially combustible dust clouds should not be used.

## SAFETY DATA SHEET

2319S v5.0  
en/US



### Advice on protection against fire and explosion

Solvent vapours are heavier than air and may spread along floors. Vapors may form explosive mixtures with air and will burn when an ignition source is present. Always keep in containers of same material as the original one. Never use pressure to empty container: container is not a pressure vessel. The accumulation of contaminated rags may result in spontaneous combustion. Good housekeeping standards and regular safe removal of waste materials will minimize the risks of spontaneous combustion and other fire hazards.

### Storage

#### Requirements for storage areas and containers

Observe label precautions. Store in a dry, well ventilated place away from sources of heat, ignition and direct sunlight. No smoking. Prevent unauthorized access. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

#### Advice on common storage

Store separately from oxidizing agents and strongly alkaline and strongly acidic materials.

OSHA/NFPA Storage Classification: IB

## 8. Exposure controls/personal protection

### Engineering controls and work practices

Provide adequate ventilation. This should be achieved by a good general extraction and -if practically feasible- by the use of a local exhaust ventilation. If these are not sufficient to maintain concentrations of particulates and solvent vapour below the OEL, suitable respiratory protection must be worn.

### National occupational exposure limits

CAS-No.	Chemical Name	Source	Time	Type	Value	Note
64-19-7	Acetic acid	ACGIH	15 min	STEL	15 ppm	
			8 hr	TWA	10 ppm	
		OSHA	8 hr	TWA	10 ppm	
		Dupont	8 & 12 hour	TWA	10 ppm	

\*\* STEL = Short term exposure limit.

TWA = Time-weighted average.

### Protective equipment

Personal protective equipment should be worn to prevent contact with eyes, skin or clothing.

### Respiratory protection

Do not breathe vapors or mists. Wear a properly fitted air-purifying respirator with organic vapor cartridges (NIOSH approved TC-23C) and particulate filter (NIOSH TC-84A) during application and until all vapors and spray mists are exhausted. In confined spaces, or in situations where continuous spray operations are typical, or if proper air-purifying respirator fit is not possible, wear a positive pressure, supplied-air respirator (NIOSH TC-19C). In all cases, follow respirator manufacturer's directions for respirator use. Do not permit anyone without protection in the painting area.

### Eye protection

Desirable in all industrial situations. Goggles are preferred to prevent eye irritation. If safety glasses are substituted, include splash guard or side shields.

### Skin and body protection

Neoprene gloves and coveralls are recommended.

## SAFETY DATA SHEET

2319S v5.0  
en/US



### Hygiene measures

Wash skin thoroughly with soap and water or use recognized skin cleanser. Do NOT use solvents or thinners.

### Environmental exposure controls

Do not let product enter drains. For ecological information, refer to Ecological Information Section 12.

## 9. Physical and chemical properties

### Appearance

Form: liquid    Colour: clear    Odour: Characteristic Paint Odor

Flash point	55 °F	
Lower Explosive Limit	2 %	
Upper Explosive Limit	12 %	
Evaporation rate	Slower than Ether	
Vapor pressure of principal solvent	36.8 hPa	
Water solubility	completely miscible	
Vapor density of principal solvent (Air = 1)	2.1	
Approx. Boiling Range	83 °C	
Approx. Freezing Range	Not applicable.	
Gallon Weight (lbs/gal)	6.94	
Specific Gravity	0.83	
Percent Volatile By Volume	100.00%	
Percent Volatile By Weight	100.00%	
Percent Solids By Volume	0.00%	
Percent Solids By Weight	0.00%	
pH (waterborne systems only)	No data available.	
Partition coefficient: n-octanol/water	no data available	
Ignition temperature	399 °C	DIN 51794
Decomposition temperature	Not applicable.	
Viscosity (23 °C)	Not applicable.	ISO 2431-1993
VOC* less exempt (lbs/gal)	6.7	
VOC* as packaged (lbs/gal)	5.5	

\* VOC less exempt (theoretical) and VOC as packaged (theoretical) are based upon the VOC of the packaged material at the point of manufacture.

## 10. Stability and reactivity

### Stability

Stable

### Conditions to avoid

Stable under recommended storage conditions.

### Materials to avoid

None reasonably foreseeable.

### Hazardous decomposition products

When exposed to high temperatures may produce hazardous decomposition products such as carbon monoxide and dioxide, smoke, oxides of nitrogen.

### Hazardous Polymerization

Will not occur.

## SAFETY DATA SHEET

2319S v5.0  
en/US



### Sensitivity to Static Discharge

Solvent vapors in air may explode if static grounding and bonding is not used during transfer of this product.

### Sensitivity to Mechanical Impact

None known.

## 11. Toxicological information

### Information on likely routes of exposure

#### Inhalation

May cause nose and throat irritation. May cause nervous system depression characterized by the following progressive steps: headache, dizziness, nausea, staggering gait, confusion, unconsciousness. Reports have associated repeated and prolonged overexposure to solvents with permanent brain and nervous system damage.

#### Ingestion

May result in gastrointestinal distress.

#### Skin or eye contact

May cause irritation or burning of the eyes. Repeated or prolonged liquid contact may cause skin irritation with discomfort and dermatitis.

### Delayed and immediate effects and also chronic effects from short and long term exposure:

#### Acute oral toxicity

not hazardous

#### Acute dermal toxicity

not hazardous

#### Acute inhalation toxicity

not hazardous

% of unknown composition 0 %

#### Skin corrosion/irritation

Acetic acid Category 1A

#### Serious eye damage/eye irritation

Isopropyl alcohol Category 2A

#### Respiratory sensitisation

Not classified according to GHS criteria

#### Skin sensitisation

not hazardous

#### Germ cell mutagenicity

not hazardous

## SAFETY DATA SHEET

2319S v5.0  
en/US



### Carcinogenicity

not hazardous

### Toxicity for reproduction

Not classified according to GHS criteria

### Target Organ Systemic Toxicant - Single exposure

- **Inhalation**

**Respiratory system** Isopropyl alcohol

### Target Organ Systemic Toxicant - Repeated exposure

not hazardous

### Aspiration toxicity

not hazardous

### Numerical measures of toxicity (acute toxicity estimation (ATE),etc. )

No information available.

### Symptoms related to the physical, chemical and toxicological characteristics

Exposure to component solvents vapours concentration in excess of the stated occupational exposure limit may result in adverse health effect such as mucous membrane and respiratory system irritation and adverse effect on kidney, liver and central nervous system. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and in extreme cases, loss of consciousness. Through skin resorbtion, solvents can cause some of the effects described here. Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin resulting in non-allergic contact dermatitis and absorption through the skin. The liquid splashed in the eyes may cause irritation and reversible damage.

### Whether the hazardous chemical is listed by NTP, IARC or OSHA

## 12. Ecological information

There are no data available on the product itself. The product should not be allowed to enter drains or watercourses.

## 13. Disposal considerations

### Waste Disposal Method

Do not allow material to contaminate ground water systems. Incinerate or otherwise dispose of waste material in accordance with Federal, State, Provincial, and local requirements. Do not incinerate in closed containers.

## 14. Transport information

### International transport regulations

#### IMDG (Sea transport)

UN number:	1263
Proper shipping name:	PAINT RELATED MATERIAL
Hazard Class:	3
Subsidiary Hazard Class:	Not applicable.
Packing group:	II

**SAFETY DATA SHEET**2319S v5.0  
en/US

Marine Pollutant: no

**ICAO/IATA (Air transport)**UN number: 1263  
Proper shipping name: PAINT RELATED MATERIALHazard Class: 3  
Subsidiary Hazard Class: Not applicable.  
Packing group: II**DOT**UN number: 1263  
Proper shipping name: PAINT RELATED MATERIALHazard Class: 3  
Subsidiary Hazard Class: Not applicable.  
Packing group: II  
Marine Pollutant: no  
EmS: F-E,S-E**Matters needing attention for transportation**

Confirm that there is no breakage, corrosion, or leakage from the container before shipping. Be sure to prevent damage to cargo by loading so as to avoid falling, dropping, or collapse. Ship in appropriate containers with denotation of the content in accordance with the relevant statutes and rules.

**15. Regulatory information****TSCA Status**

In compliance with TSCA Inventory requirements for commercial purposes.

**DSL Status**

All components of the mixture are listed on the DSL.

**Photochemical Reactivity**

Non-photochemically reactive

**Regulatory information**

CAS #	Ingredient	EPCRA					CERCLA RQ(lbs)	CAA HAP
		302	TPQ	RQ	311/312	313		
67-63-0	Isopropyl alcohol	N	NR	NR	A,C,F,N,R	N	NR	N
64-19-7	Acetic acid	N	NR	NR	A	N	5,000	N

**Key:**

EPCRA	Emergency Planning and Community Right-to-know Act (aka Title III, SARA)
302	Extremely hazardous substances
311/312 Categories	F = Fire Hazard                      A = Acute Hazard R = Reactivity Hazard              C = Chronic Hazard P = Pressure Related Hazard
313 Information	Section 313 Supplier Notification - The chemicals listed above with a 'Y' in the 313 column are subject to reporting requirements of Section 313 of the Emergency Planning and Community Right-to-Know act of 1986 and of 40 CFR 372.

## SAFETY DATA SHEET

2319S v5.0  
en/US



CERCLA	Comprehensive Emergency Response, Compensation and Liability Act of 1980.
HAP	Listed as a Clean Air Act Hazardous Air Pollutant.
TPQ	Threshold Planning Quantity.
RQ	Reportable Quantity
NA	not available
NR	not regulated

## 16. Other information

HMIS rating H: 2 F: 3 R: 0

### Glossary of Terms:

ACGIH	American Conference of Governmental Industrial Hygienists.
IARC	International Agency for Research on Cancer.
NTP	National Toxicology Program.
OEL	Occupational Exposure Limit
OSHA	Occupational Safety and Health Administration.
STEL	Short term exposure limit.
TWA	Time-weighted average.
PNOR	Particles not otherwise regulated.
PNOC	Particles not otherwise classified.

NOTE: The list (above) of glossary terms may be modified.

### Notice from Axalta Coating Systems

The document reflects information provided to Axalta Coating Systems by its suppliers. Information is accurate to the best of our knowledge and is subject to change as new data is received by Axalta Coating Systems. Persons receiving this information should make their own determination as to its suitability for their purposes prior to use. The information on this Safety Data Sheet relates only to the specific material designated herein and does not relate to use in combination with any other material or in any process.

SDS prepared by:

Axalta Coating Systems Regulatory Affairs

Report version

Version	Changes
5.0	2, 15

Revision Date: 2016-01-29

**(855) 6-AXALTA**  
**cromax.us**

axalta.us



## 1. Identification

<b>Product identifier</b>	<b>LPS® PreSolve (Aerosol)</b>
<b>Other means of identification</b>	
<b>Part Number</b>	01420, C01420
<b>Recommended use</b>	A solvent degreasing agent designed for removing tar, adhesives, grease, oil and other residues from metal and other hard surfaces.
<b>Recommended restrictions</b>	None known.
<b>Manufacturer/Importer/Supplier/Distributor information</b>	
<b>Manufacturer</b>	
<b>Company name</b>	ITW Pro Brands
<b>Address</b>	4647 Hugh Howell Rd. Tucker, GA 30084
<b>Country</b>	(U.S.A.) Tel: +1 770-243-8800
<b>In Case of Emergency</b>	1-800-424-9300 1-703-527-3887
<b>Website</b>	www.lpslabs.com
<b>E-mail</b>	lpssds@itwprobrands.com
<b>Supplier</b>	ITW Permatex Canada 1-35 Brownridge Road Halton Hills, ON, L7G 0C6 Canada 1-800-241-8334

## 2. Hazard(s) identification

<b>Physical hazards</b>	Flammable aerosols	Category 1
	Gases under pressure	Compressed gas
<b>Health hazards</b>	Skin corrosion/irritation	Category 2
	Serious eye damage/eye irritation	Category 2A
	Sensitization, skin	Category 1
	Specific target organ toxicity, single exposure	Category 3 narcotic effects
	Aspiration hazard	Category 1
<b>Environmental hazards</b>	Not classified.	
<b>Label elements</b>		



<b>Signal word</b>	Danger
<b>Hazard statement</b>	Extremely flammable aerosol. Contains gas under pressure; may explode if heated. Causes skin irritation. Causes serious eye irritation. May cause an allergic skin reaction. May cause drowsiness or dizziness. May be fatal if swallowed and enters airways.
<b>Precautionary statement</b>	
<b>Prevention</b>	Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Do not spray on an open flame or other ignition source. Wear eye/face protection. Pressurized container: Do not pierce or burn, even after use. Avoid breathing gas. Wash thoroughly after handling. Contaminated work clothing must not be allowed out of the workplace. Wear protective gloves.

<b>Response</b>	IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. Do NOT induce vomiting. If on skin: Wash with plenty of water. If skin irritation or rash occurs: Get medical advice/attention. Take off contaminated clothing and wash it before reuse. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. If inhaled: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell.
<b>Storage</b>	Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F. Store in a well-ventilated place. Keep container tightly closed. Store locked up.
<b>Disposal</b>	Dispose of contents/container in accordance with local/regional/national/international regulations.
<b>Other hazards</b>	None known.
<b>Supplemental information</b>	None known.

### 3. Composition/information on ingredients

#### Mixtures

Chemical name	Common name and synonyms	CAS number	%
Distillates Petroleum Hydrotreated Light		64742-47-8	60 - 70
3-Methoxy-3-methyl-1-butanol (MMB)		56539-66-3	10 - 20
D-LIMONENE		5989-27-5	10 - 20
CARBON DIOXIDE		124-38-9	1 - 3

All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

### 4. First-aid measures

<b>Inhalation</b>	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Oxygen or artificial respiration if needed. Do not use mouth-to-mouth method if victim inhaled the substance. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Call a POISON CENTER or doctor/physician if you feel unwell.
<b>Skin contact</b>	In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention if irritation develops and persists.
<b>Eye contact</b>	Immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. Get medical attention if irritation develops and persists.
<b>Ingestion</b>	Call a physician or poison control center immediately. Only induce vomiting at the instruction of medical personnel. Never give anything by mouth to an unconscious person. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.
<b>Most important symptoms/effects, acute and delayed</b>	Irritant effects. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Defatting of the skin. Rash. Symptoms of overexposure can include shortness of breath, drowsiness, headaches, confusion, decreased coordination, visual disturbances and vomiting, and are reversible if exposure is stopped.
<b>Indication of immediate medical attention and special treatment needed</b>	Provide general supportive measures and treat symptomatically. In case of shortness of breath, give oxygen. Keep victim under observation. Symptoms may be delayed.
<b>General information</b>	In the case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

### 5. Fire-fighting measures

<b>Suitable extinguishing media</b>	Alcohol resistant foam. Water spray. Water fog. Dry chemical powder. Carbon dioxide (CO <sub>2</sub> ).
<b>Unsuitable extinguishing media</b>	Do not use water jet as an extinguisher, as this will spread the fire.
<b>Specific hazards arising from the chemical</b>	Contents under pressure. Pressurized container may explode when exposed to heat or flame.
<b>Special protective equipment and precautions for firefighters</b>	Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA. Structural firefighters protective clothing will only provide limited protection.
<b>Fire fighting equipment/instructions</b>	In case of fire and/or explosion do not breathe fumes. Use standard firefighting procedures and consider the hazards of other involved materials. Move containers from fire area if you can do so without risk. Water runoff can cause environmental damage.

**Specific methods**

Use standard firefighting procedures and consider the hazards of other involved materials. Move container from fire area if it can be done without risk. Use water spray to cool unopened containers. In the event of fire and/or explosion do not breathe fumes. Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

**General fire hazards**

Extremely flammable aerosol.

**6. Accidental release measures****Personal precautions, protective equipment and emergency procedures**

Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of low areas. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Wear appropriate personal protective equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Avoid inhalation of vapors or mists. Ventilate closed spaces before entering them. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

**Methods and materials for containment and cleaning up**

Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Take precautionary measures against static discharge. Use only non-sparking tools. Keep combustibles (wood, paper, oil, etc.) away from spilled material. This material is classified as a water pollutant under the Clean Water Act and should be prevented from contaminating soil or from entering sewage and drainage systems which lead to waterways.

Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Use water spray to reduce vapors or divert vapor cloud drift. Following product recovery, flush area with water.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills in original containers for re-use. For waste disposal, see section 13 of the SDS.

**Environmental precautions**

Avoid release to the environment. Contact local authorities in case of spillage to drain/aquatic environment. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground.

**7. Handling and storage****Precautions for safe handling**

Do not handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. Do not smoke. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Use non-sparking tools and explosion-proof equipment. Avoid breathing mist or vapor. Avoid contact with skin. Avoid contact with eyes. Avoid prolonged exposure. Provide adequate ventilation. Wear appropriate personal protective equipment. Observe good industrial hygiene practices. Wash hands thoroughly after handling. Avoid release to the environment. Do not empty into drains.

**Conditions for safe storage, including any incompatibilities**

Level 3 Aerosol.

Contents under pressure. Keep away from heat, sparks and open flame. Keep container tightly closed. Store in a cool, dry place out of direct sunlight. Store in a well-ventilated place. Keep in an area equipped with sprinklers.

**8. Exposure controls/personal protection****Occupational exposure limits****US. ACGIH Threshold Limit Values Components**

Components	Type	Value
CARBON DIOXIDE (CAS 124-38-9)	STEL	30000 ppm
	TWA	5000 ppm

**Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2)**

Components	Type	Value
CARBON DIOXIDE (CAS 124-38-9)	STEL	54000 mg/m3
	TWA	30000 ppm
		9000 mg/m3
		5000 ppm

**Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended)**

Components	Type	Value	Form
CARBON DIOXIDE (CAS 124-38-9)	STEL	15000 ppm	
Distillates Petroleum Hydrotreated Light (CAS 64742-47-8)	TWA	5000 ppm	Non-aerosol.
	TWA	200 mg/m3	

**Canada. Manitoba OELs (Reg. 217/2006, The Workplace Safety And Health Act)**

Components	Type	Value
CARBON DIOXIDE (CAS 124-38-9)	STEL	30000 ppm
	TWA	5000 ppm

**Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents)**

Components	Type	Value
CARBON DIOXIDE (CAS 124-38-9)	STEL	30000 ppm
	TWA	5000 ppm

**Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment)**

Components	Type	Value
CARBON DIOXIDE (CAS 124-38-9)	STEL	54000 mg/m3
	TWA	30000 ppm
		9000 mg/m3
		5000 ppm

**Biological limit values** No biological exposure limits noted for the ingredient(s).

**Exposure guidelines**

**Canada - British Columbia OELs: Skin designation**

Distillates Petroleum Hydrotreated Light (CAS 64742-47-8) Can be absorbed through the skin.

**Appropriate engineering controls** Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Ensure adequate ventilation, especially in confined areas.

**Individual protection measures, such as personal protective equipment**

**Eye/face protection** Wear safety glasses with side shields (or goggles). Eye wash fountain is recommended.

**Skin protection**

**Hand protection** Chemical resistant gloves are recommended.

**Other** Avoid contact with clothing. Wear suitable protective clothing. Chemical resistant gloves.

**Respiratory protection** No personal respiratory protective equipment normally required. Use a positive-pressure air-supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air-purifying respirators may not provide adequate protection.

**Thermal hazards** Not applicable.

**General hygiene considerations** When using do not smoke. When using, do not eat, drink or smoke. Keep away from food and drink. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

**9. Physical and chemical properties**

**Appearance**

**Physical state** Gas.  
**Form** Aerosol.  
**Color** Clear, Off-white.  
**Odor** Orange

<b>Odor threshold</b>	Not established
<b>pH</b>	Not applicable
<b>Melting point/freezing point</b>	Not established
<b>Initial boiling point and boiling range</b>	> 302 °F (> 150 °C)
<b>Flash point</b>	104.0 °F (40.0 °C) Tag Closed Cup
<b>Evaporation rate</b>	> 0.1 BuAc
<b>Flammability (solid, gas)</b>	Not available.
<b>Upper/lower flammability or explosive limits</b>	
<b>Flammability limit - lower (%)</b>	0.7 %
<b>Flammability limit - upper (%)</b>	6 %
<b>Explosive limit - lower (%)</b>	Not available.
<b>Explosive limit - upper (%)</b>	Not available.
<b>Vapor pressure</b>	< 5 mm Hg @ 20°C
<b>Vapor density</b>	> 1 (air = 1)
<b>Relative density</b>	Not available.
<b>Solubility(ies)</b>	
<b>Solubility (water)</b>	< 15 %
<b>Partition coefficient (n-octanol/water)</b>	Not established
<b>Auto-ignition temperature</b>	> 392 °F (> 200 °C)
<b>Decomposition temperature</b>	Not established
<b>Viscosity</b>	< 3 cSt @ 25°C
<b>Other information</b>	
<b>Heat of combustion</b>	> 30 kJ/g
<b>Percent volatile</b>	100 %
<b>Specific gravity</b>	0.82 - 0.86 @ 20°C
<b>VOC</b>	97.2 % per U.S. State and Federal Consumer Product Regulations

## 10. Stability and reactivity

<b>Reactivity</b>	The product is stable and non-reactive under normal conditions of use, storage and transport.
<b>Chemical stability</b>	Material is stable under normal conditions. Risk of ignition.
<b>Possibility of hazardous reactions</b>	No dangerous reaction known under conditions of normal use. Hazardous polymerization does not occur.
<b>Conditions to avoid</b>	Heat, flames and sparks. Avoid temperatures exceeding the flash point.
<b>Incompatible materials</b>	Strong oxidizing agents.
<b>Hazardous decomposition products</b>	Carbon oxides.

## 11. Toxicological information

### Information on likely routes of exposure

<b>Inhalation</b>	May cause drowsiness and dizziness.
<b>Skin contact</b>	Causes skin irritation. May cause sensitization by skin contact.
<b>Eye contact</b>	Causes eye irritation.
<b>Ingestion</b>	May be fatal if swallowed and enters airways.

**Symptoms related to the physical, chemical and toxicological characteristics** Irritant effects. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Defatting of the skin. Vapors have a narcotic effect and may cause headache, fatigue, dizziness and nausea. Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting.

### Information on toxicological effects

**Acute toxicity** May be fatal if swallowed and enters airways. May cause allergic skin reaction.

Components	Species	Test Results
Distillates Petroleum Hydrotreated Light (CAS 64742-47-8)		
<b>Acute</b>		
<b>Dermal</b>		
LD50	Rabbit	> 2000 mg/kg
<b>Inhalation</b>		
<i>Vapor</i>		
LC50	Rat	> 4.5 mg/l, 4 Hours
D-LIMONENE (CAS 5989-27-5)		
<b>Acute</b>		
<b>Oral</b>		
LD50	Rat	> 2000 mg/kg
<b>Skin corrosion/irritation</b>	Causes skin irritation.	
<b>Serious eye damage/eye irritation</b>	Causes serious eye irritation.	
<b>Respiratory or skin sensitization</b>		
<b>Respiratory sensitization</b>	Not a respiratory sensitizer.	
<b>Skin sensitization</b>	May cause sensitization by skin contact.	
<b>Germ cell mutagenicity</b>	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.	
<b>Carcinogenicity</b>	This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.	
<b>IARC Monographs. Overall Evaluation of Carcinogenicity</b>		
D-LIMONENE (CAS 5989-27-5)	3 Not classifiable as to carcinogenicity to humans.	
<b>Reproductive toxicity</b>	This product is not expected to cause reproductive or developmental effects.	
<b>Specific target organ toxicity - single exposure</b>	Narcotic effects.	
<b>Specific target organ toxicity - repeated exposure</b>	Not classified.	
<b>Aspiration hazard</b>	May be fatal if swallowed and enters airways.	
<b>Chronic effects</b>	Prolonged exposure may cause chronic effects.	
<b>Further information</b>	Symptoms may be delayed.	

## 12. Ecological information

**Ecotoxicity** Toxic to aquatic life with long lasting effects.

Components	Species	Test Results
Distillates Petroleum Hydrotreated Light (CAS 64742-47-8)		
<b>Aquatic</b>		
Fish	LC50	Rainbow trout,donaldson trout (Oncorhynchus mykiss) 2.9 mg/l, 96 hours
D-LIMONENE (CAS 5989-27-5)		
<b>Aquatic</b>		
Crustacea	EC50	Water flea (Daphnia pulex) 69.6 mg/l, 48 hours
Fish	LC50	Fathead minnow (Pimephales promelas) 0.619 - 0.796 mg/l, 96 hours
<b>Persistence and degradability</b>	Not inherently biodegradable.	
<b>Bioaccumulative potential</b>	No data available.	
<b>Partition coefficient n-octanol / water (log Kow)</b>		
D-LIMONENE	4.232	
<b>Mobility in soil</b>	Readily absorbed into soil.	
<b>Other adverse effects</b>	None known.	

### 13. Disposal considerations

<b>Disposal instructions</b>	Contract with a disposal operator licensed by the Law on Disposal and Cleaning. Collect and reclaim or dispose in sealed containers at licensed waste disposal site. This material and its container must be disposed of as hazardous waste. Incinerate the material under controlled conditions in an approved incinerator. Must be incinerated in a suitable incineration plant holding a permit delivered by the competent authorities. Do not incinerate sealed containers. Do not discharge into drains, water courses or onto the ground. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. If discarded, this product is considered a RCRA ignitable waste, D001. After recovery of solvent dispose of residue as hazardous waste. Dispose of contents/container in accordance with local/regional/national/international regulations. Dispose in accordance with all applicable regulations. When your own wastewater treatment plant is not available, collect entire waste and then charge to a licensed industrial waste management professional with manifests for industrial waste.
<b>Hazardous waste code</b>	Not regulated.
<b>Waste from residues / unused products</b>	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions). Avoid discharge into water courses or onto the ground.
<b>Contaminated packaging</b>	Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

### 14. Transport information

#### TDG

<b>UN number</b>	UN1950
<b>UN proper shipping name</b>	Aerosols, flammable
<b>Transport hazard class(es)</b>	
<b>Class</b>	2.1
<b>Subsidiary risk</b>	-
<b>Packing group</b>	Not available.
<b>Environmental hazards</b>	No
<b>Special precautions for user</b>	Not available.

#### IATA

<b>UN number</b>	UN1950
<b>UN proper shipping name</b>	Aerosols, flammable
<b>Transport hazard class(es)</b>	
<b>Class</b>	2.1
<b>Subsidiary risk</b>	-
<b>Label(s)</b>	2.1
<b>Packing group</b>	Not available.
<b>Environmental hazards</b>	No.
<b>Special precautions for user</b>	Not available.
<b>Other information</b>	
<b>Passenger and cargo aircraft</b>	Allowed with restrictions.
<b>Cargo aircraft only</b>	Allowed with restrictions.

#### IMDG

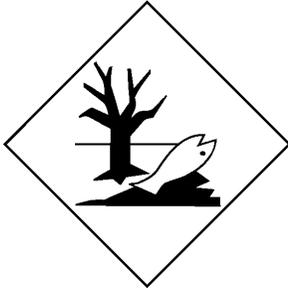
<b>UN number</b>	UN1950
<b>UN proper shipping name</b>	Aerosols, flammable, MARINE POLLUTANT
<b>Transport hazard class(es)</b>	
<b>Class</b>	2.1
<b>Subsidiary risk</b>	-
<b>Label(s)</b>	2.1
<b>Packing group</b>	Not available.
<b>Environmental hazards</b>	
<b>Marine pollutant</b>	Yes
<b>EmS</b>	F-D, S-U
<b>Special precautions for user</b>	Not available.

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code** Not available.

IATA; IMDG; TDG



Marine pollutant



## 15. Regulatory information

### Canadian regulations

This product has been classified in accordance with the hazard criteria of the CPR and the SDS contains all the information required by the CPR.

#### Controlled Drugs and Substances Act

Not regulated.

#### Export Control List (CEPA 1999, Schedule 3)

Not listed.

#### Greenhouse Gases

CARBON DIOXIDE (CAS 124-38-9)

#### Precursor Control Regulations

Not regulated.

### International regulations

The product is classified and labelled in accordance with EC directives or respective national laws. This Safety Data Sheet complies with the requirements of Regulation (EC) No 1907/2006. Young people under 18 years old are not allowed to work with this product according to EU Directive 94/33/EC on the protection of young people at work.

#### Stockholm Convention

Not applicable.

#### Rotterdam Convention

Not applicable.

#### Kyoto protocol

CARBON DIOXIDE (CAS 124-38-9)

Listed.

#### Montreal Protocol

Not applicable.

#### Basel Convention

Not applicable.

### International Inventories

#### Country(s) or region

#### Inventory name

#### On inventory (yes/no)\*

Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No

Country(s) or region	Inventory name	On inventory (yes/no)*
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

\*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

## 16. Other information

<b>Issue date</b>	03-23-2016
<b>Revision date</b>	05-18-2017
<b>Version #</b>	04
<b>Further information</b>	HMIS® is a registered trade and service mark of the NPCA.
<b>References</b>	<p>ACGIH  EPA: ACQUIRE database  NLM: Hazardous Substances Data Base  US. IARC Monographs on Occupational Exposures to Chemical Agents  Korea. Accidental Release Prevention Substances (Presidential Decree of Toxic Chemical Control Law, Executive Order No. 19203)  Korea. Dangerous Substances Threshold Quantity (Presidential Decree of Dangerous Substances Safety Management Act No. 18406, Schedule 1)  Korea. Harmful Substances Prohibited from Manufacturing (Presidential Decree on the Industrial Safety and Health Act (No. 13053), Article 29)  Korea. Harmful Substances Requiring Permission for Manufacture or Use (Presidential Decree on the Industrial Safety and Health Act (No. 13053), Article 30)  Korea. Non-Toxic Chemicals List (National Institute of Environment Research (NIER) Public Notice No. 1997-10, as amended)  Korea. Observational Chemicals (Ministerial Decree of TCCL Article 6)  Korea. OELs. Regulation for Permitted Concentration of Hazardous Substances (Ministry of Labor (MOL) Public Notice No. 1986-45, as amended)  Korea. Prohibited Chemical Substances (TCCL Article 11)  Korea. Regulated volatile organic compounds (VOCs) (MOE Notice No. 2001-36, March 8, 2001, as amended)  Korea. Restricted Chemical Substances (TCCL Article 11)  Korea. Toxic Chemical Control Law (TCCL), Existing Chemicals Inventory (KECI)  Korea. Toxic Chemical Control Law (TCCL), pre-1997 List  Korea. Toxic Chemicals (TCCL Article 10)  Korea. Toxic Release Inventory (TRI) Chemicals (TCCL Article 14)  Taiwan. Dangerous Materials (Rules on Hazard Communication of Dangerous Materials and Toxic Materials)  Taiwan. Industrial Precursor Chemicals (Categories and Regulations Governing Inspection and Declaration of Industrial Precursor Chemicals, MOEA Decree No. 87, as amended)  Taiwan. OELs. (Standards on Workplace Atmosphere of Dangerous and Hazardous Materials)  Taiwan. Toxic Chemical Substances (TCS) (List of Toxic Chemical Substances announced by the Environmental Protection Administration)  Taiwan. Toxic Materials (Rules on Hazard Communication of Dangerous Materials and Toxic Materials)  HSDB® - Hazardous Substances Data Bank  IARC Monographs. Overall Evaluation of Carcinogenicity  National Toxicology Program (NTP) Report on Carcinogens  ACGIH Documentation of the Threshold Limit Values and Biological Exposure Indices  Japan Society for Occupational Health, Recommendation of Occupational Exposure Limits  GOST 30333-2007 - Chemical production safety passport. General requirements  JIS Z 7252:2009 Classification of chemicals based on "Globally Harmonized System of Classification and Labelling of Chemicals (GHS)"  JIS Z 7253:2012 Hazard communication of chemicals based on GHS – Labelling and Safety Data Sheet (SDS)  Japan Chemical Industry Association (JCIA) GHS Guideline, June 2012</p>

**Disclaimer**

This safety data sheet was prepared in accordance with JIS Z 7253:2012. Additional information is given in the Material Safety Data Sheet. The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

# SAFETY DATA SHEET

B66W611

## Section 1. Identification

**Product name** : PRO INDUSTRIAL™ Acrylic - Gloss  
Extra White

**Product code** : B66W611

**Other means of identification** : Not available.

**Product type** : Liquid.

**Relevant identified uses of the substance or mixture and uses advised against**

Paint or paint related material.

**Manufacturer** : THE SHERWIN-WILLIAMS COMPANY  
101 W. Prospect Avenue  
Cleveland, OH 44115

**Emergency telephone number of the company** : US / Canada: (216) 566-2917  
Mexico: SETIQ 01-800-00-214-00 / (52) 55-5559-1588 24 hours / 365 days a year

**Product Information Telephone Number** : US / Canada: (800) 524-5979  
Mexico: Not Available

**Regulatory Information Telephone Number** : US / Canada: (216) 566-2902  
Mexico: Not Available

**Transportation Emergency Telephone Number** : US / Canada: (800) 424-9300  
Mexico: SETIQ 01-800-00-214-00 / (52) 55-5559-1588 24 hours / 365 days a year

## Section 2. Hazards identification

**OSHA/HCS status** : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

**Classification of the substance or mixture** : SKIN SENSITIZATION - Category 1  
CARCINOGENICITY - Category 2

Percentage of the mixture consisting of ingredient(s) of unknown oral toxicity: 1.2%  
Percentage of the mixture consisting of ingredient(s) of unknown dermal toxicity: 1.2%  
Percentage of the mixture consisting of ingredient(s) of unknown inhalation toxicity: 1.2%

### GHS label elements

**Hazard pictograms** :



**Signal word** : Warning

**Hazard statements** : May cause an allergic skin reaction.  
Suspected of causing cancer.

### Precautionary statements

**Prevention** : Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves. Wear eye or face protection. Wear protective clothing. Avoid breathing vapor. Contaminated work clothing must not be allowed out of the workplace.

## Section 2. Hazards identification

- Response** : IF exposed or concerned: Get medical attention. IF ON SKIN: Wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation or rash occurs: Get medical attention.
- Storage** : Store locked up.
- Disposal** : Dispose of contents and container in accordance with all local, regional, national and international regulations.
- Supplemental label elements** WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm. FOR INDUSTRIAL USE ONLY.  
Please refer to the SDS for additional information. Keep out of reach of children. Do not transfer contents to other containers for storage.
- Hazards not otherwise classified** : None known.

## Section 3. Composition/information on ingredients

- Substance/mixture** : Mixture
- Other means of identification** : Not available.

### CAS number/other identifiers

Ingredient name	% by weight	CAS number
Titanium Dioxide	≥10 - ≤25	13463-67-7
Polypropylene glycol alkyl phenyl ether	≤3	9064-13-5

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

**There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health and hence require reporting in this section.**

Occupational exposure limits, if available, are listed in Section 8.

## Section 4. First aid measures

### Description of necessary first aid measures

- Eye contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
- Skin contact** : Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** : Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

### Most important symptoms/effects, acute and delayed

### Potential acute health effects

<b>Date of issue/Date of revision</b> : 5/24/2019	<b>Date of previous issue</b> : 3/11/2019	<b>Version</b> : 11.02	2/11
B66W611	PRO INDUSTRIAL™ Acrylic - Gloss Extra White	<b>SHW-85-NA-GHS-US</b>	

## Section 4. First aid measures

- Eye contact** : No known significant effects or critical hazards.
- Inhalation** : No known significant effects or critical hazards.
- Skin contact** : May cause an allergic skin reaction.
- Ingestion** : No known significant effects or critical hazards.

### Over-exposure signs/symptoms

- Eye contact** : No specific data.
- Inhalation** : No specific data.
- Skin contact** : Adverse symptoms may include the following:
  - irritation
  - redness
- Ingestion** : No specific data.

### Indication of immediate medical attention and special treatment needed, if necessary

- Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- Specific treatments** : No specific treatment.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

## Section 5. Fire-fighting measures

### Extinguishing media

- Suitable extinguishing media** : Use an extinguishing agent suitable for the surrounding fire.
- Unsuitable extinguishing media** : None known.

**Specific hazards arising from the chemical** : In a fire or if heated, a pressure increase will occur and the container may burst.

- Hazardous thermal decomposition products** : Decomposition products may include the following materials:
  - carbon dioxide
  - carbon monoxide
  - metal oxide/oxides

**Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

**Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

## Section 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
- For emergency responders** : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

**Environmental precautions** :

## Section 6. Accidental release measures

Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

### Methods and materials for containment and cleaning up

- Small spill** : Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
- Large spill** : Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

## Section 7. Handling and storage

### Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Avoid exposure - obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapor or mist. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
- Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

- Conditions for safe storage, including any incompatibilities** : Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

## Section 8. Exposure controls/personal protection

### Control parameters

#### Occupational exposure limits (OSHA United States)

<b>Ingredient name</b>	<b>Exposure limits</b>
Titanium Dioxide	<b>ACGIH TLV (United States, 3/2018).</b> TWA: 10 mg/m <sup>3</sup> 8 hours.
Polypropylene glycol alkyl phenyl ether	<b>OSHA PEL (United States, 5/2018).</b> TWA: 15 mg/m <sup>3</sup> 8 hours. Form: Total dust None.

#### Occupational exposure limits (Canada)

## Section 8. Exposure controls/personal protection

Ingredient name	Exposure limits
Titanium dioxide	<p><b>CA British Columbia Provincial (Canada, 7/2018).</b> TWA: 3 mg/m<sup>3</sup> 8 hours. Form: Respirable dust TWA: 10 mg/m<sup>3</sup> 8 hours. Form: Total dust</p> <p><b>CA Quebec Provincial (Canada, 1/2014).</b> TWA: 10 mg/m<sup>3</sup> 8 hours. Form: Total dust.</p> <p><b>CA Alberta Provincial (Canada, 6/2018).</b> 8 hrs OEL: 10 mg/m<sup>3</sup> 8 hours.</p> <p><b>CA Ontario Provincial (Canada, 1/2018).</b> TWA: 10 mg/m<sup>3</sup> 8 hours.</p> <p><b>CA Saskatchewan Provincial (Canada, 7/2013).</b> STEL: 20 mg/m<sup>3</sup> 15 minutes. TWA: 10 mg/m<sup>3</sup> 8 hours.</p>

### Occupational exposure limits (Mexico)

Ingredient name	Exposure limits
None.	

**Appropriate engineering controls** : If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

**Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

### Individual protection measures

**Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

**Eye/face protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.

### Skin protection

**Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

**Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

**Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

## Section 8. Exposure controls/personal protection

**Respiratory protection** : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

## Section 9. Physical and chemical properties

### Appearance

**Physical state** : Liquid.  
**Color** : Not available.  
**Odor** : Not available.  
**Odor threshold** : Not available.  
**pH** : 9  
**Melting point/freezing point** : Not available.  
**Boiling point/boiling range** : 100°C (212°F)  
**Flash point** : Closed cup: >93.3°C (>199.9°F)  
**Evaporation rate** : 0.09 (butyl acetate = 1)  
**Flammability (solid, gas)** : Not available.  
**Lower and upper explosive (flammable) limits** : Not available.  
**Vapor pressure** : 2.3 kPa (17.5 mm Hg) [at 20°C]  
**Vapor density** : 1 [Air = 1]  
**Relative density** : 1.14  
**Solubility** : Not available.  
**Partition coefficient: n-octanol/water** : Not available.  
**Auto-ignition temperature** : Not available.  
**Decomposition temperature** : Not available.  
**Viscosity** : Kinematic (40°C (104°F)): >0.205 cm<sup>2</sup>/s (>20.5 cSt)  
**Molecular weight** : Not applicable.  
**Aerosol product**  
**Heat of combustion** : 0.562 kJ/g

## Section 10. Stability and reactivity

**Reactivity** : No specific test data related to reactivity available for this product or its ingredients.

**Chemical stability** : The product is stable.

**Possibility of hazardous reactions** : Under normal conditions of storage and use, hazardous reactions will not occur.

**Conditions to avoid** : No specific data.

**Incompatible materials** : No specific data.

**Hazardous decomposition products** : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

# Section 11. Toxicological information

## Information on toxicological effects

### Acute toxicity

Not available.

### Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Titanium Dioxide	Skin - Mild irritant	Human	-	72 hours 300 Micrograms Intermittent	-

### Sensitization

Not available.

### Mutagenicity

Not available.

### Carcinogenicity

Not available.

### Classification

Product/ingredient name	OSHA	IARC	NTP
Titanium Dioxide	-	2B	-

### Reproductive toxicity

Not available.

### Teratogenicity

Not available.

### Specific target organ toxicity (single exposure)

Not available.

### Specific target organ toxicity (repeated exposure)

Not available.

### Aspiration hazard

Not available.

**Information on the likely routes of exposure** : Not available.

### Potential acute health effects

**Eye contact** : No known significant effects or critical hazards.  
**Inhalation** : No known significant effects or critical hazards.  
**Skin contact** : May cause an allergic skin reaction.  
**Ingestion** : No known significant effects or critical hazards.

### Symptoms related to the physical, chemical and toxicological characteristics

**Eye contact** : No specific data.  
**Inhalation** : No specific data.  
**Skin contact** : Adverse symptoms may include the following:  
irritation  
redness  
**Ingestion** : No specific data.

### Delayed and immediate effects and also chronic effects from short and long term exposure

#### Short term exposure

<b>Date of issue/Date of revision</b> : 5/24/2019	<b>Date of previous issue</b> : 3/11/2019	<b>Version</b> : 11.02	7/11
B66W611	PRO INDUSTRIAL™ Acrylic - Gloss Extra White	<b>SHW-85-NA-GHS-US</b>	

## Section 11. Toxicological information

**Potential immediate effects** : Not available.

**Potential delayed effects** : Not available.

### Long term exposure

**Potential immediate effects** : Not available.

**Potential delayed effects** : Not available.

### Potential chronic health effects

Not available.

**General** : Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

**Carcinogenicity** : Suspected of causing cancer. Risk of cancer depends on duration and level of exposure.

**Mutagenicity** : No known significant effects or critical hazards.

**Teratogenicity** : No known significant effects or critical hazards.

**Developmental effects** : No known significant effects or critical hazards.

**Fertility effects** : No known significant effects or critical hazards.

### Numerical measures of toxicity

#### Acute toxicity estimates

Not available.

## Section 12. Ecological information

### Toxicity

Product/ingredient name	Result	Species	Exposure
Titanium Dioxide	Acute LC50 >1000000 µg/l Marine water	Fish - Fundulus heteroclitus	96 hours

### Persistence and degradability

Not available.

### Bioaccumulative potential

Not available.

### Mobility in soil

**Soil/water partition coefficient (K<sub>oc</sub>)** : Not available.

**Other adverse effects** : No known significant effects or critical hazards.

## Section 13. Disposal considerations

**Disposal methods** : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been

## Section 13. Disposal considerations

cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

## Section 14. Transport information

	<b>DOT Classification</b>	<b>TDG Classification</b>	<b>Mexico Classification</b>	<b>IATA</b>	<b>IMDG</b>
<b>UN number</b>	Not regulated.	Not regulated.	Not regulated.	Not regulated.	Not regulated.
<b>UN proper shipping name</b>	-	-	-	-	-
<b>Transport hazard class(es)</b>	-	-	-	-	-
<b>Packing group</b>	-	-	-	-	-
<b>Environmental hazards</b>	No.	No.	No.	No.	No.
<b>Additional information</b>	-	-	-	-	-

**Special precautions for user** : Multi-modal shipping descriptions are provided for informational purposes and do not consider container sizes. The presence of a shipping description for a particular mode of transport (sea, air, etc.), does not indicate that the product is packaged suitably for that mode of transport. All packaging must be reviewed for suitability prior to shipment, and compliance with the applicable regulations is the sole responsibility of the person offering the product for transport. People loading and unloading dangerous goods must be trained on all of the risks deriving from the substances and on all actions in case of emergency situations.

**Transport in bulk according to Annex II of MARPOL and the IBC Code** : Not available.

**Proper shipping name** : Not available.

**Ship type** : Not available.

**Pollution category** : Not available.

## Section 15. Regulatory information

**TSCA 5(a)2 proposed significant new use rules:** 5-Chloro-2-methylisothiazolinone

### SARA 313

SARA 313 (40 CFR 372.45) supplier notification can be found on the Environmental Data Sheet.

### California Prop. 65

WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

### International regulations

#### **International lists**

**Australia inventory (AICS):** Not determined.  
**China inventory (IECSC):** Not determined.  
**Japan inventory (ENCS):** Not determined.  
**Japan inventory (ISHL):** Not determined.  
**Korea inventory (KECI):** Not determined.  
**Malaysia Inventory (EHS Register):** Not determined.  
**New Zealand Inventory of Chemicals (NZIoC):** Not determined.  
**Philippines inventory (PICCS):** Not determined.  
**Taiwan Chemical Substances Inventory (TCSI):** Not determined.

<b>Date of issue/Date of revision</b> : 5/24/2019	<b>Date of previous issue</b> : 3/11/2019	<b>Version</b> : 11.02	9/11
B66W611	PRO INDUSTRIAL™ Acrylic - Gloss Extra White	<b>SHW-85-NA-GHS-US</b>	

## Section 15. Regulatory information

Thailand inventory: Not determined.

Turkey inventory: Not determined.

Vietnam inventory: Not determined.

## Section 16. Other information

### Hazardous Material Information System (U.S.A.)

Health	*	3
Flammability		0
Physical hazards		0

The customer is responsible for determining the PPE code for this material. For more information on HMIS® Personal Protective Equipment (PPE) codes, consult the HMIS® Implementation Manual.

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings and the associated label are not required on SDSs or products leaving a facility under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered trademark and service mark of the American Coatings Association, Inc.

### Procedure used to derive the classification

Classification	Justification
SKIN SENSITIZATION - Category 1	Calculation method
CARCINOGENICITY - Category 2	Calculation method

### History

Date of printing : 5/24/2019

Date of issue/Date of revision : 5/24/2019

Date of previous issue : 3/11/2019

Version : 11.02

Key to abbreviations : ATE = Acute Toxicity Estimate  
BCF = Bioconcentration Factor  
GHS = Globally Harmonized System of Classification and Labelling of Chemicals  
IATA = International Air Transport Association  
IBC = Intermediate Bulk Container  
IMDG = International Maritime Dangerous Goods  
LogPow = logarithm of the octanol/water partition coefficient  
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)  
UN = United Nations

Indicates information that has changed from previously issued version.

### Notice to reader

It is recommended that each customer or recipient of this Safety Data Sheet (SDS) study it carefully and consult resources, as necessary or appropriate, to become aware of and understand the data contained in this SDS and any hazards associated with the product. This information is provided in good faith and believed to be accurate as of the effective date herein. However, no warranty, express or implied, is given. The information presented here applies only to the product as shipped. The addition of any material can change the composition, hazards and risks of the product. Products shall not be repackaged, modified, or tinted except as specifically instructed by the manufacturer, including but not limited to the incorporation of products not specified by the manufacturer, or the use or addition of products in proportions not specified by the manufacturer. Regulatory requirements are subject to change and may differ between various locations and jurisdictions. The customer/buyer/user is responsible to ensure that his activities comply with all country, federal, state, provincial or local laws. The conditions for use of the product are not under the control of the manufacturer; the customer/buyer/user is responsible to determine the conditions necessary for the safe use of this product. The customer/buyer/user should not use the product for any purpose other than the purpose shown in the applicable section of this SDS without first referring to the supplier and obtaining written handling instructions. Due to the proliferation of sources for information such as manufacturer-specific SDS, the manufacturer cannot be responsible for SDSs obtained from any other source.

Date of issue/Date of revision	: 5/24/2019	Date of previous issue	: 3/11/2019	Version	: 11.02	10/11
B66W611	PRO INDUSTRIAL™ Acrylic - Gloss Extra White			SHW-85-NA-GHS-US		



# SAFETY DATA SHEET

## 1. Identification

**Product identifier** Propane

**Other means of identification**  
**SDS number** WC002

**Recommended use** Portable fuel.

**Recommended restrictions** None known.

**Manufacturer/Importer/Supplier/Distributor information**

**Manufacturer/Supplier** Worthington Cylinder Corporation

**Address** 300 E. Breed St., Chilton, WI 53014  
United States

**Contact person** Ann Stiefvater

**E-mail address** Ann.Stiefvater@worthingtonindustries.com

**Telephone number** 1-920-849-1740

**Emergency telephone number** 1-703-527-3887 International / CHEMTREC 1-800-424-9300 Domestic

## 2. Hazard identification

**Physical hazards**

Flammable gases	Category 1
Gases under pressure	Liquefied gas
Simple asphyxiants	Category 1

**Health hazards** Not classified.

### Label elements



**Signal word** Danger

**Hazard statement** Extremely flammable gas. Contains gas under pressure; may explode if heated. May displace oxygen and cause rapid suffocation.

### Precautionary statement

**Prevention** Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep container tightly closed. Use only outdoors or in a well-ventilated area. Wear respiratory protection.

**Response** Leaking gas fire: Do not extinguish, unless leak can be stopped safely. In case of leakage, eliminate all ignition sources.

**Storage** Protect from sunlight. Store in a well-ventilated place.

**Disposal** Dispose of waste and residues in accordance with local authority requirements.

**Other hazards** None known.

**Supplemental information** None.

## 3. Composition/information on ingredients

### Mixtures

Chemical name	Common name and synonyms	CAS number	%
Propane		74-98-6	87.5 - 100
Propylene		115-07-1	0 - 10
Ethane		74-84-0	0 - 7

Butane	106-97-8	0 - 2.5
--------	----------	---------

Additives	CAS number	%
Ethyl mercaptan	75-08-1	<0.005

**Composition comments** Gas concentrations are in percent by volume.

#### 4. First-aid measures

##### Inhalation

Remove from further exposure. For those providing assistance, avoid exposure to yourself or others. Use adequate respiratory protection. If respiratory tract irritation, dizziness, nausea, or unconsciousness occurs, seek immediate medical assistance. If breathing has stopped, assist ventilation with a mechanical device or use mouth-to-mouth resuscitation.

##### Skin contact

Not likely, due to the form of the product. If frostbite occurs, immerse affected area in warm water (not exceeding 105°F/41°C). Keep immersed for 20 to 40 minutes. Get medical attention immediately.

##### Eye contact

Not likely, due to the form of the product. If frostbite occurs, immediately flush eyes with plenty of warm water (not exceeding 105°F/41°C) for at least 15 minutes. If easy to do, remove contact lenses. Get medical attention promptly if symptoms persist or occur after washing.

##### Ingestion

This material is a gas under normal atmospheric conditions and ingestion is unlikely.

##### Most important symptoms/effects, acute and delayed

Exposure to rapidly expanding gas or vapourizing liquid may cause frostbite ("cold burn"). Very high exposure can cause suffocation from lack of oxygen. Symptoms may include loss of mobility/consciousness. Victim may not be aware of asphyxiation. Asphyxiation may bring about unconsciousness without warning and so rapidly that victim may be unable to protect themselves.

##### Indication of immediate medical attention and special treatment needed

Exposure may aggravate pre-existing respiratory disorders. Provide general supportive measures and treat symptomatically.

##### General information

First aid personnel must be aware of own risk during rescue. If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

#### 5. Fire-fighting measures

##### Suitable extinguishing media

Dry chemical powder. Carbon dioxide (CO<sub>2</sub>). Water fog. Foam.

##### Unsuitable extinguishing media

Do not use water jet as an extinguisher, as this will spread the fire.

##### Specific hazards arising from the chemical

Extremely flammable gas. May form explosive mixtures with air. Gas may travel considerable distance to a source of ignition and flash back. During fire, gases hazardous to health may be formed.

##### Special protective equipment and precautions for firefighters

Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

##### Fire fighting equipment/instructions

Do not extinguish fires unless gas flow can be stopped safely; explosive re-ignition may occur. Promptly isolate the scene by removing all persons from the vicinity of the incident. No action shall be taken involving any personal risk or without suitable training. For fires involving this material, do not enter any enclosed or confined fire space without proper protective equipment, including self-contained breathing apparatus. Stop flow of material. Use water to keep fire exposed containers cool and to protect personnel effecting shutoff. If a leak or spill has not ignited, use water spray to disperse the vapors and to protect personnel attempting to stop leak. Prevent runoff from fire control or dilution from entering streams, sewers or drinking water supply.

##### Specific methods

Use standard firefighting procedures and consider the hazards of other involved materials. Cool containers exposed to flames with water until well after the fire is out.

##### General fire hazards

Extremely flammable gas. Contents under pressure. Pressurised container may explode when exposed to heat or flame.

#### 6. Accidental release measures

##### Personal precautions, protective equipment and emergency procedures

Evacuate the area promptly. No action shall be taken involving any personal risk or without suitable training. In the event of a leak evacuate all personnel until ventilation can restore oxygen concentrations to safe levels. Keep unnecessary personnel away. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Wear appropriate personal protective equipment (See Section 8).

**Methods and materials for containment and cleaning up**

Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil etc) away from spilled material. Stop leak if you can do so without risk. If possible, turn leaking containers so that gas escapes rather than liquid. Isolate area until gas has dispersed. For waste disposal, see section 13 of the SDS.

**Environmental precautions**

Should not be released into the environment. Prevent further leakage or spillage if safe to do so.

**7. Handling and storage****Precautions for safe handling**

Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Do not handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. Do not smoke. All equipment used when handling the product must be grounded. Do not breathe gas. Avoid prolonged exposure. Do not enter storage areas or confined spaces unless adequately ventilated. Use only outdoors or in a well-ventilated area. Oxygen concentration should not fall below 19.5 % at sea level (pO<sub>2</sub> = 135 mmHg). Mechanical ventilation or local exhaust ventilation may be required. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.

**Conditions for safe storage, including any incompatibilities**

Do not store, incinerate, or heat this material above 120 degrees Fahrenheit. Keep away from heat, sparks and open flame. This material can accumulate static charge which may cause spark and become an ignition source. Prevent electrostatic charge build-up by using common bonding and grounding techniques. Store in a cool, dry place out of direct sunlight. Cylinders should be stored upright, with valve protection cap in place, and firmly secured to prevent falling or being knocked over. Protect cylinders from damage. Stored containers should be periodically checked for general condition and leakage. Store in original tightly closed container. Store in a well-ventilated place. Store away from incompatible materials (see Section 10 of the SDS).

**8. Exposure controls/personal protection****Occupational exposure limits****US. ACGIH Threshold Limit Values**

Components	Type	Value
Butane (CAS 106-97-8)	STEL	1000 ppm
Propylene (CAS 115-07-1)	TWA	500 ppm

**Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2)**

Components	Type	Value
Butane (CAS 106-97-8)	TWA	1000 ppm
Propane (CAS 74-98-6)	TWA	1000 ppm
Propylene (CAS 115-07-1)	TWA	860 mg/m <sup>3</sup> 500 ppm

**Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended)**

Components	Type	Value
Butane (CAS 106-97-8)	STEL	750 ppm
	TWA	600 ppm
Propane (CAS 74-98-6)	TWA	1000 ppm
Propylene (CAS 115-07-1)	TWA	500 ppm

**Canada. Manitoba OELs (Reg. 217/2006, The Workplace Safety And Health Act)**

Components	Type	Value
Butane (CAS 106-97-8)	STEL	1000 ppm
Propylene (CAS 115-07-1)	TWA	500 ppm

**Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents)**

Components	Type	Value
Butane (CAS 106-97-8)	STEL	1000 ppm
Propane (CAS 74-98-6)	TWA	1000 ppm
Propylene (CAS 115-07-1)	TWA	500 ppm

**Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety)**

Components	Type	Value
Butane (CAS 106-97-8)	TWA	1900 mg/m <sup>3</sup>
		800 ppm
Propane (CAS 74-98-6)	TWA	1800 mg/m <sup>3</sup>
		1000 ppm

**Canada. Saskatchewan OELs (Occupational Health and Safety Regulations, 1996, Table 21)**

Components	Type	Value
Butane (CAS 106-97-8)	15 minute	1250 ppm
	8 hour	1000 ppm

<b>Biological limit values</b>	No biological exposure limits noted for the ingredient(s).
<b>Exposure guidelines</b>	Follow standard monitoring procedures.
<b>Appropriate engineering controls</b>	Provide adequate ventilation and minimize the risk of inhalation of gas. Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits.
<b>Individual protection measures, such as personal protective equipment</b>	
<b>Eye/face protection</b>	Wear approved safety glasses or goggles. Face shield is recommended.
<b>Skin protection</b>	
<b>Hand protection</b>	Regular work gloves.
<b>Other</b>	Wear protective clothing appropriate for the risk of exposure.
<b>Respiratory protection</b>	If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. Selection and use of respiratory protective equipment should be in accordance with CSA Standard Z94.4.
<b>Thermal hazards</b>	Contact with liquefied gas might cause frostbites, in some cases with tissue damage. Wear appropriate thermal protective clothing, when necessary.
<b>General hygiene considerations</b>	Do not eat, drink or smoke when using the product. Wash thoroughly after handling. Provide eyewash station and safety shower. Handle in accordance with good industrial hygiene and safety practices.

**9. Physical and chemical properties****Appearance**

<b>Physical state</b>	Gas (Liquefied).
<b>Form</b>	Compressed liquefied gas.
<b>Colour</b>	Colourless.
<b>Odour</b>	Rotten egg.
<b>Odour threshold</b>	Not available.
<b>pH</b>	Not applicable.
<b>Melting point/freezing point</b>	-188 °C (-306.4 °F)
<b>Initial boiling point and boiling range</b>	-42 °C (-43.6 °F) 14.7 psia
<b>Flash point</b>	-104.0 °C (-155.2 °F)
<b>Evaporation rate</b>	Not applicable.
<b>Flammability (solid, gas)</b>	Extremely flammable gas.

**Upper/lower flammability or explosive limits**

<b>Explosive limit - lower (%)</b>	2.15 %
<b>Explosive limit – upper (%)</b>	9.6 %
<b>Vapour pressure</b>	127 psig (21°C / 70°F)
<b>Vapour density</b>	Not available.
<b>Relative density</b>	0.504 (liquid) 1.5 (vapour) (air=1) @ 15°C / 60°F

<b>Solubility(ies)</b>	
<b>Solubility (water)</b>	Slightly soluble in water.
<b>Partition coefficient (n-octanol/water)</b>	1.77
<b>Auto-ignition temperature</b>	432 °C (809.6 °F)
<b>Decomposition temperature</b>	Not available.
<b>Viscosity</b>	Not applicable.
<b>Other information</b>	
<b>Explosive properties</b>	Not explosive.
<b>Molecular weight</b>	45 g/mol
<b>Oxidising properties</b>	Not oxidising.
<b>Percent volatile</b>	100 %

## 10. Stability and reactivity

<b>Reactivity</b>	Reacts violently with strong oxidants, nitrites, inorganic chlorides, chlorites and perchlorates causing fire and explosion hazard.
<b>Chemical stability</b>	Stable under normal temperature conditions and recommended use.
<b>Possibility of hazardous reactions</b>	Polymerization will not occur. May form explosive mixture with air. This product may react with oxidizing agents.
<b>Conditions to avoid</b>	Avoid heat, sparks, open flames and other ignition sources. Avoid temperatures exceeding the flash point. Contact with incompatible materials.
<b>Incompatible materials</b>	Strong oxidising agents. Halogens. Nitrates.
<b>Hazardous decomposition products</b>	Thermal decomposition of this product can generate carbon monoxide and carbon dioxide. Hydrocarbons.

## 11. Toxicological information

### Information on likely routes of exposure

<b>Inhalation</b>	High concentrations: Suffocation (asphyxiant) hazard - if allowed to accumulate to concentrations that reduce oxygen below safe breathing levels. Breathing of high concentrations may cause dizziness, light-headedness, headache, nausea and loss of co-ordination. Continued inhalation may result in unconsciousness.
<b>Skin contact</b>	Contact with liquefied gas may cause frostbite.
<b>Eye contact</b>	Contact with liquefied gas may cause frostbite.
<b>Ingestion</b>	This material is a gas under normal atmospheric conditions and ingestion is unlikely.

**Symptoms related to the physical, chemical and toxicological characteristics** Exposure to rapidly expanding gas or vapourizing liquid may cause frostbite ("cold burn"). Very high exposure can cause suffocation from lack of oxygen. Symptoms may include loss of mobility/consciousness. Victim may not be aware of asphyxiation. Asphyxiation may bring about unconsciousness without warning and so rapidly that victim may be unable to protect themselves.

### Information on toxicological effects

**Acute toxicity** Not expected to be acutely toxic.

Components	Species	Test Results
Propane (CAS 74-98-6)		
<b>Acute</b>		
<b>Inhalation</b>		
Gas		
LC50	Rat	> 80000 ppm, 15 Minutes
Propylene (CAS 115-07-1)		
<b>Acute</b>		
<b>Inhalation</b>		
Gas		
LC50	Rat	> 65000 ppm, 4 Hours
<b>Skin corrosion/irritation</b>	Not classified.	
<b>Serious eye damage/eye irritation</b>	Not classified.	

## Respiratory or skin sensitisation

**Respiratory sensitisation** Not a respiratory sensitiser.

**Skin sensitisation** This product is not expected to cause skin sensitisation.

**Germ cell mutagenicity** No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

**Carcinogenicity** Not classifiable as to carcinogenicity to humans.

**Reproductive toxicity** This product is not expected to cause reproductive or developmental effects.

**Specific target organ toxicity - single exposure** Not classified.

**Specific target organ toxicity - repeated exposure** Not classified.

**Aspiration hazard** Not likely, due to the form of the product.

**Chronic effects** Exposure over a long period of time may cause central nervous system effects.

**Further information** Exposure over a long period of time may cause central nervous system effects.

## 12. Ecological information

**Ecotoxicity** The product is not expected to be hazardous to the environment.

**Persistence and degradability** Not relevant, due to the form of the product.

**Bioaccumulative potential** Not relevant, due to the form of the product.

### Partition coefficient n-octanol / water (log Kow)

Propylene (CAS 115-07-1) 1.77

**Mobility in soil** Not relevant, due to the form of the product.

**Other adverse effects** The product contains volatile organic compounds which have a photochemical ozone creation potential.

## 13. Disposal considerations

**Disposal instructions** Use the container until empty. Do not dispose of any non-empty container. Empty containers have residual vapor that is flammable and explosive. Cylinders should be emptied and returned to a hazardous waste collection point. Do not puncture or incinerate even when empty. Dispose in accordance with all applicable regulations.

**Local disposal regulations** Dispose of in accordance with local regulations.

**Hazardous waste code** The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

**Waste from residues / unused products** Dispose in accordance with all applicable regulations.

**Contaminated packaging** Empty containers should be taken to an approved waste handling site for recycling or disposal.

## 14. Transport information

### TDG

**UN number** UN1075

**UN proper shipping name** LIQUEFIED PETROLEUM GASES

**Transport hazard class(es)**

**Class** 2.1

**Subsidiary risk** -

**Packing group** Not applicable.

**Environmental hazards** No

**Special precautions for user** Read safety instructions, SDS and emergency procedures before handling.

### IATA

**UN number** UN1075

**UN proper shipping name** Petroleum gases, liquefied

**Transport hazard class(es)**

**Class** 2.1

**Subsidiary risk** -

**Label(s)** 2.1

**Packing group** Not applicable.

**Environmental hazards** No

**ERG Code** 10L

**Special precautions for user** Read safety instructions, SDS and emergency procedures before handling.

**IMDG**

<b>UN number</b>	UN1075
<b>UN proper shipping name</b>	PETROLEUM GASES, LIQUEFIED
<b>Transport hazard class(es)</b>	
<b>Class</b>	2.1
<b>Subsidiary risk</b>	-
<b>Packing group</b>	Not applicable.
<b>Environmental hazards</b>	
<b>Marine pollutant</b>	No
<b>EmS</b>	E-D, S-U
<b>Special precautions for user</b>	Read safety instructions, SDS and emergency procedures before handling.
<b>Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code</b>	Not applicable.

**15. Regulatory information**

**Canadian regulations** This product has been classified in accordance with the hazard criteria of the HPR and the SDS contains all the information required by the HPR.

**Controlled Drugs and Substances Act**

Not regulated.

**Export Control List (CEPA 1999, Schedule 3)**

Not listed.

**Greenhouse Gases**

Not listed.

**Precursor Control Regulations**

Not regulated.

**International regulations****Stockholm Convention**

Not applicable.

**Rotterdam Convention**

Not applicable.

**Kyoto Protocol**

Not applicable.

**Montreal Protocol**

Not applicable.

**Basel Convention**

Not applicable.

**International Inventories**

<b>Country(s) or region</b>	<b>Inventory name</b>	<b>On inventory (yes/no)*</b>
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
Taiwan	Taiwan Chemical Substance Inventory (TCSI)	No

<b>Country(s) or region</b>	<b>Inventory name</b>	<b>On inventory (yes/no)*</b>
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

\*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s).

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

## 16. Other information

**Issue date** 01-December-2015

**Revision date** 19-December-2018

**Version No.** 02

**List of abbreviations** STEL: Short term exposure limit.  
TWA: Time weighted average.  
RID: Regulations concerning the International Carriage of Dangerous Goods by Rail.

**Disclaimer** All information in this Safety Data Sheet is believed to be accurate and reliable. However, no guarantee or warranty of any kind is made with regard to the accuracy of information or the suitability of the recommendations contained herein. It is the user's responsibility to assess the safety and toxicity of this product under their own conditions of use and to comply with all applicable laws and regulations.

**Material Safety Data Sheet**

**1. MATERIAL AND COMPANY IDENTIFICATION**

**Material Name** : **Quaker State Multi-Purpose Grease Lithium EP 2**  
**Product Code** : 001B1030  
**Uses** : Automotive and industrial grease.

**Manufacturer/Supplier** : **Shell Oil Products US**  
P.O. Box 4427  
Houston TX 77210-4427  
USA

**SDS Request** : (+1) 877-276-7285

**Emergency Telephone Number**  
**Spill Information** : 877-242-7400  
**Health Information** : 877-504-9351

**2. COMPOSITION/INFORMATION ON INGREDIENTS**

A lubricating grease consisting of highly-refined mineral oil and additives.  
The highly refined mineral oil contains <3% (w/w) DMSO-extract, according to IP346.

**3. HAZARDS IDENTIFICATION**

<b>Emergency Overview</b>	
<b>Appearance and Odour</b>	: Amber. Semi-solid at room temperature. Slight hydrocarbon.
<b>Health Hazards</b>	: High-pressure injection under the skin may cause serious damage including local necrosis.
<b>Safety Hazards</b>	: Not classified as flammable but will burn.
<b>Environmental Hazards</b>	: Not classified as dangerous for the environment.

**Health Hazards** : Not expected to be a health hazard when used under normal conditions.

**Health Hazards Inhalation** : Under normal conditions of use, this is not expected to be a primary route of exposure.

**Skin Contact** : Prolonged or repeated skin contact without proper cleaning can clog the pores of the skin resulting in disorders such as oil acne/folliculitis.

**Eye Contact** : May cause slight irritation to eyes.

**Ingestion** : Low toxicity if swallowed.

**Other Information** : High-pressure injection under the skin may cause serious damage including local necrosis. Used grease may contain harmful impurities.

**Signs and Symptoms** : Local necrosis is evidenced by delayed onset of pain and tissue damage a few hours following injection. Oil acne/folliculitis signs and symptoms may include formation of black pustules and

**Material Safety Data Sheet**

- spots on the skin of exposed areas. Ingestion may result in nausea, vomiting and/or diarrhoea.
- Aggravated Medical Conditions** : Pre-existing medical conditions of the following organ(s) or organ system(s) may be aggravated by exposure to this material: Skin.
- Environmental Hazards** : Not classified as dangerous for the environment.
- Additional Information** : Under normal conditions of use or in a foreseeable emergency, this product does not meet the definition of a hazardous chemical when evaluated according to the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

**4. FIRST-AID MEASURES**

- General Information** : Not expected to be a health hazard when used under normal conditions.
- Inhalation** : No treatment necessary under normal conditions of use. If symptoms persist, obtain medical advice.
- Skin Contact** : Remove contaminated clothing. Flush exposed area with water and follow by washing with soap if available. If persistent irritation occurs, obtain medical attention. When using high pressure equipment, injection of product under the skin can occur. If high pressure injuries occur, the casualty should be sent immediately to a hospital. Do not wait for symptoms to develop. Obtain medical attention even in the absence of apparent wounds.
- Eye Contact** : Flush eye with copious quantities of water. If persistent irritation occurs, obtain medical attention.
- Ingestion** : In general no treatment is necessary unless large quantities are swallowed, however, get medical advice.
- Advice to Physician** : Treat symptomatically. High pressure injection injuries require prompt surgical intervention and possibly steroid therapy, to minimise tissue damage and loss of function. Because entry wounds are small and do not reflect the seriousness of the underlying damage, surgical exploration to determine the extent of involvement may be necessary. Local anaesthetics or hot soaks should be avoided because they can contribute to swelling, vasospasm and ischaemia. Prompt surgical decompression, debridement and evacuation of foreign material should be performed under general anaesthetics, and wide exploration is essential.

**5. FIRE-FIGHTING MEASURES**

Clear fire area of all non-emergency personnel.

- Flash point** : > 174 °C / 345 °F (COC)
- Upper / lower Flammability or Explosion limits** : Typical 1 - 10 %(V)(based on mineral oil)
- Auto ignition temperature** : > 320 °C / 608 °F
- Specific Hazards** : Hazardous combustion products may include: A complex

**Material Safety Data Sheet**

- mixture of airborne solid and liquid particulates and gases (smoke). Carbon monoxide may be evolved if incomplete combustion occurs. Unidentified organic and inorganic compounds.
- Suitable Extinguishing Media** : Foam, water spray or fog. Dry chemical powder, carbon dioxide, sand or earth may be used for small fires only.
- Unsuitable Extinguishing Media** : Do not use water in a jet.
- Protective Equipment for Firefighters** : Proper protective equipment including breathing apparatus must be worn when approaching a fire in a confined space.

**6. ACCIDENTAL RELEASE MEASURES**

Avoid contact with spilled or released material. For guidance on selection of personal protective equipment see Chapter 8 of this Material Safety Data Sheet. See Chapter 13 for information on disposal. Observe the relevant local and international regulations.

- Protective measures** : Avoid contact with skin and eyes. Use appropriate containment to avoid environmental contamination. Prevent from spreading or entering drains, ditches or rivers by using sand, earth, or other appropriate barriers.
- Clean Up Methods** : Shovel into a suitable clearly marked container for disposal or reclamation in accordance with local regulations.

**7. HANDLING AND STORAGE**

- General Precautions** : Use local exhaust ventilation if there is risk of inhalation of vapours, mists or aerosols. Use the information in this data sheet as input to a risk assessment of local circumstances to help determine appropriate controls for safe handling, storage and disposal of this material.
- Handling** : Avoid prolonged or repeated contact with skin. Avoid inhaling vapour and/or mists. When handling product in drums, safety footwear should be worn and proper handling equipment should be used. Properly dispose of any contaminated rags or cleaning materials in order to prevent fires.
- Storage** : Keep container tightly closed and in a cool, well-ventilated place. Use properly labelled and closeable containers. Store at ambient temperature.
- Recommended Materials** : For containers or container linings, use mild steel or high density polyethylene.
- Unsuitable Materials** : PVC.
- Additional Information** : Polyethylene containers should not be exposed to high temperatures because of possible risk of distortion.

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

**Occupational Exposure Limits**

**Material Safety Data Sheet**

Material	Source	Type	ppm	mg/m3	Notation
Oil mist, mineral	ACGIH	TWA(Inhalable fraction.)		5 mg/m3	
Oil mist, mineral	OSHA Z1	PEL(Mist.)		5 mg/m3	

**Additional Information** : Due to the product's semi-solid consistency, generation of mists and dusts is unlikely to occur.

**Biological Exposure Index (BEI)**

No biological limit allocated.

**Exposure Controls**

: The level of protection and types of controls necessary will vary depending upon potential exposure conditions. Select controls based on a risk assessment of local circumstances. Appropriate measures include: Adequate ventilation to control airborne concentrations. Where material is heated, sprayed or mist formed, there is greater potential for airborne concentrations to be generated. Define procedures for safe handling and maintenance of controls. Educate and train workers in the hazards and control measures relevant to normal activities associated with this product. Ensure appropriate selection, testing and maintenance of equipment used to control exposure, e.g. personal protective equipment, local exhaust ventilation. Drain down system prior to equipment break-in or maintenance. Retain drain downs in sealed storage pending disposal or for subsequent recycle. Always observe good personal hygiene measures, such as washing hands after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Discard contaminated clothing and footwear that cannot be cleaned. Practice good housekeeping.

**Personal Protective Equipment**

: Personal protective equipment (PPE) should meet recommended national standards. Check with PPE suppliers.

**Respiratory Protection**

: No respiratory protection is ordinarily required under normal conditions of use. In accordance with good industrial hygiene practices, precautions should be taken to avoid breathing of material. If engineering controls do not maintain airborne concentrations to a level which is adequate to protect worker health, select respiratory protection equipment suitable for the specific conditions of use and meeting relevant legislation. Check with respiratory protective equipment suppliers. Where air-filtering respirators are suitable, select an appropriate combination of mask and filter. Select a filter suitable for combined particulate/organic gases and vapours [boiling point >65°C(149 °F)].

**Hand Protection**

: Where hand contact with the product may occur the use of

**Material Safety Data Sheet**

gloves approved to relevant standards (e.g. Europe: EN374, US: F739) made from the following materials may provide suitable chemical protection: PVC, neoprene or nitrile rubber gloves. Suitability and durability of a glove is dependent on usage, e.g. frequency and duration of contact, chemical resistance of glove material, dexterity. Always seek advice from glove suppliers. Contaminated gloves should be replaced. Personal hygiene is a key element of effective hand care. Gloves must only be worn on clean hands. After using gloves, hands should be washed and dried thoroughly. Application of a non-perfumed moisturizer is recommended.

For continuous contact we recommend gloves with breakthrough time of more than 240 minutes with preference for > 480 minutes where suitable gloves can be identified. For short-term/splash protection we recommend the same, but recognise that suitable gloves offering this level of protection may not be available and in this case a lower breakthrough time may be acceptable so long as appropriate maintenance and replacement regimes are followed. Glove thickness is not a good predictor of glove resistance to a chemical as it is dependent on the exact composition of the glove material. Glove thickness should be typically greater than 0.35 mm depending on the glove make and model.

- Eye Protection** : Wear safety glasses or full face shield if splashes are likely to occur.
- Protective Clothing** : Skin protection not ordinarily required beyond standard issue work clothes.
- Monitoring Methods** : Monitoring of the concentration of substances in the breathing zone of workers or in the general workplace may be required to confirm compliance with an OEL and adequacy of exposure controls. For some substances biological monitoring may also be appropriate. Validated exposure measurement methods should be applied by a competent person and samples analysed by an accredited laboratory. Examples of sources of recommended exposure measurement methods are given below or contact the supplier. Further national methods may be available.

National Institute of Occupational Safety and Health (NIOSH), USA: Manual of Analytical Methods <http://www.cdc.gov/niosh/>  
 Occupational Safety and Health Administration (OSHA), USA: Sampling and Analytical Methods <http://www.osha.gov/>  
 Health and Safety Executive (HSE), UK: Methods for the Determination of Hazardous Substances <http://www.hse.gov.uk/>  
 Institut für Arbeitsschutz Deutschen Gesetzlichen Unfallversicherung (IFA), Germany. <http://www.dguv.de/inhalt/index.jsp>  
 L'Institut National de Recherche et de Sécurité, (INRS), France <http://www.inrs.fr/accueil>

- Environmental Exposure** : Take appropriate measures to fulfil the requirements of

**Material Safety Data Sheet**

**Controls**

relevant environmental protection legislation. Avoid contamination of the environment by following advice given in Chapter 6. If necessary, prevent undissolved material from being discharged to waste water. Waste water should be treated in a municipal or industrial waste water treatment plant before discharge to surface water. Local guidelines on emission limits for volatile substances must be observed for the discharge of exhaust air containing vapour.

---

**9. PHYSICAL AND CHEMICAL PROPERTIES**

- Appearance : Amber. Semi-solid at room temperature.
- Odour : Slight hydrocarbon.
- pH : Not applicable.
- Initial Boiling Point and Boiling Range : Data not available
- Pour point : Typical -27 °C / -17 °F
- Flash point : > 174 °C / 345 °F (COC)
- Upper / lower Flammability or Explosion limits : Typical 1 - 10 %(V) (based on mineral oil)
- Auto-ignition temperature : > 320 °C / 608 °F
- Vapour pressure : < 0.5 Pa at 20 °C / 68 °F (estimated value(s))
- Specific gravity : Typical 0.885 at 15 °C / 59 °F
  
- Density : Typical 885 kg/m3 at 15 °C / 59 °F
- Water solubility : Negligible.
- n-octanol/water partition coefficient (log Pow) : > 6 (based on information on similar products)
- Kinematic viscosity : Not applicable.
- Vapour density (air=1) : > 1 (estimated value(s))
- Electrical conductivity : This material is not expected to be a static accumulator.
- Evaporation rate (nBuAc=1) : Data not available

---

**10. STABILITY AND REACTIVITY**

- Stability** : Stable.
- Conditions to Avoid** : Extremes of temperature and direct sunlight.
- Materials to Avoid** : Strong oxidising agents.
- Hazardous Decomposition Products** : Hazardous decomposition products are not expected to form during normal storage.

---

**11. TOXICOLOGICAL INFORMATION**

- Basis for Assessment** : Information given is based on data on the components and the toxicology of similar products. Unless indicated otherwise, the data presented is representative of the product as a whole, rather than for individual component(s).
- Acute Oral Toxicity** : Expected to be of low toxicity: LD50 > 5000 mg/kg , Rat
- Acute Dermal Toxicity** : Expected to be of low toxicity: LD50 > 5000 mg/kg , Rabbit
- Acute Inhalation Toxicity** : Not considered to be an inhalation hazard under normal

**Material Safety Data Sheet**

- conditions of use.
- Skin Irritation** : Expected to be slightly irritating. Prolonged or repeated skin contact without proper cleaning can clog the pores of the skin resulting in disorders such as oil acne/folliculitis.
- Eye Irritation** : Expected to be slightly irritating.
- Respiratory Irritation** : Inhalation of vapours or mists may cause irritation.
- Sensitisation** : Not expected to be a skin sensitiser.
- Repeated Dose Toxicity** : Not expected to be a hazard.
- Mutagenicity** : Not considered a mutagenic hazard.
- Carcinogenicity** : Not expected to be carcinogenic. Product contains mineral oils of types shown to be non-carcinogenic in animal skin-painting studies. Highly refined mineral oils are not classified as carcinogenic by the International Agency for Research on Cancer (IARC).

Material	Carcinogenicity Classification
Highly refined mineral oil (IP346 <3%)	ACGIH Group A4: Not classifiable as a human carcinogen.
Highly refined mineral oil (IP346 <3%)	IARC 3: Not classifiable as to carcinogenicity to humans.
Highly refined mineral oil (IP346 <3%)	GHS / CLP: No carcinogenicity classification

- Reproductive and Developmental Toxicity** : Not expected to be a hazard.
- Additional Information** : Used grease may contain harmful impurities that have accumulated during use. The concentration of such harmful impurities will depend on use and they may present risks to health and the environment on disposal. ALL used grease should be handled with caution and skin contact avoided as far as possible. High pressure injection of product into the skin may lead to local necrosis if the product is not surgically removed.

**12. ECOLOGICAL INFORMATION**

Ecotoxicological data have not been determined specifically for this product. Information given is based on a knowledge of the components and the ecotoxicology of similar products. Unless indicated otherwise, the data presented is representative of the product as a whole, rather than for individual component(s).

- Acute Toxicity** : Poorly soluble mixture. May cause physical fouling of aquatic organisms. Expected to be practically non toxic: LL/EL/IL50 > 100 mg/l (to aquatic organisms) LL/EL50 expressed as the nominal amount of product required to prepare aqueous test extract. Mineral oil is not expected to cause any chronic effects to aquatic organisms at concentrations less than 1 mg/l.
- Mobility** : Semi-solid under most environmental conditions. If it enters soil, it will adsorb to soil particles and will not be mobile. Floats

## Material Safety Data Sheet

- on water.
- Persistence/degradability** : Expected to be not readily biodegradable. Major constituents are expected to be inherently biodegradable, but the product contains components that may persist in the environment.
- Bioaccumulation** : Contains components with the potential to bioaccumulate.
- Other Adverse Effects** : Product is a mixture of non-volatile components, which are not expected to be released to air in any significant quantities. Not expected to have ozone depletion potential, photochemical ozone creation potential or global warming potential.

---

### 13. DISPOSAL CONSIDERATIONS

- Material Disposal** : Recover or recycle if possible. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste classification and disposal methods in compliance with applicable regulations. Do not dispose into the environment, in drains or in water courses.
- Container Disposal** : Dispose in accordance with prevailing regulations, preferably to a recognised collector or contractor. The competence of the collector or contractor should be established beforehand.
- Local Legislation** : Disposal should be in accordance with applicable regional, national, and local laws and regulations.

---

### 14. TRANSPORT INFORMATION

**US Department of Transportation Classification (49CFR)**

This material is not subject to DOT regulations under 49 CFR Parts 171-180.

**IMDG**

This material is not classified as dangerous under IMDG regulations.

**IATA (Country variations may apply)**

This material is either not classified as dangerous under IATA regulations or needs to follow country specific requirements.

---

### 15. REGULATORY INFORMATION

The regulatory information is not intended to be comprehensive. Other regulations may apply to this material.

#### Federal Regulatory Status

#### Notification Status

## Material Safety Data Sheet

DSL	All components listed.
EINECS	All components listed or polymer exempt.
TSCA	All components listed.

Shell classifies this material as an "oil" under the CERCLA Petroleum Exclusion, therefore releases to the environment are not reportable under CERCLA.

### State Regulatory Status

#### California Safe Drinking Water and Toxic Enforcement Act (Proposition 65)

This material does not contain any chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

---

#### 16. OTHER INFORMATION

<b>NFPA Rating (Health, Fire, Reactivity)</b>	: 0, 1, 0
<b>SDS Version Number</b>	: 2.2
<b>SDS Effective Date</b>	: 02/05/2014
<b>SDS Revisions</b>	: A vertical bar ( ) in the left margin indicates an amendment from the previous version.
<b>SDS Regulation</b>	: The content and format of this MSDS is in accordance with the OSHA Hazard Communication Standard, 29 CFR 1910.1200.
<b>SDS Distribution</b>	: The information in this document should be made available to all who may handle the product.
<b>Disclaimer</b>	: The information contained herein is based on our current knowledge of the underlying data and is intended to describe the product for the purpose of health, safety and environmental requirements only. No warranty or guarantee is expressed or implied regarding the accuracy of these data or the results to be obtained from the use of the product.

# SAFETY DATA SHEET

According to the Hazardous Products Regulations

## Quaker State ITASCA Sterling 2-Cycle

Version	Revision Date:	SDS Number:	Print Date: 2017-04-06
2.5	2017-04-05	800001027265	Date of last issue: 24.03.2017
			Date of first issue: 01.10.2008

---

### SECTION 1. IDENTIFICATION

Product name : Quaker State ITASCA Sterling 2-Cycle  
Product code : 001B2055

#### Manufacturer or supplier's details

Manufacturer/Supplier : **Shell Canada Products**  
400 - 4th Avenue S.W  
Calgary AB T2P 0J4  
Canada

Telephone : (+1) 8006611600  
Telefax : (+1) 4033848345

Emergency telephone number : CHEMTREC (24 hr): 1 (703) 527-3887 or 1 (800) 424-9300 (US)  
CANUTEC (24 hr): (+1) 613-996-6666; Toll Free: 1-888-CAN-UTEC (226-8832)

#### Recommended use of the chemical and restrictions on use

Recommended use : Engine oil.

---

### SECTION 2. HAZARDS IDENTIFICATION

#### GHS Classification

Flammable liquids : Category 4

#### GHS label elements

Hazard pictograms : No Hazard Symbol required

Signal word : Warning

Hazard statements : PHYSICAL HAZARDS:  
H227 Combustible liquid.  
HEALTH HAZARDS:  
Not classified as a health hazard under GHS criteria.  
ENVIRONMENTAL HAZARDS:  
Not classified as an environmental hazard under GHS criteria.

Precautionary statements : **Prevention:**  
P210 Keep away from heat/sparks/open flames/hot surfaces.  
No smoking.  
P280 Wear protective gloves/ protective clothing/ eye protec-

# SAFETY DATA SHEET

According to the Hazardous Products Regulations

## Quaker State ITASCA Sterling 2-Cycle

Version  
2.5

Revision Date:  
2017-04-05

SDS Number:  
800001027265

Print Date: 2017-04-06  
Date of last issue: 24.03.2017  
Date of first issue: 01.10.2008

tion/ face protection.

**Response:**

P370 + P378 In case of fire: Use appropriate media to extinguish.

**Storage:**

P403 + P235 Store in a well-ventilated place. Keep cool.

**Disposal:**

P501 Dispose of contents/ container to an approved waste disposal plant.

**Other hazards which do not result in classification**

Prolonged or repeated skin contact without proper cleaning can clog the pores of the skin resulting in disorders such as oil acne/folliculitis.

Used oil may contain harmful impurities.

### SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance name : Quaker State ITASCA Sterling 2-Cycle

Chemical nature : Highly refined mineral oils and additives.  
The highly refined mineral oil contains <3% (w/w) DMSO-extract, according to IP346.

**Hazardous components**

Chemical name	CAS-No.	Concentration (% w/w)
Distillates (petroleum), hydrotreated light	64742-47-8	20 - 40
White mineral oil (petroleum)	8042-47-5	1 - 5

### SECTION 4. FIRST-AID MEASURES

General advice : Not expected to be a health hazard when used under normal conditions.

If inhaled : No treatment necessary under normal conditions of use.  
If symptoms persist, obtain medical advice.

In case of skin contact : Remove contaminated clothing. Flush exposed area with water and follow by washing with soap if available.  
If persistent irritation occurs, obtain medical attention.

In case of eye contact : Flush eye with copious quantities of water.  
Remove contact lenses, if present and easy to do. Continue rinsing.  
If persistent irritation occurs, obtain medical attention.

If swallowed : In general no treatment is necessary unless large quantities are swallowed, however, get medical advice.

Most important symptoms and effects, both acute and : Oil acne/folliculitis signs and symptoms may include formation of black pustules and spots on the skin of exposed areas.

# SAFETY DATA SHEET

According to the Hazardous Products Regulations

## Quaker State ITASCA Sterling 2-Cycle

Version 2.5	Revision Date: 2017-04-05	SDS Number: 800001027265	Print Date: 2017-04-06 Date of last issue: 24.03.2017 Date of first issue: 01.10.2008
----------------	------------------------------	-----------------------------	---

---

delayed	Ingestion may result in nausea, vomiting and/or diarrhoea.
Protection of first-aiders	: When administering first aid, ensure that you are wearing the appropriate personal protective equipment according to the incident, injury and surroundings.
Notes to physician	: Treat symptomatically.

---

### SECTION 5. FIRE-FIGHTING MEASURES

Suitable extinguishing media	: Foam, water spray or fog. Dry chemical powder, carbon dioxide, sand or earth may be used for small fires only.
Unsuitable extinguishing media	: Do not use water in a jet.
Specific hazards during fire-fighting	: Hazardous combustion products may include: A complex mixture of airborne solid and liquid particulates and gases (smoke). Carbon monoxide may be evolved if incomplete combustion occurs. Unidentified organic and inorganic compounds.
Specific extinguishing methods	: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Special protective equipment for firefighters	: Proper protective equipment including chemical resistant gloves are to be worn; chemical resistant suit is indicated if large contact with spilled product is expected. Self-Contained Breathing Apparatus must be worn when approaching a fire in a confined space. Select fire fighter's clothing approved to relevant Standards (e.g. Europe: EN469).

---

### SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	: Avoid contact with skin and eyes.
Environmental precautions	: Use appropriate containment to avoid environmental contamination. Prevent from spreading or entering drains, ditches or rivers by using sand, earth, or other appropriate barriers.  Local authorities should be advised if significant spillages cannot be contained.
Methods and materials for containment and cleaning up	: Slippery when spilt. Avoid accidents, clean up immediately. Prevent from spreading by making a barrier with sand, earth or other containment material. Reclaim liquid directly or in an absorbent. Soak up residue with an absorbent such as clay, sand or other

# SAFETY DATA SHEET

According to the Hazardous Products Regulations

## Quaker State ITASCA Sterling 2-Cycle

Version  
2.5

Revision Date:  
2017-04-05

SDS Number:  
800001027265

Print Date: 2017-04-06  
Date of last issue: 24.03.2017  
Date of first issue: 01.10.2008

---

suitable material and dispose of properly.

Additional advice : For guidance on selection of personal protective equipment see Chapter 8 of this Safety Data Sheet.  
For guidance on disposal of spilled material see Chapter 13 of this Safety Data Sheet.

---

### SECTION 7. HANDLING AND STORAGE

General Precautions : Use local exhaust ventilation if there is risk of inhalation of vapours, mists or aerosols.  
Use the information in this data sheet as input to a risk assessment of local circumstances to help determine appropriate controls for safe handling, storage and disposal of this material.

Advice on safe handling : Avoid prolonged or repeated contact with skin.  
Avoid inhaling vapour and/or mists.  
When handling product in drums, safety footwear should be worn and proper handling equipment should be used.  
Properly dispose of any contaminated rags or cleaning materials in order to prevent fires.

Avoidance of contact : Strong oxidising agents.

Product Transfer : This material has the potential to be a static accumulator.  
Proper grounding and bonding procedures should be used during all bulk transfer operations.

#### Storage

Other data : Keep container tightly closed and in a cool, well-ventilated place.  
Use properly labeled and closable containers.

Store at ambient temperature.

Packaging material : Suitable material: For containers or container linings, use mild steel or high density polyethylene.  
Unsuitable material: PVC.

Container Advice : Polyethylene containers should not be exposed to high temperatures because of possible risk of distortion.

---

### SECTION 8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

#### Components with workplace control parameters

# SAFETY DATA SHEET

According to the Hazardous Products Regulations

## Quaker State ITASCA Sterling 2-Cycle

Version  
2.5

Revision Date:  
2017-04-05

SDS Number:  
800001027265

Print Date: 2017-04-06  
Date of last issue: 24.03.2017  
Date of first issue: 01.10.2008

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
Oil mist, mineral	Not Assigned	TWA ((inhalable fraction))	5 mg/m <sup>3</sup>	US. ACGIH Threshold Limit Values
		TWA (Mist)	5 mg/m <sup>3</sup>	OSHA Z-1
		TWA (Inhalable fraction)	5 mg/m <sup>3</sup>	ACGIH

### Biological occupational exposure limits

No biological limit allocated.

### Monitoring Methods

Monitoring of the concentration of substances in the breathing zone of workers or in the general workplace may be required to confirm compliance with an OEL and adequacy of exposure controls. For some substances biological monitoring may also be appropriate.

Validated exposure measurement methods should be applied by a competent person and samples analysed by an accredited laboratory.

Examples of sources of recommended exposure measurement methods are given below or contact the supplier. Further national methods may be available.

National Institute of Occupational Safety and Health (NIOSH), USA: Manual of Analytical Methods <http://www.cdc.gov/niosh/>

Occupational Safety and Health Administration (OSHA), USA: Sampling and Analytical Methods <http://www.osha.gov/>

Health and Safety Executive (HSE), UK: Methods for the Determination of Hazardous Substances <http://www.hse.gov.uk/>

Institut für Arbeitsschutz Deutschen Gesetzlichen Unfallversicherung (IFA), Germany <http://www.dguv.de/inhalt/index.jsp>

L'Institut National de Recherche et de Sécurité, (INRS), France <http://www.inrs.fr/accueil>

### Engineering measures

: The level of protection and types of controls necessary will vary depending upon potential exposure conditions. Select controls based on a risk assessment of local circumstances. Appropriate measures include:  
Adequate ventilation to control airborne concentrations.

Where material is heated, sprayed or mist formed, there is greater potential for airborne concentrations to be generated.

#### General Information:

Define procedures for safe handling and maintenance of controls.

Educate and train workers in the hazards and control measures relevant to normal activities associated with this product.

Ensure appropriate selection, testing and maintenance of equipment used to control exposure, e.g. personal protective equipment, local exhaust ventilation.

Drain down system prior to equipment break-in or maintenance.

# SAFETY DATA SHEET

According to the Hazardous Products Regulations

## Quaker State ITASCA Sterling 2-Cycle

Version  
2.5

Revision Date:  
2017-04-05

SDS Number:  
800001027265

Print Date: 2017-04-06  
Date of last issue: 24.03.2017  
Date of first issue: 01.10.2008

Retain drain downs in sealed storage pending disposal or subsequent recycle.

Always observe good personal hygiene measures, such as washing hands after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Discard contaminated clothing and footwear that cannot be cleaned.

Practice good housekeeping.

### Personal protective equipment

Respiratory protection

- : No respiratory protection is ordinarily required under normal conditions of use.
- In accordance with good industrial hygiene practices, precautions should be taken to avoid breathing of material.
- If engineering controls do not maintain airborne concentrations to a level which is adequate to protect worker health, select respiratory protection equipment suitable for the specific conditions of use and meeting relevant legislation.
- Check with respiratory protective equipment suppliers.
- Where air-filtering respirators are suitable, select an appropriate combination of mask and filter.
- Select a filter suitable for the combination of organic gases and vapours [Type A/Type P boiling point >65°C (149°F)].

Hand protection  
Remarks

- : Where hand contact with the product may occur the use of gloves approved to relevant standards (e.g. Europe: EN374, US: F739) made from the following materials may provide suitable chemical protection. PVC, neoprene or nitrile rubber gloves. Suitability and durability of a glove is dependent on usage, e.g. frequency and duration of contact, chemical resistance of glove material, dexterity. Always seek advice from glove suppliers. Contaminated gloves should be replaced. Personal hygiene is a key element of effective hand care. Gloves must only be worn on clean hands. After using gloves, hands should be washed and dried thoroughly. Application of a non-perfumed moisturizer is recommended. For continuous contact we recommend gloves with breakthrough time of more than 240 minutes with preference for > 480 minutes where suitable gloves can be identified. For short-term/splash protection we recommend the same, but recognize that suitable gloves offering this level of protection may not be available and in this case a lower breakthrough time maybe acceptable so long as appropriate maintenance and replacement regimes are followed. Glove thickness is not a good predictor of glove resistance to a chemical as it is dependent on the exact composition of the glove material. Glove thickness should be typically greater than 0.35 mm depending on the glove make and model.

Eye protection

- : If material is handled such that it could be splashed into eyes, protective eyewear is recommended.

# SAFETY DATA SHEET

According to the Hazardous Products Regulations

## Quaker State ITASCA Sterling 2-Cycle

Version 2.5	Revision Date: 2017-04-05	SDS Number: 800001027265	Print Date: 2017-04-06 Date of last issue: 24.03.2017 Date of first issue: 01.10.2008
----------------	------------------------------	-----------------------------	---

---

Skin and body protection : Skin protection is not ordinarily required beyond standard work clothes.  
It is good practice to wear chemical resistant gloves.

Thermal hazards : Not applicable

Protective measures : Personal protective equipment (PPE) should meet recommended national standards. Check with PPE suppliers.

### Environmental exposure controls

General advice : Take appropriate measures to fulfill the requirements of relevant environmental protection legislation. Avoid contamination of the environment by following advice given in Chapter 6. If necessary, prevent undissolved material from being discharged to waste water. Waste water should be treated in a municipal or industrial waste water treatment plant before discharge to surface water.  
Local guidelines on emission limits for volatile substances must be observed for the discharge of exhaust air containing vapour.

---

### SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : Liquid at room temperature.

Colour : amber

Odour : Slight hydrocarbon

Odour Threshold : Data not available

pH : Not applicable

pour point : -42 °C / -44 °F  
Method: ASTM D97

Initial boiling point and boiling range : > 280 °C / 536 °F  
estimated value(s)

Flash point : 76 °C / 169 °F  
Method: ASTM D93 (PMCC)

Evaporation rate : Data not available

Flammability (solid, gas) : Data not available

Upper explosion limit : Typical 10 %(V)

# SAFETY DATA SHEET

According to the Hazardous Products Regulations

## Quaker State ITASCA Sterling 2-Cycle

Version	Revision Date:	SDS Number:	Print Date: 2017-04-06
2.5	2017-04-05	800001027265	Date of last issue: 24.03.2017
			Date of first issue: 01.10.2008

---

Lower explosion limit	: Typical 1 %(V)
Vapour pressure	: < 0.5 Pa (20 °C / 68 °F) estimated value(s)
Relative vapour density	: > 1 estimated value(s)
Relative density	: 0.867 (15 °C / 59 °F)
Density	: 863 kg/m <sup>3</sup> Method: ASTM D4052
Solubility(ies)	
Water solubility	: negligible
Solubility in other solvents	: Data not available
Partition coefficient: n-octanol/water	: Pow: > 6 (based on information on similar products)
Auto-ignition temperature	: > 320 °C / 608 °F
Viscosity	
Viscosity, dynamic	: Data not available
Viscosity, kinematic	: 33 mm <sup>2</sup> /s (40.0 °C / 104.0 °F) Method: Unspecified
	6.8 mm <sup>2</sup> /s (100 °C / 212 °F) Method: ASTM D445
Explosive properties	: Not classified
Oxidizing properties	: Data not available
Conductivity	: This material is not expected to be a static accumulator.
Decomposition temperature	: Data not available

---

### SECTION 10. STABILITY AND REACTIVITY

Reactivity	: The product does not pose any further reactivity hazards in addition to those listed in the following sub-paragraph.
Chemical stability	: Stable.
Possibility of hazardous reactions	: Reacts with strong oxidising agents.
Conditions to avoid	: Extremes of temperature and direct sunlight.

# SAFETY DATA SHEET

According to the Hazardous Products Regulations

## Quaker State ITASCA Sterling 2-Cycle

Version	Revision Date:	SDS Number:	Print Date: 2017-04-06
2.5	2017-04-05	800001027265	Date of last issue: 24.03.2017
			Date of first issue: 01.10.2008

---

Incompatible materials : Strong oxidising agents.

Hazardous decomposition products : Hazardous decomposition products are not expected to form during normal storage.

---

### SECTION 11. TOXICOLOGICAL INFORMATION

Basis for assessment : Information given is based on data on the components and the toxicology of similar products. Unless indicated otherwise, the data presented is representative of the product as a whole, rather than for individual component(s).

#### Information on likely routes of exposure

Skin and eye contact are the primary routes of exposure although exposure may occur following accidental ingestion.

#### Acute toxicity

##### Product:

Acute oral toxicity : LD50 (rat): > 5,000 mg/kg  
Remarks: Expected to be of low toxicity:

Acute inhalation toxicity : Remarks: Not considered to be an inhalation hazard under normal conditions of use.

Acute dermal toxicity : LD50 (Rabbit): > 5,000 mg/kg  
Remarks: Expected to be of low toxicity:

#### Skin corrosion/irritation

##### Product:

Remarks: Expected to be slightly irritating.  
Prolonged or repeated skin contact without proper cleaning can clog the pores of the skin resulting in disorders such as oil acne/folliculitis.

#### Serious eye damage/eye irritation

##### Product:

Remarks: Expected to be slightly irritating.

#### Respiratory or skin sensitisation

##### Product:

Remarks: Not expected to be a skin sensitiser.

#### Germ cell mutagenicity

##### Product:

Genotoxicity in vivo : Remarks: Not considered a mutagenic hazard.

# SAFETY DATA SHEET

According to the Hazardous Products Regulations

## Quaker State ITASCA Sterling 2-Cycle

Version  
2.5

Revision Date:  
2017-04-05

SDS Number:  
800001027265

Print Date: 2017-04-06  
Date of last issue: 24.03.2017  
Date of first issue: 01.10.2008

---

### Carcinogenicity

**Product:**

Remarks: Not expected to be carcinogenic.

Remarks: Product contains mineral oils of types shown to be non-carcinogenic in animal skin-painting studies.

Highly refined mineral oils are not classified as carcinogenic by the International Agency for Research on Cancer (IARC).

### Reproductive toxicity

**Product:**

Effects on fertility

:

Remarks: Not expected to impair fertility.  
Not expected to be a developmental toxicant.

### STOT - single exposure

**Product:**

Remarks: Not expected to be a hazard.

### STOT - repeated exposure

**Product:**

Remarks: Not expected to be a hazard.

### Aspiration toxicity

**Product:**

Not considered an aspiration hazard.

### Further information

**Product:**

Remarks: Used oils may contain harmful impurities that have accumulated during use. The concentration of such impurities will depend on use and they may present risks to health and the environment on disposal.

ALL used oil should be handled with caution and skin contact avoided as far as possible.

Remarks: Continuous contact with used engine oils has caused skin cancer in animal tests.

Remarks: Slightly irritating to respiratory system.

---

## SECTION 12. ECOLOGICAL INFORMATION

Basis for assessment : Ecotoxicological data have not been determined specifically

# SAFETY DATA SHEET

According to the Hazardous Products Regulations

## Quaker State ITASCA Sterling 2-Cycle

Version  
2.5

Revision Date:  
2017-04-05

SDS Number:  
800001027265

Print Date: 2017-04-06  
Date of last issue: 24.03.2017  
Date of first issue: 01.10.2008

for this product.

Information given is based on a knowledge of the components and the ecotoxicology of similar products.

Unless indicated otherwise, the data presented is representative of the product as a whole, rather than for individual component(s). (LL/EL/IL50 expressed as the nominal amount of product required to prepare aqueous test extract).

### Ecotoxicity

#### Product:

Toxicity to fish (Acute toxicity) : Remarks: Expected to be practically non toxic:  
LL/EL/IL50 > 100 mg/l

Toxicity to crustacean (Acute toxicity) : Remarks: Expected to be practically non toxic:  
LL/EL/IL50 > 100 mg/l

Toxicity to algae/aquatic plants (Acute toxicity) : Remarks: Expected to be practically non toxic:  
LL/EL/IL50 > 100 mg/l

Toxicity to fish (Chronic toxicity) : Remarks: Data not available

Toxicity to crustacean (Chronic toxicity) : Remarks: Data not available

Toxicity to microorganisms (Acute toxicity) : Remarks: Data not available

### Persistence and degradability

#### Product:

Biodegradability : Remarks: Expected to be not readily biodegradable.  
Major constituents are expected to be inherently biodegradable, but contains components that may persist in the environment.

### Bioaccumulative potential

#### Product:

Bioaccumulation : Remarks: Contains components with the potential to bioaccumulate.

Partition coefficient: n-octanol/water : Pow: > 6  
Remarks: (based on information on similar products)

### Mobility in soil

#### Product:

Mobility : Remarks: Liquid under most environmental conditions.

# SAFETY DATA SHEET

According to the Hazardous Products Regulations

## Quaker State ITASCA Sterling 2-Cycle

Version  
2.5

Revision Date:  
2017-04-05

SDS Number:  
800001027265

Print Date: 2017-04-06  
Date of last issue: 24.03.2017  
Date of first issue: 01.10.2008

If it enters soil, it will adsorb to soil particles and will not be mobile.

Remarks: Floats on water.

### Other adverse effects

#### **Product:**

Additional ecological information

: Product is a mixture of non-volatile components, which are not expected to be released to air in any significant quantities. Not expected to have ozone depletion potential, photochemical ozone creation potential or global warming potential.

Poorly soluble mixture.  
May cause physical fouling of aquatic organisms.

Mineral oil is not expected to cause any chronic effects to aquatic organisms at concentrations less than 1 mg/l.

## SECTION 13. DISPOSAL CONSIDERATIONS

### Disposal methods

Waste from residues

: Recover or recycle if possible.  
It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste classification and disposal methods in compliance with applicable regulations.  
Do not dispose into the environment, in drains or in water courses

Waste product should not be allowed to contaminate soil or ground water, or be disposed of into the environment.  
Waste, spills or used product is dangerous waste.

Contaminated packaging

: Dispose in accordance with prevailing regulations, preferably to a recognized collector or contractor. The competence of the collector or contractor should be established beforehand. Disposal should be in accordance with applicable regional, national, and local laws and regulations.

Local legislation  
Remarks

: Disposal should be in accordance with applicable regional, national, and local laws and regulations.

## SECTION 14. TRANSPORT INFORMATION

### National Regulations

TDG

# SAFETY DATA SHEET

According to the Hazardous Products Regulations

## Quaker State ITASCA Sterling 2-Cycle

Version	Revision Date:	SDS Number:	Print Date: 2017-04-06
2.5	2017-04-05	800001027265	Date of last issue: 24.03.2017
			Date of first issue: 01.10.2008

Not regulated as a dangerous good

### International Regulations

#### IATA-DGR

Not regulated as a dangerous good

#### IMDG-Code

Not regulated as a dangerous good

### Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Pollution category	: Not applicable
Ship type	: Not applicable
Product name	: Not applicable
Special precautions	: Not applicable

### Special precautions for user

Remarks : Special Precautions: Refer to Chapter 7, Handling & Storage, for special precautions which a user needs to be aware of or needs to comply with in connection with transport.

**Additional Information** : MARPOL Annex 1 rules apply for bulk shipments by sea.

## SECTION 15. REGULATORY INFORMATION

### Safety, health and environmental regulations/legislation specific for the substance or mixture

This product has been classified in accordance with the hazard criteria of the Hazardous Products Regulations (HPR) and the SDS contains all the information required by the HPR.

### The components of this product are reported in the following inventories:

EINECS : All components listed or polymer exempt.

TSCA : All components listed.

DSL : All components listed.

## SECTION 16. OTHER INFORMATION

### Full text of other abbreviations

AICS - Australian Inventory of Chemical Substances; ANTT - National Agency for Transport by Land of Brazil; ASTM - American Society for the Testing of Materials; bw - Body weight; CMR - Carcinogen, Mutagen or Reproductive Toxicant; CPR - Controlled Products Regulations; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - Interna-

# SAFETY DATA SHEET

According to the Hazardous Products Regulations

## Quaker State ITASCA Sterling 2-Cycle

Version	Revision Date:	SDS Number:	Print Date: 2017-04-06
2.5	2017-04-05	800001027265	Date of last issue: 24.03.2017
			Date of first issue: 01.10.2008

tional Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; Nch - Chilean Norm; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NOM - Official Mexican Norm; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TDG - Transportation of Dangerous Goods; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative; WHMIS - Workplace Hazardous Materials Information System

A vertical bar (|) in the left margin indicates an amendment from the previous version.

Revision Date : 2017-04-05

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

CA / EN

K-G SPRAY-PAK INC.  
8001 KEELE STREET, P.O BOX 89  
CONCORD; L4K 1Y8; ONTARIO  
CANADA 905--669-9855

**PRODUCT: 03405-2100 38-2100-2 QUICK START STARTING FLUID 311G****Section 01: CHEMICAL PRODUCT AND COMPANY IDENTIFICATION**

MANUFACTURER ..... K-G SPRAY-PAK INC.  
8001 KEELE STREET P.O. BOX 89  
ONTARIO  
CANADA  
L4K 1Y8  
CANUTEC EMERGENCY #:1-613-996-6666(24HR)  
PRODUCT NAME..... 03405-2100 38-2100-2 QUICK START STARTING FLUID 311G  
CHEMICAL FAMILY..... ORGANIC SOLVENTS.  
MOLECULAR WEIGHT..... NOT APPLICABLE.  
CHEMICAL FORMULA..... NOT APPLICABLE.  
TRADE NAMES & SYNONYMS..... 03405-2100 38-2100-2 QUICK START STARTING FLUID 311G  
PRODUCT USES..... AUTOMOTIVE.  
FORMULA/LAB BOOK #..... 99-0007.

**Section 02: COMPOSITION/INFORMATION INGREDIENTS**

Hazardous Ingredients	%	Exposure Limit	C.A.S.#	LD/50, Route,Species	LC/50 Route,Species
LIGHT NAPHTHA - HYDROTREATED	15-40	100 ppm	64742-49-0	24,000 mg/kg ORAL-RAT	14,000-16000 ppm/4h INHAL-RAT
HEXANE	5-10	50 ppm	110-54-3	25,000 mg/kg ORAL-RAT	48,000 mg/kg INHAL-MOUSE
CARBON DIOXIDE	3-7	5000 ppm	124-38-9	NOT APPLICABLE	NOT AVAILABLE
ETHYL ETHER	30-60	400 ppm	60-29-7	1215 mg/kg ORAL - RAT	73000 ppm (150 min.) INHAL - RAT

**Section 03: HAZARDS IDENTIFICATION**

ROUTE OF ENTRY:  
INGESTION..... MAY CAUSE HEADACHE, NAUSEA, VOMITING AND WEAKNESS.  
INHALATION..... INHALATION OF SOLVENTS MAY CAUSE IRRITATION. PROPELLANT IS A SIMPLE ASPHYXIANT.  
EYE CONTACT..... MAY CAUSE IRRITATION.  
SKIN ABSORPTION..... NO DATA AVAILABLE FOR THIS PRODUCT MIXTURE.  
SKIN CONTACT..... MAY CAUSE IRRITATION.  
EFFECTS OF ACUTE EXPOSURE..... DIZZINESS, NAUSEA. IRRITATION TO SKIN & EYES.  
EFFECTS OF CHRONIC EXPOSURE..... SOLVENTS MAY CAUSE DEFATTING DERMATITIS  
EXPOSURE LIMIT OF MATERIAL..... SEE SECTION 2.

**Section 04: FIRST AID MEASURES**

EMERGENCY FIRST AID PROCEDURE .... IN CASE OF EYE CONTACT, FLUSH IMMEDIATELY WITH PLENTY OF WATER FOR AT LEAST 15 MINUTES AND GET MEDICAL ATTENTION. FOR SKIN, WASH THOROUGHLY WITH SOAP AND WATER. IF AFFECTED BY INHALATION OF VAPOUR OR SPRAY MIST, REMOVE TO FRESH AIR. IF SWALLOWED; DO NOT INDUCE VOMITING, GET MEDICAL ATTENTION.

**Section 05: FIRE FIGHTING MEASURES**

AUTO IGNITION TEMPERATURE (°C)..... 180 - 254.  
SPECIAL PROCEDURES..... WATER FROM FOGGING NOZZLES MAY BE USED TO COOL CLOSED CONTAINERS TO PREVENT BUILD-UP IF EXPOSED TO EXTREME TEMPERATURES. FULL PROTECTIVE EQUIPMENT INCLUDING SELF CONTAINED BREATHING APPARATUS SHOULD BE WORN IN A FIRE INVOLVING THIS MATERIAL.  
FLAMMABILITY..... EXTREMELY FLAMMABLE.  
IF YES, UNDER WHICH CONDITIONS?..... EXCESSIVE HEAT, SPARKS AND OPEN FLAME.  
EXTINGUISHING MEDIA..... WATER, CARBON DIOXIDE, DRY CHEMICAL, FOAM.  
FLASH POINT (C), TAG CLOSED CUP..... LOWEST KNOWN VALUE IS ETHYL ETHER @-45 °C .  
UPPER FLAMMABLE LIMIT..... 36.  
(% BY VOLUME)

**PRODUCT: 03405-2100 38-2100-2 QUICK START STARTING FLUID 311G****Section 05: FIRE FIGHTING MEASURES**

LOWER FLAMMABLE LIMIT..... (% BY VOLUME)	2.6.
EXPLOSION DATA	
SENSITIVITY TO STATIC DISCHARGE.....	NOT APPLICABLE.
SENSITIVITY TO IMPACT.....	NOT APPLICABLE.
HAZARDOUS COMBUSTION PRODUCTS.....	HYDROCARBON FUMES AND SMOKE. CARBON MONOXIDE WHERE COMBUSTION IS INCOMPLETE.
AEROSOL FLAME PROJECTION CLASSIFIED AS:.....	>45cm BUT <100cm.
FLASHBACK.....	YES.

**Section 06: ACCIDENTAL RELEASE MEASURES**

LEAK/SPILL.....	REMOVE ALL SOURCES OF IGNITION. USE AN INERT ABSORBENT MATERIAL, AND NON-SPARKING TOOLS. VENTILATE AREA. PREVENT FROM ENTERING A WATERCOURSE.
-----------------	---

**Section 07: HANDLING AND STORAGE**

STORAGE NEEDS.....	KEEP AWAY FROM HEAT, SPARKS, AND OPEN FLAMES.
ENGINEERING CONTROLS.....	VENTILATION - LOCAL (MECHANICAL IF USED INDOORS ON A CONTINUOUS BASIS).
HANDLING PROCEDURES AND EQUIPMENT	STORE IN A COOL, WELL VENTILATED AREA NOT TO EXCEED 50 DEG C.
SYNERGISTIC MATERIALS.....	NONE KNOWN.

**Section 08: EXPOSURE CONTROLS/PERSONAL PROTECTION**

GLOVES/ TYPE.....	WEAR CHEMICAL RESISTANT GLOVES.
RESPIRATORY/TYPE.....	IF USED INDOORS ON A CONTINUOUS BASIS, USE OF A CARTRIDGE TYPE RESPIRATOR (NIOSH/MSHATC 23C OR EQUIVALENT) IS RECOMMENDED.
EYE/TYPE.....	SAFETY GLASSES.
FOOTWEAR/TYPE.....	NOT NORMALLY REQUIRED.
OTHER/TYPE.....	NOT REQUIRED.

**Section 09: PHYSICAL AND CHEMICAL PROPERTIES**

PHYSICAL STATE.....	AEROSOL.
APPEARANCE.....	CLEAR COLORLESS LIQUID.
ODOR.....	ETHEREAL.
ODOR THRESHOLD.....	NOT AVAILABLE.
VAPOUR PRESSURE(PSIG)-AEROSOL..... @ 20 C	80 - 90.
BOILING POINT (°C)(CONC).....	35°C (95°F) BASED ON ETHYL ETHER. 64-94°C BASED ON ALIPHATIC NAPHTHA.
EVAPORATION RATE.....	GREATER THAN 1.
n-BUTYL ACETATE = 1	
VAPOUR DENSITY (AIR=1).....	GREATER THAN 1.
SOLUBILITY IN WATER g/L (20°C).....	NOT AVAILABLE.
pH.....	NOT APPLICABLE.
SPECIFIC GRAVITY (LIQUID).....	0.67-0.69.
COEFFICIENT OF WATER/OIL DIST.....	NOT AVAILABLE.
FREEZING POINT: (°C).....	NOT AVAILABLE.
AEROSOL PERCENT VOLATILE..... (BY WEIGHT).	99-100.
SPECIFIC GRAVITY (AEROSOL).....	0.69-0.71.

**Section 10: STABILITY AND REACTIVITY**

HAZARDOUS PRODUCTS OF DECOMPOSITION.....	HYDROCARBON FUMES AND SMOKE. CARBON MONOXIDE WHERE COMBUSTION IS INCOMPLETE.
CHEMICAL STABILITY:	
YES.....	UNDER NORMAL CONDITIONS.
NO, WHICH CONDITIONS?.....	NOT APPLICABLE.
COMPATIBILITY WITH OTHER SUBSTANCES:	
NO, WHICH ONES?.....	STRONG OXIDIZING AGENTS.
REACTIVITY CONDITIONS?.....	NOT APPLICABLE.
HAZARDOUS POLYMERIZATION.....	WILL NOT OCCUR.

**PRODUCT: 03405-2100 38-2100-2 QUICK START STARTING FLUID 311G****Section 11: TOXICOLOGICAL INFORMATION**

REPRODUCTIVE EFFECTS.....	N-HEXANE- EXCESS EXPOSURE CAN RESULT IN PERIPHERAL NEUROPATHIES. THE INITIAL SYMPTOMS ARE SYMMETRICAL SENSORY NUMBNESS AND PARESTHESIAS OF DISTAL PORTIONS OF THE EXTREMITIES. MOTOR WEAKNESS IS TYPICALLY OBSERVED IN MUSCLES OF THE TOES AND FINGERS BUT MAY ALSO INVOLVE MUSCLES OF THE ARMS, THIGHS AND FOREARMS. THE ONSET OF THESE SYMPTOMS MAY BE DELAYED FOR SEVERAL MONTHS TO A YEAR AFTER THE BEGINNING OF EXPOSURE. THE NEUROTOXIC PROPERTIES OF N-HEXANE ARE POTENTIATED BY EXPOSURE TO METHYL ETHYL KETONE AND METHYL ISOBUTYL KETONE. PROLONGED EXPOSURE TO HIGH CONCENTRATIONS OF N-HEXANE (>1,000 ppm) HAS RESULTED IN DECREASED SPERM COUNT AND DEGENERATIVE CHANGES IN THE TESTES OF RATS BUT NOT THOSE OF MICE.
IRRITANCY OF MATERIAL.....	SKIN/EYE IRRITANT.
SENSITIZING CAPABILITY OF MATERIAL.....	UNKNOWN.
CARCINOGENICITY OF MATERIAL.....	THE INGREDIENTS OF THIS PRODUCT ARE NOT LISTED AS CARCINOGENS BY NTP, (NATIONAL TOXICOLOGY PROGRAM), NOT REGULATED AS CARCINOGENS BY OSHA, (OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION), AND HAVE NOT BEEN EVALUATED BY IARC,(INTERNATIONAL AGENCY FOR RESEARCH ON CANCER), NOR BY ACGIH (AMERICAN CONFERENCE OF GOVERNMENTAL INDUSTRIAL HYGIENISTS).
TERATOGENICITY.....	ETHYL ETHER HAS CAUSED BIRTH DEFECTS AND TOXICITY TO THE FETUS IN LABORATORY ANIMALS ONLY AT BASES WHICH ARE TOXIC TO THE MOTHER(DOSES WHICH PRODUCE ANESTHESIA).
MUTAGENICITY.....	NO INFORMATION IS AVAILABLE AND NO ADVERSE MUTAGENIC EFFECTS ARE ANTICIPATED.

**Section 12: ECOLOGICAL CONSIDERATIONS**

ENVIRONMENTAL..... NOT AVAILABLE.

**Section 13: DISPOSAL CONSIDERATIONS**

WASTE DISPOSAL..... DO NOT PUNCTURE OR INCINERATE CONTAINERS, EVEN WHEN EMPTY. DISPOSE OF IN ACCORDANCE WITH LOCAL, PROVINCIAL AND FEDERAL REGULATIONS.

**Section 14: TRANSPORTATION INFORMATION**

T.D.G. CLASSIFICATION.....	CONSUMER COMMODITY (AEROSOLS, UN1950, CLASS 2.1) .
D.O.T. CLASSIFICATION.....	CONSUMER COMMODITY, ORM-D.
IMDG/IMO:	
Classification.....	CONSUMER COMMODITY/LIMITED QUANTITY.
Proper Shipping Name.....	AEROSOLS, FLAMMABLE.
UN Class.....	2.1.
UN Number.....	1950.
Packing Group.....	N/A.
Marine Pollutant.....	NO.

**Section 15: REGULATORY INFORMATION****CANADIAN REGULATIONS:**

WHMIS CLASSIFICATION.....	A,B5,D2A,D2B.
CNFC SECTION 3.3.5.....	LEVEL 3.
CEPA (Canadian Environmental Protection ... Act)	ALL SUBSTANCES IN THIS PRODUCT ARE LISTED ON THE CANADIAN DOMESTIC SUBSTANCES LIST (DSL) OR ARE NOT REQUIRED TO BE LISTED.

**U.S. REGULATIONS:**

HMIS RATING HEALTH.....	2 MODERATE HAZARD.
HMIS RATING FLAMMABILITY.....	4 SEVERE HAZARD.
HMIS RATING REACTIVITY.....	0 MINIMAL HAZARD.
NFPA CODE 30B.....	LEVEL 3.
SARA 313 INFORMATION:.....	THIS PRODUCT CONTAINS NO INGREDIENTS SUBJECT TO THE REPORTING REQUIREMENTS OF SECTION 313 OF THE EMERGENCY PLANNING AND COMMUNITY RIGHT-TO-KNOW ACT OF 1986 AND OF 40 CFR 372.

. CAS #: CHEMICAL

NAME: N-HEXANE . \*110-54-3

CALIFORNIA PROPOSITION 65:..... THE FOLLOWING STATEMENT IS MADE IN ORDER TO COMPLY WITH THE CALIFORNIA SAFE DRINKING WATER AND TOXIC ENFORCEMENT ACT OF 1986:

**PRODUCT: 03405-2100 38-2100-2 QUICK START STARTING FLUID 311G****Section 15: REGULATORY INFORMATION**

CALIFORNIA PROPOSITION 65:..... . WARNING: THIS PRODUCT DOES NOT INTENTIONALLY  
CONTAIN ANY CHEMICALS KNOWN TO THE STATE OF CALIFORNIA TO CAUSE  
CANCER, BIRTH DEFECTS OR OTHER REPRODUCTIVE HARM.  
. CAS #:  
CHEMICAL NAME: . N/A.  
TSCA (Toxic Substances Control Act)..... ALL COMPONENT OF THIS PRODUCT ARE LISTED ON THE TSCA INVENTORY. ANY  
IMPURITIES PRESENT IN THIS PRODUCT ARE EXEMPT FROM LISTING.  
VOC (w/w%)..... 94-95.

**Section 16: OTHER INFORMATION**

NOTICE FROM K-G SPRAY- PAK INC ..... THE INFORMATION ON THIS MATERIAL SAFETY DATA SHEET IS PROVIDED BY K-G  
SPRAY PAK INC. FREE OF CHARGE. WHILE BELIEVED TO BE RELIABLE, IT IS  
INTENDED FOR USE BY SKILLED PERSONS AT THEIR OWN RISK. K-G SPRAY PAK  
INC. ASSUMES NO RESPONSIBILITY FOR EVENTS RESULTING OR DAMAGES  
INCURRED FROM ITS USE. THE INFORMATION ON THIS MATERIAL SAFETY DATA  
SHEET RELATES ONLY TO THE SPECIFIC MATERIAL DESIGNATED HEREIN AND  
DOES NOT RELATE TO USE IN COMBINATION WITH ANY OTHER MATERIAL OR IN  
ANY PROCESS.  
PREPARED BY..... Regulatory Affairs  
PREPARATION DATE ..... Jun03/13


**CEMENT & CONCRETE PRODUCTS™**

## C1: Portland Cement Based Concrete Products

**SAFETY DATA SHEET**  
(Complies with OSHA 29 CFR 1910.1200)

### SECTION I: PRODUCT IDENTIFICATION

The QUIKRETE® Companies  
One Securities Centre  
3490 Piedmont Road, Suite 1300  
Atlanta, GA 30305

Emergency Telephone Number  
(770) 216-9580  
Information Telephone Number  
(770) 216-9580

SDS C1  
Revision: Jan-16

<b>QUIKRETE® Product Name</b>	<b>Item #(s)</b>
Fence Post Mix	1005
Fiber-Reinforced Concrete Mix	1006
Crack Resistant Concrete Mix	1006-80
Pro-Finish Crack Resistant Concrete Mix	1006-68
QUIKRETE 5000 Concrete Mix	1007
QUIKRETE 6000 Concrete Mix	1007
Pro-Finish QUIKRETE 5000	1007-85
Lightweight Concrete Mix	1008
Basic Concrete Mix	1015
Maximum Yield Concrete Mix	1100-80
Concrete Mix	1101-10, -20, -40, -60, -80, -90
Green Concrete Mix	1101-63, -73
B-Crete	1101-81
Red-E-Crete Concrete mix	1101-91, -87; 1141-62, -63, -92, -93
Countertop Mix	1106-80
All-Star Concrete Mix	1121
Rip Rap	1129
Rip Rap Scrim	1134-80
Handicrete Concrete Mix	1141-59, -60, -80
RiteMix Concrete	1171-60
Fiber Reinforced Deck Mix	1251-80, -81
All-Star Crack Resistant Concrete Mix	1470-03
All-Star 5000 Concrete Mix	1470-01
Form & Pour Mortar	808100-65
FlowCrete 5000 (Mix 801)	8080026/NR80026

**Product Use:** Portland cement-based, aggregated products for general construction

**QUIKRETE****CEMENT & CONCRETE PRODUCTS™****SECTION II - HAZARD IDENTIFICATION****Hazard-determining components of labeling:** Silica, Portland cement**2.1 Classification of the substance or mixture**

Carcinogen – Category 1A

Skin Corrosion – Category 1B

Skin Sensitization – Category 1B

Specific Target Organ Toxicity Repeat Exposure – Category 1

Specific Target Organ Toxicity: Single Exposure – Category 3

**2.2a Signal word DANGER!****2.2b Hazard Statements**

May cause cancer through chronic inhalation

Causes severe skin burns and serious eye damage

May cause an allergic skin reaction

Causes damage to lungs through prolonged or repeated inhalation

May cause respiratory irritation

**2.2c Pictograms****2.2d Precautionary statements**

Do not handle until all safety precautions have been read and understood.

Wear impervious gloves, such as nitrile. Wear eye protection, and protective clothing.

Do not eat, drink or smoke when using this product.

Wash thoroughly after handling.

Use only in a well-ventilated area.

Do not breathe dust.

If swallowed: Rinse mouth. Do NOT induce vomiting.

If inhaled: Remove person to fresh air and keep comfortable for breathing.

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

If on skin (or hair): Remove immediately all contaminated clothing and wash before re-use. Rinse skin or hair with water.

If significant skin irritation or rash occurs: get medical advice or attention.

**CEMENT & CONCRETE PRODUCTS™**

**Immediately seek medical advice or attention if symptoms are significant or persist.**

Store in a well-ventilated place. Keep container tightly closed.  
Dispose of contents/containers in accordance with all regulations.

### 2.3 Additional Information

The Portland cement in this product can cause serious, potentially irreversible damage to skin, eye, respiratory and digestive tracts due to chemical (caustic) burns, including third degree burns. Burns from Portland cement may not cause immediate pain or discomfort. You cannot rely on pain to alert you to cement burns. Therefore precautions must be taken to prevent all contact with Portland cement. Cement burns can become worse even after contact has ended. If there is contact with this product, immediately remove all product from body and thoroughly rinse with water. If you experience or suspect a cement burn or inflammation you should immediately see a health care professional.

Skin burns and irritation may be caused by brief exposure, though often are caused by extended exposure of 15 minutes, an hour, or longer. Interaction of Portland cement with water or sweat releases a caustic solution which produces the burns or irritation. Any extended exposure should be treated as though a burn has occurred until determined otherwise.

Skin contact with Portland cement can also cause inflammation of the skin, referred to as dermatitis. Signs and symptoms of dermatitis can include itching, redness, swelling, blisters, scaling, and other changes in the normal condition of the skin. Signs and symptoms of burns include the above and whitening, yellowing, blackening, peeling or cracking of skin.

The Portland cement in this product may cause allergic contact dermatitis in sensitized individuals. This overreaction of the immune system can lead to severe inflammation. Sensitization may result from a single exposure to the low levels of Cr (VI) in Portland cement or repeated exposures over months or years. Sensitization is long lasting and, after sensitization, even very small quantities can trigger the dermatitis. Sensitization is uncommon. Individuals who experience skin problems, including seemingly minor ones, are advised to seek medical attention.

**2.3a HNOC – Hazards not otherwise classified:** Not applicable

**2.3b Unknown Acute Toxicity:** None

#### 2.3C WHMIS Classification

Class D2B – Skin/Eye Irritant

Class D2A – Chronic Toxic Effects – Carcinogen

Class E – Corrosive Material

**QUIKRETE****CEMENT & CONCRETE PRODUCTS™**

## 2.3d Label Elements According To WHMIS

**Hazard Symbols****Signal Word**

DANGER!

**SECTION III - HAZARDOUS INGREDIENTS/IDENTITY INFORMATION**

<b>Hazardous Components</b>	<b>CAS No.</b>	<b>% by Weight</b>
Sand, Silica, Quartz	14808-60-7	60-100*
Portland Cement	65997 15 1	10-30*
Fly Ash	68131-74-8	5-10*

\*The concentrations ranges are provided due to batch-to-batch variability.  
None of the constituents of this material are of unknown toxicity.

**SECTION IV – FIRST AID MEASURES****4.1 Description of the first-aid measures****General information:**

**After inhalation:** Remove person to fresh air. If breathing is difficult, administer oxygen. If not breathing, give artificial respiration. In case of unconsciousness, place patient stably in side position for transportation.

**After skin contact:** Wash skin with cool water and pH-neutral soap or a mild detergent. If significant skin irritation or rash occurs: get medical advice or attention.

**After eye contact:** Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

**After swallowing:** Do not induce vomiting. If conscious, have the victim drink plenty of water and call a physician immediately. Never give anything by mouth to an unconscious person.

**4.2 Most important symptoms/effects, acute and delayed**

**Inhalation:** May cause respiratory tract irritation. Causes damage to organs through prolonged or repeated inhalation. This product contains crystalline silica. Prolonged or repeated inhalation of respirable silica from this product can cause silicosis.

**Skin contact:** The Portland cement in this product can cause serious, potentially irreversible damage to skin, eye, respiratory and digestive tracts due to chemical (caustic) burns, including third degree burns. Burns from Portland cement may not cause immediate pain or discomfort. You cannot rely on pain to alert you to cement burns. Therefore precautions must be taken to prevent all contact with Portland cement. Cement burns can become worse even after contact has ended. If

**CEMENT & CONCRETE PRODUCTS™**

there is contact with this product, immediately remove all product from body and thoroughly rinse with water. If you experience or suspect a cement burn or inflammation you should immediately see a health care professional.

Skin burns and irritation may be caused by brief exposure, though often are caused by extended exposure of 15 minutes, an hour, or longer. Interaction of Portland cement with water or sweat releases a caustic solution which produces the burns or irritation. Any extended exposure should be treated as though a burn has occurred until determined otherwise.

Skin contact with Portland cement can also cause inflammation of the skin, referred to as dermatitis. Signs and symptoms of dermatitis can include itching, redness, swelling, blisters, scaling, and other changes in the normal condition of the skin. Signs and symptoms of burns include the above and whitening, yellowing, blackening, peeling or cracking of skin.

The Portland cement in this product may cause allergic contact dermatitis in sensitized individuals. This overreaction of the immune system can lead to severe inflammation. Sensitization may result from a single exposure to the low levels of Cr (VI) in Portland cement or repeated exposures over months or years. Sensitization is long lasting and, after sensitization, even very small quantities can trigger the dermatitis. Sensitization is uncommon. Individuals who experience skin problems, including seemingly minor ones, are advised to seek medical attention.

**Eye Contact:** Causes serious eye damage. Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva.

**Ingestion:** May be harmful if swallowed. Ingestion may cause discomfort and/or distress, nausea or vomiting.

**4.3 Indication of immediate medical attention and special treatment needed:**

Immediately seek medical advice or attention if symptoms are significant or persist.

---

## SECTION V - FIRE FIGHTING MEASURES

---

**5.1 Flammability of the Product:** Non-flammable and non-combustible

**5.2 Suitable extinguishing agents:** Treat for surrounding material

**5.3 Special hazards arising from the substance or mixture:** None

**5.3a Products of Combustion:** None

**5.3b Explosion Hazards in Presence of Various Substances:** Non-explosive in presence of shocks



CEMENT &amp; CONCRETE PRODUCTS™

---

**SECTION VI – ACCIDENTAL RELEASE MEASURES**


---

**6.1 Personal precautions, protective equipment and emergency procedures:** Wear personal protective equipment (See section VIII). Keep unprotected persons away.

**6.2 Methods and material for containment and cleaning up:**

Do not allow to enter sewers/ surface or ground water. Dispose of unwanted materials and containers properly in accordance with all regulations.

---

**SECTION VII - PRECAUTIONS FOR SAFE HANDLING AND STORAGE**


---

**7.1 Handling**

**Precautions for safe handling:** Ensure good ventilation/exhaustion at the workplace. DO NOT BREATHE DUST. In dusty environments, the use of an OSHA, MSHA or NIOSH approved respirator and tight fitting goggles is recommended. Wear appropriate PPE (See section 8). Do not mix with other chemical products, except as indicated by the manufacturer. Do not get in eyes, on skin or clothing. Good housekeeping is important to prevent accumulation of dust.

**7.2 Storage**

**Requirements to be met by storerooms and receptacles:** No special requirements.

**Information about storage in one common storage facility:** Not required.

**Further information about storage conditions:** Keep out of the reach of children. Keep container tightly closed and prevent exposure to humidity. Do not allow water to contact the product until time of use to preserve product utility.

---

**SECTION VIII – EXPOSURE CONTROL MEASURES / PERSONAL PROTECTION**


---

**8.1 Components with limit values that require monitoring at the workplace:**

Hazardous Components	CAS No.	PEL (OSHA) mg/M <sup>3</sup>	TLV (ACGIH) mg/M <sup>3</sup>
Silica Sand, crystalline	14808-60-7	0.1	0.025 (resp)
Portland Cement	65997-15-1	5 (resp) 15 (total)	10 (resp)
Fly Ash	68131-74-8	N/A	N/A

**8.2 Exposure Controls**

Use ventilation adequate to keep exposures below recommended exposure limits.

**8.3 General protective and hygienic measures**

Keep away from foodstuffs, beverages and feed. Immediately remove all soiled and contaminated clothing. Wash hands before breaks and at the end of work. Avoid contact with the eyes and skin.



**CEMENT & CONCRETE PRODUCTS™**

### 8.3a Personal protective equipment

#### Protection of hands:

Wear gloves of adequate length to offer appropriate skin protection from splashes. Nitrile, Butyl and PVC gloves have been found to offer adequate protection for incidental contact. Precautions must be observed because burns occur with little warning -- little heat is sensed.

#### Eye protection:

Wear approved eye protection (properly fitted dust- or splash-proof chemical safety glasses).

#### Respiratory protection:

A NIOSH-approved dust mask or filtering face piece is recommended in poorly ventilated areas or when permissible exposure limits may be exceeded. Respirators should be selected by and used under the direction of a trained health and safety professional, following requirements found in OSHA's respirator standard (29 CFR 1910.134) and ANSI's standard for respiratory protection (Z88.2).

---

## SECTION IX - PHYSICAL/CHEMICAL CHARACTERISTICS

---

### General Information

#### Appearance

Form: Granular Solid  
Color: Gray to gray-brown colored  
Odor: None

pH-value at 20°C (68 °F): 13 (10%)

Boiling point/Boiling range: Not applicable

Flash point: Not applicable

Auto igniting: Product is not self-igniting

Vapor pressure at 21°C (70°F) Not available

Density at 25°C (77 °F): 2.6 to 3.15

#### Solubility in / Miscibility with

Water: Insoluble

VOC content: 0 g/L VOC

---

## SECTION X – STABILITY AND REACTIVITY

---

### 10.1 Reactivity

No dangerous reaction known under conditions of normal use.

### 10.2 Chemical stability

Stable under normal storage conditions. Keep in dry storage.

### 10.3 Possibility of hazardous reaction

No dangerous reaction known under conditions of normal use.

### 10.4 Thermal decomposition / conditions to be avoided



**CEMENT & CONCRETE PRODUCTS™**

No decomposition if used according to specifications.

### 10.5 Incompatible materials

Contact of silica with powerful oxidizing agents such as fluorine, chlorine trifluoride, manganese trioxide, or oxygen difluoride may cause fires

### 10.6 Hazardous Decomposition or By-products

Silica will dissolve in Hydrofluoric Acid and produce a corrosive gas – silicon tetrafluoride.

---

## SECTION XI – TOXICOLOGICAL INFORMATION

---

**11.1 Exposure Routes:** Skin contact, skin adsorption, eye contact, inhalation, or ingestion.

### 11.2 Symptoms related to physical/chemical/toxicological characteristics:

**Inhalation:** May cause respiratory tract irritation. Causes damage to organs through prolonged or repeated exposure. This product contains crystalline silica. Prolonged or repeated inhalation of respirable silica from this product can cause silicosis.

**Skin contact:** Causes skin irritation. Handling can cause dry skin, discomfort, irritation, and dermatitis. May cause sensitization by skin contact. Product becomes extremely alkaline when exposed to moisture, and can cause alkali burns and affect the mucous membranes.

**Eye Contact:** Causes serious eye damage. Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva.

**Ingestion:** Harmful if swallowed. Ingestion may cause discomfort and/or distress, nausea or vomiting.

### 11.3 Delayed, immediate and chronic effects of short-term and long-term exposure

#### Short Term

Skin Corrosion/Irritation: Causes severe skin burns.

Serious Eye Damage/Irritation: Causes severe eye damage.

Respiratory Sensitization: Not available

Skin Sensitization: May cause an allergic skin reaction.

Specific Target Organ Toxicity-Single Exposure: (Category 3) May cause respiratory irritation.

Aspiration Hazard: Not available

#### Long Term

Carcinogenicity: May cause cancer through chronic inhalation.

Germ Cell Mutagenicity: Not available

Reproductive Toxicity: Not available

Specific Target Organ Toxicity- Repeated Exposure: (Category 1) Causes damage to lungs through prolonged/repeated exposure

Synergistic/Antagonistic Effects: Not available.



**CEMENT & CONCRETE PRODUCTS™**

---

## SECTION XII – ECOLOGICAL INFORMATION

---

### 12.1 Ecotoxicity

May cause long-term adverse effects to the aquatic environment. Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system. Must not reach bodies of water or drainage ditch undiluted or un-neutralized

### 12.2 Persistence and degradability

No further relevant information available.

### 12.3 Bioaccumulative potential:

No further relevant information available.

### 12.4 Mobility in soil

No further relevant information available.

### 12.5 Other Adverse Effects

No further relevant information available.

---

## SECTION XIII – DISPOSAL CONSIDERATIONS

---

### 13.1 Waste Disposal Method

The packaging and material may be land filled; however, material should be covered to minimize generation of airborne dust. This product is not classified as a hazardous waste under the authority of the RCRA (40CFR 261) or CERCLA (40CFR 117&302). Disposal must be made in accordance with local, state and federal regulations.

### 13.2 Other disposal considerations

#### Uncleaned packaging

**Recommendation:** Disposal must be made in accordance with local, state and federal regulations.

**Recommended cleansing agent:** Water, if necessary with cleansing agents.

---

## SECTION XIV – TRANSPORT INFORMATION

---

	<b>DOT (U.S.)</b>	<b>TDG (Canada)</b>
<b>UN-Number</b>	Not Regulated	Not Regulated
<b>UN proper shipping name</b>	Not Regulated	Not Regulated
<b>Transport Hazard Class(es)</b>	Not Regulated	Not Regulated
<b>Packing Group (if applicable)</b>	Not Regulated	Not Regulated



**CEMENT & CONCRETE PRODUCTS™**

#### 14.1 Environmental hazards:

Not Available

#### 14.2 Transport in bulk according to Annex II of Marpol 73/78 and the IBC Code

Not available

#### 14.3 Special precautions for user

Do not handle until all safety precautions have been read and understood.

---

### SECTION XV – OTHER REGULATORY INFORMATION

---

#### 15.1 Safety, Health and Environmental Regulations/Legislations specific for the chemical

##### Canada

**WHMIS Classification:** Considered to be a hazardous material under the Hazardous Products Act as defined by the Controlled Products Regulations and subject to the requirements of Health Canada's Workplace Hazardous Material Information (WHMIS). This document complies with the WHMIS requirements of the Hazardous Products Act (HPA) and the CPR.

#### 15.2 US Federal Information

##### SARA 302/311/312/313 Components

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302, 311, 312 or 313.

**RCRA:** Crystalline silica (quartz) is not classified as a hazardous waste under the Resource Conservation and Recovery Act, or its regulations, 40 CFR §261 et seq.

**CERCLA:** Crystalline silica (quartz) is not classified as a hazardous substance under regulations of the Comprehensive Environmental Response Compensation and Liability Act (CERCLA), 40 CFR §302.

**Emergency Planning and Community Right to Know Act (SARA Title III):** Crystalline silica (quartz) is not an extremely hazardous substance under Section 302 and is not a toxic chemical subject to the requirements of Section 313.

**FDA:** Silica is included in the list of substances that may be included in coatings used in food contact surfaces, 21 CFR §175.300(b)(3)(xxvi).

**NTP:** Respirable crystalline silica, primarily quartz dusts occurring in industrial and occupational settings, is classified as Known to be a Human Carcinogen.

**OSHA Carcinogen:** Crystalline silica (quartz) is not listed.

**QUIKRETE****CEMENT & CONCRETE PRODUCTS™**

### 15.3 State Right to Know Laws

#### California Prop. 65 Components

**WARNING:** This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

**California Inhalation Reference Exposure Level (REL):** California established a chronic REL of 3 µg for silica (crystalline, respirable). A chronic REL is an airborne level of a substance at or below which no adverse health effects are anticipated in individuals indefinitely exposed to the substance at that level.

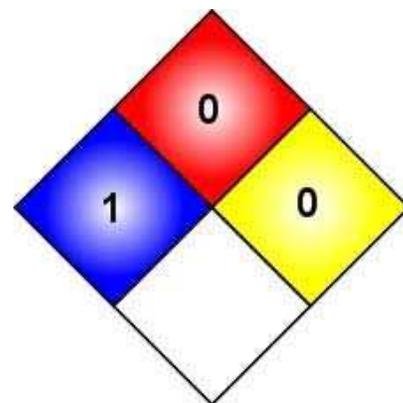
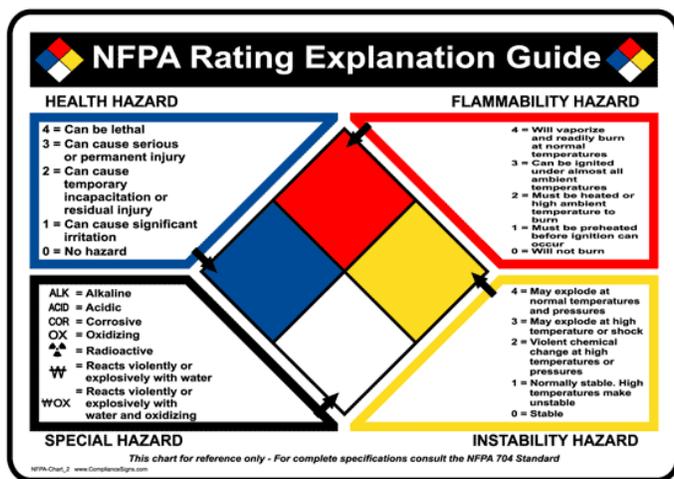
**Massachusetts Toxic Use Reduction Act:** Silica, crystalline (respirable size, <10 microns) is "toxic" for purposes of the Massachusetts Toxic Use Reduction Act.

### 15.4 Global Inventories

**DSL** All components of this product are on the Canadian DSL list.

**TSCA No.:** Crystalline silica (quartz) appears on the EPA TSCA inventory under the CAS No. 14808-60-7. All constituents are listed in the TSCA inventory.

### 15.5 NFPA Ratings



## SECTION XVI – OTHER INFORMATION

Last Updated: January 4, 2016

**NOTE:** The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, express or implied, is made with respect to the information contained herein. We accept no responsibility and disclaim all liability for any harmful effects which may be caused by exposure to silica contained in our products.

Prepared by

The QUIKRETE® Companies  
 Phone (800) 282-5828  
[www.QUIKRETE.com](http://www.QUIKRETE.com)  
**End of SDS**

# Material Safety Data Sheet

## Royal Hammer Paste



**Product Name:** Royal Hammer Paste

### SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

**Product:** Royal Ultra 865 Super HD Moly Grease  
**Product Description:** Calcium Sulfonate Complex Grease  
**Product Code:** 952 XA  
**Intended Use:** Industrial Applications

#### Company Identification:

**Manufacturers Name:** Royal Mfg Co LP  
**Address:** P.O. Box 693, Tulsa, OK 74101- 0693  
**Telephone Number:** (918) 584 - 2671  
**Emergency:** (918) 584 - 2671

### SECTION 2: COMPOSITION / INFORMATION ON INGREDIENTS

Component	CAS Number	TLV/PEL (mg/M3)	Weight %
Base Oil	Mixture	5 (As Oil Mist)	> 70
Additives/thickener	Mixture	E	< 30

The specific chemical names and composition of the components not disclosed is confidential business information and is withheld as permitted by 29CFR 1910.1200 and various state Right-to-Know laws.

### SECTION 3: HAZARD IDENTIFICATION

This material is not considered to be hazardous according to regulatory guidelines. (See Section 15.)

**Potential Health Effects:** Excessive exposure may result in eye, skin or respiratory irritation. High-pressure injection under skin may cause serious damage.

**NFPA Rating:** Flammability: 1, Reactivity: 0, Health: 0

**HMIS Rating:** Flammability: 1, Reactivity: 0, Health: 0

**Note:** This material should not be used for any other purpose than the intended use listed in Section-1 without expert advice. Health studies on similar products have indicated that

# Material Safety Data Sheet

## Royal Hammer Paste



chemical exposure may cause potential human health risks which may vary from person to person.

### **SECTION 4: FIRST AID MEASURES**

**Eye Contact:** Immediately flush with large quantities of cool water for at least 15 minutes. Get medical attention.

**Skin Contact:** Wash off with soap and water.

**Inhalation:** Remove to fresh air. If not breathing, give artificial respiration. Get medical attention.

**Ingestion:** Do NOT induce vomiting. Get medical attention.

### **SECTION 5: FIRE AND EXPLOSION DATA**

#### **Extinguishing Media:**

**Appropriate Extinguishing Media:** Water Spray (fog), dry chemical, foam, halon, or carbon dioxide.

**Inappropriate Extinguishing Media:** Water stream may splash burning liquid and spread fire.

#### **Fire Fighting:**

**Fire Fighting Procedures:** Evacuate area. Prevent runoff from fire control or dilution from entering streams, sewers or drinking water supply. Fire fighters should use self-contained breathing apparatus (SCBA) to fight fires. Use water spray to cool fire exposed surfaces and to protect personnel.

**Hazardous Combustion Products:** Aldehydes, incomplete combustion products, Smoke, Fume, Sulfur oxides, oxides of carbon.

#### **Flammability Properties:**

**Flashpoint (Cleveland Open Cup):** 455 °F (235°C)

**Flammable Limits (Approximate volume% in Air):** LEL: NA UEL: NA

**Autoignition Temperature:** NE

### **SECTION 6: ACCIDENTAL RELEASE MEASURES**

**Notification Procedure:** Contain any spills with absorbents to prevent migrations and entry into sewers or streams. Take up small spills with dry chemical absorbent. Large spills may be taken up with pump or vacuum and finished off with dry chemical absorbent; May require excavation of contaminated soil.

#### **Spill Management:**

# Material Safety Data Sheet

## Royal Hammer Paste



**Land Spill:** Contain any spills with absorbents to prevent migrations and entry into sewers or streams. Take up small spills with dry chemical absorbent. Large spills may be taken up with pump or vacuum and finished off with dry chemical absorbent; May require excavation of contaminated soil.

**Water Spill:** Confine the spill immediately with booms. Stop leak, if you can do so without risking personal safety. Report spills as required to appropriate authorities. Remove from the surface by skimming or with suitable absorbents.

### **Environmental Precautions:**

Large spills should be diked for later recovery or disposal. Spills may be taken up with pump or vacuum and finished off with dry chemical absorbent; May also require excavation of contaminated soil. To the best of Royal Manufacturing Company, LP knowledge, this product is not regulated by CERCLA/RCRA as a hazardous waste or material. However, this product has not been tested for the toxicity characteristic via the Toxicity Characteristic Leaching Procedure. Therefore, it may be disposed of as an industrial waste in a manner acceptable to good waste management practice and in compliance with applicable local, state and federal regulations.

### **SECTION 7: HANDLING AND STORAGE**

**Handling:** Avoid contact with skin. Prevent spills and leaks to avoid slipping hazards.

**Storage:** Keep containers sealed until ready for use. Avoid excessive long-term storage temperatures to prolong shelf life. Maximum storage temperature: 120F - Store in well ventilated areas.

### **SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION INFORMATION**

#### **Exposure limits/standards for materials that can be formed when handling this product:**

When mists/aerosols can occur, the following are recommended: 5 mg/m<sup>3</sup> – ACGIH TLV, 10 mg/m<sup>3</sup> – ACGIH STEL, 5 mg/m<sup>3</sup> – OSHA PEL

**Engineering Control:** The level of protection and types of control necessary will vary depending upon potential exposure conditions. Under normal conditions, no special control required when used in a well-ventilated area with local exhaust ventilation.

**Personal Protection:** Personal protective equipment selections vary based on potential exposure conditions such as applications, handling practices, concentration and ventilation. Information on the selection of protective equipment for use with this material, as provided below, is based upon intended, normal usage.

**Respiratory Protection:** None required in normal use. Use only NIOSH/MSHA Organic vapor approved equipment if necessary.

# Material Safety Data Sheet

## Royal Hammer Paste



**Hand Protection:** Chemical resistant gloves are recommended. No protection is required in normal use.

**Eye Protection:** Goggles or safety glasses with side shields are recommended.

**Skin and Body Protection:** Chemical / oil resistant clothing if contact with material is likely. NO skin protection is ordinarily required under normal conditions of use.

**Special Hygiene Measures:** Practice good personal hygiene. Wash hands after use and handling.

**Environmental Control:** See Section 6, 7, 12, 13.

### **SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**

Typical physical and chemical properties are given below. Consult the Supplier in Section 1 for additional data.

#### **General Information:**

**Physical State:** Semi Solid Grease

**Color:** Copper Black

**Odor:** Slight petroleum odor

**Odor Threshold:** None

#### **Important Health, Safety and Environmental Information :**

**Relative Density (at 15 C):** 0.87

**Flashpoint (Cleveland Open Cup):** 455 F (235C)

**Flammable Limits (Approximate volume% in Air):** LEL: NE ; UEL: NE

**Autoignition Temperature:** NE

**Boiling Point / Range:** NE

**Vapor Density (Air = 1):** < 1 mm

**Vapor Pressure, mmHg at 25C:** < 1 mm

**Evaporation Rate (n-butyl acetate = 1):** NE

**pH:** NE

**Log Pow (n-Octanol/Water Partition Coefficient):** NE

**Solubility in Water:** Slight

**Viscosity :** ND

**Oxidizing Properties:** See Section 3, 15, 16.

# Material Safety Data Sheet

## Royal Hammer Paste



### Other Information:

**Freezing Point:** NE

**Melting Point:** NE

**Pour Point:** NE

**DMSO Extract (mineral oil only), IP-346:** < 3 % wt.

**SECTION 10:** STABILITY AND REACTIVITY

**Stability:** Stable under normal temperatures and pressures

**Conditions to Avoid:** Excessive heat and sources of ignition.

**Materials to Avoid:** Strong oxidizing agents, heat, open flame.

**Hazardous Decomposition Products:** Does not decompose at ambient temperatures.

**Hazardous Polymerization:** Does not occur.

### SECTION 11: TOXICOLOGICAL INFORMATION

#### Acute Toxicity:

**Product or Ingredients:** No data is specifically available for this product and therefore this toxicological information is based on data available for the ingredients.

**Routes of Exposure:** Exposure will most likely occur through skin contact or form inhalation of mechanically or thermally generated oil mists.

**Skin and Eye:** This product is not a primary skin irritant after exposure of short duration.

**Chronic / Other Effects:** Prolonged and repeated contact with skin can cause deflating and drying of the skin resulting in skin irritation and dermatitis. Long term intensive exposure to oil mist may cause benign lung fibrosis.

**The following ingredients are cited on the lists below:** None

NTP CARC, NTP SUS, IARC 1, IARC 2A, IARC 2B, OSHA CARC

This material is not known to contain any chemical listed as a carcinogen or suspected carcinogen by OSHA Hazard Communication Standard 29CFR 1910.1200, IARC, or the National Toxicology Program (NTP) at a concentration greater than 0.1%.

### SECTION 12: ECOLOGICAL INFORMATION

**Ecotoxicity:** Material is not expected to be harmful to aquatic organisms.

**Mobility:** Base oil component – Low solubility and float and is expected to migrate from water to the land; Expected to partition to sediment and wastewater solids.

#### Persistence and Degradability:

**Biodegradation:** ND

# Material Safety Data Sheet

## Royal Hammer Paste



### **SECTION 13: DISPOSAL INFORMATION**

Disposal recommendations based on material as supplied. Therefore, it may be disposed of as an industrial waste in a manner acceptable to good waste management practice and in compliance with applicable local, state and federal regulations.

**Disposal Recommendations:** Product is suitable for burning in an enclosed controlled burner for fuel value or disposal by supervised incineration at very high temperatures to prevent formation of undesirable combustion products.

**Regulatory Disposal Information:** To the best of Royal Manufacturing Company, LP knowledge, this product is not regulated by CERCLA/RCRA as a hazardous waste or material. However, this product has not been tested for the toxicity characteristic via the Toxicity Characteristic Leaching Procedure.

**Empty Container Warning:** Do not attempt to refill or clean containers since residue is difficult to remove. Empty drums should be completely drained, properly bunged and returned to a drum re-conditioner. All containers should be disposed of in an environmentally safe manner and in accordance with governmental regulations.

### **SECTION 14: TRANSPORT INFORMATION**

**LAND-DOT:** Not Regulated for Land Transportation

**LAND-TDG:** Not Regulated for Land Transportation

**SEA-IMDG:** Not Regulated for Sea Transport

**AIR-IATA:** Not Regulated for Air Transport

### **SECTION 15: REGULATORY INFORMATION**

**OSHA Hazard Communication Standard:** When used for its intended purposes, this material is not classified as hazardous in accordance with OSHA 29 CFR 1910.1200.

**WHMIS:** Not a controlled product

**Chemical Inventory Listing:** TSCA

**EPCRA:** This material contains no extremely hazardous substances.

**SARA (311/312) Reportable Hazard Categories:** None

**SARA (313) Toxic Release Inventory:** This material contains no chemicals subject to the supplier notification requirements of the SARA 313 Toxic Release Program

**TSCA:** This material is in compliance with the Toxic Substances Control Act (15USC2601-2629)

### **SECTION 16: OTHER INFORMATION**

# Material Safety Data Sheet

## Royal Hammer Paste



NE = Not Established, ND = Not Determined, NA = Not Applicable

THIS SAFETY DATA SHEET CONTAINS THE FOLLOWING REVISIONS:

**Revision Date:** July 11, 2012

**Supersedes:** NIL

**Prepared by:** Riverside Laboratories

*Royal Manufacturing Company, LP believes that the information and recommendations contained herein (including data and statements) are accurate as of the date hereof. No warranty of fitness, warranty of merchantability or any other warranty, expressed or implied, is made concerning the information provided herein. The information provided herein relates only to the specific product designated and may not be valid where such product is used in combination with any other materials or process. Further, since the conditions and methods of use of this product and of the information referred to herein are beyond the control of Royal Manufacturing Company, LP, Royal Manufacturing Company, LP expressly disclaims any and all liability as to any results obtained or arising from any use of the product or reliance on such information.*

## Rust Remover

SDS Number: B198

Revision Date: February 15, 2017

Page 1 of 5

<b>1</b>	<b>PRODUCT AND COMPANY IDENTIFICATION</b>
----------	---

**Product Name:** Rust Remover  
**Revision Date:** February 15, 2017  
**Version:** 43-72B  
**SDS Number:** B198

**Manufacturer:** Canadian Contact:

**Legend Brands**  
 325 S. Price Rd.  
 Chandler, AZ 85224  
 Phone: 480-899-7000  
 Fax: 480-786-9538  
 Email: info@prochem.com  
 www.prochem.com

**Legend Brands**  
 4520 Eastgate Parkway  
 Mississauga, ON L4W 3W6  
 Phone: 800-932-3030

**Emergency Information:** INFOTRAC 1-800-535-5053 International 1-352-323-3500

<b>2</b>	<b>HAZARDS IDENTIFICATION</b>
----------	-------------------------------

### Classification of the Substance or Mixture

**GHS Classification in Accordance with 29 CFR 1910 (OSHA HCS):**

- Health, Acute toxicity, 4 Oral
- Health, Acute toxicity, 4 Dermal
- Health, Serious Eye Damage/Eye Irritation, 1

### GHS Label Elements, Including Precautionary Statements

**GHS Signal Word:** **DANGER**

**GHS Hazard Pictograms:**



**GHS Hazard Statements:**

- H302 - Harmful if swallowed
- H312 - Harmful in contact with skin
- H318 - Causes serious eye damage

**GHS Precautionary Statements:**

- P264 - Wash thoroughly after handling.
- P270 - Do not eat, drink or smoke when using this product.
- P280 - Wear protective gloves/protective clothing/eye protection/face protection.
- P301+312 - IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
- P302+352 - IF ON SKIN: Wash with soap and water.
- P305+351+338 - IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.
- P363 - Wash contaminated clothing before reuse.

**Route of Entry:** Eyes, Skin, Inhalation:

## Rust Remover

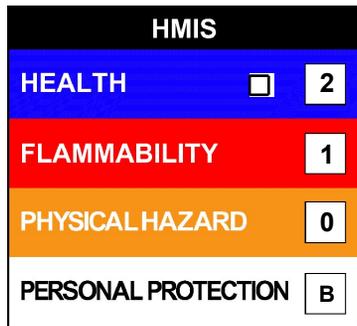
SDS Number: B198

Revision Date: February 15, 2017

Page 2 of 5

**Target Organs:** Eyes; Skin; Respiratory system;  
**Inhalation:** Can cause irritation and inflammation of the respiratory tract.  
**Skin Contact:** Irritating to skin; may cause burns, blisters and itching.  
**Eye Contact:** Irritating to eyes, eye damage may occur.  
**Ingestion:** Irritating to intestinal tract; may cause burns, vomiting, stomach pain, and disorientation.

**NFPA:** Health = 2, Fire = 1, Reactivity = 0, Specific Hazard = n/a  
**HMIS III:** Health = 2, Fire = 1, Physical Hazard = 0  
**HMIS PPE:** B - Safety Glasses, Gloves



### 3 COMPOSITION/INFORMATION OF INGREDIENTS

**Ingredients:**

Cas#	%	Chemical Name
144-62-7	8%	Oxalic acid (as dihydrate)
112-34-5	3%	Diethylene glycol monobutyl ether
7664-38-2	5%	Phosphoric acid

**OSHA Regulatory Status:**

This SDS contains valuable information critical to the safe handling and proper use of this product. This SDS should be retained and available for employees and other users of this product.

### 4 FIRST AID MEASURES

**Inhalation:** Remove from exposure and get fresh air. Keep warm and at rest. Get medical attention immediately if artificial respiration is required.  
**Skin Contact:** Remove contaminated clothing, jewelry and shoes immediately. Flush affected area with large amounts of water, then use soap or mild detergent and large amounts of water for 15-20 minutes to cleanse area. If skin is severely irritated or burned, get medical attention immediately.  
**Eye Contact:** Immediately flush eyes with large amounts of water occasionally lifting upper and lower lids for at least 15 minutes. Get immediate medical attention.  
**Ingestion:** Rinse mouth with water. DO NOT INDUCE VOMITING unless instructed to by medical personnel. If vomiting occurs keep head lower than hips to help prevent aspiration. If person is unconscious, do not induce vomiting; turn their head to the side. Never make an unconscious person vomit or drink fluids. Get medical attention.

### 5 FIRE FIGHTING MEASURES

**Flash Point:** 100 ° C / 212 ° F  
**Flash Point Method:** Closed Cup

Wear self-contained breathing apparatus and other protective clothing. Use any standard agent - choose the one most appropriate for type of surrounding fire.

## Rust Remover

SDS Number: B198

Revision Date: February 15, 2017

Page 3 of 5

### 6 ACCIDENTAL RELEASE MEASURES

Isolate area; keep unnecessary personnel away. Do not discharge into drains. Ventilate closed spaces before entering. Prevent further leakage or spillage if safe to do so. Prevent entry into waterways, sewers, basements or confined areas. Wear appropriate protective equipment and clothing during cleanup. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal.

### 7 HANDLING AND STORAGE

**Handling Precautions:** Do not get in eyes, on skin, or on clothing. Do not breathe vapor. Keep container closed. Promptly clean up spills. Wash thoroughly after handling.

**Storage Requirements:** Store out of reach of children; keep container closed; store in a cool, well-ventilated place.

### 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

**Engineering Controls:** Normal room ventilation is satisfactory for limited use.

**Personal Protective Equipment:** HMIS PP, B | Safety glasses, Gloves

Phosphoric Acid 7664-38-2 OSHA PEL 1 mg/m3

### 9 PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance:</b>	Opaque off-white	<b>Odor:</b>	Sassafras
<b>Physical State:</b>	Liquid	<b>Solubility:</b>	Soluble
<b>Spec Grav./Density:</b>	8.82 lb/gal		
<b>pH:</b>	0.5 - 1.5 as is		

### 10 STABILITY AND REACTIVITY

**Chemical Stability:** Product is stable under normal conditions.

**Conditions to Avoid:** None known

**Materials to Avoid:** Strong oxidizing or alkaline materials

**Hazardous Decomposition:** Exposure to fire may liberate carbon dioxide, carbon monoxide, organic acids, and other unidentified thermal decomposition products from this product or its packaging.

**Hazardous Polymerization:** Will not occur.

### 11 TOXICOLOGICAL INFORMATION

**Toxicity Data:**

Oxalic Acid 144-62-7

Oral ( LD 50): Not listed on RTECS

Intraperitoneal (injection) 270 mg/kg - Mouse

Inhalation ( LC 50): Not listed on RTECS

Skin irritation: Mild

Eye irritation: Severe

Sensitization: Not considered an occupational sensitizer

## Rust Remover

SDS Number: B198

Revision Date: February 15, 2017

Page 4 of 5

Diethylene glycol butyl ether 112-34-5

Oral ( LD 50): 5660 mg/kg - Rat

Inhalation ( LC 50): Not listed on RTECS

Skin irritation: Moderate

Eye irritation: Severe

Sensitization: Not considered an occupational sensitizer

Phosphoric Acid 7664-38-2

Oral ( LD 50): 1200 mg/kg - Rat

Inhalation ( LC 50): 25.5 mg/m<sup>3</sup> - rat

Skin irritation: Severe

Eye irritation: Severe

Sensitization: Not considered an occupational sensitizer

**12**

### ECOLOGICAL INFORMATION

On the basis of available information, this material is not expected to produce any significant environmental effects when recommended use instructions are followed.

**13**

### DISPOSAL CONSIDERATIONS

Recommendation: Consult with the disposal agency and the relevant authorities. Empty containers may be cleaned with water.

**14**

### TRANSPORT INFORMATION

Gallon case - Limited Quantity  
5/55 gallon - UN1760 Corrosive liquids, n.o.s., (Oxalic acid), 8, III  
Ship in accordance with 49 CFR parts 100-185.

## Rust Remover

SDS Number: B198

Revision Date: February 15, 2017

Page 5 of 5

15

### REGULATORY INFORMATION

COMPONENT / (CAS/PERC) / CODES

\*Oxalic acid (as dihydrate) (144627 8%) MASS, OSHAWAC, PA, TSCA, TXAIR, WHMIS

\*Diethylene glycol monobutyl ether (112345 3%) TSCA, WHMIS

\*Phosphoric acid (7664382 5%) CERCLA, CSWHS, EPCRAWPC, MASS, NJHS, OSHAWAC, SARA313, TSCA, TXAIR, WHMIS

REGULATORY KEY DESCRIPTIONS

All components are listed on TSCA

CERCLA = Superfund clean up substance  
CSWHS = Clean Water Act Hazardous substances  
EPCRAWPC = EPCRA Water Priority Chemicals  
MASS = MA Massachusetts Hazardous Substances List  
NJHS = NJ Right-to-Know Hazardous Substances  
OSHA = OSHA workplace Air Contaminants  
PA = PA Right-To-Know List of Hazardous Substances  
SARA313 = SARA 313 Title III Toxic Chemicals  
TXAIR = TX Air Contaminants with Health Effects Screening Level  
WHMIS = workplace Haz Mat Info Sys Canada

16

### OTHER INFORMATION

This document is prepared in accordance with 29 CFR 1910.1200. The purpose of this section is to ensure that the hazards of all chemicals produced or imported are evaluated, and that information concerning their hazards is transmitted to employers and employees.

All information appearing herein is based upon data obtained from the raw material manufacturer and/or recognized technical sources. While the information above is believed to be true and accurate, the author makes no representations as to its accuracy or sufficiency. Conditions of use are beyond the manufacturer's control; therefore the users are responsible to verify this data under their own particular conditions, applications and regulations to determine if the product is suitable for their particular purposes. The users assume all risks of product use, handling, disposal, reliance upon, publication or use of the information contained herein. This information applies only to the product designated above and does not necessarily apply to its use in combination with other materials, products, chemical compounds, structures or processes.

Prepared by: EHS Manager

Phone: 480-899-7000

## SAFETY DATA SHEET

### Rustoleum Mode Aerosol (All Colours)

#### 1 IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

PRODUCT NAME Rustoleum Mode Aerosol (All Colours)  
PRODUCT NO. AE024  
APPLICATION Intended for use as a spray, coating for Consumer use  
SUPPLIER Rust-Oleum Corporation  
Portobello Industrial Estate  
Birtley  
County Durham  
DH3 2RE  
+44 (0)191 4106611  
+44 (0)1914920125  
CONTACT PERSON ian.mccormack@tor-coatings.com  
EMERGENCY TELEPHONE +44(0)1865 407333 (NCEC)

#### 2 HAZARDS IDENTIFICATION

CLASSIFICATION (1999/45) Xi;R36. F+;R12. R66, R67.

CLASSIFICATION (EC 1272/2008)

Physical and Chemical Hazards	Flam. Aerosol 1 - H222
Human health	EUH066;Eye Irrit. 2 - H319;STOT Single 3 - H336
Environment	Not classified.

LABEL IN ACCORDANCE WITH (EC) NO. 1272/2008



SIGNAL WORD Danger

HAZARD STATEMENTS

H222	Extremely flammable aerosol.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.

PRECAUTIONARY STATEMENTS

P102	Keep out of reach of children.
P210	Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P211	Do not spray on an open flame or other ignition source.
P251	Pressurized container: Do not pierce or burn, even after use.
P271	Use only outdoors or in a well-ventilated area.
P305+351+338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P313	Get medical advice/attention.
P410+412	Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122°F.

SUPPLEMENTARY PRECAUTIONARY STATEMENTS

P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P264	Wash ... thoroughly after handling.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P304+340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P312	Call a POISON CENTER or doctor/physician if you feel unwell.
P337	If eye irritation persists:
P403+233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.
P501	Dispose of contents/container to ...

**Rustoleum Mode Aerosol (All Colours)**

Supplemental Label Information (EU)

EUH066

Repeated exposure may cause skin dryness or cracking.

**ENVIRONMENT**

The product is not expected to be hazardous to the environment.

**PHYSICAL AND CHEMICAL HAZARDS**

The product is highly flammable, and explosive vapours/air mixtures may be formed even at normal room temperatures.

**HUMAN HEALTH**

In high concentrations, vapours and spray mists are narcotic and may cause headache, fatigue, dizziness and nausea. Risk of serious damage to eyes. Vapours/aerosol spray may irritate the respiratory system. Repeated exposure may cause skin dryness or cracking.

**3 COMPOSITION/INFORMATION ON INGREDIENTS**

ACETONE	10-25%
CAS-No.: 67-64-1	EC No.: 200-662-2
Classification (EC 1272/2008) Flam. Liq. 2 - H225 EUH066 Eye Irrit. 2 - H319 STOT Single 3 - H336	Classification (67/548/EEC) F;R11 Xi;R36 R66 R67
BUTYL ACETATE -norm	10-25%
CAS-No.: 123-86-4	EC No.: 204-658-1
Classification (EC 1272/2008) Flam. Liq. 3 - H226 EUH066 STOT Single 3 - H336	Classification (67/548/EEC) R10 R66 R67
ETHYL ACETATE	5-10%
CAS-No.: 141-78-6	EC No.: 205-500-4
Classification (EC 1272/2008) Flam. Liq. 2 - H225 EUH066 Eye Irrit. 2 - H319 STOT Single 3 - H336	Classification (67/548/EEC) F;R11 Xi;R36 R66 R67
BUTANE	5-10%
CAS-No.: 106-97-8	EC No.: 203-448-7
Classification (EC 1272/2008) Flam. Gas 1 - H220	Classification (67/548/EEC) F+;R12
ISOBUTANE	2.5-5.0%
CAS-No.: 75-28-5	EC No.: 200-857-2
Classification (EC 1272/2008) Flam. Gas 1 - H220	Classification (67/548/EEC) F+;R12
XYLENE	1.0-2.5%
CAS-No.: 1330-20-7	EC No.: 215-535-7
	Registration Number: 01-2119486136-32-xxxx
Classification (EC 1272/2008) Flam. Liq. 3 - H226 Acute Tox. 4 - H312 Acute Tox. 4 - H332 Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 STOT Single 3 - H335 STOT Rep. 2 - H373 Asp. Tox. 1 - H304	Classification (67/548/EEC) R10 Xn;R20/21 Xi;R38

**Rustoleum Mode Aerosol (All Colours)**

1-METHOXY-2-PROPANOL		1.0-2.5%
CAS-No.: 107-98-2	EC No.: 203-539-1	
Classification (EC 1272/2008) Flam. Liq. 3 - H226 STOT Single 3 - H336	Classification (67/548/EEC) R10	
2-METHOXY-1-METHYLETHYL ACETATE		1.0-2.5%
CAS-No.: 108-65-6	EC No.: 203-603-9	
Classification (EC 1272/2008) Flam. Liq. 3 - H226	Classification (67/548/EEC) R10 Xi;R36	

The Full Text for all R-Phrases and Hazard Statements is Displayed in Section 16

**4 FIRST-AID MEASURES****GENERAL INFORMATION**

General first aid, rest, warmth and fresh air. Do not give victim anything to drink if they are unconscious. Get medical attention if any discomfort continues.

**INHALATION**

Place unconscious person on the side in the recovery position and ensure breathing can take place. If respiratory problems, artificial respiration/oxygen. Get medical attention if any discomfort continues.

**INGESTION**

Immediately rinse mouth and drink plenty of water or milk. Keep person under observation. Do not induce vomiting. If vomiting occurs, keep head low. Transport immediately to hospital and bring along these instructions.

**SKIN CONTACT**

Use appropriate hand lotion to prevent defatting and cracking of skin. Immediately remove contaminated clothing. Wash off promptly and flush contaminated skin with water. Promptly remove clothing if soaked through and flush skin with water.

**EYE CONTACT**

Make sure to remove any contact lenses from the eyes before rinsing. Promptly wash eyes with plenty of water while lifting the eye lids. Get medical attention promptly if symptoms occur after washing.

**5 FIRE-FIGHTING MEASURES****EXTINGUISHING MEDIA**

Fire can be extinguished using: Water spray, fog or mist. Foam, carbon dioxide or dry powder. Dry chemicals, sand, dolomite etc. Do not use water jet as an extinguisher, as this will spread the fire.

**SPECIAL FIRE FIGHTING PROCEDURES**

Use pressurised air mask if product is involved in a fire. Cool containers exposed to flames with water until well after the fire is out. Keep run-off water out of sewers and water sources. Dike for water control.

**UNUSUAL FIRE & EXPLOSION HAZARDS**

May explode in a fire. If heated, volume and pressure increases strongly, resulting in explosion of container.

**PROTECTIVE MEASURES IN FIRE**

Self contained breathing apparatus and full protective clothing must be worn in case of fire.

**6 ACCIDENTAL RELEASE MEASURES****PERSONAL PRECAUTIONS**

Wear protective clothing as described in Section 8 of this safety data sheet.

**ENVIRONMENTAL PRECAUTIONS**

Spillages or uncontrolled discharges into watercourses must be IMMEDIATELY alerted to the Environmental Agency or other appropriate regulatory body.

**SPILL CLEAN UP METHODS**

Keep combustibles away from spilled material. Extinguish all ignition sources. Avoid sparks, flames, heat and smoking. Ventilate. Absorb in vermiculite, dry sand or earth and place into containers. Wash thoroughly after dealing with a spillage.

**7 HANDLING AND STORAGE****USAGE PRECAUTIONS**

Static electricity and formation of sparks must be prevented. Keep away from heat, sparks and open flame. Avoid spilling, skin and eye contact. Ventilate well, avoid breathing vapours. Use approved respirator if air contamination is above accepted level. Vapours are heavier than air and may spread near ground to sources of ignition.

**STORAGE PRECAUTIONS**

Flammable/combustible - Keep away from oxidisers, heat and flames. Store in tightly closed original container in a dry, cool and well-ventilated place. Keep in original container. Avoid contact with oxidising agents.

**Rustoleum Mode Aerosol (All Colours)**

## STORAGE CLASS

Flammable compressed gas storage.

**8 EXPOSURE CONTROLS/PERSONAL PROTECTION**

Name	STD	TWA - 8 Hrs		STEL - 15 Min		Notes
1-METHOXY-2-PROPANOL	WEL	100 ppm(Sk)	375 mg/m3(Sk)	150 ppm(Sk)	560 mg/m3(Sk)	
2-METHOXY-1-METHYLETHYL ACETATE	WEL	50 ppm(Sk)	274 mg/m3(Sk)	100 ppm(Sk)	548 mg/m3(Sk)	
ACETONE	WEL	500 ppm	1210 mg/m3	1500 ppm	3620 mg/m3	
BUTANE	WEL	600 ppm	1450 mg/m3	750 ppm	1810 mg/m3	
BUTYL ACETATE -norm	WEL	150 ppm	724 mg/m3	200 ppm	966 mg/m3	
ETHYL ACETATE	WEL	200 ppm		400 ppm		
ISOBUTANE	WEL	600 ppm		750 ppm		
XYLENE	WEL	50 ppm(Sk)	220 mg/m3(Sk)	100 ppm(Sk)	441 mg/m3(Sk)	Sk

WEL = Workplace Exposure Limit.

Sk = Can be absorbed through skin.

## INGREDIENT COMMENTS

WEL = Workplace Exposure Limits

## PROTECTIVE EQUIPMENT



## PROCESS CONDITIONS

Provide eyewash station.

## ENGINEERING MEASURES

Provide adequate ventilation, including appropriate local extraction, to ensure that the defined occupational exposure limit is not exceeded. All handling to take place in well-ventilated area.

## RESPIRATORY EQUIPMENT

Provide adequate ventilation. Observe Occupational Exposure Limits and minimise the risk of inhalation of vapours. At work in confined or poorly ventilated spaces, respiratory protection with air supply must be used. Wear mask supplied with: Gas cartridge suitable for organic substances.

## HAND PROTECTION

For prolonged or repeated skin contact use suitable protective gloves. Use protective gloves made of: Neoprene. Nitrile. Rubber (natural, latex).

## EYE PROTECTION

Wear splash-proof eye goggles to prevent any possibility of eye contact.

## OTHER PROTECTION

Wear appropriate clothing to prevent any possibility of skin contact.

## HYGIENE MEASURES

DO NOT SMOKE IN WORK AREA! Wash at the end of each work shift and before eating, smoking and using the toilet. Promptly remove any clothing that becomes contaminated. Use appropriate skin cream to prevent drying of skin. When using do not eat, drink or smoke.

**9 PHYSICAL AND CHEMICAL PROPERTIES**

APPEARANCE	Aerosol.
COLOUR	Misc. colours.
ODOUR	Characteristic.
SOLUBILITY	Slightly soluble in water.
RELATIVE DENSITY	0.8
VAPOUR DENSITY (air=1)	Heavier than air
CRITICAL TEMPERATURE (°C)	97-152
FLASH POINT (°C)	-75 CC (Closed cup).
AUTO IGNITION TEMPERATURE (°C)	405
FLAMMABILITY LIMIT - LOWER(%)	3.0
FLAMMABILITY LIMIT - UPPER(%)	18.0

## Rustoleum Mode Aerosol (All Colours)

### 10 STABILITY AND REACTIVITY

#### STABILITY

No particular stability concerns.

#### CONDITIONS TO AVOID

Avoid heat, flames and other sources of ignition. Avoid contact with strong oxidisers.

#### HAZARDOUS DECOMPOSITION PRODUCTS

Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours.

### 11 TOXICOLOGICAL INFORMATION

#### GENERAL INFORMATION

Prolonged and repeated contact with solvents over a long period may lead to permanent health problems.

#### INHALATION

In high concentrations, vapours may irritate throat and respiratory system and cause coughing. In high concentrations, vapours are narcotic and may cause headache, fatigue, dizziness and nausea.

#### INGESTION

Gastrointestinal symptoms, including upset stomach.

#### SKIN CONTACT

Acts as a defatting agent on skin. May cause cracking of skin, and eczema. Irritating to skin.

#### EYE CONTACT

Irritation of eyes and mucous membranes.

Name	ETHYL ACETATE
Name	BUTYL ACETATE -norm
Toxic Dose 1 - LD 50	10768 mg/kg (oral rat)
Toxic Dose 2 - LD 50	3200 mg/kg (oral-rbt)
Toxic Conc. - LC 50	390 ppm/4h (inh-rat)

### 12 ECOLOGICAL INFORMATION

#### ECOTOXICITY

The product is not expected to be hazardous to the environment.

Name	ETHYL ACETATE
	BUTYL ACETATE -norm

#### Ecotoxicity

There are no data on the ecotoxicity of this product.

LC 50, 96 Hrs, Fish mg/l 18 - 100

#### Degradability

The product is readily biodegradable.

### 13 DISPOSAL CONSIDERATIONS

#### GENERAL INFORMATION

Waste to be treated as controlled waste. Disposal to licensed waste disposal site in accordance with local Waste Disposal Authority.

#### DISPOSAL METHODS

Dispose of waste and residues in accordance with local authority requirements. Make sure containers are empty before discarding (explosion risk). Absorb in vermiculite or dry sand and dispose of at a licenced hazardous waste collection point.

### 14 TRANSPORT INFORMATION



PROPER SHIPPING NAME	AEROSOLS
ENVIRONMENTALLY HAZARDOUS SUBSTANCE/MARINE POLLUTANT	No.
UN NO. ROAD	1950
ADR CLASS NO.	2.1

**Rustoleum Mode Aerosol (All Colours)**

ADR CLASS	Class 2: Gases
TUNNEL RESTRICTION CODE	(D)
ADR LABEL NO.	2.1
UN NO. SEA	1950
IMDG CLASS	2.1
EMS	F-D, S-U
UN NO. AIR	1950
AIR CLASS	2.1

**15 REGULATORY INFORMATION**

## EU DIRECTIVES

System of specific information relating to Dangerous Preparations. 2001/58/EC. Dangerous Preparations Directive 1999/45/EC.

## APPROVED CODE OF PRACTICE

Safety Data Sheets for Substances and Preparations. Classification and Labelling of Substances and Preparations Dangerous for Supply.

## NATIONAL REGULATIONS

The Chemicals (Hazard Information and Packaging for Supply) Regulations 2002. No. 1689. Workplace Exposure Limits 2005 (EH40)

**16 OTHER INFORMATION**

## INFORMATION SOURCES

Croner's Emergency Spillage Guide Croner's Emergency First Aid Guide Croner's Substances Hazardous to Health

## REVISION COMMENTS

This is first issue.

## ISSUED BY

I McCormack

REVISION DATE 07/01/2005

REV. NO./REPL. SDS GENERATED 1

## RISK PHRASES IN FULL

R10	Flammable.
R11	Highly flammable
R12	Extremely flammable.
R20/21	Harmful by inhalation and in contact with skin.
R36	Irritating to eyes.
R38	Irritating to skin.
R66	Repeated exposure may cause skin dryness or cracking.
R67	Vapours may cause drowsiness and dizziness.

## HAZARD STATEMENTS IN FULL

H319	Causes serious eye irritation.
H315	Causes skin irritation.
H220	Extremely flammable gas.
H226	Flammable liquid and vapour.
H332	Harmful if inhaled.
H312	Harmful in contact with skin.
H225	Highly flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
H373	May cause damage to organs <<Organs>> through prolonged or repeated exposure if inhaled.
H336	May cause drowsiness or dizziness.
H335	May cause respiratory irritation.
EUH066	Repeated exposure may cause skin dryness or cracking.

## DISCLAIMER

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.



# SAFETY DATA SHEET

Rust-Oleum™ Leakseal

## SECTION 1: Identification of the substance/mixture and of the company/undertaking

### 1.1 Product identifier

**Product name** : Rust-Oleum™ Leakseal  
**Product description** : Aerosol. Cleaning solutions.  
**Product type** : Aerosol.

### 1.2 Relevant identified uses of the substance or mixture and uses advised against

**Product use** : Cleaning solutions.

### 1.3 Details of the supplier of the safety data sheet

Rust-Oleum Netherlands BV, PO. Box 138, NL-4700 AC Roosendaal, The Netherlands  
Telephone no.: +31 (0) 165 593 636  
Fax no.: +31 (0) 165 593 600

Martin Mathys NV, Kolenbergstraat 23, B-3545 Zelem, Belgium  
Telephone no.: +32 (0) 13 460 200  
Fax no.: +32 (0) 13 460 201

**e-mail address of person responsible for this SDS** : rpmeurohas@ro-m.com

### 1.4 Emergency telephone number

**Telephone number** : +44 (0) 207 858 1228

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

**Product definition** : Mixture

#### Classification according to Directive 1999/45/EC [DPD]

The product is classified as dangerous according to Directive 1999/45/EC and its amendments.

**Classification** : F+; R12  
Xi; R37  
R66, R67  
N; R51/53

**Physical/chemical hazards** : Extremely flammable.

**Human health hazards** : Irritating to respiratory system. Repeated exposure may cause skin dryness or cracking. Vapours may cause drowsiness and dizziness.

**Environmental hazards** : Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

See Section 16 for the full text of the R-phrases declared above.

See Section 11 for more detailed information on health effects and symptoms.

### 2.2 Label elements

**Date of issue/Date of revision** : 20-11-2012.

Page: 1/14

**SECTION 2: Hazards identification**

**Hazard symbol or symbols** : 

**Indication of danger** : Extremely flammable, Dangerous for the environment

**Risk phrases** : R12- Extremely flammable.  
R37- Irritating to respiratory system.  
R66- Repeated exposure may cause skin dryness or cracking.  
R67- Vapours may cause drowsiness and dizziness.  
R51/53- Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

**Safety phrases** : S23- Do not breathe vapour or spray.  
S37- Wear suitable gloves.  
S51- Use only in well-ventilated areas.

**Hazardous ingredients** : hydrocarbons, aromatic, C9

**Supplemental label elements** : Pressurised container: protect from sunlight and do not expose to temperature exceeding 50°C. Do not pierce or burn, even after use. Do not spray on a naked flame or any incandescent material. Keep away from sources of ignition - No smoking. Keep out of the reach of children.

**Special packaging requirements**

**Containers to be fitted with child-resistant fastenings** : Not applicable.

**Tactile warning of danger** : Not applicable.

**2.3 Other hazards**

**Other hazards which do not result in classification** : Defatting to the skin.

**SECTION 3: Composition/information on ingredients**

**Substance/mixture** : Mixture

Product/ingredient name	Identifiers	%	Classification		Type
			67/548/EEC	Regulation (EC) No. 1272/2008 [CLP]	
hydrocarbons, aromatic, C9	REACH #: 01-2119455851-35 EC: 918-668-5 CAS: 64742-95-6 Index: 649-356-00-4	25-35	R10 Xn; R65 Xi; R37 R66, R67 N; R51/53	Flam. Liq. 3, H226 STOT SE 3, H335 and H336 Asp. Tox. 1, H304 Aquatic Chronic 2, H411	[1] [2]
n-butyl acetate	REACH #: 01-2119485493-29 EC: 204-658-1 CAS: 123-86-4 Index: 607-025-00-1	<15	R10 R66, R67	Flam. Liq. 3, H226 STOT SE 3, H336	[1] [2]
butane	EC: 203-448-7 CAS: 106-97-8 Index: 601-004-00-0	5-10	F+; R12	Flam. Gas 1, H220 Press. Gas, H280	[2]
xylene (mixture of isomeres)	REACH #: 01-2119488216-32 EC: 215-535-7 CAS: 1330-20-7 Index: 601-022-00-9	<12.5	R10 Xn; R20/21 Xi; R38	Flam. Liq. 3, H226 Acute Tox. 4, H312 Acute Tox. 4, H332 Skin Irrit. 2, H315	[1] [2]

**Date of issue/Date of revision** : 20-11-2012.

**Page:** 2/14

**SECTION 3: Composition/information on ingredients**

			<b>See Section 16 for the full text of the R-phrases declared above.</b>	<b>See Section 16 for the full text of the H statements declared above.</b>	
--	--	--	--	---	--

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs or vPvBs or have been assigned a workplace exposure limit and hence require reporting in this section.

Type

[1] Substance classified with a health or environmental hazard

[2] Substance with a workplace exposure limit

[3] Substance meets the criteria for PBT according to Regulation (EC) No. 1907/2006, Annex XIII

[4] Substance meets the criteria for vPvB according to Regulation (EC) No. 1907/2006, Annex XIII

Occupational exposure limits, if available, are listed in Section 8.

**SECTION 4: First aid measures****4.1 Description of first aid measures**

- General** : In all cases of doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and seek medical advice.
- Eye contact** : Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Seek immediate medical attention.
- Inhalation** : Remove to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel.
- Skin contact** : Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water or use recognised skin cleanser. Do NOT use solvents or thinners.
- Ingestion** : If swallowed, seek medical advice immediately and show the container or label. Keep person warm and at rest. Do not induce vomiting.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

**4.2 Most important symptoms and effects, both acute and delayed**

There are no data available on the mixture itself. The mixture has been assessed following the conventional method of the Dangerous Preparations Directive 1999/45/EC and classified for toxicological hazards accordingly. See Sections 3 and 15 for details.

Exposure to component solvent vapour concentrations in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and central nervous system. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and, in extreme cases, loss of consciousness.

Solvents may cause some of the above effects by absorption through the skin. Repeated or prolonged contact with the mixture may cause removal of natural fat from the skin, resulting in non-allergic contact dermatitis and absorption through the skin.

If splashed in the eyes, the liquid may cause irritation and reversible damage.

Ingestion may cause nausea, diarrhea and vomiting.

This takes into account, where known, delayed and immediate effects and also chronic effects of components from short-term and long-term exposure by oral, inhalation and dermal routes of exposure and eye contact.

**4.3 Indication of any immediate medical attention and special treatment needed**

- Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- Specific treatments** : No specific treatment.

## **SECTION 4: First aid measures**

See toxicological information (Section 11)

## **SECTION 5: Firefighting measures**

### **5.1 Extinguishing media**

**Suitable extinguishing media** : Recommended: alcohol-resistant foam, CO<sub>2</sub>, powders, water spray.

**Unsuitable extinguishing media** : Do not use water jet.

### **5.2 Special hazards arising from the substance or mixture**

**Hazards from the substance or mixture** : Fire will produce dense black smoke. Exposure to decomposition products may cause a health hazard.

**Hazardous thermal decomposition products** : Decomposition products may include the following materials: carbon monoxide, carbon dioxide, smoke, oxides of nitrogen.

### **5.3 Advice for firefighters**

**Special protective actions for fire-fighters** : Cool closed containers exposed to fire with water. Do not release runoff from fire to drains or watercourses.

**Special protective equipment for fire-fighters** : Appropriate breathing apparatus may be required.

**Additional information** : Pressurised container: protect from sunlight and do not expose to temperature exceeding 50°C. Do not pierce or burn, even after use. Container explosion may occur under fire conditions or when heated. Bursting aerosol containers may be propelled from a fire at high speed.

## **SECTION 6: Accidental release measures**

### **6.1 Personal precautions, protective equipment and emergency procedures**

**For non-emergency personnel** : Exclude sources of ignition and ventilate the area. Avoid breathing vapour or mist. Refer to protective measures listed in sections 7 and 8.

**For emergency responders** : If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also Section 8 for additional information on hygiene measures.

### **6.2 Environmental precautions**

: Do not allow to enter drains or watercourses. If the product contaminates lakes, rivers, or sewers, inform the appropriate authorities in accordance with local regulations.

### **6.3 Methods and materials for containment and cleaning up**

: Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Preferably clean with a detergent. Avoid using solvents.

### **6.4 Reference to other sections**

: See Section 1 for emergency contact information.  
See Section 8 for information on appropriate personal protective equipment.  
See Section 13 for additional waste treatment information.

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

- : Prevent the creation of flammable or explosive concentrations of vapours in air and avoid vapour concentrations higher than the occupational exposure limits. In addition, the product should only be used in areas from which all naked lights and other sources of ignition have been excluded. Electrical equipment should be protected to the appropriate standard. Operators should wear antistatic footwear and clothing and floors should be of the conducting type. Keep away from heat, sparks and flame. No sparking tools should be used. Avoid contact with skin and eyes. Avoid the inhalation of dust, particulates, spray or mist arising from the application of this mixture. Avoid inhalation of dust from sanding. Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Put on appropriate personal protective equipment (see Section 8). Never use pressure to empty. Container is not a pressure vessel. Comply with the health and safety at work laws. Do not allow to enter drains or watercourses.

#### Information on fire and explosion protection

Vapours are heavier than air and may spread along floors. Vapours may form explosive mixtures with air.

When operators, whether spraying or not, have to work inside the spray booth, ventilation is unlikely to be sufficient to control particulates and solvent vapour in all cases. In such circumstances they should wear a compressed air-fed respirator during the spraying process and until such time as the particulates and solvent vapour concentration has fallen below the exposure limits.

### 7.2 Conditions for safe storage, including any incompatibilities

- : Store in accordance with local regulations.

#### Notes on joint storage

Keep away from: oxidising agents, strong alkalis, strong acids.

#### Additional information on storage conditions

Observe label precautions. Do not store above the following temperature: 35°C (95°F). Store in a dry, cool and well-ventilated area. Keep away from heat and direct sunlight. Keep away from sources of ignition. No smoking. Prevent unauthorised access. Containers that have been opened must be carefully resealed and kept upright to prevent leakage.

### 7.3 Specific end use(s)

**Recommendations** : Not available.

**Industrial sector specific solutions** : Not available.

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

#### Occupational exposure limits

Product/ingredient name	Exposure limit values
hydrocarbons, aromatic, C9	<b>EH40/2005 WELs (United Kingdom (UK), 10/2007).</b> TWA: 125 mg/m <sup>3</sup> , (trimethylbenzene (25 ppm)) 8 hour(s).
n-butyl acetate	<b>EH40/2005 WELs (United Kingdom (UK), 8/2007).</b> STEL: 966 mg/m <sup>3</sup> 15 minute(s). STEL: 200 ppm 15 minute(s). TWA: 724 mg/m <sup>3</sup> 8 hour(s).
butane	TWA: 150 ppm 8 hour(s). <b>EH40/2005 WELs (United Kingdom (UK), 8/2007).</b>

**SECTION 8: Exposure controls/personal protection**

xylene (mixture of isomeres)	STEL: 1810 mg/m <sup>3</sup> 15 minute(s). STEL: 750 ppm 15 minute(s). TWA: 1450 mg/m <sup>3</sup> 8 hour(s). TWA: 600 ppm 8 hour(s). <b>EH40/2005 WELs (United Kingdom (UK), 8/2007). Absorbed through skin.</b> STEL: 441 mg/m <sup>3</sup> 15 minute(s). STEL: 100 ppm 15 minute(s). TWA: 220 mg/m <sup>3</sup> 8 hour(s). TWA: 50 ppm 8 hour(s).
------------------------------	--

**Recommended monitoring procedures** : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to European Standard EN 689 for methods for the assessment of exposure by inhalation to chemical agents and national guidance documents for methods for the determination of hazardous substances.

**Derived effect levels**

Product/ingredient name	Type	Exposure	Value	Population	Effects
hydrocarbons, aromatic, C9             n-butyl acetate	DNEL	Long term Dermal	25 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	150 mg/m <sup>3</sup>	Workers	Systemic
	DNEL	Long term Inhalation	32 mg/m <sup>3</sup>	Consumers	Systemic
	DNEL	Long term Oral, Dermal	11 mg/kg bw/day	Consumers	Systemic
	DNEL	Short term Inhalation	960 mg/m <sup>3</sup>	Workers	Systemic
	DNEL	Short term Inhalation	960 mg/m <sup>3</sup>	Workers	Local
	DNEL	Long term Inhalation	480 mg/m <sup>3</sup>	Workers	Systemic
	DNEL	Long term Inhalation	480 mg/m <sup>3</sup>	Workers	Local
	DNEL	Short term Inhalation	859.7 mg/m <sup>3</sup>	Consumers	Systemic
	DNEL	Short term Inhalation	859.7 mg/m <sup>3</sup>	Consumers	Local
	DNEL	Long term Inhalation	102.34 mg/m <sup>3</sup>	Consumers	Systemic
	DNEL	Long term Inhalation	102.34 mg/m <sup>3</sup>	Consumers	Local

**Predicted effect concentrations**

Product/ingredient name	Type	Compartment Detail	Value	Method Detail
n-butyl acetate	PNEC	Fresh water	0.18 mg/l	-
	PNEC	Marine	0.018 mg/l	-
	PNEC	Fresh water sediment	0.981 mg/kg	-
	PNEC	Marine water sediment	0.0981 mg/kg	-
	PNEC	Soil	0.0903 mg/kg	-
	PNEC	Sewage Treatment Plant	35.6 mg/l	-

**8.2 Exposure controls**

**SECTION 8: Exposure controls/personal protection**

- Appropriate engineering controls** : Provide adequate ventilation. Where reasonably practicable, this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates and solvent vapours below the OEL, suitable respiratory protection must be worn.
- Individual protection measures**
- Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
- Eye/face protection** : Safety glasses with side shields. (EN166)
- Skin protection**
- Hand protection** : Barrier creams may help to protect the exposed areas of the skin but should not be applied once exposure has occurred.  
The user must check that the final choice of type of glove selected for handling this product is the most appropriate and takes into account the particular conditions of use, as included in the user's risk assessment.
- Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. Recommended: Wear overalls or long sleeved shirt. (EN 1149-1)
- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : If workers are exposed to concentrations above the exposure limit, they must use appropriate, certified respirators.  
Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. Recommended: organic vapour (Type A) and particulate filter (EN 140) .
- Environmental exposure controls** : Do not allow to enter drains or watercourses.

**SECTION 9: Physical and chemical properties****9.1 Information on basic physical and chemical properties****Appearance****Physical state** : Liquid. [Compressed gas]**Colour** : Black.**Odour** : Solvent-like**Odour threshold** : Not available.**pH** : Not available.**Melting point/freezing point** : Not available.**Initial boiling point and boiling range** : Not available.**Flash point** : Closed cup: -70°C**Evaporation rate** : >1 (butyl acetate = 1)

**Flammability (solid, gas)** : Highly flammable in the presence of the following materials or conditions: open flames, sparks and static discharge and heat.  
Slightly flammable in the presence of the following materials or conditions: shocks and mechanical impacts.  
Container explosion may occur under fire conditions or when heated. Vapour may travel a considerable distance to source of ignition and flash back.

**Burning time** : Not applicable.**Burning rate** : Not applicable.

**SECTION 9: Physical and chemical properties**

<b>Upper/lower flammability or explosive limits</b>	: Lower: 3% Upper: 18%
<b>Vapour pressure</b>	: >400 kPa [20°C]
<b>Vapour density</b>	: >1 [Air = 1]
<b>Relative density</b>	: 0.81
<b>Solubility(ies)</b>	: Not available.
<b>Partition coefficient: n-octanol/ water</b>	: Not available.
<b>Auto-ignition temperature</b>	: 400°C
<b>Decomposition temperature</b>	: Not available.
<b>Viscosity</b>	: Not available.
<b>Explosive properties</b>	: Highly explosive in the presence of the following materials or conditions: open flames, sparks and static discharge, heat and shocks and mechanical impacts.
<b>Oxidising properties</b>	: Not available.

**9.2 Other information****Aerosol product****Type of aerosol** : Spray**Heat of combustion** : 0.01432 kJ/g

No additional information.

**SECTION 10: Stability and reactivity**

<b>10.1 Reactivity</b>	: No specific test data related to reactivity available for this product or its ingredients.
<b>10.2 Chemical stability</b>	: Stable under recommended storage and handling conditions (see Section 7).
<b>10.3 Possibility of hazardous reactions</b>	: Under normal conditions of storage and use, hazardous reactions will not occur.
<b>10.4 Conditions to avoid</b>	: When exposed to high temperatures may produce hazardous decomposition products.
<b>10.5 Incompatible materials</b>	: Keep away from the following materials to prevent strong exothermic reactions: oxidising agents, strong alkalis, strong acids.
<b>10.6 Hazardous decomposition products</b>	: Under normal conditions of storage and use, hazardous decomposition products should not be produced. If involved in a fire, toxic gases including CO, CO <sub>2</sub> and smoke can be generated.

**SECTION 11: Toxicological information****11.1 Information on toxicological effects**

There are no data available on the mixture itself. The mixture has been assessed following the conventional method of the Dangerous Preparations Directive 1999/45/EC and classified for toxicological hazards accordingly. See Sections 3 and 15 for details.

Exposure to component solvent vapour concentrations in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and central nervous system. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and, in extreme cases, loss of consciousness.

Solvents may cause some of the above effects by absorption through the skin. Repeated or prolonged contact with the mixture may cause removal of natural fat from the skin, resulting in non-allergic contact dermatitis and absorption through the skin.

**SECTION 11: Toxicological information**

If splashed in the eyes, the liquid may cause irritation and reversible damage.

Ingestion may cause nausea, diarrhea and vomiting.

This takes into account, where known, delayed and immediate effects and also chronic effects of components from short-term and long-term exposure by oral, inhalation and dermal routes of exposure and eye contact.

**Acute toxicity**

Product/ingredient name	Result	Species	Dose	Exposure
hydrocarbons, aromatic, C9	LC50 Inhalation Vapour	Rat	>6193 mg/m <sup>3</sup>	4 hours
	LD50 Dermal	Rabbit	>3160 mg/kg	-
	LD50 Oral	Mouse	8400 mg/kg	-
n-butyl acetate	LD50 Oral	Rat	3592 mg/kg	-
	LC50 Inhalation Vapour	Rat	>21 mg/l	4 hours
	LC50 Inhalation Vapour	Rat	9700 mg/m <sup>3</sup>	4 hours
butane	LD50 Dermal	Rabbit	>17600 mg/kg	-
	LD50 Oral	Rat	14000 mg/kg	-
	LC50 Inhalation Gas.	Rat	658000 mg/m <sup>3</sup>	4 hours
isobutane	LC50 Inhalation Vapour	Rat	658000 mg/m <sup>3</sup>	4 hours
	LCLo Inhalation Gas.	Rat	1041000 mg/m <sup>3</sup>	2 hours
xylene (mixture of isomeres)	LC50 Inhalation Gas.	Rat	5000 ppm	4 hours
	LC50 Inhalation Vapour	Rat	5000 ppm	4 hours
	LD50 Oral	Rat	4300 mg/kg	-

**Conclusion/Summary** : Not available.

Route	ATE value

**Irritation/Corrosion**

**Conclusion/Summary** : Not available.

**Sensitisation**

Product/ingredient name	Route of exposure	Species	Result
hydrocarbons, aromatic, C9	skin	Rabbit	Not sensitizing

**Conclusion/Summary** : Not available.

**Mutagenicity**

Product/ingredient name	Test	Experiment	Result
hydrocarbons, aromatic, C9	OECD 471	Subject: Bacteria	Negative

**Conclusion/Summary** : Not available.

**Carcinogenicity**

**Conclusion/Summary** : Not available.

**Reproductive toxicity**

Product/ingredient name	Maternal toxicity	Fertility	Developmental toxin	Species	Dose	Exposure
hydrocarbons, aromatic, C9	-	-	Negative	Mammal - species unspecified	Unreported	-

**Conclusion/Summary** : Not available.

**Teratogenicity**

**Conclusion/Summary** : Not available.

**Other information** : Not available.

**SECTION 12: Ecological information****12.1 Toxicity**

There are no data available on the mixture itself.  
Do not allow to enter drains or watercourses.

The preparation has been assessed following the conventional method of the Dangerous Preparations Directive 1999/45/EC and is classified for eco-toxicological properties accordingly. See Sections 2 and 3 for details.

Product/ingredient name	Result	Species	Exposure
hydrocarbons, aromatic, C9	Acute EC50 19 mg/l	Algae - Pseudokirchneriella subcapitata	96 hours
	Acute EC50 3.2 mg/l	Daphnia spec.	48 hours
	Acute IC50 2.9 mg/l	Algae - Pseudokirchneriella subcapitata	72 hours
	Acute LC50 21 mg/l	Daphnia spec.	24 hours
	Acute LC50 9.22 mg/l	Fish	96 hours
	Acute NOEC 1 mg/l	Algae - Pseudokirchneriella subcapitata	72 hours
n-butyl acetate	Acute EC10 956 mg/l	Bacteria - Pseudomonas putida	18 hours
	Acute EC50 648 mg/l	Algae - Desmodesmus subspicatus	72 hours
	Acute LC50 32 mg/l Marine water	Crustaceans - Artemia salina - Nauplii	48 hours
	Acute LC50 64 mg/l	Fish	48 hours

**Conclusion/Summary** : Not available.

**12.2 Persistence and degradability**

Product/ingredient name	Test	Result	Dose	Inoculum
hydrocarbons, aromatic, C9	-	78 % - Readily - 28 days	-	-
n-butyl acetate	-	90 % - Readily - 28 days	-	-
xylene (mixture of isomeres)	-	90 % - Readily - 5 days	-	-

**Conclusion/Summary** : Not available.

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
hydrocarbons, aromatic, C9	-	-	Readily
n-butyl acetate	-	-	Readily
xylene (mixture of isomeres)	-	-	Readily

**12.3 Bioaccumulative potential**

Product/ingredient name	LogP <sub>ow</sub>	BCF	Potential
hydrocarbons, aromatic, C9	3.7 to 4.5	-	high
propane	2.36	-	low
n-butyl acetate	2.3	10	low
butane	2.89	-	low
isobutane	2.8	-	low
xylene (mixture of isomeres)	3.16	-	high

**12.4 Mobility in soil**

**Soil/water partition coefficient (K<sub>oc</sub>)** : Not available.

**Mobility** : This product is likely to volatilise rapidly into the air because of its high vapour pressure.

**12.5 Results of PBT and vPvB assessment**

**PBT** : Not applicable.

**SECTION 12: Ecological information**

vPvB : Not applicable.

12.6 Other adverse effects : No known significant effects or critical hazards.

**SECTION 13: Disposal considerations**

Do not allow to enter drains or watercourses.

Dispose of according to all federal, state and local applicable regulations.

**13.1 Waste treatment methods****Product**

**Methods of disposal** : The generation of waste should be avoided or minimised wherever possible. Significant quantities of waste product residues should not be disposed of via the foul sewer but processed in a suitable effluent treatment plant. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements.

**Hazardous waste** : Yes.

**European waste catalogue (EWC)** : The European Waste Catalogue classification of this product, when disposed of as waste, is:  
13 02 08\* other engine, gear and lubricating oils.  
If this product is mixed with other wastes, this code may no longer apply. If mixed with other wastes, the appropriate code should be assigned. For further information, contact your local waste authority.

**Packaging**

**Methods of disposal** : The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

**Special precautions** : This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Do not puncture or incinerate container.

**SECTION 14: Transport information**

	<b>ADR/RID</b>	<b>IMDG</b>	<b>IATA</b>
<b>14.1 UN number</b>	1950 LQ	1950 LQ	1950
<b>14.2 UN proper shipping name</b>	Aerosols, Flammable [Limited quantity]	Aerosols, Flammable [Limited quantity] Marine pollutant (hydrocarbons, aromatic, C9)	Aerosols, Flammable
<b>14.3 Transport hazard class(es)</b>	2	2.1	2.1  
<b>14.4 Packing group</b>	-	-	-
<b>14.5 Environmental hazards</b>	Yes.	Yes.	Yes.

**SECTION 14: Transport information**

<b>14.6 Special precautions for user</b>	<b>Transport within user's premises:</b> always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.	<b>Transport within user's premises:</b> always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.	<b>Transport within user's premises:</b> always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.
<b>Additional information</b>	<b>Limited quantity:</b> LQ2  <b>Remarks:</b> ( < 5L: ) Limited Quantity - ADR/IMDG 3.4  ADR Tunnel code: (D)	<b>Emergency schedules (EmS):</b> F-D + S-U  <b>Remarks:</b> Limited Quantity - ADR/IMDG 3.4	<b>Passenger and Cargo Aircraft</b> Quantity limitation: 75 kg Packaging instructions: 203 <b>Cargo Aircraft Only</b> Quantity limitation: 150 kg Packaging instructions: 203 <b>Limited Quantities - Passenger Aircraft</b> Quantity limitation: 30 kg Packaging instructions: Y 203

**14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code** : Not available.

**SECTION 15: Regulatory information****15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

The information contained in this safety data sheet does not constitute the user's own assessment of workplace risks, as required by other health and safety legislation. The provisions of the national health and safety at work regulations apply to the use of this product at work.

**CN code** : 3402 90 90

**EU Regulation (EC) No. 1907/2006 (REACH)****Annex XIV - List of substances subject to authorisation****Substances of very high concern**

None of the components are listed.

**Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles** : Not applicable.

**Other EU regulations**

**VOC for Ready-for-Use Mixture** : Not applicable.

**Europe inventory** : Not determined.

**Black List Chemicals** : Not listed

**Date of issue/Date of revision** : 20-11-2012.

**Page: 12/14**

**SECTION 15: Regulatory information**

**Priority List Chemicals** : Not listed  
**Aerosol dispensers** :

3

74.04% by mass of the contents are flammable.

Product/ingredient name	List name	Name on list	Classification	Notes
butane	UK Occupational Exposure Limits EH40 - WEL	butane	Carc.	-

**15.2 Chemical Safety Assessment** : This product contains substances for which Chemical Safety Assessments are still required.

**SECTION 16: Other information**

✔ Indicates information that has changed from previously issued version.

**Abbreviations and acronyms** : ATE = Acute Toxicity Estimate  
 CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]  
 DNEL = Derived No Effect Level  
 EUH statement = CLP-specific Hazard statement  
 PNEC = Predicted No Effect Concentration  
 RRN = REACH Registration Number

**Full text of abbreviated H statements** : H220 Extremely flammable gas.  
 H226 Flammable liquid and vapour.  
 H280 Contains gas under pressure; may explode if heated.  
 H304 May be fatal if swallowed and enters airways.  
 H312 Harmful in contact with skin.  
 H315 Causes skin irritation.  
 H332 Harmful if inhaled.  
 H335 May cause respiratory irritation. May cause drowsiness or dizziness.  
 and  
 H336  
 H336 May cause drowsiness or dizziness.  
 H411 Toxic to aquatic life with long lasting effects.

**Full text of classifications [CLP/GHS]** : Acute Tox. 4, H312 ACUTE TOXICITY: SKIN - Category 4  
 Acute Tox. 4, H332 ACUTE TOXICITY: INHALATION - Category 4  
 Aquatic Chronic 2, H411 AQUATIC TOXICITY (CHRONIC) - Category 2  
 Asp. Tox. 1, H304 ASPIRATION HAZARD - Category 1  
 Flam. Gas 1, H220 FLAMMABLE GASES - Category 1  
 Flam. Liq. 3, H226 FLAMMABLE LIQUIDS - Category 3  
 Press. Gas Comp. Gas, H280 GASES UNDER PRESSURE - Compressed gas  
 Skin Irrit. 2, H315 SKIN CORROSION/IRRITATION - Category 2  
 STOT SE 3, H335 and H336 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) [Respiratory tract irritation and Narcotic effects] - Category 3  
 STOT SE 3, H336 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) [Narcotic effects] - Category 3

## SECTION 16: Other information

<b>Full text of abbreviated R phrases</b>	: R12- Extremely flammable. R10- Flammable. R20/21- Harmful by inhalation and in contact with skin. R65- Harmful: may cause lung damage if swallowed. R37- Irritating to respiratory system. R38- Irritating to skin. R66- Repeated exposure may cause skin dryness or cracking. R67- Vapours may cause drowsiness and dizziness. R51/53- Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
<b>Full text of classifications [DSD/DPD]</b>	: F+ - Extremely flammable Xn - Harmful Xi - Irritant N - Dangerous for the environment



<b>Version</b>	: 1	<b>Date of printing</b>	: 27-02-2013.
<b>Date of issue/ Date of revision</b>	: 20-11-2012.		
<b>Date of previous issue</b>	: No previous validation.		

### Notice to reader

*The information in this SDS is based on the present state of our knowledge and on current laws. The product is not to be used for purposes other than those specified under section 1 without first obtaining written handling instructions. It is always the responsibility of the user to take all necessary steps to fulfil the demands set out in the local rules and legislation. The information in this SDS is meant to be a description of the safety requirements for our product. It is not to be considered a guarantee of the product's properties.*  
© Rust-Oleum Netherlands B.V. / Martin Mathys N.V.

<b>SECTION 1: PRODUCT AND COMPANY IDENTIFICATION</b>		
<b>PRODUCT IDENTIFIER</b>	SafeTSorb	
<b>CHEMICAL NAME</b>	Montmorillonite Clay, Calcined	
<b>CHEMICAL FAMILY</b>	Clay	
<b>MATERIAL USE</b>	Oil Absorbent	
<b>RESTRICTION ON USE</b>	None Known	
<b>MANUFACTURER</b>	EP Minerals, LLC., 9875 Gateway Dr., Reno, NV 89521	
<b>TELEPHONE NO.</b>	(775) 824 7600 (Monday – Friday 8:00 am PST – 5:00 pm PST)	
<b>EMERGENCY TELEPHONE NO.</b>	(775) 824 7600 (Monday – Friday 8:00 am PST – 5:00 pm PST)	
<b>SDS DATE OF PREPARATION</b>	January 28, 2014	
<b>SECTION 2: HAZARDS IDENTIFICATION</b>		
<b>OSHA GHS HAZARD CLASSIFICATION</b>	Carcinogen Category 1A Specific Target Organ Toxicity, Repeated Exposure Category 1	
<b>HAZARDS NOT OTHERWISE CLASSIFIED</b>	None	
<b>LABEL ELEMENTS</b>	<p><b>DANGER</b>                      May cause cancer by inhalation.                      Causes damage to lungs through prolonged or repeated exposure.                      Obtain special instructions before use.                      Do not handle until all safety precautions have been read and understood.                      Do not breathe dust.                      Wear eye protection.                      If exposed or concerned: Get medical advice.                      Dispose of contents in accordance with local, state and federal regulations.</p> 	
<b>SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS</b>		
INGREDIENT IDENTIFICATION	APPROXIMATE CONCENTRATION (%)	C.A.S. NUMBERS
Montmorillonite Clay, Calcined (contains 10-15% Crystalline Silica - Quartz)	100%	70892-59-0 14808-60-7
<b>SECTION 4: FIRST AID MEASURES</b>		
<b>EYE</b>	Flush eyes with generous quantities of water or eye rinse solution. Consult physician if irritation persists.	
<b>SKIN</b>	Use moisture renewing lotions if dryness occurs.	
<b>INGESTION</b>	Drink generous amounts of water to reduce bulk and drying effects.	
<b>INHALATION</b>	Remove to fresh air. Blow nose to evacuate dust.	
<b>Most important symptoms/effects, acute and delayed</b>	Dust may cause abrasive irritation to eyes. Prolonged skin contact may cause dryness. Dust may cause nose, throat and upper respiratory tract irritation. Prolonged inhalation of respirable dust containing silica may cause a progressive lung disease, silicosis and lung cancer. See Section 11 for additional information.	
<b>Indication of immediate medical attention and special treatment, if necessary</b>	Immediate medical attention is not normally required. If dust irritates the eyes, seek medical attention.	

MATERIAL NAME	SafeTSorb	Page 2 of 4
---------------	-----------	-------------

## SECTION 5: FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA	Not applicable, the material is not combustible.
SPECIFIC HAZARDS ARISING FROM THE CHEMICAL	Not applicable, the material is not combustible.
SPECIAL PROTECTIVE EQUIPMENT AND PRECAUTIONS FOR FIRE-FIGHTERS	Not applicable, the material is not combustible.

## SECTION 6: ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS	If dust is present, use respirator fitted with particulate filter as specified in Section 8. Protect eyes with goggles. Do not breathe dust.
ENVIRONMENTAL PRECAUTIONS	This material is not a significant environmental concern.
METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP	Vacuum clean spillage or wet sweep. Avoid creating airborne dust. Place in a container for use or disposal.

## SECTION 7: HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING	Minimize dust generation. Avoid contact with eyes. Do not breathe dust. Repair or dispose of broken bags. Observe all label precautions and warnings. Flammable or hazardous substances may retain such characteristics after absorption. Care should be taken to store and dispose of waste material in accordance with instructions of manufacturer of substance absorbed and applicable laws. Do not use with hydrofluoric acid or concentrated caustic solutions.
CONDITIONS FOR SAFE STORAGE	Store in a dry place to maintain packaging integrity and product quality. Store product separately from feed, food, pesticides and fertilizers so that cross contaminations does not occur. Do not store near hydrofluoric acid or concentrated caustic solutions.

## SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

<b>EXPOSURE GUIDELINES:</b>				
Component	OSHA PEL	ACGIH TLV	MSHA PEL	NIOSH REL
Montmorillonite Clay, Calcined (as Particulates not otherwise classified)	5 mg/m <sup>3</sup> respirable dust 15 mg/m <sup>3</sup> total dust	None Established	5 mg/m <sup>3</sup> respirable dust 15 mg/m <sup>3</sup> total dust	None Established
Crystalline Silica (Quartz)	30 mg/m <sup>3</sup> % SiO <sub>2</sub> +2 total dust	0.025 mg/ m <sup>3</sup> Respirable dust	30 mg/m <sup>3</sup> % SiO <sub>2</sub> +2 total dust	0.05 mg/ m <sup>3</sup> Respirable dust
	10 mg/m <sup>3</sup> % SiO <sub>2</sub> +2 Respirable dust		10 mg/m <sup>3</sup> % SiO <sub>2</sub> +2 Respirable dust	
<b>ENGINEERING CONTROLS</b>	Use general or local exhaust ventilation to control dust within recommended exposure limits. Refer to ACGIH publication "Industrial Ventilation" or similar publications for design of ventilation systems.			
<b>PERSONAL PROTECTIVE EQUIPMENT:</b>				
<b>EYE / FACE PROTECTION</b>	Goggles to protect from dust			
<b>SKIN PROTECTION</b>	No special equipment is needed.			
<b>RESPIRATORY PROTECTION</b>	Respirators fitted with filters certified to standard 42CFR84 under series N95 should be worn when dust is present. If the dust concentration is less than ten (10) times the Permissible Exposure Limit (PEL) use a quarter or half-mask respirator with a N95 dust filter or a single use dust mask rated N95. If dust concentration is greater than ten (10) times and less than fifty (50) times the PEL, a full-face piece respirator fitted with replaceable N95 filters is recommended. If dust concentration is greater than fifty (50) and less than two hundred (200) times the PEL use a power air-purifying (positive pressure) respirator with a replaceable N95 filter. If dust concentration is greater than two hundred (200) times the PEL use a type C, supplied air respirator (continuous flow, positive pressure), with full face piece, hood or helmet.			
<b>GENERAL HYGIENE</b>	Avoid breathing dust. Avoid contact with eyes. Wash hands after handling and before eating or drinking.			

MATERIAL NAME	SafeTSorb	Page 3 of 4
---------------	-----------	-------------

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

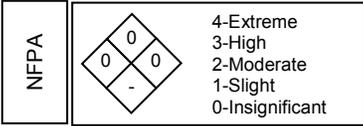
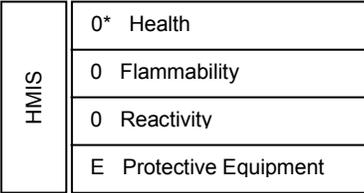
APPEARANCE, COLOR	Tan to gray	ODOR	Odorless
PHYSICAL STATE	Solid	ODOR THRESHOLD	Not applicable
VAPOR PRESSURE	Not applicable	VAPOR DENSITY	Not applicable
BOILING POINT	Not applicable	MELTING POINT	Unknown
FLASH POINT	Not applicable	pH (10% SUSPENSION)	Unknown
FLAMMABILITY LIMITS	Not applicable	EVAPORATION RATE	Not applicable
DECOMPOSITION TEMPERATURE	Unknown	SPEC. GRAVITY / RELATIVE DENSITY	2.2
AUTOIGNITION TEMPERATURE	Not applicable	PARTITION COEFFICIENT – n-OCTANOL/WATER	Not applicable
FLAMMABILITY (solid/gas)	Not applicable	SOLUBILITY – WATER	< 1.0%
		VISCOSITY	Not applicable

## SECTION 10: STABILITY AND REACTIVITY

REACTIVITY	Material is not reactive.
CHEMICAL STABILITY	Material is stable.
POSSIBILITY OF HAZARDOUS REACTIONS	Material is not reactive under normal conditions of handling unless mixed with incompatible substances below.
CONDITIONS TO AVOID	Not applicable
INCOMPATIBLE MATERIALS	Unsaturated organic compounds, such as turpentine and vegetable oil, hydrofluoric acid and concentrated caustic solutions may react violently with the product.
HAZARDOUS DECOMPOSITION PRODUCTS	Not applicable

## SECTION 11: TOXICOLOGICAL INFORMATION

POTENTIAL HEALTH EFFECTS	
Likely Routes of Exposure	See below
EYE	May cause irritation (tear formation and redness) if dust gets in eyes.
SKIN	Not absorbed by the skin, but may cause dryness if prolonged exposure.
INGESTION	Ingestion of small quantities is not considered harmful, but may cause irritation of the mouth, throat and stomach.
INHALATION	Acute inhalation can cause dryness of the nasal passage and lung congestion, coughing and general throat irritation. Acute inhalation of high concentrations of respirable crystalline silica may cause acute silicosis.
CHRONIC EFFECTS	This product contains naturally occurring crystalline silica. Respirable crystalline silica may cause lung cancer and lung disease (silicosis) if inhaled for prolonged periods. Symptoms of silicosis include wheezing, cough and shortness of breath.
CARCINOGENICITY	This natural product is composed predominantly of clay, but contains some crystalline silica. Respirable crystalline silica (quartz) is classified by IARC and NTP as a known human carcinogen. Crystalline silica is only known to cause cancer when inhaled in a respirable form. It is not known to cause cancer by any other route of exposure.
NTP	Respirable crystalline silica (quartz) is classified as a known human carcinogen.
IARC	Respirable crystalline silica (quartz) is classified as a known human carcinogen.
NUMERICAL MEASURES OF TOXICITY	No data available

MATERIAL NAME	SafeTSorb	Page 4 of 4
CORROSIVENESS, SENSITIZATION, IRRITANCY	Not applicable	
REPRODUCTIVE TOXICITY	Not available	
TERATOGENICITY, MUTAGENICITY	Not available	
<b>SECTION 12: ECOLOGICAL INFORMATION</b>		
ECOTOXICITY:	No toxicity is expected	
PERSISTENCE AND DEGRADABILITY	Non-biodegradable, inert.	
BIOACCUMULATIVE POTENTIAL	Little potential for bioaccumulation	
MOBILITY IN SOIL	No mobility	
OTHER ADVERSE EFFECTS	None known	
<b>SECTION 13: DISPOSAL CONSIDERATIONS</b>		
WASTE DISPOSAL	If this material as supplied becomes a waste, use solid waste disposal common to landfill type operations or in slurry to sumps. Not considered a hazardous waste under RCRA (40CFR Part 261).	
PACKAGING DISPOSAL	Dispose of in accordance with applicable laws and regulations, typically solid waste disposal common to landfill type operations.	
<b>SECTION 14: TRANSPORT INFORMATION</b>		
BASIC SHIPPING INFORMATION	DOT shipping classification 55 (no restrictions). Technical name is "Calcined Clay".	
ADDITIONAL INFORMATION	No special requirements or placarding necessary.	
<b>SECTION 15: REGULATORY INFORMATION</b>		
U.S. FEDERAL:		
TSCA	Montmorillonite and Quartz appear on the EPA TSCA inventory list.	
CERCLA	Montmorillonite is not classified as a hazardous substance under regulations of the Comprehensive Environmental Response Compensation and Liability Act (CERCLA), 40 CFR 302.	
SARA TITLE III	Not listed.	
California Proposition 65:	This product contains crystalline silica, a chemical known to the State of California to cause cancer.	
INTERNATIONAL:		
WHMIS Classification	Class D-2-A	
WHMIS Ingredient Disclosure List	Silica, crystalline, quartz	
<b>SECTION 16: OTHER INFORMATION</b>		
	 <p>NFPA</p> <p>4-Extreme 3-High 2-Moderate 1-Slight 0-Insignificant</p>	 <p>HMIS</p> <p>0* Health 0 Flammability 0 Reactivity E Protective Equipment</p>
ORIGINAL ISSUE DATE	January 14, 2014	
REVISION DATE	October 28, 2014	
REVISION NO.	2	

**Disclaimer:** As of the date of the preparation of this document, the foregoing information is believed to be accurate and is provided in good faith to comply with applicable federal and state laws. No warranty, representation or guaranty of any kind, express or implied, is hereby provided or intended with respect to the completeness of the information contained herein. We accept no responsibility and disclaim all liability for any harmful effects which may be caused by the purchase, resale, use or exposure to our product. Customer users of silica must comply with all applicable health and safety laws, regulations and orders, including OSHA Hazardous Communication Standard.

## Concrete and Masonry Repair Mixes

### SECTION 1. IDENTIFICATION

Product Identifier	Concrete and Masonry Repair Mixes
Other Means of Identification	Concrete and Masonry Repair Mixes
Other Identification	SAKRETE top'n bond, SAKRETE flow-stone, SAKRETE fast-patch, SAKRETE plug-tite, SAKRETE brush'n seal, KING Xypex high'n dry
Product Family	KING Home Improvement Products
Recommended Use	Various product uses including but not limited to specific description of use. Please see product packaging.
Restrictions on Use	None known.
Manufacturer	King Packaged Materials Company, 555 Michigan Drive, Suite 100, Oakville, Ontario, L6L 0G4, www.kpmindustries.com
Emergency Phone No.	King Packaged Materials Company, (800) 461-0566, 8:30am-4:30pm Chemtrec, (800) 424-9300, 24 hours/7 days a week
SDS No.	0156
Date of Preparation	April 05, 2016

### SECTION 2. HAZARD IDENTIFICATION

#### Classification

Skin irritation - Category 2; Serious eye damage - Category 1; Skin sensitization - Category 1; Carcinogenicity - Category 1A; Specific target organ toxicity (single exposure) - Category 3; Specific target organ toxicity (repeated exposure) - Category 1

#### Label Elements



#### Signal Word:

Danger

#### Hazard Statement(s):

Causes skin irritation.

Causes serious eye damage.

May cause an allergic skin reaction.

May cause cancer.

May cause respiratory irritation.

Causes damage to organs (lungs) through prolonged or repeated exposure.

#### Precautionary Statement(s):

Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

Wash hands thoroughly after handling.

Contaminated work clothing must not be allowed out of the workplace.

Wear protective gloves/protective clothing/eye protection/face protection.  
 Use only outdoors or in a well-ventilated area.  
 Do not breathe dust/fume/gas/mist/vapours/spray.  
 Do not eat, drink or smoke when using this product.  
 IF exposed or concerned: Get medical advice/attention.  
 IF ON SKIN: Wash with plenty of water.  
 Take off contaminated clothing and wash it before reuse.  
 If skin irritation or rash occurs: Get medical advice/attention.  
 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.  
 Continue rinsing.  
 Immediately call a POISON CENTRE or doctor.  
 IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
 Call a POISON CENTRE or doctor if you feel unwell.  
 Store locked up.  
 Store in a well-ventilated place. Keep container tightly closed.  
 Dispose of contents and container in accordance with local, regional, national and international regulations.  
 30% of the mixture consists of ingredient(s) of unknown acute toxicity.  
 Other Hazards  
 None known.

### SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Mixture:

Chemical Name	CAS No.	%	Other Identifiers	Other Names
Silica, total quartz	14808-60-7	60-100%	Not applicable	
Portland cement	65997-15-1	30-60%	Not applicable	

Notes

The exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200.

### SECTION 4. FIRST-AID MEASURES

First-aid Measures

Inhalation

Move to fresh air. Keep at rest in a position comfortable for breathing. Call a Poison Centre or doctor if you feel unwell.

Skin Contact

Rinse with lukewarm, gently flowing water for 5 minutes. Take off immediately contaminated clothing, shoes and leather goods (e.g. watchbands, belts). Thoroughly clean clothing, shoes and leather goods before reuse or dispose of safely. If skin irritation or a rash occurs, get medical advice or attention.

Eye Contact

Immediately rinse the contaminated eye(s) with lukewarm, gently flowing water for 15-20 minutes, while holding the eyelid(s) open. Remove contact lenses, if present and easy to do. Immediately call a Poison Centre or doctor.

Ingestion

Never give anything by mouth if person is rapidly losing consciousness, or is unconscious or convulsing. Do not induce vomiting. Get medical advice or attention if you feel unwell or are concerned.

Most Important Symptoms and Effects, Acute and Delayed

If inhaled: can irritate the nose and throat. Can cause lung injury. If on skin: skin sensitizer. May cause an allergic skin reaction in some people. May cause moderate to severe irritation. If in eyes: causes moderate to severe irritation. Symptoms include sore, red eyes, and tearing. If swallowed: can irritate the mouth, throat and stomach. Symptoms may include nausea, vomiting, stomach cramps and diarrhea.

Immediate Medical Attention and Special Treatment

Product Identifier: Concrete and Masonry Repair Mixes - Ver. 1  
 Date of Preparation: April 05, 2016  
 Date of Last Revision: April 22, 2019

SDS No.: 0156

Page 02 of 07

## Special Instructions

Not applicable.

## SECTION 5. FIRE-FIGHTING MEASURES

### Extinguishing Media

#### Suitable Extinguishing Media

Not combustible. Use extinguishing agent suitable for surrounding fire.

#### Unsuitable Extinguishing Media

None known.

### Specific Hazards Arising from the Product

This product presents no unusual hazards in a fire situation.

### Special Protective Equipment and Precautions for Fire-fighters

Approach fire from upwind to avoid hazardous vapours or gases.

Fire-fighters may enter the area if positive pressure SCBA and full Bunker Gear is worn.

## SECTION 6. ACCIDENTAL RELEASE MEASURES

### Personal Precautions, Protective Equipment, and Emergency Procedures

Use the personal protective equipment recommended in Section 8 of this safety data sheet. Evacuate the area immediately. Isolate the hazard area. Keep out unnecessary and unprotected personnel.

### Environmental Precautions

It is good practice to prevent releases into the environment. Do not allow into any sewer, on the ground or into any waterway.

### Methods and Materials for Containment and Cleaning Up

Collect using shovel/scoop or approved HEPA vacuum and place in a suitable container for disposal. Avoid generating dust.

## SECTION 7. HANDLING AND STORAGE

### Precautions for Safe Handling

Avoid repeated or prolonged skin contact. Do not swallow. Do not breathe in this product. Avoid generating dusts. Keep containers tightly closed when not in use or empty. Do NOT eat, drink or store food in work areas.

### Conditions for Safe Storage

Store in the original, labelled, shipping container. Store in an area that is: dry, well-ventilated. Protect product from contact with water, including humidity. Prevent rainwater and ground water from reaching storage area.

## SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Control Parameters

Chemical Name	ACGIH TLV®		OSHA PEL		AIHA WEEL	
	TWA	STEL	TWA	Ceiling	8-hr TWA	TWA
Portland cement	1 mg/m <sup>3</sup> (R) A4		5 mg/m <sup>3</sup> (R)			
Silica, total quartz	0.05 mg/m <sup>3</sup> (R) A2		0.1 mg/m <sup>3</sup>			

### Appropriate Engineering Controls

Use local exhaust ventilation, if general ventilation is not adequate to control amount in the air.

### Individual Protection Measures

#### Eye/Face Protection

Wear chemical safety goggles and face shield when contact is possible.

Product Identifier: Concrete and Masonry Repair Mixes - Ver. 1

SDS No.: 0156

Date of Preparation: April 05, 2016

Date of Last Revision: April 22, 2019

Page 03 of 07

#### Skin Protection

Wear chemical protective clothing e.g. gloves, aprons, boots.

#### Respiratory Protection

Wear a NIOSH approved particulate respirator equipped with an N95, R95, or P95 filter.

## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

### Basic Physical and Chemical Properties

Appearance	Grey powder.
Odour	Odourless
Odour Threshold	Not available
pH	Not available
Melting Point/Freezing Point	Not available (melting); Not available (freezing)
Initial Boiling Point/Range	Not available
Flash Point	Not available
Evaporation Rate	Not available
Flammability (solid, gas)	Not applicable
Upper/Lower Flammability or Explosive Limit	Not available (upper); Not available (lower)
Vapour Pressure	Not available
Vapour Density (air = 1)	Not available
Relative Density (water = 1)	2.5
Solubility	Not available in water; Not available (in other liquids)
Partition Coefficient, n-Octanol/Water (Log Kow)	Not available
Auto-ignition Temperature	Not available
Decomposition Temperature	Not available
Viscosity	Not available (kinematic); Not available (dynamic)
Other Information	
Physical State	Solid

## SECTION 10. STABILITY AND REACTIVITY

### Reactivity

Not reactive under normal conditions of use.

### Chemical Stability

Normally stable.

### Possibility of Hazardous Reactions

None expected under normal conditions of storage and use.

### Conditions to Avoid

Water, moisture or humidity.

### Incompatible Materials

None known.

### Hazardous Decomposition Products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## SECTION 11. TOXICOLOGICAL INFORMATION

### Likely Routes of Exposure

Product Identifier: Concrete and Masonry Repair Mixes - Ver. 1  
Date of Preparation: April 05, 2016  
Date of Last Revision: April 22, 2019

SDS No.: 0156

Page 04 of 07

Inhalation; skin contact; eye contact; ingestion.

#### Acute Toxicity

Chemical Name	LC50	LD50 (oral)	LD50 (dermal)
Silica, total quartz		500 mg/kg (rat)	

#### Skin Corrosion/Irritation

May cause moderate or severe irritation based on information for closely related materials.

#### Serious Eye Damage/Irritation

May cause serious eye damage based on information for closely related materials.

#### STOT (Specific Target Organ Toxicity) - Single Exposure

##### Inhalation

May cause severe nose and throat irritation, severe lung injury.

##### Skin Absorption

No information was located.

##### Ingestion

May be harmful based on information for closely related materials.

#### Aspiration Hazard

Can cause lung damage if aspirated based on human experience.

#### STOT (Specific Target Organ Toxicity) - Repeated Exposure

Causes irritation of the respiratory system. Respiratory tract injury has been observed. Respirable crystalline silica in the form of quartz or cristobalite from occupational sources is listed by the International Agency for Research on Cancer (IARC) and National Toxicology Program (NTP) as a lung carcinogen. Prolonged exposure to respirable crystalline silica has been known to cause silicosis, a lung disease, which may be disabling. While there may be a factor of individual susceptibility to a given exposure to respirable silica dust, the risk of contracting silicosis and the severity of the disease is clearly related to the amount of dust exposure and the length of time (usually years) of exposure.

#### Respiratory and/or Skin Sensitization

May cause an allergic reaction (skin sensitization) based on information for closely related chemicals.

#### Carcinogenicity

Chemical Name	IARC	ACGIH®	NTP	OSHA
Silica, total quartz	Group 1	A2	Known carcinogen	

May cause cancer.

#### Reproductive Toxicity

##### Development of Offspring

No information was located.

##### Sexual Function and Fertility

No information was located.

##### Effects on or via Lactation

No information was located.

#### Germ Cell Mutagenicity

No information was located.

#### Interactive Effects

No information was located.

## SECTION 12. ECOLOGICAL INFORMATION

#### Ecotoxicity

May cause long lasting harmful effects to aquatic life.

Product Identifier: Concrete and Masonry Repair Mixes - Ver. 1  
Date of Preparation: April 05, 2016  
Date of Last Revision: April 22, 2019

SDS No.: 0156

Page 05 of 07

Persistence and Degradability

No information was located.

Bioaccumulative Potential

No information was located.

Mobility in Soil

No information was located.

Other Adverse Effects

There is no information available.

## SECTION 13. DISPOSAL CONSIDERATIONS

Disposal Methods

Contact local environmental authorities for approved disposal or recycling methods in your jurisdiction.

## SECTION 14. TRANSPORT INFORMATION

Not regulated under US DOT Regulations.

Environmental Hazards Not applicable

Special Precautions Not applicable

Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

## SECTION 15. REGULATORY INFORMATION

Safety, Health and Environmental Regulations

Canada

WHMIS 1988 Classification



Class D2A



Class E

D2A - Very Toxic (Chronic toxicity; Carcinogenicity); E - Corrosive

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the SDS contains all of the information required by the Controlled Products Regulations.

USA

Toxic Substances Control Act (TSCA) Section 8(b)

All ingredients are on the TSCA Inventory or are exempt from TSCA Inventory requirements under 40 CFR 720.

Additional USA Regulatory Lists

This product contains a chemical known to the State of California to cause cancer.

## SECTION 16. OTHER INFORMATION

SDS Prepared By King Packaged Materials Company

Phone No. 905-639-2993

Date of Preparation April 05, 2016

Date of Last Revision April 22, 2019

Disclaimer To the best of our knowledge, the information contained herein is accurate. However, neither KPM Industries Ltd., nor any of its subsidiaries, assumes any liability whatsoever for the

Product Identifier: Concrete and Masonry Repair Mixes - Ver. 1

SDS No.: 0156

Date of Preparation: April 05, 2016

Date of Last Revision: April 22, 2019

Page 06 of 07

accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

---

Product Identifier: Concrete and Masonry Repair Mixes - Ver. 1  
Date of Preparation: April 05, 2016  
Date of Last Revision: April 22, 2019

SDS No.: 0156

Page 07 of 07

# SAFETY DATA SHEET

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

## Shell Rotella ELC Pre-diluted 50/50

Version 7.0      Revision Date: 08/30/2018      SDS Number: 800001027084      Print Date: 08/31/2018  
Date of last issue: 03/15/2016

---

### SECTION 1. IDENTIFICATION

Product name : Shell Rotella ELC Pre-diluted 50/50

Product code : 001B1508

#### Manufacturer or supplier's details

Manufacturer/Supplier : **Shell Oil Products US**  
PO Box 4427  
Houston TX 77210-4427  
USA

SDS Request : (+1) 877-276-7285  
Customer Service :

#### Emergency telephone number

Spill Information : 877-504-9351  
Health Information : 877-242-7400

#### Recommended use of the chemical and restrictions on use

Recommended use : Antifreeze and coolant.

---

### SECTION 2. HAZARDS IDENTIFICATION

#### GHS classification in accordance with 29 CFR 1910.1200

Acute toxicity (Oral) : Category 4

Specific target organ toxicity : Category 2 (Kidney)  
- repeated exposure

#### GHS label elements

Hazard pictograms :



Signal word : Warning

Hazard statements : **PHYSICAL HAZARDS:**  
Not classified as a physical hazard under GHS criteria.  
**HEALTH HAZARDS:**  
H302 Harmful if swallowed.  
H373 May cause damage to organs through prolonged or repeated exposure if swallowed.  
**ENVIRONMENTAL HAZARDS:**  
Not classified as an environmental hazard under GHS criteria.

# SAFETY DATA SHEET

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

## Shell Rotella ELC Pre-diluted 50/50

Version 7.0      Revision Date: 08/30/2018      SDS Number: 800001027084      Print Date: 08/31/2018  
Date of last issue: 03/15/2016

Precautionary statements : **Prevention:**  
P264 Wash hands thoroughly after handling.  
P270 Do not eat, drink or smoke when using this product.

**Response:**  
P301 + P312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.  
P330 Rinse mouth.

**Storage:**  
No precautionary phrases.

**Disposal:**  
P501 Dispose of contents/ container to an approved waste disposal plant.

Hazardous components which must be listed on the label:  
Contains ethanediol.  
Contains bittering agent.

### Other hazards which do not result in classification

Intentional abuse, misuse or other massive exposure may cause multiple organ damage and or death.  
The classification of this material is based on OSHA HCS 2012 criteria.

## SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical nature : Mixture of ethylene glycol, water and additives.

### Hazardous components

Chemical name	Synonyms	CAS-No.	Concentration (% w/w)
Ethanediol	ethane-1,2-diol	107-21-1	40 - 60
Diethylene glycol	2,2'-oxydiethanol	111-46-6	1 - 3

## SECTION 4. FIRST-AID MEASURES

General advice : DO NOT DELAY.  
Keep victim calm. Obtain medical treatment immediately.

If inhaled : Remove to fresh air. If rapid recovery does not occur, transport to nearest medical facility for additional treatment.

In case of skin contact : Remove contaminated clothing. Flush exposed area with water and follow by washing with soap if available.  
If persistent irritation occurs, obtain medical attention.

In case of eye contact : Flush eye with copious quantities of water.  
Remove contact lenses, if present and easy to do. Continue rinsing.  
If persistent irritation occurs, obtain medical attention.

# SAFETY DATA SHEET

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

## Shell Rotella ELC Pre-diluted 50/50

Version 7.0      Revision Date: 08/30/2018      SDS Number: 800001027084      Print Date: 08/31/2018  
Date of last issue: 03/15/2016

---

- If swallowed : DO NOT DELAY.  
If swallowed, do not induce vomiting: transport to nearest medical facility for additional treatment. If vomiting occurs spontaneously, keep head below hips to prevent aspiration. Rinse mouth.
- Most important symptoms and effects, both acute and delayed : Kidney toxicity may be recognized by blood in the urine or increased or decreased urine flow. Other signs and symptoms can include nausea, vomiting, abdominal cramps, diarrhoea, lumbar pain shortly after ingestion, and possibly narcosis and death.  
High concentrations may cause central nervous system depression resulting in headaches, dizziness and nausea; continued inhalation may result in unconsciousness and/or death.
- Protection of first-aiders : When administering first aid, ensure that you are wearing the appropriate personal protective equipment according to the incident, injury and surroundings.
- Indication of any immediate medical attention and special treatment needed : IMMEDIATE TREATMENT IS EXTREMELY IMPORTANT!  
The preferred treatment is immediate transportation to a medical facility and use of appropriate treatment including possible administration of activated charcoal, gastric lavage and or gastric aspiration. If none of the above are immediately available and a delay of more than one hour is anticipated before such medical attention can be obtained, induction of vomiting may be appropriate using IPECAC syrup (Contraindicated if there are any signs of CNS depression). This should be considered on a case by case basis following specialist advice. Specific other treatments may include ethanol therapy, fomepizole, treatment of acidosis and haemodialysis. Seek specialist advice without delay.
- 

### SECTION 5. FIRE-FIGHTING MEASURES

- Suitable extinguishing media : Foam, water spray or fog. Dry chemical powder, carbon dioxide, sand or earth may be used for small fires only.
- Unsuitable extinguishing media : Do not use water in a jet.
- Specific hazards during fire-fighting : Hazardous combustion products may include:  
A complex mixture of airborne solid and liquid particulates and gases (smoke).  
Carbon monoxide may be evolved if incomplete combustion occurs.  
Unidentified organic and inorganic compounds.
- Specific extinguishing methods : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
- Special protective equipment for firefighters : Proper protective equipment including chemical resistant gloves are to be worn; chemical resistant suit is indicated if
-

# SAFETY DATA SHEET

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

## Shell Rotella ELC Pre-diluted 50/50

Version 7.0      Revision Date: 08/30/2018      SDS Number: 800001027084      Print Date: 08/31/2018  
Date of last issue: 03/15/2016

---

large contact with spilled product is expected. Self-Contained Breathing Apparatus must be worn when approaching a fire in a confined space. Select fire fighter's clothing approved to relevant Standards (e.g. Europe: EN469).

---

### SECTION 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions, protective equipment and emergency procedures : Avoid contact with skin and eyes.
- Environmental precautions : Use appropriate containment to avoid environmental contamination. Prevent from spreading or entering drains, ditches or rivers by using sand, earth, or other appropriate barriers.
- Local authorities should be advised if significant spillages cannot be contained.
- Methods and materials for containment and cleaning up : For large liquid spills (> 1 drum), transfer by mechanical means such as vacuum truck to a salvage tank for recovery or safe disposal. Do not flush away residues with water. Retain as contaminated waste. Allow residues to evaporate or soak up with an appropriate absorbent material and dispose of safely. Remove contaminated soil and dispose of safely.
- For small liquid spills (< 1 drum), transfer by mechanical means to a labeled, sealable container for product recovery or safe disposal. Allow residues to evaporate or soak up with an appropriate absorbent material and dispose of safely. Remove contaminated soil and dispose of safely.
- Additional advice : For guidance on selection of personal protective equipment see Chapter 8 of this Safety Data Sheet. For guidance on disposal of spilled material see Chapter 13 of this Safety Data Sheet.
- Local authorities should be advised if significant spillages cannot be contained.
- U.S. regulations may require reporting releases of this material to the environment which exceed the reportable quantity (refer to Chapter 15) to the National Response Center at (800) 424-8802.
- 

### SECTION 7. HANDLING AND STORAGE

- Technical measures : Use local exhaust ventilation if there is risk of inhalation of vapours, mists or aerosols. Use the information in this data sheet as input to a risk assessment of local circumstances to help determine appropri-
-

# SAFETY DATA SHEET

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

## Shell Rotella ELC Pre-diluted 50/50

Version 7.0      Revision Date: 08/30/2018      SDS Number: 800001027084      Print Date: 08/31/2018  
Date of last issue: 03/15/2016

- 
- ate controls for safe handling, storage and disposal of this material.
- Advice on safe handling : Avoid prolonged or repeated contact with skin.  
Avoid inhaling vapour and/or mists.  
When handling product in drums, safety footwear should be worn and proper handling equipment should be used.  
Properly dispose of any contaminated rags or cleaning materials in order to prevent fires.
- Avoidance of contact : Strong oxidising agents.
- Further information on storage stability : Keep container tightly closed and in a cool, well-ventilated place.  
Use properly labeled and closable containers.  
Store at ambient temperature.
- Packaging material : Suitable material: For containers or container linings, use mild steel or high density polyethylene.  
Unsuitable material: Zinc., Avoid contact with galvanized materials.
- Container Advice : Polyethylene containers should not be exposed to high temperatures because of possible risk of distortion.

---

### SECTION 8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

#### Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
Ethanediol	107-21-1	TWA (Vapour)	25 ppm	ACGIH
Ethanediol		STEL (Vapour)	50 ppm	ACGIH

#### Biological occupational exposure limits

No biological limit allocated.

#### Monitoring Methods

Monitoring of the concentration of substances in the breathing zone of workers or in the general workplace may be required to confirm compliance with an OEL and adequacy of exposure controls. For some substances biological monitoring may also be appropriate.

Validated exposure measurement methods should be applied by a competent person and samples analysed by an accredited laboratory.

Examples of sources of recommended exposure measurement methods are given below or contact the supplier. Further national methods may be available.

National Institute of Occupational Safety and Health (NIOSH), USA: Manual of Analytical Methods <http://www.cdc.gov/niosh/>

# SAFETY DATA SHEET

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

## Shell Rotella ELC Pre-diluted 50/50

Version  
7.0

Revision Date:  
08/30/2018

SDS Number:  
800001027084

Print Date: 08/31/2018  
Date of last issue: 03/15/2016

---

Occupational Safety and Health Administration (OSHA), USA: Sampling and Analytical Methods  
<http://www.osha.gov/>

Health and Safety Executive (HSE), UK: Methods for the Determination of Hazardous Substances  
<http://www.hse.gov.uk/>

Institut für Arbeitsschutz Deutschen Gesetzlichen Unfallversicherung (IFA) , Germany  
<http://www.dguv.de/inhalt/index.jsp>

L'Institut National de Recherche et de Sécurité, (INRS), France <http://www.inrs.fr/accueil>

**Engineering measures** : The level of protection and types of controls necessary will vary depending upon potential exposure conditions. Select controls based on a risk assessment of local circumstances. Appropriate measures include:  
Adequate ventilation to control airborne concentrations.

Where material is heated, sprayed or mist formed, there is greater potential for airborne concentrations to be generated.

#### General Information:

Define procedures for safe handling and maintenance of controls.

Educate and train workers in the hazards and control measures relevant to normal activities associated with this product.

Ensure appropriate selection, testing and maintenance of equipment used to control exposure, e.g. personal protective equipment, local exhaust ventilation.

Drain down system prior to equipment break-in or maintenance.

Retain drain downs in sealed storage pending disposal or subsequent recycle.

Always observe good personal hygiene measures, such as washing hands after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Discard contaminated clothing and footwear that cannot be cleaned.

Practice good housekeeping.

#### Personal protective equipment

Respiratory protection : No respiratory protection is ordinarily required under normal conditions of use.  
In accordance with good industrial hygiene practices, precautions should be taken to avoid breathing of material.  
If engineering controls do not maintain airborne concentrations to a level which is adequate to protect worker health, select respiratory protection equipment suitable for the specific conditions of use and meeting relevant legislation.  
Check with respiratory protective equipment suppliers.  
Where air-filtering respirators are suitable, select an appro-

# SAFETY DATA SHEET

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

## Shell Rotella ELC Pre-diluted 50/50

Version  
7.0

Revision Date:  
08/30/2018

SDS Number:  
800001027084

Print Date: 08/31/2018  
Date of last issue: 03/15/2016

appropriate combination of mask and filter.  
Select a filter suitable for the combination of organic gases and vapours [Type A/Type P boiling point >65°C (149°F)].

### Hand protection Remarks

: Where hand contact with the product may occur the use of gloves approved to relevant standards (e.g. Europe: EN374, US: F739) made from the following materials may provide suitable chemical protection. PVC, neoprene or nitrile rubber gloves. Suitability and durability of a glove is dependent on usage, e.g. frequency and duration of contact, chemical resistance of glove material, dexterity. Always seek advice from glove suppliers. Contaminated gloves should be replaced. Personal hygiene is a key element of effective hand care. Gloves must only be worn on clean hands. After using gloves, hands should be washed and dried thoroughly. Application of a non-perfumed moisturizer is recommended. For continuous contact we recommend gloves with breakthrough time of more than 240 minutes with preference for > 480 minutes where suitable gloves can be identified. For short-term/splash protection we recommend the same, but recognize that suitable gloves offering this level of protection may not be available and in this case a lower breakthrough time maybe acceptable so long as appropriate maintenance and replacement regimes are followed. Glove thickness is not a good predictor of glove resistance to a chemical as it is dependent on the exact composition of the glove material. Glove thickness should be typically greater than 0.35 mm depending on the glove make and model.

### Eye protection

: If material is handled such that it could be splashed into eyes, protective eyewear is recommended.

### Skin and body protection

: Skin protection is not ordinarily required beyond standard work clothes.  
It is good practice to wear chemical resistant gloves.

### Protective measures

: Personal protective equipment (PPE) should meet recommended national standards. Check with PPE suppliers.

### Thermal hazards

: Not applicable

## Environmental exposure controls

### General advice

: Take appropriate measures to fulfill the requirements of relevant environmental protection legislation. Avoid contamination of the environment by following advice given in Chapter 6. If necessary, prevent undissolved material from being discharged to waste water. Waste water should be treated in a municipal or industrial waste water treatment plant before discharge to surface water.  
Local guidelines on emission limits for volatile substances must be observed for the discharge of exhaust air containing

# SAFETY DATA SHEET

According to OSHA Hazard Communication Standard, 29 CFR  
1910.1200

## Shell Rotella ELC Pre-diluted 50/50

Version  
7.0

Revision Date:  
08/30/2018

SDS Number:  
800001027084

Print Date: 08/31/2018  
Date of last issue: 03/15/2016

---

vapour.

---

### SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	:	Liquid at room temperature.
Colour	:	purple
Odour	:	characteristic
Odour Threshold	:	Data not available
pH	:	Not applicable
Melting point/freezing point	:	-37 °C / -34 °F (100.0 hPa) Method: ASTM D1177
Initial boiling point and boiling range	:	> 100 °C / 212 °F estimated value(s)
Flash point	:	130 °C / 266 °F  Method: ASTM D93 (PMCC)
Evaporation rate	:	Data not available
Flammability (solid, gas)	:	Data not available
Upper explosion limit / upper flammability limit	:	Typical 15 %(V)
Lower explosion limit / Lower flammability limit	:	Typical 3 %(V)
Vapour pressure	:	Data not available
Relative vapour density	:	Data not available
Relative density	:	1,075 (15 °C / 59 °F)
Density	:	1.075 kg/m <sup>3</sup> (15.6 °C / 60.1 °F) Method: Unspecified
Solubility(ies)		
Water solubility	:	completely soluble
Solubility in other solvents	:	Data not available
Partition coefficient: n-octanol/water	:	Data not available
Auto-ignition temperature	:	> 200 °C / 392 °F

# SAFETY DATA SHEET

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

## Shell Rotella ELC Pre-diluted 50/50

Version 7.0      Revision Date: 08/30/2018      SDS Number: 800001027084      Print Date: 08/31/2018  
Date of last issue: 03/15/2016

---

Decomposition temperature : Data not available

Viscosity  
Viscosity, dynamic : Data not available

Viscosity, kinematic : 30 mm<sup>2</sup>/s (40.0 °C / 104.0 °F)  
Method: Unspecified

Conductivity : This material is not expected to be a static accumulator.

---

### SECTION 10. STABILITY AND REACTIVITY

Chemical stability : Stable.

Possibility of hazardous reactions : Reacts with strong oxidising agents.

Conditions to avoid : Extremes of temperature and direct sunlight.

Incompatible materials : Strong oxidising agents.

Hazardous decomposition products : No decomposition if stored and applied as directed.

---

### SECTION 11. TOXICOLOGICAL INFORMATION

Basis for assessment : Information given is based on data on the components and the toxicology of similar products. Unless indicated otherwise, the data presented is representative of the product as a whole, rather than for individual component(s).

#### Information on likely routes of exposure

Skin and eye contact are the primary routes of exposure although exposure may occur following accidental ingestion.

#### Acute toxicity

##### Product:

Acute oral toxicity : LD50 (rat): > 500 - 2,000 mg/kg  
Remarks: Harmful if swallowed.

Remarks: There is a marked difference in acute oral toxicity between rodents and man, man being more susceptible than rodents. The estimated fatal dose for man is 100 milliliters (1/2 cup). This material has also been shown to be toxic and potentially lethal by ingestion to cats and dogs. Ingestion may cause drowsiness and dizziness.

Acute inhalation toxicity : LC 50 (Rat): > 5 mg/l  
Exposure time: 4 h  
Remarks: Low toxicity:

# SAFETY DATA SHEET

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

## Shell Rotella ELC Pre-diluted 50/50

Version  
7.0

Revision Date:  
08/30/2018

SDS Number:  
800001027084

Print Date: 08/31/2018  
Date of last issue: 03/15/2016

---

Acute dermal toxicity : LD50 (Rabbit): > 5,000 mg/kg  
Remarks: Low toxicity:

### Skin corrosion/irritation

**Product:**

Remarks: Slightly irritating to skin., Based on available data, the classification criteria are not met.

### Serious eye damage/eye irritation

**Product:**

Remarks: Slightly irritating to the eye., Based on available data, the classification criteria are not met.

### Respiratory or skin sensitisation

**Product:**

Remarks: Not a skin sensitiser.  
Based on available data, the classification criteria are not met.

### Germ cell mutagenicity

**Product:**

: Remarks: Non mutagenic, Based on available data, the classification criteria are not met.

### Carcinogenicity

**Product:**

Remarks: Not a carcinogen., Based on available data, the classification criteria are not met.

### IARC

No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

### OSHA

No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

### NTP

No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

### Reproductive toxicity

**Product:**

:

# SAFETY DATA SHEET

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

## Shell Rotella ELC Pre-diluted 50/50

Version  
7.0

Revision Date:  
08/30/2018

SDS Number:  
800001027084

Print Date: 08/31/2018  
Date of last issue: 03/15/2016

Remarks: Not a developmental toxicant., Does not impair fertility., Based on available data, the classification criteria are not met.

### STOT - single exposure

**Product:**

Remarks: Based on available data, the classification criteria are not met.

### STOT - repeated exposure

**Product:**

Remarks: Kidney: can cause kidney damage.

### Aspiration toxicity

**Product:**

Not an aspiration hazard.

### Further information

**Product:**

Remarks: Slightly irritating to respiratory system.

---

## SECTION 12. ECOLOGICAL INFORMATION

Basis for assessment : Ecotoxicological data have not been determined specifically for this product.  
Information given is based on a knowledge of the components and the ecotoxicology of similar products.  
Unless indicated otherwise, the data presented is representative of the product as a whole, rather than for individual component(s).

### Ecotoxicity

**Product:**

Toxicity to fish (Acute toxicity) :  
Remarks: LC/EC/IC50 > 100 mg/l  
Practically non toxic:  
Based on available data, the classification criteria are not met.

Toxicity to daphnia and other aquatic invertebrates (Acute toxicity) :  
Remarks: LC/EC/IC50 > 100 mg/l  
Practically non toxic:  
Based on available data, the classification criteria are not met.

Toxicity to algae (Acute toxicity) :  
Remarks: LC/EC/IC50 > 100 mg/l  
Practically non toxic:

# SAFETY DATA SHEET

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

## Shell Rotella ELC Pre-diluted 50/50

Version 7.0      Revision Date: 08/30/2018      SDS Number: 800001027084      Print Date: 08/31/2018  
Date of last issue: 03/15/2016

---

Based on available data, the classification criteria are not met.

Toxicity to fish (Chronic toxicity) : Remarks: Data not available

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : Remarks: Data not available

Toxicity to microorganisms (Acute toxicity) : Remarks: Data not available

### Persistence and degradability

#### Product:

Biodegradability : Remarks: Readily biodegradable.

### Bioaccumulative potential

#### Product:

Bioaccumulation : Remarks: Does not bioaccumulate significantly.

### Mobility in soil

#### Product:

Mobility : Remarks: Liquid under most environmental conditions. If product enters soil, it will be highly mobile and may contaminate groundwater. Dissolves in water.

### Other adverse effects

#### Product:

Additional ecological information : Does not have ozone depletion potential, photochemical ozone creation potential or global warming potential.

---

## SECTION 13. DISPOSAL CONSIDERATIONS

### Disposal methods

Waste from residues : Recover or recycle if possible. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste classification and disposal methods in compliance with applicable regulations. Do not dispose into the environment, in drains or in water courses

Waste product should not be allowed to contaminate soil or ground water, or be disposed of into the environment.

# SAFETY DATA SHEET

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

## Shell Rotella ELC Pre-diluted 50/50

Version 7.0      Revision Date: 08/30/2018      SDS Number: 800001027084      Print Date: 08/31/2018  
Date of last issue: 03/15/2016

---

Waste, spills or used product is dangerous waste.

Contaminated packaging : Dispose in accordance with prevailing regulations, preferably to a recognized collector or contractor. The competence of the collector or contractor should be established beforehand. Disposal should be in accordance with applicable regional, national, and local laws and regulations.

**Local legislation**  
Remarks : Disposal should be in accordance with applicable regional, national, and local laws and regulations.

---

### SECTION 14. TRANSPORT INFORMATION

#### National Regulations

##### US Department of Transportation Classification (49 CFR Parts 171-180)

UN/ID/NA number : UN 3082  
Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.  
(Ethylene glycol)  
Class : 9  
Packing group : III  
Labels : 9  
Reportable quantity : Ethylene glycol  
(5,000 lb)  
ERG Code : 171  
Marine pollutant : no  
Remarks : This material is not regulated under 49 CFR if in a container of 119 gallon capacity or less.

#### International Regulations

##### IATA-DGR

Not regulated as a dangerous good

##### IMDG-Code

Not regulated as a dangerous good

#### Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied. MARPOL Annex 1 rules apply for bulk shipments by sea.

#### Special precautions for user

Remarks : Special Precautions: Refer to Chapter 7, Handling & Storage, for special precautions which a user needs to be aware of or needs to comply with in connection with transport.



# SAFETY DATA SHEET

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

## Shell Rotella ELC Pre-diluted 50/50

Version 7.0      Revision Date: 08/30/2018      SDS Number: 800001027084      Print Date: 08/31/2018  
Date of last issue: 03/15/2016

---

### The components of this product are reported in the following inventories:

EINECS : Not established.  
TSCA : All components listed.  
DSL : All components listed.

---

## SECTION 16. OTHER INFORMATION

### Further information

NFPA Rating (Health, Fire, Reactivity) 2, 1, 0

### Full text of other abbreviations

ACGIH : USA. ACGIH Threshold Limit Values (TLV)  
ACGIH / TWA : 8-hour, time-weighted average  
ACGIH / STEL : Short-term exposure limit  
Abbreviations and Acronyms : The standard abbreviations and acronyms used in this document can be looked up in reference literature (e.g. scientific dictionaries) and/or websites.

ACGIH = American Conference of Governmental Industrial Hygienists  
ADR = European Agreement concerning the International Carriage of Dangerous Goods by Road  
AICS = Australian Inventory of Chemical Substances  
ASTM = American Society for Testing and Materials  
BEL = Biological exposure limits  
BTEX = Benzene, Toluene, Ethylbenzene, Xylenes  
CAS = Chemical Abstracts Service  
CEFIC = European Chemical Industry Council  
CLP = Classification Packaging and Labelling  
COC = Cleveland Open-Cup  
DIN = Deutsches Institut für Normung  
DMEL = Derived Minimal Effect Level  
DNEL = Derived No Effect Level  
DSL = Canada Domestic Substance List  
EC = European Commission  
EC50 = Effective Concentration fifty  
ECETOC = European Center on Ecotoxicology and Toxicology Of Chemicals  
ECHA = European Chemicals Agency  
EINECS = The European Inventory of Existing Commercial Chemical Substances  
EL50 = Effective Loading fifty  
ENCS = Japanese Existing and New Chemical Substances Inventory  
EWC = European Waste Code  
GHS = Globally Harmonised System of Classification and Labelling of Chemicals

# SAFETY DATA SHEET

According to OSHA Hazard Communication Standard, 29 CFR  
1910.1200

## Shell Rotella ELC Pre-diluted 50/50

Version	Revision Date:	SDS Number:	Print Date: 08/31/2018
7.0	08/30/2018	800001027084	Date of last issue: 03/15/2016

---

IARC = International Agency for Research on Cancer  
IATA = International Air Transport Association  
IC50 = Inhibitory Concentration fifty  
IL50 = Inhibitory Level fifty  
IMDG = International Maritime Dangerous Goods  
INV = Chinese Chemicals Inventory  
IP346 = Institute of Petroleum test method N° 346 for the  
determination of polycyclic aromatics DMSO-extractables  
KECI = Korea Existing Chemicals Inventory  
LC50 = Lethal Concentration fifty  
LD50 = Lethal Dose fifty per cent.  
LL/EL/IL = Lethal Loading/Effective Loading/Inhibitory loading  
LL50 = Lethal Loading fifty  
MARPOL = International Convention for the Prevention of  
Pollution From Ships  
NOEC/NOEL = No Observed Effect Concentration / No Ob-  
served Effect Level  
OE\_HPVS = Occupational Exposure - High Production Volume  
PBT = Persistent, Bioaccumulative and Toxic  
PICCS = Philippine Inventory of Chemicals and Chemical  
Substances  
PNEC = Predicted No Effect Concentration  
REACH = Registration Evaluation And Authorisation Of  
Chemicals  
RID = Regulations Relating to International Carriage of Dan-  
gerous Goods by Rail  
SKIN\_DES = Skin Designation  
STEL = Short term exposure limit  
TRA = Targeted Risk Assessment  
TSCA = US Toxic Substances Control Act  
TWA = Time-Weighted Average  
vPvB = very Persistent and very Bioaccumulative

A vertical bar (|) in the left margin indicates an amendment from the previous version.

**|| Due to a change in detail in Section 15, this document has been released as a significant change.**

Revision Date : 08/30/2018

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

US / EN

# SAFETY DATA SHEET

According to OSHA Hazard Communication Standard, 29 CFR  
1910.1200

Version 1.5

Revision Date: 01/11/2016

Print Date: 01/12/2016

## SECTION 1. IDENTIFICATION

Product name : Shell Rotella T Triple Protection 15W-40

Product code : 001D5439

### Manufacturer or supplier's details

Manufacturer/Supplier : **Shell Oil Products US**  
PO Box 4427  
Houston TX 77210-4427  
USA

SDS Request : (+1) 877-276-7285  
Customer Service :

### Emergency telephone number

Spill Information : 877-504-9351  
Health Information : 877-242-7400

### Recommended use of the chemical and restrictions on use

Recommended use : Engine oil.

## SECTION 2. HAZARDS IDENTIFICATION

### GHS Classification

Not a hazardous substance or mixture.

### GHS label elements

Hazard pictograms : No Hazard Symbol required

Signal word : No signal word

Hazard statements : **PHYSICAL HAZARDS:**  
Not classified as a physical hazard under GHS criteria.  
**HEALTH HAZARDS:**  
Not classified as a health hazard under GHS criteria.  
**ENVIRONMENTAL HAZARDS:**  
Not classified as an environmental hazard under GHS criteria.

Precautionary statements : **Prevention:**  
No precautionary phrases.  
**Response:**  
No precautionary phrases.  
**Storage:**  
No precautionary phrases.  
**Disposal:**  
No precautionary phrases.

### Other hazards which do not result in classification

Prolonged or repeated skin contact without proper cleaning can clog the pores of the skin resulting in disorders such as oil acne/folliculitis.

# SAFETY DATA SHEET

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Version 1.5

Revision Date: 01/11/2016

Print Date: 01/12/2016

Used oil may contain harmful impurities.  
Not classified as flammable but will burn.

The classification of this material is based on OSHA HCS 2012 criteria.

Under normal conditions of use or in a foreseeable emergency, this product does not meet the definition of a hazardous chemical when evaluated according to the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

## SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical nature : Highly refined mineral oils and additives.  
The highly refined mineral oil contains <3% (w/w) DMSO-extract, according to IP346.

\* contains one or more of the following CAS-numbers: 64742-53-6, 64742-54-7, 64742-55-8, 64742-56-9, 64742-65-0, 68037-01-4, 72623-86-0, 72623-87-1, 8042-47-5, 848301-69-9.

### Hazardous components

Chemical name	Synonyms	CAS-No.	Concentration (%)
Polyolefin amide alkeneamine		Not Assigned	1 - 3
Zinc dialkyl dithiophosphate		84605-29-8	1 - 2.4
Calcium sulphonate		70024-69-0	0.1 - 0.9
Interchangeable low viscosity base oil (<20,5 cSt @40°C) *		Not Assigned	0 - 90

## SECTION 4. FIRST-AID MEASURES

General advice : Not expected to be a health hazard when used under normal conditions.

If inhaled : No treatment necessary under normal conditions of use.  
If symptoms persist, obtain medical advice.

In case of skin contact : Remove contaminated clothing. Flush exposed area with water and follow by washing with soap if available.  
If persistent irritation occurs, obtain medical attention.

In case of eye contact : Flush eye with copious quantities of water.  
If persistent irritation occurs, obtain medical attention.

If swallowed : In general no treatment is necessary unless large quantities are swallowed, however, get medical advice.

Most important symptoms and effects, both acute and delayed : Oil acne/folliculitis signs and symptoms may include formation of black pustules and spots on the skin of exposed areas.  
Ingestion may result in nausea, vomiting and/or diarrhoea.

# SAFETY DATA SHEET

According to OSHA Hazard Communication Standard, 29 CFR  
1910.1200

Version 1.5

Revision Date: 01/11/2016

Print Date: 01/12/2016

- Protection of first-aiders : When administering first aid, ensure that you are wearing the appropriate personal protective equipment according to the incident, injury and surroundings.
- Immediate medical attention, special treatment : Treat symptomatically.

---

## SECTION 5. FIRE-FIGHTING MEASURES

- Suitable extinguishing media : Foam, water spray or fog. Dry chemical powder, carbon dioxide, sand or earth may be used for small fires only.
- Unsuitable extinguishing media : Do not use water in a jet.
- Specific hazards during fire-fighting : Hazardous combustion products may include:  
A complex mixture of airborne solid and liquid particulates and gases (smoke).  
Carbon monoxide may be evolved if incomplete combustion occurs.  
Unidentified organic and inorganic compounds.
- Specific extinguishing methods : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
- Special protective equipment for firefighters : Proper protective equipment including chemical resistant gloves are to be worn; chemical resistant suit is indicated if large contact with spilled product is expected. Self-Contained Breathing Apparatus must be worn when approaching a fire in a confined space. Select fire fighter's clothing approved to relevant Standards (e.g. Europe: EN469).

---

## SECTION 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions, protective equipment and emergency procedures : Avoid contact with skin and eyes.
- Environmental precautions : Use appropriate containment to avoid environmental contamination. Prevent from spreading or entering drains, ditches or rivers by using sand, earth, or other appropriate barriers.  
  
Local authorities should be advised if significant spillages cannot be contained.
- Methods and materials for containment and cleaning up : Slippery when spilt. Avoid accidents, clean up immediately. Prevent from spreading by making a barrier with sand, earth or other containment material.  
Reclaim liquid directly or in an absorbent.  
Soak up residue with an absorbent such as clay, sand or other suitable material and dispose of properly.

# SAFETY DATA SHEET

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Version 1.5

Revision Date: 01/11/2016

Print Date: 01/12/2016

Additional advice : For guidance on selection of personal protective equipment see Chapter 8 of this Safety Data Sheet.  
For guidance on disposal of spilled material see Chapter 13 of this Safety Data Sheet.

## SECTION 7. HANDLING AND STORAGE

Technical measures : Use local exhaust ventilation if there is risk of inhalation of vapours, mists or aerosols.  
Use the information in this data sheet as input to a risk assessment of local circumstances to help determine appropriate controls for safe handling, storage and disposal of this material.

Precautions for safe handling : Avoid prolonged or repeated contact with skin.  
Avoid inhaling vapour and/or mists.  
When handling product in drums, safety footwear should be worn and proper handling equipment should be used.  
Properly dispose of any contaminated rags or cleaning materials in order to prevent fires.

Avoidance of contact : Strong oxidising agents.

Product Transfer : This material has the potential to be a static accumulator.  
Proper grounding and bonding procedures should be used during all bulk transfer operations.

### Storage

Other data : Keep container tightly closed and in a cool, well-ventilated place.  
Use properly labeled and closable containers.  
  
Store at ambient temperature.

Packaging material : Suitable material: For containers or container linings, use mild steel or high density polyethylene.  
Unsuitable material: PVC.

Container Advice : Polyethylene containers should not be exposed to high temperatures because of possible risk of distortion.

## SECTION 8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

### Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
Oil mist, mineral	Not Assigned	TWA ((inhalable fraction))	5 mg/m <sup>3</sup>	US. ACGIH Threshold Limit Values

# SAFETY DATA SHEET

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Version 1.5

Revision Date: 01/11/2016

Print Date: 01/12/2016

		(Mist)	5 mg/m3	OSHA_TRANS
--	--	--------	---------	------------

## Biological occupational exposure limits

No biological limit allocated.

## Monitoring Methods

Monitoring of the concentration of substances in the breathing zone of workers or in the general workplace may be required to confirm compliance with an OEL and adequacy of exposure controls. For some substances biological monitoring may also be appropriate.

Validated exposure measurement methods should be applied by a competent person and samples analysed by an accredited laboratory.

Examples of sources of recommended exposure measurement methods are given below or contact the supplier. Further national methods may be available.

National Institute of Occupational Safety and Health (NIOSH), USA: Manual of Analytical Methods <http://www.cdc.gov/niosh/>

Occupational Safety and Health Administration (OSHA), USA: Sampling and Analytical Methods <http://www.osha.gov/>

Health and Safety Executive (HSE), UK: Methods for the Determination of Hazardous Substances <http://www.hse.gov.uk/>

Institut für Arbeitsschutz Deutschen Gesetzlichen Unfallversicherung (IFA), Germany <http://www.dguv.de/inhalt/index.jsp>

L'Institut National de Recherche et de Sécurité, (INRS), France <http://www.inrs.fr/accueil>

## Engineering measures

: The level of protection and types of controls necessary will vary depending upon potential exposure conditions. Select controls based on a risk assessment of local circumstances. Appropriate measures include:  
Adequate ventilation to control airborne concentrations.

Where material is heated, sprayed or mist formed, there is greater potential for airborne concentrations to be generated.

## General Information:

Define procedures for safe handling and maintenance of controls.

Educate and train workers in the hazards and control measures relevant to normal activities associated with this product.

Ensure appropriate selection, testing and maintenance of equipment used to control exposure, e.g. personal protective equipment, local exhaust ventilation.

Drain down system prior to equipment break-in or maintenance.

Retain drain downs in sealed storage pending disposal or subsequent recycle.

Always observe good personal hygiene measures, such as washing hands after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Discard contaminated clothing and footwear that cannot be cleaned.

Practice good housekeeping.

## Personal protective equipment

Respiratory protection : No respiratory protection is ordinarily required under normal

# SAFETY DATA SHEET

According to OSHA Hazard Communication Standard, 29 CFR  
1910.1200

Version 1.5

Revision Date: 01/11/2016

Print Date: 01/12/2016

conditions of use.

In accordance with good industrial hygiene practices, precautions should be taken to avoid breathing of material.

If engineering controls do not maintain airborne concentrations to a level which is adequate to protect worker health, select respiratory protection equipment suitable for the specific conditions of use and meeting relevant legislation.

Check with respiratory protective equipment suppliers.

Where air-filtering respirators are suitable, select an appropriate combination of mask and filter.

Select a filter suitable for the combination of organic gases and vapours [Type A/Type P boiling point >65°C (149°F)].

Hand protection  
Remarks

: Where hand contact with the product may occur the use of gloves approved to relevant standards (e.g. Europe: EN374, US: F739) made from the following materials may provide suitable chemical protection. PVC, neoprene or nitrile rubber gloves Suitability and durability of a glove is dependent on usage, e.g. frequency and duration of contact, chemical resistance of glove material, dexterity. Always seek advice from glove suppliers. Contaminated gloves should be replaced. Personal hygiene is a key element of effective hand care. Gloves must only be worn on clean hands. After using gloves, hands should be washed and dried thoroughly. Application of a non-perfumed moisturizer is recommended. For continuous contact we recommend gloves with breakthrough time of more than 240 minutes with preference for > 480 minutes where suitable gloves can be identified. For short-term/splash protection we recommend the same, but recognize that suitable gloves offering this level of protection may not be available and in this case a lower breakthrough time maybe acceptable so long as appropriate maintenance and replacement regimes are followed. Glove thickness is not a good predictor of glove resistance to a chemical as it is dependent on the exact composition of the glove material. Glove thickness should be typically greater than 0.35 mm depending on the glove make and model.

Eye protection

: If material is handled such that it could be splashed into eyes, protective eyewear is recommended.

Skin and body protection

: Skin protection is not ordinarily required beyond standard work clothes.  
It is good practice to wear chemical resistant gloves.

Protective measures

: Personal protective equipment (PPE) should meet recommended national standards. Check with PPE suppliers.

## Environmental exposure controls

General advice

: Take appropriate measures to fulfill the requirements of relevant environmental protection legislation. Avoid contamination of the environment by following advice given in Chapter 6. If necessary, prevent undissolved material from being discharged to waste water. Waste water should be treated in a municipal or industrial waste water treatment plant before

# SAFETY DATA SHEET

According to OSHA Hazard Communication Standard, 29 CFR  
1910.1200

Version 1.5

Revision Date: 01/11/2016

Print Date: 01/12/2016

discharge to surface water.  
Local guidelines on emission limits for volatile substances  
must be observed for the discharge of exhaust air containing  
vapour.

## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	: Liquid at room temperature.
Colour	: amber
Odour	: Slight hydrocarbon
Odour Threshold	: Data not available
pH	: Not applicable
pour point	: -30 °C / -22 °F Method: ASTM D97
Initial boiling point and boiling range	: > 280 °C / 536 °F estimated value(s)
Flash point	: 204 °C / 399 °F Method: ASTM D92
Evaporation rate	: Data not available
Flammability (solid, gas)	: Data not available
Upper explosion limit	: Typical 10 %(V)
Lower explosion limit	: Typical 1 %(V)
Vapour pressure	: < 0.5 Pa (20 °C / 68 °F) estimated value(s)
Relative vapour density	: > 1 estimated value(s)
Relative density	: 0.879 (15 °C / 59 °F)
Density	: 879 kg/m <sup>3</sup> (15.0 °C / 59.0 °F) Method: ASTM D4052
Solubility(ies)	
Water solubility	: negligible
Solubility in other solvents	: Data not available
Partition coefficient: n-octanol/water	: Pow: > 6 (based on information on similar products)
Auto-ignition temperature	: > 320 °C / 608 °F

# SAFETY DATA SHEET

According to OSHA Hazard Communication Standard, 29 CFR  
1910.1200

Version 1.5

Revision Date: 01/11/2016

Print Date: 01/12/2016

Viscosity	
Viscosity, dynamic	: Data not available
Viscosity, kinematic	: 15.5 mm <sup>2</sup> /s (100 °C / 212 °F) Method: ASTM D445
	120 mm <sup>2</sup> /s (40.0 °C / 104.0 °F) Method: ASTM D445
Explosive properties	: Not classified
Oxidizing properties	: Data not available
Conductivity	: This material is not expected to be a static accumulator.
Decomposition temperature	: Data not available

---

## SECTION 10. STABILITY AND REACTIVITY

Reactivity	: The product does not pose any further reactivity hazards in addition to those listed in the following sub-paragraph.
Chemical stability	: Stable.
Possibility of hazardous reactions	: Reacts with strong oxidising agents.
Conditions to avoid	: Extremes of temperature and direct sunlight.
Incompatible materials	: Strong oxidising agents.
Hazardous decomposition products	: Hazardous decomposition products are not expected to form during normal storage.

---

## SECTION 11. TOXICOLOGICAL INFORMATION

Basis for assessment	: Information given is based on data on the components and the toxicology of similar products. Unless indicated otherwise, the data presented is representative of the product as a whole, rather than for individual component(s).
----------------------	---

### Information on likely routes of exposure

Skin and eye contact are the primary routes of exposure although exposure may occur following accidental ingestion.

### Acute toxicity

#### **Product:**

Acute oral toxicity	: LD50 (rat): > 5,000 mg/kg Remarks: Expected to be of low toxicity:
---------------------	---

# SAFETY DATA SHEET

According to OSHA Hazard Communication Standard, 29 CFR  
1910.1200

Version 1.5

Revision Date: 01/11/2016

Print Date: 01/12/2016

Acute inhalation toxicity : Remarks: Not considered to be an inhalation hazard under normal conditions of use.

Acute dermal toxicity : LD50 (Rabbit): > 5,000 mg/kg  
Remarks: Expected to be of low toxicity:

## Skin corrosion/irritation

### Product:

Remarks: Expected to be slightly irritating., Prolonged or repeated skin contact without proper cleaning can clog the pores of the skin resulting in disorders such as oil acne/folliculitis.

## Serious eye damage/eye irritation

### Product:

Remarks: Expected to be slightly irritating.

### Components:

#### **Zinc dialkyl dithiophosphate:**

Remarks: Based on available data, the classification criteria are not met.

## Respiratory or skin sensitisation

### Product:

Remarks: Not expected to be a skin sensitiser.

### Components:

#### **Calcium sulphonate:**

Remarks: May cause an allergic skin reaction in sensitive individuals.

Remarks: Classified Skin Sensitiser Category 1B.

## Germ cell mutagenicity

### Product:

: Remarks: Not considered a mutagenic hazard.

## Carcinogenicity

### Product:

Remarks: Not expected to be carcinogenic.

Remarks: Product contains mineral oils of types shown to be non-carcinogenic in animal skin-painting studies., Highly refined mineral oils are not classified as carcinogenic by the International Agency for Research on Cancer (IARC).

#### **IARC**

No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

#### **ACGIH**

No component of this product present at levels greater than or

# SAFETY DATA SHEET

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Version 1.5

Revision Date: 01/11/2016

Print Date: 01/12/2016

equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

## OSHA

No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

## NTP

No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

## Reproductive toxicity

### Product:

:

Remarks: Not expected to impair fertility., Not expected to be a developmental toxicant.

## STOT - single exposure

### Product:

Remarks: Not expected to be a hazard.

## STOT - repeated exposure

### Product:

Remarks: Not expected to be a hazard.

## Aspiration toxicity

### Product:

Not considered an aspiration hazard.

## Further information

### Product:

Remarks: Used oils may contain harmful impurities that have accumulated during use. The concentration of such impurities will depend on use and they may present risks to health and the environment on disposal., ALL used oil should be handled with caution and skin contact avoided as far as possible.

Remarks: Continuous contact with used engine oils has caused skin cancer in animal tests.

Remarks: Slightly irritating to respiratory system.

---

## SECTION 12. ECOLOGICAL INFORMATION

Basis for assessment

: Ecotoxicological data have not been determined specifically for this product.  
Information given is based on a knowledge of the components and the ecotoxicology of similar products.

# SAFETY DATA SHEET

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Version 1.5

Revision Date: 01/11/2016

Print Date: 01/12/2016

Unless indicated otherwise, the data presented is representative of the product as a whole, rather than for individual component(s). (LL/EL/IL50 expressed as the nominal amount of product required to prepare aqueous test extract).

## Ecotoxicity

### Product:

Toxicity to fish (Acute toxicity) : Remarks: Expected to be practically non toxic:  
LL/EL/IL50 > 100 mg/l

Toxicity to daphnia and other aquatic invertebrates (Acute toxicity) : Remarks: Expected to be practically non toxic:  
LL/EL/IL50 > 100 mg/l

Toxicity to algae (Acute toxicity) : Remarks: Expected to be practically non toxic:  
LL/EL/IL50 > 100 mg/l

Toxicity to fish (Chronic toxicity) : Remarks: Data not available

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : Remarks: Data not available

Toxicity to bacteria (Acute toxicity) : Remarks: Data not available

## Persistence and degradability

### Product:

Biodegradability : Remarks: Expected to be not readily biodegradable. Major constituents are expected to be inherently biodegradable, but contains components that may persist in the environment.

## Bioaccumulative potential

### Product:

Bioaccumulation : Remarks: Contains components with the potential to bioaccumulate.

## Mobility in soil

### Product:

Mobility : Remarks: Liquid under most environmental conditions. If it enters soil, it will adsorb to soil particles and will not be mobile.

Remarks: Floats on water.

# SAFETY DATA SHEET

According to OSHA Hazard Communication Standard, 29 CFR  
1910.1200

Version 1.5

Revision Date: 01/11/2016

Print Date: 01/12/2016

## Other adverse effects

no data available

## Product:

Additional ecological information : Product is a mixture of non-volatile components, which are not expected to be released to air in any significant quantities. Not expected to have ozone depletion potential, photochemical ozone creation potential or global warming potential.

Poorly soluble mixture.  
May cause physical fouling of aquatic organisms.

Mineral oil is not expected to cause any chronic effects to aquatic organisms at concentrations less than 1 mg/l.

## SECTION 13. DISPOSAL CONSIDERATIONS

### Disposal methods

Waste from residues : Waste product should not be allowed to contaminate soil or ground water, or be disposed of into the environment. Waste, spills or used product is dangerous waste.

Disposal should be in accordance with applicable regional, national, and local laws and regulations. Local regulations may be more stringent than regional or national requirements and must be complied with.

Contaminated packaging : Dispose in accordance with prevailing regulations, preferably to a recognized collector or contractor. The competence of the collector or contractor should be established beforehand. Disposal should be in accordance with applicable regional, national, and local laws and regulations.

## SECTION 14. TRANSPORT INFORMATION

### National Regulations

#### US Department of Transportation Classification (49 CFR Parts 171-180)

Not regulated as a dangerous good

### International Regulation

#### IATA-DGR

Not regulated as a dangerous good

#### IMDG-Code

Not regulated as a dangerous good

### Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Pollution category : Not applicable  
Ship type : Not applicable

# SAFETY DATA SHEET

According to OSHA Hazard Communication Standard, 29 CFR  
1910.1200

Version 1.5

Revision Date: 01/11/2016

Print Date: 01/12/2016

Product name : Not applicable  
Special precautions : Not applicable

## Special precautions for user

Remarks : Special Precautions: Refer to Chapter 7, Handling & Storage, for special precautions which a user needs to be aware of or needs to comply with in connection with transport.

**Additional Information** : MARPOL Annex 1 rules apply for bulk shipments by sea.

## SECTION 15. REGULATORY INFORMATION

**OSHA Hazards** : No OSHA Hazards

### EPCRA - Emergency Planning and Community Right-to-Know Act

#### CERCLA Reportable Quantity

This material does not contain any components with a CERCLA RQ., Shell classifies this material as an "oil" under the CERCLA Petroleum Exclusion, therefore releases to the environment are not reportable under CERCLA.

#### SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

**SARA 311/312 Hazards** : No SARA Hazards

**SARA 302** : No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

**SARA 313** : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

### Clean Water Act

This product does not contain any Hazardous Chemicals listed under the U.S. CleanWater Act, Section 311, Table 117.3.

### Pennsylvania Right To Know

diphenylamine

122-39-4

### California Prop 65

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

### The components of this product are reported in the following inventories:

EINECS : All components listed or polymer exempt.

TSCA : All components listed.

DSL : All components listed.

# SAFETY DATA SHEET

According to OSHA Hazard Communication Standard, 29 CFR  
1910.1200

Version 1.5

Revision Date: 01/11/2016

Print Date: 01/12/2016

## SECTION 16. OTHER INFORMATION

### Further information

NFPA Rating (Health, Fire, Reac- 0, 1, 0  
tivity)

A vertical bar (|) in the left margin indicates an amendment from the previous version.

Abbreviations and Acronyms : The standard abbreviations and acronyms used in this document can be looked up in reference literature (e.g. scientific dictionaries) and/or websites.

ACGIH = American Conference of Governmental Industrial Hygienists

ADR = European Agreement concerning the International Carriage of Dangerous Goods by Road

AICS = Australian Inventory of Chemical Substances

ASTM = American Society for Testing and Materials

BEL = Biological exposure limits

BTEX = Benzene, Toluene, Ethylbenzene, Xylenes

CAS = Chemical Abstracts Service

CEFIC = European Chemical Industry Council

CLP = Classification Packaging and Labelling

COC = Cleveland Open-Cup

DIN = Deutsches Institut für Normung

DMEL = Derived Minimal Effect Level

DNEL = Derived No Effect Level

DSL = Canada Domestic Substance List

EC = European Commission

EC50 = Effective Concentration fifty

ECETOC = European Center on Ecotoxicology and Toxicology Of Chemicals

ECHA = European Chemicals Agency

EINECS = The European Inventory of Existing Commercial Chemical Substances

EL50 = Effective Loading fifty

ENCS = Japanese Existing and New Chemical Substances Inventory

EWC = European Waste Code

GHS = Globally Harmonised System of Classification and Labelling of Chemicals

IARC = International Agency for Research on Cancer

IATA = International Air Transport Association

IC50 = Inhibitory Concentration fifty

IL50 = Inhibitory Level fifty

IMDG = International Maritime Dangerous Goods

INV = Chinese Chemicals Inventory

IP346 = Institute of Petroleum test method N° 346 for the determination of polycyclic aromatics DMSO-extractables

KECI = Korea Existing Chemicals Inventory

LC50 = Lethal Concentration fifty

LD50 = Lethal Dose fifty per cent.

LL/EL/IL = Lethal Loading/Effective Loading/Inhibitory loading

LL50 = Lethal Loading fifty

MARPOL = International Convention for the Prevention of

# SAFETY DATA SHEET

According to OSHA Hazard Communication Standard, 29 CFR  
1910.1200

Version 1.5

Revision Date: 01/11/2016

Print Date: 01/12/2016

Pollution From Ships

NOEC/NOEL = No Observed Effect Concentration / No Observed Effect Level

OE\_HPVS = Occupational Exposure - High Production Volume

PBT = Persistent, Bioaccumulative and Toxic

PICCS = Philippine Inventory of Chemicals and Chemical Substances

PNEC = Predicted No Effect Concentration

REACH = Registration Evaluation And Authorisation Of Chemicals

RID = Regulations Relating to International Carriage of Dangerous Goods by Rail

SKIN\_DES = Skin Designation

STEL = Short term exposure limit

TRA = Targeted Risk Assessment

TSCA = US Toxic Substances Control Act

TWA = Time-Weighted Average

vPvB = very Persistent and very Bioaccumulative

Revision Date : 01/11/2016

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

# SAFETY DATA SHEET

According to OSHA Hazard Communication Standard, 29 CFR  
1910.1200

## Shell Rotella T5 10W-30

Version 1.1      Revision Date: 08/31/2018      SDS Number: 800010026635      Print Date: 09/01/2018  
Date of last issue: 05/11/2016

---

### SECTION 1. IDENTIFICATION

Product name : Shell Rotella T5 10W-30

Product code : 001F8878

#### Manufacturer or supplier's details

Manufacturer/Supplier : **Shell Oil Products US**  
PO Box 4427  
Houston TX 77210-4427  
USA

SDS Request : (+1) 877-276-7285  
Customer Service :

#### Emergency telephone number

Spill Information : 877-504-9351  
Health Information : 877-242-7400

#### Recommended use of the chemical and restrictions on use

Recommended use : Engine oil.

---

### SECTION 2. HAZARDS IDENTIFICATION

#### GHS classification in accordance with 29 CFR 1910.1200

Based on available data this substance / mixture does not meet the classification criteria.

#### GHS label elements

Hazard pictograms : No Hazard Symbol required

Signal word : No signal word

Hazard statements : **PHYSICAL HAZARDS:**  
Not classified as a physical hazard under GHS criteria.  
**HEALTH HAZARDS:**  
Not classified as a health hazard under GHS criteria.  
**ENVIRONMENTAL HAZARDS:**  
Not classified as an environmental hazard under GHS criteria.

Precautionary statements : **Prevention:**  
No precautionary phrases.  
**Response:**  
No precautionary phrases.  
**Storage:**  
No precautionary phrases.  
**Disposal:**

# SAFETY DATA SHEET

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

## Shell Rotella T5 10W-30

Version 1.1      Revision Date: 08/31/2018      SDS Number: 800010026635      Print Date: 09/01/2018  
Date of last issue: 05/11/2016

No precautionary phrases.

### Other hazards which do not result in classification

Prolonged or repeated skin contact without proper cleaning can clog the pores of the skin resulting in disorders such as oil acne/folliculitis.

Used oil may contain harmful impurities.

Not classified as flammable but will burn.

The classification of this material is based on OSHA HCS 2012 criteria.

Under normal conditions of use or in a foreseeable emergency, this product does not meet the definition of a hazardous chemical when evaluated according to the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

### SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical nature : Highly refined mineral oils and additives.  
The highly refined mineral oil contains <3% (w/w) DMSO-extract, according to IP346.

\* contains one or more of the following CAS-numbers: 64742-53-6, 64742-54-7, 64742-55-8, 64742-56-9, 64742-65-0, 68037-01-4, 72623-86-0, 72623-87-1, 8042-47-5, 848301-69-9.

### Hazardous components

Chemical name	Synonyms	CAS-No.	Concentration (% w/w)
Alkaryl amine	bis(nonylphenyl)amine	36878-20-3	1 - 3
Calcium sulphonate	Benzenesulfonic acid, mono-C16-24-alkyl derivs., calcium salts	70024-69-0	0.1 - 0.99
Interchangeable low viscosity base oil (<20,5 cSt @40°C) *		Not Assigned	0 - 90

### SECTION 4. FIRST-AID MEASURES

If inhaled : No treatment necessary under normal conditions of use. If symptoms persist, obtain medical advice.

In case of skin contact : Remove contaminated clothing. Flush exposed area with water and follow by washing with soap if available. If persistent irritation occurs, obtain medical attention.

In case of eye contact : Flush eye with copious quantities of water. Remove contact lenses, if present and easy to do. Continue rinsing. If persistent irritation occurs, obtain medical attention.

If swallowed : In general no treatment is necessary unless large quantities

# SAFETY DATA SHEET

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

## Shell Rotella T5 10W-30

Version 1.1      Revision Date: 08/31/2018      SDS Number: 800010026635      Print Date: 09/01/2018  
Date of last issue: 05/11/2016

---

- are swallowed, however, get medical advice.
- Most important symptoms and effects, both acute and delayed : Oil acne/folliculitis signs and symptoms may include formation of black pustules and spots on the skin of exposed areas. Ingestion may result in nausea, vomiting and/or diarrhoea.
- Protection of first-aiders : When administering first aid, ensure that you are wearing the appropriate personal protective equipment according to the incident, injury and surroundings.
- Indication of any immediate medical attention and special treatment needed : Treat symptomatically.
- 

### SECTION 5. FIRE-FIGHTING MEASURES

- Suitable extinguishing media : Foam, water spray or fog. Dry chemical powder, carbon dioxide, sand or earth may be used for small fires only.
- Unsuitable extinguishing media : Do not use water in a jet.
- Specific hazards during fire-fighting : Hazardous combustion products may include:  
A complex mixture of airborne solid and liquid particulates and gases (smoke).  
Carbon monoxide may be evolved if incomplete combustion occurs.  
Unidentified organic and inorganic compounds.
- Specific extinguishing methods : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
- Special protective equipment for firefighters : Proper protective equipment including chemical resistant gloves are to be worn; chemical resistant suit is indicated if large contact with spilled product is expected. Self-Contained Breathing Apparatus must be worn when approaching a fire in a confined space. Select fire fighter's clothing approved to relevant Standards (e.g. Europe: EN469).
- 

### SECTION 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions, protective equipment and emergency procedures : Avoid contact with skin and eyes.
- Environmental precautions : Use appropriate containment to avoid environmental contamination. Prevent from spreading or entering drains, ditches or rivers by using sand, earth, or other appropriate barriers.
- Local authorities should be advised if significant spillages cannot be contained.
-

# SAFETY DATA SHEET

According to OSHA Hazard Communication Standard, 29 CFR  
1910.1200

## Shell Rotella T5 10W-30

Version 1.1      Revision Date: 08/31/2018      SDS Number: 800010026635      Print Date: 09/01/2018  
Date of last issue: 05/11/2016

---

Methods and materials for containment and cleaning up : Slippery when spilt. Avoid accidents, clean up immediately. Prevent from spreading by making a barrier with sand, earth or other containment material. Reclaim liquid directly or in an absorbent. Soak up residue with an absorbent such as clay, sand or other suitable material and dispose of properly.

Additional advice : For guidance on selection of personal protective equipment see Chapter 8 of this Safety Data Sheet. For guidance on disposal of spilled material see Chapter 13 of this Safety Data Sheet.

---

### SECTION 7. HANDLING AND STORAGE

Technical measures : Use local exhaust ventilation if there is risk of inhalation of vapours, mists or aerosols. Use the information in this data sheet as input to a risk assessment of local circumstances to help determine appropriate controls for safe handling, storage and disposal of this material.

Advice on safe handling : Avoid prolonged or repeated contact with skin. Avoid inhaling vapour and/or mists. When handling product in drums, safety footwear should be worn and proper handling equipment should be used. Properly dispose of any contaminated rags or cleaning materials in order to prevent fires.

Avoidance of contact : Strong oxidising agents.

Product Transfer : Proper grounding and bonding procedures should be used during all bulk transfer operations to avoid static accumulation.

Further information on storage stability : Keep container tightly closed and in a cool, well-ventilated place. Use properly labeled and closable containers.

Store at ambient temperature.

Packaging material : Suitable material: For containers or container linings, use mild steel or high density polyethylene. Unsuitable material: PVC.

Container Advice : Polyethylene containers should not be exposed to high temperatures because of possible risk of distortion.

# SAFETY DATA SHEET

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

## Shell Rotella T5 10W-30

Version  
1.1

Revision Date:  
08/31/2018

SDS Number:  
800010026635

Print Date: 09/01/2018  
Date of last issue: 05/11/2016

### SECTION 8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

#### Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
Oil mist, mineral	Not Assigned	TWA (Mist)	5 mg/m <sup>3</sup>	OSHA Z-1
Oil mist, mineral		TWA (Inhalable fraction)	5 mg/m <sup>3</sup>	ACGIH

#### Biological occupational exposure limits

No biological limit allocated.

#### Monitoring Methods

Monitoring of the concentration of substances in the breathing zone of workers or in the general workplace may be required to confirm compliance with an OEL and adequacy of exposure controls. For some substances biological monitoring may also be appropriate.

Validated exposure measurement methods should be applied by a competent person and samples analysed by an accredited laboratory.

Examples of sources of recommended exposure measurement methods are given below or contact the supplier. Further national methods may be available.

National Institute of Occupational Safety and Health (NIOSH), USA: Manual of Analytical Methods <http://www.cdc.gov/niosh/>

Occupational Safety and Health Administration (OSHA), USA: Sampling and Analytical Methods <http://www.osha.gov/>

Health and Safety Executive (HSE), UK: Methods for the Determination of Hazardous Substances <http://www.hse.gov.uk/>

Institut für Arbeitsschutz Deutschen Gesetzlichen Unfallversicherung (IFA), Germany <http://www.dguv.de/inhalt/index.jsp>

L'Institut National de Recherche et de Sécurité, (INRS), France <http://www.inrs.fr/accueil>

**Engineering measures** : The level of protection and types of controls necessary will vary depending upon potential exposure conditions. Select controls based on a risk assessment of local circumstances. Appropriate measures include:  
Adequate ventilation to control airborne concentrations.

Where material is heated, sprayed or mist formed, there is greater potential for airborne concentrations to be generated.

#### General Information:

Define procedures for safe handling and maintenance of controls.

Educate and train workers in the hazards and control measures relevant to normal activities associated with this product.

Ensure appropriate selection, testing and maintenance of equipment used to control exposure, e.g. personal protective equipment, local exhaust ventilation.

Drain down system prior to equipment break-in or maintenance.

# SAFETY DATA SHEET

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

## Shell Rotella T5 10W-30

Version  
1.1

Revision Date:  
08/31/2018

SDS Number:  
800010026635

Print Date: 09/01/2018  
Date of last issue: 05/11/2016

nance.

Retain drain downs in sealed storage pending disposal or subsequent recycle.

Always observe good personal hygiene measures, such as washing hands after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Discard contaminated clothing and footwear that cannot be cleaned.

Practice good housekeeping.

### Personal protective equipment

Respiratory protection

- : No respiratory protection is ordinarily required under normal conditions of use.  
In accordance with good industrial hygiene practices, precautions should be taken to avoid breathing of material.  
If engineering controls do not maintain airborne concentrations to a level which is adequate to protect worker health, select respiratory protection equipment suitable for the specific conditions of use and meeting relevant legislation.  
Check with respiratory protective equipment suppliers.  
Where air-filtering respirators are suitable, select an appropriate combination of mask and filter.  
Select a filter suitable for the combination of organic gases and vapours [Type A/Type P boiling point >65°C (149°F)].

Hand protection  
Remarks

- : Where hand contact with the product may occur the use of gloves approved to relevant standards (e.g. Europe: EN374, US: F739) made from the following materials may provide suitable chemical protection. PVC, neoprene or nitrile rubber gloves Suitability and durability of a glove is dependent on usage, e.g. frequency and duration of contact, chemical resistance of glove material, dexterity. Always seek advice from glove suppliers. Contaminated gloves should be replaced. Personal hygiene is a key element of effective hand care. Gloves must only be worn on clean hands. After using gloves, hands should be washed and dried thoroughly. Application of a non-perfumed moisturizer is recommended. For continuous contact we recommend gloves with breakthrough time of more than 240 minutes with preference for > 480 minutes where suitable gloves can be identified. For short-term/splash protection we recommend the same, but recognize that suitable gloves offering this level of protection may not be available and in this case a lower breakthrough time maybe acceptable so long as appropriate maintenance and replacement regimes are followed. Glove thickness is not a good predictor of glove resistance to a chemical as it is dependent on the exact composition of the glove material. Glove thickness should be typically greater than 0.35 mm depending on the glove make and model.

Eye protection

- : If material is handled such that it could be splashed into eyes,

# SAFETY DATA SHEET

According to OSHA Hazard Communication Standard, 29 CFR  
1910.1200

## Shell Rotella T5 10W-30

Version 1.1      Revision Date: 08/31/2018      SDS Number: 800010026635      Print Date: 09/01/2018  
Date of last issue: 05/11/2016

---

protective eyewear is recommended.

Skin and body protection : Skin protection is not ordinarily required beyond standard work clothes.  
It is good practice to wear chemical resistant gloves.

Protective measures : Personal protective equipment (PPE) should meet recommended national standards. Check with PPE suppliers.

Thermal hazards : Not applicable

### Environmental exposure controls

General advice : Take appropriate measures to fulfill the requirements of relevant environmental protection legislation. Avoid contamination of the environment by following advice given in Chapter 6. If necessary, prevent undissolved material from being discharged to waste water. Waste water should be treated in a municipal or industrial waste water treatment plant before discharge to surface water.  
Local guidelines on emission limits for volatile substances must be observed for the discharge of exhaust air containing vapour.

---

### SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : liquid

Colour : Clear amber

Odour : Slight hydrocarbon

Odour Threshold : Data not available

pH : Not applicable

pour point : -51 °C / -60 °F  
Method: ASTM D97

Initial boiling point and boiling range : > 280 °C / 536 °F  
estimated value(s)

Flash point : 239 °C / 462 °F  
  
Method: ASTM D92 (COC)

Evaporation rate : Data not available

Flammability (solid, gas) : Data not available

Upper explosion limit / upper flammability limit : Typical 10 %(V)

# SAFETY DATA SHEET

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

## Shell Rotella T5 10W-30

Version 1.1      Revision Date: 08/31/2018      SDS Number: 800010026635      Print Date: 09/01/2018  
Date of last issue: 05/11/2016

---

Lower explosion limit / Lower flammability limit : Typical 1 %(V)

Vapour pressure : < 0.5 Pa (20 °C / 68 °F)  
estimated value(s)

Relative vapour density : > 1  
estimated value(s)

Relative density : 0.864 (15 °C / 59 °F)

Density : 864 kg/m<sup>3</sup> (15.0 °C / 59.0 °F)  
Method: ASTM D4052

Solubility(ies)  
Water solubility : negligible

Solubility in other solvents : Data not available

Partition coefficient: n-octanol/water : log Pow: > 6  
(based on information on similar products)

Auto-ignition temperature : > 320 °C / 608 °F

Decomposition temperature : Data not available

Viscosity  
Viscosity, dynamic : Data not available

Viscosity, kinematic : 12.2 mm<sup>2</sup>/s (100 °C / 212 °F)  
Method: ASTM D445

Explosive properties : Not classified

Oxidizing properties : Data not available

Conductivity : This material is not expected to be a static accumulator.

---

### SECTION 10. STABILITY AND REACTIVITY

Reactivity : The product does not pose any further reactivity hazards in addition to those listed in the following sub-paragraph.

Chemical stability : Stable.

Possibility of hazardous reactions : Reacts with strong oxidising agents.

Conditions to avoid : Extremes of temperature and direct sunlight.

---

# SAFETY DATA SHEET

According to OSHA Hazard Communication Standard, 29 CFR  
1910.1200

## Shell Rotella T5 10W-30

Version	Revision Date:	SDS Number:	Print Date: 09/01/2018
1.1	08/31/2018	800010026635	Date of last issue: 05/11/2016

---

Incompatible materials	:	Strong oxidising agents.
Hazardous decomposition products	:	No decomposition if stored and applied as directed.

---

### SECTION 11. TOXICOLOGICAL INFORMATION

Basis for assessment : Information given is based on data on the components and the toxicology of similar products. Unless indicated otherwise, the data presented is representative of the product as a whole, rather than for individual component(s).

#### Information on likely routes of exposure

Skin and eye contact are the primary routes of exposure although exposure may occur following accidental ingestion.

#### Acute toxicity

##### Product:

Acute oral toxicity	:	LD50 (rat): > 5,000 mg/kg Remarks: Low toxicity: Based on available data, the classification criteria are not met.
Acute inhalation toxicity	:	Remarks: Based on available data, the classification criteria are not met.
Acute dermal toxicity	:	LD50 (Rabbit): > 5,000 mg/kg Remarks: Low toxicity: Based on available data, the classification criteria are not met.

#### Skin corrosion/irritation

##### Product:

Remarks: Slightly irritating to skin., Prolonged or repeated skin contact without proper cleaning can clog the pores of the skin resulting in disorders such as oil acne/folliculitis., Based on available data, the classification criteria are not met.

#### Serious eye damage/eye irritation

##### Product:

Remarks: Slightly irritating to the eye., Based on available data, the classification criteria are not met.

#### Respiratory or skin sensitisation

##### Product:

Remarks: Not a skin sensitiser.  
Based on available data, the classification criteria are not met.

#### Components:

**Calcium sulphonate:**

# SAFETY DATA SHEET

According to OSHA Hazard Communication Standard, 29 CFR  
1910.1200

## Shell Rotella T5 10W-30

Version 1.1      Revision Date: 08/31/2018      SDS Number: 800010026635      Print Date: 09/01/2018  
Date of last issue: 05/11/2016

---

Remarks: May cause an allergic skin reaction in sensitive individuals.

Remarks: Classified Skin Sensitiser Category 1B.

### Germ cell mutagenicity

**Product:**

: Remarks: Non mutagenic, Based on available data, the classification criteria are not met.

### Carcinogenicity

**Product:**

Remarks: Not a carcinogen., Based on available data, the classification criteria are not met.

Remarks: Product contains mineral oils of types shown to be non-carcinogenic in animal skin-painting studies., Highly refined mineral oils are not classified as carcinogenic by the International Agency for Research on Cancer (IARC).

**IARC**                      No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

**OSHA**                      No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

**NTP**                      No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

### Reproductive toxicity

**Product:**

: Remarks: Not a developmental toxicant., Does not impair fertility., Based on available data, the classification criteria are not met.

### STOT - single exposure

**Product:**

Remarks: Based on available data, the classification criteria are not met.

### STOT - repeated exposure

**Product:**

Remarks: Based on available data, the classification criteria are not met.

# SAFETY DATA SHEET

According to OSHA Hazard Communication Standard, 29 CFR  
1910.1200

## Shell Rotella T5 10W-30

Version 1.1      Revision Date: 08/31/2018      SDS Number: 800010026635      Print Date: 09/01/2018  
Date of last issue: 05/11/2016

---

### Aspiration toxicity

**Product:**

Not an aspiration hazard.

### Further information

**Product:**

Remarks: Used oils may contain harmful impurities that have accumulated during use. The concentration of such impurities will depend on use and they may present risks to health and the environment on disposal., ALL used oil should be handled with caution and skin contact avoided as far as possible.

Remarks: Continuous contact with used engine oils has caused skin cancer in animal tests.

Remarks: Slightly irritating to respiratory system.

---

## SECTION 12. ECOLOGICAL INFORMATION

Basis for assessment : Ecotoxicological data have not been determined specifically for this product.  
Information given is based on a knowledge of the components and the ecotoxicology of similar products.  
Unless indicated otherwise, the data presented is representative of the product as a whole, rather than for individual component(s).(LL/EL/IL50 expressed as the nominal amount of product required to prepare aqueous test extract).

### Ecotoxicity

**Product:**

Toxicity to fish (Acute toxicity) : Remarks: LL/EL/IL50 > 100 mg/l  
Practically non toxic:  
Based on available data, the classification criteria are not met.

Toxicity to daphnia and other aquatic invertebrates (Acute toxicity) : Remarks: LL/EL/IL50 > 100 mg/l  
Practically non toxic:  
Based on available data, the classification criteria are not met.

Toxicity to algae (Acute toxicity) : Remarks: LL/EL/IL50 > 100 mg/l  
Practically non toxic:  
Based on available data, the classification criteria are not met.

Toxicity to fish (Chronic toxicity) : Remarks: Data not available

Toxicity to daphnia and other aquatic invertebrates (Chronic) : Remarks: Data not available

# SAFETY DATA SHEET

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

## Shell Rotella T5 10W-30

Version 1.1      Revision Date: 08/31/2018      SDS Number: 800010026635      Print Date: 09/01/2018  
Date of last issue: 05/11/2016

---

ic toxicity)

Toxicity to microorganisms (Acute toxicity) : Remarks: Data not available

### Persistence and degradability

#### Product:

Biodegradability : Remarks: Not readily biodegradable. Major constituents are inherently biodegradable, but contains components that may persist in the environment.

### Bioaccumulative potential

#### Product:

Bioaccumulation : Remarks: Contains components with the potential to bioaccumulate.

### Mobility in soil

#### Product:

Mobility : Remarks: Liquid under most environmental conditions. If it enters soil, it will adsorb to soil particles and will not be mobile.

Remarks: Floats on water.

### Other adverse effects

#### Product:

Additional ecological information : Does not have ozone depletion potential, photochemical ozone creation potential or global warming potential. Product is a mixture of non-volatile components, which will not be released to air in any significant quantities under normal conditions of use.

Poorly soluble mixture.  
Causes physical fouling of aquatic organisms.

Mineral oil does not cause chronic toxicity to aquatic organisms at concentrations less than 1 mg/l.

---

## SECTION 13. DISPOSAL CONSIDERATIONS

### Disposal methods

Waste from residues : Recover or recycle if possible. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste classification and disposal meth-

# SAFETY DATA SHEET

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

## Shell Rotella T5 10W-30

Version 1.1      Revision Date: 08/31/2018      SDS Number: 800010026635      Print Date: 09/01/2018  
Date of last issue: 05/11/2016

ods in compliance with applicable regulations.  
Do not dispose into the environment, in drains or in water courses

Waste product should not be allowed to contaminate soil or ground water, or be disposed of into the environment.  
Waste, spills or used product is dangerous waste.

Contaminated packaging : Dispose in accordance with prevailing regulations, preferably to a recognized collector or contractor. The competence of the collector or contractor should be established beforehand. Disposal should be in accordance with applicable regional, national, and local laws and regulations.

**Local legislation**  
Remarks : Disposal should be in accordance with applicable regional, national, and local laws and regulations.

### SECTION 14. TRANSPORT INFORMATION

#### National Regulations

##### US Department of Transportation Classification (49 CFR Parts 171-180)

Not regulated as a dangerous good

#### International Regulations

##### IATA-DGR

Not regulated as a dangerous good

##### IMDG-Code

Not regulated as a dangerous good

#### Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied. MARPOL Annex 1 rules apply for bulk shipments by sea.

#### Special precautions for user

Remarks : Special Precautions: Refer to Chapter 7, Handling & Storage, for special precautions which a user needs to be aware of or needs to comply with in connection with transport.

### SECTION 15. REGULATORY INFORMATION

#### EPCRA - Emergency Planning and Community Right-to-Know Act

##### CERCLA Reportable Quantity

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
2-methylpropan-1-ol	78-83-1	100	100 (F005)

# SAFETY DATA SHEET

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

## Shell Rotella T5 10W-30

Version 1.1      Revision Date: 08/31/2018      SDS Number: 800010026635      Print Date: 09/01/2018  
Date of last issue: 05/11/2016

benzene	71-43-2	10	10 (D018)
benzene	71-43-2	10	*

\*: Calculated RQ exceeds reasonably attainable upper limit., Shell classifies this material as an "oil" under the CERCLA Petroleum Exclusion, therefore releases to the environment are not reportable under CERCLA., The components with RQs are given for information.

### SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

### SARA 302 Extremely Hazardous Substances Threshold Planning Quantity

This material does not contain any components with a section 302 EHS TPQ.

**SARA 311/312 Hazards** : No SARA Hazards

**SARA 313** : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

### Clean Water Act

The following Hazardous Chemicals are listed under the U.S. CleanWater Act, Section 311, Table 117.3:

benzene	71-43-2	0.0002 %
---------	---------	----------

### US State Regulations

#### Pennsylvania Right To Know

Distillates (petroleum), solvent-dewaxed heavy paraffinic	64742-65-0
Polyolefin	68649-12-7
Distillates (petroleum), hydrotreated heavy paraffinic	64742-54-7
Distillates (petroleum), hydrotreated light paraffinic	64742-55-8
lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based	72623-86-0
Zinc dialkyl dithiophosphate	84605-29-8
Diphenylamine	122-39-4

#### California Prop. 65

WARNING: This product can expose you to chemicals including benzene, which is/are known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

#### California List of Hazardous Substances

Distillates (petroleum), solvent-dewaxed heavy paraffinic	64742-65-0
Polyolefin	68649-12-7
Distillates (petroleum), hydrotreated heavy paraffinic	64742-54-7
Distillates (petroleum), hydrotreated light paraffinic	64742-55-8
lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based	72623-86-0

#### Other regulations:

The regulatory information is not intended to be comprehensive. Other regulations may apply to this material.

**The components of this product are reported in the following inventories:**

# SAFETY DATA SHEET

According to OSHA Hazard Communication Standard, 29 CFR  
1910.1200

## Shell Rotella T5 10W-30

Version	Revision Date:	SDS Number:	Print Date: 09/01/2018
1.1	08/31/2018	800010026635	Date of last issue: 05/11/2016

---

EINECS	:	All components listed or polymer exempt.
TSCA	:	All components listed.
DSL	:	All components listed.

---

### SECTION 16. OTHER INFORMATION

#### Further information

NFPA Rating (Health, Fire, Reactivity) 0, 1, 0

#### Full text of other abbreviations

ACGIH	:	USA. ACGIH Threshold Limit Values (TLV)
OSHA Z-1	:	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
ACGIH / TWA	:	8-hour, time-weighted average
OSHA Z-1 / TWA	:	8-hour time weighted average
Abbreviations and Acronyms	:	The standard abbreviations and acronyms used in this document can be looked up in reference literature (e.g. scientific dictionaries) and/or websites.

ACGIH = American Conference of Governmental Industrial Hygienists  
ADR = European Agreement concerning the International Carriage of Dangerous Goods by Road  
AICS = Australian Inventory of Chemical Substances  
ASTM = American Society for Testing and Materials  
BEL = Biological exposure limits  
BTEX = Benzene, Toluene, Ethylbenzene, Xylenes  
CAS = Chemical Abstracts Service  
CEFIC = European Chemical Industry Council  
CLP = Classification Packaging and Labelling  
COC = Cleveland Open-Cup  
DIN = Deutsches Institut für Normung  
DMEL = Derived Minimal Effect Level  
DNEL = Derived No Effect Level  
DSL = Canada Domestic Substance List  
EC = European Commission  
EC50 = Effective Concentration fifty  
ECETOC = European Center on Ecotoxicology and Toxicology Of Chemicals  
ECHA = European Chemicals Agency  
EINECS = The European Inventory of Existing Commercial Chemical Substances  
EL50 = Effective Loading fifty  
ENCS = Japanese Existing and New Chemical Substances Inventory  
EWC = European Waste Code  
GHS = Globally Harmonised System of Classification and

# SAFETY DATA SHEET

According to OSHA Hazard Communication Standard, 29 CFR  
1910.1200

## Shell Rotella T5 10W-30

Version            Revision Date:            SDS Number:            Print Date: 09/01/2018  
1.1                08/31/2018              800010026635        Date of last issue: 05/11/2016

---

### Labelling of Chemicals

IARC = International Agency for Research on Cancer  
IATA = International Air Transport Association  
IC50 = Inhibitory Concentration fifty  
IL50 = Inhibitory Level fifty  
IMDG = International Maritime Dangerous Goods  
INV = Chinese Chemicals Inventory  
IP346 = Institute of Petroleum test method N° 346 for the  
determination of polycyclic aromatics DMSO-extractables  
KECI = Korea Existing Chemicals Inventory  
LC50 = Lethal Concentration fifty  
LD50 = Lethal Dose fifty per cent.  
LL/EL/IL = Lethal Loading/Effective Loading/Inhibitory loading  
LL50 = Lethal Loading fifty  
MARPOL = International Convention for the Prevention of  
Pollution From Ships  
NOEC/NOEL = No Observed Effect Concentration / No Ob-  
served Effect Level  
OE\_HP V = Occupational Exposure - High Production Volume  
PBT = Persistent, Bioaccumulative and Toxic  
PICCS = Philippine Inventory of Chemicals and Chemical  
Substances  
PNEC = Predicted No Effect Concentration  
REACH = Registration Evaluation And Authorisation Of  
Chemicals  
RID = Regulations Relating to International Carriage of Dan-  
gerous Goods by Rail  
SKIN\_DES = Skin Designation  
STEL = Short term exposure limit  
TRA = Targeted Risk Assessment  
TSCA = US Toxic Substances Control Act  
TWA = Time-Weighted Average  
vPvB = very Persistent and very Bioaccumulative

A vertical bar (|) in the left margin indicates an amendment from the previous version.

Sources of key data used to compile the Safety Data Sheet : The quoted data are from, but not limited to, one or more sources of information (e.g. toxicological data from Shell Health Services, material suppliers' data, CONCAWE, EU IUCLID date base, EC 1272 regulation, etc).

Revision Date : 08/31/2018

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

US / EN



# MATERIAL SAFETY DATA SHEET

Review Date: 08/29/2005

## SECTION 1 PRODUCT AND COMPANY IDENTIFICATION

**PRODUCT: SHELLZONE® ALL-SEASON Antifreeze/Coolant**

**MSDS NUMBER:** 80070L - 16

**PRODUCT CODE(S):** 94010, 9401000001, 9401000055, 9401006021, 9401012031

### MANUFACTURER

SOPUS Products  
P.O. Box 4427  
Houston, TX. 77210-4427

### TELEPHONE NUMBERS

**Spill Information:** (877) 242-7400  
**Health Information:** (877) 504-9351  
**MSDS Assistance Number:** (877) 276-7285

## SECTION 2 PRODUCT/INGREDIENTS

INGREDIENTS	CAS#	CONCENTRATION
Antifreeze/Coolant		
Ethylene Glycol	107-21-1	90 - 98 %weight
Deionized Water	7732-18-5	1 - 3 %weight
Phosphoric acid	7664-38-2	1 - 3 %weight

## SECTION 3 HAZARDS IDENTIFICATION

### EMERGENCY OVERVIEW

**Appearance & Odor:** Fluorescent green liquid. Mild odor.

**Health Hazards:** May be harmful or fatal if swallowed. May cause acidosis, cardiopulmonary and kidney effects. May cause CNS depression.

**NFPA Rating (Health, Fire, Reactivity):** 2, 1, 0

**Hazard Rating:** Least - 0 Slight - 1 Moderate - 2 High - 3 Extreme - 4

### Inhalation:

In applications where vapors (caused by high temperature) or mists (caused by mixing or spraying) are created, breathing may cause a mild burning sensation in the nose, throat and lungs.

### Eye Irritation:

If irritation occurs, a temporary burning sensation, minor redness, swelling, and/or blurred vision may result.

### Skin Contact:

May cause slight irritation of the skin. If irritation occurs, a temporary burning sensation and minor redness and/or swelling may result. Other adverse effects not expected from brief skin contact.

### Ingestion:

May be harmful or fatal if swallowed. Contains ethylene glycol and/or diethylene glycol which are toxic when swallowed. A lethal dose for an adult is 1 ml per kilogram or about 4 ounces (1/2 cup). Severe kidney damage can occur as a result of ingestion. Ingestion may result in nausea, vomiting and abdominal cramps. Metabolic acidosis and cardiopulmonary effects can occur following ingestion. May cause Central Nervous System (CNS) depression.

**Other Health Effects:**

Refer to Section 11, Toxicological Information, for specific information on the following effects:  
Developmental Toxicity

**Primary Target Organs:**

The following organs and/or organ systems may be damaged by overexposure to this material and/or its components:  
Cardiovascular System, Kidney, Liver, Lungs

**Signs and Symptoms:**

May cause cardiopulmonary effects including rapid respiration and heartbeat, cyanosis and in severe cases, pulmonary edema and pneumonia. Early to moderate CNS depression may be evidenced by giddiness, headache, dizziness and nausea. In extreme cases, unconsciousness and death may occur. Kidney damage may be indicated by changes in urine output or appearance, pain upon urination or in the lower back or general edema (swelling from fluid retention). Liver damage may be indicated by loss of appetite, jaundice (yellowish skin and eye color), fatigue and sometimes pain and swelling in the upper right abdomen.

**Aggravated Medical Conditions:**

Pre-existing eye, skin, respiratory, liver and kidney disorders and may be aggravated by exposure to this product.

For additional health information, refer to section 11.

<b>SECTION 4</b>	<b>FIRST AID MEASURES</b>
------------------	---------------------------

**Inhalation:**

Move victim to fresh air and provide oxygen if breathing is difficult. Get medical attention.

**Skin:**

Flush exposed area with water and follow by washing with soap if available. If skin irritation persists after washing, get medical advice.

**Eye:**

Flush eyes with plenty of water while holding eyelids open. Rest eyes for 30 minutes. If eye irritation persists, seek medical advice.

**Ingestion:**

DO NOT take internally. If swallowed, IMMEDIATELY contact a poison control center, emergency treatment center, or physician. If vomiting occurs spontaneously, keep head below hips to prevent aspiration of liquid into the lungs.

**Note to Physician:**

IMMEDIATE TREATMENT IS EXTREMELY IMPORTANT! Ethylene Glycol (EG) and Diethylene Glycol (DEG) intoxication may initially produce behavioral changes, drowsiness, vomiting, diarrhea, thirst, and convulsions. EG and DEG are nephrotoxic. End stages of poisoning may include renal damage or failure with acidosis. Supportive measures, supplemented with hemodialysis if indicated, may limit the progression and severity of toxic effects. May cause cardiopulmonary effects. For ETHYLENE GLYCOL POISONING, intravenous ethanol is a recognized antidotal treatment; other antidotal treatments also exist for ethylene glycol poisoning.

**SECTION 5 FIRE FIGHTING MEASURES**

**Flash Point [Method]:** 260 °F/126.67 °C [ Pensky-Martens Closed Cup]

**Extinguishing Media:**

Prevent run off from fire control or dilution from entering streams, sewers or drinking water supply. Use water fog, 'alcohol foam', dry chemical or carbon dioxide (CO2) to extinguish flames. Do not use a direct stream of water.

**Fire Fighting Instructions:**

Do not enter confined fire space without full bunker gear (helmet with face shield, bunker coats, gloves and rubber boots), including a positive pressure, NIOSH approved, self-contained breathing apparatus.

**SECTION 6 ACCIDENTAL RELEASE MEASURES**

**Protective Measures:**

May burn although not readily ignitable.

Wear appropriate personal protective equipment when cleaning up spills. Refer to Section 8.

**Spill Management:**

Shut off source of leak if safe to do so. Dike and contain spill.

FOR LARGE SPILLS: Remove with vacuum truck or pump to storage/salvage vessels.

FOR SMALL SPILLS: Soak up residue with an absorbent such as clay, sand or other suitable material. Place in non-leaking container and seal tightly for proper disposal.

**Reporting:**

U.S. regulations require reporting releases of this material to the environment which exceed the reportable quantity to the National Response Center at (800)424-8802.

**SECTION 7 HANDLING AND STORAGE**

**Precautionary Measures:**

Do not ingest. Avoid prolonged or repeated contact with eyes, skin or clothing. Avoid breathing of vapors, fumes or mists. Use with adequate ventilation. Wash thoroughly after handling.

**Storage:**

Do not store in open or unlabeled containers. Store in a cool, dry place with adequate ventilation. Keep away from open flames and high temperatures.

**Container Warnings:**

Keep containers closed when not in use. Containers, even those that have been emptied, can contain explosive vapors. Do not cut, drill, grind, weld or perform similar operations on or near containers.

**SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION**

Chemical	Limit	TWA	STEL	Ceiling	Notation
Ethylene Glycol	ACGIH TLV			100 mg/m3	

Ethylene Glycol	OSHA PEL - 1989(revoked )			50 ppmv	
Phosphoric acid	ACGIH TLV	1 mg/m3			
Phosphoric acid	OSHA PEL - 1989(revoked )	1 mg/m3	3 mg/m3		

### Exposure Controls

Provide adequate ventilation to control airborne concentrations below the exposure guidelines/limits. Eye washes and showers for emergency use.

### Personal Protection

Personal protective equipment (PPE) selections vary based on potential exposure conditions such as handling practices, concentration and ventilation. Information on the selection of eye, skin and respiratory protection for use with this material is provided below.

**Eye Protection:**

Chemical Goggles - If liquid contact is likely., or Safety glasses with side shields

**Skin Protection:**

Use protective clothing which is chemically resistant to this material. Selection of protective clothing depends on potential exposure conditions and may include gloves, boots, suits and other items. The selection(s) should take into account such factors as job task, type of exposure and durability requirements.

Published literature, test data and/or glove and clothing manufacturers indicate the best protection is provided by:  
Neoprene, or Nitrile Rubber

**Respiratory Protection:**

If engineering controls do not maintain airborne concentrations to a level which is adequate to protect worker health, an approved respirator must be worn. Respirator selection, use and maintenance should be in accordance with the requirements of the OSHA Respiratory Protection Standard, 29 CFR 1910.134.

Types of respirator(s) to be considered in the selection process include:

For Mist: Air Purifying, R or P style NIOSH approved respirator.

For Vapors: Air Purifying, R or P style prefilter & organic cartridge, NIOSH approved respirator. Self-contained breathing apparatus for use in environments with unknown concentrations or emergency situations.

## SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

**Appearance & Odor:** Fluorescent green liquid. Mild odor.

**Substance Chemical Family:** Ethylene Glycols

<b>Boiling Point</b>	226 °F	<b>Flash Point</b>	260 °F [Pensky-Martens Closed Cup]
<b>Freezing Point</b>	-34 °F	<b>Odor</b>	Mild odor.
<b>Specific Gravity</b>	1.12 - 1.14	<b>Stability</b>	Stable

**NOTE:** The freezing and boiling point values reflect a 50% solution in water at atmospheric pressure.

<b>SECTION 10</b>	<b>REACTIVITY AND STABILITY</b>
-------------------	---------------------------------

**Stability:**

Material is stable under normal conditions.

**Hazardous Decomposition Products:**

Thermal decomposition products are highly dependent on combustion conditions. A complex mixture of airborne solids, liquids and gases will evolve when this material undergoes pyrolysis or combustion. Acids, Aldehydes, Carbon Monoxide, Carbon Dioxide, Ketones and other unidentified organic compounds may be formed upon combustion.

<b>SECTION 11</b>	<b>TOXICOLOGICAL INFORMATION</b>
-------------------	----------------------------------

**Acute Toxicity**

TEST	Result	OSHA Classification	Material Tested
Dermal LD50	> 2 g/kg(Rabbit)	Non-Toxic	Based on components(s)

**Carcinogenicity Classification**

Chemical Name	NTP	IARC	ACGIH	OSHA
Antifreeze/Coolant	No	Not Reviewed	No	No

<b>Cardiovascular System</b>	Ingestion of large doses can cause metabolic acidosis that results in cardiopulmonary effects.
<b>Developmental Toxicity</b>	Oral exposure of pregnant rats and mice to ethylene glycol has produced birth defects in the offspring.
<b>Kidney</b>	Ingestion of ethylene glycol can cause bladder stones and kidney damage which can be fatal.
<b>Liver</b>	Prolonged and repeated ingestion of ethylene glycol has produced liver damage in rats.
<b>Lungs</b>	Ingestion of large doses can cause metabolic acidosis that results in cardiopulmonary effects.
<b>Whole Animal</b>	Orally, humans are more sensitive to ethylene glycol than rodents. The reported lethal dose range for an adult human is 1 -2 ml/kg, or 1/4 to 1/2 cup. Ingestion can result in metabolic acidosis.

<b>SECTION 12</b>	<b>ECOLOGICAL INFORMATION</b>
-------------------	-------------------------------

**Environmental Fate:**

The toxicity of this material to aquatic organisms has not been fully evaluated. This material must not be discharged or allowed to come into contact with sewage and drainage systems and any surface water body.

**SECTION 13 DISPOSAL CONSIDERATIONS**

**RCRA Information:**

Under RCRA, it is the responsibility of the user of the material to determine, at the time of the disposal, whether the material meets RCRA criteria for hazardous waste. This is because material uses, transformations, mixtures, processes, etc. may affect the classification. Refer to the latest EPA, state and local regulations regarding proper disposal. Follow all applicable laws and regulations. Used antifreeze recycling is recommended. Do not drain on the ground or into storm drainage systems. Do not dispose in sanitary sewer systems except where permitted by law.

**SECTION 14 TRANSPORT INFORMATION**

**US Department of Transportation Classification**

This material is not regulated under 49 CFR if in a container of 119 gallon capacity or less. If shipped in a container of over 119 gallon capacity then the DOT information must be accompanied with RQ notation, or, an otherwise 'Not Regulated' product will be classified as Environmentally Hazardous (solid/liquid) N.O.S., Class 9, Packing group III unless the product qualifies for the petroleum exemption (49 CFR 171.8).

**Hazardous Substance/Material RQ:** Ethylene glycol / 5209.3481 lbs

**International Air Transport Association**

**Hazard Class/Division:** 9 (Miscellaneous)  
**Identification Number:** UN3082  
**Packing Group:** III  
**Proper Shipping Name:** Environmentally Hazardous Substance, Liquid, N.O.S.  
**Technical Name(s):** Ethylene Glycol

**International Maritime Organization Classification**

**Hazard Class/Division:** 9 (Miscellaneous)  
**Identification Number:** UN3082  
**Packing Group:** III  
**Proper Shipping Name:** Environmentally Hazardous Substances, Liquid, N.O.S.  
**Technical Name(s):** Ethylene Glycol

**SECTION 15 REGULATORY INFORMATION**

**Federal Regulatory Status**

**OSHA Classification:**

Product is hazardous according to the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

**Comprehensive Environmental Release, Compensation & Liability Act (CERCLA):**

Ethylene Glycol	RQ 5000 lbs	Reportable Spill => 5209.348071 lbs or 624.85 gal
Potassium hydroxide	RQ 1000 lbs	Reportable Spill => 139664.804469

lbs or 16752.41 gal

**Ozone Depleting Substances (40 CFR 82 Clean Air Act):**

This material does not contain nor was it directly manufactured with any Class I or Class II ozone depleting substances.

**Superfund Amendment & Reauthorization Act (SARA) Title III:**

There are no components in this product on the SARA 302 list.

**SARA Hazard Categories (311/312):**

Immediate Health	Delayed Health	Fire	Pressure	Reactivity
YES	YES	NO	NO	NO

**SARA Toxic Release Inventory (TRI) (313):**

, Ethylene Glycol

**Toxic Substances Control Act (TSCA) Status:**

All component(s) of this material is(are) listed on the EPA/TSCA Inventory of Chemical Substances.

**Other Chemical Inventories:**

Component(s) of this material is (are) listed on the Australian AICS, Canadian DSL, Chinese Inventory, European EINECS, Korean Inventory, Philippines PICCS,

**State Regulation**

The following chemicals are specifically listed by individual states; other product specific health and safety data in other sections of the MSDS may also be applicable for state requirements. For details on your regulatory requirements you should contact the appropriate agency in your state.

**New Jersey Right-To-Know Chemical List:**

Ethylene Glycol (0878)	90 - 98 %weight	Special Hazard
Phosphoric acid	1 - 3 %weight	Environmental Hazard

**Pennsylvania Right-To-Know Chemical List:**

1,2-Ethenediol (107-21-1)	90 - 98 %weight	Environmental Hazard
Phosphoric acid	1 - 3 %weight	Environmental Hazard

**SECTION 16 OTHER INFORMATION**

**Revision#:** 16  
**Review Date:** 08/29/2005  
**Revision Date:** 09/30/2004  
**Revisions since last change (discussion):** This Material Safety Data Sheet (MSDS) has been reviewed to fully comply with the guidance contained in the ANSI MSDS standard (ANSI Z400.1-2003). We encourage you to take the opportunity to read the MSDS and review the information contained therein.

**SECTION 17 LABEL INFORMATION**

READ AND UNDERSTAND MATERIAL SAFETY DATA SHEET BEFORE HANDLING OR DISPOSING OF PRODUCT. THIS LABEL COMPLIES WITH THE REQUIREMENTS OF THE OSHA HAZARD COMMUNICATION STANDARD (29 CFR 1910.1200) FOR USE IN THE WORKPLACE. THIS LABEL IS NOT INTENDED TO BE USED WITH PACKAGING INTENDED FOR SALE TO CONSUMERS AND MAY NOT CONFORM WITH THE REQUIREMENTS OF THE CONSUMER PRODUCT SAFETY ACT OR OTHER RELATED REGULATORY REQUIREMENTS.

**PRODUCT CODE(S):** 94010, 9401000001, 9401000055, 9401006021, 9401012031

**SHELLZONE® ALL-SEASON Antifreeze/Coolant**

**WARNING!**

**MAYBE HARMFUL OR FATAL IF SWALLOWED. MAY CAUSE ACIDOSIS, CARDIOPULMONARY AND KIDNEY EFFECTS. MAY CAUSE CENTRAL NERVOUS SYSTEM DEPRESSION.** The following organs and/or organ systems may be damaged by overexposure to this material and/or its components.

**MAY CAUSE DAMAGE TO:** Cardiovascular System, Kidney, Liver, Lungs

Refer to Section 11, Toxicological Information, for specific information on the following effects:  
**Developmental Toxicity**

**Precautionary Measures:**

Avoid prolonged or repeated contact with eyes, skin and clothing. Avoid breathing of vapors, fumes, or mist. Use only with adequate ventilation. Keep container closed when not in use. Wash thoroughly after handling.

**FIRST AID**

**Inhalation:** Move victim to fresh air and provide oxygen if breathing is difficult. Get medical attention.

**Skin Contact:** Flush exposed area with water and follow by washing with soap if available. If skin irritation persists after washing, get medical advice.

**Eye Contact:** Flush eyes with plenty of water while holding eyelids open. Rest eyes for 30 minutes. If eye irritation persists, seek medical advice.

**Ingestion:** DO NOT take internally. If swallowed, IMMEDIATELY contact a poison control center, emergency treatment center, or physician. If vomiting occurs spontaneously, keep head below hips to prevent aspiration of liquid into the lungs.

**FIRE**

**In case of fire,** Use water fog, 'alcohol foam', dry chemical or carbon dioxide (CO2) to extinguish flames. Do not use a direct stream of water.

**SPILL OR LEAK**

Dike and contain spill.

**FOR LARGE SPILLS:** Remove with vacuum truck or pump to storage/salvage vessels.

**FOR SMALL SPILLS:** Soak up residue with an absorbent such as clay, sand or other suitable material. Place in non-leaking container and seal tightly for proper disposal.

**CONTAINS:** Ethylene Glycol, 107-21-1; Deionized Water, 7732-18-5; Phosphoric acid, 7664-38-2

**NFPA Rating (Health, Fire, Reactivity):** 2, 1, 0

## TRANSPORTATION

### US Department of Transportation Classification

This material is not regulated under 49 CFR if in a container of 119 gallon capacity or less. If shipped in a container of over 119 gallon capacity then the DOT information must be accompanied with RQ notation, or, an otherwise 'Not Regulated' product will be classified as Environmentally Hazardous (solid/liquid) N.O.S., Class 9, Packing group III unless the product qualifies for the petroleum exemption (49 CFR 171.8).

### Hazardous Substance/Material RQ:

Ethylene glycol / 5209.3481 lbs

**CAUTION:** Misuse of empty containers can be hazardous. Empty containers can be hazardous if used to store toxic, flammable, or reactive materials. Cutting or welding of empty containers might cause fire, explosion or toxic fumes from residues. Do not pressurize or expose to open flames or heat. Keep container closed and drum bungs in place.

### Name and Address

SOPUS Products  
P.O. Box 4427  
Houston, TX 77210-4427

<b>ADMINISTRATIVE INFORMATION</b>
-----------------------------------

<b>MANUFACTURER ADDRESS:</b> SOPUS Products, P.O. Box 4427, Houston, TX. 77210-4427
---

THE INFORMATION CONTAINED IN THIS DATA SHEET IS BASED ON THE DATA AVAILABLE TO US AT THIS TIME, AND IS BELIEVED TO BE ACCURATE BASED UPON THAT : IT IS PROVIDED INDEPENDENTLY OF ANY SALE OF THE PRODUCT, FOR PURPOSE OF HAZARD COMMUNICATION. IT IS NOT INTENDED TO CONSTITUTE PRODUCT PERFORMANCE INFORMATION, AND NO EXPRESS OR IMPLIED WARRANTY OF ANY KIND IS MADE WITH RESPECT TO THE PRODUCT, UNDERLYING DATA OR THE INFORMATION CONTAINED HEREIN. YOU ARE URGED TO OBTAIN DATA SHEETS FOR ALL PRODUCTS YOU BUY, PROCESS, USE OR DISTRIBUTE, AND ARE ENCOURAGED TO ADVISE THOSE WHO MAY COME IN CONTACT WITH SUCH PRODUCTS OF THE INFORMATION CONTAINED HEREIN.

TO DETERMINE THE APPLICABILITY OR EFFECT OF ANY LAW OR REGULATION WITH RESPECT TO THE PRODUCT, YOU SHOULD CONSULT WITH YOUR LEGAL ADVISOR OR THE APPROPRIATE GOVERNMENT AGENCY. WE WILL NOT PROVIDE ADVICE ON SUCH MATTERS, OR BE RESPONSIBLE FOR ANY INJURY FROM THE USE OF THE PRODUCT DESCRIBED HEREIN. THE UNDERLYING DATA, AND THE INFORMATION PROVIDED HEREIN AS A RESULT OF THAT DATA, IS THE PROPERTY OF SOPUS PRODUCTS AND IS NOT TO BE THE SUBJECT OF SALE OR EXCHANGE WITHOUT THE EXPRESS WRITTEN CONSENT OF SOPUS PRODUCTS.

43716-11566-100R-08/22/2005

# SAFETY DATA SHEET

## SikaGrout®-212



Version  
1.3

Revision Date:  
11/08/2017

SDS Number:  
000000604065

---

### SECTION 1. IDENTIFICATION

Product name : SikaGrout®-212

#### Manufacturer or supplier's details

Company name : 601, avenue Delmar  
Canada  
Pointe-Claire, QC H9R 4A9  
Sika Canada Inc.  
www.sika.ca

Telephone : (514) 697-2610 / 1 (800) 933-7452

Telefax : (514) 694-2792

Health and Safety Services' e-mail address : ehs@ca.sika.com

Emergency telephone : CANUTEC (collect) (613) 996-6666 (24 hours)

#### Recommended use of the chemical and restrictions on use

For further information, refer to product data sheet.

---

### SECTION 2. HAZARDS IDENTIFICATION

#### GHS Classification

Skin corrosion : Category 1C

Serious eye damage : Category 1

Skin sensitization : Category 1

Carcinogenicity (Inhalation) : Category 1A

Specific target organ systemic toxicity - single exposure : Category 3 (Respiratory system)

Specific target organ systemic toxicity - repeated exposure : Category 1 (Lungs)

#### GHS label elements

# SAFETY DATA SHEET

## SikaGrout®-212



Version  
1.3

Revision Date:  
11/08/2017

SDS Number:  
00000604065

Hazard pictograms

:



Signal Word

: Danger

Hazard Statements

: H314 Causes severe skin burns and eye damage.  
H317 May cause an allergic skin reaction.  
H335 May cause respiratory irritation.  
H350i May cause cancer by inhalation.  
H372 Causes damage to organs (Lungs) through prolonged or repeated exposure.

Precautionary Statements

: **Prevention:**  
P201 Obtain special instructions before use.  
P202 Do not handle until all safety precautions have been read and understood.  
P260 Do not breathe dust/ fume/ gas/ mist/ vapors/ spray.  
P264 Wash skin thoroughly after handling.  
P270 Do not eat, drink or smoke when using this product.  
P271 Use only outdoors or in a well-ventilated area.  
P272 Contaminated work clothing must not be allowed out of the workplace.  
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.  
**Response:**  
P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.  
P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.  
P304 + P340 + P310 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/doctor.  
P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor.  
P308 + P313 IF exposed or concerned: Get medical advice/ attention.  
P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.  
P362 + P364 Take off contaminated clothing and wash it before reuse.  
**Storage:**  
P403 + P233 Store in a well-ventilated place. Keep container tightly closed.  
P405 Store locked up.

Version  
1.3Revision Date:  
11/08/2017SDS Number:  
000000604065**Disposal:**

P501 Dispose of contents/ container to an approved waste disposal plant.

**Other hazards**

None known.

**Supplemental information**

If product is in liquid or paste form, physical or health hazards listed related to dust are not considered significant. However, product may contain substances that could be potential hazards if caused to become airborne due to grinding, sanding or other abrasive processes.

**SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS****Hazardous ingredients**

Chemical name	CAS-No.	Concentration (% w/w)
Quartz (SiO <sub>2</sub> ) <5µm	14808-60-7	>= 45 - < 70
Portland cement	65997-15-1	>= 30 - < 60

**SECTION 4. FIRST AID MEASURES**

- General advice : Move out of dangerous area.  
Consult a physician.  
Show this material safety data sheet to the doctor in attendance.
- If inhaled : Move to fresh air.  
Consult a physician after significant exposure.
- In case of skin contact : Take off contaminated clothing and shoes immediately.  
Wash off with soap and plenty of water.  
Immediate medical treatment is necessary as untreated wounds from corrosion of the skin heal slowly and with difficulty.
- In case of eye contact : Small amounts splashed into eyes can cause irreversible tissue damage and blindness.  
In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.  
Continue rinsing eyes during transport to hospital.  
Remove contact lenses.  
Keep eye wide open while rinsing.
- If swallowed : Clean mouth with water and drink afterwards plenty of water.  
Do not induce vomiting without medical advice.  
Do not give milk or alcoholic beverages.



Version  
1.3

Revision Date:  
11/08/2017

SDS Number:  
000000604065

---

Never give anything by mouth to an unconscious person.  
Take victim immediately to hospital.

Most important symptoms  
and effects, both acute and  
delayed

: Health injuries may be delayed.  
corrosive effects  
irritant effects  
sensitizing effects  
carcinogenic effects  
Cough  
Respiratory disorder  
Allergic reactions  
Dermatitis  
See Section 11 for more detailed information on health effects  
and symptoms.  
May cause an allergic skin reaction.  
Causes serious eye damage.  
May cause respiratory irritation.  
May cause cancer by inhalation.  
Causes damage to organs through prolonged or repeated  
exposure.  
Causes severe burns.

Notes to physician

: Treat symptomatically.

---

#### SECTION 5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

: Use extinguishing measures that are appropriate to local  
circumstances and the surrounding environment.

Further information

: Collect contaminated fire extinguishing water separately. This  
must not be discharged into drains.  
Fire residues and contaminated fire extinguishing water must  
be disposed of in accordance with local regulations.

Special protective equipment  
for fire-fighters

: In the event of fire, wear self-contained breathing apparatus.

---

#### SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions,  
protective equipment and  
emergency procedures

: Use personal protective equipment.  
Avoid breathing dust.  
Deny access to unprotected persons.

Environmental precautions

: Do not flush into surface water or sanitary sewer system.  
If the product contaminates rivers and lakes or drains inform  
respective authorities.

---

# SAFETY DATA SHEET

## SikaGrout®-212



Version  
1.3

Revision Date:  
11/08/2017

SDS Number:  
000000604065

Local authorities should be advised if significant spillages cannot be contained.

Methods and materials for containment and cleaning up : Pick up and arrange disposal without creating dust.  
Keep in suitable, closed containers for disposal.

### SECTION 7. HANDLING AND STORAGE

Advice on protection against fire and explosion : Avoid dust formation. Provide appropriate exhaust ventilation at places where dust is formed.

Advice on safe handling : Avoid formation of respirable particles.  
Avoid exceeding the given occupational exposure limits (see section 8).  
Do not get in eyes, on skin, or on clothing.  
For personal protection see section 8.  
Persons with a history of skin sensitization problems or asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this mixture is being used.  
Smoking, eating and drinking should be prohibited in the application area.  
Follow standard hygiene measures when handling chemical products.

Conditions for safe storage : Prevent unauthorized access.  
Store in original container.  
Keep in a well-ventilated place.  
Observe label precautions.  
Store in accordance with local regulations.

### SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

#### Ingredients with workplace control parameters

Ingredients	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
Quartz (SiO <sub>2</sub> ) <5µm	14808-60-7	TWA (Respirable fraction)	0.1 mg/m <sup>3</sup>	CA ON OEL
		TWA (Respirable particulates)	0.025 mg/m <sup>3</sup>	CA AB OEL
		TWAEV (respirable)	0.1 mg/m <sup>3</sup>	CA QC OEL

SAFETY DATA SHEET

SikaGrout®-212



Version  
1.3

Revision Date:  
11/08/2017

SDS Number:  
00000604065

		dust)		
		TWA (Respirable)	0.025 mg/m3 (Silica)	CA BC OEL
		TWA (Respirable fraction)	0.025 mg/m3 (Silica)	ACGIH
Portland cement	65997-15-1	TWA	10 mg/m3	CA AB OEL
		TWAEV (respirable dust)	5 mg/m3	CA QC OEL
		TWAEV (total dust)	10 mg/m3	CA QC OEL
		TWA (Respirable)	1 mg/m3	CA BC OEL
		TWA (Respirable fraction)	1 mg/m3	ACGIH

**Engineering measures** : Use of adequate ventilation should be sufficient to control worker exposure to airborne contaminants. If the use of this product generates dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure below any recommended or statutory limits.

**Personal protective equipment**

**Respiratory protection** : Use a properly fitted NIOSH approved air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary.

The filter class for the respirator must be suitable for the maximum expected contaminant concentration (gas/vapor/aerosol/particulates) that may arise when handling the product. If this concentration is exceeded, self-contained breathing apparatus must be used.

**Hand protection**

**Remarks** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

**Eye protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary.

**Skin and body protection** : Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to

# SAFETY DATA SHEET

## SikaGrout®-212



Version  
1.3

Revision Date:  
11/08/2017

SDS Number:  
000000604065

---

Hygiene measures : the specific work-place.  
: Avoid contact with skin, eyes and clothing.  
Wash hands before breaks and immediately after handling the product.  
Remove contaminated clothing and protective equipment before entering eating areas.  
Wash thoroughly after handling.  
Avoid breathing dust.

---

### SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : powder

Color : gray

Odor : odorless

Odor Threshold : No data available

pH : Not applicable

Melting point/range / Freezing point : No data available

Boiling point/boiling range : No data available

Flash point : Not applicable

Evaporation rate : No data available

Flammability (solid, gas) : No data available

Upper explosion limit : No data available

Lower explosion limit : No data available

Vapor pressure : No data available

Relative vapor density : No data available

Density : ca. 2.85 g/cm<sup>3</sup> (23 °C (73 °F) ())

Solubility(ies)  
Water solubility : insoluble

Partition coefficient: n- : No data available

# SAFETY DATA SHEET

## SikaGrout®-212



Version  
1.3

Revision Date:  
11/08/2017

SDS Number:  
000000604065

---

octanol/water

Autoignition temperature : No data available

Decomposition temperature : No data available

Viscosity, dynamic : No data available

Viscosity, dynamic : No data available

Explosive properties : No data available

Molecular weight : No data available

---

### SECTION 10. STABILITY AND REACTIVITY

Reactivity : No dangerous reaction known under conditions of normal use.

Chemical stability : The product is chemically stable.

Possibility of hazardous reactions : Stable under recommended storage conditions.

Conditions to avoid : No data available

Incompatible materials : No data available

No decomposition if stored and applied as directed.

---

### SECTION 11. TOXICOLOGICAL INFORMATION

#### Acute toxicity

Not classified based on available information.

#### Skin corrosion/irritation

Causes severe burns.

#### Serious eye damage/eye irritation

Causes serious eye damage.

#### Respiratory or skin sensitization

Skin sensitization: May cause an allergic skin reaction.

Respiratory sensitization: Not classified based on available information.

#### Product:

Remarks: Product contains Portland cement which contains a chromate reducing agent. If the storage conditions are not appropriate (exposure to humidity) or the storage period is exceeded,

# SAFETY DATA SHEET

## SikaGrout®-212



Version  
1.3

Revision Date:  
11/08/2017

SDS Number:  
000000604065

---

the effectiveness of the reducing agent can be diminished prematurely and the product may become skin sensitizing.

### **Germ cell mutagenicity**

Not classified based on available information.

### **Carcinogenicity**

May cause cancer by inhalation.

#### **IARC**

Group 1: Carcinogenic to humans

Quartz (SiO<sub>2</sub>) <5µm                      14808-60-7

#### **NTP**

Known to be human carcinogen

Quartz (SiO<sub>2</sub>) <5µm                      14808-60-7

### **Reproductive toxicity**

Not classified based on available information.

### **STOT-single exposure**

May cause respiratory irritation.

### **STOT-repeated exposure**

Causes damage to organs (Lungs) through prolonged or repeated exposure.

### **Aspiration toxicity**

Not classified based on available information.

---

## **SECTION 12. ECOLOGICAL INFORMATION**

### **Ecotoxicity**

No data available

### **Persistence and degradability**

No data available

### **Bioaccumulative potential**

No data available

### **Mobility in soil**

No data available

### **Other adverse effects**

#### **Product:**

Additional ecological  
information

: Do not empty into drains; dispose of this material and its  
container in a safe way.

# SAFETY DATA SHEET

## SikaGrout®-212



Version  
1.3

Revision Date:  
11/08/2017

SDS Number:  
000000604065

---

### SECTION 13. DISPOSAL CONSIDERATIONS

#### Disposal methods

- Waste from residues : Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements.
- Contaminated packaging : Empty containers should be taken to an approved waste handling site for recycling or disposal.
- 

### SECTION 14. TRANSPORT INFORMATION

#### Domestic regulation

##### TDG (road/train)

Not dangerous goods

#### International Regulations

##### IATA-DGR

Not dangerous goods

##### IMDG-Code

Not dangerous goods

#### Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

---

### SECTION 15. REGULATORY INFORMATION

#### Canadian lists

No substances are subject to a Significant New Activity Notification.

---

### SECTION 16. OTHER INFORMATION

Revision Date : 11/08/2017  
Prepared by : R & D of Sika Canada Inc.

#### Notice to Reader:

The information contained in this Material Safety Data Sheet applies only to the actual Sika Canada product identified and described herein. This information is not intended to address, nor does it address the use or application of the identified Sika product in combination with any other material, product or process. All of the information set forth herein is based on technical data regarding the identified product that Sika believes to be reliable as of the date hereof. Prior to each use of any Sika product, the user must always read and follow the warnings and instructions on the product's current

# SAFETY DATA SHEET

## SikaGrout®-212



Version  
1.3

Revision Date:  
11/08/2017

SDS Number:  
000000604065

Product Data Sheet, product label and Material Safety Data Sheet for each Sika product, which are available at web site and/or telephone number listed.

SIKA MAKES NO WARRANTIES EXPRESS OR IMPLIED AND ASSUMES NO LIABILITY ARISING FROM THIS INFORMATION OR ITS USE. SIKA SHALL NOT BE LIABLE UNDER ANY LEGAL THEORY FOR SPECIAL OR CONSEQUENTIAL DAMAGES AND SHALL NOT BE RESPONSIBLE FOR THE USE OF THIS PRODUCT IN A MANNER TO INFRINGE ON ANY PATENT OR ANY OTHER INTELLECTUAL PROPERTY RIGHTS HELD BY OTHERS.

All sales of Sika products are subject to its current terms and conditions of sale available at [www.sika.ca](http://www.sika.ca) or 514-697-2610.

### Full text of other abbreviations

ADR	Accord européen relatif au transport international des marchandises Dangereuses par Route
CAS	Chemical Abstracts Service
DNEL	Derived no-effect level
EC50	Half maximal effective concentration
GHS	Globally Harmonized System
IATA	International Air Transport Association
IMDG	International Maritime Code for Dangerous Goods
LD50	Median lethal dosis (the amount of a material, given all at once, which causes the death of 50% (one half) of a group of test animals)
LC50	Median lethal concentration (concentrations of the chemical in air that kills 50% of the test animals during the observation period)
MARPOL	International Convention for the Prevention of Pollution from Ships, 1973 as modified by the Protocol of 1978
OEL	Occupational Exposure Limit
PBT	Persistent, bioaccumulative and toxic
PNEC	Predicted no effect concentration
REACH	Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency
SVHC	Substances of Very High Concern
vPvB	Very persistent and very bioaccumulative

CA / Z8



**SOFT CARE Pink Hand Soap**

Version Number: 2

Preparation date: 2017-02-15

**1. PRODUCT AND COMPANY IDENTIFICATION**

Product name: SOFT CARE Pink Hand Soap  
 SDS #: MS0300797  
 Product Code: 05639  
 Recommended use:
 

- Industrial/Institutional
- Hand Soap

Manufacturer, importer, supplier:  
 US Headquarters Canadian Headquarters  
 Sealed Air Sealed Air - Canada  
 8215 Forest Point Blvd. 3755 Laird Road  
 Charlotte, NC 28273-5509 Mississauga, Ontario L5L 0B3  
 Phone: 1-888-352-2249 Phone: 1-800-668-7171  
 SDS Internet Address:  
 https://sds.sealedair.com

Emergency telephone number: 1-800-851-7145; 1-651-917-6133 (Int'l)

*This product is regulated under the Food, Drug & Cosmetic Act in the U.S., and by Health Canada in Canada. MSDSs are not required for this type of product. The following information is provided in MSDS format to provide our customers with information they may need for their training and safety programs.*

**2. HAZARDS IDENTIFICATION**

EMERGENCY OVERVIEW

MAY BE MILDLY IRRITATING TO EYES. MAY BE MILDLY IRRITATING TO SKIN UNDER PROLONGED OR REPEATED CONTACT.

Principal routes of exposure: Eye contact, Skin contact.  
 Eye contact: May be mildly irritating to eyes.  
 Skin contact: No skin irritation expected under normal use. Prolonged or repeated contact may result in defatting and/or mild, transient irritation.  
 Inhalation: None known.  
 Ingestion: Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

**3. COMPOSITION / INFORMATION ON INGREDIENTS**

The ingredients in this product are in compliance with FDA regulations and are listed on the label

**4. FIRST AID MEASURES**

Eye contact: Flush immediately with plenty of water. If irritation persists, get medical attention.  
 Skin contact: Rinse with plenty of water. If irritation develops, discontinue use. If irritation persists for more than 72 hours, contact a physician.  
 Inhalation: No specific first aid measures are required.  
 Ingestion: No specific first aid measures are required.  
 Aggravated Medical Conditions: None known.

**5. FIRE-FIGHTING MEASURES**

Suitable extinguishing media: The product is not flammable. Extinguish fire using agent suitable for surrounding fire.  
 Specific hazards: Not applicable.  
 Unusual hazards: None known.

Specific methods: No special methods required.

Autoignition temperature: No information available.

Special protective equipment for firefighters:

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

Extinguishing media which must not be used for safety reasons: No information available.

Flammability Limits in Air: Lower Not established Upper Not established

## 6. ACCIDENTAL RELEASE MEASURES

Absorb liquid with an inert material (e.g., sand, sawdust), then scoop up and place in a labeled container. Wash area with water. Follow all applicable federal, state and local disposal regulations. Prevent spills from reaching a waterway.

## 7. HANDLING AND STORAGE

Handling: Avoid contact with eyes and prolonged contact with skin.

Storage: Protect from freezing.

- FOR COMMERCIAL AND INDUSTRIAL USE ONLY.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

There are no special requirements for respiratory protection, eye and skin protection or other engineering controls during the normal use of this product. Follow proper hygiene procedures. When cleaning large spills, wear eye and skin protection. Launder clothing before reuse.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Liquid

Color: Opaque, Pink

Specific gravity: 1.001

Elemental Phosphorus: 0.00 % by wt.

Flash point (°F): >\*\*\* 200\*\*\* °F\*\*\* >\*\*\* 93.3\*\*\* °C\*\*\*

Density: 8.35\*\*\* 1.001\*\*\* Kg/L

Appearance: Liquid

Odor: Floral

VOC: 0.38\*\*\* % \*

pH: 6.9

Solubility: Completely Soluble

\* - Title 17, California Code of Regulations, Division 3, Chapter 1, Subchapter 8.5, Article 2, Consumer Products, Sections 94508

## 10. STABILITY AND REACTIVITY

Stability: The product is stable.

Polymerization: Hazardous polymerization does not occur.

Hazardous decomposition products: None reasonably foreseeable.

Conditions to avoid: Do not freeze.

## 11. TOXICOLOGICAL INFORMATION

Acute toxicity: Oral LD50 estimated to be greater than 5000 mg/kg. Dermal LD50 estimated to be > 2000 mg/kg.

Ingredient(s)	CAS #	NTP	IARC	OSHA
Ethyl alcohol***	64-17-5		***	

## 12. ECOLOGICAL INFORMATION

Environmental Information: No data available.

## 13. DISPOSAL CONSIDERATIONS

Waste from residues / unused products (undiluted product):

This product, as sold, if discarded or disposed, is not a hazardous waste according to Federal regulations (40 CFR 261.4 (b)(4)). Dispose in compliance with all Federal, state, provincial, and local laws and regulations.

RCRA Hazard Class (undiluted product): Not Regulated

## 14. TRANSPORT INFORMATION

DOT/TDG/IMDG: Proper shipping descriptions can vary by pack size. Please refer to the Diversy HazMat

Library, <http://naextranet.diversey.com/dot/>, for up to date shipping information.

DOT (Ground) Bill of Lading SOAP, LIQUID  
Description:

IMDG (Ocean) Bill of Lading SOAP, LIQUID  
Description:

## 15. REGULATORY INFORMATION

### International Inventories at CAS# Level

All components of this product are listed on the following inventories: U.S.A. (TSCA), Canada (DSL/NDSL), Australia (AICS), Korea (ECL), Philippines (PICCS), China (IECSC).\*\*\*

*In the U.S., this product is FDA regulated and is exempt from TSCA.*

### U.S. Regulations

#### SARA 311/312 Hazard Categories

Immediate: -  
Delayed: -  
Fire: -  
Reactivity: -  
Sudden Release of Pressure: -

### Canadian Regulations

WHMIS hazard class: Non-controlled.

## 16. OTHER INFORMATION

### NFPA

Prepared by: NAPRAC

Additional advice: Contains an added fragrance, see "Odor" heading in section 9 for specific description. This product has been classified in accordance with hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.\*\*\*

*Notice to Reader: This document has been prepared using data from sources considered technically reliable. It does not constitute a warranty, express or implied, as to the accuracy of the information contained within. Actual conditions of use and handling are beyond seller's control. User is responsible to evaluate all available information when using product for any particular use and to comply with all Federal, State, Provincial and Local laws and regulations.*



# SAFETY DATA SHEET

## 1. Identification

**Material name:** SPEED PLUG- 50# Bag (USE PAIL)

**Material:** TR5113650

### Recommended use and restriction on use

**Recommended use:** Cement, Portland, chemicals

**Restrictions on use:** Not known.

### Manufacturer/Importer/Supplier/Distributor Information

Euclid Admixture Canada Inc.

2835 Grand-Allee

Saint Hubert QC J4T 2R4

CA

### Contact person:

EH&S Department

### Telephone:

(450)465-2233

### Emergency telephone number:

1-800-424-9300 (US); 1-613-996-6666 (Canada)

## 2. Hazard(s) identification

### Hazard Classification

#### Health Hazards

Acute toxicity (Inhalation - dust and mist)	Category 4
Skin Corrosion/Irritation	Category 2
Serious Eye Damage/Eye Irritation	Category 1
Skin sensitizer	Category 1
Carcinogenicity	Category 1A
Specific Target Organ Toxicity - Single Exposure	Category 3 <sup>1</sup> .
Specific Target Organ Toxicity - Repeated Exposure	Category 1 <sup>1</sup> .

#### Target Organs

1. Respiratory tract irritation.
2. Lung

#### Unknown toxicity - Health

Acute toxicity, oral	59.04 %
Acute toxicity, dermal	61.32 %
Acute toxicity, inhalation, vapor	100 %
Acute toxicity, inhalation, dust or mist	62.05 %

### Label Elements

**Hazard Symbol:****Signal Word:**

Danger

**Hazard Statement:**

Harmful if inhaled.  
Causes skin irritation.  
Causes serious eye damage.  
May cause an allergic skin reaction.  
May cause cancer.  
May cause respiratory irritation.  
Causes damage to organs <or state all organs affected, if known> through prolonged or repeated exposure <state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard>.

**Precautionary Statements****Prevention:**

Use only outdoors or in a well-ventilated area. Wash thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection. Contaminated work clothing should not be allowed out of the workplace. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required. Do not breathe dust/fume/gas/mist/vapours/spray. Do not eat, drink or smoke when using this product.

**Response:**

IF INHALED: Remove person to fresh air and keep comfortable for breathing. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. IF ON SKIN: Wash with plenty of water/... If skin irritation or rash occurs: Get medical advice/attention. Immediately call a POISON CENTER/doctor. Specific treatment (see on this label). Wash contaminated clothing before reuse.

**Storage:**

Store locked up. Store in a well-ventilated place. Keep container tightly closed.

**Disposal:**

Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

**Hazard(s) not otherwise classified (HNOC):**

None.

**3. Composition/information on ingredients****Mixtures**



Chemical Identity	CAS number	Content in percent (%)*
Trade Secret	Trade Secret	20 - <50%
Portland cement	65997-15-1	20 - <50%
Crystalline Silica (Quartz)/ Silica Sand	14808-60-7	20 - <50%
Calcium hydroxide	1305-62-0	1 - <3%
Magnesium Hydroxide	1309-42-8	1 - <5%
Calcium salt	7778-18-9	0.1 - <1%

\* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

#### 4. First-aid measures

- Ingestion:** Call a POISON CENTRE/doctor if you feel unwell. Rinse mouth.
- Inhalation:** Move to fresh air.
- Skin Contact:** Get medical attention. Destroy or thoroughly clean contaminated shoes. Immediately remove contaminated clothing and shoes and wash skin with soap and plenty of water. If skin irritation or an allergic skin reaction develops, get medical attention.
- Eye contact:** Immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. Call a physician or poison control center immediately.

#### Most important symptoms/effects, acute and delayed

- Symptoms:** Prolonged or repeated contact with skin may cause redness, itching, irritation and eczema/chapping. Extreme irritation of eyes and mucous membranes, including burning and tearing. Respiratory tract irritation.

#### Indication of immediate medical attention and special treatment needed

- Treatment:** Symptoms may be delayed.

#### 5. Fire-fighting measures

- General Fire Hazards:** No unusual fire or explosion hazards noted.

#### Suitable (and unsuitable) extinguishing media

**Suitable extinguishing media:** Use fire-extinguishing media appropriate for surrounding materials.

**Unsuitable extinguishing media:** Do not use water jet as an extinguisher, as this will spread the fire.

- Specific hazards arising from the chemical:** During fire, gases hazardous to health may be formed.

#### Special protective equipment and precautions for firefighters



**Special fire fighting procedures:** No data available.

**Special protective equipment for fire-fighters:** Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

**6. Accidental release measures**

**Personal precautions, protective equipment and emergency procedures:** See Section 8 of the SDS for Personal Protective Equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep unauthorized personnel away.

**Methods and material for containment and cleaning up:** Collect spillage in containers, seal securely and deliver for disposal according to local regulations.

**Notification Procedures:** In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations.

**Environmental Precautions:** Do not contaminate water sources or sewer. Prevent further leakage or spillage if safe to do so.

**7. Handling and storage**

**Precautions for safe handling:** Ventilate well, avoid breathing vapors. Use approved respirator if air contamination is above accepted level. Use mechanical ventilation in case of handling which causes formation of dust. Wash hands thoroughly after handling. Do not handle until all safety precautions have been read and understood. Obtain special instructions before use. Use personal protective equipment as required. Do not get in eyes. Avoid contact with skin. Avoid contact with eyes, skin, and clothing.

**Conditions for safe storage, including any incompatibilities:** Store locked up.

**8. Exposure controls/personal protection**

**Control Parameters**

**Occupational Exposure Limits**

Chemical Identity	Type	Exposure Limit Values	Source
Portland cement - Respirable fraction.	TWA	1 mg/m3	US. ACGIH Threshold Limit Values (2011)
Portland cement - Total dust.	PEL	15 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
Portland cement - Respirable fraction.	PEL	5 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
Portland cement	TWA	50 millions of particles per cubic foot of air	US. OSHA Table Z-3 (29 CFR 1910.1000) (2000)
Crystalline Silica (Quartz)/ Silica Sand - Respirable	TWA	0.025 mg/m3	US. ACGIH Threshold Limit Values (2011)



fraction.			
Crystalline Silica (Quartz)/ Silica Sand - Respirable dust.	TWA	0.05 mg/m <sup>3</sup>	US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053) (03 2016)
	OSHA_A C T	0.025 mg/m <sup>3</sup>	US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053) (03 2016)
Crystalline Silica (Quartz)/ Silica Sand - Respirable dust.	PEL	0.05 mg/m <sup>3</sup>	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (03 2016)
Crystalline Silica (Quartz)/ Silica Sand - Respirable.	TWA	2.4 millions of particles per cubic foot of air	US. OSHA Table Z-3 (29 CFR 1910.1000) (2000)
	TWA	0.1 mg/m <sup>3</sup>	US. OSHA Table Z-3 (29 CFR 1910.1000) (2000)
Calcium hydroxide	TWA	5 mg/m <sup>3</sup>	US. ACGIH Threshold Limit Values (2011)
Calcium hydroxide - Total dust.	PEL	15 mg/m <sup>3</sup>	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
Calcium hydroxide - Respirable fraction.	PEL	5 mg/m <sup>3</sup>	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
Calcium salt - Total	REL	10 mg/m <sup>3</sup>	US. NIOSH: Pocket Guide to Chemical Hazards (2010)
Calcium salt - Respirable.	REL	5 mg/m <sup>3</sup>	US. NIOSH: Pocket Guide to Chemical Hazards (2010)
Calcium salt - Total dust.	TWA	15 mg/m <sup>3</sup>	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
Calcium salt - Respirable fraction.	TWA	5 mg/m <sup>3</sup>	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
Calcium salt - Total dust.	TWA	15 mg/m <sup>3</sup>	US. Tennessee. OELs. Occupational Exposure Limits, Table Z1A (06 2008)
Calcium salt - Respirable fraction.	TWA	5 mg/m <sup>3</sup>	US. Tennessee. OELs. Occupational Exposure Limits, Table Z1A (06 2008)
Calcium salt	AN ESL	5 µg/m <sup>3</sup>	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (03 2014)
	ST ESL	50 µg/m <sup>3</sup>	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (03 2014)
Calcium salt - Inhalable fraction.	TWA	10 mg/m <sup>3</sup>	US. ACGIH Threshold Limit Values (2011)
Calcium salt - Total dust.	PEL	15 mg/m <sup>3</sup>	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
Calcium salt - Respirable fraction.	PEL	5 mg/m <sup>3</sup>	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)



Chemical name	Type	Exposure Limit Values	Source
Portland cement - Total dust.	TWA	10 mg/m <sup>3</sup>	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Portland cement - Respirable fraction.	TWA	3 mg/m <sup>3</sup>	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Portland cement - Respirable fraction.	TWA	1 mg/m <sup>3</sup>	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (06 2015)
Portland cement - Total dust.	TWA	10 mg/m <sup>3</sup>	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (12 2008)
Portland cement - Respirable dust.	TWA	5 mg/m <sup>3</sup>	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (12 2008)
Crystalline Silica (Quartz)/ Silica Sand - Respirable fraction.	TWA	0.025 mg/m <sup>3</sup>	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Crystalline Silica (Quartz)/ Silica Sand - Respirable fraction.	TWA	0.10 mg/m <sup>3</sup>	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (06 2015)
Crystalline Silica (Quartz)/ Silica Sand - Respirable dust.	TWA	0.1 mg/m <sup>3</sup>	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (12 2008)



Chemical name	Type	Exposure Limit Values	Source
Portland cement - Total dust.	TWA	10 mg/m <sup>3</sup>	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Portland cement - Respirable fraction.	TWA	3 mg/m <sup>3</sup>	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Portland cement - Respirable fraction.	TWA	1 mg/m <sup>3</sup>	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (06 2015)
Portland cement - Total dust.	TWA	10 mg/m <sup>3</sup>	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (12 2008)
Portland cement - Respirable dust.	TWA	5 mg/m <sup>3</sup>	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (12 2008)
Crystalline Silica (Quartz)/ Silica Sand - Respirable fraction.	TWA	0.025 mg/m <sup>3</sup>	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Crystalline Silica (Quartz)/ Silica Sand - Respirable fraction.	TWA	0.10 mg/m <sup>3</sup>	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (06 2015)
Crystalline Silica (Quartz)/ Silica Sand - Respirable dust.	TWA	0.1 mg/m <sup>3</sup>	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (12 2008)
Calcium hydroxide	TWA	5 mg/m <sup>3</sup>	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Calcium hydroxide	TWA	5 mg/m <sup>3</sup>	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)
Calcium hydroxide	TWA	5 mg/m <sup>3</sup>	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (12 2008)
Calcium salt	TWA	10 mg/m <sup>3</sup>	Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2) (07 2009)
Calcium salt - Inhalable	TWA	10 mg/m <sup>3</sup>	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Calcium salt - Inhalable fraction.	TWA	10 mg/m <sup>3</sup>	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)
Calcium salt - Total dust.	TWA	10 mg/m <sup>3</sup>	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (12 2008)
Calcium salt - Respirable dust.	TWA	5 mg/m <sup>3</sup>	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (12 2008)
Magnesium oxide - Respirable dust and/or fume. - as Mg	STEL	10 mg/m <sup>3</sup>	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Magnesium oxide - Inhalable fume.	TWA	10 mg/m <sup>3</sup>	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Magnesium oxide - Respirable dust and/or fume. - as Mg	TWA	3 mg/m <sup>3</sup>	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Magnesium oxide - Inhalable fraction.	TWA	10 mg/m <sup>3</sup>	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)



Magnesium oxide - Fume. - as Mg	TWA	10 mg/m <sup>3</sup>	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (12 2008)
Calcium oxide	TWA	2 mg/m <sup>3</sup>	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Calcium oxide	TWA	2 mg/m <sup>3</sup>	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)
Calcium oxide	TWA	2 mg/m <sup>3</sup>	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (12 2008)
Calcium Carbonate (Limestone) - Total dust.	STEL	20 mg/m <sup>3</sup>	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
	TWA	10 mg/m <sup>3</sup>	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Calcium Carbonate (Limestone) - Respirable fraction.	TWA	3 mg/m <sup>3</sup>	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Calcium Carbonate (Limestone) - Total dust.	TWA	10 mg/m <sup>3</sup>	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (12 2008)

**Appropriate Engineering Controls**

Mechanical ventilation or local exhaust ventilation may be required. Observe good industrial hygiene practices. Observe occupational exposure limits and minimize the risk of inhalation of dust.

**Individual protection measures, such as personal protective equipment****General information:**

Provide easy access to water supply and eye wash facilities. Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

**Eye/face protection:**

Wear a full-face respirator, if needed. Wear safety glasses with side shields (or goggles) and a face shield.

**Skin Protection****Hand Protection:**

Use suitable protective gloves if risk of skin contact.

**Other:**

Wear suitable protective clothing. Wear chemical-resistant gloves, footwear, and protective clothing appropriate for the risk of exposure. Contact health and safety professional or manufacturer for specific information.

**Respiratory Protection:**

In case of inadequate ventilation use suitable respirator. Seek advice from local supervisor.



**Hygiene measures:** Observe good industrial hygiene practices. Wash hands before breaks and immediately after handling the product. Do not get in eyes. Wash contaminated clothing before reuse. Avoid contact with skin. Contaminated work clothing should not be allowed out of the workplace.

## 9. Physical and chemical properties

### Appearance

<b>Physical state:</b>	solid
<b>Form:</b>	Powder
<b>Color:</b>	Gray
<b>Odor:</b>	Odorless
<b>Odor threshold:</b>	No data available.
<b>pH:</b>	No data available.
<b>Melting point/freezing point:</b>	No data available.
<b>Initial boiling point and boiling range:</b>	No data available.
<b>Flash Point:</b>	No data available.
<b>Evaporation rate:</b>	No data available.
<b>Flammability (solid, gas):</b>	No
<b>Upper/lower limit on flammability or explosive limits</b>	
<b>Flammability limit - upper (%):</b>	No data available.
<b>Flammability limit - lower (%):</b>	No data available.
<b>Explosive limit - upper (%):</b>	No data available.
<b>Explosive limit - lower (%):</b>	No data available.
<b>Vapor pressure:</b>	No data available.
<b>Vapor density:</b>	No data available.
<b>Relative density:</b>	3.0
<b>Solubility(ies)</b>	
<b>Solubility in water:</b>	Miscible with water.
<b>Solubility (other):</b>	No data available.
<b>Partition coefficient (n-octanol/water):</b>	No data available.
<b>Auto-ignition temperature:</b>	No data available.
<b>Decomposition temperature:</b>	No data available.
<b>Viscosity:</b>	No data available.

## 10. Stability and reactivity

<b>Reactivity:</b>	No data available.
<b>Chemical Stability:</b>	Material is stable under normal conditions.
<b>Possibility of hazardous reactions:</b>	No data available.
<b>Conditions to avoid:</b>	Avoid heat or contamination.



---

<b>Incompatible Materials:</b>	No data available.
<b>Hazardous Decomposition Products:</b>	Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapors.

**11. Toxicological information****Information on likely routes of exposure**

<b>Inhalation:</b>	In high concentrations, vapors, fumes or mists may irritate nose, throat and mucus membranes.
<b>Skin Contact:</b>	May be harmful in contact with skin. Causes skin irritation. May cause an allergic skin reaction.
<b>Eye contact:</b>	Causes serious eye damage.
<b>Ingestion:</b>	May be harmful if swallowed.

**Symptoms related to the physical, chemical and toxicological characteristics**

<b>Inhalation:</b>	No data available.
<b>Skin Contact:</b>	No data available.
<b>Eye contact:</b>	No data available.
<b>Ingestion:</b>	No data available.

**Information on toxicological effects****Acute toxicity (list all possible routes of exposure)**

<b>Oral</b>	
<b>Product:</b>	Not classified for acute toxicity based on available data.
<b>Dermal</b>	
<b>Product:</b>	Not classified for acute toxicity based on available data.
<b>Inhalation</b>	
<b>Product:</b>	ATEmix: 1.91 mg/l

**Repeated dose toxicity**

<b>Product:</b>	No data available.
-----------------	--------------------

**Skin Corrosion/Irritation**

<b>Product:</b>	No data available.
-----------------	--------------------

**Serious Eye Damage/Eye Irritation**

<b>Product:</b>	No data available.
-----------------	--------------------

**Respiratory or Skin Sensitization**

<b>Product:</b>	No data available.
-----------------	--------------------



**Carcinogenicity**

**Product:** No data available.

**IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:**

Crystalline Silica Overall evaluation: Carcinogenic to humans.  
(Quartz)/ Silica  
Sand

**US. National Toxicology Program (NTP) Report on Carcinogens:**

Crystalline Silica Known To Be Human Carcinogen.  
(Quartz)/ Silica  
Sand

**US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050):**

Crystalline Silica  
(Quartz)/ Silica Cancer  
Sand

**Germ Cell Mutagenicity**

**In vitro**  
**Product:** No data available.

**In vivo**  
**Product:** No data available.

**Reproductive toxicity**

**Product:** No data available.

**Specific Target Organ Toxicity - Single Exposure**

**Product:** No data available.

**Specific Target Organ Toxicity - Repeated Exposure**

**Product:** No data available.

**Target Organs**

Specific Target Organ Toxicity - Single Exposure: Respiratory tract irritation.  
Specific Target Organ Toxicity - Repeated Exposure: Lung

**Aspiration Hazard**

**Product:** No data available.

**Other effects:** No data available.

**12. Ecological information****Ecotoxicity:****Acute hazards to the aquatic environment:****Fish****Product:** No data available.**Aquatic Invertebrates****Product:** No data available.**Chronic hazards to the aquatic environment:****Fish****Product:** No data available.**Aquatic Invertebrates****Product:** No data available.**Toxicity to Aquatic Plants****Product:** No data available.**Persistence and Degradability****Biodegradation****Product:** No data available.**BOD/COD Ratio****Product:** No data available.**Bioaccumulative potential****Bioconcentration Factor (BCF)****Product:** No data available.**Partition Coefficient n-octanol / water (log Kow)****Product:** No data available.**Mobility in soil:** No data available.**Other adverse effects:** No data available.**13. Disposal considerations****Disposal instructions:** Dispose of waste at an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.**Contaminated Packaging:** No data available.**14. Transport information**

TDG:

00000007307



Not Regulated

**CFR / DOT:**

Not Regulated

**IMDG:**

Not Regulated

**15. Regulatory information**

**US Federal Regulations**

**TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)**

None present or none present in regulated quantities.

**US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)**

<u>Chemical Identity</u>	<u>OSHA hazard(s)</u>
Crystalline Silica	kidney effects
(Quartz)/ Silica Sand	lung effects
	immune system effects
	Cancer

**CERCLA Hazardous Substance List (40 CFR 302.4):**

None present or none present in regulated quantities.

**Superfund Amendments and Reauthorization Act of 1986 (SARA)**

**Hazard categories**

- Immediate (Acute) Health Hazards
- Delayed (Chronic) Health Hazard
- Acute toxicity (any route or exposure)
- Skin Corrosion or Irritation
- Serious eye damage or eye irritation
- Respiratory or Skin Sensitization
- Carcinogenicity
- Specific target organ toxicity (single or repeated exposure)

**SARA 302 Extremely Hazardous Substance**

None present or none present in regulated quantities.

**SARA 304 Emergency Release Notification**

None present or none present in regulated quantities.

**SARA 311/312 Hazardous Chemical**

<u>Chemical Identity</u>	<u>Threshold Planning Quantity</u>
Trade Secret	10000 lbs



---

Portland cement	10000 lbs
Crystalline Silica (Quartz)/ Silica Sand	10000 lbs
Calcium hydroxide	10000 lbs
Magnesium Hydroxide	10000 lbs
Calcium salt	10000 lbs

**SARA 313 (TRI Reporting)**

None present or none present in regulated quantities.

**Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)**

None present or none present in regulated quantities.

**Clean Water Act Section 311 Hazardous Substances (40 CFR 117.3)**

None present or none present in regulated quantities.

**US State Regulations****US. California Proposition 65**

This product contains chemical(s) known to the State of California to cause cancer and/or to cause birth defects or other reproductive harm.

Crystalline Silica (Quartz)/ Silica Sand     Carcinogenic. 09 2011

**US. New Jersey Worker and Community Right-to-Know Act****Chemical Identity**

Portland cement  
Crystalline Silica (Quartz)/ Silica Sand  
Calcium hydroxide

**US. Massachusetts RTK - Substance List****Chemical Identity**

Portland cement  
Crystalline Silica (Quartz)/ Silica Sand  
Calcium hydroxide

**US. Pennsylvania RTK - Hazardous Substances****Chemical Identity**

Portland cement  
Crystalline Silica (Quartz)/ Silica Sand  
Calcium hydroxide

**US. Rhode Island RTK****Chemical Identity**

Portland cement  
Crystalline Silica (Quartz)/ Silica Sand  
Calcium hydroxide

**International regulations****Montreal protocol**

not applicable

**Stockholm convention**



EUCLID CHEMICAL

Version: 5.0  
Revision Date: 02/13/2018

---

not applicable

**Rotterdam convention**

not applicable

**Kyoto protocol**

not applicable

**VOC:**

Regulatory VOC (less water and  
exempt solvent) : 0 g/l

VOC Method 310 : 0.00 %

**Inventory Status:**

---

Australia AICS:	All components in this product are listed on or exempt from the Inventory.
Canada DSL Inventory List:	All components in this product are listed on or exempt from the Inventory.
EINECS, ELINCS or NLP:	All components in this product are listed on or exempt from the Inventory.
Japan (ENCS) List:	One or more components in this product are not listed on or exempt from the Inventory.
China Inv. Existing Chemical Substances:	All components in this product are listed on or exempt from the Inventory.
Korea Existing Chemicals Inv. (KECI):	All components in this product are listed on or exempt from the Inventory.
Canada NDSL Inventory:	One or more components in this product are not listed on or exempt from the Inventory.
Philippines PICCS:	One or more components in this product are not listed on or exempt from the Inventory.
US TSCA Inventory:	All components in this product are listed on or exempt from the Inventory.
New Zealand Inventory of Chemicals:	All components in this product are listed on or exempt from the Inventory.
Japan ISHL Listing:	One or more components in this product are not listed on or exempt from the Inventory.
Japan Pharmacopoeia Listing:	One or more components in this product are not listed on or exempt from the Inventory.
Mexico INSQ:	One or more components in this product are not listed on or exempt from the Inventory.
Ontario Inventory:	One or more components in this product are not listed on or exempt from the Inventory.
Taiwan Chemical Substance Inventory:	One or more components in this product are not listed on or exempt from the Inventory.



EUCLID CHEMICAL

Version: 5.0  
Revision Date: 02/13/2018

---

<b>16. Other information, including date of preparation or last revision</b>
--

**Revision Date:** 02/13/2018

**Version #:** 5.0

**Further Information:** No data available.

**Disclaimer:** For Industrial Use Only. Keep out of Reach of Children. The hazard information herein is offered solely for the consideration of the user, subject to their own investigation of compliance with applicable regulations, including the safe use of the product under every foreseeable condition.

# Safety Data Sheet: SPILL MATE

Supersedes Date 05/18/2009

Issuing Date 03/11/2014

## 1. PRODUCT AND COMPANY IDENTIFICATION

**Product Name** SPILL MATE  
**Recommended use** Absorbent  
**Information on Manufacturer**  
MANTEK, DIVISION OF NCH CORP.  
BOX 152170  
IRVING, TEXAS 75015

**Product Code** 4625  
**Chemical nature** Polymers  
**Emergency Telephone Number**  
CHEMTREC® 800-424-9300  
**Telephone inquiry**  
972-579-2477

## 2. HAZARD IDENTIFICATION

**Color** White

**Physical State** Solid

**Odor** Odorless

### GHS

#### Classification

##### Physical Hazards

Combustible dust

##### Health Hazard

Serious Eye Damage/Eye Irritation

Category 2B

##### Other hazards

None

#### Labeling

##### Signal Word

**WARNING**

##### Hazard Statements

H320 - Causes eye irritation

May form combustible dust concentrations in air

##### Precautionary Statements

P264 - Wash face, hands and any exposed skin thoroughly after handling.

P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes.

Remove contact lenses, if present and easy to do. Continue rinsing.

P337 + P313 - If eye irritation persists, get medical attention.

## 3. COMPOSITION / INFORMATION ON INGREDIENTS

Component	CAS-No	Weight %
Styrene-butadiene polymer	9003-55-8	30-60

## 4. FIRST AID MEASURES

#### General advice

Avoid contact with skin, eyes and clothing. Avoid breathing dust.

#### Eye Contact

Rinse thoroughly with plenty of water, also under the eyelids. Get medical attention if irritation develops and persists.

#### Skin Contact

Wipe up with absorbent material (e.g. cloth, fleece). Wash off with soap and plenty of water. Get medical attention if irritation develops and persists. Wash contaminated clothing before re-use.

#### Inhalation

If inhaled, remove to fresh air. Get medical attention immediately.

#### Ingestion

Drink 1 or 2 glasses of water. Do NOT induce vomiting. Get medical attention if symptoms occur.

#### Notes to physician

Treat symptomatically.

## 5. FIRE-FIGHTING MEASURES

**Flash Point** Does not flash

**Method** Not applicable

**Flammability Limits in Air %** No information available.

**Upper** No data available **Lower** No data available

#### **Suitable Extinguishing Media**

Water spray. Carbon dioxide (CO<sub>2</sub>). Foam. Dry chemical.

#### **Specific hazards arising from the chemical**

Dust can form an explosive mixture in air.

#### **Protective Equipment and Precautions for Firefighters**

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

**NFPA** **Health** 1

**Flammability** 1

**Instability** 0

**HMIS** **Health** 1

**Flammability** 1

**Instability** 0

## 6. ACCIDENTAL RELEASE MEASURES

<b>Personal Precautions</b>	Avoid dust formation. Use personal protective equipment. Prevent further leakage or spillage if safe to do so. Material can create slippery conditions.
<b>Environmental Precautions</b>	Prevent further leakage or spillage if safe to do so.
<b>Methods for Containment</b>	Cover powder spill with plastic sheet or tarp to minimize spreading.
<b>Methods for Cleaning Up</b>	Pick up and arrange disposal without creating dust.
<b>Neutralizing Agent</b>	Not applicable.

## 7. HANDLING AND STORAGE

<b>Handling</b>	Avoid contact with skin, eyes and clothing. Avoid breathing dust.			
<b>Storage</b>	Store in original container. Keep containers tightly closed in a dry, cool and well-ventilated place.			
<b>Storage Temperature</b>	<b>Minimum</b>	35 °F / 2 °C	<b>Maximum</b>	120 °F / 49 °C
<b>Storage Conditions</b>	<b>Indoor</b>	X	<b>Outdoor</b>	
			<b>Heated</b>	<b>Refrigerated</b>

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**Exposure Guidelines** This product does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

Component	ACGIH TLV	OSHA PEL	NIOSH
Styrene-butadiene polymer	3 mg/m <sup>3</sup> PNOS	5 mg/m <sup>3</sup> PNOR	No data available

<b>Engineering Measures</b>	Ensure adequate ventilation, especially in confined areas.
<b>Personal Protective Equipment</b>	
<b>Eye/Face Protection</b>	Safety glasses with side-shields.
<b>Skin Protection</b>	For prolonged or repeated contact, use protective gloves with appropriate chemical resistance.
<b>Respiratory Protection</b>	In case of inadequate ventilation wear respiratory protection.
<b>General Hygiene Considerations</b>	Ensure that eyewash stations and safety showers are close to the workstation location. Wash contaminated clothing before re-use.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Physical State</b>	Solid	<b>Viscosity</b>	Granular
<b>Color</b>	White	<b>Odor</b>	Odorless
<b>Odor Threshold</b>	Not applicable	<b>Appearance</b>	Opaque
<b>pH</b>	Not applicable	<b>Specific Gravity</b>	< 1
<b>Evaporation Rate</b>	Not applicable	<b>Percent Volatile (Volume)</b>	0
<b>VOC Content (%)</b>	0	<b>Vapor Pressure</b>	0 mmHg @ 70°F
<b>Vapor Density</b>	Not applicable	<b>Solubility</b>	Negligible
<b>n-Octanol/Water Partition</b>	No data available	<b>Melting Point/Range</b>	No data available
<b>Decomposition Temperature</b>	No data available	<b>Boiling Point/Range</b>	Not applicable
<b>Flammability (solid, gas)</b>	No data available		
<b>Flash Point</b>	Does not flash	<b>Method</b>	Not applicable
<b>Autoignition Temperature</b>	No information available.		
<b>Flammability Limits in Air %</b>	No information available.	<b>Upper</b>	No data available
		<b>Lower</b>	No data available

## 10. STABILITY AND REACTIVITY

<b>Chemical Stability</b>	Stable. Hazardous polymerization does not occur.
<b>Conditions to Avoid</b>	Keep away from open flames, hot surfaces, and sources of ignition
<b>Incompatible Products</b>	Strong oxidizing agents
<b>Hazardous Decomposition Products</b>	Carbon oxides, Aldehydes, Ketones, Hydrocarbons.
<b>Possibility of Hazardous Reactions</b>	None under normal processing

## 11. TOXICOLOGICAL INFORMATION

### Product Information

The following values are calculated based on chapter 3.1 of the GHS document (Rev. 3, 2009):

<b>Oral LD50</b>	No information available
<b>Dermal LD50</b>	No information available
<b>Inhalation LC50</b>	
<b>Gas</b>	No information available
<b>Mist</b>	No information available
<b>Vapor</b>	No information available

<b>Principle Route of Exposure</b>	Inhalation, Skin contact, Eye contact.
<b>Primary Routes of Entry</b>	None known
<b>Acute Effects</b>	
<b>Eyes</b>	May cause eye irritation.
<b>Skin</b>	Repeated exposure may cause skin dryness or cracking.
<b>Inhalation</b>	May cause irritation of respiratory tract.
<b>Ingestion</b>	Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.
<b>Chronic Toxicity</b>	Inhalation of dust may cause shortness of breath, tightness of the chest, a sore throat and cough.
<b>Target Organ Effects</b>	Respiratory system
<b>Aggravated Medical Conditions</b>	Skin disorders, Respiratory disorders.

## Component Information

**Acute Toxicity**

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation	Draize Test	Other
Styrene-butadiene polymer	no data available				

Component	Mutagenicity	Sensitization	Developmental Toxicity	Reproductive Toxicity	Target Organ Effects
Styrene-butadiene polymer	no data available	no data available	no data available	no data available	no data available

**Carcinogenicity**

Component	ACGIH	IARC	NTP	OSHA	Other
Styrene-butadiene polymer	not applicable				

## 12. ECOLOGICAL INFORMATION

Product Information No information available.

## Component Information

Component	Toxicity to Algae	Toxicity to Fish	Microtox	Water Flea	log Pow
Styrene-butadiene polymer	no data available	no data available	no data available	no data available	N/A

**Persistence and Degradability** No information available.**Bioaccumulation** No information available.**Mobility** No information available.

## 13. DISPOSAL CONSIDERATIONS

**Product Disposal** Dispose of in accordance with local regulations.  
**Container Disposal** Empty containers should be taken for local recycling, recovery, or waste disposal

## 14. TRANSPORT INFORMATION

<b>DOT</b>	Not regulated
<b>TDG</b>	Not regulated
<b>ICAO</b>	Not regulated
<b>IATA</b>	Not regulated
<b>IMDG/IMO</b>	Not regulated

## 15. REGULATORY INFORMATION

**Inventories****TSCA** Complies**DSL** Complies**U.S. Federal Regulations****SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

**SARA 311/312 Hazardous Categorization**

Acute Health Hazard	Chronic Health Hazard	Fire Hazard	Sudden Release of Pressure Hazard	Reactive Hazard
Yes	No	No	No	No

## CERCLA

Component	Hazardous Substances RQs	CERCLA EHS RQs
Styrene-butadiene polymer	Not applicable	Not applicable

## 16. OTHER INFORMATION

Prepared By Angela Hutson  
Supercedes Date 05/18/2009  
Issuing Date 03/11/2014  
Reason for Revision No information available.  
Glossary No information available.  
List of References. No information available.

**MANTEK, DIVISION OF NCH CORP. assumes no responsibility for personal injury or property damage caused by the use, storage, or disposal of the product in a manner not recommended on the product label. Users assume all risks associated with such unrecommended use, storage or disposal of the product. The information provided on this document is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.**

## SAFETY DATA SHEET

### SECTION 1 - IDENTIFICATION

**Product identifier used on the label:** Spray & Wipe Cleaner Concentrate

**Other means of Identification:** ES74C

**Recommended use of the chemical and restrictions on use:** For professional use only.

**Manufacturer/Supplier:**

Charlotte Products Ltd.

**Address:**

2060 Fisher Dr.  
Peterborough, On K9J 8N4

**Telephone:** 705-740-2880

**Fax:** 705-745-1239

**24 Hr. Emergency Tel. #:** Infotrac 1-800-535-5053 (North America), 011-1-352-323-3500 (International)

### SECTION 2 - HAZARDS IDENTIFICATION

**Classification of the chemical:**

Skin Corrosion/Irritation 2

Eye Damage/Irritation 2A

**Label elements:**

**Signal Word:** Warning

**Hazard statement(s)**

H315	Causes skin irritation
H319	Causes serious eye irritation

**Precautionary statement(s)**

P264	Wash exposed areas thoroughly after handling
P280	Wear protective gloves/protective clothing/eye protection/face protection
P302+352	IF ON SKIN: Wash with soap and water IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing
P305+351+338	
P321	Specific treatment (see section 4 of SDS)
P332+313	If skin irritation occurs: Get medical advice/attention
P337+313	If eye irritation persists get medical advice/attention
P362	Take off contaminated clothing and wash before reuse
P501	Dispose of contents/container in accordance with local regulation

## Hazard pictogram(s)



**Other hazards not otherwise classified:** None Known

**Unknown Acute Toxicity:** 4.4%

## SECTION 3 - COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name, Common Name & Synonyms:	CAS #	Concentration %
Water (>1%)/ Sodium iminodisuccinate (>1%)	7732-18-5 (>1%)/ 144538-83-0 (>1%)	1-5
Sodium Carbonate	497-19-8	1-5
Complexing Agent	Proprietary	1-5
Surfactant	Proprietary	1-5

**\*\* If the chemical name/CAS # is "proprietary" and/or the weight % is shown as a range, this information had been withheld as a trade secret.**

## SECTION 4 - FIRST-AID MEASURES

### Description of first aid measures:

**If swallowed:** Rinse mouth. Do NOT induce vomiting. Immediately call a poison center or doctor/physician.

**If on skin (or hair):** Take off immediately all contaminated clothing. Rinse skin with water/shower. If skin irritation occurs get medical advice/attention. Wash contaminated clothing before reuse.

**If inhaled:** Remove person to fresh air and keep comfortable for breathing. Call a poison center or doctor/physician if you feel unwell

**If in eyes:** Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists get medical advice/attention.

**Most Important symptoms and effects, both acute and delayed:** Causes skin and serious eye irritation.

**Indication of any immediate medical attention and special treatment needed:** Treat symptomatically

## SECTION 5 - FIRE-FIGHTING MEASURES

### Extinguishing media:

***Suitable extinguishing media:*** Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

***Unsuitable extinguishing media:*** Not determined

**Special hazards arising from the substance or mixture:** None known

**Flammability classification:** Not flammable

**Hazardous combustion products:** Carbon oxides, oxides of phosphorus other unidentified organic compounds.

**Special protective equipment and precautions for firefighters:**

**Protective equipment for fire-fighters:** Firefighters should wear proper protective equipment and self-contained breathing apparatus with full face piece operated in positive pressure mode.

**Special fire-fighting procedures:** Move containers from fire area if safe to do so. Cool closed containers exposed to fire with water spray. Do not allow run-off from firefighting to enter drains or water courses. Dike for water control.

**SECTION 6 - ACCIDENTAL RELEASE MEASURES**

**Personal precautions, protective equipment and emergency procedures:** All persons dealing with the clean-up should wear the appropriate chemically protective equipment. Keep people away from and upwind of spill/leak. Restrict access to area until completion of clean-up. Refer to protective measures listed in sections 7 and 8.

**Methods and material for containment and cleaning up:** Do not allow material to contaminate ground water system. If necessary, dike well ahead of the spill to prevent runoff into drains, sewers, or any natural waterway or drinking supply. Ventilate the area. Prevent further leakage or spillage if safe to do so. Soak up with inert absorbent material. Do not use combustible absorbents, such as sawdust. Pick up and transfer to properly labeled containers. Contaminated absorbent material may pose the same hazards as the spilled product. Contact the proper local authorities.

**Special spill response procedures:** In case of a transportation accident, contact Infotrac 1-800-535-5053 (North America), 011-1-352-323-3500 (International). If a spill/release in the US in excess of the EPA reportable quantity is made into the environment, immediately notify the national response center in the United States (phone: 1-800-424-8802).

**SECTION 7 - HANDLING AND STORAGE**

**Precautions for safe handling:** Handle in accordance with good industrial hygiene and safety practice. Use protective equipment recommended in section 8. Avoid contact with skin, eyes or clothing. Do not breathe dust/fume/gas/mist/vapors/spray. Wash face, hands, and any exposed skin thoroughly after handling.

**Conditions for safe storage:** Keep container tightly closed and store in a cool, dry and well-ventilated place. Store locked up. Keep out of reach of children.

**Incompatible materials:** Oxidizing agents. Do not mix with other chemicals or cleaners

**SECTION 8 – EXPOSURE CONTROLS AND PERSONAL PROTECTION**

Exposure Limits:					
Chemical Name	CAS #	OSHA PEL			
		TW	STEL	PEL	STEL
Water (>1%)/ Sodium iminodisuccinate (>1%)	7732-18-5 (>1%)/ 144538-83-0 (>1%)				
Sodium Carbonate	497-19-8				
Complexing Agent	Proprietary				

Surfactant	Proprietary				
------------	-------------	--	--	--	--

**Exposure controls:**

**Ventilation and engineering measures:** Use only in well-ventilated areas. Apply technical measures to comply with the occupational exposure limits. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction. In case of insufficient ventilation wear suitable respiratory equipment.

**Respiratory protection:** If airborne concentrations are above the permissible exposure limit or are not known, use NIOSH-approved respirators. Respirators should be selected based on the form and concentration of contaminants in air, and in accordance with OSHA (29 CFR 1910.134). Advice should be sought from respiratory protection specialists.

**Skin protection:** Wear protective gloves. Where extensive exposure to product is possible, use resistant coveralls, apron and boots to prevent contact. The suitability for a specific workplace should be discussed with the producers of the protective regimes.

**Eye face protection:** Wear eye/face protection. Wear as appropriate tightly fitting safety goggles; Safety glasses with side-shields.

**Other protective equipment:** Ensure that eyewash stations and safety showers are close to the workstation location. Other equipment may be required depending on workplace standards.

**General hygiene considerations:** Do not breathe vapours or spray mist. Avoid contact with skin, eyes and clothing. Do not eat, drink or smoke when using this product. Wash exposed areas thoroughly after handling. Remove and wash contaminated clothing before re-use. Handle in accordance with good industrial hygiene and safety practice.

**SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES**

**Appearance:** Clear yellow liquid

**Odor:** Citrus

**Odor threshold:** No applicable information available

**pH:** 11-12

**Melting/Freezing point:** No applicable information available

**Initial boiling point and boiling range:** 100 C

**Flash point:** No applicable information available

**Flashpoint (Method):** No applicable information available

**Evaporation rate (BuAe = 1):** Similar to water

**Flammability (solid, gas):** Not flammable

**Lower flammable limit (% by vol.):** Not Flammable

**Upper flammable limit (% by vol.):** Not Flammable

**Vapor pressure:** No applicable information available

**Vapor density:** No applicable information available

**Relative density:** No applicable information available

**Solubility in water:** Dispersible

**Other solubility(ies):** No applicable information available

**Partition coefficient:** No applicable information available

**Auto ignition temperature:** No applicable information available

**Decomposition temperature:** No applicable information available

**Viscosity:** Water thin.

**Volatile organic Compounds (%VOC's):** 2.4 g/L

**Other physical/chemical comments:** No applicable information available

## SECTION 10 - STABILITY AND REACTIVITY

**Reactivity:** Not normally reactive

**Chemical stability:** Stable

**Possibility of hazardous reactions:** No hazardous polymerization

**Conditions to avoid:** Keep out of reach of children. Do not use in areas without adequate ventilation. Avoid contact with incompatible materials.

**Incompatible materials:** Fluorine, strong oxidizing or reducing agents, bases, metals, sulfur trioxide, phosphorus pentoxide

**Hazardous decomposition products:** None known. Refer to 'Hazardous Combustion Products' in Section 5

## SECTION 11 - TOXICOLOGICAL INFORMATION

### Information on likely routes of exposure:

**Routes of entry - inhalation:** Avoid breathing vapors or mists

**Routes of entry - skin & eye:** Avoid contact with skin or eyes

**Routes of entry - Ingestion:** Do not taste or swallow

### Potential Health Effects:

**Signs and symptoms of short term (acute) exposure:**

**Symptoms:** Please see section 4 of this SDS sheet for symptoms.

**Potential Chronic Health Effects:**

**Mutagenicity:** Not expected to be mutagenic in humans.

**Carcinogenicity:** No components are listed as carcinogens by ACGIH, IARC, OSHA or NTP.

**Reproductive effects:** No applicable information available

**Sensitization to material:** No applicable information available

**Specific target organ effects:** No data available to indicate product or components will have specific target organ effects.

**Medical conditions aggravated by overexposure:** Pre-existing skin or eye disorders.

**Toxicological data:**

See the following table for individual ingredient acute toxicity data.

Chemical name	CAS #	LD <sub>50</sub>	LD <sub>50</sub>	LC <sub>50</sub>
		(Oral, rat)	(Dermal. Rabbit)	(4hr, Inhal., rat)
Water (>1%)/ Sodium iminodisuccinate (>1%)	7732-18-5 (>1%)/ 144538-83-0 (>1%)	2001	2001	
Sodium Carbonate	497-19-8	4090		
Complexing Agent	Proprietary			
Surfactant	Proprietary	2000		

\*All empty cells no applicable information available

Other important toxicological hazards: None reported.

## SECTION 12 - ECOLOGICAL INFORMATION

**Ecotoxicity:** No applicable information available.

**Persistence and degradability:** No applicable information available

**Bioaccumulation potential:** No applicable information available.

**Mobility in soil:** No applicable information available.

**Other Adverse Environmental effects:** No applicable information available.

## SECTION 13 - DISPOSAL CONSIDERATIONS

**Handling for disposal:** Handle in accordance with good industrial hygiene and safety practice. Refer to protective measures listed in sections 7 and 8. Empty containers retain residue (liquid and/or vapour) and can be dangerous.

**Methods of disposal:** Dispose in accordance with all applicable federal, state, provincial and local regulations. Contact your local, state, provincial or federal environmental agency for specific rules.

**RCRA:** If this product, as supplied, becomes a waste in the United States, it may meet the criteria of a hazardous waste UN defined under RCRA, Title 40 CFR 261. It is the responsibility of the waste generator to determine the proper waste identification and disposal method. For disposal of unused or waste material, check with local, state and federal environmental agencies.

## SECTION 14 - TRANSPORTATION INFORMATION

**Special Shipping Information:** Keep from freezing.

**T.D.G. Classification:** Not regulated under T.D.G.

**D.O.T. Classification:** Not regulated under D.O.T.

## SECTION 15 - REGULATORY INFORMATION

### Occupational Health and Safety Regulations:

**WHMIS 1988 Class:** D2B.

**OSHA & WHMIS:** SDS prepared pursuant to the Hazard Communication Standard (CFR29 1910.1200) and Canadian WHMIS 2015 regulations (Controlled Products Regulations under the Hazardous Product Act).

### Environmental Regulatory Lists:

**SARA – Section 313 (Toxic Chemical Release Reporting) 40 CFR 372** – None of these ingredients are listed.

**CERCLA – Section 102 (Reportable Quantity) 40 CFR 302** – None of these ingredients are listed.

**RCRA 40CFR 261 (SUBPART D)** – None of these ingredients are listed.

**CLEAN WATER ACT – Section 311 (Reportable Quantity) 40 CFR 116** - None of these ingredients are listed.

**CLEAN AIR ACT – Section 312 (List of Hazardous Air Pollutants) 40 CFR 63 (Subpart C)** – None of these ingredients are listed.

**National Pollutant Release Inventory** – None of the ingredients are listed.

**Toxic Substances Control Act (TSCA)** – All the ingredients are registered on the Chemical Substance Inventory.

**Canadian Domestic Substance List (DSL)** – All the ingredients are registered on the DSL.

## SECTION 16 - OTHER INFORMATION

### Legend:

**ACGIH:** American Conference of Governmental Industrial Hygienists

**CAS:** Chemical Abstract Services

**CERCLA:** Comprehensive Environmental Response, Compensation, and Liability Act of 1980

**CFR:** Code of Federal Regulations

**CSA:** Canadian Standards Association

**DOT:** Department of Transportation

**ECOTOX:** U.S. EPA Ecotoxicology Database

**EINECS:** European Inventory of Existing Commercial chemical Substances

**EPA:** Environmental Protection Agency

**HSDB:** Hazardous Substances Data Bank

**IARC:** International Agency for Research on Cancer

**IUCLID:** International Uniform Chemical Information Database

**LC:** Lethal Concentration

**LD:** Lethal Dose

**NIOSH:** National Institute of Occupational Safety and Health

**NTP:** National Toxicology Program

**OECD:** Organization for Economic Co operation and Development

**OSHA:** Occupational Safety and Health Administration

**PEL:** Permissible exposure limit

**RCRA:** Resource Conservation and Recovery Act

**RTECS:** Registry of Toxic Effects of Chemical Substances

**SARA:** Superfund Amendments and Reauthorization Act

**SDS:** Safety Data Sheet Material Safety Data Sheet

**STEL:** Short Term Exposure Limit

**TOG:** Canadian Transportation of Dangerous Goods Act & Regulations

**TLV:** Threshold Limit Values

**TWA:** Time Weighted Average

**WHMIS:** Workplace Hazardous Materials Identification System

**Prepared By:** Charlotte Technical Services Group

**Tel:** (705) 740 2880

### DISCLAIMER

Information for this material safety data sheet was obtained from sources considered technically accurate and reliable. While every effort has been made to ensure full disclosure of product hazards, in some cases data is not available and is so stated. Since conditions of actual product use are beyond control of this supplier, it is assumed that users of this material have been fully trained accordingly to the mandatory requirements of GHS. No warranty, expressed or implied, is made and supplier will not be liable for any losses, injuries or consequential damages which may result from the use of, or reliance on, any information contained within this form.

**END OF DOCUMENT**

# SAFETY DATA SHEET

11100

## Section 1. Identification

**Product name** : Spray Paint  
OSHA Red

**Product code** : 11100

**Other means of identification** : Not available.

**Product type** : Aerosol.

**Relevant identified uses of the substance or mixture and uses advised against**

Not applicable.

**Manufacturer** : Manufactured for: J2 PRODUCTS  
6-A Bradwick Dr  
Concord, ON L4K 2T3

**Emergency telephone number of the company** : (216) 566-2917

**Product Information Telephone Number** : (905) 699-9410

**Regulatory Information Telephone Number** : (216) 566-2902

**Transportation Emergency Telephone Number** : (800) 424-9300

## Section 2. Hazards identification

**Classification of the substance or mixture** : FLAMMABLE AEROSOLS - Category 1  
GASES UNDER PRESSURE - Compressed gas  
SKIN CORROSION/IRRITATION - Category 2  
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A  
CARCINOGENICITY - Category 2  
TOXIC TO REPRODUCTION (Fertility) - Category 2  
TOXIC TO REPRODUCTION (Unborn child) - Category 2  
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3  
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3  
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2  
ASPIRATION HAZARD - Category 1

Percentage of the mixture consisting of ingredient(s) of unknown oral toxicity: 27%  
Percentage of the mixture consisting of ingredient(s) of unknown dermal toxicity: 82.4%  
Percentage of the mixture consisting of ingredient(s) of unknown inhalation toxicity: 47.3%

### GHS label elements

**Hazard pictograms** :



**Signal word** : Danger

## Section 2. Hazards identification

**Hazard statements** : Extremely flammable aerosol.  
Contains gas under pressure; may explode if heated.  
Causes serious eye irritation.  
Causes skin irritation.  
Suspected of damaging fertility or the unborn child.  
Suspected of causing cancer.  
May be fatal if swallowed and enters airways.  
May cause respiratory irritation.  
May cause drowsiness or dizziness.  
May cause damage to organs through prolonged or repeated exposure.

### Precautionary statements

**General** : Read label before use. Keep out of reach of children. If medical advice is needed, have product container or label at hand.

**Prevention** : Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves. Wear eye or face protection. Wear protective clothing. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not spray on an open flame or other ignition source. Use only outdoors or in a well-ventilated area. Do not breathe dust or mist. Wash hands thoroughly after handling. Pressurized container: Do not pierce or burn, even after use.

**Response** : Get medical attention if you feel unwell. IF exposed or concerned: Get medical attention. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or physician if you feel unwell. IF SWALLOWED: Immediately call a POISON CENTER or physician. Do NOT induce vomiting. IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing and wash it before reuse. If skin irritation occurs: Get medical attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention.

**Storage** : Store locked up. Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F. Store in a well-ventilated place.

**Disposal** : Dispose of contents and container in accordance with all local, regional, national and international regulations.

**Supplemental label elements** DELAYED EFFECTS FROM LONG TERM OVEREXPOSURE. Contains solvents which can cause permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal.

This product contains a component that is either subject to a CEPA ministerial condition or an existing/proposed SNAC (Significant New Activity). See Environmental Data Sheet (EDS) for additional detail.

Please refer to the SDS for additional information. Keep out of reach of children. Keep upright in a cool, dry place. Do not discard empty can in trash compactor.

**Hazards not otherwise classified** : None known.

## Section 3. Composition/information on ingredients

**Substance/mixture** : Mixture

**Other means of identification** : Not available.

**CAS number/other identifiers**

## Section 3. Composition/information on ingredients

Ingredient name	% by weight	CAS number
Acetone	30.5	67-64-1
Toluene	21.91	108-88-3
Propane	13.77	74-98-6
Butane	13.23	106-97-8
Ethyl 3-Ethoxypropionate	3	763-69-9
Titanium Dioxide	0.37	13463-67-7
Med. Aliphatic Hydrocarbon Solvent	0.2	64742-88-7
Light Aliphatic Hydrocarbon	0.16	64742-47-8
Calcium 2-Ethylhexanoate	0.16	136-51-6
Light Aliphatic Hydrocarbon	0.13	64742-47-8

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

**There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health and hence require reporting in this section.**

Occupational exposure limits, if available, are listed in Section 8.

## Section 4. First aid measures

### Description of necessary first aid measures

- Eye contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If necessary, call a poison center or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
- Skin contact** : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Continue to rinse for at least 10 minutes. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** : Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Aspiration hazard if swallowed. Can enter lungs and cause damage. Do not induce vomiting. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

### Most important symptoms/effects, acute and delayed

#### Potential acute health effects

- Eye contact** : Causes serious eye irritation.
- Inhalation** : Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness. May cause respiratory irritation.
- Skin contact** : Causes skin irritation.
- Ingestion** : Can cause central nervous system (CNS) depression. May be fatal if swallowed and enters airways.

#### Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:  
pain or irritation  
watering  
redness



## Section 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. In the case of aerosols being ruptured, care should be taken due to the rapid escape of the pressurized contents and propellant. If a large number of containers are ruptured, treat as a bulk material spillage according to the instructions in the clean-up section. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
- For emergency responders** : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

- Environmental precautions** : **This product contains a component that is either subject to a CEPA ministerial condition or an existing/proposed SNAC (Significant New Activity). See Environmental Data Sheet (EDS) for additional detail.**

Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

### Methods and materials for containment and cleaning up

- Small spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
- Large spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

## Section 7. Handling and storage

### Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C. Do not pierce or burn, even after use. Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not swallow. Avoid breathing gas. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Empty containers retain product residue and can be hazardous.
- Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

## Section 7. Handling and storage

**Conditions for safe storage, including any incompatibilities** : Store in accordance with local regulations. Store away from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Protect from sunlight. Store locked up. Eliminate all ignition sources. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

## Section 8. Exposure controls/personal protection

### Control parameters

#### Occupational exposure limits (OSHA United States)

Ingredient name	Exposure limits
Acetone	<b>ACGIH TLV (United States, 3/2017).</b> TWA: 250 ppm 8 hours. STEL: 500 ppm 15 minutes. <b>NIOSH REL (United States, 10/2016).</b> TWA: 250 ppm 10 hours. TWA: 590 mg/m <sup>3</sup> 10 hours. <b>OSHA PEL (United States, 6/2016).</b> TWA: 1000 ppm 8 hours. TWA: 2400 mg/m <sup>3</sup> 8 hours.
Toluene	<b>OSHA PEL Z2 (United States, 2/2013).</b> TWA: 200 ppm 8 hours. CEIL: 300 ppm AMP: 500 ppm 10 minutes. <b>NIOSH REL (United States, 10/2016).</b> TWA: 100 ppm 10 hours. TWA: 375 mg/m <sup>3</sup> 10 hours. STEL: 150 ppm 15 minutes. STEL: 560 mg/m <sup>3</sup> 15 minutes. <b>ACGIH TLV (United States, 3/2017).</b> TWA: 20 ppm 8 hours.
Propane	<b>NIOSH REL (United States, 10/2016).</b> TWA: 1000 ppm 10 hours. TWA: 1800 mg/m <sup>3</sup> 10 hours. <b>OSHA PEL (United States, 6/2016).</b> TWA: 1000 ppm 8 hours. TWA: 1800 mg/m <sup>3</sup> 8 hours. <b>ACGIH TLV (United States, 3/2017). Oxygen Depletion [Asphyxiant].</b>
Butane	<b>NIOSH REL (United States, 10/2016).</b> TWA: 800 ppm 10 hours. TWA: 1900 mg/m <sup>3</sup> 10 hours. <b>ACGIH TLV (United States, 3/2017).</b> STEL: 1000 ppm 15 minutes.
Ethyl 3-Ethoxypropionate	None.
Titanium Dioxide	<b>ACGIH TLV (United States, 3/2017).</b> TWA: 10 mg/m <sup>3</sup> 8 hours. <b>OSHA PEL (United States, 6/2016).</b> TWA: 15 mg/m <sup>3</sup> 8 hours. Form: Total dust
Med. Aliphatic Hydrocarbon Solvent	<b>OSHA PEL (United States, 6/2016).</b> TWA: 100 ppm 8 hours. TWA: 400 mg/m <sup>3</sup> 8 hours.
Light Aliphatic Hydrocarbon	<b>ACGIH TLV (United States, 3/2017).</b> <b>Absorbed through skin.</b> TWA: 200 mg/m <sup>3</sup> , (as total hydrocarbon vapor) 8 hours.
Calcium 2-Ethylhexanoate	None.
Light Aliphatic Hydrocarbon	<b>ACGIH TLV (United States, 3/2017).</b> <b>Absorbed through skin.</b> TWA: 200 mg/m <sup>3</sup> , (as total hydrocarbon

## Section 8. Exposure controls/personal protection

vapor) 8 hours.

### Occupational exposure limits (Canada)

Ingredient name	Exposure limits
Acetone	<p><b>CA Alberta Provincial (Canada, 4/2009).</b>            8 hrs OEL: 1200 mg/m<sup>3</sup> 8 hours.            15 min OEL: 1800 mg/m<sup>3</sup> 15 minutes.            8 hrs OEL: 500 ppm 8 hours.            15 min OEL: 750 ppm 15 minutes.</p> <p><b>CA British Columbia Provincial (Canada, 6/2017).</b>            TWA: 250 ppm 8 hours.            STEL: 500 ppm 15 minutes.</p> <p><b>CA Ontario Provincial (Canada, 7/2015).</b>            TWA: 500 ppm 8 hours.            STEL: 750 ppm 15 minutes.</p> <p><b>CA Quebec Provincial (Canada, 1/2014).</b>            TWAEV: 500 ppm 8 hours.            TWAEV: 1190 mg/m<sup>3</sup> 8 hours.            STEV: 1000 ppm 15 minutes.            STEV: 2380 mg/m<sup>3</sup> 15 minutes.</p> <p><b>CA Saskatchewan Provincial (Canada, 7/2013).</b>            STEL: 750 ppm 15 minutes.            TWA: 500 ppm 8 hours.</p>
Toluene	<p><b>CA Alberta Provincial (Canada, 4/2009).</b>  <b>Absorbed through skin.</b>            8 hrs OEL: 50 ppm 8 hours.            8 hrs OEL: 188 mg/m<sup>3</sup> 8 hours.</p> <p><b>CA British Columbia Provincial (Canada, 6/2017).</b>            TWA: 20 ppm 8 hours.</p> <p><b>CA Ontario Provincial (Canada, 7/2015).</b>            TWA: 20 ppm 8 hours.</p> <p><b>CA Quebec Provincial (Canada, 1/2014).</b>  <b>Absorbed through skin.</b>            TWAEV: 50 ppm 8 hours.            TWAEV: 188 mg/m<sup>3</sup> 8 hours.</p> <p><b>CA Saskatchewan Provincial (Canada, 7/2013).</b> <b>Absorbed through skin.</b>            STEL: 60 ppm 15 minutes.            TWA: 50 ppm 8 hours.</p>
Propane	<p><b>CA Alberta Provincial (Canada, 4/2009).</b>            8 hrs OEL: 1000 ppm 8 hours.</p> <p><b>CA British Columbia Provincial (Canada, 6/2017).</b>            TWA: 1000 ppm 8 hours.</p> <p><b>CA Quebec Provincial (Canada, 1/2014).</b>            TWAEV: 1000 ppm 8 hours.            TWAEV: 1800 mg/m<sup>3</sup> 8 hours.</p> <p><b>CA Ontario Provincial (Canada, 7/2015).</b>            TWA: 1000 ppm 8 hours.</p> <p><b>CA Saskatchewan Provincial (Canada, 7/2013).</b>            STEL: 1250 ppm 15 minutes.            TWA: 1000 ppm 8 hours.</p>
Butane	<p><b>CA Alberta Provincial (Canada, 4/2009).</b>            8 hrs OEL: 1000 ppm 8 hours.</p> <p><b>CA British Columbia Provincial (Canada, 6/2017).</b></p>

## Section 8. Exposure controls/personal protection

TWA: 600 ppm 8 hours.  
 STEL: 750 ppm 15 minutes.  
**CA Quebec Provincial (Canada, 1/2014).**  
 TWA: 800 ppm 8 hours.  
 TWA: 1900 mg/m<sup>3</sup> 8 hours.  
**CA Ontario Provincial (Canada, 7/2015).**  
 TWA: 800 ppm 8 hours.  
**CA Saskatchewan Provincial (Canada, 7/2013).**  
 STEL: 1250 ppm 15 minutes.  
 TWA: 1000 ppm 8 hours.

### Occupational exposure limits (Mexico)

Ingredient name	Exposure limits
Acetone	<b>NOM-010-STPS-2014 (Mexico, 4/2016).</b> TWA: 500 ppm 8 hours. STEL: 750 ppm 15 minutes.
Toluene	<b>NOM-010-STPS-2014 (Mexico, 4/2016).</b> TWA: 20 ppm 8 hours.
Propane	<b>NOM-010-STPS-2014 (Mexico, 4/2016).</b> TWA: 1000 ppm 8 hours.
Butane	<b>NOM-010-STPS-2014 (Mexico, 4/2016).</b> TWA: 1000 ppm 8 hours.

**Appropriate engineering controls** : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

**Environmental exposure controls** : **This product contains a component that is either subject to a CEPA ministerial condition or an existing/proposed SNAC (Significant New Activity). See Environmental Data Sheet (EDS) for additional detail.**

Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

### Individual protection measures

**Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

**Eye/face protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.

### Skin protection

**Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.



## Section 10. Stability and reactivity

**Hazardous decomposition products** : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## Section 11. Toxicological information

### Information on toxicological effects

#### Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Acetone	LD50 Oral	Rat	5800 mg/kg	-
Toluene	LC50 Inhalation Vapor	Rat	49 g/m <sup>3</sup>	4 hours
	LD50 Oral	Rat	636 mg/kg	-
Butane	LC50 Inhalation Vapor	Rat	658000 mg/m <sup>3</sup>	4 hours
Ethyl 3-Ethoxypropionate	LD50 Oral	Rat	3200 mg/kg	-

#### Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Acetone	Eyes - Mild irritant	Human	-	186300 parts per million	-
	Eyes - Mild irritant	Rabbit	-	10 microliters	-
	Eyes - Moderate irritant	Rabbit	-	24 hours 20 milligrams	-
	Eyes - Severe irritant	Rabbit	-	20 milligrams	-
Toluene	Skin - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
	Skin - Mild irritant	Rabbit	-	395 milligrams	-
	Eyes - Mild irritant	Rabbit	-	0.5 minutes 100 milligrams	-
	Eyes - Mild irritant	Rabbit	-	870 Micrograms	-
	Eyes - Severe irritant	Rabbit	-	24 hours 2 milligrams	-
	Skin - Mild irritant	Pig	-	24 hours 250 microliters	-
	Skin - Mild irritant	Rabbit	-	435 milligrams	-
	Skin - Moderate irritant	Rabbit	-	24 hours 20 milligrams	-
	Skin - Moderate irritant	Rabbit	-	500 milligrams	-
	Ethyl 3-Ethoxypropionate	Skin - Mild irritant	Rabbit	-	24 hours 500 milligrams
Titanium Dioxide	Skin - Mild irritant	Human	-	72 hours 300 Micrograms Intermittent	-

#### Sensitization

Not available.

#### Mutagenicity

Not available.

#### Carcinogenicity

Not available.

#### Classification

Product/ingredient name	OSHA	IARC	NTP
Toluene	-	3	-
Titanium Dioxide	-	2B	-

## Section 11. Toxicological information

### Reproductive toxicity

Not available.

### Teratogenicity

Not available.

### Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
Acetone	Category 3	Not applicable.	Respiratory tract irritation and Narcotic effects
Toluene	Category 3	Not applicable.	Respiratory tract irritation and Narcotic effects
Propane	Category 3	Not applicable.	Respiratory tract irritation and Narcotic effects
Butane	Category 3	Not applicable.	Respiratory tract irritation and Narcotic effects
Med. Aliphatic Hydrocarbon Solvent	Category 3	Not applicable.	Respiratory tract irritation and Narcotic effects
Light Aliphatic Hydrocarbon	Category 3	Not applicable.	Respiratory tract irritation and Narcotic effects
Light Aliphatic Hydrocarbon	Category 3	Not applicable.	Respiratory tract irritation and Narcotic effects

### Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
Acetone	Category 2	Not determined	Not determined
Toluene	Category 2	Not determined	Not determined
Propane	Category 2	Not determined	Not determined
Butane	Category 2	Not determined	Not determined
Med. Aliphatic Hydrocarbon Solvent	Category 1	Not determined	Not determined
Light Aliphatic Hydrocarbon	Category 2	Not determined	Not determined
Light Aliphatic Hydrocarbon	Category 2	Not determined	Not determined

### Aspiration hazard

Name	Result
Toluene	ASPIRATION HAZARD - Category 1
Propane	ASPIRATION HAZARD - Category 1
Butane	ASPIRATION HAZARD - Category 1
Med. Aliphatic Hydrocarbon Solvent	ASPIRATION HAZARD - Category 1
Light Aliphatic Hydrocarbon	ASPIRATION HAZARD - Category 1
Light Aliphatic Hydrocarbon	ASPIRATION HAZARD - Category 1

**Information on the likely routes of exposure** : Not available.

### Potential acute health effects

**Eye contact** : Causes serious eye irritation.

**Inhalation** : Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness. May cause respiratory irritation.

**Skin contact** : Causes skin irritation.

**Ingestion** : Can cause central nervous system (CNS) depression. May be fatal if swallowed and enters airways.

**Symptoms related to the physical, chemical and toxicological characteristics**

**Eye contact** : Adverse symptoms may include the following:  
pain or irritation  
watering  
redness

**Inhalation** : Adverse symptoms may include the following:  
respiratory tract irritation  
coughing  
nausea or vomiting  
headache  
drowsiness/fatigue  
dizziness/vertigo  
unconsciousness  
reduced fetal weight  
increase in fetal deaths  
skeletal malformations

**Skin contact** : Adverse symptoms may include the following:  
irritation  
redness  
reduced fetal weight  
increase in fetal deaths  
skeletal malformations

**Ingestion** : Adverse symptoms may include the following:  
nausea or vomiting  
reduced fetal weight  
increase in fetal deaths  
skeletal malformations

**Delayed and immediate effects and also chronic effects from short and long term exposure**

**Short term exposure**

**Potential immediate effects** : Not available.

**Potential delayed effects** : Not available.

**Long term exposure**

**Potential immediate effects** : Not available.

**Potential delayed effects** : Not available.

**Potential chronic health effects**

Not available.

**General** : May cause damage to organs through prolonged or repeated exposure.

**Carcinogenicity** : Suspected of causing cancer. Risk of cancer depends on duration and level of exposure.

**Mutagenicity** : No known significant effects or critical hazards.

**Teratogenicity** : Suspected of damaging the unborn child.

**Developmental effects** : No known significant effects or critical hazards.

**Fertility effects** : Suspected of damaging fertility.

**Numerical measures of toxicity**

**Acute toxicity estimates**

<b>Route</b>	<b>ATE value</b>
Oral	2062.6 mg/kg

## Section 12. Ecological information

### Toxicity

Product/ingredient name	Result	Species	Exposure
Acetone	Acute EC50 7200000 µg/l Fresh water	Algae - Selenastrum sp.	96 hours
	Acute LC50 6000000 µg/l Fresh water	Crustaceans - Gammarus pulex	48 hours
	Acute LC50 6900 mg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 5600 ppm Fresh water	Fish - Poecilia reticulata	96 hours
	Chronic NOEC 4.95 mg/l Marine water	Algae - Ulva pertusa	96 hours
	Chronic NOEC 0.016 ml/L Fresh water	Crustaceans - Daphniidae	21 days
	Chronic NOEC 0.1 ml/L Fresh water	Daphnia - Daphnia magna - Neonate	21 days
Toluene	Chronic NOEC 0.1 mg/l Fresh water	Fish - Fundulus heteroclitus	4 weeks
	Acute EC50 12500 µg/l Fresh water	Algae - Pseudokirchneriella subcapitata	72 hours
	Acute EC50 11600 µg/l Fresh water	Crustaceans - Gammarus pseudolimnaeus - Adult	48 hours
	Acute EC50 6000 µg/l Fresh water	Daphnia - Daphnia magna - Juvenile (Fledgling, Hatchling, Weanling)	48 hours
Titanium Dioxide	Acute LC50 5500 µg/l Fresh water	Fish - Oncorhynchus kisutch - Fry	96 hours
	Chronic NOEC 1000 µg/l Fresh water	Daphnia - Daphnia magna	21 days
	Acute LC50 >1000000 µg/l Marine water	Fish - Fundulus heteroclitus	96 hours
Light Aliphatic Hydrocarbon	Acute LC50 2200 µg/l Fresh water	Fish - Lepomis macrochirus	4 days
Light Aliphatic Hydrocarbon	Acute LC50 2200 µg/l Fresh water	Fish - Lepomis macrochirus	4 days

### Persistence and degradability

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Acetone	-	-	Readily
Toluene	-	-	Readily

### Bioaccumulative potential

Product/ingredient name	LogP <sub>ow</sub>	BCF	Potential
Toluene	-	90	low
Calcium 2-Ethylhexanoate	-	2.96	low

### Mobility in soil

**Soil/water partition coefficient (K<sub>oc</sub>)** : Not available.

**Other adverse effects** : No known significant effects or critical hazards.

## Section 13. Disposal considerations

**Disposal methods** : This product contains a component that is either subject to a CEPA ministerial condition or an existing/proposed SNAC (Significant New Activity). See Environmental Data Sheet (EDS) for additional detail.

The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Do not

## Section 13. Disposal considerations

puncture or incinerate container.

## Section 14. Transport information

	<b>DOT Classification</b>	<b>TDG Classification</b>	<b>Mexico Classification</b>	<b>IATA</b>	<b>IMDG</b>
<b>UN number</b>	UN1950	UN1950	UN1950	UN1950	UN1950
<b>UN proper shipping name</b>	AEROSOLS	AEROSOLS	AEROSOLS	AEROSOLS, flammable	AEROSOLS
<b>Transport hazard class(es)</b>	2.1 	2.1 	2.1 	2.1 	2.1 
<b>Packing group</b>	-	-	-	-	-
<b>Environmental hazards</b>	No.	No.	No.	No.	No.
<b>Additional information</b>	-  <b>ERG No.</b> 126	Product classified as per the following sections of the Transportation of Dangerous Goods Regulations: 2.13-2.17 (Class 2).  <b>ERG No.</b> 126	-  <b>ERG No.</b> 126	-	<b>Emergency schedules</b> F-D, S-U

**Special precautions for user** : Multi-modal shipping descriptions are provided for informational purposes and do not consider container sizes. The presence of a shipping description for a particular mode of transport (sea, air, etc.), does not indicate that the product is packaged suitably for that mode of transport. All packaging must be reviewed for suitability prior to shipment, and compliance with the applicable regulations is the sole responsibility of the person offering the product for transport. People loading and unloading dangerous goods must be trained on all of the risks deriving from the substances and on all actions in case of emergency situations.

**Transport in bulk according to Annex II of MARPOL and the IBC Code** : Not available.

**Proper shipping name** : Not available.

**Ship type** : Not available.

**Pollution category** : Not available.

## Section 15. Regulatory information

This product contains a component that is either subject to a CEPA ministerial condition or an existing/proposed SNAC (Significant New Activity). See Environmental Data Sheet (EDS) for additional detail.

### SARA 313

SARA 313 (40 CFR 372.45) supplier notification can be found on the Environmental Data Sheet.

Not applicable.

## Section 16. Other information

### Hazardous Material Information System (U.S.A.)

Health	*	3
Flammability		4
Physical hazards		3

The customer is responsible for determining the PPE code for this material. For more information on HMIS® Personal Protective Equipment (PPE) codes, consult the HMIS® Implementation Manual.

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings and the associated label are not required on SDSs or products leaving a facility under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered trademark and service mark of the American Coatings Association, Inc.

### Procedure used to derive the classification

Classification	Justification
FLAMMABLE AEROSOLS - Category 1	On basis of test data
GASES UNDER PRESSURE - Compressed gas	Calculation method
SKIN CORROSION/IRRITATION - Category 2	Calculation method
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A	Calculation method
CARCINOGENICITY - Category 2	Calculation method
TOXIC TO REPRODUCTION (Fertility) - Category 2	Calculation method
TOXIC TO REPRODUCTION (Unborn child) - Category 2	Calculation method
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3	Calculation method
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3	Calculation method
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2	Calculation method
ASPIRATION HAZARD - Category 1	Calculation method

### History

Date of printing : 6/21/2018

Date of issue/Date of revision : 6/21/2018

Date of previous issue : 6/18/2018

Version : 6.01

Key to abbreviations : ATE = Acute Toxicity Estimate  
 BCF = Bioconcentration Factor  
 GHS = Globally Harmonized System of Classification and Labelling of Chemicals  
 IATA = International Air Transport Association  
 IBC = Intermediate Bulk Container  
 IMDG = International Maritime Dangerous Goods  
 LogPow = logarithm of the octanol/water partition coefficient  
 MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)  
 UN = United Nations

### Notice to reader

It is recommended that each customer or recipient of this Safety Data Sheet (SDS) study it carefully and consult resources, as necessary or appropriate, to become aware of and understand the data contained in this SDS and any hazards associated with the product. This information is provided in good faith and believed to be accurate as of the effective date herein. However, no warranty, express or implied, is given. The information presented here applies only to the product as shipped. The addition of any material can change the composition, hazards and risks of the product. Products shall not be repackaged, modified, or tinted except as specifically instructed by Sherwin-Williams, including but not limited to the incorporation of non Sherwin-Williams products or the use or addition of products in proportions not specified by Sherwin-Williams. Regulatory requirements are subject to change and may differ between various locations and jurisdictions. The customer/buyer/user is responsible to

Date of issue/Date of revision	: 6/21/2018	Date of previous issue	: 6/18/2018	Version	: 6.01	15/16
11100	Spray Paint				SHW-85-NA-GHS-CA	
	OSHA Red					

## Section 16. Other information

ensure that his activities comply with all country, federal, state, provincial or local laws. The conditions for use of the product are not under the control of the manufacturer; the customer/buyer/user is responsible to determine the conditions necessary for the safe use of this product. The customer/buyer/user should not use the product for any purpose other than the purpose shown in the applicable section of this SDS without first referring to the supplier and obtaining written handling instructions. Due to the proliferation of sources for information such as manufacturer-specific SDS, the manufacturer cannot be responsible for SDSs obtained from any other source.

# STIHL CANADA MEDIUM BAR & CHAIN LUBRICANT

Packaged for Stihl Limited, 1515 Sise Road, Box 5666, London, ON N6A 4L6



## Safety Data Sheet

Conforms to HCS 2012 (29 CFR 1910.1200)

### Section 1. Identification

#### Product identifier

**Product Name:** STIHL CANADA MEDIUM BAR & CHAIN LUBRICANT  
**Other names:** F-7410  
**Part/Product Number(s):** 7002-871-1247, 7002-871-0122  
**Material Use:** Bar and chain lubricant  
**Uses advised against:** Not for internal engine use.  
**Manufacturer:** Omni Specialty Packaging, LLC  
10399 Hwy 1 South  
Shreveport, LA 71115  
1-318-524-1100  
**Issuing date:** May 8, 2015  
**Revision date:** April 20, 2018  
**Revision number:** 002  
**Company contact:** OMNI EHS Department: E-Mail: [sds@osp.cc](mailto:sds@osp.cc); Contact phone: 318-524-1100  
(Monday-Friday, 8:00 AM – 4:00 PM, CST)  
**In case of emergency:** CHEMTREC: Within USA and Canada: 1 (800) 424-9300 (24/7)  
CHEMTREC: Outside USA and Canada: +1 703-527-3887 (24/7)

### Section 2. Hazards Identification

**OSHA/HCS Status:** This product is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200).

**Classification of the Substance or Mixture:** Not classified

#### GHS Label Elements

**Hazard pictograms:** None

**Signal word:** None

**Hazard statement:** None

#### Precautionary statements

**General:** Read label before use. Keep out of reach of children. If medical advice is needed, have product container or label at hand.

**Prevention:** Not applicable

**Response:** Not applicable

**Storage:** Not applicable

**Disposal:** Not applicable

**Hazards not otherwise classified (HNOC):** Defatting to the skin.

### Section 3. Composition/Information on Ingredients

Petroleum mineral oil lubricant base stock with proprietary performance additives mixture.

**Substance/Mixture:** Mixture

<b>Components Name</b>	<b>CAS number</b>	<b>Weight %*</b>
Lubricant Base Oil (Petroleum) Highly refined mineral oils (C15-C50)	Various	95 – 99
Bar & Chain Oil Additive Mixture	Proprietary	1-5

This product does not contain known hazardous materials at the  $\geq 1\%$  level or known carcinogens at the  $\geq 0.1\%$  level as defined by 29 CFR 1910.1200.

\* The exact percentage of composition has been withheld as a trade secret.

### Section 4. First Aid Measures

#### Description of necessary first aid measures

- General Advice:** No specific first aid measures are required. Get medical attention if irritation develops and persists.
- Eye contact:** In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Eyelids should be held away from the eyeball to ensure thorough rinsing. Check for and remove any contact lenses. Get medical attention if irritation develops and persists.
- Skin contact:** Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Get medical attention if irritation develops and persists.
- Inhalation:** In case of inhalation of decomposition products in a fire, symptoms may be delayed. If inhaled, remove to fresh air. The exposed person may need to be kept under medical surveillance for 48 hours. Get medical attention if symptoms occur.
- Ingestion:** Do NOT induce vomiting. Drink plenty of water. If symptoms persist, call a physician.
- Protection of first-aiders:** No action shall be taken involving any personal risk or without suitable training. Remove all sources of ignition. Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Wear personal protective clothing (see section 8).

#### Most important symptoms and effects, both acute and delayed

See Section 11 for more detailed information on health effects and symptoms.

#### **Most Important**

- Symptoms and Effects:** Personnel with pre-existing skin disorders should avoid contact with this product. Under normal use conditions, no adverse effects to health are known.
- Eye contact:** Not expected to cause prolonged or significant eye irritation.
- Skin contact:** Contact with skin is not expected to cause prolonged or significant irritation. Contact with skin is not expected to cause an allergic skin response. Not expected to be harmful to internal organs if absorbed through the skin.
- Inhalation:** Not expected to be harmful if inhaled. Contains petroleum-based mineral oil. May cause respiratory irritation or other pulmonary effects following prolonged or repeated inhalation of oil mist at airborne levels above the recommended oil mist exposure limit. Symptoms of respiratory irritation may include coughing and difficult breathing.
- Ingestion:** Not expected to be harmful if swallowed.
- Note to physician:** Treat symptomatically.

## Section 5. Fire-Fighting Measures

<b>Uniform Fire Code:</b>	Class IIIB
<b>Flash Point:</b>	>126.7°C (>260°F)
<b>Extinguishing Media</b>	
<b>Suitable Media:</b>	In case of fire, use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Use water fog, alcohol resistant foam, dry chemical, carbon dioxide (CO <sub>2</sub> ) extinguisher or spray.
<b>Unsuitable Media:</b>	CAUTION: Use of water spray when fighting fire may be inefficient.
<b>Specific Hazards Arising from the Chemical:</b>	Keep product and empty container away from heat and sources of ignition as product will burn. Contact with strong oxidizers may cause fire. In the event of fire, cool tanks with water spray. Fire residues and contaminated fire extinguishing water must be contained, prevented from being discharged to any waterway, sewer or drain and disposed of in accordance with local regulations.
<b>Hazardous Combustion Products:</b>	Combustion products may include the following: Carbon dioxide (CO <sub>2</sub> ) Carbon monoxide (CO), and Nitrogen oxides.
<b>Protection of Fire Fighters:</b>	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

## Section 6. Accidental Release Measures

### Personal precautions, protective equipment and emergency procedures

<b>For non-emergency personnel:</b>	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Do not touch or walk through spilled material. Put on appropriate personal protective equipment. Floors may be slippery; use care to avoid falling.
<b>For emergency responders:</b>	If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. Ensure adequate ventilation. Keep people away from and upwind of spill/leak. See also the information in "For non-emergency personnel".
<b>Environmental precautions:</b>	Avoid dispersal of spilled material onto soil or into waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). See Section 12 for ecological information.

### Methods and materials for containment and cleaning up

<b>Small Spills:</b>	Stop leak if without risk. Move containers from spill area. Absorb with an inert material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
<b>Large Spills:</b>	Stop leak if without risk. Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Dispose of via a licensed waste disposal contractor.

NOTE: If RQ (Reportable Quantity) is exceeded or if spills enter a body of water, report immediately to the USEPA's National Response Center at (800) 424-8802. Check with your local and state regulators regarding their reporting requirements.

## Section 7. Handling and Storage

### Precautions for safe handling

<b>Protective measures:</b>	Safety glasses with shield shields. Eye protection and face shield should be used if material is used under conditions that increase the chances of splattering. Put on
-----------------------------	---

- Advice on general occupational hygiene:** appropriate personal protective equipment (see Section 8). Keep out of reach of children. Do not get in eyes, on skin or on clothing. Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Wash thoroughly after handling. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
- Conditions for safe storage, Including any incompatibilities:** Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials, strong oxidizing agents (see Section 10) and food and drink. Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity). Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Use appropriate containment to avoid environmental contamination. Avoid contaminating soil or releases into sewage or drainage systems and bodies of water.

## Section 8. Exposure Controls/Personal Protection

### Control parameters

#### Occupational Exposure Limits

Chemical name	ACGIH		OSHA		NIOSH	
	TLV	STEL	PEL	STEL	TWA	Ceiling
Lubricant Base Oil (Petroleum) Highly refined mineral oils (C15-C50)	5 mg/m <sup>3</sup> (mist)	10 mg/m <sup>3</sup> (mist)	5 mg/m <sup>3</sup> (mist)	–	–	–

- Appropriate engineering controls:** Good general ventilation should be sufficient to control worker exposure to airborne contaminants. Emergency shower and eyewash station.
- Environmental exposure controls:** Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.
- Individual protection measures**
- Hygiene measures:** Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing.
- Eye/Face Protection:** Wear safety glasses with side shields. A face shield may be necessary under some conditions.
- Skin and Body Protection**
- Hand protection:** Wear protective gloves if prolonged or repeated contact is likely. Wear chemical resistant gloves. Recommended: Nitrile gloves. Consult your supervisor or Standard Operating Procedure (SOP) for special handling instructions.
- Body protection:** No protective equipment is needed under normal use conditions. For non-routine tasks, personal protection equipment for the body should be selected based on the task being performed and the risks involved.
- Other skin protection:** Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved.
- Respiratory protection:** No respiratory protection is normally required. If user operation generates an oil mist, determine if airborne concentrations are below the occupational exposure limit for mineral oil mist. If not, wear an approved respirator that provides adequate protection from measured concentrations of this material. The correct choice of respiratory protection depends upon the chemicals being handled, the conditions of work and use, and the condition of the respiratory equipment. For air-purifying respirators use a particulate cartridge. Use a positive pressure air-supplying respirator in circumstances where air-purifying respirators may not provide adequate protection.

## Section 9. Physical and Chemical Properties

<b>Appearance</b>	<b>(Typical or Target)</b>
<b>Physical State:</b>	Liquid
<b>Color:</b>	Straw colored
<b>Odor:</b>	Petroleum like
<b>Odor threshold:</b>	Not available
<b>pH:</b>	Not applicable
<b>Boiling Point:</b>	Not available
<b>Flash Point (Closed cup):</b>	>126.7°C (>260°F)
<b>Evaporation rate (Butyl acetate = 1):</b>	Not available
<b>Flammability (solid, gas):</b>	Not applicable. Based on - Physical state
<b>Flammable Limit in Air</b>	Not available
<b>Vapor pressure:</b>	Not available
<b>Vapor density (Air = 1):</b>	>1
<b>Relative density:</b>	0.92 - 0.94 g/l at 15°C
<b>Solubility:</b>	In soluble in water
<b>Partition coefficient (n-Octanol/water):</b>	Not available
<b>Auto-ignition temperature:</b>	Not available
<b>Decomposition temperature:</b>	Not available
<b>Viscosity – Kinematic (cSt (mm<sup>2</sup>/s) @ 40°C):</b>	65 – 173.5
<b>Viscosity – Kinematic (cSt (mm<sup>2</sup>/s) @ 100°C):</b>	8.3 – 12.4
<b>VOC %:</b>	0 %

## Section 10. Stability and Reactivity

<b>Reactivity:</b>	Not reactive under normal storage conditions
<b>Chemical stability:</b>	Stable under normal storage conditions
<b>Possibility of hazardous reactions:</b>	None under normal processing.
<b>Hazardous polymerization:</b>	Hazardous polymerization does not occur.
<b>Conditions to avoid:</b>	Heat, flames and sparks.
<b>Incompatible materials:</b>	Oxidizing agents and open flames.
<b>Hazardous decomposition products:</b>	May include: Fumes, Oil vapors, Smoke, Carbon Oxides (including carbon monoxide and carbon dioxide), Aldehydes, Nitrogen oxides, and incomplete combustion products.

## Section 11. Toxicological Information

### Information on toxicological effects

**Basis for Assessment:** Information given is based on product data, a knowledge of the components and the toxicity of similar products.

**Likely Routs of Exposure:** Exposure may occur via skin absorption, skin or eye contact, inhalation, ingestion.

### Substance/Mixture

Acute Toxicity	Oral LD50	Dermal LD50	Inhalation LC50
Lubricant Base Oil (Petroleum) Highly refined mineral oils (C15- C50) Mixture - Typical	>2000 mg/Kg (rat)	>2000 mg/Kg (rabbit)	>2.18 mg/L (rat) 4h (mist)

<b>Aspiration hazard:</b>	Not expected to be an aspiration hazard.
<b>Skin Corrosion/Irritation:</b>	No known significant effects or critical hazards.
<b>Serious Eye Damage/Irritation:</b>	No known significant effects or critical hazards.
<b>Skin Sensitization:</b>	No known significant effects or critical hazards.
<b>Respiratory Sensitization:</b>	No known significant effects or critical hazards.
<b>Specific Target Organ Toxicity (Single Exposure) - STOT-SE:</b>	No known significant effects or critical hazards.
<b>Specific Target Organ Toxicity (Repeated Exposure) – STOT-RE:</b>	No known significant effects or critical hazards.
<b>Carcinogenicity:</b>	No known significant effects or critical hazards.

**Germ Cell Mutagenicity:** No known significant effects or critical hazards.

**Reproductive Toxicity:** No known significant effects or critical hazards.

### Information on Toxicity Effects of Compounds

#### Lubricant Base Mineral Oil (Petroleum)

Mineral oils are known to cause cancer because of carcinogenic components (e.g. Benzene). The lubricant base mineral oils in this product have been highly refined by a variety of processes including severe solvent extraction, severe hydro cracking or severe hydro treating to reduce aromatics and improve performance characteristics. The oils in this product meet the IP-346 criteria of less than 3 percent PHA's and are not considered to be a carcinogen by the International Agency for Research on Cancer.

None of the oils in this product require a cancer warning under the OSHA Hazard Communication Standard (29 CFR 1910.1200). These oils have not been listed in the National Toxicology Program (NTP) Annual Report nor have they been classified by the International Agency for Research on Cancer (IRAC) as: carcinogenic to humans (Group 1), probably carcinogenic to humans (Group 2A), or possibly carcinogenic to humans (Group 2B). These oils have not been classified by the American Conference of Governmental Industrial Hygienists (ACGIH) as: confirmed human carcinogen (A1), suspected human carcinogen (A2), or confirmed animal carcinogen with unknown relevance to humans (A3).

## **Section 12. Ecological Information**

The information is based on data available for the material, the components of the material, and similar materials.

**Ecotoxicity:** No testing has been performed by the manufacturer. Ecotoxicity hazard is based on an evaluation of data for the components or a similar material. Not expected to be harmful to aquatic organisms.

**Mobility:** Base oil component – Low solubility and floats on water. It is expected to migrate from water to land. Expected to partition to sediment and wastewater solids.

**Soil/water partition coefficient (K<sub>oc</sub>):** Not available.

#### Persistence and degradation

**Biodegradation:** The material is not expected to be readily biodegradable. The biodegradability of this material is based on an evaluation of data for the components or a similar material.

#### Bioaccumulative potential

**Bioaccumulation:** This product is not expected to bioaccumulate through food chain in the environment.

**Other adverse effects:** No known significant effects or critical hazards.

**Other ecological information:** Spills may form a film on water surfaces causing physical damage to organisms. Oxygen transfer could also be impaired.

## **Section 13. Disposal Considerations**

### **Disposal recommendations based on material supplied.**

**Waste treatment methods:** This material, as supplied, is not a hazardous waste according to Federal regulations (40 CFR 261). Consult the appropriate state, regional, or local regulations for additional requirements. The generation of waste should be avoided or minimized wherever possible.

**Product waste:** Significant quantities of waste product residues should not be disposed of via the sanitary sewer but processed in a suitable effluent treatment plant. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Incineration or landfill should only be considered when recycling is not feasible. Oil collection services are available for used oil recycling.

**Contaminated packaging:** Empty containers or liners may retain some product residues and could pose a potential fire and

explosion hazard. Do not cut, puncture, or weld containers.

**Other information:** Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

## Section 14. Transport Information

**General information:** Petroleum lubricating oil - Not regulated.

	DOT Classification	IMDG	IATA
Bar & Chain Oil	Not Regulated	Not Regulated	Not Regulated

**Special precautions for user:** Transport within user's premises: Always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

## Section 15. Regulatory Information

### United States Regulations

**United States Inventory (TSCA 8b):** All components are listed or exempted.

**SARA 302/304:** No products were found.

**SARA 311/312:** Immediate (Acute) Health Effects: No  
 Delayed (Chronic) Health Effects: No  
 Fire Hazard: No  
 Sudden Release of Pressure Hazard: No  
 Reactivity Hazard: No

**SARA 313:**

The following components of this material are found on the EPCRA 313 list:  
 None

**Supplier notification:** This product does not contain any hazardous ingredients at or above regulated thresholds.

**CWA (Clean Water Act):** This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

**CERCLA:** This material, as supplied, does not contain any substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302).

### State Regulations

**Massachusetts:** None of the components are at or above regulated thresholds.  
**New Jersey:** None of the components are at or above regulated thresholds.  
**Pennsylvania:** None of the components are at or above regulated thresholds.  
**California Proposition 65:** WARNING: This product contains a chemical known to the State of California to cause cancer.  
 None

### Canada

**WHMIS Hazard Class:** Not classified. This Product Is Not Controlled Under WHMIS (Canada)

### International Chemical Inventories:

All components comply with the following chemical inventory requirements: DSL (Canada)

## Section 16. Other Information

<b>NFPA Rating:</b>	<b>Health Hazard – 0</b>	<b>Flammability – 1</b>	<b>Instability/Reactivity – 0</b>
<b>HMIS Rating:</b>	<b>Health Hazard – 0</b>	<b>Flammability – 1</b>	<b>Physical Hazards – 0</b>

(NFPA & HMIS Hazard Rating Key: 0 - Minimum Hazard; 1 - Slight Hazard; 2 - Moderate Hazard; 3 - High Hazard; 4 - Extreme Hazard; \* - Chronic Hazard Indicator, & PPE - Personal Protective Equipment Index A to L. These values are obtained using the guidelines or published evaluations prepared by the National Fire Protection Association (NFPA) or the National Paint and Coating Association (for HMIS or Hazardous Material Identification System).

### Key to abbreviations:

OSHA = Occupational Safety and Health Administration  
 ACGIH= American Conference of Industrial Hygienists  
 ATE = Acute Toxicity Estimate  
 BCF = Bioconcentration Factor  
 CAS = Chemical Abstracts Service Registry Number  
 cSt = Centistroke (mm<sup>2</sup>/s)  
 GHS = Global Harmonized System of Classification and Labeling  
 Of Chemicals.  
 IATA = International Air Transport Association  
 IBC = Intermediate Bulk Container  
 IMDG = International Maritime Dangerous Goods

LogPow = logarithm of the octanol/water partition coefficient  
 OEL = Occupational Exposure Limit  
 SDS = Safety Data Sheet  
 STEL = Short term exposure Limit  
 UN = United Nations  
 UN Number = United Nations Number, a four digit number  
 assigned by the United Nations Committee of Experts on  
 the Transportation of Dangerous Goods

**Prepared By: OMNI Specialty Packaging EH&S Department**

**Revision Date: April 20, 2018**

**Status: Final**

**Revision Note: Revision 002 – Review and update.**

### [Consumer Product Improvement Act of 2008. General Conformity Certification](#)

**For Consumer Product Packages: This product has been evaluated and is certified to be labeled and packaged in compliance with the applicable provisions of the Federal Hazardous Substance Act as stated in 16 CFR 1500 and enforced by the Consumer Product Safety Commission. Where applicable the products that require Child Resistant Closures are packaged in accordance with the Poison Prevention Packaging Act as stated in 16 CFR 1700 and enforced by the Consumer Product Safety Commission. All closures have been tested in accordance with the latest protocols. No testing is required to certify compliance with the provisions. The date of the manufacturing is stamped on the product container.**

### Disclaimer

All reasonably practicable steps have been taken to ensure the information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. This information is furnished upon condition that the person receiving it shall make their own determination of the suitability of the material for their particular purpose.

**End of Safety Data Sheet**



# Safety Data Sheet

Conforms to HCS 2012 (29 CFR 1910.1200)

## Section 1. Identification

### Product identifier

<b>Product Name:</b>	<b>STIHL MOTOMIX® High Performance Patented Fuel</b>
<b>Part/Product Number(s):</b>	7010-871-0203, 7010-871-0204, 7010-871-0234, 7010-871-0235, 7010-871-0248 7010-871-0249, 7010-319-0003, 7010-319-0004, 7010-871-0273
<b>Material Use:</b>	Premixed 2-cycle engine fuel mixture
<b>Uses advised against:</b>	Not for use in non-2-cycle engines
<b>Manufacturer:</b>	Omni Specialty Packaging, LLC 10399 Hwy 1 South Shreveport, LA 71115 1-318-524-1100
<b>Issuing date:</b>	June 3, 2015
<b>Revision date:</b>	November 29, 2016
<b>Revision number:</b>	005
<b>Company contact:</b>	OMNI EHS Department: E-Mail: <a href="mailto:sds@osp.cc">sds@osp.cc</a> ; Contact phone: 318-524-1100 (Monday-Friday, 8:00 AM – 4:00 PM, CST)
<b>In case of emergency:</b>	CHEMTREC: Within USA and Canada: 1 (800) 424-9300 (24/7) CHEMTREC: Outside USA and Canada: +1 703-527-3887 (24/7)

## Section 2. Hazards Identification

**OSHA/HCS Status:** This product is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200).

### US GHS Classification of the Substance or Mixture:

Flammable Liquid – Category 1  
Aspiration Hazard – Category 1  
Skin Corrosion/Irritation – Category 2  
Specific Target Organ Toxicity (Single Exposure) – Category 3 (respirator irritation, narcosis)  
Hazardous to the Aquatic Environment – Chronic – Category 2

### GHS Label Elements



### Hazard pictograms:

**Signal word:** DANGER

**Hazard statement:** Extremely flammable liquid and vapor.  
Causes skin irritation.  
May cause drowsiness or dizziness.  
May be fatal if swallowed and enters airways.  
Toxic to aquatic life with long lasting effects.

**Precautionary statements**

- General:** Read label before use. Keep out of reach of children. If medical advice is needed, have product container or label at hand.
- Prevention:** Keep away from heat/sparks/open flames/hot surfaces. No smoking.  
Keep container tightly closed.  
Ground and bond container and receiving equipment.  
Use explosion-proof electrical/ventilating/lighting/equipment. Use only non-sparking tools.  
Take precautionary measures against static discharge.  
Use personal protective equipment as required.  
Wear protective gloves/protective clothing/eye protection/face protection.  
Wash hands and forearms thoroughly after handling.  
Do not breathe mist/vapors/ sprays.  
Use only outdoors or in well-ventilated area.  
Do not eat, drink or smoke when using this product.  
Avoid release to the environment.
- Response:** Collect spillage.  
In case of fire: Use water spray, fog, dry chemical fire extinguishers or hand held fire extinguisher.  
IF ON SKIN (or hair): Wash with plenty of soap and water.  
Remove/Take off immediately all contaminated clothing and wash before reuse. If skin irritation occurs, get medical advice/attention.  
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a poison center or doctor/physician if you feel unwell.  
IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. Do not induce vomiting.
- Storage:** Store in a well-ventilated place.  
Keep cool. Keep container tightly closed.  
Store locked up.
- Disposal:** Dispose of contents/container in accordance with local/regional/national/international regulations.
- Hazards not otherwise classified (HNOC):** Defatting to the skin.

**Section 3. Composition/Information on Ingredients**

Mixture consisting of the following components, special 2-stroke gasoline.

**Substance/Mixture:** Mixture

<b>Components Name</b>	<b>CAS number</b>	<b>Weight %*</b>	<b>GHS Classification</b>
Naphtha (petroleum), full-range alkylated, butane-contg.	68527-27-5	50 – 100	Flam. Liq. 1, Asp. Tox. 1, Skin Irrit. STOT-SE 3, Aquatic Acute 2, Aquatic Chronic 2
Methylbutane (Isopentane)	78-78-4	10 – 25	Flam. Liq. 1, Asp. Tox. 1, STOT-SE 3, Aquatic Chronic 2
Hydrocarbons, C4, 1,3-Butadiene-free, polymd., triisobuylene fraction, hydrogenated	93685-81-5	10 – 25	Flam. Liq. 1, Asp. Tox. 1, Aquatic Chronic 4
2-Cycle Engine Oil Additives Mixture	Proprietary	<1	Not classified

\* The exact percentage of composition has been withheld as a trade secret.

**Section 4. First Aid Measures****Description of necessary first aid measures**

- Eye contact:** In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Eyelids should be held away from the eyeball to ensure thorough rinsing. Check for and remove any contact lenses. Get medical attention.
- Skin contact:** Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Get medical attention if irritation or redness develops.

- Inhalation:** If inhaled, remove to fresh air. If person is not breathing, provide artificial respiration. If necessary, provide additional oxygen once breathing is restored if trained to do so. Get medical attention immediately.
- Ingestion:** Do NOT induce vomiting. Do not give liquids. Obtain immediate medical attention. If spontaneous vomiting occurs, lean victim forward to reduce the risk of aspiration (inhalation into respiratory system). Monitor for breathing difficulties. Small amounts of material which enter the mouth should be rinsed out until the taste is dissipated.
- Protection of first-aiders:** No action shall be taken involving any personal risk or without suitable training. Remove all sources of ignition. Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Wear personal protective clothing (see section 8).

**Most important symptoms and effects, both acute and delayed**

See Section 11 for more detailed information on health effects and symptoms.

**Most Important**

**Symptoms and Effects:** Aspiration hazard. If material enters lungs, signs and symptoms may include coughing, choking, wheezing, and/or fever. The onset of respiratory symptoms may be delayed for several hours after exposure. Breathing of high vapor concentrations may cause central nervous system (CNS) depression resulting in dizziness, light-headedness, headache, nausea and loss of coordination. Continued inhalation may result in unconsciousness and death. Eye irritation signs and symptoms may include burning sensation and a temporary redness of the eye. Skin irritation signs and symptoms may include burning sensations, redness, swelling, and /or blisters.

**Note to physician:** Treat symptomatically.

## Section 5. Fire-Fighting Measures

**Uniform Fire Code:** Class IB

**Flash Point:** <-56°C (-68.8°F)

**Extinguishing Media**

**Suitable Media:** In case of fire, use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Use water fog, fire fighting foam (suitable for polar solvents), dry chemical, carbon dioxide (CO<sub>2</sub>) extinguisher or spray.

**Unsuitable Media:** CAUTION: Use of water spray when fighting fire may be inefficient.

**Specific Hazards Arising from the Chemical:**

Keep product and empty container away from heat and sources of ignition as product will burn. Contact with strong oxidizers may cause fire. Vapors may be ignited rapidly when exposed to heat, spark, open flame or other source of ignitions. Flowing product may be ignited by self-generated static electricity. When mixed with air and exposed to ignition source, flammable vapors can burn in the open or explode in confined spaces. Being heavier than air, vapors may travel long distances to an ignition source and flash back. Will float on water and can be reignited on the surface of water. In the event of fire, cool tanks with water spray. Fire residues and contaminated fire extinguishing water must be contained, prevented from being discharged to any waterway, sewer or drain and disposed of in accordance with local regulations.

**Hazardous Combustion Products:** Combustion products may include the following: Carbon dioxide (CO<sub>2</sub>) Carbon monoxide (CO), Nitrogen oxides and non-combusted hydrocarbons (smoke).

**Protection of Fire Fighters:** Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

## Section 6. Accidental Release Measures

**Personal precautions, protective equipment and emergency procedures**

**For non-emergency personnel:** No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from

entering. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Do not touch or walk through spilled material. Put on appropriate personal protective equipment. Floors may be slippery; use care to avoid falling.

**For emergency responders:**

Response and clean-up crews must be properly trained and must use proper protective equipment (see Section 8). Evacuate nonessential personnel and remove or secure all sources of ignition. Consider wind direction; stay upwind and uphill, if possible. Evacuate the direction of product travel, diking sewers, etc. to contain spill area. Spills may infiltrate subsurface soil and groundwater; professional assistance may be necessary to determine the extent of subsurface impact. If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. Pay attention to flashback. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. See also the information in "For non-emergency personnel".

**Environmental precautions:**

Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers by diking, absorbents, or absorbent booms, if possible. The use of fire fighting foam may be useful in certain situations to reduce vapors. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). See Section 12 for ecological information.

**Methods and materials for containment and cleaning up****Small Spills:**

Stop leak if without risk. Move containers from spill area. Absorb with an inert material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

**Large Spills:**

Stop leak if without risk. Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Dispose of via a licensed waste disposal contractor.

NOTE: If RQ (Reportable Quantity) is exceeded or if spills enter a body of water, report immediately to the USEPA's National Response Center at (800) 424-8802. Check with your local and state regulators regarding their reporting requirements

**Section 7. Handling and Storage****Precautions for safe handling****Protective measures:**

USE ONLY AS A MOTOR FUEL. DO NOT SIPHON BY MOUTH. Handle as a flammable liquid. Keep away from heat, sparks, and open flame! Bond and ground product transfer to reduce the possibility of static-initiation of fire or explosion. Eye protection and face shield should be used if material is used under conditions that increase the chances of splattering. Put on appropriate personal protective equipment (see Section 8). Keep out of reach of children.

**Advice on general occupational hygiene:**

Do not get in eyes, on skin or on clothing. Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Wash thoroughly after handling. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

**Conditions for safe storage, Including any incompatibilities:**

Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials, strong oxidizing agents (see Section 10) and food and drink. Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity). Keep container tightly closed and sealed until ready for use. Carry out filling operations only out door or in an area with good ventilation/exhaustion at the workplace. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Use appropriate containment to avoid environmental contamination. Avoid contaminating soil or releases into sewage or drainage systems and bodies of water.

**Bulk material handling:**

Static Hazard: Electrostatic charge may accumulate and create a hazardous condition when handling this material. To minimize this hazard, bonding and grounding may be necessary but may not, by themselves, be sufficient.

**Section 8. Exposure Controls/Personal Protection**

Control parameters

**Occupational Exposure Limits**

Chemical name	ACGIH		OSHA		NIOSH	
	TLV TWA	STEL	PEL	STEL	TWA	STEL
Naphtha (petroleum), full-range alkylated, butane-contg.	200 ppm	No data				
Methylbutane (Isopentane)	600 ppm	No data				
Hydrocarbons, C4, 1,3-Butadiene-free, polymd., triisobuylene fraction, hydrogenated	No data					

**Appropriate engineering controls:** Use adequate ventilation to keep vapor concentration of this product below occupational exposure and flammable limits, particularly in confined spaces.

**Environmental exposure controls:** Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

**Hygiene measures:**

Keep away from foodstuffs, beverages and food. Wash hands, forearms and face thoroughly after handling product before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Avoid contact with the eyes and skin. Ensure that eyewash stations and safety showers are close to the workstation location.

**Eye/Face Protection:**

Wear safety glasses with side shields. A face shield or chemical goggles where there is a possibility of splashing or spraying

Skin and Body Protection

**Hand protection:**

Wear protective gloves if prolonged or repeated contact is likely. Wear chemical resistant gloves. Recommended: Nitrile. Always seek advice from your glove suppliers. Consult your supervisor or Standard Operating Procedure (SOP) for special handling instructions.

**Body protection:**

None required for normal product use. For non-routine or spill response, chemical protective clothing such as E.I DuPont TyChem® , Saranex® or equivalent recommend based on degree of exposure. For non-routine tasks, personal protection equipment for the body should be selected based on the task being performed and the risks involved.

**Other skin protection:**

Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved.

**Respiratory protection:**

No respiratory protection is normally required if used outdoors or in a well ventilated area. A NIOSH/MSHA approved air-purifying respirator with organic vapor cartridges or canister may be permissible under certain circumstances where airborne concentrations are or may exceed exposure limits of odor or irritation. Protection provided by air -purifying respirators is limited.

Use a positive pressure, air-supplied respirator if there is a potential for uncontrolled release, exposure levels are not known, in oxygen-deficient atmospheres, or any other circumstances where an air-purifying respirator may not provide adequate protection.

**Section 9. Physical and Chemical Properties**

Appearance

**Physical State:**  
**Color:**

(Typical or Target)

Liquid  
Light green

<b>Odor:</b>	Petroleum distillates
<b>Odor threshold:</b>	Not available
<b>pH:</b>	Not applicable
<b>Boiling Point:</b>	35 to 180°C (95 to 356°F)
<b>Flash Point (Closed cup):</b>	< -56°C (< -68.8°F) (Typical or Target)
<b>Pour Point:</b>	Not determined
<b>Evaporation rate (Butyl acetate = 1):</b>	Not available
<b>Flammability (solid, gas):</b>	Not applicable. Based on - Physical state
<b>Flammable) Limit in Air</b>	
<b>Lower Flammability Limit (LEL):</b>	1.1%
<b>Upper Flammability Limit (FEL):</b>	6.0%
<b>Vapor pressure at 50 °C:</b>	< 95 kPa
<b>Vapor density (Air = 1):</b>	>1
<b>Relative density at 20 °C:</b>	0.7 g/cm <sup>3</sup> (Typical or Target)
<b>Solubility:</b>	Not miscible or difficult to mix
<b>Partition coefficient (n-Octanol/water):</b>	Not available
<b>Auto-ignition temperature:</b>	Not available
<b>Decomposition temperature:</b>	Not available
<b>Viscosity – Kinematic (cSt (mm<sup>2</sup>/s)@ 40°C):</b>	Not determined
<b>Viscosity – Dynamic (cSt (mm<sup>2</sup>/s) @ 100°C):</b>	Not determined
<b>VOCCcontent:</b>	98.0 g/l / 0.82 lb/gal

## Section 10. Stability and Reactivity

<b>Reactivity:</b>	Not reactive under normal storage conditions
<b>Chemical stability:</b>	Stable under normal storage conditions
<b>Possibility of hazardous reactions:</b>	None under normal processing.
<b>Hazardous polymerization:</b>	Hazardous polymerization does not occur.
<b>Conditions to avoid:</b>	Heat, flames and sparks.
<b>Incompatible materials:</b>	Oxidizing agents, Halogens, Halogenated compounds
<b>Hazardous decomposition products:</b>	May include: Fumes, Oil vapors, Smoke, Carbon Oxides (including carbon monoxide and carbon dioxide), Aldehydes, Nitrogen oxides, and incomplete combustion products.

## Section 11. Toxicological Information

### Information on toxicological effects

**Basis for Assessment:** Information given is based on product data, a knowledge of the components and the toxicity of similar products.

**Likely Routes of Exposure:** Exposure may occur via inhalation, ingestion, skin absorption

### Substance/Mixture

<b>Acute Toxicity</b>	<b>Oral LD50</b>	<b>Dermal LD50</b>	<b>Inhalation LC50</b>
Naphtha (petroleum), full-range alkylated, butane-contg. (68527-27-5)	>5000 mg/kg (rat)	>2000 mg/kg (rabbit)	>5 mg// (rat)
Methylbutane (78-78-4)	>2000 mg/Kg (rat) (OECD 401)	No data	>25.3 mg/L (rat) 4h (OECD 403)

**Aspiration hazard:** Aspiration hazard – Category 1.

**Skin Corrosion/Irritation:** Irritating to skin and mucus membranes.

**Serious Eye Damage/Irritation:** No irritating effect.

**Respiratory Irritation:** No further relevant information available.

**Skin Sensitization:** No sensitizing effect known.

**Respiratory Sensitization:** No further relevant information available.

### **Specific Target Organ Toxicity**

**(Single Exposure) - STOT-SE:** Category 3 High concentrations may cause central nervous system (CNS) depression resulting in headaches, dizziness and nausea: continued inhalation may result in

- unconsciousness and/or death. (Naphtha (petroleum), full-range alkylate, butane-contg. Methylbutane,
- Specific Target Organ Toxicity (Repeated Exposure) – STOT-RE:** No further relevant information available.
- Carcinogenicity:** No further relevant information available.
- Germ Cell Mutagenicity:** No further relevant information available.
- Reproductive Toxicity:** No further relevant information available.

**Section 12. Ecological Information**

The information is based on data available for the material, the components of the material, and similar materials.

- Ecotoxicity:** Toxic to fish.
- Mobility:** No further relevant information available.
- Soil/water partition coefficient (K<sub>oc</sub>):** No further relevant information available..
- Persistence and degradation Biodegradation:** Not available.
- Bioaccumulative potential Bioaccumulation:** No further relevant information available.
- Other adverse effects:** No further relevant information available.
- Other ecological information:** Water hazard class 2 (manufacturer Self-assessment): hazardous to water. Do not allow product to reach ground water, water bodies or sewage systems. Danger to drinking water if even small quantities leak into soil. Also, poisonous for fish and plankton in water bodies. Toxic for aquatic organisms.

**Section 13. Disposal Considerations**

Disposal recommendations based on material supplied.

- Waste treatment methods:** This material may be a hazardous waste according to Federal regulations (40 CFR 261). Consult the appropriate state, regional, or local regulations for additional requirements. The generation of waste should be avoided or minimized wherever possible.
- Product waste:** Significant quantities of waste product residues should not be disposed of via the sanitary sewer but processed in a suitable effluent treatment plant. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements.
- Contaminated packaging:** Empty containers or liners may retain some product residues and could pose a potential fire and explosion hazard. Do not cut, puncture, or weld containers.
- Other information:** Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

**Section 14. Transport Information**

**General information:** Gasoline mixture.

	DOT Classification	IMDG	IATA
UN Number	UN 1203	UN 1203	UN 1203
Proper Shipping Name	Gasoline	Gasoline	Gasoline
Hazard class(s)	3	3	3
Packaging group	II	II	II

Environmental hazards	No	Yes	No
Marine Pollutant	Yes	Yes	-
Addition information	<p><b>Limited Quantity :</b> Yes</p> <p><b>Packaging instructions:</b> <b>Passenger aircraft</b> Quantity Limitation: 5 L</p> <p><b>Cargo Aircraft:</b> Quantity Limitation: 60 L</p> <p><b>Special provisions</b> 144, 177, B1, B33, IB2, T8</p> <p><b>Remarks:</b> May be classed as a Consumer Commodity, ORM-D for Small Packages, see 49CFR173.150</p>	<p>The marine pollutant mark is not required when transported in sized of ≤ 5L or ≤ 5 kg.</p> <p><b>Emergency schedules (EmS):</b> F-E, S-E</p> <p>Limited Quantity (LQ) : 1 L Excepted Quantity (EQ) Code E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml</p> <p><b>Special provisions:</b> 243</p>	<p>The environmentally hazardous substance mark may appear if required by other transportation regulations.</p> <p><b>Passenger and Cargo Aircraft:</b> Quantity Limitation: 5 L Packaging instructions: 353</p> <p><b>Cargo Aircraft Only:</b> Quantity Limitation: 60 L Packaging instructions: 364</p> <p><b>Limit Quantity – Passenger Aircraft:</b> Quantity Limitation: 1L Packaging instructions: Y341</p> <p><b>Special provisions:</b> A100</p>

**Special precautions for user:** Transport within user's premises: Always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

**Section 15. Regulatory Information**

United States Regulations

**United States Inventory (TSCA 8b):** All components are listed or exempted.  
**SARA 302/304:** No products were found.

**SARA 311/312:**

Immediate (Acute) Health Effects:	Yes
Delayed (Chronic) Health Effects:	Yes
Fire Hazard:	Yes
Sudden Release of Pressure Hazard:	No
Reactivity Hazard:	No

**SARA 313:** The following components of this material are found on the EPCRA 313 list:  
None

**Supplier notification:** This product does not contain any hazardous ingredients at or above regulated thresholds.

**CWA (Clean Water Act):** This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

**CERCLA:** This material, as supplied, does not contain any substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302).

State Regulations

**Massachusetts:** The following components are listed: None  
**New Jersey:** The following components are listed: Methy lbutane  
**New York:** The following components are listed: None  
**Pennsylvania:** The following components are listed: None  
**California Proposition 65:** WARNING: This product does not contain any chemical known to the State of California to cause cancer or to cause birth defects.

**Section 16. Other Information**

<b>NFPA Rating:</b>	<b>Health Hazard – 1</b>	<b>Flammability – 3</b>	<b>Instability/Reactivity – 0</b>
<b>HMIS Rating:</b>	<b>Health Hazard – 1</b>	<b>Flammability – 3</b>	<b>Physical Hazards – 0</b>

(NFPA & HMIS Hazard Rating Key: 0 - Minimum Hazard; 1 - Slight Hazard; 2 - Moderate Hazard; 3 - High Hazard; 4 - Extreme Hazard; \* - Chronic Hazard Indicator, & PPE - Personal Protective Equipment Index A to L. These values are obtained using the guidelines or published evaluations prepared by the National Fire Protection Association (NFPA) or the National Paint and Coating Association (for HMIS or Hazardous Material Identification System).

**Key to abbreviations:**

OSHA = Occupational Safety and Health Administration  
 ACGIH= American Conference of Industrial Hygienists  
 ATE = Acute Toxicity Estimate  
 BCF = Bioconcentration Factor  
 CAS = Chemical Abstracts Service Registry Number  
 cSt = Centistroke (mm<sup>2</sup>/s)  
 GHS = Global Harmonized System of Classification and Labeling Of Chemicals.  
 IATA = International Air Transport Association  
 IBC = Intermediate Bulk Container  
 IMDG = International Maritime Dangerous Goods

LogPow = logarithm of the octanol/water partition coefficient  
 OEL = Occupational Exposure Limit  
 SDS = Safety Data Sheet  
 STEL = Short term exposure Limit  
 STOT-SE=Specific Target Organ Toxicity-Single Exposure  
 STOT-RE=Specific Target Organ Toxicity-Repeated Exposure  
 UN = United Nations  
 UN Number = United Nations Number, a four digit number assigned by the United Nations Committee of Experts on the Transportation of Dangerous Goods

**Prepared By: OMNI Specialty Packaging EH&S Department**

**Revision Date: November 29, 2016**

**Status: Final**

**Revision Note: Revision 002 – Addition of new 32 oz Part Number**

[Consumer Product Improvement Act of 2008, General Conformity Certification](#)

**For Consumer Product Packages:** This product has been evaluated and is certified to be labeled and packaged in compliance with the applicable provisions of the Federal Hazardous Substance Act as stated in 16 CFR 1500 and enforced by the Consumer Product Safety Commission. Where applicable the products that require Child Resistant Closures are packaged in accordance with the Poison Prevention Packaging Act as stated in 16 CFR 1700 and enforced by the Consumer Product Safety Commission. All closures have been tested in accordance with the latest protocols. No testing is required to certify compliance with the provisions. The date of the manufacturing is stamped on the product container.

Disclaimer

All reasonably practicable steps have been taken to ensure the information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. This information is furnished upon condition that the person receiving it shall make their own determination of the suitability of the material for their particular purpose.

**End of Safety Data Sheet**

# STIHL HP (HIGH PERFORMANCE) 2-CYCLE ENGINE OIL

Packaged for Stihl Incorporated, 536 Viking Drive, Virginia Beach, VA 23452



## Safety Data Sheet

Conforms to HCS 2012 (29 CFR 1910.1200)

### Section 1. Identification

#### Product identifier

**Product Name:** STIHL HP (High Performance) 2-Cycle Engine Oil

**Other names:** F3E

**Part/Product Number(s):** 0781-319-8008, 0781-319-8009, 0781-319-8010, 0781-319-8014, 0781-319-8015, 0781-319-8016, 0781-319-8044, 0781-319-8045, 0781-319-8049, 0781-319-8051, 7010-871-0208, 7010-871-0177

**Material Use:** 2-cycle engine fuel additive

**Uses advised against:** Not for use in non-2-cycle engines

**Manufacturer:** Omni Specialty Packaging, LLC  
10399 Hwy 1 South  
Shreveport, LA 71115  
1-318-524-1100

**Issuing date:** May 21, 2015

**Revision date:** June 2, 2015

**Revision number:** 001

**Company contact:** OMNI EHS Department; E-Mail: [sds@osp.cc](mailto:sds@osp.cc); Contact phone: 318-524-1100  
(Monday-Friday, 8:00 AM – 4:00 PM, CST)

**In case of emergency:** CHEMTREC: Within USA and Canada: 1 (800) 524-9300 (24/7)  
CHEMTREC Outside USA and Canada: +1 703-527-3887 (24/7)

### Section 2. Hazards Identification

**OSHA/HCS Status:** This product is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200).

**Classification of the substance or Mixture:** Not classified

#### GHS Label Elements

**Hazard pictograms:**

**Signal word:** None

**Appearance:** Blue    **Physical State:** Liquid    **Odor:** Petroleum distillates

**Hazard statement:** None

#### Precautionary statements

**General:** Read label before use. Keep out of reach of children. If medical advice is needed, have product container or label at hand.

**Prevention:** Not applicable

**Response:** Not applicable

**Storage:** Not applicable

**Disposal:** Not applicable

**Hazards not otherwise classified (HNOC):** Defatting to the skin.

**Other information:** Product diluted with gasoline must be handled with the same precautions used for gasoline. Before mixing, the Safety Data Sheet for gasoline should be consulted for any precautionary measures necessary.

### Section 3. Composition/Information on Ingredients

Petroleum mineral oil lubricant base stock with proprietary performance additives mixture.

**Substance/mixture:** Mixture

<u>Components Name</u>	<u>CAS number</u>	<u>Weight %*</u>
Lubricant Base Oil (Petroleum) Highly refined mineral oils (C15-C50)	Various	85 – 95
2-Cycle Engine Oil Additives Mixture	Proprietary	5 – 15

This product does not contain known hazardous materials at the  $\geq 1\%$  level or known carcinogens at the  $\geq 0.1\%$  level as defined by 29 CFR 1910.1200.

\* The exact percentage of composition has been withheld as a trade secret.

### Section 4. First Aid Measures

#### Description of necessary first aid measures

- General Advice:** No specific first aid measures are required. Get medical attention if irritation develops and persists.
- Eye contact:** In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Eyelids should be held away from the eyeball to ensure thorough rinsing. Check for and remove any contact lenses. Get medical attention if irritation develops and persists.
- Skin contact:** Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Get medical attention if irritation or allergic reaction develops and persists.
- Inhalation:** In case of inhalation of decomposition products in a fire, symptoms may be delayed. If inhaled, remove to fresh air. The exposed person may need to be kept under medical surveillance for 48 hours. Get medical attention if symptoms occur.
- Ingestion:** Do NOT induce vomiting. Drink plenty of water. If symptoms persist, call a physician.
- Protection of first-aiders:** No action shall be taken involving any personal risk or without suitable training. Remove all sources of ignition. Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Wear personal protective clothing (see section 8).

#### Most important symptoms and effects, both acute and delayed

See Section 11 for more detailed information on health effects and symptoms.

#### **Most Important**

**Symptoms and Effects:** Personnel with pre-existing skin disorders should avoid contact with this product. Under normal use conditions, no adverse effects to health are known.

**Eye contact:** Not expected to cause prolonged or significant eye irritation.

**Skin contact:** Contact with skin is not expected to cause prolonged or significant irritation. Contact with skin is not expected to cause an allergic skin response. Not expected to be harmful to internal organs if absorbed through the skin.

**Inhalation:** Not expected to be harmful if inhaled. Contains petroleum-based mineral oil. May cause respiratory irritation or other pulmonary effects following prolonged or repeated inhalation of oil mist at airborne levels above the recommended oil mist exposure limit. Symptoms of respiratory irritation may include coughing and difficult breathing.

**Ingestion:** Not expected to be harmful if swallowed.

**Note to physician:** Treat symptomatically.

## Section 5. Fire-Fighting Measures

**Uniform Fire Code:** Class IIIB  
**Flash Point:** 222°C (432°F)

### Extinguishing Media

**Suitable Media:** In case of fire, use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Use water fog, alcohol resistant foam, dry chemical, carbon dioxide (CO<sub>2</sub>) extinguisher or spray.

**Unsuitable Media:** CAUTION: Use of water spray when fighting fire may be inefficient.

### **Specific Hazards Arising from the Chemical:**

Keep product and empty container away from heat and sources of ignition as product will burn. Contact with strong oxidizers may cause fire. In the event of fire, cool tanks with water spray. Fire residues and contaminated fire extinguishing water must be contained, prevented from being discharged to any waterway, sewer or drain and disposed of in accordance with local regulations.

**Hazardous Combustion Products:** Combustion products may include the following: Carbon dioxide (CO<sub>2</sub>) Carbon monoxide (CO), and Nitrogen oxides.

**Protection of Fire Fighters:** Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

## Section 6. Accidental Release Measures

### Personal precautions, protective equipment and emergency procedures

**For non-emergency personnel:** No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Do not touch or walk through spilled material. Put on appropriate personal protective equipment. Floors may be slippery; use care to avoid falling.

**For emergency responders:** If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. Ensure adequate ventilation. Keep people away from and upwind of spill/leak. Pay attention to flashback. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. See also the information in "For non-emergency personnel".

**Environmental precautions:** Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). See Section 12 for ecological information.

### Methods and materials for containment and cleaning up

**Small Spills:** Stop leak if without risk. Move containers from spill area. Absorb with an inert material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

**Large Spills:** Stop leak if without risk. Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Dispose of via a licensed waste disposal contractor.

NOTE: If RQ (Reportable Quantity) is exceeded or if spills enter a body of water, report immediately to the USEPA's National Response Center at (800) 424-8802. Check with your local and state regulators regarding their reporting requirements.

## Section 7. Handling and Storage

### Precautions for safe handling

**Protective measures:** Eye protection and face shield should be used if material is used under conditions that increase the chances of splattering. Put on appropriate personal protective equipment (see Section 8). Keep out of reach of children.

**NOTE:** Product diluted with gasoline must be handled with the same precautions used for gasoline. Before mixing, the Safety Data Sheet for gasoline should be consulted for any precautionary measures necessary.

**Advice on general occupational hygiene:** Do not get in eyes, on skin or on clothing. Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Wash thoroughly after handling. Remove contaminated clothing and protective equipment before entering eating areas.  
See also Section 8 for additional information on hygiene measures.

**Conditions for safe storage, including any incompatibilities:** Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials, strong oxidizing agents (see Section 10) and food and drink. Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity). Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Use appropriate containment to avoid environmental contamination. Avoid contaminating soil or releases into sewage or drainage systems and bodies of water.

## Section 8. Exposure Controls/Personal Protection

### Control parameters

#### Occupational Exposure Limits

Chemical name	ACGIH		OSHA		NIOSH	
	TLV	STEL	PEL	STEL	TWA	Ceiling
Lubricant Base Oil (Petroleum) Highly refined mineral oils (C15-C50)	5 mg/m <sup>3</sup> (mist)	10 mg/m <sup>3</sup> (mist)	5 mg/m <sup>3</sup> (mist)	–	–	–

**Appropriate engineering controls:** Good general ventilation should be sufficient to control worker exposure to airborne contaminants. Emergency shower and eyewash station.

**Environmental exposure controls:** Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

### Individual protection measures

**Hygiene measures:** Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

**Eye/Face Protection:** Wear safety glasses with side shields. A face shield may be necessary under some conditions.

### Skin and Body Protection

**Hand protection:** Wear protective gloves if prolonged or repeated contact is likely. Wear chemical resistant gloves. Recommended: Nitrile gloves. Consult your supervisor or Standard Operating Procedure (SOP) for special handling instructions.

**Body protection:** No protective equipment is needed under normal use conditions. For non-routine tasks, personal protection equipment for the body should be selected based on the

task being performed and the risks involved.

**Other skin protection:**

Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved.

**Respiratory protection:**

No respiratory protection is normally required. If user operation generates an oil mist, determine if airborne concentrations are below the occupational exposure limit for mineral oil mist. If not, wear an approved respirator that provides adequate protection from measured concentrations of this material. The correct choice of respiratory protection depends upon the chemicals being handled, the conditions of work and use, and the condition of the respiratory equipment. For air-purifying respirators use a particulate cartridge. Use a positive pressure air-supplying respirator in circumstances where air-purifying respirators may not provide adequate protection.

## Section 9. Physical and Chemical Properties

Appearance	(Typical or Target)
Physical State:	Liquid
Color:	Blue
Odor:	Petroleum distillates
Odor threshold:	Not available
pH:	Not applicable
Boiling Point:	Not available
Flash Point (Closed cup):	222°C (432°F) (Typical or Target)
Pour Point:	-25°C (-13°F) (Typical or Target)
Evaporation rate (Butyl acetate = 1):	Not available
Flammability (solid, gas):	Not applicable. Based on - Physical state
Flammable Limit in Air	Not available
Vapor pressure:	Not available
Vapor density (Air = 1):	>1
Relative density:	0.8820 - 0.8990 g/l at 15°C (Typical or Target)
Solubility:	In soluble in water
Partition coefficient (n-Octanol/water):	Not available
Auto-ignition temperature:	Not available
Decomposition temperature:	Not available
Viscosity – Kinematic (cSt (mm <sup>2</sup> /s)@ 40°C):	85 to 100
Viscosity – Kinematic (cSt (mm <sup>2</sup> /s) @ 100°C):	10.3 to 12
VOC %:	<0.026%

## Section 10. Stability and Reactivity

Reactivity:	Not reactive under normal storage conditions
Chemical stability:	Stable under normal storage conditions
Possibility of hazardous reactions:	None under normal processing.
Hazardous polymerization:	Hazardous polymerization does not occur.
Conditions to avoid:	Heat, flames and sparks.
Incompatible materials:	Oxidizing agents, Halogens, Halogenated compounds
Hazardous decomposition products:	May include: Fumes, Oil vapors, Smoke, Carbon Oxides (including carbon monoxide and carbon dioxide), Aldehydes, Nitrogen oxides, and incomplete combustion products.

## Section 11. Toxicological Information

### Information on toxicological effects

Basis for Assessment:	Information given is based on product data, a knowledge of the components and the toxicity of similar products.
Likely Routs of Exposure:	Exposure may occur via skin absorption, skin or eye contact, inhalation, ingestion.

Substance/Mixture

Acute Toxicity	Oral LD50	Dermal LD50	Inhalation LC50
Lubricant Base Oil (Petroleum) Highly refined mineral oils (C15- C50) Mixture - Typical	>2000 mg/Kg (rat)	>2000 mg/Kg (rabbit)	>2.18 mg/L (rat) 4h (mist)

- Aspiration hazard:** Not expected to be an aspiration hazard.
- Skin Corrosion/Irritation:** No known significant effects or critical hazards.
- Serious Eye Damage/Irritation:** No known significant effects or critical hazards.
- Skin Sensitization:** No known significant effects or critical hazards.
- Respiratory Sensitization:** No known significant effects or critical hazards.
- Specific Target Organ Toxicity (Single Exposure) - STOT-SE:** No known significant effects or critical hazards.
- Specific Target Organ Toxicity (Repeated Exposure) – STOT-RE:** No known significant effects or critical hazards.
- Carcinogenicity:** No known significant effects or critical hazards.
- Germ Cell Mutagenicity:** No known significant effects or critical hazards.
- Reproductive Toxicity** No known significant effects or critical hazards.

**Information on Toxicity Effects of Compounds**

**Lubricant Base Mineral Oil (Petroleum)**

Mineral oils are known to cause cancer because of carcinogenic components (e.g. Benzene). The lubricant base mineral oils in this product have been highly refined by a variety of processes including severe solvent extraction, severe hydro cracking or severe hydro treating to reduce aromatics and improve performance characteristics. The oils in the is product meets the IP-346 criteria of less than 3 percent PHA's and are not considered to be a carcinogen by the International Agency for Research on Cancer.

None of the oils in this product requires a cancer warning under the OSHA Hazard Communication Standard (29 CFR 1910.1200). These oils have not been listed in the National Toxicology Program (NTP) Annual Report nor have they been classified by the International Agency for Research on Cancer (IRAC) as: carcinogenic to humans (Group 1), probably carcinogenic to humans (Group 2A), or possibly carcinogenic to humans (Group 2B). These oils have not been classified by the American Conference of Governmental Industrial Hygienists (ACGIH) as: confirmed human carcinogen (A1), suspected human carcinogen (A2), or confirmed animal carcinogen with unknown relevance to humans (A3).

**2-Cycle engine oils mix with gasoline:**

2-cycle engine oils diluted with gasoline must be handled with the same precautions used for gasoline. Before mixing, the Safety Data Sheet for gasoline should be consulted for any precautionary measures necessary.

**Section 12. Ecological Information**

The information is based on data available for the material, the components of the material, and similar materials.

**Ecotoxicity:** No testing has been performed by the manufacturer. Ecotoxicity hazard is based on an evaluation of data for the components or a similar material. Not expected to be harmful to aquatic organisms.

**Mobility:** Base oil component – Low solubility and floats and is expected to migrate from water to land. Expected to partition to sediment and wastewater solids.

**Soil/water partition coefficient (K<sub>oc</sub>):** Not available.

**Persistence and degradation**  
**Biodegradation:**

The material is not expected to be readily biodegradable. The biodegradability of this material is based on an evaluation of data for the components or a similar material.

**Bioaccumulative potential**  
**Bioaccumulation:**

This product is not expected to bioaccumulate through food chain in the environment.

**Other adverse effects:** No known significant effects or critical hazards.

**Other ecological information:** Spills may form a film on water surfaces causing physical damage to organisms. Oxygen transfer could also be impaired.

**Section 13. Disposal Considerations**

Disposal recommendations based on material supplied.

**Waste treatment methods:** This material, as supplied, is not a hazardous waste according to Federal regulations (40 CFR 261). Consult the appropriate state, regional, or local regulations for additional requirements. The generation of waste should be avoided or minimized wherever possible.

**Product waste:** Significant quantities of waste product residues should not be disposed of via the sanitary sewer but processed in a suitable effluent treatment plant. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Incineration or landfill should only be considered when recycling is not feasible. Oil collection services are available for used oil recycling.

**Contaminated packaging:** Empty containers or liners may retain some product residues and could pose a potential fire and explosion hazard. Do not cut, puncture, or weld containers.

**Other information:** Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

**Section 14. Transport Information**

**General information:** Petroleum Lubricating oil - Not regulated.

	DOT Classification	IMDG	IATA
Stihl HP 2-Cycle	Not Regulated	Not Regulated	Not Regulated

**Special precautions for user:** Transport within user's premises: Always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

**Section 15. Regulatory Information**

United States Regulations

**United States Inventory (TSCA 8b):** All components are listed or exempted.  
**SARA 302/304:** No products were found.

**SARA 311/312:**

Immediate (Acute) Health Effects:	No
Delayed (Chronic) Health Effects:	No
Fire Hazard:	No
Sudden Release of Pressure Hazard:	No
Reactivity Hazard:	No

**SARA 313:**  
 The following components of this material are found on the EPCRA 313 list:  
 None

**Supplier notification:** This product does not contain any hazardous ingredients at or above regulated thresholds.

**CWA (Clean Water Act):** This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

**CERCLA:** This material, as supplied, does not contain any substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302).

**State Regulations**

**Massachusetts:** None of the components are at or above regulated thresholds.  
**New Jersey:** None of the components are at or above regulated thresholds.  
**Pennsylvania:** None of the components are at or above regulated thresholds.  
**California Proposition 65:** WARNING: This product contains a chemical known to the State of California to cause cancer. Ethylbenzene - <0.1

**Canada**

**WHMIS Hazard Class:** Not classified.

**International Chemical Inventories:**

All components comply with the following chemical inventory requirements: DSL (Canada)

**Section 16. Other Information**

<b>NFPA Rating:</b>	<b>Health Hazard – 1</b>	<b>Flammability – 1</b>	<b>Instability/Reactivity – 0</b>
<b>HMIS Rating:</b>	<b>Health Hazard – 1</b>	<b>Flammability – 1</b>	<b>Physical Hazards – 0</b>

(NFPA & HMIS Hazard Rating Key: 0 - Minimum Hazard; 1 - Slight Hazard; 2 - Moderate Hazard; 3 - High Hazard; 4 - Extreme Hazard; \* - Chronic Hazard Indicator, & PPE - Personal Protective Equipment Index A to L. These values are obtained using the guidelines or published evaluations prepared by the National Fire Protection Association (NFPA) or the National Paint and Coating Association (for HMIS or Hazardous Material Identification System).

**Key to abbreviations:**

OSHA = Occupational Safety and Health Administration  
 ACGIH= American Conference of Industrial Hygienists  
 ATE = Acute Toxicity Estimate  
 BCF = Bioconcentration Factor  
 CAS = Chemical Abstracts Service Registry Number  
 cSt = Centistroke (mm<sup>2</sup>/s)  
 GHS = Global Harmonized System of Classification and Labeling Of Chemicals.  
 IATA = International Air Transport Association  
 IBC = Intermediate Bulk Container  
 IMDG = International Maritime Dangerous Goods

LogPow = logarithm of the octanol/water partition coefficient  
 OEL = Occupational Exposure Limit  
 SDS = Safety Data Sheet  
 STEL = Short term exposure Limit  
 UN = United Nations  
 UN Number = United Nations Number, a four digit number assigned by the United Nations Committee of Experts on the Transportation of Dangerous Goods

**Prepared By:** OMNI Specialty Packaging EH&S Department

**Revision Date:** June 2, 2015

**Status:** Final

**Revision Note:** Revision 001 of OSHA GHS SDS format.

Consumer Product Improvement Act of 2008, General Conformity Certification

**For Consumer Product Packages:** This product has been evaluated and is certified to be labeled and packaged in compliance with the applicable provisions of the Federal Hazardous Substance Act as stated in 16 CFR 1500 and enforced by the Consumer Product Safety Commission. Where applicable the products that require Child Resistant Closures are packaged in accordance with the Poison Prevention Packaging Act as stated in 16 CFR 1700 and enforced by the Consumer Product Safety Commission. All closures have been tested in accordance with the latest protocols. No testing is required to certify compliance with the provisions. The date of the manufacturing is stamped on the product container.

Disclaimer

All reasonably practicable steps have been taken to ensure the information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. This information is furnished upon condition that the person receiving it shall make their own determination of the suitability of the material for their particular purpose.



# Safety Data Sheet (SDS)

Date Prepared/Revised: 12/4/18 Version no.: 05 Supersedes: (10/31/18)

## 1. Identification of the Mixture and of the Company

Product identifier: **Striping Paint (solvent based) - Aerosol**

Product name:

710 Striping White	750 Striping Blue
720 Striping Yellow	760 Striping Green
730 Striping Red	770 Asphalt Black
740 Striping Orange	780 Striping Clear

Relevant identified uses of the substance: May be used on grass, artificial turf, or dirt for line striping playgrounds, football, baseball, softball, soccer, and track fields.

Uses advised against: Poorly ventilated areas

CAS No:	<b>Not Applicable (mixture)</b>
EC No:	<b>Not Applicable (mixture)</b>
Index No:	<b>Not Applicable (mixture)</b>
Manufacturer/Supplier:	<b>Aervoe Industries Incorporated</b>
Street address/P.O. Box:	<b>1100 Mark Circle</b>
Country ID/Postcode/Place:	<b>Gardnerville, Nevada 89410</b>
Telephone number:	<b>1-775-782-0100</b>
e-mail:	<b>mailbox@aervoe.com</b>
National contact:	<b>Aervoe Industries Incorporated</b>
For Product Information:	<b>1-800-227-0196</b>
Emergency telephone number:	<b>1-800-424-9300 (CHEMTREC – 24 hrs)</b>

## 2. Hazards identification

Physical Hazards: Aerosol - Category 1  
Flam. Gas 1  
Flam. Liq. 2  
Flam. Liq. 3

Health Hazards: Carc. 1B  
Muta. 1B  
Asp. Tox. 1  
Eye Irrit. 2  
STOT SE 3  
Repr. 2 (excluding 780)  
STOT RE 2 (excluding 780)  
Skin Irrit. 2 (excluding 780)  
Acute Tox. 4

Environmental Hazards: Aquatic Chronic 2 (excluding 780)

## Labeling



# Safety Data Sheet (SDS)

Date Prepared/Revised: 12/4/18 Version no.: 05 Supersedes: (10/31/18)

Signal Word: Danger

Hazard Statements: H220 – Extremely flammable gas  
H222 – Extremely flammable aerosol  
H225 – Highly flammable liquid and vapour.  
H226 – Flammable liquid and vapour.  
H229 – Pressurized container: may burst if heated  
H304 – May be fatal if swallowed and enters airways  
H312 – Harmful in contact with skin.  
H315 – Causes skin irritation. (excluding 780)  
H319 – Causes serious eye irritation.  
H332 – Harmful if inhaled.  
H336 – May cause drowsiness or dizziness.  
H340 – May cause genetic defects  
H350 – May cause cancer  
H361 – Suspected of damaging fertility or the unborn child . (excluding 780)  
H373 – May cause damage to nervous system through prolonged or repeated exposure (Inhalation) (excluding 780)  
H400 – Very toxic to aquatic life. (excluding 780)  
H410 – Very toxic to aquatic life with long lasting effects. (excluding 780)

Precautionary Statements: P101 - If medical advice is needed, have product container or label at hand  
P102 - Keep out of reach of children  
P103 - Read label before use  
P210 - Keep away from heat/sparks/open flames/hot surfaces - no smoking  
P211 - Do not spray on an open flame or other ignition source  
P251 - Pressurized container: Do not pierce or burn, even after use  
P261 - Avoid breathing dust/fume/gas/mist/vapours/spray  
P262 - Do not get in eyes, on skin, or on clothing  
P264 - Wash ... thoroughly after handling  
P280 - Wear protective gloves/eye protection/face protection  
  
P303+P361+P353 - If on skin or hair, remove/takeoff immediately all contaminated clothing. Rinse skin with water/shower.  
P410+P412 - Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F  
P501 - Dispose of contents/container in accordance with local/regional/national/international regulation  
P251 - Pressurized container: Do not pierce or burn, even after use  
P273 – Avoid release to the environment.



# Safety Data Sheet (SDS)

Date Prepared/Revised: 12/4/18 Version no.: 05 Supersedes: (10/31/18)



Symbols/Pictograms:

### 3. Composition / Information on Ingredients

#### Composition

Chemical	Synonyms	CAS Number	EINECS Number	Weight Percent	Hazard Category	H-Code
Hydrocarbon Propellant	LPG	68476-86-8	270-705-8	10-30%	Press. Gas Flam. Gas 1	H220 H229
Hexane	n-Hexane	110-54-3	203-777-6	7-13%	Flam. Liq. 2 Repr. 2 Asp. Tox. 1 STOT RE 2 * Skin Irrit. 2 STOT SE 3 Aquatic Chronic 2	H225 H361f *** H304 H373 ** H315 H336 H411
Aliphatic Petroleum Distillates	Solvent Naphtha	64742-89-8	265-192-2	7-13%	Flam Liq. 2 Skin Irr. 2 Asp. Tox. 1 STOT SE 3 Aquatic Tox. 2	H224 H304 H315 H336 H411
Acetone	Propanone	67-64-1	200-662-2	3-7%	Flam. Liq. 2 Eye Irrit. 2 STOT SE 3	H225, H319, H336
n-Butyl Acetate	n-Butyl Ester	123-86-4	204-658-1	3-7%	Flam. Liq. 3 STOT SE 3	H226 H336
Ethyl Acetate	Ethanoate	141-78-6	205-500-4	1-5%	Flam. Liq. 2 Eye Irrit. 2 STOT SE 3	H225 H319 H336
2-Butoxyethyl Acetate	Butyl Glycol Acetate	112-07-2	203-933-3	1-5%	Acute Tox. 4	H332 H312
780 contains						
Acetone	Propanone	67-64-1	200-662-2	10-30%	Flam. Liq. 2 Eye Irrit. 2 STOT SE 3	H225, H319, H336



# Safety Data Sheet (SDS)

Date Prepared/Revised: 12/4/18 Version no.: 05 Supersedes: (10/31/18)

Hydrocarbon Propellant	LPG	68476-86-8	270-705-8	10-30%	Press. Gas Flam. Gas 1	H220 H229
n-Butyl Acetate	n-Butyl Ester	123-86-4	204-658-1	10-30%	Flam. Liq. 3 STOT SE 3	H226 H336
Ethyl Acetate	Ethanoate	141-78-6	205-500-4	7-13%	Flam. Liq. 2 Eye Irrit. 2 STOT SE 3	H225 H319 H336
2-Butoxyethyl Acetate	Butyl Glycol Acetate	112-07-2	203-933-3	1-5%	Acute Tox. 4 * Acute Tox. 4 *	H332 H312

## Other Product Information

Chemical Identity: Mixture

## 4.) First Aid Measures

<b>General Advice:</b>	If symptoms persist, always call a doctor.
<b>Inhalation First Aid:</b>	Remove victim to fresh air and provide oxygen if breathing is difficult. If not breathing, give artificial respiration, preferably mouth to mouth. Get medical attention immediately.
<b>Skin Contact First Aid:</b>	Wash with soap and water. Remove contaminated clothing and shoes. Get medical attention immediately. Wash clothing before reuse.
<b>Eye Contact First Aid:</b>	If contact with eyes, immediately flush eyes with plenty of water for at least 15 minutes, while holding eyelids open. Get medical attention immediately.
<b>Ingestion First Aid:</b>	If swallowed, wash out mouth with water provided the person is conscious. Do not induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention immediately.
<b>Most Important Symptoms/Effects:</b>	Exposure may cause slight irritation to the skin, eyes, and respiratory tract. Excessive exposure may cause central nervous system effects.

## 5. Fire Fighting Measures

Flammable Properties:	Aerosol
Auto Ignition Temperature:	Not Available
Suitable extinguishing media:	Carbon dioxide, dry chemical, water spray.
Unsuitable extinguishing media:	None known



# Safety Data Sheet (SDS)

Date Prepared/Revised: 12/4/18 Version no.: 05 Supersedes: (10/31/18)

Special hazards arising from the substance or mixture:

None known

Hazardous combustion products:

Carbon dioxide, Carbon monoxide

Fire & Explosion Hazards:

Closed Containers may rupture due to the buildup of pressure from extreme temperatures.

Precautions for fire-fighters: Use water spray to cool containers exposed to heat or fire to prevent pressure build up. In the event of a fire, wear full protective clothing and NIOSH- approved self-contained breathing apparatus with full face piece operated in the pressure demand or other positive pressure mode.

## 6. Accidental Release Measures

### PERSONAL PRECAUTIONARY MEASURES:

- 1) Follow personal protective equipment recommendations found in section 8.
- 2) Maintain adequate ventilation.

### SPILL CLEAN-UP PROCEDURES:

- 1.) Evacuate unprotected personnel from the area.
- 2.) Remove sources of ignition if safe to do so.
- 3.) Pickup spilled materials using non-sparking tools and place in an appropriate container for disposal.
- 4.) Contain spill to prevent material from entering sewage or ground water systems.
- 5.) Always dispose of waste materials in accordance with all EU, National and Local Regulations.

## 7. Handling and Storage

### Handling:

Flammable Aerosol, use in a well ventilated area.  
Do not use near sources of ignition.  
Do not to eat, drink and smoke while working with this material.  
Wash hands after use.

### Conditions for safe storage, including any incompatibilities:

Store out of direct sunlight.  
Storage Temperature: 32° to 120°F (0° to 49°C).  
No known incompatibilities.

## 8. Exposure Controls / Personal Protection

### Appropriate engineering controls:

Ensure adequate ventilation. A system of local and/or general exhaust is recommended to keep employee exposures below the Airborne Exposure Limits.  
Keep away from sources of ignition.  
Take precautionary measures against static discharge.

### Personal Protection:



# Safety Data Sheet (SDS)

Date Prepared/Revised: 12/4/18 Version no.: 05 Supersedes: (10/31/18)

Eye & face protection devices such as safety glasses, safety goggles or face shield are recommended.

## Skin protection

Wear the appropriate protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.

## Respiratory protection:

Use only in an adequately ventilated area. For unknown vapor concentrations use a positive-pressure, pressure-demand, self-contained breathing apparatus (SCBA).

Hazardous Ingredient	CAS Number	ACGIH TLV (TWA)	ACGIH TLV (STEL)	OSHA PEL (TWA)	OSHA PEL (STEL)
Hydrocarbon Propellant	68476-86-8	N/AV	N/AV	N/AV	N/AV
Hexane	110-54-3	50ppm	N/AV	500ppm	N/AV
Aliphatic Petroleum Distillates	64742-89-8	N/AV	N/AV	N/AV	N/AV
Acetone	67-64-1	500ppm	750ppm	1000ppm	N/AV
n-Butyl Acetate	123-86-4	150ppm	200ppm	150ppm	N/AV
Ethyl Acetate	141-78-6	400ppm	N/AV	400ppm	N/AV
2-Butoxyethyl Acetate	112-07-2	20ppm	N/AV	N/AV	N/AV

\*Values are based on the 2014 Guide to Occupational Exposure Values by ACGIH

## 9. Information on Basic Physical and Chemical Properties

Appearance: Color varies by product	Odor: Hydrocarbon odor
Odor Threshold: N/AV	pH: Not Applicable (solvent Base)
Melting Point: N/AV	Freezing Point: N/AV
Initial Boiling Point: N/AV	Boiling Point Range: N/AV
Flash Point: <0° F (-18° C)	Evaporation Rate: Faster than n-Butyl Acetate
Flammability Solid/Gas: Flammable gas	LEL: 1.1% UEL: 18%
Vapor Pressure: N/AV	Vapor Density: Heavier Than Air
Relative Density: N/AV	Solubility: Negligible
Partition Coefficient: N/AV n-octanol/ water: N/AV	Auto-ignition Temperature: N/AV
Decomposition Temperature: N/AV	Viscosity: N/AV
Explosive Properties: N/AV	Oxidizing Properties: N/AV

## 10. Stability & Reactivity



# Safety Data Sheet (SDS)

Date Prepared/Revised: 12/4/18 Version no.: 05 Supersedes: (10/31/18)

Possibility of hazardous reactions: Hazardous polymerization will not occur under normal conditions

Chemical stability: Stable under normal conditions

Conditions to avoid: Heat and ignition sources

Incompatible materials: Strong Oxidizing Agents

Hazardous decomposition products: Will not occur

## 11. Toxicological Information

Reports have associated repeated and prolonged overexposure to solvents with permanent brain and nervous system damage. Repeated overexposure can also damage kidneys, lungs, liver, heart and blood

Routes of exposure: Eyes, skin, ingestion, and/or inhalation

Acute toxicological data: (Acetone) LD50: 5800 mg/kg (Rat-Oral)  
(Acetone) LC50: 21000 ppm/8 hr (Rat-Inha)  
(2-Butoxyethyl Acetate) CD50: 2400mg/kg (Rat-Oral)  
(2-Butoxyethyl Acetate) LC50: 450ppm, 4h (Rat-Oral)

Eye irritation data: N/AV

Skin irritation/sensitization/absorption data: N/AV

Reproductive toxicity data: N/AV

Mutagenicity data: Muta., 1B

Symptoms associated with physical contact: N/AV

Acute/chronic effects from short/long term exposure: Irritating to skin. Prolonged/repeated contact may cause defatting of the skin which can lead to dermatitis. Not expected to be a skin sensitizer.

Known reportable carcinogens via the following agencies:

NTP: N/AV

IARC: N/AV

OSHA: TLV-A4

\* Petroleum distillates may contain chemical carcinogens in limited quantities (< 0.01%). These quantities are determined by the supplier/fraction/purity of the distillate during the manufacturing process. Chemicals that may be present within distillates are listed on California's prop 65 list such as ETHYLBENZENE, BENZENE, and TOLUENE.



# Safety Data Sheet (SDS)

Date Prepared/Revised: 12/4/18 Version no.: 05 Supersedes: (10/31/18)

## 12. Ecological Information

Ecotoxicity: **No Data Available**  
Persistence and degradability: **No Data Available**  
Bioaccumulative potential: **No Data Available**  
Mobility in soil: **No Data Available**  
Results of PBT and vPvB assessment: **No Data Available**  
Other adverse effects: **No Data Available**

## 13. Disposal Considerations

**Waste Disposal:** Dispose of material in accordance with EU, national and local requirements. For proper disposal of used material, an assessment must be completed to determine the proper and permissible waste management options permitted under applicable rules, regulations and/or laws governing your location.

**Product / Packaging disposal:** Dispose of packaging in accordance with federal, state and local requirements, regulations and/or laws governing your location.

## 14. Transportation Information

### US DOT

UN Number	Proper Shipping Name	Hazard Class	Packing Group	Marine Pollutant	Special Provisions
UN1950	Aerosols	2.1	Not Applicable	Not Applicable	Reference 49 CFR 172.101

### IMDG

UN Number	Proper Shipping Name	Hazard Class	Packing Group	Marine Pollutant	Special Provisions
UN1950	Aerosols	2.1	Not Applicable	Not Applicable	Reference IMDG code part 3

### IATA:

UN Number	Proper Shipping Name	Hazard Class	Packing Group	Marine Pollutant	Special Provisions
UN1950	Aerosols, Flammable	2.1	Not Applicable	Not Applicable	Reference IATA Dangerous Goods Regulation

## 15. Regulatory Information



# Safety Data Sheet (SDS)

Date Prepared/Revised: 12/4/18 Version no.: 05 Supersedes: (10/31/18)

## **Workplace classification:**

This product is considered hazardous under the OSHA Hazard Communication Standard (29 CFR 1910.1200). The Occupational Safety and Health Administration's interpretation of the product's hazard to workers.

## **SARA Title 3:**

Section 311/312 Categorizations (40 CFR 372): This product is a hazardous chemical under 29 CFR 1910.1200, and is categorized as an immediate and delayed health, and flammability physical hazard. Superfund Amendment and Reauthorization Act (SARA) category. SARA requires reporting any spill of any hazardous substance.

**TSCA status:** All chemicals in this product are listed, or are exempt from listing, on the TSCA Inventory.

**WHMIS:** This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the (M)SDS contains all of the information required by the CPR.

**PROP 65 (CA):** WARNING: Cancer and Reproductive Harm – [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

## **16. Other Information**

This SDS has been completed in accordance with GHS Rev04 (2011): U.S OSHA, CMA, ANSI, Canadian WHMIS standards, and European Directives.

Date of Preparation/Revision: 8/10/2015

Supersedes: 8/10/2015

To the best of our knowledge, the information contained herein is believed to be accurate. However, the above data does not imply any guarantee or warranty of any kind, expressed or implied. The final determination of the suitability of any material is the sole responsibility of the user. All materials made present un-known hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee these are the only hazards existing.

## 1. Product and company identification

<b>Product name</b>	: Universal Antifreeze UPA/NAPA
<b>Manufactured/supplied</b>	: Laurentide 9355, Henri-Bourassa-Est Montréal, Qc H1E 1P4
<b>Code</b>	: 995221 (22378)
<b>Validation date</b>	: 2013-08-05.
<b>Validated by:</b>	: Whims Departement
<b><u>In case of Emergency</u></b>	: CANUTEC ( 613 ) 996-6666
<b>Product type</b>	: Liquid.

## 2. Hazards identification

<b>Physical state</b>	: Liquid.
<b>Odor</b>	: Mild
<b>OSHA/HCS status</b>	: This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
<b>Emergency overview</b>	: WARNING! CAUSES EYE AND SKIN IRRITATION. CONTAINS MATERIAL THAT MAY CAUSE TARGET ORGAN DAMAGE, BASED ON ANIMAL DATA.
<b>Precautions</b>	: Do not breathe vapor or mist. Do not get on skin or clothing. Avoid contact with eyes. Use only with adequate ventilation. Keep container tightly closed and sealed until ready for use. Wash thoroughly after handling.
<b>Routes of entry</b>	: Dermal contact. Eye contact. Inhalation. Ingestion.
<b><u>Potential acute health effects</u></b>	
<b>Inhalation</b>	: No known significant effects or critical hazards.
<b>Ingestion</b>	: No known significant effects or critical hazards.
<b>Skin</b>	: Irritating to skin.
<b>Eyes</b>	: Irritating to eyes.
<b><u>Potential chronic health effects</u></b>	
<b>Chronic effects</b>	: Contains material that may cause target organ damage, based on animal data.
<b>Carcinogenicity</b>	: No known significant effects or critical hazards.
<b>Mutagenicity</b>	: No known significant effects or critical hazards.
<b>Teratogenicity</b>	: No known significant effects or critical hazards.
<b>Developmental effects</b>	: No known significant effects or critical hazards.
<b>Fertility effects</b>	: No known significant effects or critical hazards.
<b>Target organs</b>	: Contains material which may cause damage to the following organs: kidneys, liver, upper respiratory tract, skin, eyes, central nervous system (CNS).
<b><u>Over-exposure signs/symptoms</u></b>	
<b>Skin</b>	: Adverse symptoms may include the following: irritation redness
<b>Eyes</b>	: Adverse symptoms may include the following: pain or irritation watering redness

## 2. Hazards identification

**Medical conditions aggravated by over-exposure** : Pre-existing disorders involving any target organs mentioned in this MSDS as being at risk may be aggravated by over-exposure to this product.

See toxicological information (section 11)

## 3. Composition/information on ingredients

Name	CAS number	%
1,2-Ethanediol	107-21-1	60-100
Ethanol, 2,2'-oxybis-	111-46-6	1-5

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

## 4. First aid measures

- Eye contact** : Check for and remove any contact lenses. Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical attention if irritation occurs.
- Skin contact** : In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention if irritation occurs.
- Inhalation** : Move exposed person to fresh air. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention immediately.
- Ingestion** : Wash out mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If potentially dangerous quantities of this material have been swallowed, call a physician immediately.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.
- Notes to physician** : No specific treatment. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

## 5. Fire-fighting measures

- Flammability of the product** : In a fire or if heated, a pressure increase will occur and the container may burst.
- Extinguishing media**
- Suitable** : Use an extinguishing agent suitable for the surrounding fire.
- Not suitable** : None known.
- Special exposure hazards** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
- Hazardous thermal decomposition products** : Decomposition products may include the following materials:  
carbon dioxide  
carbon monoxide  
phosphorus oxides  
metal oxide/oxides
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
- Flash point** : Closed cup: 119°C (246,2°F) [Setaflash.]
- Flammable limits** : Lower: 3,2%  
Upper: 15,3%

## 5. Fire-fighting measures

Not available.

## 6. Accidental release measures

**Personal precautions** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see section 8).

**Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

### Methods for cleaning up

**Small spill** : Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

**Large spill** : Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see section 1 for emergency contact information and section 13 for waste disposal.

## 7. Handling and storage

**Handling** : Put on appropriate personal protective equipment (see section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

**Storage** : Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

## 8. Exposure controls/personal protection

### Canada

<b>Occupational exposure limits</b>		<b>TWA (8 hours)</b>			<b>STEL (15 mins)</b>			<b>Ceiling</b>				
<b>Ingredient</b>	<b>List name</b>	<b>ppm</b>	<b>mg/m<sup>3</sup></b>	<b>Other</b>	<b>ppm</b>	<b>mg/m<sup>3</sup></b>	<b>Other</b>	<b>ppm</b>	<b>mg/m<sup>3</sup></b>	<b>Other</b>	<b>Notations</b>	
1,2-Ethanediol	US ACGIH 1/2008	-	-	-	-	-	-	-	100	-	[a]	
	AB 6/2008	-	-	-	-	-	-	-	100	-	[b]	
	BC 6/2008	-	-	-	-	100	-	-	-	-	-	[a]
		-	10	-	-	20	-	-	-	-	-	[c]
	ON 6/2008	-	-	-	-	50	-	-	-	-	-	[d]
		QC 6/2008	-	-	-	50	127	-	-	-	-	[e]
Ethanol, 2,2'-oxybis-	US AIHA 1/2008	-	10	-	-	-	-	-	-	-		

**Form:** [a]Aerosol [b]aerosol [c]Particulate [d]Vapour [e]vapour and mist

## 8. Exposure controls/personal protection

Consult local authorities for acceptable exposure limits.

- Recommended monitoring procedures** : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment.
- Engineering measures** : No special ventilation requirements. Good general ventilation should be sufficient to control worker exposure to airborne contaminants. If this product contains ingredients with exposure limits, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure below any recommended or statutory limits.
- Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
- Personal protection**
- Respiratory** : Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.
- Hands** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.
- Eyes** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists or dusts.
- Skin** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

## 9. Physical and chemical properties

- Appearance (Physical state)** : Liquid.
- Flash point** : Closed cup: 119°C (246,2°F) [Setaflash.]
- Flammable limits** : Lower: 3,2%  
Upper: 15,3%
- Color** : Green.
- Odor** : Mild
- pH** : 10,5 to 11
- Boiling/condensation point** : 171 to 175°C (339,8 to 347°F)
- Melting/freezing point** : -18°C (-0,4°F)
- Relative density** : 1,12
- Vapor pressure** : <0,013 kPa (<0,1 mm Hg)
- Vapor density** : 2,1 [Air = 1]
- Volatility** : 97% (v/v)
- Odor threshold** : Not available.
- Evaporation rate** : Not available.
- VOC content** : 0 g/l

## 10. Stability and reactivity

- Chemical stability** : The product is stable.
- Conditions to avoid** : No specific data.
- Materials to avoid** : No specific data.
- Hazardous decomposition products** : Under normal conditions of storage and use, hazardous decomposition products should not be produced.
- Possibility of hazardous reactions** : Under normal conditions of storage and use, hazardous reactions will not occur.

## 11. Toxicological information

### Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
1,2-Ethanediol	LD50 Oral	Rat	4700 mg/kg	-
Ethanol, 2,2'-oxybis-	LD50 Dermal	Rabbit	11890 mg/kg	-
	LD50 Oral	Rat	12000 mg/kg	-

**Conclusion/Summary** : Not available.

### Chronic toxicity

**Conclusion/Summary** : Not available.

### Irritation/Corrosion

**Conclusion/Summary** : Not available.

### Sensitizer

**Conclusion/Summary** : Not available.

### Carcinogenicity

**Conclusion/Summary** : Not available.

### Classification

Product/ingredient name	ACGIH	IARC	EPA	NIOSH	NTP	OSHA
1,2-Ethanediol	A4	-	-	-	-	-

### Mutagenicity

**Conclusion/Summary** : Not available.

### Teratogenicity

**Conclusion/Summary** : Not available.

### Reproductive toxicity

**Conclusion/Summary** : Not available.

## 12. Ecological information

**Ecotoxicity** : No known significant effects or critical hazards.

### Aquatic ecotoxicity

Product/ingredient name	Result	Species	Exposure
1,2-Ethanediol	Acute LC50 >100000 ug/L Marine water	Crustaceans - Crangon crangon - Adult	48 hours
	Acute LC50 6900000 ug/L Fresh water	Daphnia - Ceriodaphnia dubia - Neonate	48 hours
	Acute LC50 8050000 ug/L Fresh water	Fish - Pimephales promelas - <=7 days	96 hours
	Chronic NOEC 11610000 ug/L Fresh water	Daphnia - Ceriodaphnia dubia - <=24 hours	48 hours
	Chronic NOEC 6090000 ug/L Fresh water	Fish - Pimephales promelas - <=7 days	96 hours

995221 (22378)

5/7

## 12. Ecological information

Ethanol, 2,2'-oxybis-	Acute LC50 >32000000 ug/L Fresh water	Fish - Gambusia affinis - Adult	96 hours
-----------------------	---------------------------------------	---------------------------------	----------

**Conclusion/Summary** : Not available.

**Persistence/degradability**

**Conclusion/Summary** : Not available.

**Other adverse effects** : No known significant effects or critical hazards.

## 13. Disposal considerations

**Waste disposal** : The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe way. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees.

## 14. Transport information

Regulatory information	UN number	Proper shipping name	Classes	PG*	Label	Additional information
<b>TDG Classification</b>	Not regulated.	-	-	-		-
<b>IMDG Class</b>	Not regulated.	-	-	-		-
<b>IATA-DGR Class</b>	Not regulated.	-	-	-		-

PG\* : Packing group

## 15. Regulatory information

**Canada**

**WHMIS (Canada)** : Class D-2A: Material causing other toxic effects (Very toxic).



**Canadian lists**

**Canadian NPRI** The following components are listed: Ethylene glycol

**CEPA Toxic substances** None of the components are listed.

**Canada inventory** At least one component is not listed in DSL but all such components are listed in NDSL.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

## 16. Other information

**Label requirements** : CAUSES EYE AND SKIN IRRITATION. CONTAINS MATERIAL THAT MAY CAUSE TARGET ORGAN DAMAGE, BASED ON ANIMAL DATA.

**Hazardous Material Information System (U.S.A.)** :

Health	2
Flammability	1
Physical hazards	0

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings are not required on MSDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

The customer is responsible for determining the PPE code for this material.

**National Fire Protection Association (U.S.A.)** :



Reprinted with permission from NFPA 704-2001, Identification of the Hazards of Materials for Emergency Response Copyright ©1997, National Fire Protection Association, Quincy, MA 02269. This reprinted material is not the complete and official position of the National Fire Protection Association, on the referenced subject which is represented only by the standard in its entirety.

Copyright ©2001, National Fire Protection Association, Quincy, MA 02269. This warning system is intended to be interpreted and applied only by properly trained individuals to identify fire, health and reactivity hazards of chemicals. The user is referred to certain limited number of chemicals with recommended classifications in NFPA 49 and NFPA 325, which would be used as a guideline only. Whether the chemicals are classified by NFPA or not, anyone using the 704 systems to classify chemicals does so at their own risk.

**Date of issue** : 2013-08-05.

**Date of previous issue** : No previous validation.

**Version** : 0.02

☑ Indicates information that has changed from previously issued version.

**Notice to reader**

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

## 1. Identification

**Product identifier** Uvex Clear Solution

**Other means of identification**

**Product code** S461, S463, S464, S467

**Recommended use** Lens cleaning solution.

**Recommended restrictions** None known.

**Manufacturer/Importer/Supplier/Distributor information**

**Company name:** Honeywell Safety Products USA, Inc

**Address:** 10 Thurber Blvd, Smithfield, RI 02917

**Telephone:** +1-800-873-5242

**Contact Person** hsptechsupport@honeywell.com

**E-mail:** msds@chemtrec.com

**Emergency telephone number:** +1-703-741-5500 for USA/Canada

## 2. Hazard(s) identification

**Physical hazards** Not classified.

**Health hazards** Not classified.

**OSHA defined hazards** Not classified.

**Label elements**

**Hazard symbol** None.

**Signal word** None.

**Hazard statement** The mixture does not meet the criteria for classification.

**Precautionary statement**

**Prevention** Observe good industrial hygiene practices.

**Response** Wash hands after handling.

**Storage** Store away from incompatible materials.

**Disposal** Dispose of waste and residues in accordance with local authority requirements.

**Hazard(s) not otherwise classified (HNOC)** None known.

**Supplemental information** None.

## 3. Composition/information on ingredients

### Mixtures

Chemical name	CAS number	%
2-Butoxyethanol	111-76-2	<6
Sodium Lauryl Ether Sulfate	68585-34-2	<2

**Composition comments** All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

## 4. First-aid measures

**Inhalation** If symptomatic, move to fresh air. Get medical attention if symptoms persist.

**Skin contact** Wash skin with soap and water. Get medical attention promptly if symptoms occur after washing.

**Eye contact** Remove contact lenses. Get medical attention promptly if symptoms occur after flushing.

**Ingestion** Seek medical advice.

<b>Most important symptoms/effects, acute and delayed</b>	No specific symptoms noted.
<b>Indication of immediate medical attention and special treatment needed</b>	Treat symptomatically.
<b>General information</b>	In the case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

## 5. Fire-fighting measures

<b>Suitable extinguishing media</b>	Water. Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2).
<b>Unsuitable extinguishing media</b>	No restrictions known.
<b>Specific hazards arising from the chemical</b>	None.
<b>Special protective equipment and precautions for firefighters</b>	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
<b>Fire fighting equipment/instructions</b>	Self-contained breathing apparatus operated in positive pressure mode and full protective clothing must be worn in case of fire.
<b>General fire hazards</b>	No unusual fire or explosion hazards noted.

## 6. Accidental release measures

<b>Personal precautions, protective equipment and emergency procedures</b>	For industrial use, wear appropriate personal protective equipment (See Section 8).
<b>Methods and materials for containment and cleaning up</b>	Stop leak if you can do so safely. Absorb spill with appropriate sand, clay or other inert sorbent material, then place in appropriate waste container.  Large Spills: Flush area with water. Treat runoff per applicable environmental regulations pertaining to drains, water courses and ground water, diking if required.
<b>Environmental precautions</b>	Treat discharge into drains, water courses or onto the ground according to applicable regulations.

## 7. Handling and storage

<b>Precautions for safe handling</b>	Observe good industrial hygiene practices. Avoid inhalation of vapors and contact with skin and eyes.
<b>Conditions for safe storage, including any incompatibilities</b>	Keep container closed. Store away from incompatible materials. Do not allow material to freeze. Keep at temperature not exceeding 43°C / 110°F.

## 8. Exposure controls/personal protection

### Occupational exposure limits

#### US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value
2-Butoxyethanol (CAS 111-76-2)	PEL	240 mg/m3 50 ppm

#### US. ACGIH Threshold Limit Values

Components	Type	Value
2-Butoxyethanol (CAS 111-76-2)	TWA	20 ppm

#### US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value
2-Butoxyethanol (CAS 111-76-2)	TWA	24 mg/m3 5 ppm

## Biological limit values

### ACGIH Biological Exposure Indices

Components	Value	Determinant	Specimen	Sampling Time
2-Butoxyethanol (CAS 111-76-2)	200 mg/g	Butoxyacetic acid (BAA), with hydrolysis	Creatinine in urine	*

\* - For sampling details, please see the source document.

**Exposure guidelines** No exposure standards allocated.

#### US - California OELs: Skin designation

2-Butoxyethanol (CAS 111-76-2) Can be absorbed through the skin.

#### US - Minnesota Haz Subs: Skin designation applies

2-Butoxyethanol (CAS 111-76-2) Skin designation applies.

#### US - Tennessee OELs: Skin designation

2-Butoxyethanol (CAS 111-76-2) Can be absorbed through the skin.

#### US. NIOSH: Pocket Guide to Chemical Hazards

2-Butoxyethanol (CAS 111-76-2) Can be absorbed through the skin.

#### US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

2-Butoxyethanol (CAS 111-76-2) Can be absorbed through the skin.

**Appropriate engineering controls** Not required.

### Individual protection measures, such as personal protective equipment

**Eye/face protection** None under normal conditions.

#### Skin protection

**Hand protection** Chemical resistant gloves are recommended.

**Other** None under normal working conditions.

**Respiratory protection** Not normally needed.

**Thermal hazards** Wear appropriate thermal protective clothing, when necessary.

**General hygiene considerations** Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking.

## 9. Physical and chemical properties

**Appearance** Clear tinted liquid.

**Physical state** Liquid.

**Form** Liquid.

**Color** Clear tinted.

**Odor** Slight odor.

**Odor threshold** Not available.

**pH** Not available.

**Melting point/freezing point** Not available.

**Initial boiling point and boiling range** 212 °F (100 °C)

**Flash point** > 212.0 °F (> 100.0 °C)

**Evaporation rate** < 1 (Butyl acetate=1)

**Flammability (solid, gas)** Not applicable.

#### Upper/lower flammability or explosive limits

**Flammability limit - lower (%)** Not available.

**Flammability limit - upper (%)** Not available.

**Explosive limit - lower (%)** Not available.

**Explosive limit - upper (%)** Not available.

**Vapor pressure** 22 mm Hg (20°C/68°F)

**Vapor density** Not available.

<b>Relative density</b>	0.98
<b>Solubility(ies)</b>	
<b>Solubility (water)</b>	Completely soluble in water.
<b>Partition coefficient (n-octanol/water)</b>	Not available.
<b>Auto-ignition temperature</b>	Not available.
<b>Decomposition temperature</b>	Not available.
<b>Viscosity</b>	Not available.

## 10. Stability and reactivity

<b>Reactivity</b>	Stable at normal conditions.
<b>Chemical stability</b>	Material is stable under normal conditions.
<b>Possibility of hazardous reactions</b>	Hazardous polymerization does not occur.
<b>Conditions to avoid</b>	Contact with incompatible materials. Freezing. Elevated temperatures.
<b>Incompatible materials</b>	Strong oxidizers, strong acids, and strong bases.
<b>Hazardous decomposition products</b>	No hazardous decomposition products are known.

## 11. Toxicological information

### Information on likely routes of exposure

<b>Inhalation</b>	Under normal conditions of intended use, this material is not expected to be an inhalation hazard.
<b>Skin contact</b>	Prolonged or repeated contact may dry skin and cause irritation.
<b>Eye contact</b>	May cause temporary eye irritation.
<b>Ingestion</b>	No harmful effects expected in amounts likely to be ingested by accident.

<b>Symptoms related to the physical, chemical and toxicological characteristics</b>	May cause discomfort if swallowed.
---	------------------------------------

### Information on toxicological effects

<b>Acute toxicity</b>	Not expected to be acutely toxic.
<b>Skin corrosion/irritation</b>	Prolonged or repeated contact may dry skin and cause irritation.
<b>Serious eye damage/eye irritation</b>	May cause temporary eye irritation.

### Respiratory or skin sensitization

<b>Respiratory sensitization</b>	Not classified.
<b>Skin sensitization</b>	Not a skin sensitizer.

<b>Germ cell mutagenicity</b>	Not classified.
-------------------------------	-----------------

<b>Carcinogenicity</b>	Not classified.
------------------------	-----------------

### IARC Monographs. Overall Evaluation of Carcinogenicity

2-Butoxyethanol (CAS 111-76-2) 3 Not classifiable as to carcinogenicity to humans.

### OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

<b>Reproductive toxicity</b>	Not classified.
<b>Specific target organ toxicity - single exposure</b>	Not classified.
<b>Specific target organ toxicity - repeated exposure</b>	Not classified.
<b>Aspiration hazard</b>	Not classified.
<b>Chronic effects</b>	Not classified.
<b>Further information</b>	No other specific acute or chronic health impact noted.

## 12. Ecological information

<b>Ecotoxicity</b>	The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.
--------------------	--

**Persistence and degradability** No data available.

**Bioaccumulative potential** The product is not expected to bioaccumulate.

**Partition coefficient n-octanol / water (log Kow)**

2-Butoxyethanol (CAS 111-76-2) 0.83

**Mobility in soil** The product is completely soluble in water.

**Other adverse effects** No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

### 13. Disposal considerations

**Disposal instructions** Dispose in accordance with all applicable regulations. Do not allow runoff to sewer, waterway or ground.

**Hazardous waste code** Waste codes should be assigned by the user based on the application for which the product was used.

**Waste from residues / unused products** Dispose of in accordance with local regulations.

**Contaminated packaging** Since emptied containers may retain product residue, follow label warnings even after container is emptied.

### 14. Transport information

**DOT**

Not regulated as dangerous goods.

**IATA**

Not regulated as dangerous goods.

**IMDG**

Not regulated as dangerous goods.

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code** Not applicable.

### 15. Regulatory information

**US federal regulations** This product is not hazardous according to OSHA 29CFR 1910.1200. All components are on the U.S. EPA TSCA Inventory List.

**TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)**

Not regulated.

**OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)**

Not listed.

**CERCLA Hazardous Substance List (40 CFR 302.4)**

2-Butoxyethanol (CAS 111-76-2) LISTED

**Superfund Amendments and Reauthorization Act of 1986 (SARA)**

**Hazard categories** Immediate Hazard - No  
Delayed Hazard - No  
Fire Hazard - No  
Pressure Hazard - No  
Reactivity Hazard - No

**SARA 302 Extremely hazardous substance**

Not listed.

**SARA 311/312 Hazardous chemical** No

**SARA 313 (TRI reporting)**

Chemical name	CAS number	% by wt.
2-Butoxyethanol	111-76-2	<6

**Other federal regulations**

**Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**

Not regulated.

**Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)**

Not regulated.

**Safe Drinking Water Act (SDWA)** Not regulated.

**US state regulations** This product does not contain a chemical known to the State of California to cause cancer, birth defects or other reproductive harm.

**US. Massachusetts RTK - Substance List**

2-Butoxyethanol (CAS 111-76-2)

**US. New Jersey Worker and Community Right-to-Know Act**

2-Butoxyethanol (CAS 111-76-2)

**US. Pennsylvania Worker and Community Right-to-Know Law**

2-Butoxyethanol (CAS 111-76-2)

**US. Rhode Island RTK**

2-Butoxyethanol (CAS 111-76-2)

**US. California Proposition 65**

Not Listed.

**International Inventories**

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	No
Canada	Non-Domestic Substances List (NDSL)	Yes
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

\*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s).

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

**16. Other information, including date of preparation or last revision**

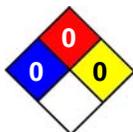
**Issue date** 06-July-2015

**Revision date** -

**Version #** 01

**Further information** The classification for health and environmental hazards is derived by a combination of calculation methods and test data, if available.

**NFPA ratings**



**List of abbreviations**

**References**

ACGIH  
EPA: Acquire database  
NLM: Hazardous Substances Data Base  
US. IARC Monographs on Occupational Exposures to Chemical Agents  
National Toxicology Program (NTP) Report on Carcinogens  
ACGIH Documentation of the Threshold Limit Values and Biological Exposure Indices  
ESIS (European chemical Substances Information System)  
HSDB® - Hazardous Substances Data Bank  
IARC Monographs. Overall Evaluation of Carcinogenicity

**Disclaimer**

This information is provided without warranty. The information is believed to be correct. This information should be used to make an independent determination of the methods to safeguard workers and the environment.

# Safety Data Sheet



## 1. Identification

<b>Product Name:</b>	VARA 6X946ML PRO OIL SEMI-GLOSS	<b>Revision Date:</b>	2/29/2016
<b>Product Identifier:</b>	Y100041	<b>Supersedes Date:</b>	New SDS
<b>Product Use/Class:</b>	Clear Wood Coating/Varathane		
<b>Supplier:</b>	Rust-Oleum Consumer Brands Canada (RCBC) 200 Confederation Parkway Concord, ON L4K 4T8 Canada	<b>Manufacturer:</b>	Rust-Oleum Consumer Brands Canada (RCBC) 200 Confederation Parkway Concord, ON L4K 4T8 Canada
<b>Preparer:</b>	Regulatory Department		
<b>Emergency Telephone:</b>	24 Hour Hotline: 847-367-7700		

## 2. Hazard Identification

### Classification

### Symbol(s) of Product



### Signal Word

Danger

### GHS HAZARD STATEMENTS

Flammable Liquid, category 3	H226	Flammable liquid and vapor.
Skin Sensitizer, category 1	H317	May cause an allergic skin reaction.
STOT, repeated exposure, category 1	H372	Causes damage to organs.

### GHS LABEL PRECAUTIONARY STATEMENTS

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. NO SMOKING.
P260	Do not breathe dust, fumes, gases, mists, vapors, or spray.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P302+P352	IF ON SKIN: Wash with plenty of soap and water.
P314	Get medical advice/attention if you feel unwell.
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.

### GHS SDS PRECAUTIONARY STATEMENTS

P240	Ground/bond container and receiving equipment.
P241	Use explosion-proof electrical/ventilating/lighting/equipment.
P242	Use only non-sparking tools.
P243	Take precautionary measures against static discharge.
P270	Do not eat, drink or smoke when using this product.
P363	Wash contaminated clothing before reuse.

## 3. Composition/Information On Ingredients

**HAZARDOUS SUBSTANCES**

<u>Chemical Name</u>	<u>CAS-No.</u>	<u>Wt. % Range</u>	<u>GHS Symbols</u>	<u>GHS Statements</u>
Stoddard Solvent	8052-41-3	50-75	GHS08	H304-372
Methyl Ethyl Ketoxime	96-29-7	0.1-1.0	GHS05-GHS06	H302-312-317-318-331

**4. First-aid Measures**

**FIRST AID - EYE CONTACT:** Immediately flush eyes with plenty of water for at least 15 minutes holding eyelids open. Get medical attention. Do NOT allow rubbing of eyes or keeping eyes closed.

**FIRST AID - SKIN CONTACT:** Wash skin with soap and water. Remove contaminated clothing. Get medical attention if irritation develops or persists.

**FIRST AID - INHALATION:** Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get immediate medical attention. Do NOT use mouth-to-mouth resuscitation. If you experience difficulty in breathing, leave the area to obtain fresh air. If continued difficulty is experienced, get medical assistance immediately.

**FIRST AID - INGESTION:** If swallowed, get medical attention.

**5. Fire-fighting Measures**

**EXTINGUISHING MEDIA:** Alcohol Film Forming Foam, Carbon Dioxide, Dry Chemical, Dry Sand, Water Fog

**UNUSUAL FIRE AND EXPLOSION HAZARDS:** Closed containers may explode when exposed to extreme heat due to buildup of steam. Keep containers tightly closed. Combustible liquid and vapor. No unusual fire or explosion hazards noted.

**SPECIAL FIREFIGHTING PROCEDURES:** Evacuate area and fight fire from a safe distance. Use water spray to keep fire-exposed containers cool. Containers may explode when heated.

**6. Accidental Release Measures**

**STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED:** Remove all sources of ignition, ventilate area and remove with inert absorbent and non-sparking tools. Dispose of according to local, state (provincial) and federal regulations. Do not incinerate closed containers.

**7. Handling and Storage**

**HANDLING:** Wash thoroughly after handling. Wash hands before eating. Remove contaminated clothing and launder before reuse. Use only with adequate ventilation. Follow all MSDS/label precautions even after container is emptied because it may retain product residues. Avoid breathing fumes, vapors, or mist. Avoid contact with eyes, skin and clothing.

**STORAGE:** Store in a dry, well ventilated place. Keep container tightly closed when not in use. Keep containers tightly closed. Isolate from heat, electrical equipment, sparks and open flame. Do not store above 120 ° F. Store large quantities in buildings designed and protected for storage of NFPA Class II combustible liquids. Avoid excess heat.

**8. Exposure Controls/Personal Protection**

<u>Chemical Name</u>	<u>CAS-No.</u>	<u>Weight % Less Than</u>	<u>ACGIH TLV-TWA</u>	<u>ACGIH TLV-STEL</u>	<u>OSHA PEL-TWA</u>	<u>OSHA PEL-CEILING</u>
Stoddard Solvent	8052-41-3	55.0	100 ppm	N.E.	500 ppm	N.E.
Methyl Ethyl Ketoxime	96-29-7	1.0	10 ppm	N.E.	N.E.	N.E.

**PERSONAL PROTECTION**

**ENGINEERING CONTROLS:** Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits. Prevent build-up of vapors by opening all doors and windows to achieve cross-ventilation.

**RESPIRATORY PROTECTION:** A respiratory protection program that meets OSHA 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant a respirator's use.

**SKIN PROTECTION:** Use gloves to prevent prolonged skin contact. Nitrile or Neoprene gloves may afford adequate skin protection.

**EYE PROTECTION:** Use safety eyewear designed to protect against splash of liquids.

**OTHER PROTECTIVE EQUIPMENT:** Refer to safety supervisor or industrial hygienist for further guidance regarding types of personal protective equipment and their applications.

**HYGIENIC PRACTICES:** Wash thoroughly with soap and water before eating, drinking or smoking. Remove contaminated clothing immediately and launder before reuse.

## 9. Physical and Chemical Properties

<b>Appearance:</b>	Liquid	<b>Physical State:</b>	Liquid
<b>Odor:</b>	Solvent Like	<b>Odor Threshold:</b>	N.E.
<b>Relative Density:</b>	0.884	<b>pH:</b>	N.A.
<b>Freeze Point, °C:</b>	N.D.	<b>Viscosity:</b>	N.D.
<b>Solubility in Water:</b>	Slight	<b>Partition Coefficient, n-octanol/ water:</b>	N.D.
<b>Decomposition Temp., °C:</b>	N.D.	<b>Explosive Limits, vol%:</b>	0.9 - 7.0
<b>Boiling Range, °C:</b>	-18 - 204	<b>Flash Point, °C:</b>	40
<b>Flammability:</b>	Supports Combustion	<b>Auto-ignition Temp., °C:</b>	N.D.
<b>Evaporation Rate:</b>	Slower than Ether	<b>Vapor Pressure:</b>	N.D.
<b>Vapor Density:</b>	Heavier than Air		

(See "Other information" Section for abbreviation legend)

## 10. Stability and Reactivity

**CONDITIONS TO AVOID:** Avoid temperatures above 120°F (49°C). Avoid contact with strong acid and strong bases.

**INCOMPATIBILITY:** Incompatible with strong oxidizing agents, strong acids and strong alkalis.

**HAZARDOUS DECOMPOSITION:** When heated to decomposition, it emits acrid smoke and irritating fumes. Contains solvents which may form carbon monoxide, carbon dioxide, and formaldehyde.

**HAZARDOUS POLYMERIZATION:** Will not occur under normal conditions.

**STABILITY:** This product is stable under normal storage conditions.

## 11. Toxicological information

**EFFECTS OF OVEREXPOSURE - EYE CONTACT:** Substance causes moderate eye irritation.

**EFFECTS OF OVEREXPOSURE - SKIN CONTACT:** Substance may cause slight skin irritation.

**EFFECTS OF OVEREXPOSURE - INHALATION:** High gas, vapor, mist or dust concentrations may be harmful if inhaled. Avoid breathing fumes, spray, vapors, or mist. High vapor concentrations are irritating to the eyes, nose, throat and lungs. Prolonged or excessive inhalation may cause respiratory tract irritation.

**EFFECTS OF OVEREXPOSURE - INGESTION:** Irritating to the nose, throat and respiratory tract. Harmful if swallowed.

**EFFECTS OF OVEREXPOSURE - CHRONIC HAZARDS:** Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage.

**PRIMARY ROUTE(S) OF ENTRY:** Eye Contact, Ingestion, Inhalation, Skin Absorption, Skin Contact

### ACUTE TOXICITY VALUES

The acute effects of this product have not been tested. Data on individual components are tabulated below:

<u>CAS-No.</u>	<u>Chemical Name</u>	<u>Oral LD50</u>	<u>Dermal LD50</u>	<u>Vapor LC50</u>
96-29-7	Methyl Ethyl Ketoxide	930 mg/kg Rat	1100 mg/kg Rabbit	>4.8 mg/L Rat

N.I. - No Information

## 12. Ecological Information

**ECOLOGICAL INFORMATION:** Product is a mixture of listed components.

## 13. Disposal Information

**DISPOSAL INFORMATION:** Dispose of material in accordance to local, state, and federal regulations and ordinances. Do not allow to enter waterways, wastewater, soil, storm drains or sewer systems.

## 14. Transport Information

	<u>Domestic (USDOT)</u>	<u>International (IMDG)</u>	<u>Air (IATA)</u>	<u>TDG (Canada)</u>
UN Number:	N.A.	1263	1263	N.A.
Proper Shipping Name:	Not Regulated	Paint	Paint	Not Regulated
Hazard Class:	N.A.	3	3	N.A.
Packing Group:	N.A.	III	III	N.A.
Limited Quantity:	No	Yes, >5L No	Yes, >5L No	No

## 15. Regulatory Information

### U.S. Federal Regulations:

#### CERCLA - SARA Hazard Category

This product has been reviewed according to the EPA 'Hazard Categories' promulgated under Sections 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III) and is considered, under applicable definitions, to meet the following categories:

Fire Hazard, Acute Health Hazard, Chronic Health Hazard

#### Sara Section 313:

This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendment and Reauthorization Act of 1986 and 40 CFR part 372:

No Sara 313 components exist in this product.

#### Toxic Substances Control Act:

This product contains the following chemical substances subject to the reporting requirements of TSCA 12(b) if exported from the United States:

No TSCA 12(b) components exist in this product.

## 16. Other Information

### HMIS RATINGS

Health: 2\*    Flammability: 2    Physical Hazard: 0    Personal Protection: X

### NFPA RATINGS

Health: 2    Flammability: 2    Instability: 0

VOLATILE ORGANIC COMPOUNDS, g/L: 471

SDS REVISION DATE: 2/29/2016

### REASON FOR REVISION:

Legend: N.A. - Not Applicable, N.E. - Not Established, N.D. - Not Determined

Rust-Oleum Consumer Brands Canada believes, to the best of its knowledge, information and belief, the information contained herein to be accurate and reliable as of the date of this safety data sheet. However, because the conditions of handling, use, and storage of these materials are beyond our control, we assume no responsibility or liability for personal injury or property damage incurred by the use of these materials. Rust-Oleum Consumer Brands Canada makes no warranty, expressed or implied, regarding the accuracy or reliability of the data or results obtained from their use. All materials may present unknown hazards and should be used with caution. The information and recommendations in this material safety data sheet are offered for the users' consideration and examination. It is the responsibility of the user to determine the final suitability of this information and to comply with all applicable international, federal, state, and local laws and regulations.



G.K. Chemical Specialties Co. Inc.  
90 Barbados Blvd.  
Scarborough, Ontario M1J 1K9  
Tel: (416) 261-7182 Fax: (416) 261-5663

## SAFETY DATA SHEET (SDS)

PRODUCT NAME: G.K. VARSOL (MINERAL SPIRITS)	
HEALTH HAZARD RATING:	(1)- SLIGHT HAZARD
FLAMMABILITY HAZARD RATING:	(2)- MODERATE HAZARD
REACTIVITY HAZARD RATING:	(0)- MINIMAL HAZARD
PERSONAL PROTECTION:	H - (Splash goggles, Gloves, Synthetic apron, Vapor respirator)
HAZARD ALERT SIGN:	   GHS02                      GHS08                      GHS07

<b>SECTION 1 – IDENTIFICATION</b>	
<b>PRODUCT IDENTIFIER</b>	
PRODUCT NAME	G.K.VARSOL
MANUFACTURER'S NAME AND ADDRESS EMERGENCY PHONE NO.	G.K. Chemical Specialties Co. Inc. 90 Barbados Blvd. Scarborough, Ontario M1J 1K9 (416) 261-7182 / 905 427-7605/ 416-526-4037 CHEMTREC( 24 HR EMERGENCY) 1-800-424-9300 International CHEMTREC: 1-703-527-3887
SUPPLIER'S NAME AND ADDRESS EMERGENCY PHONE NO.	
CHEMICAL NAME	STODDARD SOLVENT
CHEMICAL FAMILY	PETROLEUM DISTILLATE
TRADE NAME AND SYNONYMS	MINERAL SPIRITS, HIGH FLASH NAPHTHA
MATERIAL USE	INDUSTRIAL SOLVENT

G.K. Chemical Specialties Co. Inc. has compiled the information and recommendations contained in this Safety Data Sheet from sources believed to be reliable and to represent the most reasonable current opinion on the subject when the SDS was prepared. Although reasonable precautions have been taken in the preparation of the data contained herein, it is offered solely for your information, consideration and investigation.

G.K. Chemical Specialties Co. Inc. extends no warranty and assumes no responsibility as to the accuracy of the content or sufficiency of the information and expressly disclaims all liability for reliance thereon. This SDS provides guidelines for the safe handling of this product. It does not and cannot advise on all possible situations, therefore, your specific use of this product should be evaluated to determine if additional precautions are required. Individuals exposed to this product should read and understand this information and be provided pertinent training prior to working with this product.

G.K. Chemical Specialties Co. Inc. assumes no responsibility for personal injury or property damage to vendors, users or third parties caused by the material. Such vendors or users assume all risks associated with the use of the material.

INGREDIENTS. This SDS, under section of Ingredients, contains all ingredients listed under INGREDIENT DISCLOSURE LIST P.C. 1987-2719, 20/1/88 CANADA GAZETTE PART II VOL. 122, No 2 of HAZARDOUS PRODUCT ACT.

Percentage range of concentration of ingredients is expressed as percentage by weight of the total weight of the product. Ingredient List does not necessarily list all ingredients in the formulation and does not necessarily list all ingredient range of concentration, other than ingredients under the Disclosure List.

T.L.V. (units) or Threshold Limit Values refer to the limiting concentrations recommended by the Ministry of Labour. These values were adopted by the American Conference of Governmental Industrial Hygienists (A.C.G.I.H.). The figures refer to time-weighted average concentrations as P.P.M. (V/V) or mg/m<sup>3</sup> for a normal working day or at any time for some materials.

“C.A.S REG. No.” means the identification number assigned to a chemical substance by the Chemical Abstracts Service Division of the American Chemical Society.

“LC 50” means the concentration of a substance in air that when administered by means of inhalation over a specified length of time in an animal assay, is expected to cause the death of 50 per cent of a defined animal population.

“LD 50” means the single dose of a substance that, when administered by a defined route in an animal assay, is expected to cause death of 50 per cent of a defined animal population.

FLASH POINT. The minimum temperature at which a substance gives off flammable vapors which in contact with spark or flame will ignite.

NIOSH- National institute for occupational safety and health

STEL- Short term exposure limit

TWA- Time-weighted average

PEL- Permissible exposure limit

ACGIH- American conference of governmental industrial hygienist

OSHA- Occupational safety and health act

## SECTION 2 – HAZARD IDENTIFICATION

Dangerous Goods- WHMIS: CLASS B, Div. 3

**OSHA HAZARDS:** Flammable liquid, Target Organ Effect, Irritant.

**Target Organs:** Nerves, Kidney, Cardiovascular system, Gastrointestinal tract, Liver.

**Signal Words:** Danger.

### GHS CLASSIFICATION

Flammable liquids- Category 3

Acute toxicity–Inhalation (vapors)- Category 4

Acute toxicity-Oral– Category 4

Skin corrosion / irritation- Category 2

Serious eye damage/ eye irritation - Category 2b

Specific target organ toxicity, single exposure - Category 3

Aspiration hazard – Category 1



GHS Label Elements, including precautionary statements: Hazard Statements:

### HAZARD STATEMENTS

H226- Flammable liquid and vapor

H304- May be fatal if swallowed and enters airways

H316- Causes skin irritation

H319- Causes serious eye irritation

H335- May cause respiratory irritation

H336- May cause drowsiness or dizziness

H302-Harmful if swallowed

H373- May cause damage to organs through prolonged or repeated exposure



### PREVENTION (see also section 4 –First aid and measures)

P210- Keep away from heat/sparks/open flames/hot surfaces

P261- Avoid breathing dust/fumes/gas/mist/vapors/spray

P280- Wear protective gloves / protective clothing / eye protection / face protection

P271- Use only outdoors or in a well-ventilated area

P264- Wash skin thoroughly after handling

P242- Use only non-sparking tools.

P243- Take precautionary measures against static discharge

P405- Store locked up

P233- Keep container tightly closed.

P202- Do not handle until all safety precautions have been read and understood.



### RESPONSE

P305+P351+P338- IF IN EYES: Rinse cautiously with water for several minutes: Remove contact lenses if present and easy to do so. Continue rinsing.

P337 + P313: If eye irritation persists: Get medical advice/attention

P301 + P330 + P331: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting

P301 + P310; IF SWALLOWED: Immediately call a POISON CENTER or doctor/ physician

P303 + P361 + P353: IF ON SKIN (or hair): Remove/ take off immediately all contaminated clothing. Rinse skin with water/shower

P370 + 378: In case of fire, use dry chemical to extinguish

	<p><b>POTENTIAL HEALTH EFFECTS</b></p> <p><b>EYES:</b> Causes serious eye irritation</p> <p><b>INHALATION:</b> May be harmful if inhaled. Causes respiratory tract irritation. Vapors may cause drowsiness and dizziness. Can cause irritation of mucous membranes and central nervous system depression. Aspiration into lungs may cause pneumonia or death</p> <p><b>SKIN:</b> May be harmful if absorbed through skin. Causes skin irritation</p> <p><b>INGESTION:</b> May be harmful if swallowed</p>
--	---

<b>SECTION 3 – COMPOSITION/INFORMATION ON INGREDIENTS</b>				
<b>HAZARDOUS INGREDIENTS</b>	<b>APPROXIMATE CONCENTRATION %</b>	<b>C.A.S., N.A. OR U.N. NUMBERS</b>	<b>LD50 {SPECIFY SPECIES &amp; ROUTE}</b>	<b>LC 50 {SPECIFY SPECIES &amp; ROUTE}</b>
Stoddard solvent (mineral spirits)	100	8052-41-3	Oral (Rat): >5,000 mg/kg Dermal (Rabbit): >3,000mg/kg	Inhalation: Rat >5.5 mg/L/4h

<b>SECTION 4 – FIRST AID MEASURES</b>	
<b>SKIN CONTACT</b>	Immediately flush with plenty of water for at least 15 minutes while removing contaminated clothing and wash using soap. Get medical attention if necessary.
<b>EYE CONTACT</b>	Immediately hold eyelids open and flush with water for at least 15 minutes. Seek medical attention.
<b>INHALATION</b>	For excessive inhalation remove casualty to fresh air and keep at rest. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get medical attention if necessary
<b>INGESTION</b>	May be harmful if swallowed. Do not induce vomiting. Seek immediate medical attention. Never give anything by mouth to an unconscious or convulsing person. If vomiting occur spontaneously, keep head below hips to prevent aspiration of liquid into the lungs. Danger of aspiration of vomit into the lungs can cause serious damage and chemical pneumonitis. Take a copy of the label and / or SDS with the victim to the health professional.
<b>NOTES TO PHYSICIAN</b>	<p>Treatment based on sound judgment of physician and individual reaction of patient.</p> <p><b>Eye contact:</b> Causes serious eye irritation. Symptoms may include stinging and tearing</p> <p><b>Inhalation:</b> Harmful if inhaled in excessive amounts. Can cause central nervous system depression. May cause drowsiness, dizziness, headache, nausea, breathing difficulties and other symptoms of central nervous system depression.</p> <p><b>Skin contact:</b> May cause skin irritation. (Redness, Swelling, Itching and Dryness)</p> <p><b>Ingestion:</b> Can cause central nervous system depression. May be fatal if swallowed and enters airways. Irritating to mouth, throat and stomach. Can cause nausea, vomiting and diarrhea.</p> <p><b>ASPIRATION HAZARD:</b> Aspiration into the lungs during swallowing or subsequent vomiting may cause chemical pneumonitis, which can be fatal.</p>

<b>SECTION 5 – FIRE-FIGHTING MEASURES</b>	
<b>FLASH POINT ( °C)</b>	43°C (109.4°F)
<b>FLASH POINT METHOD</b>	Closed Cup or Tag
<b>AUTOIGNITION TEMPERATURE ( °C)</b>	229°C (444.2°F)
<b>UPPER FLAMMABLE LIMIT ( % VOL.)</b>	13.3 %
<b>LOWER FLAMMABLE LIMIT ( % VOL.)</b>	1.0 %

<b>HAZARDOUS COMBUSTION PRODUCTS</b>	Carbon Dioxide ( CO <sub>2</sub> ), Carbon monoxide.
<b>UNUSUAL FIRE/ EXPLOSION HAZARDS</b>	Flammable liquid and vapors (Category 3). Explosive in presence of open flames, sparks, or heat. Containers can rupture and explode under fire conditions due to pressure and vapor buildup. Heated vapors may form explosive mixture with air. Vapors may travel across the ground and reach an ignition source.
<b>SENSITIVITY TO MECHANICAL IMPACT</b>	yes
<b>SENSITIVITY TO STATIC DISCHARGE</b>	yes
<b>EXTINGUISHING MEDIA</b>	Water fog, Alcohol-resistant foam, dry powder or Carbon Dioxide. Use media appropriate for surrounding fire. Do not use a solid water stream as it may scatter and spread fire.
<b>SPECIAL FIRE FIGHTING PROCEDURES</b>	Fire fighters should wear full protective clothing, including self-contained breathing equipment. Vapor may travel considerable distance to source of ignition and flash back. Cool exposed containers with water spray.

### SECTION 6 – ACCIDENTAL RELEASE MEASURES

<b>LEAK AND SPILL PROCEDURE</b>	<p>Stop leak and ventilate the area. Avoid breathing mist or vapours. Eliminate source of ignition. Use only non-sparking tools and equipment in the clean-up process. Move containers from spill area if safe to do so. Absorb spill with vermiculite or other noncombustible absorbent material. Place in a suitable container (with lid tightly covered) for disposal. Solvent soaked materials may spontaneously combust.</p> <p>For large spills, dike spill, recover free liquid, collect with an electrically protected vacuum cleaner or by wet-brushing. Use absorbent material to dry area. Put all material into appropriate waste containers. Rinse with water. Avoid contaminating ground water.</p>
<b>ENVIRONMENTAL PRECAUTIONARY</b>	Prevent entry into sewers or streams. Any release to the environment may be subject to federal or local reporting requirements.
<b>PERSONAL PRECAUTIONARY MEASURES</b>	Wear protective clothing during cleanup. See section 8 for recommendations on the use of personal protective equipment. Avoid breathing vapors, mist or gas. Restrict access to area until completion of clean-up.

### SECTION 7 – HANDLING AND STORAGE

<b>HANDLING PROCETURES</b>	<p>Avoid contact with eyes. Avoid ingestion. Do not breathe vapors. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Wear personal protective equipment appropriate to task. Use good industrial hygiene practices in handling this product. Keep container closed when not in use. Take measure to prevent the buildup of electrostatic charge. Use only non-sparking tools. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Eating, drinking and smoking should be prohibited in areas where this product is handled, stored and processed. Workers should wash hands and face before eating. Launder contaminated clothing prior to reuse.</p> <p>Do not cut, grind, weld or drill on or near containers.</p> <p><b>CAUTION: Cloth or paper soaked in this product may undergo spontaneous ignition. Never discard wiping cloths soaked in this product carelessly. Do not put wet cloth or paper in a garbage bag or garbage container. Dry carefully before discarding.</b></p>
<b>STORAGE NEEDS</b>	Keep container tightly closed. Store in a cool area. Keep in the original container or an approved alternative. Store and use away from heat, sparks, open flame or any other ignition source. Store containers carefully and prevent leakage. Store separate from oxidizing materials.

<b>SECTION 8 – EXPOSURE CONTROLS/PERSONAL PROTECTION</b>	
<b>VENTILATION REQUIREMENTS</b>	<p>For outdoors use no critical hazards. For indoor use good ventilation is recommended. Use only with adequate ventilation to prevent build-up of vapors. Open all windows and doors. Use only with a cross ventilation of moving fresh air across the work area. If strong odor is noticed or you experience slight dizziness, headache, nausea, or eye-watering- STOP- ventilation is inadequate. Leave area immediately. When the following figures listed are exceeded provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective.</p> <p><b>Occupational exposure limits For Stoddard solvent (8052-41-3):</b>            ACGIH TLV (United states, 1/2008)            TWA: 100 ppm 8 hours (525 mg/m<sup>3</sup>)            OSHA PEL 1989 (United States, 3/1989)            TWA: 100 ppm 8 hours (525 mg/m<sup>3</sup>)            NIOSH REL (United States, 6/2008)            TWA: 350 mg/m<sup>3</sup> 10 hours, CEIL: 1800 mg/m<sup>3</sup> 15 minutes            OSHA PEL (United States, 11/2006)            TWA: 500 ppm 8 hours (2900 mg/m<sup>3</sup> 8 hours</p>
<b>PROTECTIVE EQUIPMENT</b>	Ensure that eyewash stations are proximal to the work-station location. The selection of personal protective equipment will vary depending on the condition of use
<b>EYE/TYPE</b>	Splash goggles, safety glasses or face shields are recommended to safeguard against potential eye contact, irritation, or injury.
<b>RESPIRATORY/TYPE</b>	Approved/ certified vapor respirator. Any chemical cartridge respirator with organic vapor cartridges is recommended.
<b>GLOVE/TYPE</b>	Nitrile, Butyl impervious gloves
<b>FOOTWEAR/TYPE</b>	Boots
<b>BODY/TYPE</b>	Protective clothing is required. Use impervious clothing (apron, coveralls). The selection of personal protective equipment will vary depending on the conditions of use.

<b>SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES</b>	
<b>APPEARANCE – PHYSICAL STATE</b>	Clear liquid
<b>ODOUR</b>	Mild Petroleum
<b>ODOUR THRESHOLD (PPM)</b>	Not available
<b>PH</b>	Not applicable
<b>MELTING POINT ( °C)</b>	See freezing point
<b>BOILING POINT ( °C)</b>	159°C (318.2° F) INITIAL
<b>FREEZING POINT ( °C)</b>	-76°C (--105° F)
<b>EVAPORATION RATE</b>	0.14 (n-Butyl Acetate=1)
<b>FLAMMABILITY</b>	Flammable
<b>FLASH POINT ( °C)</b>	43°C (109°F)
<b>AUTO IGNITION TEMPERATURE</b>	229°C (444.2°F)
<b>DECOMPOSITION TEMPERATURE</b>	Not available
<b>VAPOUR DENSITY</b>	(air= 1) 4.9 at 101 kPa
<b>VAPOUR PRESSURE</b>	@ 20°C) 2.2 mmHg
<b>SOLUBILITY</b>	Not soluble in water
<b>VISCOSITY</b>	Thin liquid
<b>% VOLATILE BY VOLUME</b>	100 %
<b>SPECIFIC GRAVITY</b>	0.79 ± 0.02 gm / cm <sup>3</sup>

<b>SECTION 10 – STABILITY AND REACTIVITY</b>	
<b>REACTIVITY</b>	Not self-reactive, self-heating
<b>CHEMICAL STABILITY</b>	Stable
<b>POSSIBILITY OF HAZARDOUS REACTIONS</b>	Under normal conditions of storage and use, hazardous reaction will not occur.
<b>CONDITIONS TO AVOID</b>	Keep away from heat, flame and sparks. Avoid incompatible materials. Do not allow vapors to accumulate in low or confined areas.
<b>INCOMPATIBLE MATERIALS</b>	Strong oxidizing agents. May attack some plastic materials
<b>HAZARDOUS DECOMPOSITION PRODUCTS</b>	Carbon Dioxide (CO <sub>2</sub> ), Carbon monoxide.

<b>SECTION 11 –TOXICOLOGICAL INFORMATION</b>	
<b>TOXICITY EFFECTS ON ANIMALS</b>	<b>For Stoddard solvent (Mineral Spirits)(8052-41-3):</b> Acute Oral Toxicity LD50 (Rat): >5,000 mg/kg. Acute Dermal Toxicity LD50 (Rabbit): >3,000 mg/kg
<b>TOXIC EFFECTS ON HUMANS</b>	Hazardous in case of ingestion or inhalation. Slightly hazardous in case of skin contact. <b>Skin</b> contact can cause redness, irritation and drying. Severity depends on the amount and duration of exposure. <b>Eyes:</b> Vapors may be irritating to the eyes. Liquid contact will cause stinging redness, swelling and tearing. <b>Inhalation:</b> Excessive inhalation of high concentrations may be harmful. Mist or vapor can irritate the throat and lungs. Breathing excessive amount of this product may cause central nervous system depression, intoxication, may cause drowsiness, headaches, dizziness. <b>Ingestion:</b> If swallowed this material may irritate the mucous membranes of the mouth throat and esophagus. May cause gastrointestinal irritation, nausea, vomiting and diarrhea. Aspiration of this material into the lungs may result in damage or death.
<b>CHRONIC EFFECTS ON HUMANS</b>	Reports have associated repeated and prolonged overexposure to solvents with neurological and other physiological damage. May cause anemia, bone marrow, liver damage. Repeated or prolonged skin contact may cause redness, irritation, and scaling of the skin.
<b>CARCINOGENICITY</b>	No evidence
<b>TERATOGENICITY</b>	No evidence
<b>MUTAGENICITY</b>	No evidence
<b>REPRODUCTIVE EFFECTS</b>	Not expected to have Reproductive effects.

<b>SECTION 12 –ECOLOGICAL INFORMATION</b>	
<b>ECOTOXICITY DATA</b>	Product expected to be toxic to aquatic organisms. May cause long-term adverse effects in the aquatic environment. <b>MOBILITY:</b> Mostly volatile material and will partition rapidly to air. Not expected to partition to sediment and wastewater solids.  <b>For Stoddard solvent (Mineral spirits) (8052-41-3):</b> Acute Toxicity to fish, LC50, Bluegill ( <i>Lepomis macrochirus</i> ): 2.1– 4.2 mg / L /96h. Acute Toxicity to aquatic Invertebrates, EC50, <i>Daphnia magna</i> (Water flea): 0.42 – 2.3 mg /L /48 h. Acute Toxicity to Algae, EC50, Green Algae ( <i>Selenastrum capricornutum</i> ): 0.58– 1.2 mg /L /72h.
<b>BIODEGRADABILITY</b>	Not readily biodegradable
<b>PRODUCTS OF DEGRADATION</b>	No information found

<b>SECTION 13 – DISPOSAL CONSIDERATIONS</b>	
<b>WASTE DISPOSAL</b>	Disposal of all wastes must be done in accordance with municipal, provincial and federal regulations
<b>INFORMATION ON SAFE HANDLING FOR DISPOSAL INCLUDING ANY CONTAMINATED PACKAGING</b>	Suitable waste facility

<b>SECTION 14 – TRANSPORT INFORMATION</b>	
<b>UN NUMBER</b>	1268
<b>UN PROPER SHIPPING NAME</b>	PETROLEUM DISTILLATES, N.O.S. (Stoddard Solvent, flash point 43° C)
<b>TRANSPORT HAZARD CLASS</b>	CLASS 3: Combustible liquid
<b>PACKAGING GROUP</b>	Pk: III
<b>ENVIRONMENTAL HAZARDS</b>	Marine pollutant
<b>TRANSPORT IN BULK, if applicable</b>	NOT AVAILABLE
<b>SPECIAL PRECAUTIONS/PROVISIONS</b>	Guide to Canadian transportation. Emergency Response Guidebook (ERG: # 128) <b>TDG Additional information:</b> Not regulated for rail or road shipment if packaged in non-bulk containers (450 Lit or less each). Limited Quantity exemption may be used if product is in containers of 5 lit or less, per section 1.17 of TDG <b>49CFR/DOT.</b> Limited Quantity exemption may be used if product is in containers of 5 lit or less, per section 173.150 of 49 CFR

<b>SECTION 15 – REGULATORY INFORMATION</b>	
<b>SAFETY HEALTH &amp; ENVIRONMENTAL REGULATIONS SPECIFIC TO THE PRODUCT</b>	U.S. TSCA inventory Status: All components of this product are either on the Toxic Substances Control Act (TSCA) INVENTORY List or exempt. Canadian DSL Inventory Status: All components of this product are either on the Domestic Substances List (DSL) or the Non-Domestic Substances List (NDSL) or exempt.

<b>SECTION 16 – OTHER INFORMATION</b>	
<b>PREPARED BY:</b>	Gus Kaklamanos - Chemist
<b>TELEPHONE NO.:</b>	416-261-7182
<b>DATE OF THE LATEST REVISION OF SDS:</b>	October 2, 2017



## Safety Data Sheet

### 1 – Product Identifier & Identity for the Chemical

<p><b>Manufacturer:</b> WD-40 Company Australia Pty Ltd</p> <p><b>Address:</b> 41 Rawson Street (Level 2, Suite 23) Epping NSW, 2121, Australia</p> <p><b>Telephone:</b> <b>Information:</b> +61 2 9868 2200 <b>Emergency only:</b> 1800 024 973</p> <p><b>Poisons Information Centre:</b> <b>Australia:</b> 13 11 26 <b>New Zealand:</b> 0800 764 766</p> <p><b>New Zealand Contact Details:</b> <b>Name:</b> Eproducts New Zealand Limited <b>Address:</b> 7D Orbit Drive Albany New Zealand <b>Telephone:</b> <b>Information:</b> 09 916 6750</p>	<p><b>Product Name:</b> WD-40 Aerosol</p> <p><b>Chemical Name:</b> Mixture</p> <p><b>Product Use:</b> Lubricant, Penetrant, Drives Out Moisture, Removes and Protects Surfaces From Corrosion</p> <p><b>Restriction on Use:</b> None Identified</p> <p><b>SDS Date Of Preparation:</b> 23 July 2015</p>
--	---

### 2 – Hazards Identification

#### Classification of the Hazardous Chemical (in accordance with WHS Regulation)

Health	Environmental	Physical
Aspiration Toxicity Category 1 Eye Irritant Category 2A Skin Irritant Category 2	Aquatic Acute Toxicity Category 3 Aquatic Chronic Toxicity Category 3	Flammable Aerosol Category 1 Gas Under Pressure: Compressed Gas

#### Label Elements



Contains: Naphtha (petroleum), hydrodesulfurized heavy; 1,2,4-Trimethyl benzene; 1,3,5-Trimethyl benzene; Xylene, Mixed Isomers; and Surfactant

#### Danger!

H222 Extremely flammable aerosol.  
H280 Contains gas under pressure: may explode if heated.  
H304 May be fatal if swallowed and enters airways.  
H315 Causes skin irritation.  
H319 Causes serious eye irritation.  
H412 Harmful to aquatic life with long lasting effects.

**Prevention**

P210 Keep away from heat, sparks, open flames and hot surfaces.-No smoking.

P211 Do not spray on an open flame or other ignition source.

P251 Pressurized container: Do not pierce or burn, even after use.

P264 Wash thoroughly after handling.

P273 Avoid release to the environment.

P280 Wear protective gloves and eye protection.

**Response**

P302+P352 IF ON SKIN: Wash with plenty of soap and water.

P332+P313 If skin irritation occurs: Get medical attention.

P362 Take off contaminated clothing and wash it before reuse.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P337+P313 If eye irritation persists: Get medical attention.

P301+P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor or physician.

P331 Do NOT induce vomiting.

**Storage**

P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F.

P403+P235 Store in a well-ventilated place. Keep cool.

P405 Store locked up.

**Disposal**

P501 Dispose of contents and container in accordance with local and national regulations.

**Other Hazards that do not Result in Classification:** None

**3 - Composition/Information on Ingredients**

Ingredient	CAS #	Weight Percent	Substance Classification
Naphtha (petroleum), hydrodesulfurized heavy	64742-82-1	>60%	Flam. Liq. Cat 3 (H226) Asp. Tox. Cat 1 (H304)
Distillates, Hydrotreated Heavy Paraffinic (contains <3% DMSO)	64742-54-7	10-20%	Not Hazardous
Non-Hazardous Ingredients	Mixture	>10%	Not Hazardous
1,2,4-Trimethyl benzene	95-63-6	<10%	Flam. Liq. Cat 3 (H226) Acute Tox. Cat 4 (H332) Eye Irrit. Cat 2 (H319) Skin Irrit. Cat 2 (H315) STOT SE Cat 3 (H335) Aq. Chronic Cat 2 (H411)
1,3,5-Trimethyl benzene	108-67-8	<10%	Flam. Liq. Cat 3 (H226) STOT SE Cat 3 (H335) Aq. Chronic Cat 2 (H411)
Xylene, Mixed Isomers	1330-20-7	<10%	Flam. Liq. Cat 3 (H226) Acute Tox. Cat 4 (H312) Acute Tox. Cat 4 (H332) Skin Irrit. Cat 2 (H315)
Carbon Dioxide	124-38-9	2-4%	Not Hazardous
Surfactant	Proprietary	<1%	Eye Dam. Cat 1 (H318) Skin Irrit. Cat 2 (H315)

See Section 16 for full text of GHS Classification and H phrases

#### 4 – First Aid Measures

**Ingestion (Swallowed):** Aspiration Hazard. DO NOT induce vomiting. Call a Poisons Information Center (phone 13 11 26 from anywhere in Australia or 0800 764 766 in New Zealand) immediately.

**Eye Contact:** Flush thoroughly with water. Remove contact lenses if present after the first 5 minutes and continue flushing for several more minutes. Get medical attention if irritation persists.

**Skin Contact:** Wash with soap and water. If irritation develops and persists, get medical attention.

**Inhalation (Breathing):** If irritation is experienced, move to fresh air. Get medical attention if irritation or other symptoms develop and persist.

**Most Important Symptoms:** May cause eye, skin, and respiratory irritation. Prolonged skin contact may cause drying of the skin. Inhalation may cause headache, dizziness, nausea and other symptoms of central nervous system depression. Accidental ingestion may cause gastrointestinal effects with irritation, nausea, vomiting, dizziness, coma and death. Aspiration into the lungs during ingestion or vomiting may cause lung damage.

**Indication of Immediate Medical Attention and Special Treatment, if Needed:** Immediate medical attention is required for ingestion.

#### 5 – Fire Fighting Measures

**Suitable Extinguishing Media:** Use water fog, dry chemical, carbon dioxide or foam. Do not use water jet or flooding amounts of water. Burning product will float on the surface and spread fire.

**Specific Hazards Arising from the Chemical:** Extremely flammable aerosol. Contents under pressure. Keep away from ignition source and open fire. Exposure of containers to extreme heat and flames can cause them to rupture often with violent force. Vapors are heavier than air and may travel along surfaces to remote ignition sources and flash back. A vapor and air mixture can create an explosion hazard in confined spaces.

**Special Protective Equipment and Precautions for Fire-Fighters:** Firefighters should always wear positive pressure self-contained breathing apparatus and full protective clothing. Use shielding to protect against bursting containers. Cool fire-exposed containers with water.

#### 6 – Accidental Release Measures

**Personal Precautions, Protective Equipment and Emergency Procedures:** Wear appropriate protective clothing (see Section 8). Eliminate all sources of ignition and ventilate area.

**Environmental Precautions:** Avoid releases to the environment. Report spills to authorities as required.

**Methods and Materials for Containment/Cleanup:** Leaking cans should be placed in a plastic bag or open pail until the pressure has dissipated. Contain and collect liquid with an inert absorbent and place in a container for disposal. Clean spill area thoroughly.

#### 7 – Handling and Storage

**Precautions for Safe Handling:** Avoid contact with eyes and skin. Avoid breathing vapors or aerosols. Intentional misuse by deliberately concentrating vapors and inhaling can be harmful or fatal. Use only with adequate ventilation. Keep away from heat, sparks, pilot lights, hot surfaces and open flames. Unplug electrical tools, motors and appliances before spraying or bringing the can near any source of electricity. Electricity can burn a hole in the can and cause contents to burst into flames. To avoid serious burn injury, do not let the can touch battery terminals, electrical connections on motors or appliances or any other source of electricity. Wash thoroughly with soap and water after handling. Keep containers closed when not in use. Keep out of the reach of children. Do not puncture, crush or incinerate containers, even when empty.

**Conditions for Safe Storage, including any incompatibilities:** Store in a cool, dry ventilated area away from incompatible materials. Protect from physical damage. Do not store in direct sunlight, near open flames or above temperatures greater than 50°C.

## 8 – Exposure Controls /Personal Protection

Chemical	Occupational Exposure Limits	Biological Limit Value
Naphtha (petroleum), hydrodesulfurized heavy	350 mg/m <sup>3</sup> TWA (manufacturer recommended) 5 mg/m <sup>3</sup> TWA AU OEL (as oil mist, refined mineral) 5 mg/m <sup>3</sup> TWA, 10 mg/m <sup>3</sup> STEL NZ OEL (as oil mist, mineral) 5 mg/m <sup>3</sup> TWA ACGIH TLV (inhalable) (as mineral oil)	None Established
Distillates, Hydrotreated Heavy Paraffinic	5 mg/m <sup>3</sup> TWA AU OEL (as oil mist, refined mineral) 5 mg/m <sup>3</sup> TWA, 10 mg/m <sup>3</sup> STEL NZ OEL (as oil mist, mineral) 5 mg/m <sup>3</sup> TWA ACGIH TLV (inhalable) (as mineral oil)	None Established
Non-Hazardous Ingredients	None Established	None Established
1,2,4-Trimethyl benzene	25 ppm TWA ACGIH TLV/AU/NZ OEL (as Trimethyl benzene, all isomers)	None Established
1,3,5-Trimethyl benzene	25 ppm TWA ACGIH TLV/AU/NZ OEL (as Trimethyl benzene, all isomers)	None Established
Xylene, Mixed Isomers	80 ppm TWA, 150 ppm STEL AU OEL 50 ppm TWA NZ OEL 100 ppm TWA, 150 ppm STEL ACGIH TLV	Methylhippuric acids in urine, End of shift, 1.5 g/g creatinine.
Carbon Dioxide	5000 ppm TWA, 30000 ppm STEL ACGIH TLV/AU/NZ OEL	None Established
Surfactant	None Established	None Established

### The Following Controls are Recommended for Normal Consumer Use of this Product

**Appropriate Engineering Controls:** Use in a well-ventilated area.

**Personal Protection:**

**Eye Protection:** Avoid eye contact. Always spray product away from your face.

**Skin Protection:** Avoid prolonged or repeated skin contact. Chemical resistant gloves recommended for operations where skin contact is likely.

**Respiratory Protection:** None needed for normal use with adequate ventilation.

### For Bulk Processing or Workplace Use the Following Controls are Recommended

**Appropriate Engineering Controls:** Use adequate general and local exhaust ventilation to maintain exposure levels below that occupational exposure limits.

**Personal Protection:**

**Eye Protection:** Safety goggles recommended where eye contact is possible.

**Skin Protection:** Wear chemical resistant gloves.

**Respiratory Protection:** None required if ventilation is adequate. If the occupational exposure limits are exceeded, wear an approved respirator. Respirator selection and use should be based on contaminant type, form and concentration. Follow applicable regulations and good Industrial Hygiene practice.

**Work/Hygiene Practices:** Eye wash facilities should be available. Wash hands after handling.

**Other Protective Equipment:** None required.

## 9 – Physical and Chemical Properties

Appearance and Odor:	Aerosol spray. Pleasant odor.	Partition Coefficient of n-octanol/water:	Not determined
Odor Threshold:	Not determined	Auto-ignition temperature:	Not determined
pH:	Not determined	Decomposition Temperature:	Not determined
Melting/Freezing Point:	Not applicable	Viscosity:	Not determined
Boiling Point / Range:	162-192°C (324-378°F) (Concentrate)	Specific Heat Value:	Not determined
Flash Point:	41-42°C (106-108°F) (Concentrate)	Particle Size:	Not applicable
Evaporation Rate (Butyl Acetate = 1):	Not determined	VOC:	49.5%
Flammability (solid, gas):	Not applicable	Percent Volatile:	78%
Flammable Limits:	LEL 0.7% UEL 7.0% (Concentrate)	Saturated Vapor Concentration:	Not determined
Vapor Pressure:	724 kPa @ 21°C (69.8°F)	Release of invisible flammable vapors and gases:	Yes
Vapor Density (air = 1):	>1	Aerosol Protection Level (NFPA 30B):	3
Relative Density (Water = 1):	Not determined	Solubility:	Insoluble in water

## 10 – Stability and Reactivity

**Reactivity:** Non-reactive

**Chemical Stability:** Stable under normal storage conditions.

**Possibility of Hazardous Reactions:** Will not occur.

**Conditions to Avoid:** Avoid extreme heat, flames and other sources of ignition. Avoid physical damage to aerosol can.

**Incompatible Materials:** Strong oxidizers.

**Hazardous Decomposition Products:** Carbon monoxide and carbon dioxide.

## 11 – Toxicological Information

### Health Hazards:

**Ingestion:** Swallowing is an unlikely route of exposure for an aerosol product. Swallowing large amounts may produce gastrointestinal irritation, nausea, vomiting and diarrhea. This product is an aspiration hazard. If swallowed, can enter the lungs and may cause chemical pneumonitis, severe lung damage and death.

**Eye Contact:** Liquid sprayed into eyes may cause irritation. May cause redness, stinging, swelling, and tearing.

**Skin Contact:** May produce mild irritation. Prolonged and/or repeated contact may cause defatting with possible dermatitis.

**Inhalation:** Mist or vapor can irritate the throat and lungs. High concentrations may cause nasal and respiratory irritation and central nervous system effects such as headache, dizziness and nausea. Intentional abuse may be harmful or fatal.

**Chronic Exposure:** None known.

**Medical Conditions Aggravated by Exposure:** Preexisting eye, skin and respiratory conditions may be aggravated by exposure.

### Acute Toxicity Values:

Naphtha (petroleum), hydrodesulfurized heavy: Oral rat LD50- >5000 mg/kg; Skin rabbit LD50- >3160 mg/kg.

Distillates, Hydrotreated Heavy Paraffinic: Oral rat LD50->15 gm/kg

Non-Hazardous Ingredients: No toxicity data available

1, 2, 4-Trimethyl benzene: Oral rat LD50 3400-6000 mg/kg; Skin rabbit LD50 - >3160 mg/kg

1, 3, 5-Trimethyl benzene: Inhalation rat LC50- 24000 mg/m<sup>3</sup>/4hr  
Xylene, Mixed Isomers: Oral rat LD50 – 4300 mg/kg; Inhalation rat LC50 – 6350 ppm/4hr; Skin rabbit LD50- 1700 mg/kg  
Surfactant: Oral rat LD50->3000 mg/kg

**Skin Corrosion/Irritation:** No data available for mixture. Based on the ingredients, 1, 2, 4-Trimethyl benzene and Xylene, this product is classified as a skin irritant.

**Serious Eye Damage/Irritation:** No data available for mixture. Based on the ingredients, 1, 2, 4-Trimethyl benzene and Surfactant, this product is classified as an eye irritant.

**Respiratory or Skin Sensitization:** This product is not expected to cause sensitization.

**Germ Cell Mutagenicity:** None of the components have been found to be mutagenic.

**Carcinogenicity:** None of the components are listed as a carcinogen or suspected carcinogen by IARC, NTP, ACGIH, US OSHA or the EU CLP.

**Reproductive Toxicity:** None of the components are known to cause adverse reproductive effects.

**Specific Target Organ Toxicity:**

**Single Exposure:** No data available.

**Repeated Exposure:** No data available.

**Aspiration Hazard:** No data available. Based on the ingredients, this product is expected to present an aspiration hazard and may be harmful if the contents are swallowed.

## 12 – Ecological Information

### Ecotoxicity:

Naphtha (petroleum), hydrodesulfurized heavy: 96 hr LC50 Fathead minnow – 8.2 mg/L; 96 hr LC50 Crangon Crangon – 4.3 mg/L

1, 2, 4-Trimethyl benzene: 96 hr LC50 Fathead minnows – 7.72 mg/L; 48 hr EC50 Daphnia magna – 6.14 mg/L

1, 3, 5-Trimethyl benzene: 96 hr LC50 Goldfish - 12.52 mg/L; 48 hr LC50 Daphnia magna- 6.0 mg/L

Xylene, Mixed Isomers: 96 hr LC50 Goldfish- 36.81 mg/L; 96 hr LC50 Rainbow trout – 13.5 mg/L

This product has been classified as harmful to the aquatic environment with long lasting effects based on the components. Releases to the environment should be avoided.

**Persistence and Degradability:** No data available.

**Bioaccumulative Potential:** No data available.

**Mobility in Soil:** No data available.

**Other Adverse Effects:** None Known

## 13 - Disposal Considerations

**Safe Handling and Disposal Method:** Aerosol containers should not be punctured, compacted in home trash compactors or incinerated.

**Disposal of Contaminated Packaging:** Empty containers may be disposed of through normal waste management options.

**Environmental Regulations:** Dispose of all waste product, absorbents, and other materials in accordance with applicable Federal, state and local regulations.

## 14 – Transportation Information

**IMDG Shipping Name:** Aerosols

**IMDG Hazard Class:** 2.1

**UN Number:** UN1950

**Marine Pollutant:** No

**IATA Shipping Name:** Aerosols, Flammable

**IATA Hazard Class:** 2.1

**UN Number:** UN1950

**ADG Shipping Name:** Aerosols

**ADG Hazard Class:** 2.1

**UN Number:** UN1950

**Hazchem (Emergency Action) Code:** 2YE

**Special Precautions for User:** WD-40 Company does not test aerosol cans to assure that they meet the pressure and other requirements for transport by air. We do not recommend that our aerosol products be transported by air.

### 15 – Regulatory Information

**Montreal Protocol (Ozone Depleting Substances):** None present

**The Stockholm Convention (Persistent Organic Pollutants):** None present

**The Rotterdam Convention (Prior Informed Consent):** Not applicable

**Basel Convention:** Not applicable

**International Convention for the Prevention of Pollution from Ships (MARPOL):** 1, 2, 4-Trimethyl benzene and 1, 3, 5-Trimethyl benzene are listed.

**Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP):** Not applicable

**Australian Inventory of Chemical Substances:** All of the components of this product are listed on the AICS inventory.

#### **New Zealand:**

**HSNO Approval Number:** HSR002515

*Considered a Hazardous Substance according to the criteria of the New Zealand Hazardous Substances New Organisms legislation. Classified as Dangerous Good for transport purposes.*

HSNO Hazard Classes: 2.1.2A, 6.1E, 6.3A, 6.4A, 9.1C, 9.1D

New Zealand Inventory: All the ingredients comply with the HSNO regulations.

### 16 – Other Information

REVISION DATE: 23 July 2015

SUPERSEDES: 11 July 2014

Prepared By: Industrial Health & Safety Consultants, Inc.

Full Text of GHS Classification and H Phrases from Section 3:

Acute Tox. Cat 4 Acute Toxicity Category 4

Aq. Chronic Cat 2 Aquatic Chronic Toxicity Category 2

Asp. Tox. Cat 1 Aspiration Toxicity Category 1

Eye Dam. Cat 1 Eye Damage Category 1

Eye Irrit. Cat 2 Eye Irritant Category 2

Flam. Liq. Cat 3 Flammable Liquid Category 3

Skin Irrit. Cat 2 Skin Irritant Category 2

STOT SE Cat 3 Specific Target Organ Toxicity Single Exposure Category 3

H226 Flammable liquid and vapor.

H304 May be fatal if swallowed and enters airways.

H312 Harmful in contact with skin.

H315 Causes skin irritation.

H318 Causes serious eye damage.

H319 Causes serious eye irritation.

H332 Harmful if inhaled.



# SAFETY DATA SHEET

## WHITE GREASE

---

### Section 1. Identification

---

**GHS product identifier** : WHITE GREASE

**Product type** : Solid.

**Product code** : 907/909

**Relevant identified uses of the substance or mixture and uses advised against**

**Product use: For professional use only.** : Industrial applications: Lubricants; grease.

**Supplier's details** : Kleen-Flo Tumbler Industries Ltd  
75 Advance Blvd.  
Brampton, ON  
L6T 4N1  
Tel: 905-793-4311  
Fax: 905793-4318

**Emergency telephone number** : CANUTEC: 613-996-6666

---

### Section 2. Hazards identification

---

**OSHA/HCS status** : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

**Classification of the substance or mixture** : SKIN SENSITIZATION - Category 1

Percentage of the mixture consisting of ingredient(s) of unknown toxicity: 2.7%

**GHS label elements**

**Hazard pictograms** :



**Signal word** : Warning

**Hazard statements** : May cause an allergic skin reaction.

**Precautionary statements**

**Prevention** : Wear protective gloves. Avoid breathing dust. Contaminated work clothing should not be allowed out of the workplace.

## Section 2. Hazards identification

- Response** : IF ON SKIN: Wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation or rash occurs: Get medical attention.
- Storage** : Not applicable.
- Disposal** : Dispose of contents and container in accordance with all local, regional, national and international regulations.
- Hazards not otherwise classified** : None known.

## Section 3. Composition/information on ingredients

- Substance/mixture** : Mixture
- Other means of identification** : Not available.
- CAS number/other identifiers**

Ingredient name	%	CAS number
zinc oxide	1-5	1314-13-2
calcium bis(dinonylnaphthalenesulphonate)	0.1-1	57855-77-3

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

**There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.**

Occupational exposure limits, if available, are listed in Section 8.

## Section 4. First aid measures

### Description of necessary first aid measures

- Eye contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention if irritation occurs.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
- Skin contact** : Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** : Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

### Most important symptoms/effects, acute and delayed

#### Potential acute health effects

- Eye contact** : No known significant effects or critical hazards.

## Section 4. First aid measures

- Inhalation** : No known significant effects or critical hazards.
- Skin contact** : May cause an allergic skin reaction.
- Ingestion** : No known significant effects or critical hazards.

### Over-exposure signs/symptoms

- Eye contact** : No specific data.
- Inhalation** : No specific data.
- Skin contact** : Adverse symptoms may include the following:
  - irritation
  - redness
- Ingestion** : No specific data.

### Indication of immediate medical attention and special treatment needed, if necessary

- Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- Specific treatments** : No specific treatment.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

## Section 5. Fire – Fighting measures

### Extinguishing media

- Suitable extinguishing media** : Use an extinguishing agent suitable for the surrounding fire.
- Unsuitable extinguishing media** : None known.
- Specific hazards arising from the chemical** : No specific fire or explosion hazard.
- Hazardous thermal decomposition products** : Decomposition products may include the following materials:
  - carbon dioxide
  - carbon monoxide
  - metal oxide/oxides
- Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

## Section 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
- For emergency responders** : If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
- Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

## Section 6. Accidental release measures

### Methods and materials for containment and cleaning up

- Small spill** : Move containers from spill area. Avoid dust generation. Using a vacuum with HEPA filter will reduce dust dispersal. Place spilled material in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor.
- Large spill** : Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Avoid dust generation. Do not dry sweep. Vacuum dust with equipment fitted with a HEPA filter and place in a closed, labeled waste container. Dispose of via a licensed waste disposal contractor. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

## Section 7. Handling and Storage

### Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Do not ingest. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
- Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
- Conditions for safe storage, including any incompatibilities** : Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

## Section 8. Exposure controls/Personal protection

### Control parameters

#### Occupational exposure limits

Ingredient name	Exposure limits
zinc oxide	<p><b>NIOSH REL (United States, 10/2013).</b>                      CEIL: 15 mg/m<sup>3</sup> Form: Dust                      TWA: 5 mg/m<sup>3</sup> 10 hours. Form: Dust and fumes                      STEL: 10 mg/m<sup>3</sup> 15 minutes. Form: Fume</p> <p><b>OSHA PEL 1989 (United States, 3/1989).</b>                      TWA: 5 mg/m<sup>3</sup> 8 hours. Form: Fume                      STEL: 10 mg/m<sup>3</sup> 15 minutes. Form: Fume                      TWA: 5 mg/m<sup>3</sup> 8 hours. Form: Respirable fraction                      TWA: 10 mg/m<sup>3</sup> 8 hours. Form: Total dust</p> <p><b>OSHA PEL (United States, 2/2013).</b>                      TWA: 5 mg/m<sup>3</sup> 8 hours. Form: Fume                      TWA: 5 mg/m<sup>3</sup> 8 hours. Form: Respirable fraction                      TWA: 15 mg/m<sup>3</sup> 8 hours. Form: Total dust</p> <p><b>ACGIH TLV (United States, 4/2014).</b>                      TWA: 2 mg/m<sup>3</sup> 8 hours. Form: Respirable fraction                      STEL: 10 mg/m<sup>3</sup> 15 minutes. Form:</p>

## Section 8. Exposure controls/personal protection

Respirable fraction

- Appropriate engineering controls** : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.
- Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.
- Individual protection measures**
- Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
- Eye/face protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.
- Skin protection**
- Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
- Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : Use a properly fitted, particulate filter respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

## Section 9. Physical and chemical properties

### Appearance

- Physical state** : Solid. [grease]
- Color** : White.
- Odor** : Mild. Petroleum oil
- Odor threshold** : Not available.
- pH** : Not applicable.
- Melting point** : Not available.
- Boiling point** : Not available.
- Flash point** : Not available.
- Evaporation rate** : Not available.
- Flammability (solid, gas)** : Flammable in the presence of the following materials or conditions: open flames, sparks and static discharge and heat.

## Section 9. Physical and chemical properties

<b>Lower and upper explosive (flammable) limits</b>	: Not available.
<b>Vapor pressure</b>	: Not available.
<b>Vapor density</b>	: Not available.
<b>Relative density</b>	: 0.9 g/cm <sup>3</sup>
<b>Solubility</b>	: Insoluble in the following materials: cold water and hot water.
<b>Partition coefficient: n-octanol/water</b>	: Not available.
<b>Auto-ignition temperature</b>	: Not available.
<b>Decomposition temperature</b>	: Not available.
<b>Viscosity</b>	: Not available.

## Section 10. Stability and reactivity

<b>Reactivity</b>	: No specific test data related to reactivity available for this product or its ingredients.
<b>Chemical stability</b>	: The product is stable.
<b>Possibility of hazardous reactions</b>	: Under normal conditions of storage and use, hazardous reactions will not occur.
<b>Conditions to avoid</b>	: No specific data.
<b>Incompatible materials</b>	: No specific data.
<b>Hazardous decomposition products</b>	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## Section 11. Toxicological information

### Information on toxicological effects

#### Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
calcium bis (dinonylnaphthalenesulphonate)	LD50 Dermal	Rabbit	>20 g/kg	-
	LD50 Oral	Rat	>5000 mg/kg	-

**Conclusion/Summary** : No known significant effects or critical hazards.

#### Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
zinc oxide	Eyes - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
calcium bis (dinonylnaphthalenesulphonate)	Skin - Moderate irritant	Rabbit	-	0.5 Milliliters	-

#### Conclusion/Summary

- Skin** : Slightly irritating to the skin. No significant irritation expected other than possible mechanical irritation.
- Eyes** : Slightly irritating to the eyes. No significant irritation expected other than possible mechanical irritation.
- Respiratory** : Repeated or prolonged exposure to spray or mist may produce respiratory tract irritation. Pre-existing respiratory disorders may be aggravated by over-exposure to this product.

#### Sensitization

#### Conclusion/Summary

---

---

## Section 11. Toxicological information

---

**Skin** : No specific information is available in our database regarding the skin sensitizing properties of this product. Sensitization not suspected for humans.

**Respiratory** : Sensitization not suspected for humans.

### Mutagenicity

**Conclusion/Summary** : There are no data available on the mixture itself. Mutagenicity not suspected for humans.

### Carcinogenicity

**Conclusion/Summary** : There are no data available on the mixture itself. Carcinogenicity not suspected for humans.

### Reproductive toxicity

**Conclusion/Summary** : There are no data available on the mixture itself. Not considered to be dangerous to humans, according to our database.

### Teratogenicity

**Conclusion/Summary** : There are no data available on the mixture itself. Teratogenicity not suspected for humans.

### Specific target organ toxicity (single exposure)

Not available.

### Specific target organ toxicity (repeated exposure)

Not available.

### Aspiration hazard

Not available.

**Information on the likely routes of exposure** : Routes of entry anticipated: Oral, Dermal, Inhalation.

### Potential acute health effects

**Eye contact** : No known significant effects or critical hazards.

**Inhalation** : No known significant effects or critical hazards.

**Skin contact** : May cause an allergic skin reaction.

**Ingestion** : No known significant effects or critical hazards.

### Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : No specific data.

Inhalation : No specific data.

Skin contact : Adverse symptoms may include the following: irritation  
redness

Ingestion : No specific data.

### Delayed and immediate effects and also chronic effects from short and long term exposure

#### Short term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

#### Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

## Section 11. Toxicological information

### Potential chronic health effects

- Conclusion/Summary** : Contains material that may cause target organ damage, based on animal data.
- General** : Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.
- Carcinogenicity** : No known significant effects or critical hazards.
- Mutagenicity** : No known significant effects or critical hazards.
- Teratogenicity** : No known significant effects or critical hazards.
- Developmental effects** : No known significant effects or critical hazards.
- Fertility effects** : No known significant effects or critical hazards.

### Numerical measures of toxicity

#### Acute toxicity estimates

Not available.

## Section 12. Ecological information

### Toxicity

Product/ingredient name	Result	Species	Exposure
zinc oxide	Acute IC50 1.85 mg/l Marine water	Algae - Skeletonema costatum	96 hours
	Acute IC50 46 µg/l Fresh water	Algae - Pseudokirchneriella subcapitata - Exponential growth phase	72 hours
	Acute LC50 98 µg/l Fresh water	Daphnia - Daphnia magna - Neonate	48 hours
	Acute LC50 1.1 ppm Fresh water	Fish - Oncorhynchus mykiss	96 hours

- Conclusion/Summary** : There are no data available on the mixture itself.

### Persistence and degradability

- Conclusion/Summary** : This product has not been tested for biodegradation. Not readily biodegradable. This product is not expected to bioaccumulate through food chains in the environment.

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
White Grease	-	-	Not readily

### Bioaccumulative potential

Product/ingredient name	LogP <sub>ow</sub>	BCF	Potential
zinc oxide	-	60960	high

### Mobility in soil

Soil/water partition coefficient (K<sub>oc</sub>) : Not available.

Other adverse effects : No known significant effects or critical hazards.

## Section 13. Disposal considerations

- Disposal methods** : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a

## Section 13. Disposal considerations

safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

## Section 14. Transport information

	<b>DOT Classification</b>	<b>TDG Classification</b>	<b>Mexico Classification</b>	<b>ADR/RID</b>	<b>IMDG</b>	<b>IATA</b>
<b>UN number</b>	Not regulated.	Not regulated.	Not regulated.	Not regulated.	Not regulated.	Not regulated.
<b>UN proper shipping name</b>	-	-	-	-	-	-
<b>Transport hazard class(es)</b>	-	-	-	-	-	-
<b>Packing group</b>	-	-	-	-	-	-
<b>Environmental hazards</b>	No.	No.	No.	No.	No.	No.
<b>Additional information</b>	-	-	-	-	-	-

**Special precautions for user** : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code** : Not available.

## Section 15. Regulatory information

**U.S. Federal regulations** : **TSCA 8(a) CDR Exempt/Partial exemption:** Not determined  
**United States inventory (TSCA 8b):** All components are listed or exempted.  
**Clean Water Act (CWA) 307:** zinc oxide; zinc bis(dipentylidithiocarbamate)

**Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs)** : Not listed

**Clean Air Act Section 602 Class I Substances** : Not listed

**Clean Air Act Section 602 Class II Substances** : Not listed

**DEA List I Chemicals (Precursor Chemicals)** : Not listed

**DEA List II Chemicals (Essential Chemicals)** : Not listed

**SARA 302/304**

### Composition/information on ingredients

No products were found.

## Section 15. Regulatory information

**SARA 304 RQ** : Not applicable.

### SARA 311/312

**Classification** : Immediate (acute) health hazard

### Composition/information on ingredients

Name	%	Fire hazard	Sudden release of pressure	Reactive	Immediate (acute) health hazard	Delayed (chronic) health hazard
zinc oxide calcium bis (dinonylnaphthalenesulphonate)	1-5 0.1-1	No. No.	No. No.	No. No.	Yes. Yes.	No. No.

### SARA 313

	Product name	CAS number	%
<b>Form R - Reporting requirements</b>	zinc oxide	1314-13-2	1-5
<b>Supplier notification</b>	zinc oxide	1314-13-2	1-5

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

### State regulations

- Connecticut Carcinogen Reporting** : None of the components are listed.
- Connecticut Hazardous Material Survey** : None of the components are listed.
- Florida substances** : None of the components are listed.
- Illinois Chemical Safety Act** : None of the components are listed.
- Illinois Toxic Substances Disclosure to Employee Act** : None of the components are listed.
- Louisiana Reporting** : None of the components are listed.
- Louisiana Spill** : None of the components are listed.
- Massachusetts Spill** : None of the components are listed.
- Massachusetts Substances** : The following components are listed: TITANIUM DIOXIDE; ZINC OXIDE FUME
- Michigan Critical Material** : None of the components are listed.
- Minnesota Hazardous Substances** : None of the components are listed.
- New Jersey Spill** : None of the components are listed.
- New Jersey Toxic Catastrophe Prevention Act** : None of the components are listed.
- New Jersey Hazardous Substances** : The following components are listed: TITANIUM DIOXIDE; TITANIUM OXIDE (TiO<sub>2</sub>); ZINC OXIDE
- New York Acutely Hazardous Substances** : None of the components are listed.
- New York Toxic Chemical Release Reporting** : None of the components are listed.
- Pennsylvania RTK Hazardous Substances** : The following components are listed: TITANIUM OXIDE (TiO<sub>2</sub>); ZINC OXIDE (ZNO)
- Rhode Island Hazardous Substances** : None of the components are listed.

### California Prop. 65

**WARNING:** This product contains a chemical known to the State of California to cause cancer.

## Section 15. Regulatory information

Ingredient name	Cancer	Reproductive	No significant risk level	Maximum acceptable dosage level
titanium dioxide	Yes.	No.	No.	No.

### International regulations

#### Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

#### Montreal Protocol (Annexes A, B, C, E)

Not listed.

### International lists

#### National inventory

- Australia** : All components are listed or exempted.
- China** : All components are listed or exempted.
- Europe** : All components are listed or exempted.
- Japan** : All components are listed or exempted.
- Malaysia** : Not determined.
- New Zealand** : All components are listed or exempted.
- Philippines** : All components are listed or exempted.
- Republic of Korea** : All components are listed or exempted.
- Taiwan** : All components are listed or exempted.

### Canada

**WHMIS (Canada)** : Class D-2A: Material causing other toxic effects (Very toxic).

#### Canadian lists

**Canadian NPRI** : The following components are listed: Zinc (and its compounds)

**CEPA Toxic substances** : None of the components are listed.

**Canada inventory; DSL/ NDSL** : All components are listed or exempted.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

## Section 16. Other information

### Hazardous Material Information System (U.S.A.)

Health	1
Flammability	1
Physical hazards	0

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks.

### National Fire Protection Association (U.S.A.)

---

---

## Section 16. Other information

---



### History

Date of issue: 10/4/17  
Prepared by: Kleen-Flo  
Tumbler Ind. Ltd.

**Guidelines for SDS use:** The product described in this SDS is a consumer product. It is safe for use by consumers as described on the product label under normal, foreseeable conditions. This SDS is designed to provide additional valuable safety and handling information.

### Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.



# SAFETY DATA SHEET

Issue Date 20-July-2015

Revision Date 20-July-2015

Version 1

## 1. IDENTIFICATION

### Product identifier

**Product Name** WHITE KNIGHT FLEXCOAT ROOF CTG WHITE

### Other means of identification

**Product Code** WQ399

**Synonyms** None

### Recommended use of the chemical and restrictions on use

**Recommended Use** Roof Coating.

**Uses advised against** No information available

### Details of the supplier of the safety data sheet

#### **Manufacturer Address**

HENRY COMPANY  
999 N. Sepulveda Blvd., Suite 800  
El Segundo, CA 90245-2716  
Company Contact: Technical Services  
Telephone Number: 800-486-1278  
Web Site: www.henry.com www.ca.henry.com

### Emergency telephone number

**Emergency Telephone** CHEMTREC: 800-424-9300  
CHEMTREC: 703-527-3887  
CANUTEC: 613-966-6666

## 2. HAZARDS IDENTIFICATION

### Classification

#### **OSHA Regulatory Status**

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Acute toxicity - Oral	Not classified
Acute toxicity - Dermal	Not classified
Acute toxicity - Inhalation (Gases)	Not classified
Acute toxicity - Inhalation (Vapors)	Not classified
Acute toxicity - Inhalation (Dusts/Mists)	Not classified
Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2
Respiratory sensitization	Not classified
Skin sensitization	Not classified
Germ cell mutagenicity	Not classified
Carcinogenicity	Not classified
Reproductive toxicity	Not classified
Specific target organ toxicity (single exposure)	Category 3
Specific target organ toxicity (repeated exposure)	Not classified
Aspiration toxicity	Not classified

### Label elements

Emergency Overview



Zinc Oxide	1314-13-2	1 - 5	*
Silica, Quartz	14808-60-7	<0.1	*

\*The exact percentage (concentration) of composition has been withheld as a trade secret.

**4. FIRST AID MEASURES**

**Description of first aid measures**

- Eye contact**                                      Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.
- Skin contact**                                      Wash skin with soap and water.
- Inhalation**    Remove to fresh air.
- Ingestion**    Clean mouth with water and drink afterwards plenty of water.

**Most important symptoms and effects, both acute and delayed**

**Symptoms**    No information available.

**Indication of any immediate medical attention and special treatment needed**

**Note to physicians**                              Treat symptomatically.

**5. FIRE-FIGHTING MEASURES**

**Suitable extinguishing media**

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

**Unsuitable extinguishing media** CAUTION: Use of water spray when fighting fire may be inefficient.

**Specific hazards arising from the chemical**

No information available.

**Explosion data**

**Sensitivity to Mechanical Impact** None.

**Sensitivity to Static Discharge** None.

**Protective equipment and precautions for firefighters**

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

**6. ACCIDENTAL RELEASE MEASURES**

**Personal precautions, protective equipment and emergency procedures**

**Personal precautions**                              Ensure adequate ventilation, especially in confined areas.

**Environmental precautions**

**Environmental precautions**                      See Section 12 for additional ecological information.

**Methods and material for containment and cleaning up**

**Methods for containment**                          Prevent further leakage or spillage if safe to do so.

**Methods for cleaning up** Pick up and transfer to properly labeled containers.

**7. HANDLING AND STORAGE**

**Precautions for safe handling**

**Advice on safe handling** Handle in accordance with good industrial hygiene and safety practice.

**Conditions for safe storage, including any incompatibilities**

**Storage Conditions** Keep containers tightly closed in a dry, cool and well-ventilated place.

**Incompatible materials** None known based on information supplied.

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

**Control parameters**

**Exposure Guidelines**

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Titanium Dioxide 13463-67-7	-	TWA: 15 mg/m <sup>3</sup> total dust (vacated) TWA: 10 mg/m <sup>3</sup> total dust	-
Calcium carbonate 1317-65-3	-	TWA: 15 mg/m <sup>3</sup> total dust TWA: 5 mg/m <sup>3</sup> respirable fraction (vacated) TWA: 15 mg/m <sup>3</sup> total dust (vacated) TWA: 5 mg/m <sup>3</sup> respirable fraction	TWA: 10 mg/m <sup>3</sup> total dust TWA: 5 mg/m <sup>3</sup> respirable dust

**Appropriate engineering controls**

**Engineering Controls** Showers  
Eyewash stations  
Ventilation systems.

**Individual protection measures, such as personal protective equipment**

**Eye/face protection** Wear safety glasses with side shields (or goggles).

**Skin and body protection** Wear protective gloves and protective clothing.

**Respiratory protection** If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

**General Hygiene Considerations** Handle in accordance with good industrial hygiene and safety practice.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

**Information on basic physical and chemical properties**

<b>Physical state</b>	liquid	<b>Odor</b>	Slight
<b>Appearance</b>	viscous	<b>Odor threshold</b>	No information available
<b>Color</b>	white		

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	7.5-8.5	
Melting point / freezing point	No information available	

Boiling point / boiling range	> 100 °C
Flash point	> 100 °C
Evaporation rate	No information available
Flammability (solid, gas)	No information available
Flammability Limit in Air	
Upper flammability limit:	No information available
Lower flammability limit:	No information available
Vapor pressure	No information available
Vapor density	No information available
Relative density	>1
Water solubility	No information available
Solubility in other solvents	No information available
Partition coefficient	No information available
Autoignition temperature	No information available
Decomposition temperature	No information available
Kinematic viscosity	No information available
Dynamic viscosity	No information available
Explosive properties	No information available
Oxidizing properties	No information available

**Other Information**

Softening point	No information available
Molecular weight	No information available
VOC Content (%)	No information available
Density	No information available
Bulk density	No information available

**10. STABILITY AND REACTIVITY**

**Reactivity**

No data available

**Chemical stability**

Stable under recommended storage conditions.

**Possibility of Hazardous Reactions**

None under normal processing.

**Conditions to avoid**

Extremes of temperature and direct sunlight.

**Incompatible materials**

None known based on information supplied.

**Hazardous Decomposition Products**

None known based on information supplied.

**11. TOXICOLOGICAL INFORMATION**

**Information on likely routes of exposure**

<b>Product Information</b>	No data available
<b>Inhalation</b>	May cause irritation.
<b>Eye contact</b>	Severely irritating to eyes.
<b>Skin contact</b>	Irritating to skin.
<b>Ingestion</b>	No data available.

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
---------------	-----------	-------------	-----------------

Water 7732-18-5	> 90 mL/kg ( Rat )	-	-
Titanium Dioxide 13463-67-7	> 10000 mg/kg ( Rat )	-	-

**Information on toxicological effects**

**Symptoms** No information available.

**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

**Sensitization** No information available.  
**Germ cell mutagenicity** No information available.  
**Carcinogenicity** No information available.

Chemical Name	ACGIH	IARC	NTP	OSHA
Titanium Dioxide 13463-67-7	-	-	-	X

**Reproductive toxicity** No information available.  
**STOT - single exposure** No information available.  
**STOT - repeated exposure** No information available.  
**Aspiration hazard** No information available.

**Numerical measures of toxicity - Product Information**

ATEmix (oral) 8,000.00  
 ATEmix (dermal) 8,000.00  
 ATEmix (inhalation-gas) 99,999.00  
 ATEmix (inhalation-dust/mist) 20.00  
 ATEmix (inhalation-vapor) 99,999.00

**12. ECOLOGICAL INFORMATION**

**Ecotoxicity**

0 % of the mixture consists of components(s) of unknown hazards to the aquatic environment

**Persistence and degradability**

No information available.

**Bioaccumulation**

No information available.

**Other adverse effects**

**Ozone** No information available  
 Not applicable

**13. DISPOSAL CONSIDERATIONS**

**Waste treatment methods**

**Disposal of wastes** Disposal should be in accordance with applicable regional, national and local laws and regulations.

**Contaminated packaging** Do not reuse container.

**14. TRANSPORT INFORMATION**

<u>DOT</u>	Not regulated
<u>TDG</u>	Not regulated
<u>IATA</u>	Not regulated
<u>IMDG</u>	Not regulated

**15. REGULATORY INFORMATION**

**International Inventories**

TSCA	Complies
DSL/NDL	Complies
EINECS/ELINCS	Complies
ENCS	Does not comply
IECSC	Complies
KECL	Complies
PICCS	Complies
AICS	Complies

**Legend:**

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory  
DSL/NDL - Canadian Domestic Substances List/Non-Domestic Substances List  
EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances  
ENCS - Japan Existing and New Chemical Substances  
IECSC - China Inventory of Existing Chemical Substances  
KECL - Korean Existing and Evaluated Chemical Substances  
PICCS - Philippines Inventory of Chemicals and Chemical Substances  
AICS - Australian Inventory of Chemical Substances

**US Federal Regulations**

**SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

**SARA 311/312 Hazard Categories**

Acute health hazard	Yes
Chronic Health Hazard	No
Fire hazard	No
Sudden release of pressure hazard	No
Reactive Hazard	No

**CWA (Clean Water Act)**

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

**CERCLA**

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level

pertaining to releases of this material

**US State Regulations**

**California Proposition 65**

This product contains chemicals known to the state of California to cause cancer

**U.S. State Right-to-Know Regulations**

**U.S. EPA Label Information**

EPA Pesticide Registration Number Not applicable

**16. OTHER INFORMATION, INCLUDING DATE OF PREPARATION OF THE LAST REVISION**

<b><u>NFPA</u></b>	Health hazards 1	Flammability 1	Instability 0	Physical and Chemical Properties -
<b><u>HMIS</u></b>	Health hazards 1	Flammability 1	Physical hazards 0	Personal protection X

Issue Date 20-July-2015

Revision Date 20-July-2015

**Revision Note**

No information available

**Disclaimer**

The information provided in this Material Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

**End of Safety Data Sheet**

# WINDSHIELD WASH -40°C

## SECTION 1. IDENTIFICATION

Product Identifier	WINDSHIELD WASH -40°C
Other Means of Identification	15-204, 15-204EXP, 15-204LAU, 15-204OEM, 15-204OEMPPK, 15-204OEMPRO, 15-204SUPR, 15-204SUPR-S, 15-215, 15-215OEM, 15-215PAC, 15-215SUPR, 15-216PAC, 15-403SLV, 15-403SLV-PRO, 15-404, 15-408, 25-209, 25-209-1000, 25-209P-1000, 25-209PRMX-1K, 25-219, 35-204ACK, 35-204APR, 35-204BMR, 35-204CERT, 35-204CHR, 35-204CK, 35-204CQ, 35-204CT, 35-204FLS, 35-204H, 35-204LAU, 35-204LUB, 35-204M, 35-204MAC, 35-204MMNO, 35-204PEP, 35-204PM, 35-204QS, 35-204QS-PRO, 35-204QS-PRO1, 35-204RP, 35-204SEL, 35-204SO, 35-204SO-W, 35-204TRP, 35-204U/N, 35-204VIS, 35-204VISEXP, 35-204VOL, 35-204VW, 35-207ARM, 35-207PRES, 35-208SO, 35-209ACK, 35-209ACK-1000, 35-209CHR, 35-209OPW-1K, 35-209QSOPW-1K, 35-209U/N, 35-215ACK, 35-215AS, 35-215AX, 35-215CERT, 35-215H, 35-215LD, 35-215LIFE, 35-215TSC, 35-215UFA, 35-215WM, 35-216WM, 35-219ACK, 35-219ACK-1000, 35-306GP, 35-309OPW-1K, 35-404BMW, 35-404C, 35-404CT, 35-404E, 35-404LIFE, 35-404MER, 35-404PC, 35-404QS, 35-404REF, 35-404STP, 35-404U/N, 35-404UFA, 35-405C, 35-405TSC, 35-408HUS, 35-408SL,, 85-204, 85-209, 85-209-40, BULK-15204, BULK-TRUCK25209, 40W378, 40W205, 40W1000, 35W378, 35W205, 35W1000, BULK-15049, 35-209TRP, 35-405STP, 35-404CQ, BULK-15204PINK, 35-408COA, 35-204WM, 11-WWF-PI, 35-204ARM-PRO, 35-207ARM-PR, 15-206HAL, 25-209HAL, 35-204OPT, 25-739HAL-1000, 35-405REF, 35-303RX, 35-204RX, 35-404RX, 35-404REF-4P, 35-405REFTRY, 35-404D, 35-207REF-PR, 35-215NN, 35-204DYN, 25-209-1250, 35-204PP, 35-204LS, 35-204FORD, 35-204SPLASH, 35-303CAN, 35-204MAZ, 35-209FORD, 35-209PP, 35-215PP, 35-404PP
Other Identification	WINDSHIELD WASH -45°C, WINDSHIELD WASH -35°C, Tough Guy Windshield WASH -35°C, Tough Guy Windshield WASH -45°C, Tough Guy Windshield WASH -40°C, Drilling Fluid, Turbo Power, Windshield WASH -54°C
Recommended Use	Please refer to Product label.
Restrictions on Use	None known.
Manufacturer/Supplier Identifier	Recochem Inc., 850 Montee de Liesse, Montreal, QC, H4T 1P4, Compliance and Regulatory Department, 905-878-5544, www.recochem.com
Emergency Phone No.	CANUTEC, 613-996-6666, 24 Hours
SDS No.	1775

## SECTION 2. HAZARD IDENTIFICATION

### Classification

Flammable liquid - Category 3; Acute toxicity (Oral) - Category 3; Skin irritation - Category 3; Eye irritation - Category 2B; Reproductive toxicity - Effects on or via lactation; Specific target organ toxicity (single exposure) - Category 1

### Label Elements

Product Identifier: WINDSHIELD WASH -40°C - Ver. 1

SDS No.: 1775

Date of Preparation: September 06, 2017

Date of Last Revision: September 05, 2019

Page 01 of 10



Signal Word:  
Danger

Hazard Statement(s):

- H226 Flammable liquid and vapour.
- H301 Toxic if swallowed.
- H316 Causes mild skin irritation.
- H320 Causes eye irritation.
- H362 May cause harm to breast-fed children.
- H370 Causes damage to organs.

Precautionary Statement(s):

Prevention:

- P201 Obtain special instructions before use.
- P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
- P233 Keep container tightly closed.
- P240 Ground and bond container and receiving equipment.
- P241 Use explosion-proof electrical, ventilating, and lighting equipment.
- P242 Use only non-sparking tools.
- P243 Take precautionary measures against static discharge.
- P260 Do not breathe fume, mist, vapours, spray.
- P264 Wash hands and skin thoroughly after handling.
- P270 Do not eat, drink or smoke when using this product.
- P263 Avoid contact during pregnancy and while nursing.
- P280 Wear protective gloves, eye protection.

Response:

- P301 + P310 IF SWALLOWED: Immediately call a POISON CENTRE or doctor.
- P330 Rinse mouth.
- P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
- P308 + P311 If exposed or concerned: Call a POISON CENTRE or doctor.
- P332 + P313 If skin irritation occurs: Get medical advice or attention.
- P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P307 + P311 If exposed: Call a POISON CENTRE or doctor.
- P337 + P313 If eye irritation persists: Get medical advice or attention.
- P370 + P378 In case of fire: Use appropriate foam, carbon dioxide, dry chemical powder, water spray or fog to extinguish.

Storage:

Store in a well ventilated place. Keep cool. Keep container tightly closed. Store locked up.

Disposal:

Dispose of contents/container in accordance with applicable regional, national and local laws and regulations.

Other Hazards

None known.

## SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Mixture:

Chemical Name	CAS No.	%	Other Identifiers	Other Names
Methanol	67-56-1	30-60		

Notes

Use of Generic SDS:

If the concentration or actual concentration range of an ingredient of a particular hazardous product in the series is different from the concentration or actual concentration range disclosed for the rest of the series, either the concentration or the actual concentration range must be indicated beside that ingredient under item 3 (Composition/Information on ingredients) of the SDS. Furthermore, if any other specific information element(s) (such as flash point, numerical measure of toxicity, etc.) for a particular hazardous product in the series differs from that of the other products in the series (without affecting the classification), the information element relevant to that hazardous product must be disclosed on the SDS with an indication to which hazardous product each relates.

Source: Health Canada - Technical Guidance on the Requirements of the Hazardous Products Act and the Hazardous Products Regulations WHMIS 2015 Supplier Requirements - pg 117

## SECTION 4. FIRST-AID MEASURES

First-aid Measures

Inhalation

Take precautions to ensure your own safety before attempting rescue (e.g. wear appropriate protective equipment). Remove source of exposure or move to fresh air. Keep at rest in a position comfortable for breathing. If breathing has stopped, trained personnel should begin rescue breathing. If the heart has stopped, trained personnel should start cardiopulmonary resuscitation (CPR) or automated external defibrillation (AED). Avoid mouth-to-mouth contact by using a barrier device. Get medical advice or attention if you feel unwell or are concerned.

Skin Contact

Avoid direct contact. Wear chemical protective clothing if necessary. Take off immediately contaminated clothing, shoes and leather goods (e.g. watchbands, belts). Wash gently and thoroughly with lukewarm, gently flowing water and mild soap for 5 minutes. Get medical advice or attention if you feel unwell or are concerned. Thoroughly clean clothing, shoes and leather goods before reuse or dispose of safely.

Eye Contact

Avoid direct contact. Wear chemical protective gloves if necessary. Immediately rinse the contaminated eye(s) with lukewarm, gently flowing water for at least 30 minutes, while holding the eyelid(s) open. If eye irritation persists, get medical advice or attention.

Ingestion

Rinse mouth with water. Never give anything by mouth if person is rapidly losing consciousness, or is unconscious or convulsing. Do not induce vomiting. If vomiting occurs naturally, lie on your side in the recovery position. Rinse mouth with water again. If breathing has stopped, trained personnel should immediately begin rescue breathing. If the heart has stopped, trained personnel should start cardiopulmonary resuscitation (CPR) or automated external defibrillation (AED). Avoid mouth-to-mouth contact by using a barrier device. Immediately call a Poison Centre or doctor. Specific treatment is required.

Most Important Symptoms and Effects, Acute and Delayed

Can cause headache, nausea, vomiting, dizziness, drowsiness and confusion. A severe exposure can cause stomach pain, muscle pain, difficult breathing and coma. Vision can be impaired and permanent blindness can result. There may be other permanent effects on the nervous system e.g. tremor, seizures.

Immediate Medical Attention and Special Treatment

Target Organs

Eyes, liver, nervous system.

Special Instructions

Acute exposure to methanol, either through ingestion or breathing high airborne concentrations can result in

Product Identifier: WINDSHIELD WASH -40°C - Ver. 1

SDS No.: 1775

Date of Preparation: September 06, 2017

Date of Last Revision: September 05, 2019

Page 03 of 10

symptoms appearing between 40 minutes and 72 hours after exposure. Symptoms and signs are usually limited to CNS, eyes and gastrointestinal tract. Because of the initial CNS's effects of headache, vertigo, lethargy and confusion, there may be an impression of ethanol intoxication. Blurred vision, decreased acuity and photophobia are common complaints. Treatment with ipecac or lavage is indicated in any patient presenting within two hours of ingestion. A profound metabolic acidosis occurs in severe poisoning and serum bicarbonate levels are a more accurate measure of severity than serum methanol levels. Treatment protocols are available from most major hospitals and early collaboration with appropriate hospitals is recommended.

Medical Conditions Aggravated by Exposure

Respiratory conditions.

## SECTION 5. FIRE-FIGHTING MEASURES

### Extinguishing Media

#### Suitable Extinguishing Media

Carbon dioxide, dry chemical powder or appropriate foam. Special "alcohol resistant fire-fighting foams".

#### Unsuitable Extinguishing Media

Water is not effective for extinguishing a fire. It may not cool product below its flash point.

### Specific Hazards Arising from the Product

Highly flammable liquid and vapour. Can ignite at room temperature. Releases vapour that can form explosive mixture with air. Can be ignited by static discharge. Can accumulate static charge by flow, splashing or agitation. Even dilute solutions in water may be flammable. May travel a considerable distance to a source of ignition and flash back to a leak or open container. See Section 9 (Physical and Chemical Properties) for flash point and explosive limits. Burns with an invisible flame. May accumulate in hazardous amounts in low-lying areas especially inside confined spaces, resulting in a fire hazard.

In a fire, the following hazardous materials may be generated: toxic chemicals; very toxic carbon monoxide, carbon dioxide; very toxic, flammable formaldehyde.

### Special Protective Equipment and Precautions for Fire-fighters

Review Section 6 (Accidental Release Measures) for important information on responding to leaks/spills.

See Skin Protection in Section 8 (Exposure Controls/Personal Protection) for advice on suitable chemical protective materials.

## SECTION 6. ACCIDENTAL RELEASE MEASURES

### Personal Precautions, Protective Equipment, and Emergency Procedures

Evacuate the area immediately. Isolate the hazard area. Keep out unnecessary and unprotected personnel. Evacuate downwind locations. Use the personal protective equipment recommended in Section 8 of this safety data sheet. Increase ventilation to area or move leaking container to a well-ventilated and secure area. Eliminate all ignition sources. Use grounded, explosion-proof equipment. May accumulate in hazardous amounts in low-lying areas especially inside confined spaces, if ventilation is not sufficient. Distant ignition and flashback are possible.

### Environmental Precautions

Do not allow into any sewer, on the ground or into any waterway.

### Methods and Materials for Containment and Cleaning Up

Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see section 13). Use spark-proof tools and explosion-proof equipment. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see section 1 for emergency contact information and section 13 for waste disposal.

## SECTION 7. HANDLING AND STORAGE

### Precautions for Safe Handling

Put on appropriate personal protective equipment (see section 8). Eating, drinking and smoking should be prohibited in

Product Identifier: WINDSHIELD WASH -40°C - Ver. 1

SDS No.: 1775

Date of Preparation: September 06, 2017

Date of Last Revision: September 05, 2019

Page 04 of 10

areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapour or mist. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use non-sparking tools. Empty containers retain product residue and can be hazardous. Do not reuse container.

#### Conditions for Safe Storage

Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see section 10) and food and drink. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

#### \*\*\*\*NOTE\*\*\*\*

IBC type 31H1 (HDPE 1000L tote) meets all UN requirements for safe transportation under the TDG Regulations. It cannot be used as a storage vessel for this flammable product according to fire protection standard, NFPA 30.

## SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Control Parameters

Chemical Name	ACGIH TLV®		OSHA PEL		AIHA WEEL	
	TWA	STEL	TWA	Ceiling	8-hr TWA	TWA
Methanol	200 ppm	250 ppm	200 ppm	250 ppm		

### Appropriate Engineering Controls

General ventilation is usually adequate. For large scale use of this product: do not allow product to accumulate in the air in work or storage areas, or in confined spaces. Use local exhaust ventilation, if general ventilation is not adequate to control amount in the air. Use non-sparking ventilation systems, approved explosion-proof equipment and intrinsically safe electrical systems in areas where this product is used and stored. Control static electricity discharges which includes bonding of equipment to ground. Use only non-combustible, compatible materials for walls, floors, ventilation system, air cleaning devices, pallets, shelving. Provide safety shower in work area, if contact or splash hazard exists.

### Individual Protection Measures

#### Eye/Face Protection

Wear chemical safety goggles.

#### Skin Protection

Wear chemical protective clothing e.g. gloves, aprons, boots.

Nitrile rubber.

#### Respiratory Protection

Not normally required if product is used as directed. For non-routine or emergency situations: wear a NIOSH approved air-purifying respirator with an organic vapour cartridge.

## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

### Basic Physical and Chemical Properties

Appearance	Available in these colours: Clear, Yellow, Gold, Red, Blue, Green, Amber, Pink, Orange, Purple, White, Brown, Grey, Teal.
Odour	Pungent
Odour Threshold	Not available
pH	8 - 11 (100% solution)
Melting Point/Freezing Point	Not available (melting); Not available (freezing)
Initial Boiling Point/Range	Not available
Flash Point	23 - 29 °C (73 - 84 °F) (closed cup)

Product Identifier: WINDSHIELD WASH -40°C - Ver. 1

SDS No.: 1775

Date of Preparation: September 06, 2017

Date of Last Revision: September 05, 2019

Page 05 of 10

Evaporation Rate	Not available
Flammability (solid, gas)	Not applicable
Upper/Lower Flammability or Explosive Limit	Not available (upper); Not available (lower)
Vapour Pressure	Not available
Vapour Density (air = 1)	Not available
Relative Density (water = 1)	0.93 - 0.97 at 20 °C
Solubility	Soluble in water; Soluble in all proportions in alcohols (e.g. ethanol).
Partition Coefficient, n-Octanol/Water (Log Kow)	Not available
Auto-ignition Temperature	Not available
Decomposition Temperature	Not available
Viscosity	Not available (kinematic); Not available (dynamic)
<b>Other Information</b>	
Physical State	Liquid
Molecular Weight	Not available

## SECTION 10. STABILITY AND REACTIVITY

### Reactivity

None known.

### Chemical Stability

Normally stable.

### Possibility of Hazardous Reactions

None known.

### Conditions to Avoid

Heat. Open flames, sparks, static discharge, heat and other ignition sources.

### Incompatible Materials

Slightly reactive or incompatible with the following materials: oxidizing agents (e.g. peroxides), strong acids (e.g. hydrochloric acid), strong bases (e.g. sodium hydroxide).

Not corrosive to metals.

### Hazardous Decomposition Products

Very toxic carbon monoxide, carbon dioxide; very toxic, flammable formaldehyde.

## SECTION 11. TOXICOLOGICAL INFORMATION

### Likely Routes of Exposure

Ingestion; eye contact; skin contact; inhalation.

### Acute Toxicity

Chemical Name	LC50	LDLo - Oral	LD50 (dermal)
Methanol	64000 ppm (rat) (4-hour exposure)	143 mg/kg Human - Male	15800 mg/kg (rabbit)

Inhalation ATE: 128,000 mg/L 4hr

Oral ATE: 286mg/kg

Dermal ATE: 31600 mg/kg

### Skin Corrosion/Irritation

Human experience shows very mild irritation.

Product Identifier: WINDSHIELD WASH -40°C - Ver. 1

SDS No.: 1775

Date of Preparation: September 06, 2017

Date of Last Revision: September 05, 2019

Page 06 of 10

## Serious Eye Damage/Irritation

Animal tests show serious eye irritation.

### STOT (Specific Target Organ Toxicity) - Single Exposure

#### Inhalation

Toxic, can cause death based on human experience. At high concentrations depression of the central nervous system. Symptoms may include headache, nausea, dizziness, drowsiness and confusion. A severe exposure can cause unconsciousness.

#### Skin Absorption

Harmful based on human experience. Can cause effects as described for inhalation. A severe exposure can cause unconsciousness.

#### Ingestion

Toxic, can cause death depression of the central nervous system, impaired vision and blindness. In some cases, there may be delayed effects on the nervous system. Symptoms may include headache, nausea, vomiting, dizziness, drowsiness and confusion. A severe exposure may cause stomach pain, muscle pain, difficult breathing and coma. Vision can be impaired and permanent blindness can result. There may be other permanent effects on the nervous system e.g. tremor, seizures.

### Aspiration Hazard

Not known to be an aspiration hazard.

### STOT (Specific Target Organ Toxicity) - Repeated Exposure

If swallowed: liver function tests may show abnormal results. May cause

If inhaled: effects on the central nervous system. Symptoms may include restlessness, reduced ability to think, muscle tremors, memory loss and personality changes.

May cause Following skin contact: dermatitis. Symptoms may include dry, red, cracked skin (dermatitis).

### Respiratory and/or Skin Sensitization

Not known to be a respiratory sensitizer. Human experience shows an allergic skin reaction (skin sensitization) in rare cases following exposure at work.

### Carcinogenicity

Chemical Name	IARC	ACGIH®	NTP	OSHA
Methanol	Not Listed	Not designated	Not Listed	Not Listed

May cause cancer based on animal studies.

### Reproductive Toxicity

#### Development of Offspring

Animal studies show effects on the offspring. If inhaled: known to cause: decreased weight, birth defects. Teratogenic(external, soft tissue and skeletal defects) embryotoxic (late resorptions).

#### Sexual Function and Fertility

Not known to cause effects on sexual function or fertility.

#### Effects on or via Lactation

May cause effects on or via lactation. Can transfer to mother's milk. May cause harm to breastfed babies.

### Germ Cell Mutagenicity

Conclusions cannot be drawn from the limited studies available.

### Interactive Effects

No information was located.

## SECTION 12. ECOLOGICAL INFORMATION

This section is not required by WHMIS.

This section is not required by OSHA HCS 2012.

### Ecotoxicity

#### Acute Aquatic Toxicity

Product Identifier: WINDSHIELD WASH -40°C - Ver. 1

SDS No.: 1775

Date of Preparation: September 06, 2017

Date of Last Revision: September 05, 2019

Page 07 of 10

Chemical Name	LC50 Fish	EC50 Crustacea	ErC50 Aquatic Plants	ErC50 Algae
Methanol	15400 mg/L (Lepomis macrochirus (bluegill); 96-hour)	10000 mg/L (Daphnia magna (water flea); 48-hour)		

#### Chronic Aquatic Toxicity

Chemical Name	NOEC Fish	EC50 Fish	NOEC Crustacea	EC50 Crustacea
Methanol	7900 mg/L (Lepomis macrochirus (bluegill); 200-hrs)			

#### Persistence and Degradability

Degrades rapidly based on quantitative tests.

#### Bioaccumulative Potential

This product and its degradation products are not expected to bioaccumulate.

#### Mobility in Soil

No information was located.

#### Other Adverse Effects

There is no information available.

## SECTION 13. DISPOSAL CONSIDERATIONS

#### Disposal Methods

The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe way. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

## SECTION 14. TRANSPORT INFORMATION

Regulation	UN No.	Proper Shipping Name	Transport Hazard Class(es)	Packing Group
Canadian TDG	1230	METHANOL SOLUTION	3 (6.1)	II
US DOT	1230	METHANOL SOLUTION	3 (6.1)	II

Environmental Hazards Not applicable

Special Precautions Please note: In containers of 450L or less, this product meets the requirements for exemption under TDG regulation special provisions, part 1, section 1.36b: Class 3, Flammable liquids: Alcohol Exemption.  
In containers of 1 L (1Kg) this product is qualified as a "consumer commodity" ORM-D under DOT

Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

#### Proof of Dangerous Goods Classification

Date of Classification July 06, 2017  
 Technical Name METHANOL SOLUTION  
 Classification 3 (6.1) PG II

Product Identifier: WINDSHIELD WASH -40°C - Ver. 1

SDS No.: 1775

Date of Preparation: September 06, 2017

Date of Last Revision: September 05, 2019

Page 08 of 10

## SECTION 15. REGULATORY INFORMATION

### Safety, Health and Environmental Regulations

#### Canada

Domestic Substances List (DSL) / Non-Domestic Substances List (NDSL)

All ingredients are listed on the DSL or are not required to be listed.

#### USA

Toxic Substances Control Act (TSCA) Section 8(b)

All ingredients are listed on the TSCA Inventory.

Additional USA Regulatory Lists

California Proposition 65:

WARNING: Reproductive Harm - [www.P65Warnings.ca.gov/product](http://www.P65Warnings.ca.gov/product).

#### Custom Regulatory 1

#### Consumer Product Safety Improvement Act of 2008 General Conformity Certification

The Supplier identified in Section 1 of this MSDS has evaluated this product and certifies it to be labeled and packaged in compliance with the applicable provisions of the Federal Hazardous Substance Act as stated in 16 CFR 1500 and enforced by the Consumer Product Safety Commission, and where applicable the products that require Child Resistant Closures are packaged in accordance with the Poison Prevention Packaging Act as stated in 16 CFR 1700 and enforced by the Consumer Product Safety Commission. All closures have been tested in accordance with the latest protocols. No other testing is required to certify compliance with the above. The date of manufacture is stamped on the product container.

## SECTION 16. OTHER INFORMATION

SDS Prepared By Compliance and Regulatory Department

Phone No. 905-878-5544

Date of Preparation September 06, 2017

Date of Last Revision September 05, 2019

Revision Indicators The following SDS content was changed on December 14, 2017:

SECTION 1. IDENTIFICATION; Other Identification.

The following SDS content was changed on June 05, 2018:

SECTION 1. IDENTIFICATION; Other Means of Identification.

The following SDS content was changed on August 15, 2018:

SECTION 1. IDENTIFICATION; Other Means of Identification.

The following SDS content was changed on August 22, 2018:

SECTION 1. IDENTIFICATION; Other Means of Identification.

The following SDS content was changed on August 28, 2018:

Updated Spanish Requirements

The following SDS content was changed on September 10, 2018:

SECTION 1. IDENTIFICATION; Other Means of Identification.

The following SDS content was changed on October 16, 2018:

SECTION 1. IDENTIFICATION; Other Means of Identification.

The following SDS content was changed on January 15, 2019:

SECTION 7. HANDLING AND STORAGE; Conditions for Safe Storage.

The following SDS content was changed on February 01, 2019:

SECTION 1. IDENTIFICATION; Other Means of Identification.

The following SDS content was changed on February 14, 2019:

SECTION 15. REGULATORY INFORMATION; Domestic Substances List (DSL) / Non-Domestic Substances List (NDSL).

The following SDS content was changed on April 08, 2019:

SECTION 1. IDENTIFICATION; Other Means of Identification.

Product Identifier: WINDSHIELD WASH -40°C - Ver. 1

SDS No.: 1775

Date of Preparation: September 06, 2017

Date of Last Revision: September 05, 2019

Page 09 of 10

The following SDS content was changed on May 07, 2019:  
SECTION 1. IDENTIFICATION; Other Means of Identification; Other Identification;  
SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES; Flash Point.  
The following SDS content was changed on June 11, 2019:  
SECTION 7. HANDLING AND STORAGE; Precautions for Safe Handling.  
The following SDS content was changed on July 02, 2019:  
SECTION 1. IDENTIFICATION; Other Means of Identification.  
The following SDS content was changed on July 03, 2019:  
SECTION 1. IDENTIFICATION; Other Means of Identification.  
The following SDS content was changed on July 09, 2019:  
SECTION 1. IDENTIFICATION; Other Means of Identification.  
The following SDS content was changed on July 24, 2019:  
SECTION 1. IDENTIFICATION; Other Means of Identification.  
The following SDS content was changed on August 23, 2019:  
SECTION 1. IDENTIFICATION; Other Means of Identification.  
The following SDS content was changed on September 05, 2019:  
SECTION 1. IDENTIFICATION; Other Means of Identification.

References CHEMINFO database. Canadian Centre for Occupational Health and Safety (CCOHS).  
Additional Information We are committed to uphold the Industry Consumer Ingredient Communication Voluntary Initiative.  
Please send us your request by visiting our website at [www.recochem.com](http://www.recochem.com).

Ingredients present (intentionally added ingredients) at a concentration of greater than one percent (1%) shall be listed in descending order of predominance. Ingredients present at a concentration of not more than one percent shall be listed but may be disclosed without respect to order of predominance.

Disclaimer Notice to reader: To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

---

Product Identifier: WINDSHIELD WASH -40°C - Ver. 1  
Date of Preparation: September 06, 2017  
Date of Last Revision: September 05, 2019

SDS No.: 1775

Page 10 of 10

Product Information

# Swish

MAINTENANCE LIMITED  
P.O.Box 3000, Peterborough, Ontario Canada K9J 8N4  
Telephone (705) 745-5763 1-800-461-7695

**Product Name:** Winterinse Winter Floor Cleaner

**Product Use:** Floor Care

**Emergency Tel:** Canutec (613) 996-6666

**Hazardous Ingredients**

Ingredients

Tetrasodium ethylenediaminetetraacetate

NA = Not Available

CAS# WT%  
64-02-8 5-10

ACGIH-TLV  
NA

HMIS Hazard Rating

HEALTH	2	0 – Insignificant
FLAMMABILITY	0	1 – Slight
REACTIVITY	0	2 – Moderate
PERSONAL PROTECTION	B	3 – High
		4 – Extreme



(4040)

NE = Not Established

LD<sub>50</sub> LC<sub>50</sub>  
1,658 mg/kg (Oral, Rat) NA

**Physical Data**

**Appearance and odour:** Red; fruity.  
**Vapour pressure (mm Hg):** NE  
**Vapour density (Air=1):** NE  
**Solubility in water (20°C):** Soluble  
**Physical state:** Liquid  
**Boiling point (°C):** NE  
**Freezing point (°C):** NE  
**Specific gravity (Water=1):** 1.051  
**% Volatile (Wt %):** >50  
**Evaporation rate (Water=1):** NE  
**pH (as supplied):** 12.60  
**Odour threshold (ppm):** NE  
**Coefficient of water/oil distribution:** NE  
**Viscosity:** Water thin.

**Fire and Explosion Data**

**Flammability:** Not flammable  
**Flashpoint (°C, TCC):** None  
**LEL:** NE **UEL:** NE  
**Hazardous combustion products:** May include and are not limited to oxides of carbon and nitrogen.  
**Means of extinction:** Dry chemical, carbon dioxide, alcohol foam.  
**Special fire hazards:** Firefighters should wear self-contained breathing apparatus.  
**Explosion Data – sensitivity to mechanical impact:** NE  
**Explosion Data – sensitivity to static discharge:** NE

**Reactivity Data**

**Conditions for chemical instability:** Stable  
**Incompatible materials:** Strong oxidizing agents and strong acids.  
**Conditions of reactivity:** NE  
**Hazardous decomposition products:** May include and are not limited to oxides of carbon and nitrogen when heated to decomposition.

**First Aid**

**Eye:** Flush eyes with large amount of water for 15 minutes while holding eyelids open. If irritation occurs or persists, seek medical attention.  
**Skin:** Wash skin with soap and water. If irritation develops, seek medical attention. Completely clean clothing, shoes and leather goods before reuse or discard.  
**Inhalation:** If affected, remove to fresh air immediately. If symptoms persist, seek medical attention.  
**Ingestion:** Do not induce vomiting. Rinse mouth with water, then drink one glass of water. Contact a doctor. Never give anything by mouth if victim is unconscious, is rapidly losing consciousness or is convulsing.

**Preventive Measures**

**Gloves:** Latex, neoprene, nitrile, rubber. Confirm with a reputable supplier first.  
**Eye protection:** Use safety glasses when direct contact may occur.  
**Respiratory protection:** Not normally required if good ventilation is maintained.  
**Other protective equipment:** As required by employer code.  
**Engineering control:** General ventilation normally adequate. Local exhaust for dust, mists or fumes.  
**Leak and spill procedure:** Before attempting clean up, consult MSDS. Small spills may be absorbed with non-reactive material absorbent and placed in suitable, covered, labeled containers. Prevent large spills from entering sewers or waterways. Consult emergency services and supplier for advice.  
**Waste disposal:** Review or contact local, provincial and federal authorities for disposal methods.  
**Storage & handling requirements:** KEEP OUT OF REACH OF CHILDREN. Keep in a closed, labeled container. Store in a cool, dry, well-ventilated area away from incompatible materials.  
**Special shipping information:** Do not freeze.

**Toxicological Information**

**Route of Entry:** Eye, Skin Contact, Inhalation, Ingestion  
**Effects of Acute Exposure:**  
**Eye contact:** May cause irritation or chemical burns.  
**Skin contact:** May cause irritation or chemical burns.  
**Skin absorption:** NE  
**Inhalation:** May cause respiratory tract irritation and coughing, headache.  
**Ingestion:** May cause stomach distress, nausea or vomiting.  
**Effects of Chronic Exposure:**  
**Skin:** Prolonged exposure may cause skin drying, defatting and dermatitis.  
**Irritancy:** Hazardous by WHMIS criteria.  
**Sensitization to product:** None known.  
**Carcinogenicity:** None known.  
**Teratogenicity, Mutagenicity, Reproductive effects:** NE  
**Toxicological synergistic products:** NA

**Regulatory Information**

**TDG Pin/Class:** Not regulated under TDG.  
**WHMIS Class:** E  
**SARA Title III:** NE

**Preparation Information**

**Prepared By:** Charlotte Products Technical Services  
**Date:** May 16, 2014 **Tel:** (705) 740-2880

Environmental Solutions International  
 1261 N. Raddant Road  
 Batavia, IL 60510

Date: August 1, 2001  
 For Emergency Call: (888) 406-5318

**SECTION I - PRODUCT IDENTIFICATION**

**Product Name:** WP CHOMP Super Concentrate      **Product Number:** 5301222, 53004GC

**Chemical Family:** Bacterial/Enzyme Mixture      **Product Use:** Wallpaper Stripper

**DOT Hazard Class:** Not Applicable

**DOT Label:** Not Applicable

**DOT Shipping Name:** (N.O.I.) Non Hazardous

**HMIS RATING**

<b>Health</b>	<b>1</b>
<b>Flammability</b>	<b>0</b>
<b>Reactivity</b>	<b>0</b>
<b>Personal Protection</b> (Safety Glasses)	<b>A</b>

*Hazard Rating Key:*      0 = Minimal      3 = Serious  
 1 = Slight                  4 = Severe  
 2 = Moderate

**SECTION II – HAZARDOUS INGREDIENTS**

<u>Ingredients</u>	<u>CAS#</u>	<u>Wt%</u>	<u>ACGIH-TLV</u>	<u>LD<sub>50</sub></u>
--------------------	-------------	------------	------------------	------------------------

Ingredients not precisely identified are proprietary or non-hazardous.

**SECTION III – PHYSICAL DATA**

<b>Boiling Point (deg F):</b>	212° F (100° C)	<b>Specific Gravity (H<sub>2</sub>O=1):</b>	1.01 – 1.05
<b>Solubility in Water:</b>	99.5%	<b>pH (as supplied):</b>	6.8 – 7.4
<b>Physical State:</b>	Liquid	<b>Viscosity:</b>	Similar to Water
<b>Appearance &amp; Odor:</b>	Opaque, Mild Citrus	<b>Vapor Pressure:</b>	N/A
<b>Evaporation Rate:</b>	Same as water	<b>Vapor Density:</b>	N/A
<b>Volatile by %:</b>	N/A		

**SECTION IV – FIRE AND EXPLOSION DATA**

**Flammability:** Non-flammable

**Flash Point (Deg F, TCC):** Not Determined

**Auto-ignition Temperature (deg F):** N/A

**Solubility in Water:** Dispersible

**Hazardous Combustion Products:** Not applicable

**Means of Extinction:** Water and Foam are suitable

**Special Fire Fighting Equipment:** No Special Firefighting Equipment is needed; however, self-contained breathing apparatus and protective clothing should be worn in fighting fires involving chemicals

**SECTION V – REACTIVITY DATA**

**Conditions for Chemical Instability:** Stable under normal conditions

**Hazardous Polymerization:** Will not occur

**Hazardous Decomposition:** None

**Incompatibility:** Strong acids may inactivate cultures

Environmental Solutions International  
1261 N. Raddant Road  
Batavia, IL 60510

Date: August 1, 2001  
For Emergency Call: (888) 406-5318

---

**SECTION VI – PREVENTATIVE MEASURES**

---

<b>Skin Protection:</b>	No special precautions required; rinse completely from skin after contact.
<b>Eye Protection:</b>	Chemical type face shield is recommended
<b>Respiratory Protection:</b>	MSHA-NIOSH approved. No special precautions required.
<b>Protective Clothing:</b>	None Required
<b>Other Protective Equipment:</b>	Eyewash station in work area. Avoid creating aerosol. Keep out of reach of children.

---

**SECTION VII – FIRST AID**

---

**Ingestion**

**First Aid:** May lead to nausea or diarrhea. Give two glasses of water to dilute product. Do not induce vomiting. Contact Physician.

**Recommended Precautions:** Store in safe place. Wear approved respiratory protection.

**Inhalation**

**First Aid:** Asthmatic type response with sensitive individuals may occur. Remove individual to fresh air. Contact Physician..

**Recommended Precautions:** Use approved respiratory protection. Always wash hands thoroughly after use.

**Eye Contact**

**First Aid:** This material may cause eye irritation. Wash eyes thoroughly after use. Contact Physician.

**Recommended Precautions:** Wear approved goggles when handling product.

**Skin Contact**

**First Aid:** Slight redness on hands and forearms. Skin sensitization can develop after repeated and/or prolonged contact with human skin.

**Recommended Precautions:** Wash material off skin with plenty of soap and water. Wash clothing and footwear before reuse.

---

**SECTION VIII – SPILL OR LEAK PROCEDURES**

---

**Spills:** Wear approved respirator during cleanup. For small spills, flush to waste treatment sewer (product is biodegradable). For large spills, contain and collect for reuse.

**Waste Disposal:** Review federal, state and local government requirements prior to disposal of large quantities.

**Disclaimer**

Information for this material safety data sheet was obtained from sources considered technically accurate and reliable. While every effort has been made to ensure full disclosure of product hazards, in some cases data is not available and is so stated. Since conditions of actual product use are beyond control of the supplier, it is assumed that users of this material have been fully trained according to the mandatory requirements of Federal, State, Provincial or local laws. No warranty, expressed or implied, is made and supplier will not be liable for any losses, injuries or consequential damages which may result from the use of or reliance on any information contained in this form.



# Dry Ice, Carbon Dioxide, Solid

## Safety Data Sheet E-4575

according to the Hazardous Products Regulation (February 11, 2015)

Date of issue: 10-15-1979

Revision date: 08-10-2016

Supersedes: 10-15-2013

Name	CAS No.	% (Vol.)	Common Name (synonyms)
Dry Ice, Carbon Dioxide, Solid (Main constituent)	(CAS No) 124-38-9	100	Dry ice / CARBON DIOXIDE

### 3.2. Mixtures

Not applicable

## SECTION 4: First-aid measures

### 4.1. Description of first aid measures

- First-aid measures after inhalation : Remove victim to uncontaminated area wearing self contained breathing apparatus. Keep victim warm and rested. Call a doctor. Apply artificial respiration if breathing stopped.
- First-aid measures after skin contact : In case of contact, immediately flush eyes or skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.
- First-aid measures after eye contact : Immediately flush eyes thoroughly with water for at least 15 minutes. Hold the eyelids open and away from the eyeballs to ensure that all surfaces are flushed thoroughly. Contact an ophthalmologist immediately. Get immediate medical attention.
- First-aid measures after ingestion : Ingestion is not considered a potential route of exposure.

### 4.2. Most important symptoms and effects (acute and delayed)

No additional information available

### 4.3. Immediate medical attention and special treatment, if necessary

Other medical advice or treatment : None.

## SECTION 5: Fire-fighting measures

### 5.1. Suitable extinguishing media

Suitable extinguishing media : Use extinguishing media appropriate for surrounding fire.

### 5.2. Unsuitable extinguishing media

No additional information available

### 5.3. Specific hazards arising from the hazardous product

Reactivity : None.  
Reactivity in case of fire : None.

### 5.4. Special protective equipment and precautions for fire-fighters

Firefighting instructions : Evacuate all personnel from danger area. Do not discharge sprays onto solid carbon dioxide. Solid carbon dioxide will freeze water rapidly. NEVER HANDLE SOLID CARBON DIOXIDE WITH YOUR BARE HANDS. USE GLOVES OR DRY ICE TONGS OR A DRY SHOVEL OR SCOOP. Move packages away from fire area if safe to do so. Self-contained breathing apparatus may be required by rescue workers. On-site fire brigades must comply with OSHA 29 CFR 1910.156 and applicable standards under 29 CFR 1910 Subpart L—Fire Protection.

Protection during firefighting : Self-contained breathing apparatus.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

General measures : Use protective clothing. Wear cold-insulating gloves/face shield/eye protection. Chemical asphyxiant. Exposure to low concentrations for extended periods may result in dizziness or unconsciousness, and may lead to death. Wear self-contained breathing apparatus when entering area unless atmosphere is proven to be safe. NEVER HANDLE SOLID CARBON DIOXIDE WITH YOUR BARE HANDS. USE GLOVES OR DRY ICE TONGS OR A DRY SHOVEL OR SCOOP.

### 6.2. Methods and materials for containment and cleaning up

### 6.3. Reference to other sections

For further information refer to section 8: Exposure controls/personal protection

This document is only controlled while on the Praxair Canada Inc. website and a copy of this controlled version is available for download. Praxair cannot assure the integrity or accuracy of any version of this document after it has been downloaded or removed from our website.



# Dry Ice, Carbon Dioxide, Solid

## Safety Data Sheet E-4575

according to the Hazardous Products Regulation (February 11, 2015)

Date of issue: 10-15-1979

Revision date: 08-10-2016

Supersedes: 10-15-2013

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

Precautions for safe handling : Avoid materials incompatible with cryogenic use; some metals such as carbon steel may fracture easily at low temperature. Vapor can cause rapid suffocation due to oxygen deficiency. Never allow any unprotected part of your body to touch solid carbon dioxide or to touch uninsulated pipes or vessels containing solid or liquid carbon dioxide or cold carbon dioxide gas. Not only can you suffer frostbite, your skin may stick fast to the cold surfaces. Use tongs or insulated gloves when handling solid carbon dioxide or objects in contact cold carbon dioxide in any form. Wear protective clothing and equipment as prescribed in section 8. For other precautions in using carbon dioxide, see section 16.

#### 7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store and use with adequate ventilation. Do not store in tight containers or confined spaces. Storage areas should be clean and dry. Solid carbon dioxide is generally delivered to customers in 50-lb (22.7-kg), 1/2-cubic ft (0.0142 cubic meter) blocks (approximate dimensions), wrapped in kraft paper. Small pellets or nuggets are also produced. The product should be stored in insulated containers that open from the top. Lids should fit loosely so the carbon dioxide vapor given off as the solid sublimates can escape into the atmosphere. Carbon dioxide gas is about 1 1/2 times as heavy as air and will accumulate in low-lying areas, so ventilation must be adequate at floor or below grade level.

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

Dry Ice, Carbon Dioxide, Solid (124-38-9)		
USA - ACGIH	ACGIH TLV-TWA (ppm)	5000 ppm
USA - ACGIH	ACGIH TLV-STEL (ppm)	30000 ppm
USA - OSHA	OSHA PEL (TWA) (mg/m³)	9000 mg/m³
USA - OSHA	OSHA PEL (TWA) (ppm)	5000 ppm
Canada (Quebec)	VECD (mg/m³)	54000 mg/m³
Canada (Quebec)	VECD (ppm)	30000 ppm
Canada (Quebec)	VEMP (mg/m³)	9000 mg/m³
Canada (Quebec)	VEMP (ppm)	5000 ppm
Alberta	OEL STEL (mg/m³)	54000 mg/m³
Alberta	OEL STEL (ppm)	30000 ppm
Alberta	OEL TWA (mg/m³)	9000 mg/m³
Alberta	OEL TWA (ppm)	5000 ppm
British Columbia	OEL STEL (ppm)	15000 ppm
British Columbia	OEL TWA (ppm)	5000 ppm
Manitoba	OEL STEL (ppm)	30000 ppm
Manitoba	OEL TWA (ppm)	5000 ppm
New Brunswick	OEL STEL (mg/m³)	54000 mg/m³
New Brunswick	OEL STEL (ppm)	30000 ppm
New Brunswick	OEL TWA (mg/m³)	9000 mg/m³
New Brunswick	OEL TWA (ppm)	5000 ppm
New Foundland & Labrador	OEL STEL (ppm)	30000 ppm
New Foundland & Labrador	OEL TWA (ppm)	5000 ppm
Nova Scotia	OEL STEL (ppm)	30000 ppm
Nova Scotia	OEL TWA (ppm)	5000 ppm
Nunavut	OEL STEL (mg/m³)	27000 mg/m³
Nunavut	OEL STEL (ppm)	15000 ppm
Nunavut	OEL TWA (mg/m³)	9000 mg/m³
Nunavut	OEL TWA (ppm)	5000 ppm

This document is only controlled while on the Praxair Canada Inc. website and a copy of this controlled version is available for download. Praxair cannot assure the integrity or accuracy of any version of this document after it has been downloaded or removed from our website.



# Dry Ice, Carbon Dioxide, Solid

## Safety Data Sheet E-4575

according to the Hazardous Products Regulation (February 11, 2015)

Date of issue: 10-15-1979

Revision date: 08-10-2016

Supersedes: 10-15-2013

Dry Ice, Carbon Dioxide, Solid (124-38-9)		
Northwest Territories	OEL STEL (ppm)	30000 ppm
Northwest Territories	OEL TWA (ppm)	5000 ppm
Ontario	OEL STEL (ppm)	30000 ppm
Ontario	OEL TWA (ppm)	5000 ppm
Prince Edward Island	OEL STEL (ppm)	30000 ppm
Prince Edward Island	OEL TWA (ppm)	5000 ppm
Québec	VECD (mg/m <sup>3</sup> )	54000 mg/m <sup>3</sup>
Québec	VECD (ppm)	30000 ppm
Québec	VEMP (mg/m <sup>3</sup> )	9000 mg/m <sup>3</sup>
Québec	VEMP (ppm)	5000 ppm
Saskatchewan	OEL STEL (ppm)	30000 ppm
Saskatchewan	OEL TWA (ppm)	5000 ppm
Yukon	OEL STEL (mg/m <sup>3</sup> )	27000 mg/m <sup>3</sup>
Yukon	OEL STEL (ppm)	15000 ppm
Yukon	OEL TWA (mg/m <sup>3</sup> )	9000 mg/m <sup>3</sup>
Yukon	OEL TWA (ppm)	5000 ppm

### 8.2. Appropriate engineering controls

Appropriate engineering controls : Oxygen detectors should be used when asphyxiating gases may be released. Ensure exposure is below occupational exposure limits (where available). Systems under pressure should be regularly checked for leakages. Provide adequate general and local exhaust ventilation. Consider work permit system e.g. for maintenance activities.

### 8.3. Individual protection measures/Personal protective equipment

Personal protective equipment : Safety glasses. Insulated gloves.



Hand protection : Wear work gloves when handling containers. Wear heavy rubber gloves where contact with product may occur.

Eye protection : Wear safety glasses with side shields. Select in accordance with the current CSA standard Z94.3, "Industrial Eye and Face Protection", and any provincial regulations, local bylaws or guidelines.

Respiratory protection : **Respiratory protection:** Use respirable fume respirator or air supplied respirator when working in confined space or where local exhaust or ventilation does not keep exposure below TLV. Select in accordance with provincial regulations, local bylaws or guidelines. Selection should be based on the current CSA standard Z94.4, "Selection, Care, and Use of Respirators." Respirators should also be approved by NIOSH and MSHA. For emergencies or instances with unknown exposure levels, use a self-contained breathing apparatus (SCBA).

Thermal hazard protection : Wear cold insulating gloves.

Environmental exposure controls : None necessary.

Other information : **Other protection :** Safety shoes for general handling at customer sites. Metatarsal shoes and cuffless trousers for cylinder handling at packaging and filling plants. Select in accordance with the current CSA standard Z195, "Protective Foot Wear", and any provincial regulations, local bylaws or guidelines. For working with flammable and oxidizing materials, consider the use of flame resistant anti-static safety clothing.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state : Solid  
 Appearance : Opaque. White crystalline solid.  
 Molecular mass : 44 g/mol  
 Colour : White.  
 Odour : No odour warning properties.

This document is only controlled while on the Praxair Canada Inc. website and a copy of this controlled version is available for download. Praxair cannot assure the integrity or accuracy of any version of this document after it has been downloaded or removed from our website.



# Dry Ice, Carbon Dioxide, Solid

## Safety Data Sheet E-4575

according to the Hazardous Products Regulation (February 11, 2015)

Date of issue: 10-15-1979

Revision date: 08-10-2016

Supersedes: 10-15-2013

Odour threshold	: No data available
pH	: 3.7 (carbonic acid)
pH solution	: No data available
Relative evaporation rate (butylacetate=1)	: No data available
Relative evaporation rate (ether=1)	: Not applicable.
Melting point	: -78.5 °C
Freezing point	: No data available
Boiling point	: -78.4 °C
Flash point	: Not applicable.
Critical temperature	: 30 °C
Auto-ignition temperature	: Not applicable.
Decomposition temperature	: No data available
Vapour pressure	: 5730 kPa
Vapour pressure at 50 °C	: No data available
Critical pressure	: 7375 kPa
Relative vapour density at 20 °C	: No data available
Relative density	: 0.82
Relative density of saturated gas/air mixture	: No data available
Density	: 1562 kg/m <sup>3</sup>
Relative gas density	: 1.52
Solubility	: Water: 2000 mg/l Completely soluble.
Log Pow	: 0.83
Log Kow	: Not applicable.
Viscosity, kinematic	: Not applicable.
Viscosity, dynamic	: Not applicable.
Viscosity, kinematic (calculated value) (40 °C)	: No data available
Explosive properties	: Not applicable.
Oxidizing properties	: None.
Flammability (solid, gas)	:

### 9.2. Other information

Sublimation point	: -78.5 °C Expansion ratio for solid to gas at sublimation point is 1 to 554.
Additional information	: Gas/vapour heavier than air. May accumulate in confined spaces, particularly at or below ground level

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

Reactivity	: None.
Chemical stability	: Stable under normal conditions.
Possibility of hazardous reactions	: None.
Conditions to avoid	: None under recommended storage and handling conditions (see section 7).
Incompatible materials	: Alkali metals, Alkaline earth metals, Acetylide forming metals, Chromium, Titanium > 1022°F (550°C), Uranium (U) > 1382°F (750°C), Magnesium > 1427°F (775°C).
Hazardous decomposition products	: Electrical discharges and high temperatures decompose carbon dioxide into carbon monoxide and oxygen.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified

This document is only controlled while on the Praxair Canada Inc. website and a copy of this controlled version is available for download. Praxair cannot assure the integrity or accuracy of any version of this document after it has been downloaded or removed from our website.



# Dry Ice, Carbon Dioxide, Solid

## Safety Data Sheet E-4575

according to the Hazardous Products Regulation (February 11, 2015)

Date of issue: 10-15-1979

Revision date: 08-10-2016

Supersedes: 10-15-2013

Skin corrosion/irritation	: Not classified pH: 3.7 (carbonic acid)
Serious eye damage/irritation	: Not classified pH: 3.7 (carbonic acid)
Respiratory or skin sensitization	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
Specific target organ toxicity (single exposure)	: Not classified
Specific target organ toxicity (repeated exposure)	: Not classified
Aspiration hazard	: Not classified

## SECTION 12: Ecological information

### 12.1. Toxicity

Ecology - general : No ecological damage caused by this product.

### 12.2. Persistence and degradability

#### Dry Ice, Carbon Dioxide, Solid (124-38-9)

Persistence and degradability	No ecological damage caused by this product.
-------------------------------	--

### 12.3. Bioaccumulative potential

#### Dry Ice, Carbon Dioxide, Solid (124-38-9)

BCF fish 1	(no bioaccumulation)
Log Pow	0.83
Log Kow	Not applicable.
Bioaccumulative potential	No ecological damage caused by this product.

### 12.4. Mobility in soil

#### Dry Ice, Carbon Dioxide, Solid (124-38-9)

Mobility in soil	No data available.
Log Pow	0.83
Log Kow	Not applicable.
Ecology - soil	No ecological damage caused by this product.

### 12.5. Other adverse effects

Other adverse effects	: Can cause frost damage to vegetation.
Effect on the ozone layer	: None
Global warming potential [CO <sub>2</sub> =1]	: 1
Effect on global warming	: When discharged in large quantities may contribute to the greenhouse effect

## SECTION 13: Disposal considerations

### 13.1. Disposal methods

Waste treatment methods	: See Section 6.
Waste disposal recommendations	: Dispose of contents/container in accordance with local/regional/national/international regulations. Contact supplier for any special requirements.

## SECTION 14: Transport information

This document is only controlled while on the Praxair Canada Inc. website and a copy of this controlled version is available for download. Praxair cannot assure the integrity or accuracy of any version of this document after it has been downloaded or removed from our website.



# Dry Ice, Carbon Dioxide, Solid

## Safety Data Sheet E-4575

according to the Hazardous Products Regulation (February 11, 2015)

Date of issue: 10-15-1979

Revision date: 08-10-2016

Supersedes: 10-15-2013

### 14.1. Basic shipping description

In accordance with TDG

#### TDG

UN-No. (TDG) : UN1845  
TDG Primary Hazard Classes : 9 - Class 9 - Miscellaneous Products, Substances or Organisms  
Proper shipping name : CARBON DIOXIDE, SOLID

Explosive Limit and Limited Quantity Index : 0  
Passenger Carrying Road Vehicle or Passenger Carrying Railway Vehicle Index : 200 kg

### 14.3. Air and sea transport

#### IMDG

UN-No. (IMDG) : 1845  
Proper Shipping Name (IMDG) : CARBON DIOXIDE, SOLID (DRY ICE)  
Class (IMDG) : 9 - Miscellaneous dangerous substances and articles

#### IATA

UN-No. (IATA) : 1845  
Proper Shipping Name (IATA) : Carbon dioxide, solid  
Class (IATA) : 9 - Miscellaneous Dangerous Goods

## SECTION 15: Regulatory information

### 15.1. National regulations

#### Dry Ice, Carbon Dioxide, Solid (124-38-9)

Listed on the Canadian DSL (Domestic Substances List)

### 15.2. International regulations

#### Dry Ice, Carbon Dioxide, Solid (124-38-9)

Listed on the AICS (Australian Inventory of Chemical Substances)  
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)  
Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)  
Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory  
Listed on the Korean ECL (Existing Chemicals List)  
Listed on NZIoC (New Zealand Inventory of Chemicals)  
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)  
Listed on the United States TSCA (Toxic Substances Control Act) inventory  
Listed on INSQ (Mexican national Inventory of Chemical Substances)  
Listed on CICR (Turkish Inventory and Control of Chemicals)

## SECTION 16: Other information

Date of issue : 15/10/1979  
Revision date : 10/08/2016  
Supersedes : 15/10/2013

Indication of changes:

This document is only controlled while on the Praxair Canada Inc. website and a copy of this controlled version is available for download. Praxair cannot assure the integrity or accuracy of any version of this document after it has been downloaded or removed from our website.



# Dry Ice, Carbon Dioxide, Solid

## Safety Data Sheet E-4575

according to the Hazardous Products Regulation (February 11, 2015)

Date of issue: 10-15-1979

Revision date: 08-10-2016

Supersedes: 10-15-2013

### Other information

: Praxair asks users of this product to study this SDS and become aware of the product hazards and safety information. To promote safe use of this product, a user should (1) notify employees, agents, and contractors of the information in this SDS and of any other known product hazards and safety information, (2) furnish this information to each purchaser of the product, and (3) ask each purchaser to notify its employees and customers of the product hazards and safety information

The opinions expressed herein are those of qualified experts within Praxair Canada Inc. We believe that the information contained herein is current as of the date of this Safety Data Sheet. Since the use of this information and the conditions of use are not within the control of Praxair Canada Inc, it is the user's obligation to determine the conditions of safe use of the product. Praxair Canada Inc, SDSs are furnished on sale or delivery by Praxair Canada Inc, or the independent distributors and suppliers who package and sell our products. To obtain current SDSs for these products, contact your Praxair sales representative, local distributor, or supplier, or download from [www.praxair.ca](http://www.praxair.ca). If you have questions regarding Praxair SDSs, would like the document number and date of the latest SDS, or would like the names of the Praxair suppliers in your area, phone or write Praxair Canada Inc, (Phone: 1-888-257-5149; Address: Praxair Canada Inc, 1 City Centre Drive, Suite 1200, Mississauga, Ontario, L5B 1M2).

PRAXAIR and the Flowing Airstream design are trademarks or registered trademarks of Praxair Technology, Inc. in the United States and/or other countries.

### NFPA health hazard

: 3 - Short exposure could cause serious temporary or residual injury even though prompt medical attention was given.

### NFPA fire hazard

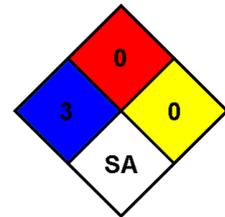
: 0 - Materials that will not burn.

### NFPA reactivity

: 0 - Normally stable, even under fire exposure conditions, and are not reactive with water.

### NFPA specific hazard

: SA - This denotes gases which are simple asphyxiants.



### HMIS III Rating

#### Health

: 3 Serious Hazard - Major injury likely unless prompt action is taken and medical treatment is given

#### Flammability

: 0 Minimal Hazard - Materials that will not burn

#### Physical

: 0 Minimal Hazard - Materials that are normally stable, even under fire conditions, and will NOT react with water, polymerize, decompose, condense, or self-react. Non-Explosives.

### SDS Canada (GHS) - Praxair

*This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.*

This document is only controlled while on the Praxair Canada Inc. website and a copy of this controlled version is available for download. Praxair cannot assure the integrity or accuracy of any version of this document after it has been downloaded or removed from our website.