

<b>Product Name</b>	<b>Manufacturer</b>	<b>Section</b>
Gear Head Motor Grease	RIGID	3
Gray Pipe Joint Compound	Oatey Co.	3
Grease	Hilti, Inc.	3
Great Stuff - Foam Sealant	Dupont / DDP Specialty Electronic Materials	3
Great White Pipe Joint Compound	Oatey Co.	3
Grrip	Hercules / HCC Holdings, Inc. an Oatey Affiliate	3
High Strength Concrete Mix	Sakrete of North America	3
HP Cleaner Degreaser	Hilti, Inc.	3
Industrial Choice - Mark Construction - Clear / IC LSPR 12PK	Rust-Oleum Corporation	3
Industrial Choice - Mark Construction - Orange / IC LSPR 12PK	Rust-Oleum Corporation	3
Industrial Choice - Mark Construction - White / IC LSPR 12PK	Rust-Oleum Corporation	3
Industrial Choice - Mark Construction - Yellow / IC LSPR 12PK	Rust-Oleum Corporation	3
Industrial QUIK-MARK Water Based - Blue	Krylon Products Group	3
Industrial QUIK-MARK Water Based - High Visibility Yellow	Krylon Products Group	3
Industrial QUIK-MARK Water Based - Utlity White	Krylon Products Group	3
Industrial QUIK-MARK Water Based - Utlity Yellow	Krylon Products Group	3
Intumescent Sleeve / Metacaulk	RectorSeal, LLC	3
Kleer-Out	ComStar International	3



## SAFETY DATA SHEET INFORMATION

RIDGID Product Name: RIDGID Gearhead Motor Grease  
RIDGID Product Catalog No.: 41620

Vendor Name: EXXONMOBIL  
Vendor Product Name: MOBILGREASE XHP 461

Use in RIDGID Products: 700 Power Drive And Threading Machine Bearings, Gear Boxes, Scrolls And For Related General Lubrication, Roll Groover Shafts, Bearings And Gears, Similar Applications.

Restrictions on Use: NA

SDS Information See following sheets for manufacturer SDS

### Ridge Tool Contact Information:

North America Ridge Tool Company 400 Clark Street Elyria, Ohio 44035-6001 1-800-519-3456 www.RIDGID.com	Australia Ridge Tool Australia 127 Metrolink Circuit Campbellfield, VIC 3061 1-800-743-443 www.RIDGID.com.au	Europe Ridge Tool Europe NV (RIDGID) Ondernemerslaan 5428 3800 Sint-Truiden, Belgium +32 (0) 11 598 640 www.RIDGID.eu
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Operating Standard: 6-301  
Revision: I  
EC Number: 45297  
Issue Date: October 1, 2020  
Last Revision Date: January 21, 2016

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## SAFETY DATA SHEET

<b>SECTION 1</b>	<b>PRODUCT AND COMPANY IDENTIFICATION</b>
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### PRODUCT

**Product Name:** MOBILGREASE XHP 461  
**Product Description:** Base Oil and Additives  
**Product Code:** 2015A0202550, 97G434  
**Intended Use:** Grease

### COMPANY IDENTIFICATION

<b>Supplier:</b>	<b>EXXON MOBIL CORPORATION</b> 22777 Springwoods Village Parkway Spring, TX 77389 USA
<b>24 Hour Health Emergency</b>	609-737-4411
<b>Transportation Emergency Phone</b>	800-424-9300 or 703-527-3887 CHEMTREC
<b>Product Technical Information</b>	800-662-4525
<b>MSDS Internet Address</b>	<a href="http://www.exxon.com">www.exxon.com</a> , <a href="http://www.mobil.com">www.mobil.com</a>

<b>SECTION 2</b>	<b>HAZARDS IDENTIFICATION</b>
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This material is not hazardous according to regulatory guidelines (see (M)SDS Section 15).

**Other hazard information:**

**HAZARD NOT OTHERWISE CLASSIFIED (HNOC):** None as defined under 29 CFR 1910.1200.

### PHYSICAL / CHEMICAL HAZARDS

No significant hazards.

### HEALTH HAZARDS

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

### ENVIRONMENTAL HAZARDS

No significant hazards.

<b>NFPA Hazard ID:</b>	Health: 0	Flammability: 1	Reactivity: 0
<b>HMIS Hazard ID:</b>	Health: 0	Flammability: 1	Reactivity: 0



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**NOTE:** This material should not be used for any other purpose than the intended use 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 3 COMPOSITION / INFORMATION ON INGREDIENTS

This material is defined as a mixture.

### Hazardous Substance(s) or Complex Substance(s) required for disclosure

Name	CAS#	Concentration*	GHS Hazard Codes
BENZENAMINE, N-PHENYL-, REACTION PRODUCTS WITH 2,4,4-TRIMETHYLPENTENE	68411-46-1	1 - < 5%	H316, H402, H412
ZINC DIALKYL DITHIOPHOSPHATE	68457-79-4	1 - < 2.5%	H315, H318, H401, H411
ZINC DINONYLNAPHTHALENE SULFONATE	28016-00-4	0.1 - < 1%	H315, H318, H317

\* All concentrations are percent by weight unless material is a gas. Gas concentrations are in percent by volume.

As per paragraph (i) of 29 CFR 1910.1200, formulation is considered a trade secret and specific chemical identity and exact percentage (concentration) of composition may have been withheld. Specific chemical identity and exact percentage composition will be provided to health professionals, employees, or designated representatives in accordance with applicable provisions of paragraph (i).

## SECTION 4 FIRST AID MEASURES

### INHALATION

Under normal conditions of intended use, this material is not expected to be an inhalation hazard.

### SKIN CONTACT

Wash contact areas with soap and water. If product is injected into or under the skin, or into any part of the body, regardless of the appearance of the wound or its size, the individual should be evaluated immediately by a physician as a surgical emergency. Even though initial 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.

### EYE CONTACT

Flush thoroughly with water. If irritation occurs, get medical assistance.

### INGESTION

First aid is normally not required. Seek medical attention if discomfort occurs.

## SECTION 5 FIRE FIGHTING MEASURES

### EXTINGUISHING MEDIA

**Appropriate Extinguishing Media:** Use water fog, foam, dry chemical or carbon dioxide (CO<sub>2</sub>) to extinguish flames.

**Inappropriate Extinguishing Media:** Straight Streams of Water



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## FIRE FIGHTING

**Fire Fighting Instructions:** Evacuate area. Prevent runoff from fire control or dilution from entering streams, sewers, or drinking water supply. Firefighters should use standard protective equipment and in enclosed spaces, self-contained breathing apparatus (SCBA). Use water spray to cool fire exposed surfaces and to protect personnel.

**Hazardous Combustion Products:** Aldehydes, Incomplete combustion products, Oxides of carbon, Smoke, Fume, Sulfur oxides

## FLAMMABILITY PROPERTIES

**Flash Point [Method]:** >294°C (561°F) [EST. FOR OIL, ASTM D-92 (COC)]

**Flammable Limits (Approximate volume % in air):** LEL: N/D UEL: N/D

**Autoignition Temperature:** N/D

## SECTION 6

## ACCIDENTAL RELEASE MEASURES

### NOTIFICATION PROCEDURES

In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations. US regulations require reporting releases of this material to the environment which exceed the applicable reportable quantity or oil spills which could reach any waterway including intermittent dry creeks. The National Response Center can be reached at (800)424-8802.

### PROTECTIVE MEASURES

Avoid contact with spilled material. See Section 5 for fire fighting information. See the Hazard Identification Section for Significant Hazards. See Section 4 for First Aid Advice. See Section 8 for advice on the minimum requirements for personal protective equipment. Additional protective measures may be necessary, depending on the specific circumstances and/or the expert judgment of the emergency responders.

For emergency responders: Respiratory protection: respiratory protection will be necessary only in special cases, e.g., formation of mists. Half-face or full-face respirator with filter(s) for dust/organic vapor or Self Contained Breathing Apparatus (SCBA) can be used depending on the size of spill and potential level of exposure. If the exposure cannot be completely characterized or an oxygen deficient atmosphere is possible or anticipated, SCBA is recommended. Work gloves that are resistant to hydrocarbons are recommended. Gloves made of polyvinyl acetate (PVA) are not water-resistant and are not suitable for emergency use. Chemical goggles are recommended if splashes or contact with eyes is possible. Small spills: normal antistatic work clothes are usually adequate. Large spills: full body suit of chemical resistant, antistatic material is recommended.

### SPILL MANAGEMENT

**Land Spill:** Scrape up spilled material with shovels into a suitable container for recycle or disposal.

**Water Spill:** Stop leak if you can do it without risk. Confine the spill immediately with booms. Warn other shipping. Skim from surface.

Water spill and land spill recommendations are based on the most likely spill scenario for this material; however, geographic conditions, wind, temperature, (and in the case of a water spill) wave and current direction and speed may greatly influence the appropriate action to be taken. For this reason, local experts should be consulted. Note: Local regulations may prescribe or limit action to be taken.

### ENVIRONMENTAL PRECAUTIONS

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Prevent entry into waterways, sewers, basements or confined areas.

<b>SECTION 7</b>	<b>HANDLING AND STORAGE</b>
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### HANDLING

Prevent small spills and leakage to avoid slip hazard.

**Static Accumulator:** This material is not a static accumulator.

### STORAGE

Do not store in open or unlabelled containers.

<b>SECTION 8</b>	<b>EXPOSURE CONTROLS / PERSONAL PROTECTION</b>
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NOTE: Limits/standards shown for guidance only. Follow applicable regulations.

No biological limits allocated.

### ENGINEERING CONTROLS

The level of protection and types of controls necessary will vary depending upon potential exposure conditions. Control measures to consider:

No special requirements under ordinary conditions of use and with adequate 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:** If engineering controls do not maintain airborne contaminant concentrations at a level which is adequate to protect worker health, an approved respirator may be appropriate. Respirator selection, use, and maintenance must be in accordance with regulatory requirements, if applicable. Types of respirators to be considered for this material include:

No protection is ordinarily required under normal conditions of use and with adequate ventilation.

For high airborne concentrations, use an approved supplied-air respirator, operated in positive pressure mode. Supplied air respirators with an escape bottle may be appropriate when oxygen levels are inadequate, gas/vapor warning properties are poor, or if air purifying filter capacity/rating may be exceeded.

**Hand Protection:** Any specific glove information provided is based on published literature and glove manufacturer data. Glove suitability and breakthrough time will differ depending on the specific use conditions. Contact the glove manufacturer for specific advice on glove selection and breakthrough times for your use conditions. Inspect and replace worn or damaged gloves. The types of gloves to be considered for this material include:



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No protection is ordinarily required under normal conditions of use.

**Eye Protection:** If contact is likely, safety glasses with side shields are recommended.

**Skin and Body Protection:** Any specific clothing information provided is based on published literature or manufacturer data. The types of clothing to be considered for this material include:

No skin protection is ordinarily required under normal conditions of use. In accordance with good industrial hygiene practices, precautions should be taken to avoid skin contact.

**Specific Hygiene Measures:** 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. Discard contaminated clothing and footwear that cannot be cleaned. Practice good housekeeping.

## ENVIRONMENTAL CONTROLS

Comply with applicable environmental regulations limiting discharge to air, water and soil. Protect the environment by applying appropriate control measures to prevent or limit emissions.

<b>SECTION 9</b>	<b>PHYSICAL AND CHEMICAL PROPERTIES</b>
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**Note:** Physical and chemical properties are provided for safety, health and environmental considerations only and may not fully represent product specifications. Contact the Supplier for additional information.

## GENERAL INFORMATION

**Physical State:** Solid  
**Form:** Semi-fluid  
**Color:** Blue  
**Odor:** Characteristic  
**Odor Threshold:** N/D

## IMPORTANT HEALTH, SAFETY, AND ENVIRONMENTAL INFORMATION

**Relative Density (at 15 °C):** 0.9  
**Flammability (Solid, Gas):** N/A  
**Flash Point [Method]:** >294°C (561°F) [EST. FOR OIL, ASTM D-92 (COC)]  
**Flammable Limits (Approximate volume % in air):** LEL: N/D UEL: N/D  
**Autoignition Temperature:** N/D  
**Boiling Point / Range:** > 316°C (600°F) [Estimated]  
**Decomposition Temperature:** N/D  
**Vapor Density (Air = 1):** N/D  
**Vapor Pressure:** < 0.013 kPa (0.1 mm Hg) at 20 °C [Estimated]  
**Evaporation Rate (n-butyl acetate = 1):** N/D  
**pH:** N/A  
**Log Pow (n-Octanol/Water Partition Coefficient):** > 3.5 [Estimated]  
**Solubility in Water:** Negligible  
**Viscosity:** 460 cSt (460 mm<sup>2</sup>/sec) at 40 °C  
**Oxidizing Properties:** See Hazards Identification Section.

## OTHER INFORMATION

**Freezing Point:** N/D  
**Melting Point:** N/D



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**DMSO Extract (mineral oil only), IP-346:** < 3 %wt

NOTE: Most physical properties above are for the oil component in the material.

**SECTION 10 STABILITY AND REACTIVITY**

**REACTIVITY:** See sub-sections below.

**STABILITY:** Material is stable under normal conditions.

**CONDITIONS TO AVOID:** Excessive heat. High energy sources of ignition.

**MATERIALS TO AVOID:** Strong oxidizers

**HAZARDOUS DECOMPOSITION PRODUCTS:** Material does not decompose at ambient temperatures.

**POSSIBILITY OF HAZARDOUS REACTIONS:** Hazardous polymerization will not occur.

**SECTION 11 TOXICOLOGICAL INFORMATION**

**INFORMATION ON TOXICOLOGICAL EFFECTS**

Hazard Class	Conclusion / Remarks
<b>Inhalation</b>	
Acute Toxicity: No end point data for material.	Minimally Toxic. Based on assessment of the components.
Irritation: No end point data for material.	Negligible hazard at ambient/normal handling temperatures.
<b>Ingestion</b>	
Acute Toxicity: No end point data for material.	Minimally Toxic. Based on assessment of the components.
<b>Skin</b>	
Acute Toxicity: No end point data for material.	Minimally Toxic. Based on assessment of the components.
Skin Corrosion/Irritation: No end point data for material.	Negligible irritation to skin at ambient temperatures. Based on assessment of the components.
<b>Eye</b>	
Serious Eye Damage/Irritation: No end point data for material.	May cause mild, short-lasting discomfort to eyes. Based on assessment of the components.
<b>Sensitization</b>	
Respiratory Sensitization: No end point data for material.	Not expected to be a respiratory sensitizer.
Skin Sensitization: No end point data for material.	Not expected to be a skin sensitizer. Based on assessment of the components.
<b>Aspiration:</b> Data available.	Not expected to be an aspiration hazard. Based on physico-chemical properties of the material.
<b>Germ Cell Mutagenicity:</b> No end point data for material.	Not expected to be a germ cell mutagen. Based on assessment of the components.
<b>Carcinogenicity:</b> No end point data for material.	Not expected to cause cancer. Based on assessment of the components.
<b>Reproductive Toxicity:</b> No end point data for material.	Not expected to be a reproductive toxicant. Based on assessment of the components.

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<b>Lactation:</b> No end point data for material.	Not expected to cause harm to breast-fed children.
<b>Specific Target Organ Toxicity (STOT)</b>	
Single Exposure: No end point data for material.	Not expected to cause organ damage from a single exposure.
Repeated Exposure: No end point data for material.	Not expected to cause organ damage from prolonged or repeated exposure. Based on assessment of the components.

## OTHER INFORMATION

### For the product itself:

Component concentrations in this formulation would not be expected to cause skin sensitization, based on tests of the components, this formulation, or similar formulations.

### Contains:

Base oil severely refined: Not carcinogenic in animal studies. Representative material passes IP-346, Modified Ames test, and/or other screening tests. Dermal and inhalation studies showed minimal effects; lung non-specific infiltration of immune cells, oil deposition and minimal granuloma formation. Not sensitizing in test animals.

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

### --REGULATORY LISTS SEARCHED--

1 = NTP CARC

2 = NTP SUS

3 = IARC 1

4 = IARC 2A

5 = IARC 2B

6 = OSHA CARC

## SECTION 12

## ECOLOGICAL INFORMATION

The information given is based on data for the material, components of the material, or for similar materials, through the application of bridging principals.

### ECOTOXICITY

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 the land. Expected to partition to sediment and wastewater solids.

### PERSISTENCE AND DEGRADABILITY

#### Biodegradation:

Base oil component -- Expected to be inherently biodegradable

### BIOACCUMULATION POTENTIAL

Base oil component -- Has the potential to bioaccumulate, however metabolism or physical properties may reduce the bioconcentration or limit bioavailability.



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<b>SECTION 13</b>	<b>DISPOSAL CONSIDERATIONS</b>
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Disposal recommendations based on material as supplied. Disposal must be in accordance with current applicable laws and regulations, and material characteristics at time of disposal.

#### **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**

RCRA Information: The unused product, in our opinion, is not specifically listed by the EPA as a hazardous waste (40 CFR, Part 261D), nor is it formulated to contain materials which are listed as hazardous wastes. It does not exhibit the hazardous characteristics of ignitability, corrosivity or reactivity and is not formulated with contaminants as determined by the Toxicity Characteristic Leaching Procedure (TCLP). However, used product may be regulated.

**Empty Container Warning** Empty Container Warning (where applicable): Empty containers may contain residue and can be dangerous. Do not attempt to refill or clean containers without proper instructions. Empty drums should be completely drained and safely stored until appropriately reconditioned or disposed. Empty containers should be taken for recycling, recovery, or disposal through suitably qualified or licensed contractor and in accordance with governmental regulations. **DO NOT PRESSURISE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND, OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION. THEY MAY EXPLODE AND CAUSE INJURY OR DEATH.**

<b>SECTION 14</b>	<b>TRANSPORT INFORMATION</b>
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**LAND (DOT):** Not Regulated for Land Transport

**LAND (TDG):** Not Regulated for Land Transport

**SEA (IMDG):** Not Regulated for Sea Transport according to IMDG-Code

**Marine Pollutant:** No

**AIR (IATA):** Not Regulated for Air Transport

<b>SECTION 15</b>	<b>REGULATORY INFORMATION</b>
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**OSHA HAZARD COMMUNICATION STANDARD:** This material is not considered hazardous in accordance with OSHA HazCom 2012, 29 CFR 1910.1200.

**Listed or exempt from listing/notification on the following chemical inventories:** AICS, DSL, ENCS, IECSC, ISHL, KECI, PICCS, TCSI, TSCA



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**SARA 302:** No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302

**SARA (311/312) REPORTABLE GHS HAZARD CLASSES:** None.

**SARA (313) TOXIC RELEASE INVENTORY:**

Chemical Name	CAS Number	Typical Value
ZINC DIALKYL DITHIOPHOSPHATE	68457-79-4	1 - < 2.5%

The following ingredients are cited on the lists below:

Chemical Name	CAS Number	List Citations
HYDROTREATED RESIDUAL OIL	64742-57-0	17, 18
SEVERELY HYDROTREATED HEAVY PARAFFINIC DISTILLATE	64742-54-7	17, 18, 19
SEVERELY HYDROTREATED HEAVY PARAFFINIC DISTILLATE	64742-54-7	19
ZINC DIALKYL DITHIOPHOSPHATE	68457-79-4	13, 15, 17, 18, 19
ZINC DINONYLNAPHTHALENE SULFONATE	28016-00-4	15

--REGULATORY LISTS SEARCHED--

- |               |                  |                   |             |
|---------------|------------------|-------------------|-------------|
| 1 = ACGIH ALL | 6 = TSCA 5a2     | 11 = CA P65 REPRO | 16 = MN RTK |
| 2 = ACGIH A1  | 7 = TSCA 5e      | 12 = CA RTK       | 17 = NJ RTK |
| 3 = ACGIH A2  | 8 = TSCA 6       | 13 = IL RTK       | 18 = PA RTK |
| 4 = OSHA Z    | 9 = TSCA 12b     | 14 = LA RTK       | 19 = RI RTK |
| 5 = TSCA 4    | 10 = CA P65 CARC | 15 = MI 293       |             |

Code key: CARC=Carcinogen; REPRO=Reproductive

SECTION 16	OTHER INFORMATION
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N/D = Not determined, N/A = Not applicable

**KEY TO THE H-CODES CONTAINED IN SECTION 3 OF THIS DOCUMENT (for information only):**

H315: Causes skin irritation; Skin Corr/Irritation, Cat 2  
 H316: Causes mild skin irritation; Skin Corr/Irritation, Cat 3

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H317: May cause allergic skin reaction; Skin Sensitization, Cat 1  
H318: Causes serious eye damage; Serious Eye Damage/Irr, Cat 1  
H401: Toxic to aquatic life; Acute Env Tox, Cat 2  
H402: Harmful to aquatic life; Acute Env Tox, Cat 3  
H411: Toxic to aquatic life with long lasting effects; Chronic Env Tox, Cat 2  
H412: Harmful to aquatic life with long lasting effects; Chronic Env Tox, Cat 3

**THIS SAFETY DATA SHEET CONTAINS THE FOLLOWING REVISIONS:**

Composition: Component Table information was modified.  
Section 01: Company Contact Methods information was modified.  
Section 01: Company Mailing Address information was modified.  
Section 11: Other Health Effects Header information was modified.  
Section 11: Other Health Effects information was added.  
Section 12: information was modified.  
Section 15: List Citations Table information was modified.  
Section 15: National Chemical Inventory Listing information was modified.  
Section 15: SARA (311/312) REPORTABLE GHS HAZARD CLASSES information was added.  
Section 15: SARA (311/312) REPORTABLE HAZARD CATEGORIES information was deleted.  
Section 16: HCode Key information was modified.

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Internal Use Only

MHC: 0B, 0B, 0, 0, 0, 0

PPEC: A

DGN: 2009970XUS (1011823)

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# Gray Pipe Joint Compound

## Oatey Co.

Version No: 1.6

Safety Data Sheet according to OSHA HazCom Standard (2012) requirements

Issue Date: 04/07/2021

Print Date: 04/08/2021

S.GHS.USA.EN

### SECTION 1 Identification

#### Product Identifier

Product name	Gray Pipe Joint Compound
Synonyms	Not Available
Other means of identification	31226, 31227, 31228, 32235, 31236, 48005, 48324

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

Relevant identified uses	Pipe Joint Compound for Threaded Metal Pipes
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#### Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party

Registered company name	Oatey Co.
Address	20600 Emerald Parkway, Cleveland, OH 44135 United States
Telephone	216-267-7100
Fax	Not Available
Website	<a href="http://oatey.com">oatey.com</a>
Email	<a href="mailto:info@oatey.com">info@oatey.com</a>

#### Emergency phone number

Association / Organisation	Chemtrec
Emergency telephone numbers	1-800-424-9300 (Outside the US 1-703-527-3887)
Other emergency telephone numbers	1-877-740-5015 (Emergency First Aid)

### SECTION 2 Hazard(s) identification

#### Classification of the substance or mixture

Classification	Not Applicable
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#### Label elements

Hazard pictogram(s)	Not Applicable
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Signal word	Not Applicable
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#### Hazard statement(s)

Not Applicable

#### Hazard(s) not otherwise classified

Not Applicable



**Precautionary statement(s) Prevention**

Not Applicable

**Precautionary statement(s) Response**

Not Applicable

**Precautionary statement(s) Storage**

Not Applicable

**Precautionary statement(s) Disposal**

Not Applicable

**SECTION 3 Composition / information on ingredients****Substances**

See section below for composition of Mixtures

**Mixtures**

CAS No	%[weight]	Name
1317-65-3*	60-75	<u>calcium carbonate</u>
129828-25-7	1-5	<u>canola oil, polymerised, oxidised</u>
14808-60-7*	<0.8	<u>silica crystalline - quartz</u>
64742-52-5*	20-30	<u>Distillates (petroleum), hydrotreated heavy naphthenic</u>

The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret.

**SECTION 4 First-aid measures****Description of first aid measures****Eye Contact**

- If this product comes in contact with the eyes:
- Wash out immediately with fresh running water.
  - 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.
  - Seek medical attention without delay; if pain persists or recurs seek medical attention.
  - Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.

**Skin Contact**

- If skin contact occurs:
- Immediately remove all contaminated clothing, including footwear.
  - Flush skin and hair with running water (and soap if available).
  - Seek medical attention in event of irritation.

**Inhalation**

- If fumes, aerosols or combustion products are inhaled remove from contaminated area.
- Other measures are usually unnecessary.

**Ingestion**

- Immediately give a glass of water.
- First aid is not generally required. If in doubt, contact a Poisons Information Centre or a doctor.

**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**

- Foam.
- Dry chemical powder.
- BCF (where regulations permit).
- Carbon dioxide.
- Water spray or fog - Large fires only.

## Gray Pipe Joint Compound

**Special hazards arising from the substrate or mixture**

**Fire Incompatibility** | None known.

**Special protective equipment and precautions for fire-fighters****Fire Fighting**

- Alert Fire Department and tell them location and nature of hazard.
- Wear breathing apparatus plus protective gloves.
- Prevent, by any means available, spillage from entering drains or water courses.
- Use water delivered as a fine spray to control fire and cool adjacent area.
- **DO NOT** approach containers suspected to be hot.
- Cool fire exposed containers with water spray from a protected location.
- If safe to do so, remove containers from path of fire.
- Equipment should be thoroughly decontaminated after use.

**Fire/Explosion Hazard**

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****Minor Spills**

- Clean up all spills immediately.
- Avoid contact with skin and eyes.
- Wear impervious gloves and safety goggles.
- Trowel up/scrape up.
- Place spilled material in clean, dry, sealed container.
- Flush spill area with water.

**Major Spills**

- Clear area of personnel and move upwind.
- Alert Fire Department and tell them location and nature of hazard.
- Wear full body protective clothing with breathing apparatus.
- Prevent, by all means available, spillage from entering drains or water courses.
- Consider evacuation (or protect in place).
- No smoking, naked lights or ignition sources.
- Increase ventilation.
- Stop leak if safe to do so.
- Water spray or fog may be used to disperse / absorb vapour.
- Contain or absorb spill with sand, earth or vermiculite.
- Collect recoverable product into labelled containers for recycling.
- Collect solid residues and seal in labelled drums for disposal.
- Wash area and prevent runoff into drains.
- After clean up operations, decontaminate and launder all protective clothing and equipment before storing and re-using.
- If contamination of drains or waterways occurs, advise emergency services.

Personal Protective Equipment advice is contained in Section 8 of the SDS.

**SECTION 7 Handling and storage****Precautions for safe handling****Safe handling**

- Avoid all personal contact, including inhalation.
- Wear protective clothing when risk of exposure occurs.
- Use in a well-ventilated area.
- Prevent concentration in hollows and sumps.
- **DO NOT** enter confined spaces until atmosphere has been checked.
- **DO NOT** allow material to contact humans, exposed food or food utensils.
- Avoid contact with incompatible materials.
- When handling, **DO NOT** eat, drink or smoke.
- Keep containers securely sealed when not in use.
- Avoid physical damage to containers.
- Always wash hands with soap and water after handling.

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## Other information

- Work clothes should be laundered separately. Launder contaminated clothing before re-use.
  - Use good occupational work practice.
  - Observe manufacturer's storage and handling recommendations contained within this SDS.
  - Atmosphere should be regularly checked against established exposure standards to ensure safe working conditions are maintained.
- 
- Store in original containers.
  - Keep containers securely sealed.
  - Store in a cool, dry, well-ventilated area.
  - Store away from incompatible materials and foodstuff containers.
  - Protect containers against physical damage and check regularly for leaks.
  - Observe manufacturer's storage and handling recommendations contained within this SDS.

## Conditions for safe storage, including any incompatibilities

## Suitable container

- Metal can or drum
- Packaging as recommended by manufacturer.
- Check all containers are clearly labelled and free from leaks.

## Storage incompatibility

None known

## SECTION 8 Exposure controls / personal protection

## Control parameters

Occupational Exposure Limits (OEL)

## INGREDIENT DATA

Not Available

## Exposure controls

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.

The basic types of engineering controls are:

Process controls which involve changing the way a job activity or process is done to reduce the risk. 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. Employers may need to use multiple types of controls to prevent employee overexposure.

General exhaust is adequate under normal operating conditions. Local exhaust ventilation may be required in specific circumstances. If risk of overexposure exists, wear approved respirator. Correct fit is essential to obtain adequate protection. Provide adequate ventilation in warehouse or closed storage areas. 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.

Type of Contaminant:

solvent, vapours, degreasing etc., evaporating from tank (in still air).	Air Speed: 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.)

Within each range the appropriate value depends on:

Lower end of the range

- 1: Room air currents minimal or favourable to capture
- 2: Contaminants of low toxicity or of nuisance value only.
- 3: Intermittent, low production.
- 4: Large hood or large air mass in motion

Upper end of the range

- 1: Disturbing room air currents
- 2: Contaminants of high toxicity
- 3: High production, heavy use
- 4: Small hood-local control only

Simple theory shows that air velocity falls rapidly with distance away from the opening of a simple extraction pipe. Velocity



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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 l/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.

## Personal protection



- \* Safety glasses with side shields.
- \* Chemical goggles.

## Eye and face protection

\* 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]

## Skin protection

See Hand protection below

## Hands/feet protection

- \* Wear chemical protective gloves, e.g. PVC.
- \* Wear safety footwear or safety gumboots, e.g. Rubber

## Body protection

See Other protection below

## Other protection

- \* Overalls.
- \* P.V.C apron.
- \* Barrier cream.
- \* Skin cleansing cream.
- \* Eye wash unit.

## Respiratory protection

Particulate. (AS/NZS 1716 & 1715, EN 143:2000 & 149:001, ANSI Z88 or national equivalent)

## SECTION 9 Physical and chemical properties

## Information on basic physical and chemical properties

Appearance	Gray Liquid Paste	Relative density (Water= 1)	1.75
Physical state	Free-flowing Paste	Partition coefficient n-octanol / water	Not Available
Odour	No odor	Auto-ignition temperature (°C)	Not Available
Odour threshold	Not Available	Decomposition temperature	Not Available
pH (as supplied)	Not Available	Viscosity (cSt)	11428.571
Melting point / freezing point (°C)	Not Available	Molecular weight (g/mol)	Not Available
Initial boiling point and boiling range (°C)	Not Available	Taste	Not Available
Flash point (°C)	>100	Explosive properties	Not Available
Evaporation rate	Not Available	Oxidising properties	Not Available
Flammability	Not Applicable	Surface Tension (dyn/cm or mN/m)	Not Available
Upper Explosive Limit (%)	Not Available	Volatile Component (%vol)	Not Available
Lower Explosive Limit (%)	Not Available	Gas group	Not Available
Vapour pressure (kPa)	Not Available	pH as a solution (1%)	Not Available
Solubility in water	Immiscible	VOC g/L	11
Vapour density (Air = 1)	<1		

**SECTION 10 Stability and reactivity**

<b>Reactivity</b>	See section 7
<b>Chemical stability</b>	Product is considered stable and hazardous polymerisation will not occur.
<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**

<b>Inhaled</b>	The material is not thought to produce adverse health effects or irritation of the respiratory tract. Nevertheless, good hygiene practice requires that exposure be kept to a minimum and that suitable control measures be used in an occupational setting.
<b>Ingestion</b>	The material has <b>NOT</b> been classified as 'harmful by ingestion'. This is because of the lack of corroborating animal or human evidence.
<b>Skin Contact</b>	Skin contact is not thought to have harmful health effects; the material may still produce health damage following entry through wounds, lesions or abrasions.
<b>Eye</b>	Direct contact with eyes may cause temporary irritation.
<b>Chronic</b>	Long-term exposure to the product is not thought to produce chronic effects adverse to the health; nevertheless exposure by all routes should be minimised as a matter of course. In 1997, IARC (the International Agency for Research on Cancer) concluded that crystalline silica inhaled from occupational sources can cause lung cancer in humans. However in making the overall evaluation, IARC noted that 'carcinogenicity was not detected in all industrial circumstances studied. Carcinogenicity may be dependent on inherent characteristics of the crystalline silica or on external factors affecting its biological activity or distribution of its polymorphs.' (IARC Monographs on the evaluation of the carcinogenic risks of chemicals to humans. Silica, silicates dust and organic fibres, 1997, Vol. 68, IARC, Lyon, France.)

<b>Acute Toxicity</b>	X	<b>Carcinogenicity</b>	X
<b>Skin Irritation/Corrosion</b>	X	<b>Reproductivity</b>	X
<b>Serious Eye Damage/Irritation</b>	X	<b>STOT - Single Exposure</b>	X
<b>Respiratory or Skin sensitisation</b>	X	<b>STOT - Repeated Exposure</b>	X
<b>Mutagenicity</b>	X	<b>Aspiration Hazard</b>	X

**Legend:** X - Data either not available or does not fill the criteria for classification  
 ✓ - Data available to make classification

**SECTION 12 Ecological information**

**Toxicity**

	Endpoint	Test Duration (hr)	Species	Value	Source
Gray Pipe Joint Compound	Not Available	Not Available	Not Available	Not Available	Not Available
calcium carbonate	Not Available	Not Available	Not Available	Not Available	Not Available
canola oil, polymerised, oxidised	Not Available	Not Available	Not Available	Not Available	Not Available

Gray Pipe Joint Compound

Endpoint	Test Duration (hr)	Species	Value	Source
silica crystalline - quartz	Not Available	Not Available	Not Available	Not Available
Distillates (petroleum), hydrotreated heavy naphthenic	ErC50	Algae or other aquatic plants	>1000mg/l	1
	NOEC(ECx)	Crustacea	>1mg/l	1
	EC50	Crustacea	>1000mg/l	1
	EC50	Algae or other aquatic plants	>1000mg/l	1

**Legend:** Extracted from 1. IUCLID Toxicity Data 2. Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicity 3. EPIWIN Suite V3.12 (QSAR) - 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

Harmful to aquatic organisms.

**Persistence and degradability**

Ingredient	Persistence: Water/Soil	Persistence: Air
	No Data available for all ingredients	No Data available for all ingredients

**Bioaccumulative potential**

Ingredient	Bioaccumulation
	No Data available for all ingredients

**Mobility in soil**

Ingredient	Mobility
	No Data available for all ingredients

**SECTION 13 Disposal considerations**

**Waste treatment methods**

- Product / Packaging disposal
  - Recycle wherever possible or consult manufacturer for recycling options.
  - Consult State Land Waste Management Authority for disposal.
  - Bury residue in an authorised landfill.
  - Recycle containers if possible, or dispose of in an authorised landfill.

**SECTION 14 Transport information**

**Labels Required**

Marine Pollutant | NO

- and transport (ADG): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS
- ir transport (ICAO-IATA / DGR): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS
- ea transport (IMDG-Code / GGVSee): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS
- ansport in bulk according to Annex II of MARPOL and the IBC code

**ansport in bulk in accordance with MARPOL Annex V and the IMSBC Code**

Product name	Group
alcium carbonate	Not Available
nola oil, polymerised, idised	Not Available



## Gray Pipe Joint Compound

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Product name	Group
silica crystalline - quartz	Not Available
Distillates (petroleum), hydrotreated heavy naphthenic	Not Available

**Transport in bulk in accordance with the ICG Code**

Product name	Ship Type
calcium carbonate	Not Available
canola oil, polymerised, oxidised	Not Available
silica crystalline - quartz	Not Available
Distillates (petroleum), hydrotreated heavy naphthenic	Not Available

**SECTION 15 Regulatory information****Safety, health and environmental regulations / legislation specific for the substance or mixture****calcium carbonate is found on the following regulatory lists**

US NIOSH Recommended Exposure Limits (RELs)  
US OSHA Permissible Exposure Limits (PELs) Table Z-1

US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory  
US TSCA Chemical Substance Inventory - Interim List of Active Substances

**canola oil, polymerised, oxidised is found on the following regulatory lists**

US List of Active Substances Exempt from the TSCA Inventory Notifications (Active-Inactive) Rule

US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory

**silica crystalline - quartz is found on the following regulatory lists**

Chemical Footprint Project - Chemicals of High Concern List  
International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs  
International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs - Group 1: Carcinogenic to humans  
US - California Proposition 65 - Carcinogens  
US - California Safe Drinking Water and Toxic Enforcement Act of 1986 - Proposition 65 List  
US ACGIH Threshold Limit Values (TLV)  
US ACGIH Threshold Limit Values (TLV) - Carcinogens  
US AIHA Workplace Environmental Exposure Levels (WEELs)

US DOE Temporary Emergency Exposure Limits (TEELs)  
US National Toxicology Program (NTP) 14th Report Part A Known to be Human Carcinogens  
US NIOSH Recommended Exposure Limits (RELs)  
US OSHA Carcinogens Listing  
US OSHA Permissible Exposure Limits (PELs) Table Z-3  
US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory  
US TSCA Chemical Substance Inventory - Interim List of Active Substances

**Distillates (petroleum), hydrotreated heavy naphthenic is found on the following regulatory lists**

Chemical Footprint Project - Chemicals of High Concern List  
International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs  
International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs - Group 1: Carcinogenic to humans  
US - California Proposition 65 - Carcinogens  
US - California Safe Drinking Water and Toxic Enforcement Act of 1986 - Proposition 65 List  
US ACGIH Threshold Limit Values (TLV)  
US ACGIH Threshold Limit Values (TLV) - Carcinogens

US AIHA Workplace Environmental Exposure Levels (WEELs)  
US DOE Temporary Emergency Exposure Limits (TEELs)  
US National Toxicology Program (NTP) 14th Report Part A Known to be Human Carcinogens  
US OSHA Permissible Exposure Limits (PELs) Table Z-1  
US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory  
US TSCA Chemical Substance Inventory - Interim List of Active Substances

**Federal Regulations****Superfund Amendments and Reauthorization Act of 1986 (SARA)****Section 311/312 hazard categories**

Flammable (Gases, Aerosols, Liquids, or Solids)

Compressed under pressure

Explosive

No

No

No


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Self-heating	No
Pyrophoric (Liquid or Solid)	No
Pyrophoric Gas	No
Corrosive to metal	No
Oxidizer (Liquid, Solid or Gas)	No
Organic Peroxide	No
Self-reactive	No
In contact with water emits flammable gas	No
Combustible Dust	No
Carcinogenicity	No
Acute toxicity (any route of exposure)	No
Reproductive toxicity	No
Skin Corrosion or Irritation	No
Respiratory or Skin Sensitization	No
Serious eye damage or eye irritation	No
Specific target organ toxicity (single or repeated exposure)	No
Aspiration Hazard	No
Germ cell mutagenicity	No
Simple Asphyxiant	No
Hazards Not Otherwise Classified	No
<b>US. EPA CERCLA Hazardous Substances and Reportable Quantities (40 CFR 302.4)</b>	No
None Reported	No

**State Regulations****US. California Proposition 65**

 **WARNING:** This product can expose you to chemicals including silica, crystalline, 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).

**US - California Proposition 65 - Carcinogens: Listed substance**  
silica crystalline - quartz Listed

**National Inventory Status**

National Inventory	Status
USA - TSCA	Yes

**Legend:**

Yes = All CAS declared ingredients are on the inventory  
No = One or more of the CAS listed ingredients are not on the inventory and are not exempt from listing (see specific ingredients in brackets)

**SECTION 16 Other information**

Revision Date	04/07/2021
Initial Date	03/29/2021

**Other information**

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**

C-TWA: Permissible Concentration-Time Weighted Average  
C-STEL: Permissible Concentration-Short Term Exposure Limit  
IARC: International Agency for Research on Cancer  
ACGIH: American Conference of Governmental Industrial Hygienists  
EL: Short Term Exposure Limit  
TEL: Temporary Emergency Exposure Limit

## Gray Pipe Joint Compound

IDLH: Immediately Dangerous to Life or Health Concentrations  
ES: Exposure Standard  
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  
AIIC: Australian Inventory of Industrial Chemicals  
DSL: Domestic Substances List  
NDSL: Non-Domestic Substances List  
IECSC: Inventory of Existing Chemical Substance in China  
EINECS: European INventory of Existing Commercial chemical Substances  
ELINCS: European List of Notified Chemical Substances  
NLP: No-Longer Polymers  
ENCS: Existing and New Chemical Substances Inventory  
KECI: Korea Existing Chemicals Inventory  
NZIoC: New Zealand Inventory of Chemicals  
PICCS: Philippine Inventory of Chemicals and Chemical Substances  
TSCA: Toxic Substances Control Act  
TCSI: Taiwan Chemical Substance Inventory  
INSQ: Inventario Nacional de Sustancias Químicas  
NCI: National Chemical Inventory  
FBEPH: Russian Register of Potentially Hazardous Chemical and Biological Substances





# Oatey All Purpose Pipe Lubricant

Oatey Co.

Version No: 1.2

Safety Data Sheet according to OSHA HazCom Standard (2012) requirements

Issue Date: 12/07/2021

Print Date: 12/07/2021

S.GHS.U.S.A.EN

## SECTION 1 Identification

### Product Identifier

Product name	Oatey All Purpose Pipe Lubricant
Synonyms	Not Available
Other means of identification	30599, 30600, 30601, 30605

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

Relevant identified uses	Lubricant
--------------------------	-----------

### Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party

Registered company name	Oatey Co.
Address	20600 Emerald Parkway, Cleveland, OH 44135 United States Ohio 44135 United States
Telephone	216-267-7100
Fax	Not Available
Website	<a href="http://oatey.com">oatey.com</a>
Email	<a href="mailto:info@oatey.com">info@oatey.com</a>

### Emergency phone number

Association / Organisation	Chemtrec
Emergency telephone numbers	1-800-424-9300 (Outside the US 1-703-527-3887)
Other emergency telephone numbers	1-877-740-5015 (Emergency First Aid)

## SECTION 2 Hazard(s) identification

### Classification of the substance or mixture

Classification	Serious Eye Damage/Eye Irritation Category 2B
----------------	---

### Label elements

Hazard pictogram(s)	Not Applicable
---------------------	----------------

Signal word	Warning
-------------	---------

### Hazard statement(s)

	Causes eye irritation.
--	------------------------

## Oatey All Purpose Pipe Lubricant

**Hazard(s) not otherwise classified**

Not Applicable

**Precautionary statement(s) Prevention**

Wash all exposed external body areas thoroughly after handling.

**Precautionary statement(s) 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.

**Precautionary statement(s) Storage**

Not Applicable

**Precautionary statement(s) Disposal**

Not Applicable

**SECTION 3 Composition / information on ingredients****Substances**

See section below for composition of Mixtures

**Mixtures**

CAS No	%[weight]	Name
68606-06-4	15-25	<u>fatty acids, vegetable oil, potassium sodium salts</u>

The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret.

**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>	Wash off immediately with soap and water. If skin irritation persists, call a physician.
<b>Inhalation</b>	Move to fresh air. If symptoms persist, call a physician.
<b>Ingestion</b>	Do NOT induce vomiting. Drink plenty of water. Rinse mouth. Never give anything by mouth to an unconscious person. Call a physician or poison control center immediately.

**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 6 Fire-fighting measures****Extinguishing media**

- Water spray or fog.
- Foam.
- Dry chemical powder.
- BCF (where regulations permit).
- Carbon dioxide.

CAUTION: Use of water spray when fighting fire may be inefficient.

Continued...

## Oatey All Purpose Pipe Lubricant

**Special hazards arising from the substrate or mixture****Fire Incompatibility**

- Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may result

**Special protective equipment and precautions for fire-fighters****Fire Fighting**

- Alert Fire Department and tell them location and nature of hazard.
- Wear full body protective clothing with breathing apparatus.
- Prevent, by any means available, spillage from entering drains or water course.
- Use water delivered as a fine spray to control fire and cool adjacent area.
- Avoid spraying water onto liquid pools.
- **DO NOT** approach containers suspected to be hot.
- Cool fire exposed containers with water spray from a protected location.
- If safe to do so, remove containers from path of fire.

**Fire/Explosion Hazard**

- Slight fire hazard when exposed to heat or flame.
  - Heating may cause expansion or decomposition leading to violent rupture of containers.
  - On combustion, may emit toxic fumes of carbon monoxide (CO).
  - May emit acrid smoke.
  - Mists containing combustible materials may be explosive.
- Combustion products include:  
carbon dioxide (CO<sub>2</sub>)  
other pyrolysis products typical of burning organic material.  
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****Minor Spills**

- Clean up all spills immediately.
- Avoid breathing vapours and contact with skin and eyes.
- Control personal contact with the substance, by using protective equipment.
- Contain and absorb spill with sand, earth, inert material or vermiculite.
- Wipe up.
- Place in a suitable, labelled container for waste disposal.

**Major Spills**

Moderate hazard.

- Clear area of personnel and move upwind.
- Alert Fire Department and tell them location and nature of hazard.
- Wear breathing apparatus plus protective gloves.
- Prevent, by any means available, spillage from entering drains or water course.
- No smoking, naked lights or ignition sources.
- Increase ventilation.
- Stop leak if safe to do so.
- Contain spill with sand, earth or vermiculite.
- Collect recoverable product into labelled containers for recycling.
- Absorb remaining product with sand, earth or vermiculite.
- Collect solid residues and seal in labelled drums for disposal.
- Wash area and prevent runoff into drains.
- If contamination of drains or waterways occurs, advise emergency services.

Personal Protective Equipment advice is contained in Section 8 of the SDS.

**SECTION 7 Handling and storage****Precautions for safe handling****Safe handling**

- Avoid all personal contact, including inhalation.
- Wear protective clothing when risk of exposure occurs.
- Use in a well-ventilated area.

Continued...



## Oatey All Purpose Pipe Lubricant

## Other information

- Prevent concentration in hollows and sumps.
  - **DO NOT** enter confined spaces until atmosphere has been checked.
  - Avoid smoking, naked lights or ignition sources.
  - Avoid contact with incompatible materials.
  - When handling, **DO NOT** eat, drink or smoke.
  - Keep containers securely sealed when not in use.
  - Avoid physical damage to containers.
  - Always wash hands with soap and water after handling.
  - Work clothes should be laundered separately.
  - Use good occupational work practice.
  - Observe manufacturer's storage and handling recommendations contained within this SDS.
  - Atmosphere should be regularly checked against established exposure standards to ensure safe working conditions.
- 
- Store in original containers.
  - Keep containers securely sealed.
  - No smoking, naked lights or ignition sources.
  - Store in a cool, dry, well-ventilated area.
  - Store away from incompatible materials and foodstuff containers.
  - Protect containers against physical damage and check regularly for leaks.
  - Observe manufacturer's storage and handling recommendations contained within this SDS.

## Conditions for safe storage, including any incompatibilities

## Suitable container

- Metal can or drum
- Packaging as recommended by manufacturer.
- Check all containers are clearly labelled and free from leaks.

## Storage incompatibility

- Avoid reaction with oxidising agents

## SECTION 8 Exposure controls / personal protection

## Control parameters

## Occupational Exposure Limits (OEL)

## INGREDIENT DATA

Not Available

## Exposure controls

## Appropriate engineering controls

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.

The basic types of engineering controls are:

Process controls which involve changing the way a job activity or process is done to reduce the risk.

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.

Employers may need to use multiple types of controls to prevent employee overexposure.

General exhaust is adequate under normal operating conditions. Local exhaust ventilation may be required in specific circumstances. If risk of overexposure exists, wear approved respirator. Correct fit is essential to obtain adequate protection. Provide adequate ventilation in warehouse or closed storage areas. 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.

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.)

Within each range the appropriate value depends on:

Continued...

## Oatey All Purpose Pipe Lubricant

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

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.

## Personal protection



## Eye and face protection

- Safety glasses with side shields.
- Chemical goggles.
- 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]

## Skin protection

See Hand protection below

## Hands/feet protection

- Wear chemical protective gloves, e.g. PVC.
- Wear safety footwear or safety gumboots, e.g. Rubber

## Body protection

See Other protection below

## Other protection

- Overalls.
- P.V.C apron.
- Barrier cream.
- Skin cleansing cream.
- Eye wash unit.

## Respiratory protection

No special protective equipment required. If respirators are used, OSHA requires a written respiratory program that includes at least: medical certification training, fit testing, periodic environmental monitoring, maintenance, inspection, cleaning, and convenient, sanitary storage areas.

## SECTION 9 Physical and chemical properties

## Information on basic physical and chemical properties

Appearance	Off-White Paste		
Physical state	Liquid	Relative density (Water = 1)	1.2
Odour	Bland	Partition coefficient n-octanol / water	Not Available
Odour threshold	Not Available	Auto-ignition temperature (°C)	Not Available
pH (as supplied)	-9	Decomposition temperature	Not Available
Melting point / freezing point (°C)	<0	Viscosity (cSt)	Not Available
Initial boiling point and boiling range (°C)	>104	Molecular weight (g/mol)	Not Available
Flash point (°C)	>104	Taste	Not Available

Continued...

## Oatey All Purpose Pipe Lubricant

Evaporation rate	Not Available	Explosive properties	Not Available
Flammability	Not Applicable	Oxidising properties	Not Available
Upper Explosive Limit (%)	Not Available	Surface Tension (dyn/cm or mN/m)	Not Available
Lower Explosive Limit (%)	Not Available	Volatile Component (%vol)	Not Available
Vapour pressure (kPa)	Not Available	Gas group	Not Available
Solubility in water	Miscible	pH as a solution (%)	5
Vapour density (Air = 1)	Not Available	VOC (%)	<5

## SECTION 10 Stability and reactivity

Reactivity	Not reactive under normal conditions of use.
Chemical stability	<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>
Possibility of hazardous reactions	None expected under normal conditions of storage and use.
Conditions to avoid	Contact with incompatible materials.
Incompatible materials	See section 7
Hazardous decomposition products	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. Nevertheless, good hygiene practice requires that exposure be kept to a minimum and that suitable control measures be used in an occupational setting.
Ingestion	Do not taste or swallow.
Skin Contact	May cause mild skin irritation.
Eye	There is some evidence to suggest that this material can cause eye irritation and damage in some persons.
Chronic	Long-term exposure to the product is not thought to produce chronic effects adverse to the health; nevertheless exposure by all routes should be minimised as a matter of course.

Acute Toxicity	✘	Carcinogenicity	✘
Skin Irritation/Corrosion	✘	Reproductivity	✘
Serious Eye Damage/Irritation	✔	STOT - Single Exposure	✘
Respiratory or Skin sensitisation	✘	STOT - Repeated Exposure	✘
Mutagenicity	✘	Aspiration Hazard	✘

**Legend:** ✘ – Data either not available or does not fill the criteria for classification  
 ✔ – Data available to make classification

## SECTION 12 Ecological information

## Toxicity

Oatey All Purpose Pipe Lubricant	Endpoint	Test Duration (hr)	Species	Value	Source
	Not Available	Not Available	Not Available	Not Available	Not Available

Continued...



## Oatey All Purpose Pipe Lubricant

fatty acids, vegetable oil, potassium sodium salts	Endpoint	Test Duration (hr)	Species	Value	Source
	Not Available	Not Available	Not Available	Not Available	Not Available

**Legend:** *Extracted from 1. IUCLID Toxicity Data 2. Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicity 3. EPIWIN Suite V3.12 (QSAR) - 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*

**Persistence and degradability**

Ingredient	Persistence: Water/Soil	Persistence: Air
	No Data available for all ingredients	No Data available for all ingredients

**Bioaccumulative potential**

Ingredient	Bioaccumulation
	No Data available for all ingredients

**Mobility in soil**

Ingredient	Mobility
	No Data available for all ingredients

**SECTION 13 Disposal considerations****Waste treatment methods****Product / Packaging disposal**

- **DO NOT** allow wash water from cleaning or process equipment to enter drains.
- It may be necessary to collect all wash water for treatment before disposal.
- In all cases disposal to sewer may be subject to local laws and regulations and these should be considered first.
- Where in doubt contact the responsible authority.
- Recycle wherever possible or consult manufacturer for recycling options.
- Consult State Land Waste Authority for disposal.
- Bury or incinerate residue at an approved site.
- Recycle containers if possible, or dispose of in an authorised landfill.

**SECTION 14 Transport information****Labels Required**

Marine Pollutant	NO
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**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

**Transport in bulk in accordance with MARPOL Annex V and the IMSBC Code**

Product name	Group
fatty acids, vegetable oil, potassium sodium salts	Not Available

**Transport in bulk in accordance with the ICG Code**

Product name	Ship Type
fatty acids, vegetable oil, potassium sodium salts	Not Available

Continued...

## Oatey All Purpose Pipe Lubricant

**SECTION 15 Regulatory information****Safety, health and environmental regulations / legislation specific for the substance or mixture**

fatty acids, vegetable oil, potassium sodium salts is found on the following regulatory lists

US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory

**Federal Regulations****Superfund Amendments and Reauthorization Act of 1986 (SARA)****Section 311/312 hazard categories**

Flammable (Gases, Aerosols, Liquids, or Solids)	No
Gas under pressure	No
Explosive	No
Self-heating	No
Pyrophoric (Liquid or Solid)	No
Pyrophoric Gas	No
Corrosive to metal	No
Oxidizer (Liquid, Solid or Gas)	No
Organic Peroxide	No
Self-reactive	No
In contact with water emits flammable gas	No
Combustible Dust	No
Carcinogenicity	No
Acute toxicity (any route of exposure)	No
Reproductive toxicity	No
Skin Corrosion or Irritation	No
Respiratory or Skin Sensitization	No
Serious eye damage or eye irritation	No
Specific target organ toxicity (single or repeated exposure)	No
Aspiration Hazard	No
Germ cell mutagenicity	No
Simple Asphyxiant	No
Hazards Not Otherwise Classified	No

**US. EPA CERCLA Hazardous Substances and Reportable Quantities (40 CFR 302.4)**

None Reported

**State Regulations****US. California Proposition 65**

None Reported

**National Inventory Status**

National Inventory	Status
USA - TSCA	Yes

*Yes = All CAS declared ingredients are on the inventory*

**Legend:** *No = One or more of the CAS listed ingredients are not on the inventory. These ingredients may be exempt or will require registration.*

**SECTION 16 Other information**

Revision Date 12/07/2021

Initial Date 11/24/2021

Continued...

## Other information

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  
ES: Exposure Standard  
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  
AIIC: Australian Inventory of Industrial Chemicals  
DSL: Domestic Substances List  
NDSL: Non-Domestic Substances List  
IECSC: Inventory of Existing Chemical Substance in China  
EINECS: European INventory of Existing Commercial chemical Substances  
ELINCS: European List of Notified Chemical Substances  
NLP: No-Longer Polymers  
ENCS: Existing and New Chemical Substances Inventory  
KECI: Korea Existing Chemicals Inventory  
NZIoC: New Zealand Inventory of Chemicals  
PICCS: Philippine Inventory of Chemicals and Chemical Substances  
TSCA: Toxic Substances Control Act  
TCSI: Taiwan Chemical Substance Inventory  
INSQ: Inventario Nacional de Sustancias Químicas  
NCI: National Chemical Inventory  
FBEPH: Russian Register of Potentially Hazardous Chemical and Biological Substances



# Hercules Gripp

## HCC Holdings, Inc. an Oatey Affiliate

Version No: 1.2

Safety Data Sheet according to OSHA HazCom Standard (2012) requirements

Issue Date: **05/17/2023**

Print Date: **05/17/2023**

S.GHS,USA.EN

### SECTION 1 Identification

#### Product Identifier

Product name	Hercules Gripp
Synonyms	Not Available
Other means of identification	15510, 15515, 15520, 15525

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

Relevant identified uses	Pipe thread sealant
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#### Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party

Registered company name	HCC Holdings, Inc. an Oatey Affiliate
Address	4700 West 160th Street Cleveland, OH 44135 United States
Telephone	216-267-7100
Fax	Not Available
Website	Not Available
Email	info@oatey.com

#### Emergency phone number

Association / Organisation	Chemtrec
Emergency telephone numbers	1-800-424-9300 (Outside the US 1-703-527-3887)
Other emergency telephone numbers	Emergency First Aid: 1-877-740-5015

### SECTION 2 Hazard(s) Identification

#### Classification of the substance or mixture

Classification	Serious Eye Damage/Eye Irritation Category 2A, Flammable Liquids Category 4, Sensitisation (Skin) Category 1
----------------	--

#### Label elements

Hazard pictogram(s)





Signal word **Warning****Hazard statement(s)**

Causes serious eye irritation.  
 Combustible liquid.  
 May cause an allergic skin reaction.

**Hazard(s) not otherwise classified**

Frequent or prolonged contact may defat and dry the skin leading to discomfort and dermatitis. Static accumulating flammable liquid can become electrostatically charged even in bonded and grounded equipment. Sparks may ignite liquid and vapor. May cause flash fire or explosion.

**Precautionary statement(s) Prevention**

Keep away from flames and hot surfaces. – No smoking.  
 Avoid breathing mist/vapours/spray.  
 Wear protective gloves, protective clothing, eye protection and face protection.  
 Wash all exposed external body areas thoroughly after handling.  
 Contaminated work clothing must not be allowed out of the workplace.

**Precautionary statement(s) Response**

In case of fire: Use alcohol resistant foam or normal protein foam to extinguish.  
 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 advice/attention.  
 If eye irritation persists: Get medical advice/attention.  
 Wash contaminated clothing before reuse.

**Precautionary statement(s) Storage**

Store in a well-ventilated place. Keep cool.

**Precautionary statement(s) Disposal**

Dispose of contents/container to authorised hazardous or special waste collection point in accordance with any local regulation.

**SECTION 3 Composition / information on ingredients****Substances**

See section below for composition of Mixtures

**Mixtures**

CAS No	%[weight]	Name
67-63-0	10-20	<u>isopropanol</u>
112945-52-5	1-5	<u>silica amorphous</u>
Not Available	15-25	Rosin
14808-60-7*	<0.1	<u>silica crystalline - quartz</u>
14807-96-6*	15-25	<u>Talc</u>
7782-42-5	1-5	<u>graphite, natural</u>

The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret.

**SECTION 4 First-aid measures****Description of first aid measures****Eye Contact**

If this product comes in contact with the eyes:

- Wash out immediately with fresh running water.
- Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally

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	<ul style="list-style-type: none"> <li>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 or combustion products are inhaled remove from contaminated area.</li> <li>▸ Lay patient down. Keep warm and rested.</li> <li>▸ Prostheses such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures.</li> <li>▸ Apply artificial respiration if not breathing, preferably with a demand valve resuscitator, bag-valve mask device, or pocket mask as trained. Perform CPR if necessary.</li> <li>▸ Transport to hospital, or doctor, without delay.</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> <li>▸ If spontaneous vomiting appears imminent or occurs, hold patient's head down, lower than their hips to help avoid possible aspiration of vomitus.</li> </ul>

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

See Section 11

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

Any material aspirated during vomiting may produce lung injury. Therefore emesis should not be induced mechanically or pharmacologically. Mechanical means should be used if it is considered necessary to evacuate the stomach contents; these include gastric lavage after endotracheal intubation. If spontaneous vomiting has occurred after ingestion, the patient should be monitored for difficult breathing, as adverse effects of aspiration into the lungs may be delayed up to 48 hours. Treat symptomatically.

For acute or short term repeated exposures to isopropanol:

- Rapid onset respiratory depression and hypotension indicates serious ingestions that require careful cardiac and respiratory monitoring together with immediate intravenous access.
- Rapid absorption precludes the usefulness of emesis or lavage 2 hours post-ingestion. Activated charcoal and cathartics are not clinically useful. Ipecac is most useful when given 30 mins. post-ingestion.
- There are no antidotes.
- Management is supportive. Treat hypotension with fluids followed by vasopressors.
- Watch closely, within the first few hours for respiratory depression; follow arterial blood gases and tidal volumes.
- Ice water lavage and serial haemoglobin levels are indicated for those patients with evidence of gastrointestinal bleeding.

## SECTION 5 Fire-fighting measures

### Extinguishing media

- Alcohol stable foam.
- Dry chemical powder.
- BCF (where regulations permit).
- Carbon dioxide.
- Water spray or fog - Large fires only.

### Special hazards arising from the substrate or mixture

#### Fire Incompatibility

- Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may result

### Special protective equipment and precautions for fire-fighters

#### Fire Fighting

- When silica dust is dispersed in air, firefighters should wear inhalation protection as hazardous substances from the fire may be adsorbed on the silica particles.
- When heated to extreme temperatures, (>1700 deg.C) amorphous silica can fuse.
- Alert Fire Department and tell them location and nature of hazard.
- Wear full body protective clothing with breathing apparatus.
- Prevent, by any means available, spillage from entering drains or water course.
- Use water delivered as a fine spray to control fire and cool adjacent area.
- Avoid spraying water onto liquid pools.
- **DO NOT** approach containers suspected to be hot.
- Cool fire exposed containers with water spray from a protected location.
- If safe to do so, remove containers from path of fire.

**Fire/Explosion Hazard**

- WARNING:** In use may form flammable/ explosive vapour-air mixtures.
- When silica dust is dispersed in air, firefighters should wear inhalation protection as hazardous substances from the fire may be adsorbed on the silica particles.
  - When heated to extreme temperatures, (>1700 deg.C) amorphous silica can fuse.
  - Combustible.
  - Slight fire hazard when exposed to heat or flame.
  - Heating may cause expansion or decomposition leading to violent rupture of containers.
  - On combustion, may emit toxic fumes of carbon monoxide (CO).
  - May emit acrid smoke.
  - Mists containing combustible materials may be explosive.
- Combustion products include:  
 carbon dioxide (CO<sub>2</sub>)  
 silicon dioxide (SiO<sub>2</sub>)  
 other pyrolysis products typical of burning organic material.  
 May emit poisonous fumes.  
 May emit corrosive fumes.
- WARNING:** Long standing in contact with air and light may result in the formation of potentially explosive peroxides.

**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****Minor Spills**

- Remove all ignition sources.
- Clean up all spills immediately.
- Avoid breathing vapours and contact with skin and eyes.
- Control personal contact with the substance, by using protective equipment.
- Contain and absorb spill with sand, earth, inert material or vermiculite.
- Wipe up.
- Place in a suitable, labelled container for waste disposal.

**Major Spills**

- Moderate hazard.
- Clear area of personnel and move upwind.
  - Alert Fire Department and tell them location and nature of hazard.
  - Wear breathing apparatus plus protective gloves.
  - Prevent, by any means available, spillage from entering drains or water course.
  - No smoking, naked lights or ignition sources.
  - Increase ventilation.
  - Stop leak if safe to do so.
  - Contain spill with sand, earth or vermiculite.
  - Collect recoverable product into labelled containers for recycling.
  - Absorb remaining product with sand, earth or vermiculite.
  - Collect solid residues and seal in labelled drums for disposal.
  - Wash area and prevent runoff into drains.
  - If contamination of drains or waterways occurs, advise emergency services.

Personal Protective Equipment advice is contained in Section 8 of the SDS.

**SECTION 7 Handling and storage****Precautions for safe handling****Safe handling**

- Avoid all personal contact, including inhalation.
- Wear protective clothing when risk of exposure occurs.
- Use in a well-ventilated area.
- Prevent concentration in hollows and sumps.
- **DO NOT** enter confined spaces until atmosphere has been checked.
- Avoid smoking, naked lights or ignition sources.
- Avoid contact with incompatible materials.
- When handling, **DO NOT** eat, drink or smoke.
- Keep containers securely sealed when not in use.
- Avoid physical damage to containers.

## Hercules Gripp

## Other information

- Always wash hands with soap and water after handling.
  - Work clothes should be laundered separately.
  - Use good occupational work practice.
  - Observe manufacturer's storage and handling recommendations contained within this SDS.
  - Atmosphere should be regularly checked against established exposure standards to ensure safe working conditions.
  - **DO NOT** allow clothing wet with material to stay in contact with skin
- 
- Store in original containers.
  - Keep containers securely sealed.
  - No smoking, naked lights or ignition sources.
  - Store in a cool, dry, well-ventilated area.
  - Store away from incompatible materials and foodstuff containers.
  - Protect containers against physical damage and check regularly for leaks.
  - Observe manufacturer's storage and handling recommendations contained within this SDS.

## Conditions for safe storage, including any incompatibilities

## Suitable container

- Metal can or drum
- Packaging as recommended by manufacturer.
- Check all containers are clearly labelled and free from leaks.

## Isopropanol (syn: isopropyl alcohol, IPA):

- forms ketones and unstable peroxides on contact with air or oxygen; the presence of ketones especially methyl ethyl ketone (MEK, 2-butanone) will accelerate the rate of peroxidation
- reacts violently with strong oxidisers, powdered aluminium (exothermic), crotonaldehyde, diethyl aluminium bromide (ignition), dioxygenyl tetrafluoroborate (ignition/ ambient temperature), chromium trioxide (ignition), potassium-tert-butoxide (ignition), nitroform (possible explosion), oleum (pressure increased in closed container), cobalt chloride, aluminium trisopropoxide, hydrogen plus palladium dust (ignition), oxygen gas, phosgene, phosgene plus iron salts (possible explosion), sodium dichromate plus sulfuric acid (exothermic/ incandescence), triisobutyl aluminium
- reacts with phosphorus trichloride forming hydrogen chloride gas
- reacts, possibly violently, with alkaline earth and alkali metals, strong acids, strong caustics, acid anhydrides, halogens, aliphatic amines, aluminium isopropoxide, isocyanates, acetaldehyde, barium perchlorate (forms highly explosive perchloric ester compound), benzoyl peroxide, chromic acid, dialkylzincs, dichlorine oxide, ethylene oxide (possible explosion), hexamethylene diisocyanate (possible explosion), hydrogen peroxide (forms explosive compound), hypochlorous acid, isopropyl chlorocarbonate, lithium aluminium hydride, lithium tetrahydroaluminate, nitric acid, nitrogen dioxide, nitrogen tetraoxide (possible explosion), pentafluoroguanidine, perchloric acid (especially hot), permonosulfuric acid, phosphorus pentasulfide, tangerine oil, triethylaluminium, triisobutylaluminium, trinitromethane
- attacks some plastics, rubber and coatings
- reacts with metallic aluminium at high temperature
- may generate electrostatic charges

## Storage incompatibility

## Alcohols

- are incompatible with strong acids, acid chlorides, acid anhydrides, oxidising and reducing agents.
- reacts, possibly violently, with alkaline metals and alkaline earth metals to produce hydrogen
- react with strong acids, strong caustics, aliphatic amines, isocyanates, acetaldehyde, benzoyl peroxide, chromic acid, chromium oxide, dialkylzincs, dichlorine oxide, ethylene oxide, hypochlorous acid, isopropyl chlorocarbonate, lithium tetrahydroaluminate, nitrogen dioxide, pentafluoroguanidine, phosphorus halides, phosphorus pentasulfide, tangerine oil, triethylaluminium, triisobutylaluminium
- should not be heated above 49 deg. C. when in contact with aluminium equipment

## Silicas:

- react with hydrofluoric acid to produce silicon tetrafluoride gas
- react with xenon hexafluoride to produce explosive xenon trioxide
- reacts exothermically with oxygen difluoride, and explosively with chlorine trifluoride (these halogenated materials are not commonplace industrial materials) and other fluorine-containing compounds
- may react with fluorine, chlorates
- are incompatible with strong oxidisers, manganese trioxide, chlorine trioxide, strong alkalis, metal oxides, concentrated orthophosphoric acid, vinyl acetate
- may react vigorously when heated with alkali carbonates.
- Avoid strong acids, bases.

## SECTION 8 Exposure controls / personal protection

## Control parameters

## Occupational Exposure Limits (OEL)

## INGREDIENT DATA

Source	Ingredient	Material name	TWA	STEL	Peak	Notes
US OSHA Permissible Exposure Limits (PELs) Table Z-1	isopropanol	Isopropyl alcohol	400 ppm / 980 mg/m3	Not Available	Not Available	Not Available

Continued...



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Source	Ingredient	Material name	TWA	STEL	Peak	Notes
US NIOSH Recommended Exposure Limits (RELs)	isopropanol	Isopropyl alcohol	400 ppm / 980 mg/m3	1225 mg/m3 / 500 ppm	Not Available	Not Available
US OSHA Permissible Exposure Limits (PELs) Table Z-1	silica amorphous	Particulates Not Otherwise Regulated (PNOR)- Total dust	15 mg/m3	Not Available	Not Available	Not Available
US OSHA Permissible Exposure Limits (PELs) Table Z-1	silica amorphous	Particulates Not Otherwise Regulated (PNOR)- Respirable fraction	5 mg/m3	Not Available	Not Available	Not Available
US OSHA Permissible Exposure Limits (PELs) Table Z-3	silica amorphous	Amorphous, including natural diatomaceous earth	80 (%SiO2) mg/m3 / 20 mppcf	Not Available	Not Available	Not Available
US NIOSH Recommended Exposure Limits (RELs)	silica amorphous	Silica, amorphous	6 mg/m3	Not Available	Not Available	Not Available
US OSHA Permissible Exposure Limits (PELs) Table Z-1	silica crystalline - quartz	Quartz - respirable	0.05 mg/m3	Not Available	Not Available	Not Available
US OSHA Permissible Exposure Limits (PELs) Table Z-3	silica crystalline - quartz	Silica: Crystalline: Quartz (Respirable)	10 (%SiO2+2) mg/m3 / 250 (%SiO2+5) mppcf	Not Available	Not Available	Not Available
US NIOSH Recommended Exposure Limits (RELs)	silica crystalline - quartz	Silica, crystalline (as respirable dust)	0.05 mg/m3	Not Available	Not Available	Ca; See Appendix A
US OSHA Permissible Exposure Limits (PELs) Table Z-1	Talc	Particulates Not Otherwise Regulated (PNOR)- Respirable fraction	5 mg/m3	Not Available	Not Available	Not Available
US OSHA Permissible Exposure Limits (PELs) Table Z-1	Talc	Particulates Not Otherwise Regulated (PNOR)- Total dust	15 mg/m3	Not Available	Not Available	Not Available
US OSHA Permissible Exposure Limits (PELs) Table Z-3	Talc	Silicates (less than 1% crystalline silica): Soapstone	20 mppcf	Not Available	Not Available	Not Available
US OSHA Permissible Exposure Limits (PELs) Table Z-3	Talc	Silicates (less than 1% crystalline silica): Talc (not containing asbestos)	20 mppcf	Not Available	Not Available	Not Available
US NIOSH Recommended Exposure Limits (RELs)	Talc	Talc (containing no asbestos and less than 1% quartz) - respirable	2 mg/m3	Not Available	Not Available	Not Available
US OSHA Permissible Exposure Limits (PELs) Table Z-1	graphite, natural	Graphite, synthetic- Respirable Fraction	5 mg/m3	Not Available	Not Available	Not Available
US OSHA Permissible Exposure Limits (PELs) Table Z-1	graphite, natural	Graphite, synthetic- Total dust	15 mg/m3	Not Available	Not Available	Not Available
US OSHA Permissible Exposure Limits (PELs) Table Z-3	graphite, natural	Graphite (Natural)	15 mppcf	Not Available	Not Available	Not Available
US NIOSH Recommended Exposure Limits (RELs)	graphite, natural	Graphite (natural)	2.5 mg/m3	Not Available	Not Available	Not Available

## Exposure controls

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.

The basic types of engineering controls are:

Process controls which involve changing the way a job activity or process is done to reduce the risk.

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. Employers may need to use multiple types of controls to prevent employee overexposure.

General exhaust is adequate under normal operating conditions. Local exhaust ventilation may be required in special circumstances. If risk of overexposure exists, wear approved respirator. Supplied-air type respirator may be required in special circumstances. Correct fit is essential to ensure adequate protection. Provide adequate ventilation in warehouses and enclosed storage areas. 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.

## Appropriate engineering controls

## Hercules Grrip

Type of Contaminant:	Air Speed:
solvent, vapours, degreasing etc. . evaporating from tank (in still air).	0.25-0.5 m/s (50-100 l/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 l/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 l/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 l/min.)

Within each range the appropriate value depends on.

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

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 l/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.

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



**Eye and face protection**

- Safety glasses with side shields.
- Chemical goggles.
- 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]

**Skin protection**

See Hand protection below

- Wear chemical protective gloves, e.g. PVC
- Wear safety footwear or safety gumboots, e.g. Rubber

**NOTE:**

**Hands/feet protection**

- 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.
- Contaminated leather items, such as shoes, belts and watch-bands should be removed and destroyed.
- When handling hot materials wear heat resistant, elbow length gloves.
- Rubber gloves are not recommended when handling hot objects, materials
- Protective gloves eg, Leather gloves or gloves with Leather facing

**Body protection**

See Other protection below

**Other protection**

- Overalls.
- P.V.C apron.
- Barrier cream.
- Skin cleansing cream.
- Eye wash unit.

**Respiratory protection**

Type A-P Filter of sufficient capacity. (AS/NZS 1716 & 1715. EN 143:2000 & 149:2001, ANSI Z88 or national equivalent)

## Hercules Gripp

- Cartridge respirators should never be used for emergency ingress or in areas of unknown vapour concentrations or oxygen content.
- The wearer must be warned to leave the contaminated area immediately on detecting any odours through the respirator. The odour may indicate that the mask is not functioning properly, that the vapour concentration is too high, or that the mask is not properly fitted. Because of these limitations, only restricted use of cartridge respirators is considered appropriate.
- Cartridge performance is affected by humidity. Cartridges should be changed after 2 hr of continuous use unless it is determined that the humidity is less than 75%, in which case, cartridges can be used for 4 hr. Used cartridges should be discarded daily, regardless of the length of time used

## SECTION 9 Physical and chemical properties

## Information on basic physical and chemical properties

<b>Appearance</b>	Black Liquid Paste		
<b>Physical state</b>	Liquid	<b>Relative density (Water = 1)</b>	1.29
<b>Odour</b>	Alcohol	<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>	Not Available	<b>Decomposition temperature (°C)</b>	Not Available
<b>Melting point / freezing point (°C)</b>	Not Available	<b>Viscosity (cSt)</b>	7751.938
<b>Initial boiling point and boiling range (°C)</b>	Not Available	<b>Molecular weight (g/mol)</b>	Not Available
<b>Flash point (°C)</b>	79.4	<b>Taste</b>	Not Available
<b>Evaporation rate</b>	Not Available	<b>Explosive properties</b>	Not Available
<b>Flammability</b>	Combustible.	<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>	4.40	<b>Gas group</b>	Not Available
<b>Solubility in water</b>	Partly miscible	<b>pH as a solution (1%)</b>	Not Available
<b>Vapour density (Air = 1)</b>	Not Available	<b>VOC g/L</b>	186

## 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

<b>Inhaled</b>	The material has <b>NOT</b> been classified as 'harmful by inhalation'. This is because of the lack of corroborating animal or human evidence.
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Continued...

Hercules Gripp

<b>Ingestion</b>	<p>The odour of isopropanol may give some warning of exposure, but odour fatigue may occur. Inhalation of isopropanol may produce irritation of the nose and throat with sneezing, sore throat and runny nose.</p> <p>The material has <b>NOT</b> been classified as 'harmful by ingestion'. This is because of the lack of corroborating animal or human evidence.</p> <p>Overexposure to non-ring alcohols causes nervous system symptoms. These include headache, muscle weakness and inco-ordination, giddiness, confusion, delirium and coma.</p>
<b>Skin Contact</b>	<p>The material is not thought to produce adverse health effects or skin irritation following contact. Nevertheless, good hygiene practice requires that exposure be kept to a minimum and that suitable gloves be used in an occupational setting.</p> <p>Open cuts, abraded or irritated skin should not be exposed to this material</p> <p>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.</p>
<b>Eye</b>	<p>Causes serious eye irritation.</p>
<b>Chronic</b>	<p>In 1997, IARC (the International Agency for Research on Cancer) concluded that crystalline silica inhaled from occupational sources can cause lung cancer in humans. However in making the overall evaluation, IARC noted that 'carcinogenicity was not detected in all industrial circumstances studied. Carcinogenicity may be dependent on inherent characteristics of the crystalline silica or on external factors affecting its biological activity or distribution of its polymorphs.' (IARC Monographs on the evaluation of the carcinogenic risks of chemicals to humans, Silica, silicates dust and organic fibres, 1997, Vol. 68, IARC, Lyon, France.)</p> <p>Skin contact with the material is more likely to cause a sensitisation reaction in some persons compared to the general population.</p> <p>This material can cause serious damage if one is exposed to it for long periods. It can be assumed that it contains a substance which can produce severe defects.</p> <p>Substance accumulation, in the human body, may occur and may cause some concern following repeated or long-term occupational exposure.</p> <p>Rosin (colophony) has caused allergic contact dermatitis in solderers using resin flux-cored solders, can be a sensitiser for string instrument players, and has caused dermatitis after use in adhesive tapes [NIOSHTEC]. It is found in many products that commonly come in contact with the skin, including cosmetics, sunscreens, veterinary medications, adhesives, sealants, polishes, paints and oils.</p> <p>Crystalline silicas activate the inflammatory response of white blood cells after they injure the lung epithelium. Chronic exposure to crystalline silicas reduces lung capacity and predisposes to chest infections.</p> <p>Amorphous silicas generally are less hazardous than crystalline silicas, but the former can be converted to the latter on heating and subsequent cooling. Inhalation of dusts containing crystalline silicas may lead to silicosis, a disabling lung disease that may take years to develop.</p> <p>Soluble silicates do not exhibit sensitizing potential. Testing in bacterial and animal experiments have not shown any evidence of them causing mutations or birth defects.</p> <p>Long term, or repeated exposure of isopropanol may cause inco-ordination and tiredness.</p> <p>Repeated inhalation exposure to isopropanol may produce sleepiness, inco-ordination and liver degeneration. Animal data show developmental effects only at exposure levels that produce toxic effects in adult animals. Isopropanol does not cause genetic damage.</p> <p>There are inconclusive reports of human sensitisation from skin contacts with isopropanol. Chronic alcoholics are more tolerant of the whole-body effects of isopropanol.</p> <p>Animal testing showed the chronic exposure did not produce reproductive effects.</p> <p>NOTE: Commercial isopropanol does not contain 'isopropyl oil', which caused an excess incidence of sinus and throat cancers in isopropanol production workers in the past. 'Isopropyl oil' is no longer formed during production of isopropanol.</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 either not available or does not fill the criteria for classification  
 ✔ - Data available to make classification

**SECTION 12 Ecological information**

**Toxicity**

Hercules Gripp	Endpoint	Test Duration (hr)	Species	Value	Source
	Not Available	Not Available	Not Available	Not Available	Not Available



## Hercules Grrip

	Endpoint	Test Duration (hr)	Species	Value	Source
isopropanol	EC50(ECx)	24h	Algae or other aquatic plants	0.011mg/L	4
	LC50	96h	Fish	>1400mg/l	4
	EC50	72h	Algae or other aquatic plants	>1000mg/l	1
	EC50	96h	Algae or other aquatic plants	>1000mg/l	1
	EC50	48h	Crustacea	7550mg/l	4
silica amorphous	Endpoint	Test Duration (hr)	Species	Value	Source
	EC0(ECx)	24h	Crustacea	>=10000mg/l	1
	EC50	96h	Algae or other aquatic plants	217.576mg/l	2
	EC50	72h	Algae or other aquatic plants	14.1mg/l	2
	LC50	96h	Fish	1033.016mg/l	2
silica crystalline - quartz	Endpoint	Test Duration (hr)	Species	Value	Source
	Not Available	Not Available	Not Available	Not Available	Not Available
Talc	Endpoint	Test Duration (hr)	Species	Value	Source
	LC50	96h	Fish	89581.016mg/l	2
	EC50	96h	Algae or other aquatic plants	7202.7mg/l	2
graphite, natural	NOEC(ECx)	720h	Algae or other aquatic plants	918.089mg/l	2
	Endpoint	Test Duration (hr)	Species	Value	Source
	NOEC(ECx)	48h	Crustacea	>=100mg/l	2
	EC50	72h	Algae or other aquatic plants	>100mg/l	2
	LC50	96h	Fish	>100mg/l	2
EC50	48h	Crustacea	>100mg/l	2	

**Legend:** *Extracted from 1. IUCLID Toxicity Data 2. Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicity 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.

**DO NOT** discharge into sewer or waterways.

### Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
isopropanol	LOW (Half-life = 14 days)	LOW (Half-life = 3 days)
silica amorphous	LOW	LOW

### Bioaccumulative potential

Ingredient	Bioaccumulation
isopropanol	LOW (LogKOW = 0.05)
silica amorphous	LOW (LogKOW = 0.5294)

### Mobility in soil

Ingredient	Mobility
isopropanol	HIGH (KOC = 1.06)
silica amorphous	LOW (KOC = 23.74)

Continued...

## Hercules Gripp

**SECTION 13 Disposal considerations****Waste treatment methods****Product / Packaging  
disposal**

- Containers may still present a chemical hazard/ danger when empty.
- Return to supplier for reuse/ recycling if possible.

Otherwise:

- 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.
- Where possible retain label warnings and SDS and observe all notices pertaining to the product.

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.

A Hierarchy of Controls seems to be common - the user should investigate:

- Reduction
- Reuse
- Recycling
- Disposal (if all else fails)

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.

- **DO NOT** allow wash water from cleaning or process equipment to enter drains.
- It may be necessary to collect all wash water for treatment before disposal.
- In all cases disposal to sewer may be subject to local laws and regulations and these should be considered first.
- Where in doubt contact the responsible authority.
- Recycle wherever possible or consult manufacturer for recycling options.
- Consult State Land Waste Authority for disposal.
- Bury or incinerate residue at an approved site.
- Recycle containers if possible, or dispose of in an authorised landfill.

**SECTION 14 Transport information****Labels Required**

Marine Pollutant | NO

**Land transport (DOT): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS**

Not regulated as dangerous goods except when shipped in bulk. This material is not regulated if in a container of 119 gallons (450L) capacity or less.

**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

**Transport in bulk in accordance with MARPOL Annex V and the IMSBC Code**

Product name	Group
isopropanol	Not Available
silica amorphous	Not Available
Rosin	Not Available
silica crystalline - quartz	Not Available
Talc	Not Available
graphite, natural	Not Available

**Transport in bulk in accordance with the IGC Code**

Product name	Ship Type
isopropanol	Not Available
silica amorphous	Not Available
Rosin	Not Available

Continued...

## Hercules Grrip

Product name	Ship Type
silica crystalline - quartz	Not Available
Talc	Not Available
graphite, natural	Not Available

**SECTION 15 Regulatory information****Safety, health and environmental regulations / legislation specific for the substance or mixture****isopropanol is found on the following regulatory lists**

International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs - Not Classified as Carcinogenic  
 US - Massachusetts - Right To Know Listed Chemicals  
 US DOE Temporary Emergency Exposure Limits (TEELs)  
 US EPCRA Section 313 Chemical List

US NIOSH Recommended Exposure Limits (RELs)  
 US OSHA Permissible Exposure Limits (PELs) Table Z-1  
 US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory  
 US TSCA Section 4/12 (b) - Sunset Dates/Status

**silica amorphous is found on the following regulatory lists**

Chemical Footprint Project - Chemicals of High Concern List  
 International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs - Not Classified as Carcinogenic  
 International WHO List of Proposed Occupational Exposure Limit (OEL) Values for Manufactured Nanomaterials (MNMS)  
 US - Alaska Air Quality Control - Concentrations Triggering an Air Quality Episode for Air Pollutants Other Than PM-2.5  
 US - California - Biomonitoring - Priority Chemicals  
 US - California Proposition 65 - Carcinogens  
 US - California Safe Drinking Water and Toxic Enforcement Act of 1986 - Proposition 65 List  
 US - Massachusetts - Right To Know Listed Chemicals

US DOE Temporary Emergency Exposure Limits (TEELs)  
 US NIOSH Carcinogen List  
 US NIOSH Recommended Exposure Limits (RELs)  
 US OSHA Carcinogens Listing  
 US OSHA Permissible Exposure Limits (PELs) Table Z-1  
 US OSHA Permissible Exposure Limits (PELs) Table Z-3  
 US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory

**silica crystalline - quartz is found on the following regulatory lists**

Chemical Footprint Project - Chemicals of High Concern List  
 International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs  
 International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs - Group 1: Carcinogenic to humans  
 US - California Proposition 65 - Carcinogens  
 US - California Safe Drinking Water and Toxic Enforcement Act of 1986 - Proposition 65 List  
 US - Massachusetts - Right To Know Listed Chemicals  
 US DOE Temporary Emergency Exposure Limits (TEELs)

US National Toxicology Program (NTP) 15th Report Part A Known to be Human Carcinogens  
 US NIOSH Carcinogen List  
 US NIOSH Recommended Exposure Limits (RELs)  
 US OSHA Carcinogens Listing  
 US OSHA Permissible Exposure Limits (PELs) Table Z-1  
 US OSHA Permissible Exposure Limits (PELs) Table Z-3  
 US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory

**Talc is found on the following regulatory lists**

Chemical Footprint Project - Chemicals of High Concern List  
 International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs  
 International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs - Group 2B: Possibly carcinogenic to humans  
 International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs - Not Classified as Carcinogenic  
 International WHO List of Proposed Occupational Exposure Limit (OEL) Values for Manufactured Nanomaterials (MNMS)  
 US - Alaska Air Quality Control - Concentrations Triggering an Air Quality Episode for Air Pollutants Other Than PM-2.5

US - Massachusetts - Right To Know Listed Chemicals  
 US NIOSH Carcinogen List  
 US NIOSH Recommended Exposure Limits (RELs)  
 US OSHA Permissible Exposure Limits (PELs) Table Z-1  
 US OSHA Permissible Exposure Limits (PELs) Table Z-3  
 US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory

**graphite, natural is found on the following regulatory lists**

International WHO List of Proposed Occupational Exposure Limit (OEL) Values for Manufactured Nanomaterials (MNMS)  
 US - Alaska Air Quality Control - Concentrations Triggering an Air Quality Episode for Air Pollutants Other Than PM-2.5  
 US - Massachusetts - Right To Know Listed Chemicals  
 US DOE Temporary Emergency Exposure Limits (TEELs)

US NIOSH Recommended Exposure Limits (RELs)  
 US OSHA Permissible Exposure Limits (PELs) Table Z-1  
 US OSHA Permissible Exposure Limits (PELs) Table Z-3  
 US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory

## Hercules Grrip

**Federal Regulations****Superfund Amendments and Reauthorization Act of 1986 (SARA)****Section 311/312 hazard categories**

Flammable (Gases, Aerosols, Liquids, or Solids)	Yes
Gas under pressure	No
Explosive	No
Self-heating	No
Pyrophoric (Liquid or Solid)	No
Pyrophoric Gas	No
Corrosive to metal	No
Oxidizer (Liquid, Solid or Gas)	No
Organic Peroxide	No
Self-reactive	No
In contact with water emits flammable gas	No
Combustible Dust	No
Carcinogenicity	No
Acute toxicity (any route of exposure)	No
Reproductive toxicity	No
Skin Corrosion or Irritation	No
Respiratory or Skin Sensitization	Yes
Serious eye damage or eye irritation	Yes
Specific target organ toxicity (single or repeated exposure)	No
Aspiration Hazard	No
Germ cell mutagenicity	No
Simple Asphyxiant	No
Hazards Not Otherwise Classified	Yes

**US. EPA CERCLA Hazardous Substances and Reportable Quantities (40 CFR 302.4)**

None Reported

**State Regulations****US. California Proposition 65**

None reported.

**National Inventory Status**

National Inventory	Status
USA - TSCA	Yes

**Legend:***Yes = All CAS declared ingredients are on the inventory**No = One or more of the CAS listed ingredients are not on the inventory. These ingredients may be exempt or will require registration.***SECTION 16 Other information**

Revision Date	05/17/2023
Initial Date	02/24/2022

**Other information**

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

Continued...



**Hercules Grrip**

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  
ES: Exposure Standard  
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  
AIIC: Australian Inventory of Industrial Chemicals  
DSL: Domestic Substances List  
NDSL: Non-Domestic Substances List  
IECSC: Inventory of Existing Chemical Substance in China  
EINECS: European Inventory of Existing Commercial chemical Substances  
ELINCS: European List of Notified Chemical Substances  
NLP: No-Longer Polymers  
ENCS: Existing and New Chemical Substances Inventory  
KECI: Korea Existing Chemicals Inventory  
NZIoC: New Zealand Inventory of Chemicals  
PICCS: Philippine Inventory of Chemicals and Chemical Substances  
TSCA: Toxic Substances Control Act  
TCSI: Taiwan Chemical Substance Inventory  
INSQ: Inventario Nacional de Sustancias Químicas  
NCI: National Chemical Inventory  
FBEPH: Russian Register of Potentially Hazardous Chemical and Biological Substances



# Hilti Grease

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Revision date: 12/6/2022 Issue date: 12/6/2022 Supersedes: 7/5/2019Version: 2.0

### SECTION 1: Identification

#### 1.1. Identification

Product form	Mixture
Trade name	Hilti Grease
Product code	BU ET&A

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

Recommended use	Special lubricant for insert tool connection end
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#### 1.3. Supplier

##### Supplier

Hilti, Inc.  
Legacy Tower, Suite 1000  
7250 Dallas Parkway  
Plano, TX 75024  
USA  
T +1 9724035800  
1-800-879-8000 toll free - F +1 918 254 0522

##### Department issuing data specification sheet

Hilti Entwicklungsgesellschaft mbH  
Hiltistraße 6  
Kaufering, 86916  
Deutschland  
T +49 8191 906876  
[anchor.hse@hilti.com](mailto:anchor.hse@hilti.com)

#### 1.4. Emergency telephone number

Emergency number	Chem-Trec Tel.: 1 800 424 9300 (USA, PR, Virgin Islands, Canada) Tel.: 703 527 3887 (Other countries) +1 918 8723000 1-800-879-8000 toll free
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### SECTION 2: Hazard(s) identification

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

##### GHS-US classification

Not classified

#### 2.2. GHS Label elements, including precautionary statements

##### GHS US labelling

No labelling applicable

#### 2.3. Other hazards which do not result in classification

No additional information available

#### 2.4. Unknown acute toxicity (GHS US)

Not applicable

### SECTION 3: Composition/information on ingredients

#### 3.1. Substances

Not applicable

# Hilti Grease

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

### 3.2. Mixtures

Name	Product identifier	%	GHS-US classification
molybdenum(IV) sulfide	CAS-No.: 1317-33-5	2.5 – 5	Acute Tox. 4 (Inhalation:dust,mist), H332
Zinc bis[O,O-bis(2-ethylhexyl)] bis(dithiophosphate)	CAS-No.: 4259-15-8	1 – 2.5	Eye Irrit. 2, H319 Aquatic Chronic 2, H411

Full text of hazard classes and H-statements : see section 16

## SECTION 4: First-aid measures

### 4.1. Description of first aid measures

First-aid measures general	Take off immediately all contaminated clothing. Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).
First-aid measures after inhalation	Remove person to fresh air and keep comfortable for breathing. Allow affected person to breathe fresh air. Allow the victim to rest.
First-aid measures after skin contact	Wash contaminated clothing before reuse. Wash with plenty of water/... If skin irritation or rash occurs: Get medical advice/attention.
First-aid measures after eye contact	Rinse immediately with plenty of water. Remove contact lenses, if present and easy to do. Continue rinsing. Obtain medical attention if pain, blinking or redness persists.
First-aid measures after ingestion	Rinse mouth. Get medical advice/attention. Do not induce vomiting. Obtain emergency medical attention.

### 4.2. Most important symptoms and effects (acute and delayed)

Symptoms/effects No information available.

### 4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically. Symptoms may be delayed.

## SECTION 5: Fire-fighting measures

### 5.1. Suitable (and unsuitable) extinguishing media

No additional information available

### 5.2. Specific hazards arising from the chemical

No additional information available

### 5.3. Special protective equipment and precautions for fire-fighters

Firefighting instructions	Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire fighting water from entering the environment.
Protection during firefighting	Self-contained breathing apparatus. Do not enter fire area without proper protective equipment, including respiratory protection.

## SECTION 6: Accidental release measures

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

General measures Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Avoid contact with skin and eyes. Evacuate area.

#### 6.1.1. For non-emergency personnel

No additional information available



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### 6.1.2. For emergency responders

Protective equipment Use personal protective equipment as required. Equip cleanup crew with proper protection.  
Emergency procedures Ventilate area. Stop leak if safe to do so.

### 6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

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

Other information Dispose of materials or solid residues at an authorized site.

### 6.4. Reference to other sections

For further information refer to section 8: "Exposure controls/personal protection". For further information refer to section 13.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Precautions for safe handling Wear personal protective equipment. Avoid contact with skin and eyes. 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 vapour.  
Hygiene measures Do not eat, drink or smoke when using this product. Always wash hands after handling the product. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse.

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

Technical measures Store tightly closed in a dry and cool place. Does not require any specific or particular technical measures.  
Storage conditions Store in original container.  
Incompatible materials Strong oxidizing agents. Pyrophoric or self-heating substances.  
Storage temperature 5 – 25 °C

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

<b>Hilti Grease</b>	
No additional information available	
<b>molybdenum(IV) sulfide (1317-33-5)</b>	
<b>USA - ACGIH - Occupational Exposure Limits</b>	
ACGIH OEL TWA	3 mg/m <sup>3</sup> (Respirable fraction) 10 mg/m <sup>3</sup> (Inhalable fraction)
<b>Zinc bis[O,O-bis(2-ethylhexyl)] bis(dithiophosphate) (4259-15-8)</b>	
No additional information available	

Additional information The product has a pasty consistency. Exposure limit values for respirable dusts are not relevant for this product.

### 8.2. Appropriate engineering controls

No additional information available



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### 10.3. Possibility of hazardous reactions

No additional information available.

### 10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures.

### 10.5. Incompatible materials

Oxidizing agent. Pyrophoric or self-heating substances.

### 10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## 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

molybdenum(IV) sulfide (1317-33-5)	
LD50 oral rat	> 6000 mg/kg (Rat, Oral)
LD50 oral	6000 mg/kg
LD50 dermal	2500 mg/kg

Zinc bis[O,O-bis(2-ethylhexyl)] bis(dithiophosphate) (4259-15-8)	
LD50 oral rat	3100 mg/kg
LD50 dermal rabbit	> 5000 mg/kg

Skin corrosion/irritation	Not classified
Serious eye damage/irritation	Not classified
Respiratory or skin sensitisation	Not classified
Germ cell mutagenicity	Not classified
Carcinogenicity	Not classified
Reproductive toxicity	Not classified
STOT-single exposure	Not classified
STOT-repeated exposure	Not classified
Aspiration hazard	Not classified
Viscosity, kinematic	No data available
Symptoms/effects	No information available.

## SECTION 12: Ecological information

### 12.1. Toxicity

No additional information available

### 12.2. Persistence and degradability

molybdenum(IV) sulfide (1317-33-5)	
Not rapidly degradable	
Persistence and degradability	Biodegradability: not applicable.

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<b>molybdenum(IV) sulfide (1317-33-5)</b>	
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable
BOD (% of ThOD)	Not applicable

### 12.3. Bioaccumulative potential

<b>molybdenum(IV) sulfide (1317-33-5)</b>	
Bioaccumulative potential	No bioaccumulation data available.

### 12.4. Mobility in soil

<b>molybdenum(IV) sulfide (1317-33-5)</b>	
Ecology - soil	Adsorbs into the soil.

### 12.5. Other adverse effects

No additional information available

## SECTION 13: Disposal considerations

### 13.1. Disposal methods

Waste treatment methods  
Ecology - waste materials

Dispose in a safe manner in accordance with local/national regulations.  
Avoid release to the environment.

## SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / RID

ADR	IMDG	IATA	RID
<b>14.1. UN number or ID number</b>			
Not regulated	Not regulated	Not regulated	Not regulated
<b>14.2. UN proper shipping name</b>			
Not regulated	Not regulated	Not regulated	Not regulated
<b>14.3. Transport hazard class(es)</b>			
Not regulated	Not regulated	Not regulated	Not regulated
<b>14.4. Packing group</b>			
Not regulated	Not regulated	Not regulated	Not regulated
<b>14.5. Environmental hazards</b>			
Not regulated	Not regulated	Not regulated	Not regulated
No supplementary information available			

### 14.6. Special precautions for user

Overland transport  
Not regulated



# Hilti Grease

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### Transport by sea

Not regulated

### Air transport

Not regulated

### Rail transport

Not regulated

### 14.7. Maritime transport in bulk according to IMO instruments

Not applicable

## SECTION 15: Regulatory information

### 15.1. US Federal regulations

All components of this product are present and listed as Active on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

### 15.2. International regulations

No additional information available

### 15.3. US State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

## SECTION 16: Other information

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Revision date

12/06/2022

### Full text of H-statements

H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H411	Toxic to aquatic life with long lasting effects.

NFPA health hazard

0 - Materials that, under emergency conditions, would offer no hazard beyond that of ordinary combustible materials.

NFPA fire hazard

1 - Materials that must be preheated before ignition can occur.

NFPA reactivity

1 - Materials that in themselves are normally stable but can become unstable at elevated temperatures and pressures.



Hazard Rating

Health

0 Minimal Hazard - No significant risk to health

Flammability

1 Slight Hazard - Materials that must be preheated before ignition will occur. Includes liquids, solids and semi solids having a flash point above 200 F. (Class IIIB)

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.



**SAFETY DATA SHEET**  
DDP SPECIALTY ELECTRONIC MATERIALS  
US 9, LLC

**Product name: GREAT STUFF™ Gaps & Cracks Insulating  
Foam Sealant 12oz HC ES SASTW 12ct**

**Issue Date: 04/17/2023**

**Print Date: 06/21/2023**

DDP SPECIALTY ELECTRONIC MATERIALS US 9, LLC 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.

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## 1. IDENTIFICATION

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**Product name:** GREAT STUFF™ Gaps & Cracks Insulating Foam Sealant 12oz HC ES SASTW 12ct

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

**Identified uses:** Polyurethane foam.

**COMPANY IDENTIFICATION**

DDP SPECIALTY ELECTRONIC MATERIALS  
US 9, LLC  
974 Centre Road  
Wilmington DE 19805  
UNITED STATES

**Customer Information Number:**

833-338-7668  
SDSQuestion-NA@dupont.com

**EMERGENCY TELEPHONE NUMBER**

**24-Hour Emergency Contact:** 1-800-424-9300

**Local Emergency Contact:** 800-424-9300

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## 2. HAZARDS IDENTIFICATION

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**Hazard classification**

GHS classification in accordance with 29 CFR 1910.1200

Flammable aerosols - Category 2

Gases under pressure - Liquefied gas

Acute toxicity - Category 4 - Inhalation

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.  
Harmful if inhaled.  
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 or mist.  
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 must 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

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### 3. COMPOSITION/INFORMATION ON INGREDIENTS

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This product is a mixture.

Component	CASRN	Concentration
Diphenylmethane Diisocyanate, isomers and homologues	9016-87-9	>= 10.0 - <= 30.0 %
4,4' -Methylenediphenyl diisocyanate	101-68-8	>= 10.0 - <= 30.0 %
Polymethylenepolyphenylisocyanate, propoxylated glycerin polymer	57029-46-6	>= 10.0 - <= 30.0 %
Polymethylenepolyphenyl polyisocyanate, polypropyleneglycol copolymer	53862-89-8	>= 10.0 - <= 30.0 %
Isobutane	75-28-5	>= 7.0 - <= 13.0 %
Paraffin waxes and Hydrocarbon waxes, chlorinated	63449-39-8	>= 5.0 - <= 10.0 %
Tris(1-chloro-2-propyl) phosphate	13674-84-5	>= 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.

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### 4. FIRST AID MEASURES

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**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 available in work area.

**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:** 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. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient. Excessive exposure may aggravate preexisting asthma and other respiratory disorders (e.g. emphysema, bronchitis, reactive airways dysfunction syndrome).

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## **5. FIREFIGHTING MEASURES**

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**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.

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## 6. ACCIDENTAL RELEASE MEASURES

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**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. Check area with combustible gas detector before reentering area. Ground and bond all containers and handling equipment. Confined space entry procedures must be followed before entering the area. 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.

**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. 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.

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## 7. HANDLING AND STORAGE

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**Precautions for safe handling:** Keep away from heat, sparks and flame. No smoking, open flames or sources of ignition in handling and storage area. Avoid contact with eyes, skin, and clothing. Avoid

prolonged or repeated contact with skin. Avoid breathing vapor. Never use air pressure for transferring product. Wash thoroughly after handling. Keep container closed. Use only with adequate ventilation. Keep out of reach of children. 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. 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:** 18 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
4,4' -Methylenediphenyl diisocyanate	DUPONT AEL	AEL * Vapour	2.5 Parts per billion
	DUPONT AEL	AEL * Vapour	20 Parts per billion
	DUPONT AEL	AEL * particulate	0.025 mg/m3
	ACGIH	TWA	0.005 ppm
	Further information: resp sens: Respiratory sensitization		
	OSHA Z-1	C	0.2 mg/m3 0.02 ppm
	Further information: (b): The value in mg/m3 is approximate.; ®: Ceiling limit is to be determined from breathing-zone air samples.		
	OSHA P0	C	0.2 mg/m3 0.02 ppm
Isobutane	ACGIH	STEL	1,000 ppm
	Further information: EX: Explosion hazard: the substance is a flammable asphyxiant or excursions above the TLV® could approach 10% of the lower explosive limit.; CNS impair: Central Nervous System impairment		
Methyl ether	US WEEL	TWA	1,000 ppm
Propane	ACGIH		See Further information
	Further information: See Appendix F: Minimal Oxygen Content; EX: Explosion hazard: the substance is a flammable asphyxiant or excursions above the TLV® could approach 10% of the lower explosive limit.; asphyxia: Asphyxia; D: Simple asphyxiant; see discussion covering Minimal Oxygen Content found in the 'Definitions and Notations' section following the NIC tables		
	OSHA Z-1	TWA	1,800 mg/m3 1,000 ppm
	Further information: (b): The value in mg/m3 is approximate.		
	CAL PEL	PEL	1,800 mg/m3 1,000 ppm
	Further information: (h): A number of gases and vapors, when present in high concentrations, act primarily as asphyxiants without other adverse effects. A concentration limit is not included for each material because the limiting factor is the		



	available oxygen. (Several of these materials present fire or explosion hazards.)		
	NIOSH REL	TWA	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 O2, dry air) provides an adequate amount of oxygen for most work assignments.

**Exposure controls**

**Engineering measures:** 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.

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**9. PHYSICAL AND CHEMICAL PROPERTIES**

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**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>	Not applicable
<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>Closed Cup</i>
<b>Evaporation Rate (Butyl Acetate = 1)</b>	No test data available
<b>Flammability (solid, gas)</b>	No data available
<b>Lower explosion limit</b>	No test data available
<b>Upper explosion limit</b>	No test data available
<b>Vapor Pressure</b>	1,151 hPa at 55 °C (131 °F) <i>Not reported</i> Container is under pressure.
<b>Relative Vapor Density (air = 1)</b>	No test data available
<b>Relative Density (water = 1)</b>	1.06 <i>Estimated.</i>
<b>Water solubility</b>	insoluble
<b>Partition coefficient: n-octanol/water</b>	No data available
<b>Auto-ignition temperature</b>	No test data available
<b>Decomposition temperature</b>	No test data available
<b>Kinematic Viscosity</b>	Not applicable
<b>Explosive properties</b>	Not explosive
<b>Oxidizing properties</b>	No
<b>Molecular weight</b>	No test data available

NOTE: The physical data presented above are typical values and should not be construed as a specification.

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## 10. STABILITY AND REACTIVITY

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**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.

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## **11. TOXICOLOGICAL INFORMATION**

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*Toxicological information appears in this section when such data is available.*

### **Acute toxicity**

#### **Acute oral toxicity**

Product test data not available. Refer to component data.

#### **Acute dermal toxicity**

Product test data not available. Refer to component data.

#### **Acute inhalation toxicity**

Product test data not available. Refer to component data.

### **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**

Product test data not available. Refer to component data.

### **Specific Target Organ Systemic Toxicity (Single Exposure)**

Product test data not available. Refer to component data.

### **Specific Target Organ Systemic Toxicity (Repeated Exposure)**

Product test data not available. Refer to component data.

### **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**

Product test data not available. Refer to component data.

**Reproductive toxicity**

Product test data not available. Refer to component data.

**Mutagenicity**

Product test data not available. Refer to component data.

**Aspiration Hazard**

Product test data not available. Refer to component data.

**COMPONENTS INFLUENCING TOXICOLOGY:**

**Diphenylmethane Diisocyanate, isomers and homologues**

**Acute oral toxicity**

Typical for this family of materials. LD50, Rat, > 10,000 mg/kg

**Acute dermal toxicity**

Typical for this family of materials. LD50, Rabbit, > 9,400 mg/kg

**Acute inhalation toxicity**

LC50, Rat, 4 Hour, dust/mist, 0.49 mg/l

For similar material(s): 4,4'-Methylenediphenyl diisocyanate (CAS 101-68-8). LC50, Rat, 1 Hour, Aerosol, 2.24 mg/l

For similar material(s): 2,4'-Diphenylmethane diisocyanate (CAS 5873-54-1). LC50, Rat, 4 Hour, Aerosol, 0.387 mg/l

**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)**

May cause respiratory irritation.

Route of Exposure: Inhalation

Target Organs: Respiratory Tract

**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.

**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.

**Reproductive toxicity**

No relevant data found.

**Mutagenicity**

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.

**4,4' -Methylenediphenyl diisocyanate**

**Acute oral toxicity**

LD50, Rat, > 2,000 mg/kg No deaths occurred at this concentration.

**Acute dermal toxicity**

LD50, Rabbit, > 9,400 mg/kg

**Acute inhalation toxicity**

LC50, Rat, 1 Hour, dust/mist, 2.24 mg/l

**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)**

May cause respiratory irritation.

Route of Exposure: Inhalation

Target Organs: Respiratory Tract

**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.

**Teratogenicity**

Has been toxic to the fetus in laboratory animals at doses toxic to the mother. Did not cause birth defects in laboratory animals.

**Reproductive toxicity**

No relevant data found.

**Mutagenicity**

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.

**Polymethylenepolyphenylisocyanate, propoxylated glycerin polymer**

**Acute oral toxicity**

Typical for this family of materials. LD50, Rat, > 2,000 mg/kg Estimated. No deaths occurred at this concentration.

**Acute dermal toxicity**

Typical for this family of materials. LD50, Rabbit, > 2,000 mg/kg Estimated.

**Acute inhalation toxicity**

The LC50 has not been determined.

**Sensitization**

For this family of materials, sensitization studies done in guinea pigs have been negative.

For respiratory sensitization:

No relevant data found.

**Specific Target Organ Systemic Toxicity (Single Exposure)**

Evaluation of available data suggests that this material is not an STOT-SE toxicant.

**Specific Target Organ Systemic Toxicity (Repeated Exposure)**

No relevant data found.

**Teratogenicity**

No relevant data found.

**Reproductive toxicity**

No relevant data found.

**Mutagenicity**

One material tested in this family was negative in the Ames test.

**Aspiration Hazard**

Based on physical properties, not likely to be an aspiration hazard.

**Polymethylenepolyphenyl polyisocyanate, polypropyleneglycol copolymer**

**Acute oral toxicity**

Typical for this family of materials. Observations in animals include: Gastrointestinal irritation. LD50, Rat, > 2,000 mg/kg No deaths occurred at this concentration.

**Acute dermal toxicity**

Typical for this family of materials. LD50, Rabbit, > 9,400 mg/kg

**Acute inhalation toxicity**

At room temperature, vapors are minimal due to low volatility. However, certain operations may generate vapor or mist concentrations sufficient to cause respiratory irritation and other adverse effects. Such operations include those in which the material is heated, sprayed or otherwise mechanically dispersed such as drumming, venting or pumping. 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. Decreased lung function has been associated with overexposure to isocyanates.

The LC50 has not been determined.

#### **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 (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.

#### **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.

#### **Reproductive toxicity**

No specific, relevant data available for assessment.

#### **Mutagenicity**

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.

### **Isobutane**

#### **Acute oral toxicity**

Single dose oral LD50 has not been determined.

#### **Acute dermal toxicity**

The dermal LD50 has not been determined.

#### **Acute inhalation toxicity**

LC50, Mouse, 4 Hour, gas, 260200 ppm

#### **Sensitization**

No relevant data found.

For respiratory sensitization:

No relevant data found.

#### **Specific Target Organ Systemic Toxicity (Single Exposure)**

May cause drowsiness or dizziness.

**Specific Target Organ Systemic Toxicity (Repeated Exposure)**

Based on available data, repeated exposures are not anticipated to cause significant adverse effects.

**Teratogenicity**

No relevant data found.

**Reproductive toxicity**

No relevant data found.

**Mutagenicity**

In vitro genetic toxicity studies were negative.

**Aspiration Hazard**

Aspiration into the lungs may occur during ingestion or vomiting, causing lung damage or even death due to chemical pneumonia.

**Paraffin waxes and Hydrocarbon waxes, chlorinated**

**Acute oral toxicity**

Based on information for a similar material: LD50, Rat, > 10,000 mg/kg

**Acute dermal toxicity**

The dermal LD50 has not been determined. LD50, Rat, > 2,000 mg/kg Estimated.

**Acute inhalation toxicity**

The LC50 has not been determined.

**Sensitization**

For skin sensitization:

Did not cause allergic skin reactions when tested in humans.

For respiratory sensitization:

No relevant information found.

**Specific Target Organ Systemic Toxicity (Single Exposure)**

Evaluation of available data suggests that this material is not an STOT-SE toxicant.

**Specific Target Organ Systemic Toxicity (Repeated Exposure)**

For similar material(s):

In animals, effects have been reported on the following organs:

Liver.

Kidney.

**Teratogenicity**

For similar material(s): Has caused birth defects in laboratory animals only at doses toxic to the mother.

**Reproductive toxicity**

May cause harm to breastfed babies.

**Mutagenicity**

For similar material(s): This material was not genotoxic in various mutagenicity and clastogenicity tests.

**Aspiration Hazard**

Based on physical properties, not likely to be an aspiration hazard.

**Tris(1-chloro-2-propyl) phosphate**

**Acute oral toxicity**

LD50, Rat, male and female, >1,000 mg/kg

**Acute dermal toxicity**

LD50, Rabbit, > 5,000 mg/kg

**Acute inhalation toxicity**

No deaths occurred at this concentration. LC50, Rat, 4 Hour, dust/mist, > 7 mg/l

**Sensitization**

Did not cause allergic skin reactions when tested in humans.

Did not cause allergic skin reactions when tested in guinea pigs.

For respiratory sensitization:

No data available.

**Specific Target Organ Systemic Toxicity (Single Exposure)**

Evaluation of available data suggests that this material is not an STOT-SE toxicant.

**Specific Target Organ Systemic Toxicity (Repeated Exposure)**

Based on available data, repeated exposures are not anticipated to cause significant adverse effects.

**Teratogenicity**

Did not cause birth defects or any other fetal effects in laboratory animals.

**Reproductive toxicity**

No relevant data found.

**Mutagenicity**

In vitro genetic toxicity studies were negative. Animal genetic toxicity studies were negative.

**Aspiration Hazard**

Based on available information, aspiration hazard could not be determined.

**Methyl ether**

**Acute oral toxicity**

Single dose oral LD50 has not been determined.

**Acute dermal toxicity**

The dermal LD50 has not been determined.

**Acute inhalation toxicity**

LC50, Rat, 4 Hour, gas, 164000 ppm

**Sensitization**

No relevant information found.

For respiratory sensitization:

No relevant information found.

**Specific Target Organ Systemic Toxicity (Single Exposure)**

Available data are inadequate to determine single exposure specific target organ toxicity.

**Specific Target Organ Systemic Toxicity (Repeated Exposure)**

In animals, effects have been reported on the following organs:

Kidney.

Liver.

**Teratogenicity**

Has been toxic to the fetus in laboratory animals at doses toxic to the mother.

**Reproductive toxicity**

No relevant data found.

**Mutagenicity**

In vitro genetic toxicity studies were negative. Animal genetic toxicity studies were negative.

**Aspiration Hazard**

Based on physical properties, not likely to be an aspiration hazard.

**Propane**

**Acute oral toxicity**

Single dose oral LD50 has not been determined.

**Acute dermal toxicity**

The dermal LD50 has not been determined.

**Acute inhalation toxicity**

LC50, Rat, male and female, 4 Hour, vapour, > 425000 ppm

**Sensitization**

For skin sensitization:

No relevant data found.

For respiratory sensitization:

No relevant data found.

**Specific Target Organ Systemic Toxicity (Single Exposure)**

Available data are inadequate to determine single exposure specific target organ toxicity.

**Specific Target Organ Systemic Toxicity (Repeated Exposure)**

Based on available data, repeated exposures are not anticipated to cause additional significant adverse effects.

**Teratogenicity**

Screening studies suggest that this material does not affect fetal development.



**Reproductive toxicity**

In animal studies, did not interfere with reproduction. In animal studies, did not interfere with fertility.

**Mutagenicity**

In vitro genetic toxicity studies were 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

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## 12. ECOLOGICAL INFORMATION

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*Ecotoxicological information appears in this section when such data is available.*

**Toxicity**

**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

#### **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

#### **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).

#### **Polymethylenepolyphenyl polyisocyanate, polypropyleneglycol copolymer**

##### **Acute toxicity to fish**

Not expected to be acutely toxic to aquatic organisms.

#### **Isobutane**

##### **Acute toxicity to fish**

No relevant data found.

#### **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

**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

**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**

**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

**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

**Polymethylenepolyphenylisocyanate, propoxylated glycerin polymer**

**Biodegradability:** For this family of materials: Material is readily biodegradable. Passes OECD test(s) for ready biodegradability.

**Polymethylenepolyphenyl polyisocyanate, polypropyleneglycol copolymer**

**Biodegradability:** Expected to degrade slowly in the environment.

**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.

**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

**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.

#### 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**

##### 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

##### 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

##### Polymethylenepolyphenylisocyanate, propoxylated glycerin polymer

**Bioaccumulation:** No relevant data found.

##### 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.



**Isobutane**

**Bioaccumulation:** Bioconcentration potential is low (BCF < 100 or Log Pow < 3).

**Partition coefficient: n-octanol/water(log Pow):** 2.76 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.

**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

**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**

**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.

**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.

**Polymethylenepolyphenylisocyanate, propoxylated glycerin polymer**

No relevant data found.

**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.

**Isobutane**

Potential for mobility in soil is very high (Koc between 0 and 50).

**Partition coefficient (Koc):** 35 Estimated.

**Paraffin waxes and Hydrocarbon waxes, chlorinated**

Expected to be relatively immobile in soil (Koc > 5000).

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.

**Partition coefficient (Koc):** > 5000 Estimated.

**Tris(1-chloro-2-propyl) phosphate**

Potential for mobility in soil is slight (Koc between 2000 and 5000).

**Partition coefficient (Koc):** 1300 Estimated.

**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.

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**13. DISPOSAL CONSIDERATIONS**

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**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.

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**14. TRANSPORT INFORMATION**

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**DOT**

<b>Proper shipping name</b>	Aerosols
<b>UN number</b>	UN 1950
<b>Class</b>	2.1
<b>Packing group</b>	
<b>Reportable Quantity</b>	MDI

**Classification for SEA transport (IMO-IMDG):**

<b>Proper shipping name</b>	AEROSOLS
<b>UN number</b>	UN 1950
<b>Class</b>	2.1
<b>Packing group</b>	
<b>Marine pollutant</b>	Paraffin waxes and Hydrocarbon waxes, chlorinated
<b>Transport in bulk according to Annex I or II of MARPOL 73/78 and the IBC or IGC Code</b>	Consult IMO regulations before transporting ocean bulk

**Classification for AIR transport (IATA/ICAO):**

<b>Proper shipping name</b>	Aerosols, flammable
<b>UN number</b>	UN 1950
<b>Class</b>	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.

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## 15. REGULATORY INFORMATION

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### 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  
Acute toxicity (any route of exposure)  
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.

Components	CASRN
Diphenylmethane Diisocyanate, isomers and homologues	9016-87-9
4,4' -Methylenediphenyl diisocyanate	101-68-8

### Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) Section 103

Calculated RQ exceeds reasonably attainable upper limit.

Components	CASRN	RQ (RCRA Code)
4,4' -Methylenediphenyl diisocyanate	101-68-8	5000 lbs RQ

### Pennsylvania Worker and Community Right-To-Know Act:

The following chemicals are listed because of the additional requirements of Pennsylvania law:

Components	CASRN
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.

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**16. OTHER INFORMATION**

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**Hazard Rating System**

**HMIS**

Health	Flammability	Physical Hazard
4*	4	3

\* = Chronic Effects (See Hazards Identification)

**Revision**

Identification Number: 99108824 / A776 / Issue Date: 04/17/2023 / Version: 11.0

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)
AEL *	8 & 12 hr. TWA
C	Ceiling limit
CAL PEL	California permissible exposure limits for chemical contaminants (Title 8, Article 107)
DUPONT AEL	DuPont AEL (Acceptable Exposure Limit)
NIOSH REL	USA. NIOSH Recommended Exposure Limits
OSHA P0	USA. Table Z-1-A Limits for Air Contaminants (1989 vacated values)
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	8-hr TWA
US WEEL	USA. Workplace Environmental Exposure Levels (WEEL)

**Full text of other abbreviations**

AIIC - Australian Inventory of Industrial Chemicals; 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; TECI - Thailand Existing Chemicals 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 9, LLC 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





# Oatey Great White Pipe Joint Compound

## Oatey Co.

Version No: 1.3.4.3

Safety Data Sheet according to OSHA HazCom Standard (2012) requirements

Issue Date: **04/06/2021**

Print Date: **06/04/2021**

S.GHS.U.S.A.EN

### SECTION 1 Identification

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#### Product Identifier

Product name	Oatey Great White Pipe Joint Compound
Chemical Name	Not Applicable
Synonyms	Not Available
Other means of identification	31229, 31230, 31231, 31232, 31233, 31234, 48007, 48008, 48009

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

Relevant identified uses	Pipe Joint Compound for Threaded Metal Pipes
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#### Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party

Registered company name	Oatey Co.
Address	20600 Emerald Parkway, Cleveland, OH 44135 United States
Telephone	216-267-7100
Fax	Not Available
Website	<a href="http://oatey.com">oatey.com</a>
Email	<a href="mailto:info@oatey.com">info@oatey.com</a>

#### Emergency phone number

Association / Organisation	Chemtrec
Emergency telephone numbers	1-800-424-9300 (Outside the US 1-703-527-3887)
Other emergency telephone numbers	1-877-740-5015 (Emergency First Aid)

### SECTION 2 Hazard(s) identification

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#### Classification of the substance or mixture

Classification	Not Applicable
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#### Label elements

Hazard pictogram(s)	Not Applicable
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Signal word	Not Applicable
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#### Hazard statement(s)

Not Applicable

## Oatey Great White Pipe Joint Compound

**Hazard(s) not otherwise classified**

Frequent or prolonged contact may defat and dry the skin, leading to discomfort and dermatitis. The thermal decomposition vapors of fluorinated polymers may cause polymer fume fever.

**Precautionary statement(s) Prevention**

Not Applicable

**Precautionary statement(s) Response**

Not Applicable

**Precautionary statement(s) Storage**

Not Applicable

**Precautionary statement(s) Disposal**

Not Applicable

**SECTION 3 Composition / information on ingredients****Substances**

See section below for composition of Mixtures

**Mixtures**

CAS No	%[weight]	Name
1317-65-3*	30-50	<u>calcium carbonate</u>
64742-52-5*	30-40	<u>Distillates (petroleum), hydrotreated heavy naphthenic</u>
9002-84-0	5-15	<u>polytetrafluoroethylene</u>
13463-67-7*	5-10	<u>Titanium dioxide</u>
14808-60-7*	<=1	<u>silica crystalline - quartz</u>

**SECTION 4 First-aid measures****Description of first aid measures**

<b>Eye Contact</b>	<p>If this product comes in contact with eyes:</p> <ul style="list-style-type: none"> <li>▶ Wash out immediately with water.</li> <li>▶ If irritation continues, 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 or hair contact occurs:</p> <ul style="list-style-type: none"> <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**

- ▶ Foam.
- ▶ Dry chemical powder.
- ▶ BCF (where regulations permit).
- ▶ Carbon dioxide.
- ▶ Water spray or fog - Large fires only.

## Oatey Great White Pipe Joint Compound

**Special hazards arising from the substrate or mixture****Fire Incompatibility**

- ▶ Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may result

**Special protective equipment and precautions for fire-fighters****Fire Fighting**

- ▶ Alert Fire Department and tell them location and nature of hazard.
- ▶ Wear full body protective clothing with breathing apparatus.
- ▶ Prevent, by any means available, spillage from entering drains or water course.
- ▶ Use water delivered as a fine spray to control fire and cool adjacent area.
- ▶ Avoid spraying water onto liquid pools.
- ▶ **DO NOT** approach containers suspected to be hot.
- ▶ Cool fire exposed containers with water spray from a protected location.
- ▶ If safe to do so, remove containers from path of fire.

**Fire/Explosion Hazard**

- ▶ Slight fire hazard when exposed to heat or flame.
  - ▶ Heating may cause expansion or decomposition leading to violent rupture of containers.
  - ▶ On combustion, may emit toxic fumes of carbon monoxide (CO).
  - ▶ May emit acrid smoke.
  - ▶ Mists containing combustible materials may be explosive.
- Combustion products include:  
carbon dioxide (CO<sub>2</sub>)  
hydrogen fluoride  
other pyrolysis products typical of burning organic material.

**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****Minor Spills**

- ▶ Clean up all spills immediately.
- ▶ Avoid breathing vapours and contact with skin and eyes.
- ▶ Control personal contact with the substance, by using protective equipment.
- ▶ Contain and absorb spill with sand, earth, inert material or vermiculite.
- ▶ Wipe up.
- ▶ Place in a suitable, labelled container for waste disposal.

**Major Spills**

- ▶ Clear area of personnel and move upwind.
- ▶ Alert Fire Department and tell them location and nature of hazard.
- ▶ Wear breathing apparatus plus protective gloves.
- ▶ Prevent, by any means available, spillage from entering drains or water course.
- ▶ No smoking, naked lights or ignition sources.
- ▶ Increase ventilation.
- ▶ Stop leak if safe to do so.
- ▶ Contain spill with sand, earth or vermiculite.
- ▶ Collect recoverable product into labelled containers for recycling.
- ▶ Absorb remaining product with sand, earth or vermiculite.
- ▶ Collect solid residues and seal in labelled drums for disposal.
- ▶ Wash area and prevent runoff into drains.
- ▶ If contamination of drains or waterways occurs, advise emergency services.

Personal Protective Equipment advice is contained in Section 8 of the SDS.

**SECTION 7 Handling and storage****Precautions for safe handling****Safe handling**

- ▶ Avoid all personal contact, including inhalation.
- ▶ Wear protective clothing when risk of exposure occurs.
- ▶ Use in a well-ventilated area.
- ▶ Prevent concentration in hollows and sumps.

Continued...

## Oatey Great White Pipe Joint Compound

## Other information

- ▶ **DO NOT** enter confined spaces until atmosphere has been checked.
  - ▶ Avoid smoking, naked lights or ignition sources.
  - ▶ Avoid contact with incompatible materials.
  - ▶ When handling, **DO NOT** eat, drink or smoke.
  - ▶ Keep containers securely sealed when not in use.
  - ▶ Avoid physical damage to containers.
  - ▶ Always wash hands with soap and water after handling.
  - ▶ Work clothes should be laundered separately.
  - ▶ Use good occupational work practice.
  - ▶ Observe manufacturer's storage and handling recommendations contained within this SDS.
  - ▶ Atmosphere should be regularly checked against established exposure standards to ensure safe working conditions.
- 
- ▶ Store in original containers.
  - ▶ Keep containers securely sealed.
  - ▶ No smoking, naked lights or ignition sources.
  - ▶ Store in a cool, dry, well-ventilated area.
  - ▶ Store away from incompatible materials and foodstuff containers.
  - ▶ Protect containers against physical damage and check regularly for leaks.
  - ▶ Observe manufacturer's storage and handling recommendations contained within this SDS.

## Conditions for safe storage, including any incompatibilities

## Suitable container

- ▶ Metal can or drum
- ▶ Packaging as recommended by manufacturer.
- ▶ Check all containers are clearly labelled and free from leaks.

Avoid contamination of water, foodstuffs, feed or seed.

For saturated perfluorocarbons:

## Storage incompatibility

- ▶ Standard oxidation-reduction potentials do not apply to PFCs. The materials are unaffected by electrochemical reactions and do not dissociate in aqueous media.
- ▶ They are essentially already fully oxidised and are unaffected by standard oxidizing agents such as permanganates, chromates, etc. The only known oxidation takes place only at high temperatures by thermal decomposition.
- ▶ Likewise, the materials are only reduced under extreme conditions, requiring reducing agents such as elemental sodium
- ▶ Avoid magnesium, aluminium and their alloys, brass and steel.
- ▶ The most potentially reactive of this class, the perfluorinated tertiary amines and the quite analogous perfluorinated ethers, are similarly unreactive. Fluorinated tert-amines do not form salts or complexes with strong acids and are not attacked by most oxidizing or reducing agents

## SECTION 8 Exposure controls / personal protection

## Control parameters

## Occupational Exposure Limits (OEL)

## INGREDIENT DATA

Source	Ingredient	Material name	TWA	STEL	Peak	Notes
US OSHA Permissible Exposure Limits (PELs) Table Z-1	calcium carbonate	Marble- Total dust	15 mg/m3	Not Available	Not Available	Not Available
US OSHA Permissible Exposure Limits (PELs) Table Z-1	calcium carbonate	Marble- Respirable fraction	5 mg/m3	Not Available	Not Available	Not Available
US OSHA Permissible Exposure Limits (PELs) Table Z-1	calcium carbonate	Limestone- Respirable fraction	5 mg/m3	Not Available	Not Available	Not Available
US OSHA Permissible Exposure Limits (PELs) Table Z-1	calcium carbonate	Calcium Carbonate- Respirable fraction	5 mg/m3	Not Available	Not Available	Not Available
US OSHA Permissible Exposure Limits (PELs) Table Z-1	calcium carbonate	Limestone- Total dust	15 mg/m3	Not Available	Not Available	Not Available
US OSHA Permissible Exposure Limits (PELs) Table Z-1	calcium carbonate	Calcium Carbonate- Total dust	15 mg/m3	Not Available	Not Available	Not Available
US NIOSH Recommended Exposure Limits (RELs)	calcium carbonate	Marble - respirable	5 mg/m3	Not Available	Not Available	Not Available

Continued...

## Oatey Great White Pipe Joint Compound

Source	Ingredient	Material name	TWA	STEL	Peak	Notes
US NIOSH Recommended Exposure Limits (RELs)	calcium carbonate	Calcium carbonate - total	10 mg/m3	Not Available	Not Available	Not Available
US NIOSH Recommended Exposure Limits (RELs)	calcium carbonate	Marble - total	10 mg/m3	Not Available	Not Available	Not Available
US NIOSH Recommended Exposure Limits (RELs)	calcium carbonate	Limestone - total	10 mg/m3	Not Available	Not Available	Not Available
US NIOSH Recommended Exposure Limits (RELs)	calcium carbonate	Limestone - respirable	5 mg/m3	Not Available	Not Available	Not Available
US NIOSH Recommended Exposure Limits (RELs)	calcium carbonate	Calcium carbonate - respirable	5 mg/m3	Not Available	Not Available	Not Available
US OSHA Permissible Exposure Limits (PELs) Table Z-1	Distillates (petroleum), hydrotreated heavy naphthenic	Oil mist, mineral	5 mg/m3	Not Available	Not Available	Not Available
US ACGIH Threshold Limit Values (TLV)	Distillates (petroleum), hydrotreated heavy naphthenic	Mineral oil, excluding metal working fluids - Poorly and mildly refined	Not Available	Not Available	Not Available	A2
US ACGIH Threshold Limit Values (TLV)	Distillates (petroleum), hydrotreated heavy naphthenic	Mineral oil, excluding metal working fluids - Pure, highly and severely refined (Inhalable particulate matter)	5 mg/m3	Not Available	Not Available	A4
US OSHA Permissible Exposure Limits (PELs) Table Z-1	Titanium dioxide	Titanium dioxide - Total dust	15 mg/m3	Not Available	Not Available	Not Available
US NIOSH Recommended Exposure Limits (RELs)	Titanium dioxide	Titanium dioxide	Not Available	Not Available	Not Available	Ca; See Appendix A
US ACGIH Threshold Limit Values (TLV)	Titanium dioxide	Titanium dioxide	10 mg/m3	Not Available	Not Available	(A4)
US OSHA Permissible Exposure Limits (PELs) Table Z-3	silica crystalline - quartz	Silica: Crystalline: Quartz (Respirable)	10 (%SiO <sub>2</sub> +2) mg/m <sup>3</sup> / 250 (%SiO <sub>2</sub> +5) mppcf	Not Available	Not Available	Not Available
US NIOSH Recommended Exposure Limits (RELs)	silica crystalline - quartz	Silica, crystalline (as respirable dust)	0.05 mg/m3	Not Available	Not Available	Ca; See Appendix A
US ACGIH Threshold Limit Values (TLV)	silica crystalline - quartz	Silica, crystalline - α-quartz and cristobalite (Respirable particulate matter)	0.025 mg/m3	Not Available	Not Available	A2

## Exposure controls

## Appropriate engineering controls

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.

The basic types of engineering controls are:

Process controls which involve changing the way a job activity or process is done to reduce the risk.

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.

Employers may need to use multiple types of controls to prevent employee overexposure.

General exhaust is adequate under normal operating conditions. If risk of overexposure exists, wear SAA approved respirator.

Correct fit is essential to obtain adequate protection. Provide adequate ventilation in warehouse or closed storage areas. 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.

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.)

Continued...



## Oatay Great White Pipe Joint Compound

Within each range the appropriate value depends on:

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

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.

## Personal protection



## Eye and face protection

- † Safety glasses with side shields
- † Chemical goggles.
- † 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]

## Skin protection

See Hand protection below

## Hands/feet protection

Wear general protective gloves, eg. light weight rubber gloves.

## Body protection

See Other protection below

## Other protection

No special equipment needed when handling small quantities.

**OTHERWISE:**

- † Overalls
- † Barrier cream.
- † Eyewash unit.

## Respiratory protection

Type A Filter of sufficient capacity. (AS/NZS 1716 & 1715, EN 143:2000 & 149:2001, ANSI Z88 or national equivalent)

- † Cartridge respirators should never be used for emergency ingress or in areas of unknown vapour concentrations or oxygen content.
- † The wearer must be warned to leave the contaminated area immediately on detecting any odours through the respirator. The odour may indicate that the mask is not functioning properly, that the vapour concentration is too high, or that the mask is not properly fitted. Because of these limitations, only restricted use of cartridge respirators is considered appropriate.
- † Cartridge performance is affected by humidity. Cartridges should be changed after 2 hr of continuous use unless it is determined that the humidity is less than 75%, in which case, cartridges can be used for 4 hr. Used cartridges should be discarded daily, regardless of the length of time used

## SECTION 9 Physical and chemical properties

## Information on basic physical and chemical properties

Appearance	White Liquid Paste		
Physical state	Liquid	Relative density (Water = 1)	Not Available
Odour	Not Available	Partition coefficient n-octanol / water	Not Available
Odour threshold	Not Available	Auto-ignition temperature (°C)	Not Available
pH (as supplied)	Not Available	Decomposition temperature	Not Available

Continued...

## Datey Great White Pipe Joint Compound

Melting point / freezing point (°C)	Not Available	Viscosity (cSt)	25000
Initial boiling point and boiling range (°C)	Not Available	Molecular weight (g/mol)	Not Available
Flash point (°C)	> 100	Taste	Not Available
Evaporation rate	Not Available	Explosive properties	Not Available
Flammability	Not Applicable	Oxidising properties	Not Available
Upper Explosive Limit (%)	Not Available	Surface Tension (dyn/cm or mN/m)	Not Available
Lower Explosive Limit (%)	Not Available	Volatile Component (%vol)	Not Available
Vapour pressure (kPa)	Not Available	Gas group	Not Available
Solubility in water	Immiscible	pH as a solution (%)	Not Available
Vapour density (Air = 1)	1.7	VOC g/L	3

## SECTION 10 Stability and reactivity

Reactivity	See section 7
Chemical stability	Product is considered stable and hazardous polymerisation will not occur.
Possibility of hazardous reactions	See section 7
Conditions to avoid	See section 7
Incompatible materials	See section 7
Hazardous decomposition products	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. Nevertheless, good hygiene practice requires that exposure be kept to a minimum and that suitable control measures be used in an occupational setting.		
Ingestion	The material has <b>NOT</b> been classified as 'harmful by ingestion'. This is because of the lack of corroborating animal or human evidence.		
Skin Contact	The liquid may be able to be mixed with fats or oils and may degrease the skin, producing a skin reaction described as non-allergic contact dermatitis. The material is unlikely to produce an irritant dermatitis.		
Eye	Although the liquid is not thought to be an irritant, direct contact with the eye may produce transient discomfort characterized by tearing or conjunctival redness (as with windburn).		
Chronic	Frequent or prolonged contact may defat and dry the skin, leading to discomfort and dermatitis. Thermal decomposition vapors of fluorinated polymers may cause polymer fume fever. In 1997, IARC (the International Agency for Research on Cancer) concluded that crystalline silica inhaled from occupational sources can cause lung cancer in humans. However in making the overall evaluation, IARC noted that 'carcinogenicity was not detected in all industrial circumstances studied. Carcinogenicity may be dependent on inherent characteristics of the crystalline silica or on external factors affecting its biological activity or distribution of its polymorphs.' (IARC Monographs on the evaluation of the carcinogenic risks of chemicals to humans, Silica, silicates dust and organic fibres, 1997, Vol. 68, IARC, Lyon, France.)		
Acute Toxicity	✗	Carcinogenicity	✗
Skin Irritation/Corrosion	✗	Reproductivity	✗
Serious Eye Damage/Irritation	✗	STOT - Single Exposure	✗
Respiratory or Skin sensitisation	✗	STOT - Repeated Exposure	✗
Mutagenicity	✗	Aspiration Hazard	✗

Legend: ✗ - Data either not available or does not fill the criteria for classification

Continued...

## Oatey Great White Pipe Joint Compound

✓ – Data available to make classification

## SECTION 12 Ecological information

## Toxicity

Oatey Great White Pipe Joint Compound	Endpoint	Test Duration (hr)	Species	Value	Source
	Not Available	Not Available	Not Available	Not Available	Not Available
calcium carbonate	Endpoint	Test Duration (hr)	Species	Value	Source
	Not Available	Not Available	Not Available	Not Available	Not Available
Distillates (petroleum), hydrotreated heavy naphthenic	Endpoint	Test Duration (hr)	Species	Value	Source
	ErC50	72h	Algae or other aquatic plants	>1000mg/l	1
	NOEC(ECx)	504h	Crustacea	>1mg/l	1
	EC50	48h	Crustacea	>1000mg/l	1
polytetrafluoroethylene	Endpoint	Test Duration (hr)	Species	Value	Source
	Not Available	Not Available	Not Available	Not Available	Not Available
	Endpoint	Test Duration (hr)	Species	Value	Source
	EC50	72h	Algae or other aquatic plants	3.75-7.58mg/l	4
Titanium dioxide	BCF	1008h	Fish	<1.1-9.6	7
	EC50	48h	Crustacea	1.9mg/l	2
	LC50	96h	Fish	1.85-3.06mg/l	4
	NOEC(ECx)	504h	Crustacea	0.02mg/l	4
	EC50	96h	Algae or other aquatic plants	179.05mg/l	2
	silica crystalline - quartz	Endpoint	Test Duration (hr)	Species	Value
	Not Available	Not Available	Not Available	Not Available	Not Available

## Legend:

Extracted from 1. IUCLID Toxicity Data 2. Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicity 3. EPIWIN Suite V3.12 (QSAR) - 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

## Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
polytetrafluoroethylene	HIGH	HIGH
Titanium dioxide	HIGH	HIGH

## Bioaccumulative potential

Ingredient	Bioaccumulation
polytetrafluoroethylene	LOW (LogKOW = 1.2142)
Titanium dioxide	LOW (BCF = 10)

## Mobility in soil

Ingredient	Mobility
polytetrafluoroethylene	LOW (KOC = 106.8)
Titanium dioxide	LOW (KOC = 23.74)

Continued...

## Oatey Great White Pipe Joint Compound

**SECTION 13 Disposal considerations****Waste treatment methods****Product / Packaging disposal**

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.

A Hierarchy of Controls seems to be common - the user should investigate:

- Reduction
- Reuse
- Recycling
- Disposal (if all else fails)

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.

- **DO NOT** allow wash water from cleaning or process equipment to enter drains.
- It may be necessary to collect all wash water for treatment before disposal.
- In all cases disposal to sewer may be subject to local laws and regulations and these should be considered first.
- Where in doubt contact the responsible authority.
- Recycle wherever possible or consult manufacturer for recycling options.
- Consult State Land Waste Authority for disposal.
- Bury or incinerate residue at an approved site.
- Recycle containers if possible, or dispose of in an authorised landfill.

**SECTION 14 Transport information****Labels Required**

<b>Marine Pollutant</b>	NO
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**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

**Transport in bulk in accordance with MARPOL Annex V and the IMSBC Code**

Product name	Group
calcium carbonate	Not Available
Distillates (petroleum), hydrotreated heavy naphthenic	Not Available
polytetrafluoroethylene	Not Available
Titanium dioxide	Not Available
silica crystalline - quartz	Not Available

**Transport in bulk in accordance with the ICG Code**

Product name	Ship Type
calcium carbonate	Not Available
Distillates (petroleum), hydrotreated heavy naphthenic	Not Available
polytetrafluoroethylene	Not Available
Titanium dioxide	Not Available
silica crystalline - quartz	Not Available

**SECTION 15 Regulatory information****Safety, health and environmental regulations / legislation specific for the substance or mixture**

calcium carbonate is found on the following regulatory lists

Continued...

## Oatey Great White Pipe Joint Compound

US NIOSH Recommended Exposure Limits (RELs)

US OSHA Permissible Exposure Limits (PELs) Table Z-1

US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory

US TSCA Chemical Substance Inventory - Interim List of Active Substances

**Distillates (petroleum), hydrotreated heavy naphthenic is found on the following regulatory lists**

Chemical Footprint Project - Chemicals of High Concern List

International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs

International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs - Group 1: Carcinogenic to humans

US - California Proposition 65 - Carcinogens

US - California Safe Drinking Water and Toxic Enforcement Act of 1986 - Proposition 65 List

US ACGIH Threshold Limit Values (TLV)

US ACGIH Threshold Limit Values (TLV) - Carcinogens

US DOE Temporary Emergency Exposure Limits (TEELs)

US National Toxicology Program (NTP) 14th Report Part A Known to be Human Carcinogens

US OSHA Permissible Exposure Limits (PELs) Table Z-1

US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory

US TSCA Chemical Substance Inventory - Interim List of Active Substances

**polytetrafluoroethylene is found on the following regulatory lists**

International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs

US DOE Temporary Emergency Exposure Limits (TEELs)

US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory

US TSCA Chemical Substance Inventory - Interim List of Active Substances

**Titanium dioxide is found on the following regulatory lists**

Chemical Footprint Project - Chemicals of High Concern List

International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs

International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs - Group 2B: Possibly carcinogenic to humans

International WHO List of Proposed Occupational Exposure Limit (OEL) Values for Manufactured Nanomaterials (MNMS)

US - California Proposition 65 - Carcinogens

US - California Safe Drinking Water and Toxic Enforcement Act of 1986 - Proposition 65 List

US ACGIH Threshold Limit Values (TLV)

US ACGIH Threshold Limit Values (TLV) - Carcinogens

US ACGIH Threshold Limit Values (TLV) - Notice of intended Changes

US DOE Temporary Emergency Exposure Limits (TEELs)

US List of Active Substances Exempt from the TSCA Inventory Notifications (Active-Inactive) Rule

US NIOSH Carcinogen List

US NIOSH Recommended Exposure Limits (RELs)

US OSHA Permissible Exposure Limits (PELs) Table Z-1

US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory

US TSCA Chemical Substance Inventory - Interim List of Active Substances

**silica crystalline - quartz is found on the following regulatory lists**

Chemical Footprint Project - Chemicals of High Concern List

International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs

International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs - Group 1: Carcinogenic to humans

US - California Proposition 65 - Carcinogens

US - California Safe Drinking Water and Toxic Enforcement Act of 1986 - Proposition 65 List

US ACGIH Threshold Limit Values (TLV)

US ACGIH Threshold Limit Values (TLV) - Carcinogens

US DOE Temporary Emergency Exposure Limits (TEELs)

US National Toxicology Program (NTP) 14th Report Part A Known to be Human Carcinogens

US NIOSH Carcinogen List

US NIOSH Recommended Exposure Limits (RELs)

US OSHA Carcinogens Listing

US OSHA Permissible Exposure Limits (PELs) Table Z-3

US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory

US TSCA Chemical Substance Inventory - Interim List of Active Substances

**Federal Regulations****Superfund Amendments and Reauthorization Act of 1986 (SARA)****Section 311/312 hazard categories**

Flammable (Gases, Aerosols, Liquids, or Solids)	No
Gas under pressure	No
Explosive	No
Self-heating	No
Pyrophoric (Liquid or Solid)	No
Pyrophoric Gas	No
Corrosive to metal	No
Oxidizer (Liquid, Solid or Gas)	No
Organic Peroxide	No
Self-reactive	No
In contact with water emits flammable gas	No

Continued...

## Oatey Great White Pipe Joint Compound

Combustible Dust	No
Carcinogenicity	No
Acute toxicity (any route of exposure)	No
Reproductive toxicity	No
Skin Corrosion or Irritation	No
Respiratory or Skin Sensitization	No
Serious eye damage or eye irritation	No
Specific target organ toxicity (single or repeated exposure)	No
Aspiration Hazard	No
Germ cell mutagenicity	No
Simple Asphyxiant	No
Hazards Not Otherwise Classified	Yes

**US. EPA CERCLA Hazardous Substances and Reportable Quantities (40 CFR 302.4)**

None Reported

**State Regulations****US. California Proposition 65**

WARNING: This product can expose you to chemicals including silica, crystalline, titanium dioxide, 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).

**US - California Proposition 65 - Carcinogens: Listed substance**

Titanium dioxide, silica crystalline - quartz

**National Inventory Status**

National Inventory	Status
USA - TSCA	Yes

Yes = All CAS declared ingredients are on the inventory

**Legend:** No = One or more of the CAS listed ingredients are not on the inventory and are not exempt from listing (see specific ingredients in brackets)

**SECTION 16 Other information**

Revision Date	04/06/2021
Initial Date	06/02/2021

**Other information**

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  
 ES: Exposure Standard  
 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  
 AIIC: Australian Inventory of Industrial Chemicals

Continued...



**Oatey Great White Pipe Joint Compound**

DSL: Domestic Substances List  
NDSL: Non-Domestic Substances List  
IECSC: Inventory of Existing Chemical Substance in China  
EINECS: European INventory of Existing Commercial chemical Substances  
ELINCS: European List of Notified Chemical Substances  
NLP: No-Longer Polymers  
ENCS: Existing and New Chemical Substances Inventory  
KECI: Korea Existing Chemicals Inventory  
NZIoC: New Zealand Inventory of Chemicals  
PICCS: Philippine Inventory of Chemicals and Chemical Substances  
TSCA: Toxic Substances Control Act  
TCSI: Taiwan Chemical Substance Inventory  
INSQ: Inventario Nacional de Sustancias Químicas  
NCI: National Chemical Inventory  
FBEPH: Russian Register of Potentially Hazardous Chemical and Biological Substances



## Hercules Grrip

### HCC Holdings, Inc. an Oatey Affiliate

Version No: 1.2

Safety Data Sheet according to OSHA HazCom Standard (2012) requirements

Issue Date: **05/17/2023**

Print Date: **05/17/2023**

S.GHS.U.S.A.EN

#### SECTION 1 Identification

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##### Product Identifier

<b>Product name</b>	Hercules Grrip
<b>Synonyms</b>	Not Available
<b>Other means of identification</b>	15510, 15515, 15520, 15525

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

<b>Relevant identified uses</b>	Pipe thread sealant
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##### Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party

<b>Registered company name</b>	HCC Holdings, Inc. an Oatey Affiliate
<b>Address</b>	4700 West 160th Street Cleveland, OH 44135 United States
<b>Telephone</b>	216-267-7100
<b>Fax</b>	Not Available
<b>Website</b>	Not Available
<b>Email</b>	info@oatey.com

##### Emergency phone number

<b>Association / Organisation</b>	Chemtrec
<b>Emergency telephone numbers</b>	1-800-424-9300 (Outside the US 1-703-527-3887)
<b>Other emergency telephone numbers</b>	Emergency First Aid: 1-877-740-5015

#### SECTION 2 Hazard(s) identification

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##### Classification of the substance or mixture

<b>Classification</b>	Serious Eye Damage/Eye Irritation Category 2A, Flammable Liquids Category 4, Sensitisation (Skin) Category 1
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##### Label elements

Hazard pictogram(s)



## Hercules Grrrip

**Signal word**    **Warning****Hazard statement(s)**

Causes serious eye irritation.  
 Combustible liquid.  
 May cause an allergic skin reaction.

**Hazard(s) not otherwise classified**

Frequent or prolonged contact may defat and dry the skin leading to discomfort and dermatitis. Static accumulating flammable liquid can become electrostatically charged even in bonded and grounded equipment. Sparks may ignite liquid and vapor. May cause flash fire or explosion.

**Precautionary statement(s) Prevention**

Keep away from flames and hot surfaces. – No smoking.  
 Avoid breathing mist/vapours/spray.  
 Wear protective gloves, protective clothing, eye protection and face protection.  
 Wash all exposed external body areas thoroughly after handling.  
 Contaminated work clothing must not be allowed out of the workplace.

**Precautionary statement(s) Response**

In case of fire: Use alcohol resistant foam or normal protein foam to extinguish.  
 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 advice/attention.  
 If eye irritation persists: Get medical advice/attention.  
 Wash contaminated clothing before reuse.

**Precautionary statement(s) Storage**

Store in a well-ventilated place. Keep cool.

**Precautionary statement(s) Disposal**

Dispose of contents/container to authorised hazardous or special waste collection point in accordance with any local regulation.

**SECTION 3 Composition / information on ingredients****Substances**

See section below for composition of Mixtures

**Mixtures**

CAS No	%[weight]	Name
67-63-0	10-20	<u>isopropanol</u>
112945-52-5	1-5	<u>silica amorphous</u>
Not Available	15-25	Rosin
14808-60-7*	<0.1	<u>silica crystalline - quartz</u>
14807-96-6*	15-25	<u>Talc</u>
7782-42-5	1-5	<u>graphite, natural</u>

The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret.

**SECTION 4 First-aid measures****Description of first aid measures**

**Eye Contact**    If this product comes in contact with the eyes:

- Wash out immediately with fresh running water.
- Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally

Continued...

## Hercules Grrip

	<ul style="list-style-type: none"> <li>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 or combustion products are inhaled remove from contaminated area.</li> <li>▸ Lay patient down. Keep warm and rested.</li> <li>▸ Prostheses such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures.</li> <li>▸ Apply artificial respiration if not breathing, preferably with a demand valve resuscitator, bag-valve mask device, or pocket mask as trained. Perform CPR if necessary.</li> <li>▸ Transport to hospital, or doctor, without delay.</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> <li>▸ If spontaneous vomiting appears imminent or occurs, hold patient's head down, lower than their hips to help avoid possible aspiration of vomitus.</li> </ul>

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

See Section 11

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

Any material aspirated during vomiting may produce lung injury. Therefore emesis should not be induced mechanically or pharmacologically. Mechanical means should be used if it is considered necessary to evacuate the stomach contents; these include gastric lavage after endotracheal intubation. If spontaneous vomiting has occurred after ingestion, the patient should be monitored for difficult breathing, as adverse effects of aspiration into the lungs may be delayed up to 48 hours. Treat symptomatically.

For acute or short term repeated exposures to isopropanol:

- Rapid onset respiratory depression and hypotension indicates serious ingestions that require careful cardiac and respiratory monitoring together with immediate intravenous access.
- Rapid absorption precludes the usefulness of emesis or lavage 2 hours post-ingestion. Activated charcoal and cathartics are not clinically useful. Ipecac is most useful when given 30 mins. post-ingestion.
- There are no antidotes.
- Management is supportive. Treat hypotension with fluids followed by vasopressors.
- Watch closely, within the first few hours for respiratory depression; follow arterial blood gases and tidal volumes.
- Ice water lavage and serial haemoglobin levels are indicated for those patients with evidence of gastrointestinal bleeding.

**SECTION 5 Fire-fighting measures****Extinguishing media**

- Alcohol stable foam.
- Dry chemical powder.
- BCF (where regulations permit).
- Carbon dioxide.
- Water spray or fog - Large fires only.

**Special hazards arising from the substrate or mixture****Fire Incompatibility**

- Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may result

**Special protective equipment and precautions for fire-fighters****Fire Fighting**

- When silica dust is dispersed in air, firefighters should wear inhalation protection as hazardous substances from the fire may be adsorbed on the silica particles.
- When heated to extreme temperatures, (>1700 deg.C) amorphous silica can fuse.
- Alert Fire Department and tell them location and nature of hazard.
- Wear full body protective clothing with breathing apparatus.
- Prevent, by any means available, spillage from entering drains or water course.
- Use water delivered as a fine spray to control fire and cool adjacent area.
- Avoid spraying water onto liquid pools.
- **DO NOT** approach containers suspected to be hot.
- Cool fire exposed containers with water spray from a protected location.
- If safe to do so, remove containers from path of fire.

Continued...

## Hercules Gripp

## Fire/Explosion Hazard

**WARNING:** In use may form flammable/ explosive vapour-air mixtures.

- When silica dust is dispersed in air, firefighters should wear inhalation protection as hazardous substances from the fire may be adsorbed on the silica particles.
- When heated to extreme temperatures, (>1700 deg.C) amorphous silica can fuse.
- Combustible.
- Slight fire hazard when exposed to heat or flame.
- Heating may cause expansion or decomposition leading to violent rupture of containers.
- On combustion, may emit toxic fumes of carbon monoxide (CO).
- May emit acrid smoke.
- Mists containing combustible materials may be explosive.

Combustion products include:

carbon dioxide (CO<sub>2</sub>)

silicon dioxide (SiO<sub>2</sub>)

other pyrolysis products typical of burning organic material.

May emit poisonous fumes.

May emit corrosive fumes.

**WARNING:** Long standing in contact with air and light may result in the formation of potentially explosive peroxides.

## 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

#### Minor Spills

- Remove all ignition sources.
- Clean up all spills immediately.
- Avoid breathing vapours and contact with skin and eyes.
- Control personal contact with the substance, by using protective equipment.
- Contain and absorb spill with sand, earth, inert material or vermiculite.
- Wipe up.
- Place in a suitable, labelled container for waste disposal.

Moderate hazard.

#### Major Spills

- Clear area of personnel and move upwind.
- Alert Fire Department and tell them location and nature of hazard.
- Wear breathing apparatus plus protective gloves.
- Prevent, by any means available, spillage from entering drains or water course.
- No smoking, naked lights or ignition sources.
- Increase ventilation.
- Stop leak if safe to do so.
- Contain spill with sand, earth or vermiculite.
- Collect recoverable product into labelled containers for recycling.
- Absorb remaining product with sand, earth or vermiculite.
- Collect solid residues and seal in labelled drums for disposal.
- Wash area and prevent runoff into drains.
- If contamination of drains or waterways occurs, advise emergency services.

Personal Protective Equipment advice is contained in Section 8 of the SDS.

## SECTION 7 Handling and storage

### Precautions for safe handling

#### Safe handling

- Avoid all personal contact, including inhalation.
- Wear protective clothing when risk of exposure occurs.
- Use in a well-ventilated area.
- Prevent concentration in hollows and sumps.
- **DO NOT** enter confined spaces until atmosphere has been checked.
- Avoid smoking, naked lights or ignition sources.
- Avoid contact with incompatible materials.
- When handling, **DO NOT** eat, drink or smoke.
- Keep containers securely sealed when not in use.
- Avoid physical damage to containers.

Continued...

## Hercules Grip

## Other information

- Always wash hands with soap and water after handling.
  - Work clothes should be laundered separately.
  - Use good occupational work practice.
  - Observe manufacturer's storage and handling recommendations contained within this SDS.
  - Atmosphere should be regularly checked against established exposure standards to ensure safe working conditions.
  - **DO NOT** allow clothing wet with material to stay in contact with skin
- 
- Store in original containers.
  - Keep containers securely sealed.
  - No smoking, naked lights or ignition sources.
  - Store in a cool, dry, well-ventilated area.
  - Store away from incompatible materials and foodstuff containers.
  - Protect containers against physical damage and check regularly for leaks.
  - Observe manufacturer's storage and handling recommendations contained within this SDS.

## Conditions for safe storage, including any incompatibilities

## Suitable container

- Metal can or drum
- Packaging as recommended by manufacturer.
- Check all containers are clearly labelled and free from leaks.

## Storage incompatibility

## Isopropanol (syn: isopropyl alcohol, IPA):

- forms ketones and unstable peroxides on contact with air or oxygen; the presence of ketones especially methyl ethyl ketone (MEK, 2-butanone) will accelerate the rate of peroxidation
- reacts violently with strong oxidisers, powdered aluminium (exothermic), crotonaldehyde, diethyl aluminium bromide (ignition), dioxygenyl tetrafluoroborate (ignition/ ambient temperature), chromium trioxide (ignition), potassium-tert-butoxide (ignition), nitroform (possible explosion), oleum (pressure increased in closed container), cobalt chloride, aluminium triisopropoxide, hydrogen plus palladium dust (ignition), oxygen gas, phosgene, phosgene plus iron salts (possible explosion), sodium dichromate plus sulfuric acid (exothermic/ incandescence), triisobutyl aluminium
- reacts with phosphorus trichloride forming hydrogen chloride gas
- reacts, possibly violently, with alkaline earth and alkali metals, strong acids, strong caustics, acid anhydrides, halogens, aliphatic amines, aluminium isopropoxide, isocyanates, acetaldehyde, barium perchlorate (forms highly explosive perchloric ester compound), benzoyl peroxide, chromic acid, dialkylzincs, dichlorine oxide, ethylene oxide (possible explosion), hexamethylene diisocyanate (possible explosion), hydrogen peroxide (forms explosive compound), hypochlorous acid, isopropyl chlorocarbonate, lithium aluminium hydride, lithium tetrahydroaluminate, nitric acid, nitrogen dioxide, nitrogen tetraoxide (possible explosion), pentafluoroguanidine, perchloric acid (especially hot), permonosulfuric acid, phosphorus pentasulfide, tangerine oil, triethylaluminium, triisobutylaluminium, trinitromethane
- attacks some plastics, rubber and coatings
- reacts with metallic aluminium at high temperature
- may generate electrostatic charges

## Alcohols

- are incompatible with strong acids, acid chlorides, acid anhydrides, oxidising and reducing agents.
- reacts, possibly violently, with alkaline metals and alkaline earth metals to produce hydrogen
- react with strong acids, strong caustics, aliphatic amines, isocyanates, acetaldehyde, benzoyl peroxide, chromic acid, chromium oxide, dialkylzincs, dichlorine oxide, ethylene oxide, hypochlorous acid, isopropyl chlorocarbonate, lithium tetrahydroaluminate, nitrogen dioxide, pentafluoroguanidine, phosphorus halides, phosphorus pentasulfide, tangerine oil, triethylaluminium, triisobutylaluminium
- should not be heated above 49 deg. C. when in contact with aluminium equipment

## Silicas:

- react with hydrofluoric acid to produce silicon tetrafluoride gas
- react with xenon hexafluoride to produce explosive xenon trioxide
- reacts exothermically with oxygen difluoride, and explosively with chlorine trifluoride (these halogenated materials are not commonplace industrial materials) and other fluorine-containing compounds
- may react with fluorine, chlorates
- are incompatible with strong oxidisers, manganese trioxide, chlorine trioxide, strong alkalis, metal oxides, concentrated orthophosphoric acid, vinyl acetate
- may react vigorously when heated with alkali carbonates.
- Avoid strong acids, bases.

## SECTION 8 Exposure controls / personal protection

## Control parameters

## Occupational Exposure Limits (OEL)

## INGREDIENT DATA

Source	Ingredient	Material name	TWA	STEL	Peak	Notes
US OSHA Permissible Exposure Limits (PELs) Table Z-1	isopropanol	Isopropyl alcohol	400 ppm / 980 mg/m3	Not Available	Not Available	Not Available

Continued...



## Hercules Gripp

Source	Ingredient	Material name	TWA	STEL	Peak	Notes
US NIOSH Recommended Exposure Limits (RELs)	isopropanol	Isopropyl alcohol	400 ppm / 980 mg/m3	1225 mg/m3 / 500 ppm	Not Available	Not Available
US OSHA Permissible Exposure Limits (PELs) Table Z-1	silica amorphous	Particulates Not Otherwise Regulated (PNOR)- Total dust	15 mg/m3	Not Available	Not Available	Not Available
US OSHA Permissible Exposure Limits (PELs) Table Z-1	silica amorphous	Particulates Not Otherwise Regulated (PNOR)- Respirable fraction	5 mg/m3	Not Available	Not Available	Not Available
US OSHA Permissible Exposure Limits (PELs) Table Z-3	silica amorphous	Amorphous, including natural diatomaceous earth	80 (%SiO <sub>2</sub> ) mg/m3 / 20 mppcf	Not Available	Not Available	Not Available
US NIOSH Recommended Exposure Limits (RELs)	silica amorphous	Silica, amorphous	6 mg/m3	Not Available	Not Available	Not Available
US OSHA Permissible Exposure Limits (PELs) Table Z-1	silica crystalline - quartz	Quartz - respirable	0.05 mg/m3	Not Available	Not Available	Not Available
US OSHA Permissible Exposure Limits (PELs) Table Z-3	silica crystalline - quartz	Silica: Crystalline: Quartz (Respirable)	10 (%SiO <sub>2</sub> +2) mg/m3 / 250 (%SiO <sub>2</sub> +5) mppcf	Not Available	Not Available	Not Available
US NIOSH Recommended Exposure Limits (RELs)	silica crystalline - quartz	Silica, crystalline (as respirable dust)	0.05 mg/m3	Not Available	Not Available	Ca; See Appendix A
US OSHA Permissible Exposure Limits (PELs) Table Z-1	Talc	Particulates Not Otherwise Regulated (PNOR)- Respirable fraction	5 mg/m3	Not Available	Not Available	Not Available
US OSHA Permissible Exposure Limits (PELs) Table Z-1	Talc	Particulates Not Otherwise Regulated (PNOR)- Total dust	15 mg/m3	Not Available	Not Available	Not Available
US OSHA Permissible Exposure Limits (PELs) Table Z-3	Talc	Silicates (less than 1% crystalline silica): Soapstone	20 mppcf	Not Available	Not Available	Not Available
US OSHA Permissible Exposure Limits (PELs) Table Z-3	Talc	Silicates (less than 1% crystalline silica): Talc (not containing asbestos)	20 mppcf	Not Available	Not Available	Not Available
US NIOSH Recommended Exposure Limits (RELs)	Talc	Talc (containing no asbestos and less than 1% quartz) - respirable	2 mg/m3	Not Available	Not Available	Not Available
US OSHA Permissible Exposure Limits (PELs) Table Z-1	graphite, natural	Graphite, synthetic- Respirable Fraction	5 mg/m3	Not Available	Not Available	Not Available
US OSHA Permissible Exposure Limits (PELs) Table Z-1	graphite, natural	Graphite, synthetic- Total dust	15 mg/m3	Not Available	Not Available	Not Available
US OSHA Permissible Exposure Limits (PELs) Table Z-3	graphite, natural	Graphite (Natural)	15 mppcf	Not Available	Not Available	Not Available
US NIOSH Recommended Exposure Limits (RELs)	graphite, natural	Graphite (natural)	2.5 mg/m3	Not Available	Not Available	Not Available

## Exposure controls

## Appropriate engineering controls

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.

The basic types of engineering controls are:

Process controls which involve changing the way a job activity or process is done to reduce the risk.

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. Employers may need to use multiple types of controls to prevent employee overexposure.

General exhaust is adequate under normal operating conditions. Local exhaust ventilation may be required in special circumstances. If risk of overexposure exists, wear approved respirator. Supplied-air type respirator may be required in special circumstances. Correct fit is essential to ensure adequate protection. Provide adequate ventilation in warehouses and enclosed storage areas. 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.

Continued...

Hercules Grip

Type of Contaminant:	Air Speed:
solvent, vapours, degreasing etc., evaporating from tank (in still air).	0.25-0.5 m/s (50-100 l/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 l/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 l/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 l/min.)

Within each range the appropriate value depends on:

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

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 l/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.

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



**Eye and face protection**

- \* Safety glasses with side shields.
- \* Chemical goggles.
- \* 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]

**Skin protection**

See Hand protection below

- \* Wear chemical protective gloves, e.g. PVC.
- \* Wear safety footwear or safety gumboots, e.g. Rubber

**Hands/feet protection**

**NOTE:**

- \* 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.
- \* Contaminated leather items, such as shoes, belts and watch-bands should be removed and destroyed.
- \* When handling hot materials wear heat resistant, elbow length gloves.
- \* Rubber gloves are not recommended when handling hot objects, materials
- \* Protective gloves eg. Leather gloves or gloves with Leather facing

**Body protection**

See Other protection below

**Other protection**

- \* Overalls.
- \* P.V.C apron.
- \* Barrier cream.
- \* Skin cleansing cream.
- \* Eye wash unit.

**Respiratory protection**

Type A-P Filter of sufficient capacity. (AS/NZS 1716 & 1715, EN 143:2000 & 149:2001, ANSI Z88 or national equivalent)

## Hercules Grrip

- Cartridge respirators should never be used for emergency ingress or in areas of unknown vapour concentrations or oxygen content.
- The wearer must be warned to leave the contaminated area immediately on detecting any odours through the respirator. The odour may indicate that the mask is not functioning properly, that the vapour concentration is too high, or that the mask is not properly fitted. Because of these limitations, only restricted use of cartridge respirators is considered appropriate.
- Cartridge performance is affected by humidity. Cartridges should be changed after 2 hr of continuous use unless it is determined that the humidity is less than 75%, in which case, cartridges can be used for 4 hr. Used cartridges should be discarded daily, regardless of the length of time used

## SECTION 9 Physical and chemical properties

### Information on basic physical and chemical properties

<b>Appearance</b>	Black Liquid Paste		
<b>Physical state</b>	Liquid	<b>Relative density (Water = 1)</b>	1.29
<b>Odour</b>	Alcohol	<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>	Not Available	<b>Decomposition temperature (°C)</b>	Not Available
<b>Melting point / freezing point (°C)</b>	Not Available	<b>Viscosity (cSt)</b>	7751.938
<b>Initial boiling point and boiling range (°C)</b>	Not Available	<b>Molecular weight (g/mol)</b>	Not Available
<b>Flash point (°C)</b>	79.4	<b>Taste</b>	Not Available
<b>Evaporation rate</b>	Not Available	<b>Explosive properties</b>	Not Available
<b>Flammability</b>	Combustible.	<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>	4.40	<b>Gas group</b>	Not Available
<b>Solubility in water</b>	Partly miscible	<b>pH as a solution (1%)</b>	Not Available
<b>Vapour density (Air = 1)</b>	Not Available	<b>VOC g/L</b>	186

## 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

<b>Inhaled</b>	The material has <b>NOT</b> been classified as 'harmful by inhalation'. This is because of the lack of corroborating animal or human evidence.
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Continued...

Hercules Grrip

The odour of isopropanol may give some warning of exposure, but odour fatigue may occur. Inhalation of isopropanol may produce irritation of the nose and throat with sneezing, sore throat and runny nose.

**Ingestion** The material has **NOT** been classified as 'harmful by ingestion'. This is because of the lack of corroborating animal or human evidence.

Overexposure to non-ring alcohols causes nervous system symptoms. These include headache, muscle weakness and inco-ordination, giddiness, confusion, delirium and coma.

**Skin Contact** The material is not thought to produce adverse health effects or skin irritation following contact. Nevertheless, good hygiene practice requires that exposure be kept to a minimum and that suitable gloves be used in an occupational setting.

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** Causes serious eye irritation.

In 1997, IARC (the International Agency for Research on Cancer) concluded that crystalline silica inhaled from occupational sources can cause lung cancer in humans. However in making the overall evaluation, IARC noted that 'carcinogenicity was not detected in all industrial circumstances studied. Carcinogenicity may be dependent on inherent characteristics of the crystalline silica or on external factors affecting its biological activity or distribution of its polymorphs.' (IARC Monographs on the evaluation of the carcinogenic risks of chemicals to humans, Silica, silicates dust and organic fibres, 1997, Vol. 68, IARC, Lyon, France.) Skin contact with the material is more likely to cause a sensitisation reaction in some persons compared to the general population.

This material can cause serious damage if one is exposed to it for long periods. It can be assumed that it contains a substance which can produce severe defects.

Substance accumulation, in the human body, may occur and may cause some concern following repeated or long-term occupational exposure.

Rosin (colophony) has caused allergic contact dermatitis in solderers using resin flux-cored solders, can be a sensitizer for strings instrument players, and has caused dermatitis after use in adhesive tapes (NIOSH/TEC). It is found in many products that commonly come in contact with the skin, including cosmetics, sunscreens, veterinary medications, adhesives, sealants, polishes, paints and oils.

**Chronic** Crystalline silicas activate the inflammatory response of white blood cells after they injure the lung epithelium. Chronic exposure to crystalline silicas reduces lung capacity and predisposes to chest infections.

Amorphous silicas generally are less hazardous than crystalline silicas, but the former can be converted to the latter on heating and subsequent cooling. Inhalation of dusts containing crystalline silicas may lead to silicosis, a disabling lung disease that may take years to develop.

Soluble silicates do not exhibit sensitizing potential. Testing in bacterial and animal experiments have not shown any evidence of them causing mutations or birth defects.

Long term, or repeated exposure of isopropanol may cause inco-ordination and tiredness.

Repeated inhalation exposure to isopropanol may produce sleepiness, inco-ordination and liver degeneration. Animal data show developmental effects only at exposure levels that produce toxic effects in adult animals. Isopropanol does not cause genetic damage.

There are inconclusive reports of human sensitisation from skin contacts with isopropanol. Chronic alcoholics are more tolerant of the whole-body effects of isopropanol.

Animal testing showed the chronic exposure did not produce reproductive effects.

NOTE: Commercial isopropanol does not contain 'isopropyl oil', which caused an excess incidence of sinus and throat cancers in isopropanol production workers in the past. 'Isopropyl oil' is no longer formed during production of isopropanol.

Acute Toxicity	✗	Carcinogenicity	✗
Skin Irritation/Corrosion	✗	Reproductivity	✗
Serious Eye Damage/Irritation	✓	STOT - Single Exposure	✗
Respiratory or Skin sensitisation	✓	STOT - Repeated Exposure	✗
Mutagenicity	✗	Aspiration Hazard	✗

**Legend:** ✗ - Data either not available or does not fill the criteria for classification  
 ✓ - Data available to make classification

**SECTION 12 Ecological information**

**Toxicity**

Hercules Grrip	Endpoint	Test Duration (hr)	Species	Value	Source
	Not Available	Not Available	Not Available	Not Available	Not Available

## Hercules Grrip

	Endpoint	Test Duration (hr)	Species	Value	Source
isopropanol	EC50(ECx)	24h	Algae or other aquatic plants	0.011mg/L	4
	LC50	96h	Fish	>1400mg/l	4
	EC50	72h	Algae or other aquatic plants	>1000mg/l	1
	EC50	96h	Algae or other aquatic plants	>1000mg/l	1
	EC50	48h	Crustacea	7550mg/l	4
silica amorphous	Endpoint	Test Duration (hr)	Species	Value	Source
	EC0(ECx)	24h	Crustacea	>=10000mg/l	1
	EC50	96h	Algae or other aquatic plants	217.576mg/l	2
	EC50	72h	Algae or other aquatic plants	14.1mg/l	2
	LC50	96h	Fish	1033.016mg/l	2
silica crystalline - quartz	Endpoint	Test Duration (hr)	Species	Value	Source
	Not Available	Not Available	Not Available	Not Available	Not Available
	Endpoint	Test Duration (hr)	Species	Value	Source
	LC50	96h	Fish	89581.016mg/l	2
	EC50	96h	Algae or other aquatic plants	7202.7mg/l	2
Talc	NOEC(ECx)	720h	Algae or other aquatic plants	918.089mg/l	2
	Endpoint	Test Duration (hr)	Species	Value	Source
	NOEC(ECx)	48h	Crustacea	>=100mg/l	2
graphite, natural	EC50	72h	Algae or other aquatic plants	>100mg/l	2
	LC50	96h	Fish	>100mg/l	2
	EC50	48h	Crustacea	>100mg/l	2

**Legend:** *Extracted from 1. IUCLID Toxicity Data 2. Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicity 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.

**DO NOT** discharge into sewer or waterways.

### Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
isopropanol	LOW (Half-life = 14 days)	LOW (Half-life = 3 days)
silica amorphous	LOW	LOW

### Bioaccumulative potential

Ingredient	Bioaccumulation
isopropanol	LOW (LogKOW = 0.05)
silica amorphous	LOW (LogKOW = 0.5294)

### Mobility in soil

Ingredient	Mobility
isopropanol	HIGH (KOC = 1.06)
silica amorphous	LOW (KOC = 23.74)

Continued...



## Hercules Grrip

**SECTION 13 Disposal considerations****Waste treatment methods****Product / Packaging disposal**

- Containers may still present a chemical hazard/ danger when empty.
- Return to supplier for reuse/ recycling if possible.

## Otherwise:

- 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.
- Where possible retain label warnings and SDS and observe all notices pertaining to the product.

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.

A Hierarchy of Controls seems to be common - the user should investigate:

- Reduction
- Reuse
- Recycling
- Disposal (if all else fails)

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.

- **DO NOT** allow wash water from cleaning or process equipment to enter drains.
- It may be necessary to collect all wash water for treatment before disposal.
- In all cases disposal to sewer may be subject to local laws and regulations and these should be considered first.
- Where in doubt contact the responsible authority.
- Recycle wherever possible or consult manufacturer for recycling options.
- Consult State Land Waste Authority for disposal.
- Bury or incinerate residue at an approved site.
- Recycle containers if possible, or dispose of in an authorised landfill.

**SECTION 14 Transport information****Labels Required**

<b>Marine Pollutant</b>	NO
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**Land transport (DOT): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS**

Not regulated as dangerous goods except when shipped in bulk. This material is not regulated if in a container of 119 gallons (450L) capacity or less.

**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

**Transport in bulk in accordance with MARPOL Annex V and the IMSBC Code**

<b>Product name</b>	<b>Group</b>
isopropanol	Not Available
silica amorphous	Not Available
Rosin	Not Available
silica crystalline - quartz	Not Available
Talc	Not Available
graphite, natural	Not Available

**Transport in bulk in accordance with the IGC Code**

<b>Product name</b>	<b>Ship Type</b>
isopropanol	Not Available
silica amorphous	Not Available
Rosin	Not Available

Continued...



## Hercules Grrip

Product name	Ship Type
silica crystalline - quartz	Not Available
Talc	Not Available
graphite, natural	Not Available

**SECTION 15 Regulatory information****Safety, health and environmental regulations / legislation specific for the substance or mixture****isopropanol is found on the following regulatory lists**

International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs - Not Classified as Carcinogenic  
 US - Massachusetts - Right To Know Listed Chemicals  
 US DOE Temporary Emergency Exposure Limits (TEELs)  
 US EPCRA Section 313 Chemical List

US NIOSH Recommended Exposure Limits (RELs)  
 US OSHA Permissible Exposure Limits (PELs) Table Z-1  
 US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory  
 US TSCA Section 4/12 (b) - Sunset Dates/Status

**silica amorphous is found on the following regulatory lists**

Chemical Footprint Project - Chemicals of High Concern List  
 International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs - Not Classified as Carcinogenic  
 International WHO List of Proposed Occupational Exposure Limit (OEL) Values for Manufactured Nanomaterials (MNMS)  
 US - Alaska Air Quality Control - Concentrations Triggering an Air Quality Episode for Air Pollutants Other Than PM-2.5  
 US - California - Biomonitoring - Priority Chemicals  
 US - California Proposition 65 - Carcinogens  
 US - California Safe Drinking Water and Toxic Enforcement Act of 1986 - Proposition 65 List  
 US - Massachusetts - Right To Know Listed Chemicals

US DOE Temporary Emergency Exposure Limits (TEELs)  
 US NIOSH Carcinogen List  
 US NIOSH Recommended Exposure Limits (RELs)  
 US OSHA Carcinogens Listing  
 US OSHA Permissible Exposure Limits (PELs) Table Z-1  
 US OSHA Permissible Exposure Limits (PELs) Table Z-3  
 US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory

**silica crystalline - quartz is found on the following regulatory lists**

Chemical Footprint Project - Chemicals of High Concern List  
 International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs  
 International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs - Group 1: Carcinogenic to humans  
 US - California Proposition 65 - Carcinogens  
 US - California Safe Drinking Water and Toxic Enforcement Act of 1986 - Proposition 65 List  
 US - Massachusetts - Right To Know Listed Chemicals  
 US DOE Temporary Emergency Exposure Limits (TEELs)

US National Toxicology Program (NTP) 15th Report Part A Known to be Human Carcinogens  
 US NIOSH Carcinogen List  
 US NIOSH Recommended Exposure Limits (RELs)  
 US OSHA Carcinogens Listing  
 US OSHA Permissible Exposure Limits (PELs) Table Z-1  
 US OSHA Permissible Exposure Limits (PELs) Table Z-3  
 US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory

**Talc is found on the following regulatory lists**

Chemical Footprint Project - Chemicals of High Concern List  
 International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs  
 International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs - Group 2B: Possibly carcinogenic to humans  
 International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs - Not Classified as Carcinogenic  
 International WHO List of Proposed Occupational Exposure Limit (OEL) Values for Manufactured Nanomaterials (MNMS)  
 US - Alaska Air Quality Control - Concentrations Triggering an Air Quality Episode for Air Pollutants Other Than PM-2.5

US - Massachusetts - Right To Know Listed Chemicals  
 US NIOSH Carcinogen List  
 US NIOSH Recommended Exposure Limits (RELs)  
 US OSHA Permissible Exposure Limits (PELs) Table Z-1  
 US OSHA Permissible Exposure Limits (PELs) Table Z-3  
 US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory

**graphite, natural is found on the following regulatory lists**

International WHO List of Proposed Occupational Exposure Limit (OEL) Values for Manufactured Nanomaterials (MNMS)  
 US - Alaska Air Quality Control - Concentrations Triggering an Air Quality Episode for Air Pollutants Other Than PM-2.5  
 US - Massachusetts - Right To Know Listed Chemicals  
 US DOE Temporary Emergency Exposure Limits (TEELs)

US NIOSH Recommended Exposure Limits (RELs)  
 US OSHA Permissible Exposure Limits (PELs) Table Z-1  
 US OSHA Permissible Exposure Limits (PELs) Table Z-3  
 US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory

## Hercules Grrip

**Federal Regulations****Superfund Amendments and Reauthorization Act of 1986 (SARA)****Section 311/312 hazard categories**

Flammable (Gases, Aerosols, Liquids, or Solids)	Yes
Gas under pressure	No
Explosive	No
Self-heating	No
Pyrophoric (Liquid or Solid)	No
Pyrophoric Gas	No
Corrosive to metal	No
Oxidizer (Liquid, Solid or Gas)	No
Organic Peroxide	No
Self-reactive	No
In contact with water emits flammable gas	No
Combustible Dust	No
Carcinogenicity	No
Acute toxicity (any route of exposure)	No
Reproductive toxicity	No
Skin Corrosion or Irritation	No
Respiratory or Skin Sensitization	Yes
Serious eye damage or eye irritation	Yes
Specific target organ toxicity (single or repeated exposure)	No
Aspiration Hazard	No
Germ cell mutagenicity	No
Simple Asphyxiant	No
Hazards Not Otherwise Classified	Yes

**US. EPA CERCLA Hazardous Substances and Reportable Quantities (40 CFR 302.4)**

None Reported

**State Regulations****US. California Proposition 65**

None reported.

**National Inventory Status**

National Inventory	Status
USA - TSCA	Yes

*Yes = All CAS declared ingredients are on the inventory***Legend:** *No = One or more of the CAS listed ingredients are not on the inventory. These ingredients may be exempt or will require registration.***SECTION 16 Other information**

Revision Date	05/17/2023
Initial Date	02/24/2022

**Other information**

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

Continued...

**Hercules Grrip**

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  
ES: Exposure Standard  
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  
AIIIC: Australian Inventory of Industrial Chemicals  
DSL: Domestic Substances List  
NDSL: Non-Domestic Substances List  
IECSC: Inventory of Existing Chemical Substance in China  
EINECS: European INventory of Existing Commercial chemical Substances  
ELINCS: European List of Notified Chemical Substances  
NLP: No-Longer Polymers  
ENCS: Existing and New Chemical Substances Inventory  
KECI: Korea Existing Chemicals Inventory  
NZIoC: New Zealand Inventory of Chemicals  
PICCS: Philippine Inventory of Chemicals and Chemical Substances  
TSCA: Toxic Substances Control Act  
TCSI: Taiwan Chemical Substance Inventory  
INSQ: Inventario Nacional de Sustancias Químicas  
NCI: National Chemical Inventory  
FBEPH: Russian Register of Potentially Hazardous Chemical and Biological Substances



# Sakrete High Strength Concrete Mix

## Safety Data Sheet

according to the Hazardous Products Regulation (February 11, 2015)

Date of issue: 03/29/2017

Revision date: 06/26/2019

Version: 2.0

### SECTION 1: Identification

#### 1.1. Product Identifier

Product form : Mixtures  
Product name : Sakrete High Strength Concrete Mix

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

Recommended use : Various

#### 1.3. Supplier

##### Manufacturer

Sakrete Of North America  
625 Griffith Rd., Ste 100  
Charlotte, NC 28217- USA  
T 866-725-7383

##### Distributor

#### 1.4. Emergency telephone number

Emergency number : For Hazardous Materials [or Dangerous Goods] Incident  
Spill, Leak, Fire, Exposure, or Accident  
Call CHEMTREC Day or Night  
1-800-424-9300 [USA] / +1 703-527-3887 [CAN]

### SECTION 2: Hazard identification

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

##### Classification (GHS-CA)

Skin Irrit. 2 H315  
Eye Dam. 1 H318  
Carc. 1A H350  
STOT RE 1 H372

#### 2.2. GHS Label elements, including precautionary statements

##### GHS-CA labelling

Hazard pictograms (GHS-CA) :



GHS05

GHS08

Signal word (GHS-CA) :

Danger

Hazard statements (GHS-CA) :

H315 - Causes skin irritation  
H318 - Causes serious eye damage  
H350 - May cause cancer  
H372 - Causes damage to organs through prolonged or repeated exposure

Precautionary statements (GHS-CA) :

P201 - Obtain special instructions before use  
P202 - Do not handle until all safety precautions have been read and understood.  
P260 - Do not breathe dust  
P264 - Wash hands, forearms and face thoroughly after handling  
P270 - Do not eat, drink or smoke when using this product  
P280 - Wear eye protection, face protection, protective clothing, protective gloves  
P308+P313 - IF exposed or concerned: 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  
P332+P313 - If skin irritation occurs: Get medical advice/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  
P310 - Immediately call a POISON CENTER or doctor  
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



# Sakrete High Strength Concrete Mix

## Safety Data Sheet

according to the Hazardous Products Regulation (February 11, 2015)

### SECTION 3: Composition/information on ingredients

#### 3.1. Substances

Not applicable

#### 3.2. Mixtures

Name	Product identifier	%
Quartz	(CAS-No.) 14808-60-7	45 - 80
Cement, portland, chemicals	(CAS-No.) 65997-15-1	12 - 20
Limestone	(CAS-No.) 1317-65-3	0.56

### 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 : In case of contact, immediately flush skin with plenty of water. Remove contaminated clothing and shoes. Wash clothing before reuse. Call a physician if irritation develops and persists.
- First-aid measures after eye contact : In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. If easy to do, remove contact lenses, if worn. Get medical attention immediately.
- 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. Immediately call a POISON CENTER or doctor/physician.

#### 4.2. Most important symptoms and effects (acute and delayed)

- Symptoms/effects after inhalation : May cause respiratory irritation.
- Symptoms/effects after skin contact : Causes skin irritation. May cause burns in the presence of moisture. Skin contact during hydration may slowly develop sufficient heat that may cause severe burns possibly resulting in permanent injury. Do not allow product to harden around any body part or allow continuous, prolonged contact with skin. Handling can cause dry skin.
- Symptoms/effects after eye contact : Causes serious eye damage. May cause burns in the presence of moisture. Symptoms may include discomfort or pain, excess blinking and tear production, with possible redness and swelling.
- Symptoms/effects after ingestion : May be harmful if swallowed. May cause stomach distress, nausea or vomiting.

#### 4.3. Immediate medical attention and special treatment, if necessary

- Other medical advice or treatment : 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: Fire-fighting measures

#### 5.1. Suitable extinguishing media

- Suitable extinguishing media : Treat for surrounding material.

#### 5.2. Unsuitable extinguishing media

- Unsuitable extinguishing media : Not available.

#### 5.3. Specific hazards arising from the hazardous product

- Fire hazard : Products of combustion may include, and are not limited to: oxides of carbon.

#### 5.4. Special protective equipment and precautions for fire-fighters

- Firefighting instructions : 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 and unprotected personnel.

#### 6.2. Methods and materials for containment and cleaning up

- For containment : Contain spill, then place in a suitable container. Do not flush to sewer or allow to enter waterways. Use appropriate Personal Protective Equipment (PPE). Minimize generation of dust.
- Methods for cleaning up : Vacuum or sweep material and place in a disposal container.

#### 6.3. Reference to other sections

- For further information refer to section 8: "Exposure controls/personal protection"



# Sakrete High Strength Concrete Mix

## Safety Data Sheet

according to the Hazardous Products Regulation (February 11, 2015)

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

- Precautions for safe handling : Do not swallow. Avoid contact with skin and eyes. Good housekeeping is important to prevent accumulation of dust. Avoid generating and breathing dust. The use of compressed air for cleaning clothing, equipment, etc, is not recommended. Handle and open container with care. When using do not eat, drink or smoke.
- Hygiene measures : Launder contaminated clothing before reuse. Wash hands before eating, drinking, or smoking.

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

- Storage conditions : Keep out of the reach of children. Store in dust-tight, dry, labelled containers. Keep container tightly closed when not in use. Avoid any dust buildup by frequent cleaning and suitable construction of the storage area. Do not store in an area equipped with emergency water sprinklers.

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

Quartz (14808-60-7)		
USA - ACGIH	ACGIH TWA (mg/m <sup>3</sup> )	0.025 mg/m <sup>3</sup> (respirable particulate matter)
Cement, portland, chemicals (65997-15-1)		
USA - ACGIH	ACGIH TWA (mg/m <sup>3</sup> )	1 mg/m <sup>3</sup> (particulate matter containing no asbestos and <1% crystalline silica, respirable particulate matter)

#### 8.2. Appropriate engineering controls

- Appropriate engineering controls : Use ventilation adequate to keep exposures (airborne levels of dust, fume, vapor, etc.) below recommended exposure limits.

#### 8.3. Individual protection measures/Personal protective equipment

##### Hand protection:

Wear suitable waterproof 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 waterproof protective clothing

##### Respiratory protection:

A NIOSH approved dust mask or filtering facepiece 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).

##### Other information:

Handle according to established industrial hygiene and safety practices. Do not eat, smoke or drink where material is handled, processed or stored. Wash hands carefully before eating or smoking.

### SECTION 9: Physical and chemical properties

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

- Physical state : Solid
- Appearance : Powder
- Colour : Various
- Odour : Characteristic
- Odour threshold : No data available
- pH : 12 - 13
- 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 : No data available
- Flash point : No data available
- Auto-ignition temperature : No data available



# Sakrete High Strength Concrete Mix

## Safety Data Sheet

according to the Hazardous Products Regulation (February 11, 2015)

Decomposition temperature	: No data available
Flammability (solid, gas)	: Not flammable
Vapour pressure	: No data available
Vapour pressure at 50 °C	: No data available
Relative density	: No data available
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

VOC content	: 0%, Not applicable
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## SECTION 10: Stability and reactivity

### 10.1. Reactivity

Reactivity	: No dangerous reaction known under conditions of normal use.
Chemical stability	: Stable under normal storage conditions. Keep dry in storage.
Possibility of hazardous reactions	: No dangerous reaction known under conditions of normal use.
Conditions to avoid	: Incompatible materials. Moisture.
Incompatible materials	: Wet cement is alkaline and incompatible with acid, ammonium salts and aluminum metal.
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 (oral)	: Not classified.
Acute toxicity (dermal)	: Not classified.
Acute toxicity (inhalation)	: Not classified.
Skin corrosion/irritation	: Causes skin irritation.
Serious eye damage/irritation	: Causes serious eye damage.
Respiratory or skin sensitization	: Not classified.
Germ cell mutagenicity	: Not classified.
Carcinogenicity	: May cause cancer.
Reproductive toxicity	: Not classified.
STOT-single exposure	: Not classified.
STOT-repeated exposure	: Causes damage to lungs through prolonged or repeated exposure. 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.
Aspiration hazard	: Not classified.
Other information	: Likely routes of exposure: ingestion, inhalation, skin and eye.
Symptoms/effects after inhalation	: May cause respiratory irritation.
Symptoms/effects after skin contact	: Causes skin irritation. May cause burns in the presence of moisture. Skin contact during hydration may slowly develop sufficient heat that may cause severe burns possibly resulting in permanent injury. Do not allow product to harden around any body part or allow continuous, prolonged contact with skin. Handling can cause dry skin.
Symptoms/effects after eye contact	: Causes serious eye damage. May cause burns in the presence of moisture. Symptoms may include discomfort or pain, excess blinking and tear production, with possible redness and swelling.
Symptoms/effects after ingestion	: May be harmful if swallowed. May cause stomach distress, nausea or vomiting.

## SECTION 12: Ecological information

### 12.1. Toxicity

Ecology - general	: No ecological consideration when used according to directions. Normal dilution of this product to drains, sewers, septic systems and treatment plants is not considered environmentally harmful.
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# Sakrete High Strength Concrete Mix

## Safety Data Sheet

according to the Hazardous Products Regulation (February 11, 2015)

### 12.2. Persistence and degradability

Sakrete High Strength Concrete Mix	
Persistence and degradability	No data available.

### 12.3. Bioaccumulative potential

Sakrete High Strength Concrete Mix	
Bioaccumulative potential	No data available.

### 12.4. Mobility in soil

Sakrete High Strength Concrete Mix	
Ecology - soil	No data available.

### 12.5. Other adverse effects

Other adverse effects : No data available.

## SECTION 13: Disposal considerations

### 13.1. Disposal methods

Product/Packaging disposal recommendations : This material must be disposed of in accordance with all local, state, provincial, and federal regulations.

## SECTION 14: Transport information

### 14.1. Basic shipping description

In accordance with TDG

### Transportation of Dangerous Goods

Not regulated for transport

### 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 : 03/29/2017  
Revision date : 01/31/2018  
Prepared by : Nexreg Compliance Inc.  
[www.Nexreg.com](http://www.Nexreg.com)



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# Safety Data Sheet



## 1. Identification

<b>Product Name:</b>	IC LSPR 12PK MARK CONSTRUCTION CLEAR	<b>Revision Date:</b>	8/9/2018
<b>Product Identifier:</b>	264693	<b>Supersedes Date:</b>	7/6/2018
<b>Recommended Use:</b>	Marking Paint/Aerosols		
<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

### Possible Hazards

25% of the mixture consists of ingredient(s) of unknown acute toxicity.

### GHS HAZARD STATEMENTS

Flammable Aerosol, category 1	H222	Extremely flammable aerosol.
Compressed Gas	H280	Contains gas under pressure; may explode if heated.
Carcinogenicity, category 2	H351	Suspected of causing cancer.
STOT, single exposure, category 3, NE	H336	May cause drowsiness or dizziness.
Skin Irritation, category 2	H315	Causes skin irritation.

Serious Eye Damage, category 1

H318 Causes serious eye damage.

**GHS LABEL 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.
P410+P412	Protect from sunlight. Do not expose to temperatures exceeding 50°C / 122°F.
P410+P403	Protect from sunlight. Store in a well-ventilated place.
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.
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.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
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.
P310	If exposed immediately call a POISON CENTER or doctor/physician.

### 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>
Acetone	67-64-1	29	GHS02-GHS07	H225-319-332-336
Propane	74-98-6	14	GHS04	H280
n-Butyl Acetate	123-86-4	9.5	GHS02-GHS07	H226-336
Naphtha, Petroleum, Hydrotreated Light	64742-49-0	8.1	GHS08	H304
Ethylene Glycol Monobutyl Ether	111-76-2	6.9	GHS07	H302-312-315-319-332
n-Butane	106-97-8	6.4	GHS04	H280
n-Butanol	71-36-3	3.3	GHS02-GHS05-GHS07	H226-302-315-318-332-335-336
Xylenes (o-, m-, p- isomers)	1330-20-7	2.2	GHS02-GHS07	H226-315-319-332
Ethylbenzene	100-41-4	0.5	GHS02-GHS07-GHS08	H225-304-332-351-373

### 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, Dry Sand, Water Fog

**UNUSUAL FIRE AND EXPLOSION HAZARDS:** FLASH POINT IS LESS THAN 20°F. EXTREMELY FLAMMABLE LIQUID AND VAPOR! Water spray may be ineffective. Closed containers may explode when exposed to extreme heat due to buildup of steam. Closed containers may explode when exposed to extreme heat. Vapors may form explosive mixtures with air. Vapors can travel to a source of ignition and flash back. Isolate from heat, electrical equipment, sparks and open flame. Perforation of the pressurized container may cause bursting of the can. No unusual fire or explosion hazards noted. Keep containers tightly closed.

**SPECIAL FIREFIGHTING PROCEDURES:** Full protective equipment including self-contained breathing apparatus should be used. Evacuate area and fight fire from a safe distance. Water may be used to cool closed containers to prevent pressure buildup and possible autoignition or explosion. 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:** Contain spilled liquid with sand or earth. DO NOT use combustible materials such as sawdust. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. 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. 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:** Keep containers tightly closed. Isolate from heat, electrical equipment, sparks and open flame. Contents under pressure. Do not store above 120 ° F. Store large quantities in buildings designed and protected for storage of flammable aerosols. 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. Keep away from heat, sparks, flame and sources of ignition. 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
Acetone	67-64-1	30.0	250 ppm	500 ppm	1000 ppm	N.E.
Propane	74-98-6	15.0	N.E.	N.E.	1000 ppm	N.E.
n-Butyl Acetate	123-86-4	10.0	50 ppm	150 ppm	150 ppm	N.E.
Naphtha, Petroleum, Hydrotreated Light	64742-49-0	10.0	N.E.	N.E.	N.E.	N.E.
Ethylene Glycol Monobutyl Ether	111-76-2	10.0	20 ppm	N.E.	50 ppm	N.E.
n-Butane	106-97-8	10.0	N.E.	1000 ppm	N.E.	N.E.
n-Butanol	71-36-3	5.0	20 ppm	N.E.	100 ppm	N.E.
Xylenes (o-, m-, p- isomers)	1330-20-7	5.0	100 ppm	150 ppm	100 ppm	N.E.
Ethylbenzene	100-41-4	1.0	20 ppm	N.E.	100 ppm	N.E.

### PERSONAL PROTECTION

**ENGINEERING CONTROLS:** Use explosion-proof ventilation equipment. Provide general dilution of local exhaust ventilation in volume and pattern to keep TLV of hazardous ingredients below acceptable limits. 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 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 organic vapor cartridge or canister may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits.

**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

Appearance:	Aerosolized Mist	Physical State:	Liquid
Odor:	Solvent Like	Odor Threshold:	N.E.
Relative Density:	0.766	pH:	N.A.
Freeze Point, °C:	N.D.	Viscosity:	N.D.
Solubility in Water:	Negligible	Partition Coefficient, n- octanol/water:	N.D.
Decomposition Temp., °C:	N.D.	Explosive Limits, vol%:	0.9 - 13.0
Boiling Range, °C:	-37 - 537	Flash Point, °C:	-96
Flammability:	Supports Combustion	Auto-ignition Temp., °C:	N.D.
Evaporation Rate:	Faster than Ether	Vapor Pressure:	N.D.
Vapor Density:	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 all possible sources of ignition.

**INCOMPATIBILITY:** Incompatible with strong oxidizing agents, strong acids and strong alkalis.

**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:** May cause skin irritation. Allergic reactions are possible.

**EFFECTS OF OVEREXPOSURE - INHALATION:** High gas, vapor, mist or dust concentrations may be harmful if inhaled. High vapor concentrations are irritating to the eyes, nose, throat and lungs. Harmful if inhaled. Avoid breathing fumes, spray, vapors, or mist. Prolonged or excessive inhalation may cause respiratory tract irritation.

**EFFECTS OF OVEREXPOSURE - INGESTION:** Harmful if swallowed.

**EFFECTS OF OVEREXPOSURE - CHRONIC HAZARDS:** Overexposure to xylene in laboratory animals has been associated with liver abnormalities, kidney, lung, spleen, eye and blood damage as well as reproductive disorders. Effects in humans, due to chronic overexposure, have included liver, cardiac abnormalities and nervous system damage. IARC lists Ethylbenzene as a possible human carcinogen (group 2B). May cause central nervous system disorder (e.g., narcosis involving a loss of coordination, weakness, fatigue, mental confusion, and blurred vision) and/or damage. 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, 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>
67-64-1	Acetone	5800 mg/kg Rat	>15700 mg/kg Rabbit	50.1 mg/L Rat
123-86-4	n-Butyl Acetate	10768 mg/kg Rat	>17600 mg/kg Rabbit	> 21 mg/L Rat
64742-49-0	Naphtha, Petroleum, Hydrotreated Light	>5000 mg/kg Rat	>3160 mg/kg Rabbit	>4951 mg/L Rat
111-76-2	Ethylene Glycol Monobutyl Ether	470 mg/kg Rat	1,060 mg/kg Rabbit	11 mg/L
106-97-8	n-Butane	N.E.	N.E.	658 mg/L Rat
71-36-3	n-Butanol	700 mg/kg Rat	3402 mg/kg Rabbit	N.E.
1330-20-7	Xylenes (o-, m-, p- isomers)	3500 mg/kg Rat	>4350 mg/kg Rabbit	29.08 mg/L Rat
100-41-4	Ethylbenzene	3500 mg/kg Rat	15400 mg/kg Rabbit	17.4 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. This product as supplied is a USEPA defined ignitable hazardous waste. Dispose of unusable product as a hazardous waste (D001) in accordance with local, state, and federal regulation.

## 14. Transport Information

	<u>Domestic (USDOT)</u>	<u>International (IMDG)</u>	<u>Air (IATA)</u>	<u>TDG (Canada)</u>
UN Number:	N.A.	1950	1950	N.A.
Proper Shipping Name:	Paint Products in Limited Quantities	Aerosols	Aerosols	Paint Products in Limited Quantities
Hazard Class:	N.A.	2.1	2.1	N.A.
Packing Group:	N.A.	N.A.	N.A.	N.A.
Limited Quantity:	Yes	Yes	Yes	Yes

## 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:

Gas under pressure, Carcinogenicity, Skin Corrosion or Irritation, Serious eye damage or eye irritation, Specific target organ toxicity (single or repeated 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>
Ethylene Glycol Monobutyl Ether	111-76-2
n-Butanol	71-36-3
Xylenes (o-, m-, p- isomers)	1330-20-7
Ethylbenzene	100-41-4

#### 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: 4    Physical Hazard: 0    Personal Protection: X

### NFPA RATINGS

Health: 2    Flammability: 4    Instability: 0

Maximum Incremental Reactivity 0.84

SDS REVISION DATE: 8/9/2018

### REASON FOR REVISION:

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.



# Safety Data Sheet



**RUST-OLEUM**  
**CORPORATION**

\* Trusted Quality Since 1921 \*

www.rustoleum.com

## 1. Identification

<b>Product Name:</b>	IC LSPR 12PK MARK CONST FLUOR ORANGE	<b>Revision Date:</b>	3/1/2024
<b>Product Identifier:</b>	264697	<b>Supercedes Date:</b>	2/21/2024
<b>Recommended Use:</b>	Marking Paint/Aerosols		
<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. Hazards Identification

### Classification

#### Symbol(s) of Product



#### Signal Word

Danger

#### Possible Hazards

19% of the mixture consists of ingredient(s) of unknown acute toxicity.

#### GHS Hazard Statements

Carcinogenicity, category 2	H351	Suspected of causing cancer.
Flammable Aerosol, category 1	H222	Extremely flammable aerosol.
Gases under Pressure, Compressed Gas	H280	Contains gas under pressure; may explode if heated.
STOT, Repeated Exposure, category 2	H373	May cause damage to organs through prolonged or repeated exposure.

#### GHS Label Precautionary Statements

P201	Obtain special instructions before use.
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.
P260	Do not breathe dust/fumes/gas/mist/vapours/spray.
P280	Wear protective gloves / protective clothing / eye protection / face protection.



P308+P313	IF exposed or concerned: Get medical advice/attention.
P319	Get medical help if you feel unwell.
P405	Store locked up.
P410+P403	Protect from sunlight. Store in a well-ventilated place.
P410+P412	Protect from sunlight. Do not expose to temperatures exceeding 50°C / 122°F.
P501	Dispose of contents and 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. % Range</u>	<u>GHS Symbols</u>	<u>GHS Statements</u>
Propane	74-98-6	10-25	GHS04	H280
Naphtha, Petroleum, Hydrotreated Light	64742-49-0	2.5-10	GHS08	H304
Hydrotreated Light Distillate	64742-47-8	2.5-10	GHS08	H304
n-Butane	106-97-8	2.5-10	GHS04	H280
Xylenes (o-, m-, p- Isomers)	1330-20-7	2.5-10	GHS02-GHS07	H226-315-319-332
Barium Sulfate	7727-43-7	2.5-10	GHS07	H332
Ethylbenzene	100-41-4	1.0-2.5	GHS02-GHS07- GHS08	H225-304-332-351-373
Mineral Spirits	64742-88-7	0.1-1.0	GHS08	H304-372
n-Heptane	142-82-5	0.1-1.0	GHS02-GHS07- GHS08	H225-304-315-336
Octane	111-65-9	0.1-1.0	GHS02-GHS07- GHS08	H225-304-315-336
Stoddard Solvent	8052-41-3	0.1-1.0	GHS08	H304-372
Pigment Orange 13	3520-72-7	0.1-1.0	Not Available	Not Available
Crystalline Silica / Quartz	14808-60-7	0.1-1.0	Not Available	Not Available

### 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. Remove contact lenses, if present and easy to do. Continue rinsing.

**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, do not induce vomiting. If victim is conscious and alert, give 2 to 4 cupfuls of water or milk. Call a physician or poison control center immediately. Never give anything by mouth to an unconscious person. Treat symptomatically and supportively. 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.

### 5. Fire-Fighting Measures

**EXTINGUISHING MEDIA:** Aqueous Film Forming Foam, Carbon Dioxide, Dry Chemical, Dry Sand, Water Fog

**Unusual Fire and Explosion Hazards:** FLASH POINT IS LESS THAN -7°C (20°F). EXTREMELY FLAMMABLE LIQUID AND VAPOR! Water spray may be ineffective. Closed containers may explode when exposed to extreme heat. Vapors may form explosive mixtures with air. Vapors can travel to a source of ignition and flash back. Isolate from heat, electrical equipment, sparks and open flame. Perforation of the pressurized container may cause bursting of the can.

**Special Fire Fighting Procedures:** Water may be used to cool closed containers to prevent buildup of steam. Full protective equipment including self-contained breathing apparatus should be used. If water is used, fog nozzles are preferred. 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):** Not a combustible dust.

## 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. Contain spilled liquid with sand or earth. DO NOT use combustible materials such as sawdust. 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 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. Do not puncture or incinerate (burn) container, even after use.

**Storage:** Keep containers tightly closed. Isolate from heat, electrical equipment, sparks and open flame. Contents under pressure. Do not store above 120°F (49°C). Store large quantities in buildings designed and protected for storage of flammable aerosols. Keep away from heat, sparks, flame and sources of ignition. Contents under pressure. Do not expose to heat or store above 120°F (49°C).

**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
Propane	74-98-6	15.0	N.E.	N.E.	1000 ppm	N.E.
Naphtha, Petroleum, Hydrotreated Light	64742-49-0	10.0	N.E.	N.E.	N.E.	N.E.
Hydrotreated Light Distillate	64742-47-8	10.0	N.E.	N.E.	N.E.	N.E.
n-Butane	106-97-8	5.0	N.E.	1000 ppm	N.E.	N.E.
Xylenes (o-, m-, p- Isomers)	1330-20-7	5.0	20 ppm	N.E.	100 ppm	N.E.
Barium Sulfate	7727-43-7	5.0	5 mg/m3	N.E.	15 mg/m3	N.E.
Ethylbenzene	100-41-4	5.0	20 ppm	N.E.	100 ppm	N.E.
Mineral Spirits	64742-88-7	1.0	N.E.	N.E.	N.E.	N.E.
n-Heptane	142-82-5	1.0	400 ppm	500 ppm	500 ppm	N.E.
Octane	111-65-9	1.0	300 ppm	N.E.	500 ppm	N.E.
Stoddard Solvent	8052-41-3	1.0	100 ppm	N.E.	500 ppm	N.E.
Pigment Orange 13	3520-72-7	1.0	N.E.	N.E.	N.E.	N.E.
Crystalline Silica / Quartz	14808-60-7	1.0	0.025 mg/m3	N.E.	50 µg/m3	N.E.

### PERSONAL PROTECTION

**Engineering Controls:** Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits. Use explosion-proof ventilation equipment. 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 organic vapor cartridge or canister may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits.

**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 guidance regarding types of personal protective equipment and their applications. 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. Remove contaminated clothing immediately and launder before reuse.

**Engineering Measures for Combustible Dust:** No Information

## 9. Physical and Chemical Properties

<b>Appearance:</b>	Aerosolized Mist	<b>Physical State:</b>	Liquid
<b>Odor:</b>	Solvent Like	<b>Odor Threshold:</b>	N.E.
<b>Specific Gravity:</b>	0.918	<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>	0.9 - 12.6
<b>Boiling Range, °C:</b>	-37 - 537	<b>Flash Point, °C:</b>	-96
<b>Flammability:</b>	Supports Combustion	<b>Auto-Ignition Temp., °C:</b>	N.D.
<b>Evaporation Rate:</b>	Faster 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 all possible sources of ignition. Avoid excess heat.

**Incompatibility:** Incompatible with strong oxidizing agents, strong acids and strong alkalis.

**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 eye irritation. Irritating, and may injure eye tissue if not removed promptly.

**Effects of Overexposure - Skin Contact:** Substance may cause slight skin irritation. Prolonged or repeated contact may cause skin irritation. Low hazard for usual industrial handling or commercial handling by trained personnel.

**Effects of Overexposure - Inhalation:** Harmful if inhaled. 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. Constituents of this product include crystalline silica dust which, if inhalable, may cause silicosis, a form of progressive pulmonary fibrosis. Inhalable crystalline silica is listed by IARC as a group I carcinogen (lung) based on sufficient evidence in occupationally exposed humans and sufficient evidence in animals. Crystalline silica is also listed by the NTP as a known human carcinogen. Constituents may also contain asbestiform or non-asbestiform tremolite or other silicates as impurities, and above de minimus exposure to these impurities in inhalable form may be carcinogenic or cause other serious lung problems.

**Effects of Overexposure - Ingestion:** Substance may be harmful if swallowed.

**Effects of Overexposure - Chronic Hazards:** May cause central nervous system disorder (e.g., narcosis involving a loss of coordination, weakness, fatigue, mental confusion, and blurred vision) and/or damage. High concentrations may lead to central nervous system effects (drowsiness, dizziness, nausea, headaches, paralysis, and blurred vision) and/or damage. Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Overexposure to xylene in laboratory animals has been associated with liver abnormalities, kidney, lung, spleen, eye and blood damage as well as reproductive disorders. Effects in humans, due to chronic overexposure, have included liver, cardiac abnormalities and nervous system damage. IARC lists Ethylbenzene as a possible human carcinogen (group 2B).

**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>
64742-49-0	Naphtha, Petroleum, Hydrotreated Light	>5000 mg/kg Rat	>3160 mg/kg Rabbit	>4951 mg/L Rat
64742-47-8	Hydrotreated Light Distillate	>5000 mg/kg Rat	>2000 mg/kg Rabbit	>5000 mg/L Rat
106-97-8	n-Butane	N.E.	N.E.	658 mg/L Rat
1330-20-7	Xylenes (o-, m-, p- Isomers)	3500 mg/kg Rat	>4350 mg/kg Rabbit	29.08 mg/L Rat
7727-43-7	Barium Sulfate	307000 mg/kg Rat	N.E.	N.E.
100-41-4	Ethylbenzene	3500 mg/kg Rat	15400 mg/kg Rabbit	17.4 mg/L Rat
64742-88-7	Mineral Spirits	19748 mg/kg Rat	>4000 mg/kg Rabbit	4951 mg/L Rat
142-82-5	n-Heptane	N.E.	3000 mg/kg Rabbit	>73.5 mg/L Rat
111-65-9	Octane	N.E.	N.E.	>24.88 mg/L Rat
8052-41-3	Stoddard Solvent	N.E.	>3000 mg/kg Rabbit	25
3520-72-7	Pigment Orange 13	5000 mg/kg Rat	>2000 mg/kg Rat	N.E.
14808-60-7	Crystalline Silica / Quartz	5500 mg/kg Rat	5500	100 mg/L

N.E. - Not Established

## 12. Ecological Information

**Ecological Information:** Product is a mixture of listed components. No ecotoxicity data was found for this product.

## 13. Disposal Information

**Disposal:** Do not incinerate closed containers. Dispose of material in accordance to local, state, and federal regulations and ordinances. This product as supplied is a US EPA defined ignitable hazardous waste. Dispose of unusable product as a hazardous waste (D001) in accordance with local, state, and federal regulation. EPA Hazardous Waste Number (RCRA): D005 (Barium). Dispose of in accordance with U.S. EPA 40 CFR 262 for concentrations at or above the Regulatory level. Regulatory level- 100.0 mg/L.

## 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.	1950	1950	1950
<b>Proper Shipping Name:</b>	Paint and Related Spray Products in Ltd Qty	Aerosols	Aerosols, flammable	AEROSOLS, flammable
<b>Hazard Class:</b>	N.A.	2	2.1	2.1
<b>Packing Group:</b>	N.A.	N.A.	N.A.	N.A.
<b>Limited Quantity:</b>	Yes	Yes	Yes	Yes

## 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:

Gas under pressure, Carcinogenicity, Specific target organ toxicity (single or repeated 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>
Xylenes (o-, m-, p- Isomers)	1330-20-7
Barium Sulfate	7727-43-7
Ethylbenzene	100-41-4

#### 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.

### U.S. State Regulations:

#### California Proposition 65

#### WARNING:

Cancer and Reproductive Harm - [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

## 16. Other Information

### HMIS RATINGS

Health: 2\*      Flammability: 4      Physical Hazard: 0      Personal Protection: X

### NFPA RATINGS

Health: 2      Flammability: 4      Instability: 0

Maximum Incremental Reactivity: 0.80

SDS REVISION DATE: 3/1/2024

REASON FOR REVISION: Product Composition Changed  
Substance and/or Product Properties Changed in  
Section(s):  
02 - Hazard Identification  
14 - Transport Information  
16 - Other Information  
Revision Statement(s) Changed

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

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.





# Safety Data Sheet



## 1. Identification

<b>Product Name:</b>	IC LSPR 12PK MARK CONSTRUCTION WHITE	<b>Revision Date:</b>	12/10/2021
<b>Product Identifier:</b>	264692	<b>Supersedes Date:</b>	1/24/2019
<b>Recommended Use:</b>	Marking Paint/Aerosols		
<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. Hazards Identification

### Classification

#### Symbol(s) of Product



#### Signal Word

Danger

#### Possible Hazards

27% of the mixture consists of ingredient(s) of unknown acute toxicity.

#### GHS HAZARD STATEMENTS

Flammable Aerosol, category 1	H222	Extremely flammable aerosol.
Carcinogenicity, category 2	H351	Suspected of causing cancer.
STOT, Repeated Exposure, category 2	H373	May cause damage to organs through prolonged or repeated exposure.
Gases under Pressure; Compressed Gas	H280	Contains gas under pressure; may explode if heated.

#### GHS LABEL PRECAUTIONARY STATEMENTS

P201	Obtain special instructions before use.
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.
P260	Do not breathe dust/fume/gas/mist/vapors/spray.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P314	Get medical advice/attention if you feel unwell.

P405	Store locked up.
P501	Dispose of contents/container in accordance with local, regional and national regulations.
P308+P313	IF exposed or concerned: Get medical advice/attention.
P410+P403	Protect from sunlight. Store in a well-ventilated place.
P410+P412	Protect from sunlight. Do not expose to temperatures exceeding 50°C (122°F).

### 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>
Propane	74-98-6	17	GHS04	H280
Titanium Dioxide	13463-67-7	8.9	Not Available	Not Available
n-Butane	106-97-8	8.0	GHS04	H280
Naphtha, Petroleum, Hydrotreated Light	64742-49-0	6.7	GHS08	H304
Xylenes (o-, m-, p- Isomers)	1330-20-7	5.0	GHS02-GHS07	H226-315-319-332
Hydrous Magnesium Silicate	14807-96-6	2.1	Not Available	Not Available
n-Butyl Acetate	123-86-4	1.7	GHS02-GHS07	H226-336
Ethylbenzene	100-41-4	1.2	GHS02-GHS07- GHS08	H225-304-332-351-373
n-Heptane	142-82-5	0.4	GHS02-GHS07- GHS08	H225-304-315-336
Octane	111-65-9	0.4	GHS02-GHS07- GHS08	H225-304-315-336

### 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, Dry Sand, Water Fog

**UNUSUAL FIRE AND EXPLOSION HAZARDS:** Water spray may be ineffective. Closed containers may explode when exposed to extreme heat due to buildup of steam. Closed containers may explode when exposed to extreme heat. Vapors may form explosive mixtures with air. Vapors can travel to a source of ignition and flash back. Isolate from heat, electrical equipment, sparks and open flame. Perforation of the pressurized container may cause bursting of the can. FLASH POINT IS LESS THAN -7°C (20°F). EXTREMELY FLAMMABLE LIQUID AND VAPOR!

**SPECIAL FIREFIGHTING PROCEDURES:** Water may be used to cool closed containers to prevent pressure buildup and possible autoignition or explosion. Full protective equipment including self-contained breathing apparatus should be used. 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:** Contain spilled liquid with sand or earth. DO NOT use combustible materials such as sawdust. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. 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. Remove contaminated clothing and launder before reuse. Use only in a well-ventilated area. 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:** Keep containers tightly closed. Isolate from heat, electrical equipment, sparks and open flame. Contents under pressure. Do not store above 120°F (49°C). Store large quantities in buildings designed and protected for storage of flammable aerosols. Keep away from heat, sparks, flame and sources of ignition. Contents under pressure. Do not expose to heat or store above 120°F (49°C). Avoid excess heat. Product should be stored in tightly sealed containers and protected from heat, moisture, and foreign materials.

**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
Propane	74-98-6	20.0	N.E.	N.E.	1000 ppm	N.E.
Titanium Dioxide	13463-67-7	10.0	10 mg/m3	N.E.	15 mg/m3	N.E.
n-Butane	106-97-8	10.0	N.E.	1000 ppm	N.E.	N.E.
Naphtha, Petroleum, Hydrotreated Light	64742-49-0	10.0	N.E.	N.E.	N.E.	N.E.
Xylenes (o-, m-, p- Isomers)	1330-20-7	10.0	100 ppm	150 ppm	100 ppm	N.E.
Hydrous Magnesium Silicate	14807-96-6	5.0	2 mg/m3	N.E.	N.E.	N.E.
n-Butyl Acetate	123-86-4	5.0	50 ppm	150 ppm	150 ppm	N.E.
Ethylbenzene	100-41-4	5.0	20 ppm	N.E.	100 ppm	N.E.
n-Heptane	142-82-5	1.0	400 ppm	500 ppm	500 ppm	N.E.
Octane	111-65-9	1.0	300 ppm	N.E.	500 ppm	N.E.

### PERSONAL PROTECTION

**ENGINEERING CONTROLS:** Provide general dilution of local exhaust ventilation in volume and pattern to keep TLV of hazardous ingredients below acceptable limits. Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits. Use explosion-proof ventilation equipment. 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 organic vapor cartridge or canister may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits.

**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 guidance regarding types of personal protective equipment and their applications. 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. Remove contaminated clothing immediately and launder before reuse.

**Engineering Measures for Combustible Dust:** No Information

## 9. Physical and Chemical Properties

<b>Appearance:</b>	Aerosolized Mist	<b>Physical State:</b>	Liquid
<b>Odor:</b>	Solvent Like	<b>Odor Threshold:</b>	N.E.
<b>Specific Gravity:</b>	0.882	<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>	0.9 - 12.6
<b>Boiling Range, °C:</b>	-37 - 537	<b>Flash Point, °C:</b>	-96
<b>Flammability:</b>	Supports Combustion	<b>Auto-Ignition Temp., °C:</b>	N.D.
<b>Evaporation Rate:</b>	Faster 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 all possible sources of ignition.

**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:** Substance may cause slight skin irritation. Prolonged or repeated contact may cause skin irritation.

**EFFECTS OF OVEREXPOSURE - INHALATION:** Harmful if inhaled. 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. Constituents of this product include crystalline silica dust which, if inhalable, can may cause silicosis, a form of progressive pulmonary fibrosis. Inhalable crystalline silica is listed by IARC as a group I carcinogen (lung) based on sufficient evidence in occupationally exposed humans and sufficient evidence in animals. Crystalline silica is also listed by the NTP as a known human carcinogen. Constituents may also contain asbestiform or non-asbestiform tremolite or other silicates as impurities, and above de minimus exposure to these impurities in inhalable form may be carcinogenic or cause other serious lung problems.

**EFFECTS OF OVEREXPOSURE - INGESTION:** Harmful if swallowed.

**EFFECTS OF OVEREXPOSURE - CHRONIC HAZARDS:** May cause central nervous system disorder (e.g., narcosis involving a loss of coordination, weakness, fatigue, mental confusion, and blurred vision) and/or damage. High concentrations may lead to central nervous system effects (drowsiness, dizziness, nausea, headaches, paralysis, and blurred vision) and/or damage. Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Overexposure to xylene in laboratory animals has been associated with liver abnormalities, kidney, lung, spleen, eye and blood damage as well as reproductive disorders. Effects in humans, due to chronic overexposure, have included liver, cardiac abnormalities and nervous system damage. IARC lists Ethylbenzene as a possible human carcinogen (group 2B). 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.
106-97-8	n-Butane	N.E.	N.E.	658 mg/L Rat
64742-49-0	Naphtha, Petroleum, Hydrotreated Light	>5000 mg/kg Rat	>3160 mg/kg Rabbit	>4951 mg/L Rat
1330-20-7	Xylenes (o-, m-, p- Isomers)	3500 mg/kg Rat	>4350 mg/kg Rabbit	29.08 mg/L Rat
14807-96-6	Hydrous Magnesium Silicate	6000	N.E.	30
123-86-4	n-Butyl Acetate	10768 mg/kg Rat	>17600 mg/kg Rabbit	> 21 mg/L Rat
100-41-4	Ethylbenzene	3500 mg/kg Rat	15400 mg/kg Rabbit	17.4 mg/L Rat
142-82-5	n-Heptane	N.E.	3000 mg/kg Rabbit	>73.5 mg/L Rat

Not Yet Specified

111-65-9 Octane

N.E.

N.E.

&gt;24.88 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 incinerate closed containers. This product as supplied is a USEPA defined ignitable hazardous waste. Dispose of unusable product as a hazardous waste (D001) in accordance with local, state, and federal regulation.

## 14. Transport Information

	<u>Domestic (USDOT)</u>	<u>International (IMDG)</u>	<u>Air (IATA)</u>	<u>TDG (Canada)</u>
UN Number:	N.A.	1950	1950	N.A.
Proper Shipping Name:	Paint and Related Spray Products in Ltd Qty	Aerosols	Aerosols, flammable	Aerosols
Hazard Class:	N.A.	2	2.1	N.A.
Packing Group:	N.A.	N.A.	N.A.	N.A.
Limited Quantity:	Yes	Yes	Yes	Yes

## 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:

Gas under pressure, Carcinogenicity, Specific target organ toxicity (single or repeated 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>
Xylenes (o-, m-, p- Isomers)	1330-20-7
Ethylbenzene	100-41-4
Aluminum Oxide	1344-28-1

#### 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>
Castor oil, sulfated, sodium salt	68187-76-8

### U.S. State Regulations:

#### California Proposition 65

#### WARNING:

Cancer and Reproductive Harm - [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

**16. Other Information****HMIS RATINGS**

Health: 2\*      Flammability: 4      Physical Hazard: 0      Personal Protection: X

**NFPA RATINGS**

Health: 2      Flammability: 4      Instability: 0

Maximum Incremental Reactivity: 0.83

SDS REVISION DATE: 12/10/2021

REASON FOR REVISION: Substance and/or Product Properties Changed in Section(s):  
02 - Hazard Identification  
03 - Composition / Information on Ingredients  
08 - Exposure Controls / Personal Protection  
09 - Physical & Chemical Properties  
11 - Toxicological Information  
15 - Regulatory Information  
16 - Other Information  
Product Composition Changed  
Substance Hazard Threshold % Changed  
Substance Chemical Name Changed  
Revision Statement(s) Changed

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

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.





# Safety Data Sheet



## 1. Identification

<b>Product Name:</b>	IC LSPR 12PK MARK CONST HI VISBLTY YELLW	<b>Revision Date:</b>	3/1/2024
<b>Product Identifier:</b>	264695	<b>Supersedes Date:</b>	2/21/2024
<b>Recommended Use:</b>	Marking Paint/Aerosols		
<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. Hazards Identification

### Classification

Symbol(s) of Product



Signal Word

Danger

### Possible Hazards

27% of the mixture consists of ingredient(s) of unknown acute toxicity.

### GHS Hazard Statements

Carcinogenicity, category 2	H351	Suspected of causing cancer.
Flammable Aerosol, category 1	H222	Extremely flammable aerosol.
Gases under Pressure; Compressed Gas	H280	Contains gas under pressure; may explode if heated.
STOT, Repeated Exposure, category 2	H373	May cause damage to organs through prolonged or repeated exposure.

### GHS Label Precautionary Statements

P201	Obtain special instructions before use.
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.
P260	Do not breathe dust/fumes/gas/mist/vapours/spray.
P280	Wear protective gloves / protective clothing / eye protection / face protection.

P308+P313	IF exposed or concerned: Get medical advice/attention.
P319	Get medical help if you fell unwell.
P405	Store locked up.
P410+P403	Protect from sunlight. Store in a well-ventilated place.
P410+P412	Protect from sunlight. Do not expose to temperatures exceeding 50°C / 122°F.
P501	Dispose of contents and 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. % Range</u>	<u>GHS Symbols</u>	<u>GHS Statements</u>
Naphtha, Petroleum, Hydrotreated Light	64742-49-0	10-25	GHS08	H304
Propane	74-98-6	10-25	GHS04	H280
n-Butyl Acetate	123-86-4	2.5-10	GHS02-GHS07	H226-336
Titanium Dioxide	13463-67-7	2.5-10	Not Available	Not Available
n-Butane	106-97-8	2.5-10	GHS04	H280
Xylenes (o-, m-, p- Isomers)	1330-20-7	2.5-10	GHS02-GHS07	H226-315-319-332
Hydrous Magnesium Silicate	14807-96-6	2.5-10	Not Available	Not Available
Petroleum Resin	64742-16-1	1.0-2.5	GHS06	H331
Ethylbenzene	100-41-4	1.0-2.5	GHS02-GHS07- GHS08	H225-304-332-351-373
Octane	111-65-9	0.1-1.0	GHS02-GHS07- GHS08	H225-304-315-336
n-Heptane	142-82-5	0.1-1.0	GHS02-GHS07- GHS08	H225-304-315-336
Crystalline Silica / Quartz	14808-60-7	0.1-1.0	Not Available	Not Available

### 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. Remove contact lenses, if present and easy to do. Continue rinsing.

**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, do not induce vomiting. If victim is conscious and alert, give 2 to 4 cupfuls of water or milk. Call a physician or poison control center immediately. Never give anything by mouth to an unconscious person. Treat symptomatically and supportively. 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.

### 5. Fire-Fighting Measures

**EXTINGUISHING MEDIA:** Aqueous Film Forming Foam, Carbon Dioxide, Dry Chemical, Dry Sand, Water Fog

**Unusual Fire and Explosion Hazards:** FLASH POINT IS LESS THAN -7°C (20°F). EXTREMELY FLAMMABLE LIQUID AND VAPOR! Water spray may be ineffective. Closed containers may explode when exposed to extreme heat. Vapors may form explosive mixtures with air. Vapors can travel to a source of ignition and flash back. Isolate from heat, electrical equipment, sparks and open flame. Perforation of the pressurized container may cause bursting of the can.

**Special Fire Fighting Procedures:** Water may be used to cool closed containers to prevent buildup of steam. Full protective equipment including self-contained breathing apparatus should be used. If water is used, fog nozzles are preferred. 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):** Not a combustible dust.

## 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. Contain spilled liquid with sand or earth. DO NOT use combustible materials such as sawdust. 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 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. Do not puncture or incinerate (burn) container, even after use.

**Storage:** Keep containers tightly closed. Isolate from heat, electrical equipment, sparks and open flame. Contents under pressure. Do not store above 120°F (49°C). Store large quantities in buildings designed and protected for storage of flammable aerosols. Keep away from heat, sparks, flame and sources of ignition. Contents under pressure. Do not expose to heat or store above 120°F (49°C).

**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
Naphtha, Petroleum, Hydrotreated Light	64742-49-0	15.0	N.E.	N.E.	N.E.	N.E.
Propane	74-98-6	15.0	N.E.	N.E.	1000 ppm	N.E.
n-Butyl Acetate	123-86-4	10.0	50 ppm	150 ppm	150 ppm	N.E.
Titanium Dioxide	13463-67-7	10.0	0.2 mg/m3	N.E.	15 mg/m3	N.E.
n-Butane	106-97-8	5.0	N.E.	1000 ppm	N.E.	N.E.
Xylenes (o-, m-, p- Isomers)	1330-20-7	5.0	20 ppm	N.E.	100 ppm	N.E.
Hydrous Magnesium Silicate	14807-96-6	5.0	2 mg/m3	N.E.	20 mppcf	N.E.
Petroleum Resin	64742-16-1	5.0	N.E.	N.E.	N.E.	N.E.
Ethylbenzene	100-41-4	5.0	20 ppm	N.E.	100 ppm	N.E.
Octane	111-65-9	1.0	300 ppm	N.E.	500 ppm	N.E.
n-Heptane	142-82-5	1.0	400 ppm	500 ppm	500 ppm	N.E.
Crystalline Silica / Quartz	14808-60-7	1.0	0.025 mg/m3	N.E.	50 µg/m3	N.E.

### PERSONAL PROTECTION

**Engineering Controls:** Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits. Use explosion-proof ventilation equipment. 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 organic vapor cartridge or canister may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits.

**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 guidance regarding types of personal protective equipment and their applications. 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. Remove contaminated clothing immediately and launder before reuse.

**Engineering Measures for Combustible Dust:** No Information

## 9. Physical and Chemical Properties

<b>Appearance:</b>	Aerosolized Mist	<b>Physical State:</b>	Liquid
<b>Odor:</b>	Solvent Like	<b>Odor Threshold:</b>	N.E.
<b>Specific Gravity:</b>	0.932	<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>	0.9 - 12.6
<b>Boiling Range, °C:</b>	-37 - 537	<b>Flash Point, °C:</b>	-96
<b>Flammability:</b>	Supports Combustion	<b>Auto-Ignition Temp., °C:</b>	N.D.
<b>Evaporation Rate:</b>	Faster 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 all possible sources of ignition. Avoid excess heat.

**Incompatibility:** Incompatible with strong oxidizing agents, strong acids and strong alkalis.

**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 eye irritation. Irritating, and may injure eye tissue if not removed promptly.

**Effects of Overexposure - Skin Contact:** Substance may cause slight skin irritation. Prolonged or repeated contact may cause skin irritation. Low hazard for usual industrial handling or commercial handling by trained personnel.

**Effects of Overexposure - Inhalation:** Harmful if inhaled. 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.

Constituents of this product include crystalline silica dust which, if inhalable, may cause silicosis, a form of progressive pulmonary fibrosis. Inhalable crystalline silica is listed by IARC as a group I carcinogen (lung) based on sufficient evidence in occupationally exposed humans and sufficient evidence in animals. Crystalline silica is also listed by the NTP as a known human carcinogen. Constituents may also contain asbestiform or non-asbestiform tremolite or other silicates as impurities, and above de minimus exposure to these impurities in inhalable form may be carcinogenic or cause other serious lung problems.

**Effects of Overexposure - Ingestion:** Substance may be harmful if swallowed.

**Effects of Overexposure - Chronic Hazards:** May cause central nervous system disorder (e.g., narcosis involving a loss of coordination, weakness, fatigue, mental confusion, and blurred vision) and/or damage. High concentrations may lead to central nervous system effects (drowsiness, dizziness, nausea, headaches, paralysis, and blurred vision) and/or damage. Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Overexposure to xylene in laboratory animals has been associated with liver abnormalities, kidney, lung, spleen, eye and blood damage as well as reproductive disorders. Effects in humans, due to chronic overexposure, have included liver, cardiac abnormalities and nervous system damage. IARC lists Ethylbenzene as a possible human carcinogen (group 2B). 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>
64742-49-0	Naphtha, Petroleum, Hydrotreated Light	>5000 mg/kg Rat	>3160 mg/kg Rabbit	>4951 mg/L Rat
123-86-4	n-Butyl Acetate	10768 mg/kg Rat	>17600 mg/kg Rabbit	> 21 mg/L Rat
13463-67-7	Titanium Dioxide	>10000 mg/kg Rat	6000	N.E.
106-97-8	n-Butane	N.E.	N.E.	658 mg/L Rat
1330-20-7	Xylenes (o-, m-, p- Isomers)	3500 mg/kg Rat	>4350 mg/kg Rabbit	29.08 mg/L Rat
14807-96-6	Hydrous Magnesium Silicate	6000	N.E.	30
64742-16-1	Petroleum Resin	> 5000 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	> 5.28 mg/L (Rat)
100-41-4	Ethylbenzene	3500 mg/kg Rat	15400 mg/kg Rabbit	17.4 mg/L Rat

**16. Other Information****HMIS RATINGS**

Health: 2\*      Flammability: 4                      Physical Hazard: 0                      Personal Protection: X

**NFPA RATINGS**

Health: 2      Flammability: 4                      Instability: 0

Maximum Incremental Reactivity: 0.80

SDS REVISION DATE: 3/1/2024

REASON FOR REVISION: Product Composition Changed  
Substance and/or Product Properties Changed in  
Section(s):  
02 - Hazard Identification  
14 - Transport Information  
16 - Other Information

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

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.





# SAFETY DATA SHEET

A03903004

## Section 1. Identification

**Product name** : KRYLON® Industrial QUIK-MARK™ Water-Based Inverted Marking Paint (APWA) Blue

**Product code** : A03903004

**Other means of identification** : Not available.

**Product type** : Aerosol.

### Relevant identified uses of the substance or mixture and uses advised against

Paint or paint related material.

**Manufacturer** : Krylon Products Group  
101 Prospect Avenue NW  
Cleveland, OH 44115

**Emergency telephone number of the company** : US/Canada: (800) 424-9300  
Mexico: CHEMTREC Mexico 800-681-9531. Available 24 hours and 365 days per year

**Product Information Telephone Number** : US/Canada: (800) 247-3266  
Mexico: Not Available

**Transportation Emergency Telephone Number** : US/Canada: (800) 424-9300  
Mexico: SETIQ 800-00-214-00 / 55-5559-1588 Available 24 hours and 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** : 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 - Category 2  
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2  
ASPIRATION HAZARD - Category 1  
Percentage of the mixture consisting of ingredient(s) of unknown acute toxicity: 18.9% (oral), 30.3% (dermal), 18.9% (inhalation)

### GHS label elements

**Hazard pictograms** :



**Signal word** : Danger

**Date of issue/Date of revision** : 1/25/2024 **Date of previous issue** : 1/21/2024

**Version** : 26 1/17

A03903004

KRYLON® Industrial QUIK-MARK™ Water-Based Inverted Marking Paint (APWA) Blue

SHW-85-NA-GHS-US



## Section 2. Hazards identification

**Hazard statements** : Extremely flammable aerosol.  
Contains gas under pressure; may explode if heated.  
May be fatal if swallowed and enters airways.  
Causes skin irritation.  
Causes serious eye irritation.  
Suspected of causing cancer.  
Suspected of damaging fertility or the unborn child.  
May cause 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. Wear protective gloves, protective clothing and 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. Do not breathe dust or mist. Wash thoroughly after handling. Pressurized container: Do not pierce or burn, even after use.

**Response** : IF exposed or concerned: Get medical advice or attention. IF SWALLOWED: Immediately call a POISON CENTER or doctor. Do NOT induce vomiting. Take off contaminated clothing and wash it before reuse. IF ON SKIN: Wash with plenty of water. If skin irritation occurs: Get medical advice or 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 or attention.

**Storage** : Store locked up. Protect from sunlight. Store in a well-ventilated place. Do not expose to temperatures exceeding 50 °C/122 °F.

**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.  
This product contains a TSCA regulated chemical. See Section 15 of the US SDS for details.

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
Toluene	≤10	108-88-3
Propane	≤10	74-98-6
Light Aliphatic Hydrocarbon	≤8.4	64742-47-8
Butane	≤5	106-97-8
Ethoxylated Nonylphenol	<3	127087-87-0
Lt. Aliphatic Hydrocarbon Solvent	≤1.4	64742-89-8
Titanium Dioxide	≤1	13463-67-7
Xylene, mixed isomers	≤0.3	1330-20-7



## Section 3. Composition/information on ingredients

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 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** : 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. 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** : No known significant effects or critical hazards.
- Skin contact** : Causes skin irritation.
- Ingestion** : 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  
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



## Section 4. First aid measures

**Ingestion** : Adverse symptoms may include the following:  
nausea or vomiting  
reduced fetal weight  
increase in fetal deaths  
skeletal malformations

### 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.

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

**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.

**Remark** : Flammable aerosol.

## 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.



## Section 6. Accidental release measures

**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 TSCA regulated chemical. See Section 15 of the US SDS for details.**

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.

**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	CAS #	Exposure limits
Toluene	108-88-3	<p><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, 10/2020).</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, 1/2023).</b>  <b>Ototoxicant.</b>                      TWA: 20 ppm 8 hours.</p>
Propane	74-98-6	<p><b>NIOSH REL (United States, 10/2020).</b>                      TWA: 1000 ppm 10 hours.                      TWA: 1800 mg/m<sup>3</sup> 10 hours.  <b>OSHA PEL (United States, 5/2018).</b>                      TWA: 1000 ppm 8 hours.                      TWA: 1800 mg/m<sup>3</sup> 8 hours.  <b>ACGIH TLV (United States, 1/2023). Oxygen Depletion [Asphyxiant]. Explosive potential.</b>  <b>ACGIH TLV (United States, 1/2023).</b>  <b>[Kerosene as total hydrocarbon vapor] Absorbed through skin.</b>                      TWA: 200 mg/m<sup>3</sup>, (as total hydrocarbon vapor) 8 hours.</p>
Light Aliphatic Hydrocarbon	64742-47-8	<p><b>NIOSH REL (United States, 10/2020).</b>                      TWA: 800 ppm 10 hours.                      TWA: 1900 mg/m<sup>3</sup> 10 hours.  <b>ACGIH TLV (United States, 1/2023).</b>  <b>[Butane isomers] Explosive potential.</b>                      STEL: 1000 ppm 15 minutes.</p>
Butane	106-97-8	<p>None.                      None.  <b>OSHA PEL (United States, 5/2018).</b>                      TWA: 15 mg/m<sup>3</sup> 8 hours. Form: Total dust  <b>ACGIH TLV (United States, 1/2023).</b>                      TWA: 2.5 mg/m<sup>3</sup> 8 hours. Form: respirable fraction, finescale particles</p>
Ethoxylated Nonylphenol Lt. Aliphatic Hydrocarbon Solvent Titanium Dioxide	127087-87-0 64742-89-8 13463-67-7	<p><b>OSHA PEL (United States, 5/2018).</b>                      TWA: 100 ppm 8 hours.                      TWA: 435 mg/m<sup>3</sup> 8 hours.  <b>ACGIH TLV (United States, 1/2023).</b> [p-xylene and mixtures containing p-xylene]  <b>Ototoxicant.</b>                      TWA: 20 ppm 8 hours.</p>
Xylene, mixed isomers	1330-20-7	<p><b>OSHA PEL (United States, 5/2018).</b>  <b>[Xylenes (o-, m-, p-isomers)]</b>                      TWA: 100 ppm 8 hours.                      TWA: 435 mg/m<sup>3</sup> 8 hours.  <b>ACGIH TLV (United States, 1/2023).</b> [p-xylene and mixtures containing p-xylene]  <b>Ototoxicant.</b>                      TWA: 20 ppm 8 hours.</p>

#### Occupational exposure limits (Canada)

## Section 8. Exposure controls/personal protection

Ingredient name	CAS #	Exposure limits
Toluene	108-88-3	<p><b>CA Alberta Provincial (Canada, 6/2018).</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, 6/2022).</b>            TWA: 20 ppm 8 hours.</p> <p><b>CA Ontario Provincial (Canada, 6/2019).</b>            TWA: 20 ppm 8 hours.</p> <p><b>CA Quebec Provincial (Canada, 6/2022).</b>            TWAEV: 20 ppm 8 hours.</p> <p><b>CA Saskatchewan Provincial (Canada, 7/2013). Absorbed through skin.</b>            STEL: 60 ppm 15 minutes.            TWA: 50 ppm 8 hours.</p>
Normal propane	74-98-6	<p><b>CA Alberta Provincial (Canada, 6/2018).</b>            8 hrs OEL: 1000 ppm 8 hours.</p> <p><b>CA Quebec Provincial (Canada, 6/2022).</b>            TWAEV: 1000 ppm 8 hours.            TWAEV: 1800 mg/m<sup>3</sup> 8 hours.</p> <p><b>CA Saskatchewan Provincial (Canada, 7/2013).</b>            STEL: 1250 ppm 15 minutes.            TWA: 1000 ppm 8 hours.</p> <p><b>CA British Columbia Provincial (Canada, 6/2022). Oxygen Depletion [Asphyxiant]. Explosive potential.</b></p> <p><b>CA Ontario Provincial (Canada, 6/2019). Oxygen Depletion [Asphyxiant]. Explosive potential.</b></p>
Petroleum refining, hydrotreated light distillate	64742-47-8	<p><b>CA British Columbia Provincial (Canada, 6/2022). [Kerosene/Jet fuels as total hydrocarbon vapour] Absorbed through skin. Notes: Application restricted to conditions in which there are negligible aerosol exposures.</b>            TWA: 200 mg/m<sup>3</sup>, (as total hydrocarbon vapour) 8 hours.</p> <p><b>CA Alberta Provincial (Canada, 6/2018). [Kerosene/Jet fuels as total hydrocarbon vapour] Absorbed through skin.</b>            8 hrs OEL: 200 mg/m<sup>3</sup>, (as total hydrocarbon vapour) 8 hours.</p> <p><b>CA Ontario Provincial (Canada, 6/2019). Absorbed through skin.</b>            TWA: 200 mg/m<sup>3</sup>, (as total hydrocarbon vapour) 8 hours.</p>
Butane	106-97-8	<p><b>CA Alberta Provincial (Canada, 6/2018).</b>            8 hrs OEL: 1000 ppm 8 hours.</p> <p><b>CA Quebec Provincial (Canada, 6/2022).</b>            TWAEV: 800 ppm 8 hours.            TWAEV: 1900 mg/m<sup>3</sup> 8 hours.</p> <p><b>CA Saskatchewan Provincial (Canada, 7/2013). [Butane all isomers]</b></p>



## Section 8. Exposure controls/personal protection

Xylene	1330-20-7	<p>STEL: 1250 ppm 15 minutes. TWA: 1000 ppm 8 hours. <b>CA British Columbia Provincial (Canada, 6/2022). [butane, all isomers] Explosive potential.</b></p> <p>STEL: 1000 ppm 15 minutes. <b>CA Ontario Provincial (Canada, 6/2019). [Butane, All isomers] Explosive potential.</b></p> <p>STEL: 1000 ppm 15 minutes. <b>CA Alberta Provincial (Canada, 6/2018). [Dimethylbenzene (o,m &amp; p isomers)]</b> 8 hrs OEL: 100 ppm 8 hours. 15 min OEL: 651 mg/m<sup>3</sup> 15 minutes. 15 min OEL: 150 ppm 15 minutes. 8 hrs OEL: 434 mg/m<sup>3</sup> 8 hours.</p> <p><b>CA British Columbia Provincial (Canada, 6/2022). [Xylene (o, m &amp; p isomers)]</b> TWA: 100 ppm 8 hours. STEL: 150 ppm 15 minutes.</p> <p><b>CA Quebec Provincial (Canada, 6/2022). [Xylene (o-,m-,p- isomers)]</b> TWAEV: 100 ppm 8 hours. TWAEV: 434 mg/m<sup>3</sup> 8 hours. STEV: 150 ppm 15 minutes. STEV: 651 mg/m<sup>3</sup> 15 minutes.</p> <p><b>CA Ontario Provincial (Canada, 6/2019). [Xylene (o-, m-, p-isomers)]</b> STEL: 150 ppm 15 minutes. TWA: 100 ppm 8 hours.</p> <p><b>CA Saskatchewan Provincial (Canada, 7/2013). [Xylene (o, m-, p-isomers)]</b> STEL: 150 ppm 15 minutes. TWA: 100 ppm 8 hours.</p>
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### Occupational exposure limits (Mexico)

	CAS #	Exposure limits
Toluene	108-88-3	<b>NOM-010-STPS-2014 (Mexico, 4/2016).</b>
Light Aliphatic Hydrocarbon	64742-47-8	<p>TWA: 20 ppm 8 hours.</p> <p><b>ACGIH TLV (United States, 1/2023). [Kerosene as total hydrocarbon vapor] Absorbed through skin.</b></p> <p>TWA: 200 mg/m<sup>3</sup>, (as total hydrocarbon vapor) 8 hours.</p>

### Biological exposure indices (United States)

Ingredient name	Exposure indices
Toluene	<p><b>ACGIH BEI (United States, 1/2023)</b></p> <p>BEI: 0.03 mg/l, toluene [in urine]. Sampling time: end of shift.</p> <p>BEI: 0.3 mg/g creatinine, o-cresol [in urine]. Sampling time: end of shift.</p> <p>BEI: 0.02 mg/l, toluene [in blood]. Sampling time: prior to last shift of workweek.</p>
Xylene, mixed isomers	<p><b>ACGIH BEI (United States, 1/2023) [xylenes (technical or commercial grade)]</b></p>

## Section 8. Exposure controls/personal protection

BEI: 1.5 g/g creatinine, methylhippuric acids [in urine]. Sampling time: end of shift.

### Biological exposure indices (Canada)

No exposure indices known.

### Biological exposure indices (Mexico)

Ingredient name	Exposure indices
Toluene	<p><b>Official Mexican STANDARD NOM-047-SSA1-2011, Environmental Health-Biological exposure indices for personnel occupationally exposed to chemical substances. (Mexico, 6/2012)</b></p> <p>BEI: 0.05 mg/L, toluene [in blood]. Sampling time: sample time not specified.</p> <p>BEI: 1.6 g/g creatinine [Basal level].The determinant may be present in the biological sample obtained from subjects who have not been occupationally exposed, at a concentration that could affect the interpretation of the results. These background levels are included in the valu; non-specific.The determinant is nonspecific, since it can be found after exposure to other chemicals., hippuric acid [in urine]. Sampling time: at the end of the work shift.</p> <p>BEI: 0.5 mg/L [Basal level].The determinant may be present in the biological sample obtained from subjects who have not been occupationally exposed, at a concentration that could affect the interpretation of the results. These background levels are included in the valu], o-cresol [in urine]. Sampling time: at the end of the work shift.</p>

### Appropriate engineering controls

- : Use only with adequate ventilation. 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. 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 TSCA regulated chemical. See Section 15 of the US SDS for details.**
- 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.



## Section 8. Exposure controls/personal protection

- 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

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

### Appearance

- Physical state** : Liquid.
- Color** : Blue.
- Odor** : Not available.
- Odor threshold** : Not available.
- pH** : 7
- Melting point/freezing point** : Not available.
- Boiling point, initial boiling point, and boiling range** : Not available.
- Flash point** : Closed cup: -29°C (-20.2°F) [Pensky-Martens Closed Cup]
- Evaporation rate** : 2 (butyl acetate = 1)
- Flammability** : Flammable aerosol.
- Lower and upper explosion limit/flammability limit** : Lower: 0.9%  
Upper: 9.5%
- Vapor pressure** : 101.3 kPa (760 mm Hg)
- Relative vapor density** : 1 [Air = 1]
- Relative density** : 0.87
- Solubility(ies)** :

Media	Result
cold water	Partially soluble

- Partition coefficient: n-octanol/water** : Not applicable.



## Section 9. Physical and chemical properties

<b>Auto-ignition temperature</b>	: Not available.
<b>Decomposition temperature</b>	: Not available.
<b>Viscosity</b>	: Kinematic (40°C (104°F)): <20.5 mm <sup>2</sup> /s (<20.5 cSt)
<b>Molecular weight</b>	: Not applicable.
<b>Aerosol product</b>	
<b>Type of aerosol</b>	: Spray
<b>Heat of combustion</b>	: 13.79 kJ/g

## 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>	: Avoid all possible sources of ignition (spark or flame).
<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
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
Xylene, mixed isomers	LC50 Inhalation Gas.	Rat	6700 ppm	4 hours
	LD50 Oral	Rat	4300 mg/kg	-

#### Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Toluene	Eyes - Mild irritant	Rabbit	-	0.5 minutes	-
				100 mg	
	Eyes - Mild irritant	Rabbit	-	870 ug	-
	Eyes - Severe irritant	Rabbit	-	24 hours 2 mg	-
	Skin - Mild irritant	Pig	-	24 hours 250 uL	-
	Skin - Mild irritant	Rabbit	-	435 mg	-
Titanium Dioxide	Skin - Moderate irritant	Rabbit	-	24 hours 20 mg	-
	Skin - Moderate irritant	Rabbit	-	500 mg	-
	Skin - Mild irritant	Human	-	72 hours 300 ug l	-
Xylene, mixed isomers	Eyes - Mild irritant	Rabbit	-	87 mg	-
	Eyes - Severe irritant	Rabbit	-	24 hours 5 mg	-

## Section 11. Toxicological information

	Skin - Mild irritant	Rat	-	8 hours 60 uL	-
	Skin - Moderate irritant	Rabbit	-	100 %	-
	Skin - Moderate irritant	Rabbit	-	24 hours 500 mg	-

### Sensitization

Not available.

### Mutagenicity

Not available.

### Carcinogenicity

Not available.

### Classification

Product/ingredient name	OSHA	IARC	NTP
Toluene	-	3	-
Titanium Dioxide	-	2B	-
Xylene, mixed isomers	-	3	-

### Reproductive toxicity

Not available.

### Teratogenicity

Not available.

### Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
Toluene	Category 3	-	Respiratory tract irritation
Light Aliphatic Hydrocarbon	Category 3 Category 3	-	Narcotic effects Respiratory tract irritation
Lt. Aliphatic Hydrocarbon Solvent	Category 3 Category 3	-	Narcotic effects Respiratory tract irritation
Xylene, mixed isomers	Category 3 Category 3	-	Narcotic effects Respiratory tract irritation

### Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
Toluene	Category 2	-	-
Light Aliphatic Hydrocarbon	Category 2	-	-
Lt. Aliphatic Hydrocarbon Solvent	Category 2	-	-
Xylene, mixed isomers	Category 2	-	-

### Aspiration hazard

Name	Result
Toluene	ASPIRATION HAZARD - Category 1
Light Aliphatic Hydrocarbon	ASPIRATION HAZARD - Category 1
Lt. Aliphatic Hydrocarbon Solvent	ASPIRATION HAZARD - Category 1
Xylene, mixed isomers	ASPIRATION HAZARD - Category 1



## Section 11. Toxicological information

**Information on the likely routes of exposure** : Not available.

### Potential acute health effects

**Eye contact** : Causes serious eye irritation.  
**Inhalation** : No known significant effects or critical hazards.  
**Skin contact** : Causes skin irritation.  
**Ingestion** : 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  
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** : No known significant effects or critical hazards.

## Section 11. Toxicological information

### Numerical measures of toxicity

#### Acute toxicity estimates

Route	ATE value
Oral	4341.3 mg/kg
Inhalation (vapors)	494.59 mg/l

## Section 12. Ecological information

### Toxicity

Product/ingredient name	Result	Species	Exposure
Toluene	Acute EC50 >433 ppm Marine water	Algae - <i>Skeletonema costatum</i>	96 hours
	Acute EC50 11600 µg/l Fresh water	Crustaceans - <i>Gammarus pseudolimnaeus</i> - Adult	48 hours
	Acute EC50 6000 µg/l Fresh water	Daphnia - <i>Daphnia magna</i> - Juvenile (Fledgling, Hatchling, Weanling)	48 hours
		Fish - <i>Oncorhynchus kisutch</i> - Fry	96 hours
Light Aliphatic Hydrocarbon	Chronic NOEC 1 mg/l Fresh water	Daphnia - <i>Daphnia magna</i>	21 days
	Acute LC50 2200 µg/l Fresh water	Fish - <i>Lepomis macrochirus</i>	4 days
Lt. Aliphatic Hydrocarbon Solvent	Acute LC50 >100000 ppm Fresh water	Fish - <i>Oncorhynchus mykiss</i>	96 hours
Titanium Dioxide	Acute LC50 >1000000 µg/l Marine water	Fish - <i>Fundulus heteroclitus</i>	96 hours
	Acute LC50 8500 µg/l Marine water	Crustaceans - <i>Palaemonetes pugio</i>	48 hours
		Fish - <i>Pimephales promelas</i>	96 hours
Xylene, mixed isomers	Acute LC50 13400 µg/l Fresh water		

### Persistence and degradability

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Toluene	-	-	Readily
Xylene, mixed isomers	-	-	Readily

### Bioaccumulative potential

Product/ingredient name	LogP <sub>ow</sub>	BCF	Potential
Toluene	-	90	Low
Lt. Aliphatic Hydrocarbon Solvent	-	10 to 2500	High
Xylene, mixed isomers	-	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** : This product contains a TSCA regulated chemical. See Section 15 of the US SDS for details.

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
UN number	UN1950	UN1950	UN1950	UN1950	UN1950
UN proper shipping name	AEROSOLS	AEROSOLS	AEROSOLS	AEROSOLS, flammable	AEROSOLS
Transport hazard class(es)	2.1 	2.1 	2.1 	2.1 	2.1 
Packing group	-	-	-	-	-
Environmental hazards	No.	No.	No.	No.	No.
Additional information	-  <b>ERG No.</b> 126 Dependent upon container size, this product may ship under the Limited Quantity shipping exception.	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 Dependent upon container size, this product may ship under the Limited Quantity shipping exception.	-  <b>ERG No.</b> 126 Dependent upon container size, this product may ship under the Limited Quantity shipping exception.	-  Dependent upon container size, this product may ship under the Limited Quantity shipping exception.	<b>Emergency schedules</b> F-D, S-U  Dependent upon container size, this product may ship under the Limited Quantity shipping exception.

**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



## Section 14. Transport information

and on all actions in case of emergency situations.

**Transport in bulk according to IMO instruments** : Not available.

**Proper shipping name** : Not available.

## Section 15. Regulatory information

**U.S. Federal regulations** : **TSCA 5(a)2 final significant new use rules: 2-Methoxyethanol**

<u>List name</u>	<u>Chemical name</u>	<u>Notes</u>
United States - TSCA 5(a) 2 - Final significant new use rules	2-Methoxyethanol	40 CFR 721.10001

### 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

#### Montreal Protocol

Not listed.

#### Stockholm Convention on Persistent Organic Pollutants

Not listed.

### International lists

: **Australia inventory (AIC)**: Not determined.  
**China inventory (IECSC)**: Not determined.  
**Japan inventory (CSCL)**: Not determined.  
**Japan inventory (ISHL)**: Not determined.  
**Korea inventory (KECI)**: Not determined.  
**New Zealand Inventory of Chemicals (NZIoC)**: Not determined.  
**Philippines inventory (PICCS)**: Not determined.  
**Taiwan Chemical Substances Inventory (TCSI)**: Not determined.  
**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		2
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](#)



## Section 16. Other information

Classification	Justification
FLAMMABLE AEROSOLS - Category 1	On basis of test data
GASES UNDER PRESSURE - Compressed gas	On basis of test data
SKIN CORROSION/IRRITATION - Category 2	Calculation method
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A	Calculation method
CARCINOGENICITY - Category 2	Calculation method
TOXIC TO REPRODUCTION - Category 2	Calculation method
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2	Calculation method
ASPIRATION HAZARD - Category 1	Calculation method

### History

Date of printing : 1/25/2024

Date of issue/Date of revision : 1/25/2024

Date of previous issue : 1/21/2024

Version : 26

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)  
 N/A = Not available  
 SGG = Segregation Group  
 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.



# SAFETY DATA SHEET

A03921004

## Section 1. Identification

**Product name** : KRYLON® Industrial QUIK-MARK™ Water-Based Inverted Marking Paint (APWA)  
High Visibility Yellow

**Product code** : A03921004

**Other means of identification** : Not available.

**Product type** : Aerosol.

### Relevant identified uses of the substance or mixture and uses advised against

Paint or paint related material.

**Manufacturer** : Krylon Products Group  
101 Prospect Avenue NW  
Cleveland, OH 44115

**Emergency telephone number of the company** : US/Canada: (800) 424-9300  
Mexico: CHEMTREC Mexico 800-681-9531. Available 24 hours and 365 days per year

**Product Information Telephone Number** : US/Canada: (800) 247-3266  
Mexico: Not Available

**Transportation Emergency Telephone Number** : US/Canada: (800) 424-9300  
Mexico: SETIQ 800-00-214-00 / 55-5559-1588 Available 24 hours and 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** : 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 - 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 acute toxicity: 19.3% (oral), 30% (dermal), 19.3% (inhalation)

### GHS label elements

**Hazard pictograms** :



**Signal word** : Danger



## Section 2. Hazards identification

<b>Hazard statements</b>	: Extremely flammable aerosol. Contains gas under pressure; may explode if heated. May be fatal if swallowed and enters airways. Causes skin irritation. Causes serious eye irritation. May cause respiratory irritation. May cause drowsiness or dizziness. Suspected of causing cancer. Suspected of damaging fertility or the unborn child. May cause damage to organs through prolonged or repeated exposure.
<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 and 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. Do not breathe dust or mist. Wash thoroughly after handling. Pressurized container: Do not pierce or burn, even after use.
<b>Response</b>	: IF exposed or concerned: Get medical advice or attention. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor if you feel unwell. IF SWALLOWED: Immediately call a POISON CENTER or doctor. Do NOT induce vomiting. Take off contaminated clothing and wash it before reuse. IF ON SKIN: Wash with plenty of water. If skin irritation occurs: Get medical advice or 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 or attention.
<b>Storage</b>	: Store locked up. Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F. Store in a well-ventilated place. Keep container tightly closed.
<b>Disposal</b>	: Dispose of contents and container in accordance with all local, regional, national and international regulations.
<b>Supplemental label elements</b>	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.  This product contains a TSCA regulated chemical. See Section 15 of the US SDS for details.  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.
<b>Hazards not otherwise classified</b>	: 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

<b>Substance/mixture</b>	: Mixture
<b>Other means of identification</b>	: Not available.
<b>CAS number/other identifiers</b>	



## Section 3. Composition/information on ingredients

Ingredient name	% by weight	CAS number
Toluene	≥10 - ≤25	108-88-3
Propane	≤10	74-98-6
Light Aliphatic Hydrocarbon	≤10	64742-47-8
Butane	≤5	106-97-8
Lt. Aliphatic Hydrocarbon Solvent	≤3	64742-89-8
Xylene, mixed isomers	≤0.3	1330-20-7
Titanium Dioxide	≤0.3	13463-67-7

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 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. 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 4. First aid measures

- 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

### 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. 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
- 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.



## Section 5. Fire-fighting measures

- 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.
- Remark** : Flammable aerosol.

## 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 TSCA regulated chemical. See Section 15 of the US SDS for details.**
- 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.



## Section 7. Handling and storage

### 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	CAS #	Exposure limits
Toluene	108-88-3	<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, 10/2020).</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, 1/2023).</b> <b>Ototoxicant.</b> TWA: 20 ppm 8 hours.
Propane	74-98-6	<b>NIOSH REL (United States, 10/2020).</b> TWA: 1000 ppm 10 hours. TWA: 1800 mg/m <sup>3</sup> 10 hours. <b>OSHA PEL (United States, 5/2018).</b> TWA: 1000 ppm 8 hours. TWA: 1800 mg/m <sup>3</sup> 8 hours. <b>ACGIH TLV (United States, 1/2023). Oxygen Depletion [Asphyxiant]. Explosive potential.</b> <b>ACGIH TLV (United States, 1/2023).</b> <b>[Kerosene as total hydrocarbon vapor] Absorbed through skin.</b> TWA: 200 mg/m <sup>3</sup> , (as total hydrocarbon vapor) 8 hours.
Light Aliphatic Hydrocarbon	64742-47-8	<b>ACGIH TLV (United States, 1/2023).</b> <b>[Kerosene as total hydrocarbon vapor] Absorbed through skin.</b> TWA: 200 mg/m <sup>3</sup> , (as total hydrocarbon vapor) 8 hours.
Butane	106-97-8	<b>NIOSH REL (United States, 10/2020).</b> TWA: 800 ppm 10 hours. TWA: 1900 mg/m <sup>3</sup> 10 hours. <b>ACGIH TLV (United States, 1/2023).</b> <b>[Butane isomers] Explosive potential.</b> STEL: 1000 ppm 15 minutes.
Lt. Aliphatic Hydrocarbon Solvent Xylene, mixed isomers	64742-89-8 1330-20-7	None. <b>OSHA PEL (United States, 5/2018).</b> <b>[Xylenes (o-, m-, p-isomers)]</b> TWA: 100 ppm 8 hours. TWA: 435 mg/m <sup>3</sup> 8 hours. <b>ACGIH TLV (United States, 1/2023). [p-xylene and mixtures containing p-xylene] Ototoxicant.</b>

## Section 8. Exposure controls/personal protection

Titanium Dioxide	13463-67-7	<p>TWA: 20 ppm 8 hours.  <b>OSHA PEL (United States, 5/2018).</b>                      TWA: 15 mg/m<sup>3</sup> 8 hours. Form: Total dust  <b>ACGIH TLV (United States, 1/2023).</b>                      TWA: 2.5 mg/m<sup>3</sup> 8 hours. Form: respirable fraction, finescale particles</p>
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### Occupational exposure limits (Canada)

Ingredient name	CAS #	Exposure limits
Toluene	108-88-3	<p><b>CA Alberta Provincial (Canada, 6/2018).</b>  <b>Absorbed through skin.</b>                      8 hrs OEL: 50 ppm 8 hours.                      8 hrs OEL: 188 mg/m<sup>3</sup> 8 hours.  <b>CA British Columbia Provincial (Canada, 6/2022).</b>                      TWA: 20 ppm 8 hours.  <b>CA Ontario Provincial (Canada, 6/2019).</b>                      TWA: 20 ppm 8 hours.  <b>CA Quebec Provincial (Canada, 6/2022).</b>                      TWAEV: 20 ppm 8 hours.  <b>CA Saskatchewan Provincial (Canada, 7/2013).</b> <b>Absorbed through skin.</b>                      STEL: 60 ppm 15 minutes.                      TWA: 50 ppm 8 hours.</p>
Normal propane	74-98-6	<p><b>CA Alberta Provincial (Canada, 6/2018).</b>                      8 hrs OEL: 1000 ppm 8 hours.  <b>CA Quebec Provincial (Canada, 6/2022).</b>                      TWAEV: 1000 ppm 8 hours.                      TWAEV: 1800 mg/m<sup>3</sup> 8 hours.  <b>CA Saskatchewan Provincial (Canada, 7/2013).</b>                      STEL: 1250 ppm 15 minutes.                      TWA: 1000 ppm 8 hours.  <b>CA British Columbia Provincial (Canada, 6/2022).</b> <b>Oxygen Depletion [Asphyxiant].</b>  <b>Explosive potential.</b></p> <p><b>CA Ontario Provincial (Canada, 6/2019).</b>  <b>Oxygen Depletion [Asphyxiant]. Explosive potential.</b></p>
Petroleum refining, hydrotreated light distillate	64742-47-8	<p><b>CA British Columbia Provincial (Canada, 6/2022).</b> <b>[Kerosene/Jet fuels as total hydrocarbon vapour] Absorbed through skin. Notes: Application restricted to conditions in which there are negligible aerosol exposures.</b>                      TWA: 200 mg/m<sup>3</sup>, (as total hydrocarbon vapour) 8 hours.  <b>CA Alberta Provincial (Canada, 6/2018).</b>  <b>[Kerosene/Jet fuels as total hydrocarbon vapour] Absorbed through skin.</b>                      8 hrs OEL: 200 mg/m<sup>3</sup>, (as total hydrocarbon vapour) 8 hours.  <b>CA Ontario Provincial (Canada, 6/2019).</b>  <b>Absorbed through skin.</b>                      TWA: 200 mg/m<sup>3</sup>, (as total hydrocarbon</p>



## Section 8. Exposure controls/personal protection

Butane	106-97-8	vapour) 8 hours. <b>CA Alberta Provincial (Canada, 6/2018).</b> 8 hrs OEL: 1000 ppm 8 hours. <b>CA Quebec Provincial (Canada, 6/2022).</b> TWAEV: 800 ppm 8 hours. TWAEV: 1900 mg/m <sup>3</sup> 8 hours. <b>CA Saskatchewan Provincial (Canada, 7/2013). [Butane all isomers]</b> STEL: 1250 ppm 15 minutes. TWA: 1000 ppm 8 hours. <b>CA British Columbia Provincial (Canada, 6/2022). [butane, all isomers] Explosive potential.</b> STEL: 1000 ppm 15 minutes. <b>CA Ontario Provincial (Canada, 6/2019). [Butane, All isomers] Explosive potential.</b> STEL: 1000 ppm 15 minutes.
Xylene	1330-20-7	<b>CA Alberta Provincial (Canada, 6/2018). [Dimethylbenzene (o,m &amp; p isomers)]</b> 8 hrs OEL: 100 ppm 8 hours. 15 min OEL: 651 mg/m <sup>3</sup> 15 minutes. 15 min OEL: 150 ppm 15 minutes. 8 hrs OEL: 434 mg/m <sup>3</sup> 8 hours. <b>CA British Columbia Provincial (Canada, 6/2022). [Xylene (o, m &amp; p isomers)]</b> TWA: 100 ppm 8 hours. STEL: 150 ppm 15 minutes. <b>CA Quebec Provincial (Canada, 6/2022). [Xylene (o-,m-,p- isomers)]</b> TWAEV: 100 ppm 8 hours. TWAEV: 434 mg/m <sup>3</sup> 8 hours. STEV: 150 ppm 15 minutes. STEV: 651 mg/m <sup>3</sup> 15 minutes. <b>CA Ontario Provincial (Canada, 6/2019). [Xylene (o-, m-, p-isomers)]</b> STEL: 150 ppm 15 minutes. TWA: 100 ppm 8 hours. <b>CA Saskatchewan Provincial (Canada, 7/2013). [Xylene (o, m-, p-isomers)]</b> STEL: 150 ppm 15 minutes. TWA: 100 ppm 8 hours.

### Occupational exposure limits (Mexico)

	CAS #	Exposure limits
Toluene	108-88-3	<b>NOM-010-STPS-2014 (Mexico, 4/2016).</b> TWA: 20 ppm 8 hours.
Light Aliphatic Hydrocarbon	64742-47-8	<b>ACGIH TLV (United States, 1/2023). [Kerosene as total hydrocarbon vapor] Absorbed through skin.</b> TWA: 200 mg/m <sup>3</sup> , (as total hydrocarbon vapor) 8 hours.

### Biological exposure indices (United States)







## Section 8. Exposure controls/personal protection

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

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

### Appearance

- Physical state** : Liquid.
- Color** : Not available.
- Odor** : Not available.
- Odor threshold** : Not available.
- pH** : 7
- Melting point/freezing point** : Not available.
- Boiling point, initial boiling point, and boiling range** : Not available.
- Flash point** : Closed cup: -29°C (-20.2°F) [Pensky-Martens Closed Cup]
- Evaporation rate** : 2 (butyl acetate = 1)
- Flammability** : Flammable aerosol.
- Lower and upper explosion limit/flammability limit** : Lower: 0.9%  
Upper: 9.5%



## Section 9. Physical and chemical properties

Vapor pressure : 101.3 kPa (760 mm Hg)  
Relative vapor density : 1 [Air = 1]  
Relative density : 0.87  
Solubility(ies) :

Media	Result
cold water	Partially soluble

Partition coefficient: n-octanol/water : Not applicable.  
Auto-ignition temperature : Not available.  
Decomposition temperature : Not available.  
Viscosity : Kinematic (40°C (104°F)): <20.5 mm<sup>2</sup>/s (<20.5 cSt)  
Molecular weight : Not applicable.  
**Aerosol product**  
Type of aerosol : Spray  
Heat of combustion : 13.801 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
Toluene	LC50 Inhalation Vapor LD50 Oral	Rat Rat	49 g/m <sup>3</sup> 636 mg/kg	4 hours -
Butane	LC50 Inhalation Vapor	Rat	658000 mg/m <sup>3</sup>	4 hours
Xylene, mixed isomers	LC50 Inhalation Gas. LD50 Oral	Rat Rat	6700 ppm 4300 mg/kg	4 hours -

#### Irritation/Corrosion

## Section 11. Toxicological information

Product/ingredient name	Result	Species	Score	Exposure	Observation
Toluene	Eyes - Mild irritant	Rabbit	-	0.5 minutes	-
	Eyes - Mild irritant	Rabbit	-	100 mg	-
	Eyes - Severe irritant	Rabbit	-	870 ug	-
				24 hours 2	-
	Skin - Mild irritant	Pig	-	mg	-
				24 hours 250 uL	-
Xylene, mixed isomers	Skin - Mild irritant	Rabbit	-	435 mg	-
	Skin - Moderate irritant	Rabbit	-	24 hours 20	-
				mg	-
	Skin - Moderate irritant	Rabbit	-	500 mg	-
	Eyes - Mild irritant	Rabbit	-	87 mg	-
	Eyes - Severe irritant	Rabbit	-	24 hours 5	-
Titanium Dioxide				mg	-
	Skin - Mild irritant	Rat	-	8 hours 60 uL	-
	Skin - Moderate irritant	Rabbit	-	100 %	-
	Skin - Moderate irritant	Rabbit	-	24 hours 500	-
				mg	-
				72 hours 300 ug l	-

### Sensitization

Not available.

### Mutagenicity

Not available.

### Carcinogenicity

Not available.

### Classification

Product/ingredient name	OSHA	IARC	NTP
Toluene	-	3	-
Xylene, mixed isomers	-	3	-
Titanium Dioxide	-	2B	-

### Reproductive toxicity

Not available.

### Teratogenicity

Not available.

### Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
Toluene	Category 3	-	Respiratory tract irritation
Light Aliphatic Hydrocarbon	Category 3	-	Narcotic effects
	Category 3		Respiratory tract irritation
Lt. Aliphatic Hydrocarbon Solvent	Category 3	-	Narcotic effects
	Category 3		Respiratory tract irritation
Xylene, mixed isomers	Category 3	-	Narcotic effects
	Category 3		Respiratory tract irritation



## Section 11. Toxicological information

### Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
Toluene	Category 2	-	-
Light Aliphatic Hydrocarbon	Category 2	-	-
Lt. Aliphatic Hydrocarbon Solvent	Category 2	-	-
Xylene, mixed isomers	Category 2	-	-

### Aspiration hazard

Name	Result
Toluene	ASPIRATION HAZARD - Category 1
Light Aliphatic Hydrocarbon	ASPIRATION HAZARD - Category 1
Lt. Aliphatic Hydrocarbon Solvent	ASPIRATION HAZARD - Category 1
Xylene, mixed isomers	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

## Section 11. Toxicological information

### 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** : No known significant effects or critical hazards.

### Numerical measures of toxicity

#### Acute toxicity estimates

Route	ATE value
Oral	4789.24 mg/kg

## Section 12. Ecological information

### Toxicity

Product/ingredient name	Result	Species	Exposure
Toluene	Acute EC50 >433 ppm Marine water	Algae - <i>Skeletonema costatum</i>	96 hours
	Acute EC50 11600 µg/l Fresh water	Crustaceans - <i>Gammarus pseudolimnaeus</i> - Adult	48 hours
	Acute EC50 6000 µg/l Fresh water	Daphnia - <i>Daphnia magna</i> - Juvenile (Fledgling, Hatchling, Weanling)	48 hours
Light Aliphatic Hydrocarbon Lt. Aliphatic Hydrocarbon Solvent Xylene, mixed isomers	Acute LC50 5500 µg/l Fresh water	Fish - <i>Oncorhynchus kisutch</i> - Fry	96 hours
	Chronic NOEC 1 mg/l Fresh water	Daphnia - <i>Daphnia magna</i>	21 days
	Acute LC50 2200 µg/l Fresh water	Fish - <i>Lepomis macrochirus</i>	4 days
Titanium Dioxide	Acute LC50 >100000 ppm Fresh water	Fish - <i>Oncorhynchus mykiss</i>	96 hours
	Acute LC50 8500 µg/l Marine water	Crustaceans - <i>Palaemonetes pugio</i>	48 hours
Titanium Dioxide	Acute LC50 13400 µg/l Fresh water	Fish - <i>Pimephales promelas</i>	96 hours
	Acute LC50 >1000000 µg/l Marine water	Fish - <i>Fundulus heteroclitus</i>	96 hours

### Persistence and degradability



## Section 12. Ecological information

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Toluene	-	-	Readily
Xylene, mixed isomers	-	-	Readily

### Bioaccumulative potential

Product/ingredient name	LogP <sub>ow</sub>	BCF	Potential
Toluene	-	90	Low
Lt. Aliphatic Hydrocarbon Solvent	-	10 to 2500	High
Xylene, mixed isomers	-	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** : This product contains a TSCA regulated chemical. See Section 15 of the US SDS for details.

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
UN number	UN1950	UN1950	UN1950	UN1950	UN1950
UN proper shipping name	AEROSOLS	AEROSOLS	AEROSOLS	AEROSOLS, flammable	AEROSOLS
Transport hazard class(es)	2.1 	2.1 	2.1 	2.1 	2.1 
Packing group	-	-	-	-	-
Environmental hazards	No.	No.	No.	No.	No.

## Section 14. Transport information

<b>Additional information</b>	<p style="text-align: center;"><u>ERG No.</u></p> <p style="text-align: center;">126</p> <p>Dependent upon container size, this product may ship under the Limited Quantity shipping exception.</p>	<p>Product classified as per the following sections of the Transportation of Dangerous Goods Regulations: 2.13-2.17 (Class 2).</p> <p style="text-align: center;"><u>ERG No.</u></p> <p style="text-align: center;">126</p> <p>Dependent upon container size, this product may ship under the Limited Quantity shipping exception.</p>	<p style="text-align: center;"><u>ERG No.</u></p> <p style="text-align: center;">126</p> <p>Dependent upon container size, this product may ship under the Limited Quantity shipping exception.</p>	<p>Dependent upon container size, this product may ship under the Limited Quantity shipping exception.</p>	<p><b>Emergency schedules F-D, S-U</b></p> <p>Dependent upon container size, this product may ship under the Limited Quantity shipping exception.</p>
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**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 IMO instruments** : Not available.

**Proper shipping name** : Not available.

## Section 15. Regulatory information

**U.S. Federal regulations** : TSCA 5(a)2 final significant new use rules: 2-Methoxyethanol; 2-Ethoxyethanol

<u>List name</u>	<u>Chemical name</u>	<u>Notes</u>
United States - TSCA 5(a) 2 - Final significant new use rules	2-Methoxyethanol	40 CFR 721.10001
United States - TSCA 5(a) 2 - Final significant new use rules	2-Ethoxyethanol	40 CFR 721.10001

### 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

#### Montreal Protocol

Not listed.

#### Stockholm Convention on Persistent Organic Pollutants

Not listed.



## Section 15. Regulatory information

### International lists

- : Australia inventory (AIIC): Not determined.
- : China inventory (IECSC): Not determined.
- : Japan inventory (CSCL): Not determined.
- : Japan inventory (ISHL): Not determined.
- : Korea inventory (KECI): Not determined.
- : New Zealand Inventory of Chemicals (NZIoC): Not determined.
- : Philippines inventory (PICCS): Not determined.
- : Taiwan Chemical Substances Inventory (TCSI): Not determined.
- : 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		2
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	On basis of test data
SKIN CORROSION/IRRITATION - Category 2	Calculation method
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A	Calculation method
CARCINOGENICITY - Category 2	Calculation method
TOXIC TO REPRODUCTION - 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	: 1/21/2024
Date of issue/Date of revision	: 1/21/2024
Date of previous issue	: 12/24/2023
Version	: 27.02

## Section 16. Other information

### 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)  
N/A = Not available  
SGG = Segregation Group  
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.



# SAFETY DATA SHEET

A03900007

## Section 1. Identification

**Product name** : KRYLON® Industrial QUIK-MARK™ Solvent-Based Inverted Marking Paint (APWA) Utility White

**Product code** : A03900007

**Other means of identification** : Not available.

**Product type** : Aerosol.

### Relevant identified uses of the substance or mixture and uses advised against

Paint or paint related material.

**Manufacturer** : Krylon Products Group  
101 Prospect Avenue NW  
Cleveland, OH 44115

**Emergency telephone number of the company** : US/Canada: (800) 424-9300  
Mexico: CHEMTREC Mexico 800-681-9531. Available 24 hours and 365 days per year

**Product Information Telephone Number** : US/Canada: (800) 247-3266  
Mexico: Not Available

**Transportation Emergency Telephone Number** : US/Canada: (800) 424-9300  
Mexico: SETIQ 800-00-214-00 / 55-5559-1588 Available 24 hours and 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** : FLAMMABLE AEROSOLS - Category 1  
GASES UNDER PRESSURE - Compressed gas  
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A  
CARCINOGENICITY - Category 2  
TOXIC TO REPRODUCTION - Category 1B  
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 acute toxicity: 20.7% (oral), 28.5% (dermal), 20.7% (inhalation)

### GHS label elements

**Hazard pictograms** :



**Signal word** : Danger

**Date of issue/Date of revision** : 4/19/2024 **Date of previous issue** : 1/23/2024

A03900007

KRYLON® Industrial QUIK-MARK™ Solvent-Based Inverted Marking Paint (APWA) Utility White

**Version** : 26

1/20

SHW-85-NA-GHS-US



## Section 2. Hazards identification

**Hazard statements** : Extremely flammable aerosol.  
Contains gas under pressure; may explode if heated.  
May be fatal if swallowed and enters airways.  
Causes serious eye irritation.  
May cause respiratory irritation.  
May cause drowsiness or dizziness.  
Suspected of causing cancer.  
May damage fertility or the unborn child.  
May cause 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. Wear protective gloves, protective clothing and 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. Do not breathe dust or mist. Wash thoroughly after handling. Pressurized container: Do not pierce or burn, even after use.

**Response** : IF exposed or concerned: Get medical advice or attention. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor if you feel unwell. IF SWALLOWED: Immediately call a POISON CENTER or doctor. 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: Get medical advice or attention.

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

**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
Acetone	≥10 - ≤25	67-64-1
Lt. Aliphatic Hydrocarbon Solvent	≥10 - ≤25	64742-89-8
Propane	≥10 - ≤25	74-98-6
Butane	≤10	106-97-8
Toluene	<10	108-88-3
Titanium Dioxide	≤10	13463-67-7
Xylene, mixed isomers	<1	1330-20-7
Ethylbenzene	≤0.3	100-41-4
Light Aliphatic Hydrocarbon	≤0.3	64742-47-8



## Section 3. Composition/information on ingredients

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 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. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. 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. 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** : No known significant effects or critical hazards.
- 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



## Section 4. First aid measures

- reduced fetal weight  
increase in fetal deaths  
skeletal malformations
- Skin contact** : Adverse symptoms may include the following:  
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

### 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. 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.

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  
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.

### Remark

- : Flammable aerosol.



## 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** : 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	CAS #	Exposure limits
Acetone	67-64-1	<b>ACGIH TLV (United States, 1/2023).</b> TWA: 250 ppm 8 hours. STEL: 500 ppm 15 minutes. <b>NIOSH REL (United States, 10/2020).</b> TWA: 250 ppm 10 hours. TWA: 590 mg/m <sup>3</sup> 10 hours. <b>OSHA PEL (United States, 5/2018).</b> TWA: 1000 ppm 8 hours. TWA: 2400 mg/m <sup>3</sup> 8 hours.
Lt. Aliphatic Hydrocarbon Solvent Propane	64742-89-8 74-98-6	None. <b>NIOSH REL (United States, 10/2020).</b> TWA: 1000 ppm 10 hours. TWA: 1800 mg/m <sup>3</sup> 10 hours. <b>OSHA PEL (United States, 5/2018).</b> TWA: 1000 ppm 8 hours. TWA: 1800 mg/m <sup>3</sup> 8 hours. <b>ACGIH TLV (United States, 1/2023). Oxygen Depletion [Asphyxiant]. Explosive potential.</b>
Butane	106-97-8	<b>NIOSH REL (United States, 10/2020).</b> TWA: 800 ppm 10 hours. TWA: 1900 mg/m <sup>3</sup> 10 hours. <b>ACGIH TLV (United States, 1/2023).</b> <b>[Butane isomers] Explosive potential.</b> STEL: 1000 ppm 15 minutes.
Toluene	108-88-3	<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, 10/2020).</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, 1/2023).</b> <b>Ototoxicant.</b> TWA: 20 ppm 8 hours.
Titanium Dioxide	13463-67-7	<b>OSHA PEL (United States, 5/2018).</b> TWA: 15 mg/m <sup>3</sup> 8 hours. Form: Total dust <b>ACGIH TLV (United States, 1/2023).</b> TWA: 2.5 mg/m <sup>3</sup> 8 hours. Form: respirable fraction, finescale particles
Xylene, mixed isomers	1330-20-7	<b>OSHA PEL (United States, 5/2018).</b> <b>[Xylenes (o-, m-, p-isomers)]</b> TWA: 100 ppm 8 hours. TWA: 435 mg/m <sup>3</sup> 8 hours.



## Section 8. Exposure controls/personal protection

Ethylbenzene	100-41-4	<p><b>ACGIH TLV (United States, 1/2023).</b> [p-xylene and mixtures containing p-xylene] <b>Ototoxicant.</b> TWA: 20 ppm 8 hours.</p> <p><b>ACGIH TLV (United States, 1/2023).</b> <b>Ototoxicant.</b> TWA: 20 ppm 8 hours.</p> <p><b>NIOSH REL (United States, 10/2020).</b> TWA: 100 ppm 10 hours. TWA: 435 mg/m<sup>3</sup> 10 hours. STEL: 125 ppm 15 minutes. STEL: 545 mg/m<sup>3</sup> 15 minutes.</p> <p><b>OSHA PEL (United States, 5/2018).</b> TWA: 100 ppm 8 hours. TWA: 435 mg/m<sup>3</sup> 8 hours.</p>
Light Aliphatic Hydrocarbon	64742-47-8	<p><b>ACGIH TLV (United States, 1/2023).</b> <b>[Kerosene as total hydrocarbon vapor]</b> <b>Absorbed through skin.</b> TWA: 200 mg/m<sup>3</sup>, (as total hydrocarbon vapor) 8 hours.</p>

### Occupational exposure limits (Canada)

Ingredient name	CAS #	Exposure limits
acetone	67-64-1	<p><b>CA Alberta Provincial (Canada, 6/2018).</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, 6/2022).</b> TWA: 250 ppm 8 hours. STEL: 500 ppm 15 minutes.</p> <p><b>CA Ontario Provincial (Canada, 6/2019).</b> TWA: 250 ppm 8 hours. STEL: 500 ppm 15 minutes.</p> <p><b>CA Quebec Provincial (Canada, 6/2022).</b> TWAEV: 250 ppm 8 hours. STEV: 500 ppm 15 minutes.</p> <p><b>CA Saskatchewan Provincial (Canada, 7/2013).</b> STEL: 750 ppm 15 minutes. TWA: 500 ppm 8 hours.</p>
Normal propane	74-98-6	<p><b>CA Alberta Provincial (Canada, 6/2018).</b> 8 hrs OEL: 1000 ppm 8 hours.</p> <p><b>CA Quebec Provincial (Canada, 6/2022).</b> TWAEV: 1000 ppm 8 hours. TWAEV: 1800 mg/m<sup>3</sup> 8 hours.</p> <p><b>CA Saskatchewan Provincial (Canada, 7/2013).</b> STEL: 1250 ppm 15 minutes. TWA: 1000 ppm 8 hours.</p> <p><b>CA British Columbia Provincial (Canada, 6/2022).</b> Oxygen Depletion [Asphyxiant]. <b>Explosive potential.</b></p> <p><b>CA Ontario Provincial (Canada, 6/2019).</b></p>

## Section 8. Exposure controls/personal protection

Butane	106-97-8	<p><b>Oxygen Depletion [Asphyxiant]. Explosive potential.</b>  <b>CA Alberta Provincial (Canada, 6/2018).</b>              8 hrs OEL: 1000 ppm 8 hours.  <b>CA Quebec Provincial (Canada, 6/2022).</b>              TWAEV: 800 ppm 8 hours.              TWAEV: 1900 mg/m<sup>3</sup> 8 hours.  <b>CA Saskatchewan Provincial (Canada, 7/2013). [Butane all isomers]</b>              STEL: 1250 ppm 15 minutes.              TWA: 1000 ppm 8 hours.  <b>CA British Columbia Provincial (Canada, 6/2022). [butane, all isomers] Explosive potential.</b>              STEL: 1000 ppm 15 minutes.  <b>CA Ontario Provincial (Canada, 6/2019). [Butane, All isomers] Explosive potential.</b>              STEL: 1000 ppm 15 minutes.</p>
Toluene	108-88-3	<p><b>CA Alberta Provincial (Canada, 6/2018). Absorbed through skin.</b>              8 hrs OEL: 50 ppm 8 hours.              8 hrs OEL: 188 mg/m<sup>3</sup> 8 hours.  <b>CA British Columbia Provincial (Canada, 6/2022).</b>              TWA: 20 ppm 8 hours.  <b>CA Ontario Provincial (Canada, 6/2019).</b>              TWA: 20 ppm 8 hours.  <b>CA Quebec Provincial (Canada, 6/2022).</b>              TWAEV: 20 ppm 8 hours.  <b>CA Saskatchewan Provincial (Canada, 7/2013). Absorbed through skin.</b>              STEL: 60 ppm 15 minutes.              TWA: 50 ppm 8 hours.</p>
Xylene	1330-20-7	<p><b>CA Alberta Provincial (Canada, 6/2018). [Dimethylbenzene (o,m &amp; p isomers)]</b>              8 hrs OEL: 100 ppm 8 hours.              15 min OEL: 651 mg/m<sup>3</sup> 15 minutes.              15 min OEL: 150 ppm 15 minutes.              8 hrs OEL: 434 mg/m<sup>3</sup> 8 hours.  <b>CA British Columbia Provincial (Canada, 6/2022). [Xylene (o, m &amp; p isomers)]</b>              TWA: 100 ppm 8 hours.              STEL: 150 ppm 15 minutes.  <b>CA Quebec Provincial (Canada, 6/2022). [Xylene (o-,m-,p- isomers)]</b>              TWAEV: 100 ppm 8 hours.              TWAEV: 434 mg/m<sup>3</sup> 8 hours.              STEV: 150 ppm 15 minutes.              STEV: 651 mg/m<sup>3</sup> 15 minutes.  <b>CA Ontario Provincial (Canada, 6/2019). [Xylene (o-, m-, p-isomers)]</b>              STEL: 150 ppm 15 minutes.              TWA: 100 ppm 8 hours.  <b>CA Saskatchewan Provincial (Canada, 7/2013). [Xylene (o, m-, p-isomers)]</b>              STEL: 150 ppm 15 minutes.              TWA: 100 ppm 8 hours.</p>



## Section 8. Exposure controls/personal protection

Ethylbenzene	100-41-4	<p><b>CA Alberta Provincial (Canada, 6/2018).</b>              8 hrs OEL: 100 ppm 8 hours.              8 hrs OEL: 434 mg/m<sup>3</sup> 8 hours.              15 min OEL: 543 mg/m<sup>3</sup> 15 minutes.              15 min OEL: 125 ppm 15 minutes.</p> <p><b>CA British Columbia Provincial (Canada, 6/2022).</b>              TWA: 20 ppm 8 hours.</p> <p><b>CA Ontario Provincial (Canada, 6/2019).</b>              TWA: 20 ppm 8 hours.</p> <p><b>CA Quebec Provincial (Canada, 6/2022).</b>              TWAEV: 20 ppm 8 hours.</p> <p><b>CA Saskatchewan Provincial (Canada, 7/2013).</b>              STEL: 125 ppm 15 minutes.              TWA: 100 ppm 8 hours.</p>
Petroleum refining, hydrotreated light distillate	64742-47-8	<p><b>CA British Columbia Provincial (Canada, 6/2022).</b> [Kerosene/Jet fuels as total hydrocarbon vapour] Absorbed through skin. Notes: Application restricted to conditions in which there are negligible aerosol exposures.              TWA: 200 mg/m<sup>3</sup>, (as total hydrocarbon vapour) 8 hours.</p> <p><b>CA Alberta Provincial (Canada, 6/2018).</b> [Kerosene/Jet fuels as total hydrocarbon vapour] Absorbed through skin.              8 hrs OEL: 200 mg/m<sup>3</sup>, (as total hydrocarbon vapour) 8 hours.</p> <p><b>CA Ontario Provincial (Canada, 6/2019).</b> Absorbed through skin.              TWA: 200 mg/m<sup>3</sup>, (as total hydrocarbon vapour) 8 hours.</p>

### Occupational exposure limits (Mexico)

	CAS #	Exposure limits
Acetone	67-64-1	<p><b>NOM-010-STPS-2014 (Mexico, 4/2016).</b>                      TWA: 500 ppm 8 hours.                      STEL: 750 ppm 15 minutes.</p>
Toluene	108-88-3	<p><b>NOM-010-STPS-2014 (Mexico, 4/2016).</b>                      TWA: 20 ppm 8 hours.</p>

### Biological exposure indices (United States)

Ingredient name	Exposure indices
Acetone	<p><b>ACGIH BEI (United States, 1/2023)</b>                      BEI: 25 mg/l, acetone [in urine]. Sampling time: end of shift.</p>
Toluene	<p><b>ACGIH BEI (United States, 1/2023)</b>                      BEI: 0.03 mg/l, toluene [in urine]. Sampling time: end of shift.                      BEI: 0.3 mg/g creatinine, o-cresol [in urine]. Sampling time: end of shift.                      BEI: 0.02 mg/l, toluene [in blood]. Sampling time: prior to last shift of workweek.</p>

## Section 8. Exposure controls/personal protection

Xylene, mixed isomers	<p><b>ACGIH BEI (United States, 1/2023) [xylenes (technical or commercial grade)]</b>            BEI: 1.5 g/g creatinine, methylhippuric acids [in urine]. Sampling time: end of shift.</p>
Ethylbenzene	<p><b>ACGIH BEI (United States, 1/2023)</b>            BEI: 0.15 g/g creatinine, sum of mandelic acid and phenylglyoxylic acid [in urine]. Sampling time: end of shift.</p>

### Biological exposure indices (Canada)

No exposure indices known.

### Biological exposure indices (Mexico)

Ingredient name	Exposure indices
Acetone	<p><b>Official Mexican STANDARD NOM-047-SSA1-2011, Environmental Health-Biological exposure indices for personnel occupationally exposed to chemical substances. (Mexico, 6/2012)</b>            BEI: 50 mg/L [non-specific. The determinant is nonspecific, since it can be found after exposure to other chemicals.], acetone [in urine]. Sampling time: at the end of the work shift.</p>
Toluene	<p><b>Official Mexican STANDARD NOM-047-SSA1-2011, Environmental Health-Biological exposure indices for personnel occupationally exposed to chemical substances. (Mexico, 6/2012)</b>            BEI: 0.05 mg/L, toluene [in blood]. Sampling time: sample time not specified.            BEI: 1.6 g/g creatinine [Basal level. The determinant may be present in the biological sample obtained from subjects who have not been occupationally exposed, at a concentration that could affect the interpretation of the results. These background levels are included in the value; non-specific. The determinant is nonspecific, since it can be found after exposure to other chemicals.], hippuric acid [in urine]. Sampling time: at the end of the work shift.            BEI: 0.5 mg/L [Basal level. The determinant may be present in the biological sample obtained from subjects who have not been occupationally exposed, at a concentration that could affect the interpretation of the results. These background levels are included in the value], o-cresol [in urine]. Sampling time: at the end of the work shift.</p>



## Section 8. Exposure controls/personal protection

- 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**
- 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

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

### Appearance

- Physical state** : Liquid.
- Color** : White.
- Odor** : Not available.
- Odor threshold** : Not available.
- pH** : 7
- Melting point/freezing point** : Not available.
- Boiling point, initial boiling point, and boiling range** : Not available.
- Flash point** : Closed cup: -29°C (-20.2°F) [Pensky-Martens Closed Cup]



## Section 9. Physical and chemical properties

Evaporation rate	: 5.6 (butyl acetate = 1)
Flammability	: Flammable aerosol.
Lower and upper explosion limit/flammability limit	: Lower: 0.9% Upper: 12.8%
Vapor pressure	: 101.3 kPa (760 mm Hg)
Relative vapor density	: 1.55 [Air = 1]
Relative density	: 0.89
Solubility(ies)	:

Media	Result
cold water	Not soluble

Partition coefficient: n-octanol/water	: Not applicable.
Auto-ignition temperature	: Not available.
Decomposition temperature	: Not available.
Viscosity	: Kinematic (40°C (104°F)): <20.5 mm <sup>2</sup> /s (<20.5 cSt)
Molecular weight	: Not applicable.
<u>Aerosol product</u>	
Type of aerosol	: Spray
Heat of combustion	: 22.968 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	-
Butane	LC50 Inhalation Vapor	Rat	658000 mg/m <sup>3</sup>	4 hours
Toluene	LC50 Inhalation Vapor	Rat	49 g/m <sup>3</sup>	4 hours
Xylene, mixed isomers	LD50 Oral	Rat	636 mg/kg	-
	LC50 Inhalation Gas.	Rat	6700 ppm	4 hours
Ethylbenzene	LD50 Oral	Rat	4300 mg/kg	-
	LD50 Dermal	Rabbit	>5000 mg/kg	-
	LD50 Oral	Rat	3500 mg/kg	-

## Section 11. Toxicological information

### Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Acetone	Eyes - Mild irritant	Human	-	186300 ppm	-
	Eyes - Mild irritant	Rabbit	-	10 uL	-
	Eyes - Moderate irritant	Rabbit	-	24 hours 20 mg	-
	Eyes - Severe irritant	Rabbit	-	20 mg	-
	Skin - Mild irritant	Rabbit	-	395 mg	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 mg	-
Toluene	Eyes - Mild irritant	Rabbit	-	0.5 minutes	-
	Eyes - Mild irritant	Rabbit	-	100 mg	-
	Eyes - Severe irritant	Rabbit	-	870 ug	-
	Eyes - Severe irritant	Rabbit	-	24 hours 2 mg	-
	Skin - Mild irritant	Pig	-	24 hours 250 uL	-
	Skin - Mild irritant	Rabbit	-	435 mg	-
Titanium Dioxide	Skin - Moderate irritant	Rabbit	-	24 hours 20 mg	-
	Skin - Mild irritant	Rabbit	-	500 mg	-
	Skin - Moderate irritant	Human	-	72 hours 300 ug l	-
	Skin - Mild irritant	Human	-	300 ug l	-
Xylene, mixed isomers	Eyes - Mild irritant	Rabbit	-	87 mg	-
	Eyes - Severe irritant	Rabbit	-	24 hours 5 mg	-
	Eyes - Severe irritant	Rabbit	-	24 hours 5 mg	-
	Skin - Mild irritant	Rat	-	8 hours 60 uL	-
	Skin - Moderate irritant	Rabbit	-	100 %	-
	Skin - Moderate irritant	Rabbit	-	24 hours 500 mg	-
Ethylbenzene	Eyes - Severe irritant	Rabbit	-	500 mg	-
	Skin - Mild irritant	Rabbit	-	24 hours 15 mg	-

### Sensitization

Not available.

### Mutagenicity

Not available.

### Carcinogenicity

Not available.

### Classification

Product/ingredient name	OSHA	IARC	NTP
Toluene	-	3	-
Titanium Dioxide	-	2B	-
Xylene, mixed isomers	-	3	-
Ethylbenzene	-	2B	-

### Reproductive toxicity

Not available.

### Teratogenicity

Not available.

### Specific target organ toxicity (single exposure)



## Section 11. Toxicological information

Name	Category	Route of exposure	Target organs
Acetone	Category 3	-	Respiratory tract irritation
Lt. Aliphatic Hydrocarbon Solvent	Category 3 Category 3	-	Narcotic effects Respiratory tract irritation
Toluene	Category 3	-	Narcotic effects
Xylene, mixed isomers	Category 3	-	Respiratory tract irritation
Ethylbenzene	Category 3	-	Narcotic effects
Light Aliphatic Hydrocarbon	Category 3	-	Respiratory tract irritation
	Category 3		Narcotic effects

### Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
Lt. Aliphatic Hydrocarbon Solvent	Category 2	-	-
Toluene	Category 2	-	-
Xylene, mixed isomers	Category 2	-	-
Ethylbenzene	Category 2	-	-
Light Aliphatic Hydrocarbon	Category 2	-	-

### Aspiration hazard

Name	Result
Lt. Aliphatic Hydrocarbon Solvent	ASPIRATION HAZARD - Category 1
Toluene	ASPIRATION HAZARD - Category 1
Xylene, mixed isomers	ASPIRATION HAZARD - Category 1
Ethylbenzene	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** : No known significant effects or critical hazards.
- 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



## Section 11. Toxicological information

- 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:  
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** : May damage the unborn child.

**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	
Acetone	Acute EC50 7200000 µg/l Fresh water	Algae - <i>Selenastrum sp.</i>	96 hours	
	Acute EC50 23.5 mg/l Fresh water	Daphnia - <i>Daphnia magna</i>	48 hours	
	Acute LC50 4.42589 ml/L Marine water	Crustaceans - <i>Acartia tonsa</i> - Copepodid	48 hours	
	Acute LC50 5600 ppm Fresh water	Fish - <i>Poecilia reticulata</i>	96 hours	
	Chronic NOEC 4.95 mg/l Marine water	Algae - <i>Ulva pertusa</i>	96 hours	
	Chronic NOEC 0.016 ml/L Fresh water	Crustaceans - <i>Daphniidae</i>	21 days	
	Chronic NOEC 0.1 ml/L Fresh water	Daphnia - <i>Daphnia magna</i> - Neonate	21 days	
	Chronic NOEC 5 µg/l Marine water	Fish - <i>Gasterosteus aculeatus</i> - Larvae	42 days	
	Lt. Aliphatic Hydrocarbon Solvent	Acute LC50 >100000 ppm Fresh water	Fish - <i>Oncorhynchus mykiss</i>	96 hours
		Toluene	Acute EC50 >433 ppm Marine water	Algae - <i>Skeletonema costatum</i>
Acute EC50 11600 µg/l Fresh water	Crustaceans - <i>Gammarus pseudolimnaeus</i> - Adult		48 hours	
Titanium Dioxide	Acute EC50 6000 µg/l Fresh water	Daphnia - <i>Daphnia magna</i> - Juvenile (Fledgling, Hatchling, Weanling)	48 hours	
	Acute LC50 5500 µg/l Fresh water	Fish - <i>Oncorhynchus kisutch</i> - Fry	96 hours	
	Chronic NOEC 1 mg/l Fresh water	Daphnia - <i>Daphnia magna</i>	21 days	
	Acute LC50 >1000000 µg/l Marine water	Fish - <i>Fundulus heteroclitus</i>	96 hours	
	Xylene, mixed isomers	Acute LC50 8500 µg/l Marine water	Crustaceans - <i>Palaemonetes pugio</i>	48 hours
		Ethylbenzene	Acute LC50 13400 µg/l Fresh water	Fish - <i>Pimephales promelas</i>
Acute EC50 4900 µg/l Marine water	Algae - <i>Skeletonema costatum</i>		72 hours	
Acute EC50 7700 µg/l Marine water	Algae - <i>Skeletonema costatum</i>		96 hours	
Acute EC50 6.53 mg/l Marine water	Crustaceans - <i>Artemia sp.</i> - Nauplii		48 hours	
Light Aliphatic Hydrocarbon	Acute EC50 2.93 mg/l Fresh water	Daphnia - <i>Daphnia magna</i> - Neonate	48 hours	
	Acute LC50 4200 µg/l Fresh water	Fish - <i>Oncorhynchus mykiss</i>	96 hours	
	Acute LC50 2200 µg/l Fresh water	Fish - <i>Lepomis macrochirus</i>	4 days	

### Persistence and degradability

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Acetone	-	-	Readily
Toluene	-	-	Readily
Xylene, mixed isomers	-	-	Readily
Ethylbenzene	-	-	Readily

### Bioaccumulative potential

Product/ingredient name	LogP <sub>ow</sub>	BCF	Potential
Lt. Aliphatic Hydrocarbon Solvent	-	10 to 2500	High
Toluene	-	90	Low
Xylene, mixed isomers	-	8.1 to 25.9	Low

### Mobility in soil



## Section 12. Ecological information






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
UN number	UN1950	UN1950	UN1950	UN1950	UN1950
UN proper shipping name	AEROSOLS	AEROSOLS	AEROSOLS	AEROSOLS, flammable	AEROSOLS
Transport hazard class(es)	2.1 	2.1 	2.1 	2.1 	2.1 
Packing group	-	-	-	-	-
Environmental hazards	No.	No.	No.	No.	No.
Additional information	-  <b>ERG No.</b> 126 Dependent upon container size, this product may ship under the Limited Quantity shipping exception.	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 Dependent upon container size, this product may ship under the Limited Quantity shipping exception.	-  <b>ERG No.</b> 126 Dependent upon container size, this product may ship under the Limited Quantity shipping exception.	-  Dependent upon container size, this product may ship under the Limited Quantity shipping exception.	<b>Emergency schedules</b> F-D, S-U  Dependent upon container size, this product may ship under the Limited Quantity shipping exception.



## Section 14. Transport information

**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 IMO instruments** : Not available.

**Proper shipping name** : Not available.

## Section 15. Regulatory information

### SARA 313

SARA 313 (40 CFR 372.45) supplier notification can be found on the Environmental Data Sheet, where applicable.

### 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

#### Montreal Protocol

Not listed.

#### Stockholm Convention on Persistent Organic Pollutants

Not listed.

### International lists

**Australia inventory (AIC)**: Not determined.  
**China inventory (IECSC)**: Not determined.  
**Japan inventory (CSCL)**: Not determined.  
**Japan inventory (ISHL)**: Not determined.  
**Korea inventory (KECI)**: Not determined.  
**New Zealand Inventory of Chemicals (NZIoC)**: Not determined.  
**Philippines inventory (PICCS)**: Not determined.  
**Taiwan Chemical Substances Inventory (TCSI)**: Not determined.  
**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		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



## Section 16. Other information

Classification	Justification
FLAMMABLE AEROSOLS - Category 1	On basis of test data
GASES UNDER PRESSURE - Compressed gas	On basis of test data
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A	Calculation method
CARCINOGENICITY - Category 2	Calculation method
TOXIC TO REPRODUCTION - Category 1B	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 : 4/19/2024

Date of issue/Date of revision : 4/19/2024

Date of previous issue : 1/23/2024

Version : 26

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)
- N/A = Not available
- SGG = Segregation Group
- 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.





# SAFETY DATA SHEET

A03801004

## Section 1. Identification

**Product name** : KRYLON® Industrial QUIK-MARK™ Water-Based Inverted Marking Paint (APWA)  
Utility Yellow

**Product code** : A03801004

**Other means of identification** : Not available.

**Product type** : Aerosol.

### Relevant identified uses of the substance or mixture and uses advised against

Paint or paint related material.

**Manufacturer** : Krylon Products Group  
101 Prospect Avenue NW  
Cleveland, OH 44115

**Emergency telephone number of the company** : US/Canada: (800) 424-9300  
Mexico: CHEMTREC Mexico 800-681-9531. Available 24 hours and 365 days per year

**Product Information Telephone Number** : US/Canada: (800) 247-3266  
Mexico: Not Available

**Transportation Emergency Telephone Number** : US/Canada: (800) 424-9300  
Mexico: SETIQ 800-00-214-00 / 55-5559-1588 Available 24 hours and 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** : 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 - 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 1  
ASPIRATION HAZARD - Category 1  
Percentage of the mixture consisting of ingredient(s) of unknown acute toxicity: 22.6% (oral), 33.8% (dermal), 22.6% (inhalation)

### GHS label elements

**Hazard pictograms** :



**Signal word** : Danger



## Section 2. Hazards identification

<b>Hazard statements</b>	: Extremely flammable aerosol. Contains gas under pressure; may explode if heated. May be fatal if swallowed and enters airways. Causes skin irritation. Causes serious eye irritation. May cause respiratory irritation. May cause drowsiness or dizziness. Suspected of causing cancer. Suspected of damaging fertility or the unborn child. Causes damage to organs through prolonged or repeated exposure. (lungs)
<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 and 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. Do not breathe dust or mist. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Pressurized container: Do not pierce or burn, even after use.
<b>Response</b>	: IF exposed or concerned: Get medical advice or attention. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor if you feel unwell. IF SWALLOWED: Immediately call a POISON CENTER or doctor. Do NOT induce vomiting. Take off contaminated clothing and wash it before reuse. IF ON SKIN: Wash with plenty of water. If skin irritation occurs: Get medical advice or 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 or attention.
<b>Storage</b>	: Store locked up. Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F. Store in a well-ventilated place. Keep container tightly closed.
<b>Disposal</b>	: Dispose of contents and container in accordance with all local, regional, national and international regulations.
<b>Supplemental label elements</b>	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.  This product contains a TSCA regulated chemical. See Section 15 of the US SDS for details.  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.
<b>Hazards not otherwise classified</b>	: 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

<b>Substance/mixture</b>	: Mixture
<b>Other means of identification</b>	: Not available.
<b>CAS number/other identifiers</b>	



### Section 3. Composition/information on ingredients

Ingredient name	% by weight	CAS number
Toluene	≥10 - ≤24	108-88-3
Propane	≤10	74-98-6
Light Aliphatic Hydrocarbon	≤10	64742-47-8
Butane	≤5	106-97-8
Caolin	≤5	1332-58-7
Light Aliphatic Hydrocarbon Solvent	≤3	64742-89-8
Titanium Dioxide	≤1	13463-67-7
Xylene, mixed isomers	≤0.3	1330-20-7

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 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. 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



## 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  
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

### 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. 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



## 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. 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.
- Remark** : Flammable aerosol.

## 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 TSCA regulated chemical. See Section 15 of the US SDS for details.**

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



## Section 7. Handling and storage

(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	CAS #	Exposure limits
Toluene	108-88-3	<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, 10/2020).</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, 1/2023).</b> <b>Ototoxicant.</b> TWA: 20 ppm 8 hours.
Propane	74-98-6	<b>NIOSH REL (United States, 10/2020).</b> TWA: 1000 ppm 10 hours. TWA: 1800 mg/m <sup>3</sup> 10 hours. <b>OSHA PEL (United States, 5/2018).</b> TWA: 1000 ppm 8 hours. TWA: 1800 mg/m <sup>3</sup> 8 hours. <b>ACGIH TLV (United States, 1/2023). Oxygen Depletion [Asphyxiant]. Explosive potential.</b> <b>ACGIH TLV (United States, 1/2023).</b> <b>[Kerosene as total hydrocarbon vapor] Absorbed through skin.</b> TWA: 200 mg/m <sup>3</sup> , (as total hydrocarbon vapor) 8 hours.
Light Aliphatic Hydrocarbon	64742-47-8	<b>ACGIH TLV (United States, 1/2023).</b> <b>[Kerosene as total hydrocarbon vapor] Absorbed through skin.</b> TWA: 200 mg/m <sup>3</sup> , (as total hydrocarbon vapor) 8 hours.
Butane	106-97-8	<b>NIOSH REL (United States, 10/2020).</b> TWA: 800 ppm 10 hours. TWA: 1900 mg/m <sup>3</sup> 10 hours. <b>ACGIH TLV (United States, 1/2023).</b> <b>[Butane isomers] Explosive potential.</b> STEL: 1000 ppm 15 minutes.
Kaolin	1332-58-7	<b>ACGIH TLV (United States, 1/2023).</b> TWA: 2 mg/m <sup>3</sup> 8 hours. Form: Respirable fraction <b>NIOSH REL (United States, 10/2020).</b> TWA: 5 mg/m <sup>3</sup> 10 hours. Form: Respirable fraction

## Section 8. Exposure controls/personal protection

<p>Lt. Aliphatic Hydrocarbon Solvent Titanium Dioxide</p>	<p>64742-89-8 13463-67-7</p>	<p>TWA: 10 mg/m<sup>3</sup> 10 hours. Form: Total <b>OSHA PEL (United States, 5/2018).</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 None. <b>OSHA PEL (United States, 5/2018).</b> TWA: 15 mg/m<sup>3</sup> 8 hours. Form: Total dust <b>ACGIH TLV (United States, 1/2023).</b> TWA: 2.5 mg/m<sup>3</sup> 8 hours. Form: respirable fraction, finescale particles</p>
<p>Xylene, mixed isomers</p>	<p>1330-20-7</p>	<p><b>OSHA PEL (United States, 5/2018).</b> <b>[Xylenes (o-, m-, p-isomers)]</b> TWA: 100 ppm 8 hours. TWA: 435 mg/m<sup>3</sup> 8 hours. <b>ACGIH TLV (United States, 1/2023).</b> [p- xylene and mixtures containing p-xylene] <b>Ototoxicant.</b> TWA: 20 ppm 8 hours.</p>

### Occupational exposure limits (Canada)

Ingredient name	CAS #	Exposure limits
Toluene	108-88-3	<p><b>CA Alberta Provincial (Canada, 6/2018).</b> <b>Absorbed through skin.</b> 8 hrs OEL: 50 ppm 8 hours. 8 hrs OEL: 188 mg/m<sup>3</sup> 8 hours. <b>CA British Columbia Provincial (Canada, 6/2022).</b> TWA: 20 ppm 8 hours. <b>CA Ontario Provincial (Canada, 6/2019).</b> TWA: 20 ppm 8 hours. <b>CA Quebec Provincial (Canada, 6/2022).</b> TWAEV: 20 ppm 8 hours. <b>CA Saskatchewan Provincial (Canada, 7/2013).</b> <b>Absorbed through skin.</b> STEL: 60 ppm 15 minutes. TWA: 50 ppm 8 hours.</p>
Normal propane	74-98-6	<p><b>CA Alberta Provincial (Canada, 6/2018).</b> 8 hrs OEL: 1000 ppm 8 hours. <b>CA Quebec Provincial (Canada, 6/2022).</b> TWAEV: 1000 ppm 8 hours. TWAEV: 1800 mg/m<sup>3</sup> 8 hours. <b>CA Saskatchewan Provincial (Canada, 7/2013).</b> STEL: 1250 ppm 15 minutes. TWA: 1000 ppm 8 hours. <b>CA British Columbia Provincial (Canada, 6/2022).</b> <b>Oxygen Depletion [Asphyxiant].</b> <b>Explosive potential.</b></p>
Petroleum refining, hydrotreated light distillate	64742-47-8	<p><b>CA Ontario Provincial (Canada, 6/2019).</b> <b>Oxygen Depletion [Asphyxiant]. Explosive potential.</b> <b>CA British Columbia Provincial (Canada, 6/2022).</b> <b>[Kerosene/Jet fuels as total hydrocarbon vapour] Absorbed through</b></p>



## Section 8. Exposure controls/personal protection

Butane	106-97-8	<p>skin. Notes: Application restricted to conditions in which there are negligible aerosol exposures.</p> <p>TWA: 200 mg/m<sup>3</sup>, (as total hydrocarbon vapour) 8 hours.</p> <p><b>CA Alberta Provincial (Canada, 6/2018). [Kerosene/Jet fuels as total hydrocarbon vapour] Absorbed through skin.</b></p> <p>8 hrs OEL: 200 mg/m<sup>3</sup>, (as total hydrocarbon vapour) 8 hours.</p> <p><b>CA Ontario Provincial (Canada, 6/2019). Absorbed through skin.</b></p> <p>TWA: 200 mg/m<sup>3</sup>, (as total hydrocarbon vapour) 8 hours.</p> <p><b>CA Alberta Provincial (Canada, 6/2018).</b></p> <p>8 hrs OEL: 1000 ppm 8 hours.</p> <p><b>CA Quebec Provincial (Canada, 6/2022).</b></p> <p>TWAEV: 800 ppm 8 hours.</p> <p>TWAEV: 1900 mg/m<sup>3</sup> 8 hours.</p> <p><b>CA Saskatchewan Provincial (Canada, 7/2013). [Butane all isomers]</b></p> <p>STEL: 1250 ppm 15 minutes.</p> <p>TWA: 1000 ppm 8 hours.</p> <p><b>CA British Columbia Provincial (Canada, 6/2022). [butane, all isomers] Explosive potential.</b></p> <p>STEL: 1000 ppm 15 minutes.</p> <p><b>CA Ontario Provincial (Canada, 6/2019). [Butane, All isomers] Explosive potential.</b></p> <p>STEL: 1000 ppm 15 minutes.</p>
Kaolin	1332-58-7	<p><b>CA Alberta Provincial (Canada, 6/2018).</b></p> <p>8 hrs OEL: 2 mg/m<sup>3</sup> 8 hours. Form: Respirable</p> <p><b>CA Quebec Provincial (Canada, 6/2022).</b></p> <p>TWAEV: 2 mg/m<sup>3</sup> 8 hours. Form: Respirable dust.</p> <p><b>CA Ontario Provincial (Canada, 6/2019).</b></p> <p>TWA: 2 mg/m<sup>3</sup> 8 hours. Form: Respirable particulate matter.</p> <p><b>CA Saskatchewan Provincial (Canada, 7/2013).</b></p> <p>STEL: 4 mg/m<sup>3</sup> 15 minutes. Form: respirable fraction</p> <p>TWA: 2 mg/m<sup>3</sup> 8 hours. Form: respirable fraction</p> <p><b>CA British Columbia Provincial (Canada, 6/2022). Notes: the value is for particulate matter containing no asbestos and less than 1% crystalline silica.</b></p> <p>TWA: 2 mg/m<sup>3</sup> 8 hours. Form: Respirable</p>
Xylene	1330-20-7	<p><b>CA Alberta Provincial (Canada, 6/2018). [Dimethylbenzene (o,m &amp; p isomers)]</b></p> <p>8 hrs OEL: 100 ppm 8 hours.</p> <p>15 min OEL: 651 mg/m<sup>3</sup> 15 minutes.</p> <p>15 min OEL: 150 ppm 15 minutes.</p> <p>8 hrs OEL: 434 mg/m<sup>3</sup> 8 hours.</p> <p><b>CA British Columbia Provincial (Canada,</b></p>



## Section 8. Exposure controls/personal protection

6/2022). [Xylene (o, m & p isomers)]  
 TWA: 100 ppm 8 hours.  
 STEL: 150 ppm 15 minutes.  
**CA Quebec Provincial (Canada, 6/2022).**  
 [Xylene (o-,m-,p- isomers)]  
 TWAEV: 100 ppm 8 hours.  
 TWAEV: 434 mg/m<sup>3</sup> 8 hours.  
 STEV: 150 ppm 15 minutes.  
 STEV: 651 mg/m<sup>3</sup> 15 minutes.  
**CA Ontario Provincial (Canada, 6/2019).**  
 [Xylene (o-, m-, p-isomers)]  
 STEL: 150 ppm 15 minutes.  
 TWA: 100 ppm 8 hours.  
**CA Saskatchewan Provincial (Canada, 7/2013).** [Xylene (o, m-, p-isomers)]  
 STEL: 150 ppm 15 minutes.  
 TWA: 100 ppm 8 hours.

### Occupational exposure limits (Mexico)

	CAS #	Exposure limits
Toluene	108-88-3	<b>NOM-010-STPS-2014 (Mexico, 4/2016).</b> TWA: 20 ppm 8 hours.
Light Aliphatic Hydrocarbon	64742-47-8	<b>ACGIH TLV (United States, 1/2023).</b> [Kerosene as total hydrocarbon vapor] <b>Absorbed through skin.</b> TWA: 200 mg/m <sup>3</sup> , (as total hydrocarbon vapor) 8 hours.

### Biological exposure indices (United States)

Ingredient name	Exposure indices
Toluene	<b>ACGIH BEI (United States, 1/2023)</b> BEI: 0.03 mg/l, toluene [in urine]. Sampling time: end of shift. BEI: 0.3 mg/g creatinine, o-cresol [in urine]. Sampling time: end of shift. BEI: 0.02 mg/l, toluene [in blood]. Sampling time: prior to last shift of workweek.
Xylene, mixed isomers	<b>ACGIH BEI (United States, 1/2023) [xylenes (technical or commercial grade)]</b> BEI: 1.5 g/g creatinine, methylhippuric acids [in urine]. Sampling time: end of shift.

### Biological exposure indices (Canada)

No exposure indices known.

### Biological exposure indices (Mexico)

## Section 8. Exposure controls/personal protection

Ingredient name	Exposure indices
Toluene	<p><b>Official Mexican STANDARD NOM-047-SSA1-2011, Environmental Health-Biological exposure indices for personnel occupationally exposed to chemical substances. (Mexico, 6/2012)</b></p> <p>BEI: 0.05 mg/L, toluene [in blood]. Sampling time: sample time not specified.</p> <p>BEI: 1.6 g/g creatinine [Basal level. The determinant may be present in the biological sample obtained from subjects who have not been occupationally exposed, at a concentration that could affect the interpretation of the results. These background levels are included in the valu; non-specific. The determinant is nonspecific, since it can be found after exposure to other chemicals.], hippuric acid [in urine]. Sampling time: at the end of the work shift.</p> <p>BEI: 0.5 mg/L [Basal level. The determinant may be present in the biological sample obtained from subjects who have not been occupationally exposed, at a concentration that could affect the interpretation of the results. These background levels are included in the valu], o-cresol [in urine]. Sampling time: at the end of the work shift.</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** : **This product contains a TSCA regulated chemical. See Section 15 of the US SDS for details.**  
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**



## Section 8. Exposure controls/personal 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

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

### Appearance

- Physical state** : Liquid.
- Color** : Not available.
- Odor** : Not available.
- Odor threshold** : Not available.
- pH** : 7
- Melting point/freezing point** : Not available.
- Boiling point, initial boiling point, and boiling range** : Not available.
- Flash point** : Closed cup: -29°C (-20.2°F) [Pensky-Martens Closed Cup]
- Evaporation rate** : 2 (butyl acetate = 1)
- Flammability** : Flammable aerosol.
- Lower and upper explosion limit/flammability limit** : Lower: 0.9%  
Upper: 9.5%
- Vapor pressure** : 101.3 kPa (760 mm Hg)
- Relative vapor density** : 1 [Air = 1]
- Relative density** : 0.87
- Solubility(ies)** :

Media	Result
cold water	Partially soluble

- Partition coefficient: n-octanol/water** : Not applicable.
- Auto-ignition temperature** : Not available.
- Decomposition temperature** : Not available.
- Viscosity** : Kinematic (40°C (104°F)): <20.5 mm<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 : 13.843 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
Toluene	LC50 Inhalation Vapor LD50 Oral	Rat Rat	49 g/m <sup>3</sup> 636 mg/kg	4 hours -
Butane	LC50 Inhalation Vapor	Rat	658000 mg/m <sup>3</sup>	4 hours
Xylene, mixed isomers	LC50 Inhalation Gas. LD50 Oral	Rat Rat	6700 ppm 4300 mg/kg	4 hours -

#### Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Toluene	Eyes - Mild irritant	Rabbit	-	0.5 minutes 100 mg	-
	Eyes - Mild irritant	Rabbit	-	870 ug	-
	Eyes - Severe irritant	Rabbit	-	24 hours 2 mg	-
	Skin - Mild irritant	Pig	-	24 hours 250 uL	-
	Skin - Mild irritant Skin - Moderate irritant	Rabbit Rabbit	- -	435 mg 24 hours 20 mg	- -
Titanium Dioxide	Skin - Moderate irritant Skin - Mild irritant	Rabbit Human	- -	500 mg 72 hours 300 ug l	- -
	Xylene, mixed isomers	Eyes - Mild irritant	Rabbit	-	87 mg
Eyes - Severe irritant		Rabbit	-	24 hours 5 mg	-
Skin - Mild irritant		Rat	-	8 hours 60 uL	-
Skin - Moderate irritant		Rabbit	-	100 %	-
Skin - Moderate irritant		Rabbit	-	24 hours 500 mg	-

#### Sensitization

Date of issue/Date of revision : 1/21/2024 Date of previous issue : 12/24/2023 Version : 29.02 12/19  
A03801004 KRYLON® Industrial QUIK-MARK™ Water-Based Inverted Marking Paint (APWA) Utility Yellow SHW-85-NA-GHS-US

## Section 11. Toxicological information

Not available.

### Mutagenicity

Not available.

### Carcinogenicity

Not available.

### Classification

Product/ingredient name	OSHA	IARC	NTP
Toluene	-	3	-
Titanium Dioxide	-	2B	-
Xylene, mixed isomers	-	3	-

### Reproductive toxicity

Not available.

### Teratogenicity

Not available.

### Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
Toluene	Category 3	-	Respiratory tract irritation
Light Aliphatic Hydrocarbon	Category 3 Category 3	-	Narcotic effects Respiratory tract irritation
Lt. Aliphatic Hydrocarbon Solvent	Category 3 Category 3	-	Narcotic effects Respiratory tract irritation
Xylene, mixed isomers	Category 3 Category 3	-	Narcotic effects Respiratory tract irritation

### Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
Toluene	Category 2	-	-
Light Aliphatic Hydrocarbon	Category 2	-	-
Kaolin	Category 1	inhalation	lungs
Lt. Aliphatic Hydrocarbon Solvent	Category 2	-	-
Xylene, mixed isomers	Category 2	-	-

### Aspiration hazard

Name	Result
Toluene	ASPIRATION HAZARD - Category 1
Light Aliphatic Hydrocarbon	ASPIRATION HAZARD - Category 1
Lt. Aliphatic Hydrocarbon Solvent	ASPIRATION HAZARD - Category 1
Xylene, mixed isomers	ASPIRATION HAZARD - Category 1

**Information on the likely routes of exposure** : Not available.

### Potential acute health effects

**Eye contact** : Causes serious eye irritation.



## Section 11. Toxicological information

- 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** : 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** : Suspected of damaging the unborn child.
- Developmental effects** : No known significant effects or critical hazards.
- Fertility effects** : No known significant effects or critical hazards.



## Section 11. Toxicological information

### Numerical measures of toxicity Acute toxicity estimates

Route	ATE value
Oral	4409.43 mg/kg

## Section 12. Ecological information

<u>Product/ingredient name</u>	<u>Result</u>	<u>Species</u>	<u>Exposure</u>
Toluene	Acute EC50 >433 ppm Marine water Acute EC50 11600 µg/l Fresh water	Algae - <i>Skeletonema costatum</i> Crustaceans - <i>Gammarus pseudolimnaeus</i> - Adult	96 hours 48 hours
	Acute EC50 6000 µg/l Fresh water	Daphnia - <i>Daphnia magna</i> - Juvenile (Fledgling, Hatchling, Weanling)	48 hours
	Acute LC50 5500 µg/l Fresh water	Fish - <i>Oncorhynchus kisutch</i> - Fry	96 hours
	Chronic NOEC 1 mg/l Fresh water	Daphnia - <i>Daphnia magna</i>	21 days
	Acute LC50 2200 µg/l Fresh water	Fish - <i>Lepomis macrochirus</i>	4 days
	Acute LC50 >100000 ppm Fresh water	Fish - <i>Oncorhynchus mykiss</i>	96 hours
Light Aliphatic Hydrocarbon Lt. Aliphatic Hydrocarbon Solvent	Acute LC50 >1000000 µg/l Marine water	Fish - <i>Fundulus heteroclitus</i>	96 hours
Titanium Dioxide	Acute LC50 8500 µg/l Marine water	Crustaceans - <i>Palaemonetes pugio</i>	48 hours
Xylene, mixed isomers	Acute LC50 13400 µg/l Fresh water	Fish - <i>Pimephales promelas</i>	96 hours

### Persistence and degradability

<u>Product/ingredient name</u>	<u>Aquatic half-life</u>	<u>Photolysis</u>	<u>Biodegradability</u>
Toluene	-	-	Readily
Xylene, mixed isomers	-	-	Readily

### Bioaccumulative potential

<u>Product/ingredient name</u>	<u>LogP<sub>ow</sub></u>	<u>BCF</u>	<u>Potential</u>
Toluene	-	90	Low
Lt. Aliphatic Hydrocarbon Solvent	-	10 to 2500	High
Xylene, mixed isomers	-	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** : This product contains a TSCA regulated chemical. See Section 15 of the US SDS for details.

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 
<b>Packing group</b>	-	-	-	-	-
<b>Environmental hazards</b>	No.	No.	No.	No.	No.
<b>Additional information</b>	-  <b>ERG No.</b> 126 Dependent upon container size, this product may ship under the Limited Quantity shipping exception.	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 Dependent upon container size, this product may ship under the Limited Quantity shipping exception.	-  <b>ERG No.</b> 126 Dependent upon container size, this product may ship under the Limited Quantity shipping exception.	-  Dependent upon container size, this product may ship under the Limited Quantity shipping exception.	<b>Emergency schedules</b> F-D, S-U  Dependent upon container size, this product may ship under the Limited Quantity shipping exception.

**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



## Section 14. Transport information

and on all actions in case of emergency situations.

**Transport in bulk according to IMO instruments** : Not available.

**Proper shipping name** : Not available.

## Section 15. Regulatory information

**U.S. Federal regulations** : TSCA 5(a)2 final significant new use rules: 2-Methoxyethanol; 2-Ethoxyethanol

<u>List name</u>	<u>Chemical name</u>	<u>Notes</u>
United States - TSCA 5(a) 2 - Final significant new use rules	2-Methoxyethanol	40 CFR 721.10001
United States - TSCA 5(a) 2 - Final significant new use rules	2-Ethoxyethanol	40 CFR 721.10001

### 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

#### Montreal Protocol

Not listed.

#### Stockholm Convention on Persistent Organic Pollutants

Not listed.

### International lists

**Australia inventory (AIIIC)**: Not determined.  
**China inventory (IECSC)**: Not determined.  
**Japan inventory (CSCL)**: Not determined.  
**Japan inventory (ISHL)**: Not determined.  
**Korea inventory (KECI)**: Not determined.  
**New Zealand Inventory of Chemicals (NZIoC)**: Not determined.  
**Philippines inventory (PICCS)**: Not determined.  
**Taiwan Chemical Substances Inventory (TCSI)**: Not determined.  
**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		2
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.



## Section 16. Other information

### Procedure used to derive the classification

Classification	Justification
FLAMMABLE AEROSOLS - Category 1	On basis of test data
GASES UNDER PRESSURE - Compressed gas	On basis of test data
SKIN CORROSION/IRRITATION - Category 2	Calculation method
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A	Calculation method
CARCINOGENICITY - Category 2	Calculation method
TOXIC TO REPRODUCTION - 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 1	Calculation method
ASPIRATION HAZARD - Category 1	Calculation method

### History

Date of printing : 1/21/2024

Date of issue/Date of revision : 1/21/2024

Date of previous issue : 12/24/2023

Version : 29.02

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)
- N/A = Not available
- SGG = Segregation Group
- 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 : 1/21/2024 Date of previous Issue : 12/24/2023

Version : 29.02 18/19

A03801004

KRYLON® Industrial QUIK-MARK™ Water-Based Inverted Marking Paint (APWA)  
Utility Yellow

SHW-85-NA-GHS-US





A CSW Industrials Company

**METACAULK® INTUMESCENT SLEEVE**

Prefabricated firestop system

## SECTION 1 – PRODUCT AND COMPANY INFORMATION

Product Name  
Metacaulk® Intumescent Sleeve

## HMIS Codes

Health	1
Flammability	0
Reactivity	0
PPI	B

Product Codes  
66582, 66584

Chemical Family  
Organic/Inorganic

Use  
Intumescent sleeve

Manufacturer's Name  
RectorSeal, LLC  
2601 Spenwick Drive  
Houston, Texas 77055 USA

## Emergency Telephone No.

Chemtrec 24 Hours  
(800)-424-9300 USA  
(703)-527-3887 International

Date of Validation  
June 2, 2020

## Technical Service Telephone No.

(800)-231-3345 or (713)-263-8001

Date of Preparation  
March 20, 2012

## SECTION 2 – HAZARDS IDENTIFICATION

**GHS CLASSIFICATION****Physical Hazards:**

None

**Health Hazards**

## Acute Toxicity:

Oral: Not Classified  
Dermal: Not Classified  
Inhalation: Not Classified  
Skin Corrosion/Irritation: Not Classified  
Serious Eye Damage/Eye Irritation: Not Classified  
Respiratory or Skin Sensitization: Not Classified  
Germ Cell Mutagenicity: Not Classified  
Carcinogenicity: Not Classified  
Reproductive Toxicology: Not Classified



# METACALK® INTUMESCENT SLEEVE

Target Organ Systemic Toxicity - Single Exposure: Not Classified  
Target Organ Systemic Toxicity - Repeated Exposure: Not Classified

Aspiration Toxicity: Not Classified

## ENVIRONMENTAL HAZARDS

Hazardous to the Aquatic Environment: Not Classified  
Acute aquatic toxicity: Not Classified  
Chronic aquatic toxicity: Not Classified  
Bioaccumulation potential: Not Classified  
Rapid degradability: Not Classified

## GHS Label elements, including precautionary statements

Pictogram: None

Signal Word: None

Hazard Statements:  
None

Precautionary Statements:  
P102 - Keep out of reach of children.  
P264 - Wash hands thoroughly after handling.

## Summary Of Acute Hazards

May cause skin irritation.

## Route Of Exposure, Signs And Symptoms

### INHALATION

Not a respiratory irritant.

### EYE CONTACT

Contact may cause eye irritation.

### SKIN CONTACT

Contact may cause skin irritation.

### INGESTION

Possible irritation to mucous membranes of the mouth, throat, and stomach.

## SUMMARY OF CHRONIC HAZARDS

None known.

## MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE

Persons with pre-existing skin conditions or chemical allergies may be more susceptible to contact effects of the cured elastomer.

## SECTION 3 – COMPOSITION/INFORMATION ON INGREDIENTS

% by WT	CAS No.	INGREDIENT	UNITS
None as defined by OSHA Hazard Communication Standard 29 CFR 1910.1200.			

# METACAULK® INTUMESCENT SLEEVE

## SECTION 4 – FIRST AID MEASURES

- If inhaled: Not a respiratory irritant.
- If on skin: Wash with soap and water. If irritation occurs, seek medical attention.
- If in eyes: Immediately flush with large amounts of water. If irritation occurs, seek medical attention.
- If swallowed: If swallowed, call a physician immediately. Only induce vomiting at the instruction of a physician. Never give anything by mouth to an unconscious person.

## SECTION 5 – FIRE FIGHTING MEASURES

### **Extinguishing Media**

Foam, dry chemical, carbon dioxide or water fog.

**Special Fire Fighting Procedures:** Wear self-contained breathing apparatus (SCBA) and other protective clothing.

**Unusual Fire And Explosion Hazards:** Fire conditions will activate product causing intumescence to occur.

## SECTION 6 – ACCIDENTAL RELEASE MEASURES

**Steps To Be Taken In Case Material Is Released Or Spilled:** Pick up debris to prevent footing hazard.

## SECTION 7 – HANDLING AND STORAGE

**Precautions To Be Taken In Handling And Storing:** Do not store near heat, sparks, or open flames.

**Other Precautions:** KEEP OUT OF REACH OF CHILDREN.

## SECTION 8 – EXPOSURE CONTROLS/PERSONAL PROTECTION

**Respiratory Protection (Specify Type):** None required.

**Ventilation – Local Exhaust:** N/A

**Special:** N/A

**Mechanical (General):** N/A

**Other:** N/A

**Protective Gloves:** None required.

**Eye Protection:** None required.

**Other Protective Clothing Or Equipment:** None required.

**Work/Hygienic Practices:** Where use can result in skin contact, wash exposed areas thoroughly before eating, drinking, smoking, or leaving work area. Launder contaminated clothing before reuse.

# METACAULK® INTUMESCENT SLEEVE

## SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

Boiling point:	N/A
Specific gravity (H2O = 1):	N/A
Vapor pressure (mmHg):	N/A
Melting point:	N/A
Vapor Density (Air = 1):	N/A
Evaporation rate (Ethyl Acetate = 1):	N/A
Appearance/Odor:	Black/Mild odor
Solubility in water:	Insoluble
Volatile Organic Compounds (VOC) Content (theoretical percentage by weight): TVOC, CDPH 01350 v1.2 standard	< 1% or < 10 g/L 15.0 (µg m <sup>-3</sup> )
Flash point:	None
Lower explosion limit:	None
Upper explosion limit:	None

## SECTION 10 – STABILITY AND REACTIVITY

**Stability:** Stable

**Conditions To Avoid:** None.

**Incompatibility (Materials To Avoid):** None known.

**Hazardous Decomposition Products:** CO, CO<sub>2</sub> and fragmented hydrocarbons.

**Hazardous Polymerization:** Will not occur.

## SECTION 11 – TOXICOLOGY INFORMATION

### Chronic Health Hazards

No ingredient in this product is an IARC, NTP or OSHA listed carcinogen.

Toxicology Data

Ingredient Name    **None**



# METACAULK® INTUMESCENT SLEEVE

## SECTION 12 – ECOLOGICAL INFORMATION

### Ecological Data

Ingredient Name:	None
Food Chain Concentration Potential:	N/A
Waterfowl Toxicity:	N/A
BOD:	N/A
Aquatic Toxicity:	N/A

## SECTION 13 – DISPOSAL CONSIDERATIONS

**Waste Classification:** Non-regulated solid waste

**Disposal Method:** Approved landfill

Waste from this product is not considered hazardous as defined under the Resource Conservation and Recovery Act (RCRA) 40 CFR 261. Dispose of in accordance with federal, state, and local regulation regarding pollution.

## SECTION 14 – TRANSPORTATION INFORMATION

DOT:	Non-regulated
Ocean (IMDG):	Non-regulated
Air (IATA):	Non-regulated
WHMIS (Canada):	Non-regulated

## SECTION 15 – REGULATORY INFORMATION

### Regulatory Data

Ingredient Name:	None
SARA 313	N/A
TSCA Inventory	All components listed
CERCLA RQ	N/A
RCRA Code	N/A

## SECTION 16 – OTHER INFORMATION

This document is prepared pursuant to the OSHA Hazard Communication Standard (29 CFR 1910.1200). The information herein is given in good faith, but no warranty, expressed or implied is made.

Consult RectorSeal for further information: (713) 263-8001

# Safety Data Sheet

KLEER-OUT

SDS Revision Date:

1/27/2023



## 1. Identification

### 1.1. Product identifier

**Product Identity**

KLEER-OUT

**Alternate Names**

30-245, Blended Formula, KLEER-OUT Liquid Septic Tank & Cesspool Cleaner- 1 gallon

### 1.2. Relevant identified uses of the substance or mixture and uses advised against

**Intended use**

It is used to open clogged grease traps, septic tanks, and cesspool pipes and lines by rapidly liquefying solid detergents, hair, grease, and organic matter. It keeps the pores of septic systems and grease traps open for a free flow of water and waste matter.

**Application Method**

Read all precautions and instruction carefully before and after use.

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

**Company Name**

ComStar International Inc.  
20-47 128th Street,  
College Point, NY 11356

**Telephone No.**

718-445-7900  
800-328-0142  
Fax: 718-353-5998

**Emergency 24 HR response No:** 1-800-424-9300 & 703-527-3887 CHEMTREC

Note: The CHEMTREC phone number is only for emergencies involving spills, leaks, fire, exposure, or accident. Please direct all other inquiries to our customer service phone number.

## 2. Hazard(s) identification

### 2.1. Classification of the substance or mixture

Corrosive to Metals, H290;  
Category 1

May be corrosive to metals

Skin Corr/Irrit: 1B; H314

Causes severe skin burns and eye damage

Serious eye damage/Eye  
irri:1, H318

Causes serious eye damage.

Hazardous to the aquatic  
environment- Acute Hazard: Harmful  
3; H402

### 2.2. Label elements

Using the Toxicity Data listed in section 11 and 12 the product is labeled as follows.

# Safety Data Sheet

KLEER-OUT

SDS Revision Date:

1/27/2023



**GHS05**  
**Warning**

## **[Hazard Statements]:**

H290 May be corrosive to metals.

H314: Causes severe skin burns and eye damage.

H318: Causes serious eye damage

H402: Harmful to aquatic life

## **[Prevention]:**

P234 Keep only in original container.

P260 Avoid breathing dust / fume / gas / mist / vapors / spray.

P264 Wash hands thoroughly after handling.

P273 Avoid release to the environment

P280 Wear protective gloves/protective clothing/eye protection/face protection.

## **[Response]:**

P301+330+331: If swallowed: rinse mouth. Do not induce vomiting.

P303+361+353: If on skin: remove all contaminated clothing. Rinse skin with water/shower.

P304+P340: If inhaled: Remove victim to fresh air and keep at rest for easy breathing

P305+351+338: If in eyes: Rinse continuously with water for several minutes. Remove contact lenses, continue rinsing.

P310: Immediately call a poison center/doctor/physician.

P363: Wash contaminated clothing before reuse

P390: Absorb spillage to prevent material damage.

## **[Storage]:**

P405: Store locked up.

P406: Store in corrosive resistant container with a resistant inner liner.

## **[Disposal]:**

P501 Dispose of contents/container in accordance with local regulations.

## **2.3. Other hazards which do not result in classification**

Other hazards not contributing to the classification: None under normal conditions.

## **2.4. Hazards not classified or not covered by the GHS**

No other hazards identified.





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## 3. Composition/information on ingredients

This product contains the following substances that present a hazard within the meaning of the relevant State and Federal Hazardous Substances regulations.

Ingredient/Chemical Designations	Weight %	GHS Classification	Notes
SODIUM HYDROXIDE CAS #: 1310-73-2	>80	Skin Corr. 1B H314 Eye Dam. 1 H318 Aquatic Acute 3 H402	
SURFACTANT PACKAGE CAS #: N/A	<20	Not Classified	

In accordance with paragraph (i) of §1910.1200, the specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret.

\*The full texts of the phrases are shown in Section 16.

## 4. First aid measures

### 4.1. Description of first aid measures

<b>General</b>	Check the vital functions. Unconscious: maintain adequate airway and respiration. Respiratory arrest: artificial respiration or oxygen. Cardiac arrest: perform resuscitation. Victim conscious with labored breathing: half-seated. Victim in shock: on his back with legs slightly raised. Vomiting: prevent asphyxia/aspiration pneumonia. Prevent cooling by covering the victim (no warming up). Keep watching the victim. Give psychological aid. Keep the victim calm, avoid physical strain. Depending on the victim's condition: doctor/hospital. Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).
<b>Inhalation</b>	Remove the victim into fresh air. Respiratory problems: consult a doctor/medical service. Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a poison center or doctor/physician.
<b>Eyes</b>	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center or doctor/physician.
<b>Skin</b>	Wash immediately with lots of water (15 minutes)/shower. Do not apply (chemical) neutralizing agents. Remove clothing while washing. Do not remove clothing if it sticks to the skin. Cover wounds with sterile bandage. Consult a doctor/medical service. If burned surface > 10%: take victim to hospital. Remove/Take off immediately all contaminated clot
<b>Ingestion</b>	Rinse mouth with water. Immediately after ingestion: give lots of water to drink. Do not induce vomiting. Do not give activated charcoal. Do not give chemical antidote. Immediately consult a doctor/medical service. Call Poison Information Centre ( <a href="http://www.big.be/antigif.htm">www.big.be/antigif.htm</a> ). Take the container/vomit to the doctor/hospital. Ingestion of large quantities: immediately to

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hospital. Rinse mouth. Do not induce vomiting. Immediately call a poison center or doctor/physician.

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

<b>Overview</b>	On continuous/repeated exposure/contact: Dry skin. Skin rash/inflammation. Possible inflammation of the respiratory tract.
<b>Inhalation</b>	Exposure to high concentrations: Dry/sore throat. Coughing. Irritation of the respiratory tract. Irritation of the nasal mucous membranes. Following symptoms may appear later: Possible laryngeal spasm/oedema. Risk of lung edema. Respiratory difficulties.
<b>Symptoms/effects after skin contact</b>	Caustic burns/corrosion of the skin. Slow-healing wounds.
<b>Symptoms/effects after eye contact</b>	Corrosion of the eye tissue. Permanent eye damage. Causes serious eye damage
<b>Symptoms/effects after ingestion</b>	Vomiting. Diarrhea. Burns to the gastric/intestinal mucosa. Possible esophageal perforation. Bleeding of the gastrointestinal tract. Shock. After absorption of large quantities: Disturbances of consciousness.
<b>Chronic symptoms</b>	On continuous/repeated exposure/contact: Dry skin. Skin rash/inflammation. Possible inflammation of the respiratory tract. Gastrointestinal complaints.
<b>Immediate medical attention and special treatment, if necessary</b>	On continuous/repeated exposure/contact: Dry skin. Skin rash/inflammation. Possible inflammation of the respiratory tract. Gastrointestinal complaints.

## 4.3. Immediate medical attention and special treatment, if necessary

No additional information available

## 5. Fire-fighting measures

### 5.1. Extinguishing media

Extinguishing media for surrounding fires: Adapt extinguishing media to the environment. Foam, Dry powder, Carbon dioxide, Water spray, Sand.

### 5.2. Unsuitable Extinguishing Media

Solid water jet ineffective as extinguishing medium.

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

#### Fire hazard

Direct fire hazard: Noncombustible.

Indirect fire hazard: Reactions involving a fire hazard: see "Reactivity Hazard".

#### Explosion hazard

Indirect explosion hazard. Reactions with explosion hazards: see "Reactivity Hazard".

#### Reactivity

Violent exothermic reaction with water (moisture): (increased) risk of fire. On heating: release of corrosive gases/vapours. Absorbs the atmospheric CO<sub>2</sub>. Violent exothermic reaction with (some) acids. May be corrosive to metals. Reacts with (some) metals: release of highly flammable gases/vapours (hydrogen).

### 5.4. Special protective equipment and precautions for fire-fighters

#### Precautionary measures fire



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Exposure to fire/heat: keep upwind. Exposure to fire/heat: consider evacuation. Exposure to fire/heat: have neighborhood close doors and windows.

## Firefighting instructions

Cool tanks/drums with water spray/remove them into safety. Dilute toxic gases with water spray. Take account of toxic fire-fighting water. Use water moderately and if possible, collect or contain it.

## Protection during firefighting

Heat/fire exposure: compressed air/oxygen apparatus.

ERG Guide No. ---

## 6. Accidental release measures

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

#### 6.1.1. For non-emergency personnel

Protective equipment

Gloves. Face-shield. Corrosion-proof suit. Large spills/in enclosed spaces: compressed air apparatus. Large spills/in enclosed spaces: gas-tight suit. See "Material-Handling" to select protective clothing.

#### Emergency procedures

Mark the danger area. No naked flames. Wash contaminated clothes. Large spills/in confined spaces: consider evacuation. In case of hazardous reactions: keep upwind. In case of reactivity hazard: consider evacuation.

#### 6.1.2. For emergency responders

##### Protective equipment:

Equip cleanup crew with proper protection

##### Emergency procedures:

Ventilate area

### 6.2. Environmental precautions

Prevent soil and water pollution. Prevent spreading in sewers. Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters. Avoid release to the environment.

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

#### For containment

Contain released substance, pump into suitable containers. Consult "Material-handling" to select material of containers. Plug the leak, cut off the supply. Dam up the liquid spill. Hazardous reaction: measure explosive gas-air mixture. Reaction: dilute combustible gas/vapour with water curtain. Heat exposure: dilute toxic gas/vapour with water spray. Take account of toxic/corrosive precipitation water

#### Methods for cleaning up

Take up liquid spill into absorbent material, e.g.: sand, saw dust, kieselguhr. Scoop absorbed substance into closing containers. See "Material-handling" for suitable container materials. Carefully collect the spill/leftovers. Small quantities of liquid spill: neutralize with acid solution. Wash away neutralized product with plentiful water. Damaged/cooled tanks must be emptied. Clean contaminated surfaces with an excess of water. Take collected spill to manufacturer/competent authority. Wash clothing and equipment after handling.

### 6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.





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### 7. Handling and storage

#### 7.1. Precautions for safe handling

Comply with the legal requirements. Remove contaminated clothing immediately. Clean contaminated clothing. Handle and open the container with care. Thoroughly clean/dry the installation before use. Do not discharge the waste into the drain. Keep away from naked flames/heat. Observe very strict hygiene - avoid contact. Keep container tightly closed. Measure the concentration in the air regularly. Carry operations in the open/under local exhaust/ventilation or with respiratory protection.

#### Hygiene measures

Wash exposed skin thoroughly after handling.

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

##### Technical measures

Comply with applicable regulations.

##### Storage conditions

Keep only in the original container in a cool, well-ventilated place away from: incompatible materials. Keep container closed when not in use.

##### Incompatible products

Strong bases. Strong acids.

##### Incompatible materials

Sources of ignition. Direct sunlight.

##### Storage temperature

> 15 °C

##### Heat-ignition

Keep substance away from heat sources.

##### Prohibitions on mixed storage

Keep substance away from: combustible materials. strong acids. metals.

##### Storage area

Store in a dry area. Keep container in a well-ventilated place. Keep locked up. Protect against frost. Provide for a tub to collect spills. Unauthorized persons are not admitted. Meet the legal requirements

##### Special rules on packaging

Special requirements: hermetical. dry. clean. correctly labelled. meet the legal requirements. Secure fragile packaging in solid containers.

##### Packaging materials

Suitable material: stainless steel. nickel. polyethylene. polypropylene. glass. stoneware/porcelain.  
Material to avoid: lead. aluminum. copper. tin. zinc. bronze.

#### 7.3. Specific end use(s)

No data available.

### 8. Exposure controls and personal protection

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## 8.1. Control parameters

### Exposure

CAS No.	Ingredient	Source	Value
1310-73-2	SODIUM HYDROXIDE SOLUTION	OSHA PEL (TWA) (mg/m <sup>3</sup> )	2 mg/m <sup>3</sup>
		ACGIH Ceiling (mg/m <sup>3</sup> )	2 mg/m <sup>3</sup> (Sodium hydroxide; USA; Momentary value; TLV - Adopted Value)
		NIOSH REL (ceiling) (mg/m <sup>3</sup> )	2 mg/m <sup>3</sup>
		US IDLH (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup>
		Supplier	No Established Limit

## 8.2. Appropriate engineering controls

**Appropriate engineering controls** Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Provide adequate general and local exhaust ventilation.

## 8.3. Exposure controls

**Respiratory** Wear gas mask with filter type B if conc. in air > exposure limit

**Eyes** Safety glasses with side shields, goggles or face shield are recommended.

**Skin** Corrosion-proof clothing

**Hand protection:** Wear protective gloves.

**Materials for protective clothing:** Give excellent resistance: nitrile rubber. Give good resistance: No data available: Give less resistance: chlorinated polyethylene. styrene-butadiene rubber. nitrile rubber/PVC. Give excellent resistance: PVA. natural fibers.

**Other information:** Do not eat, drink or smoke during use.

**Personal protective equipment:** Protective goggles. Gloves. Protective clothing. Face shield.



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## 9. Physical and chemical properties

<b>Appearance</b>	Yellow Liquid
<b>Odor</b>	odorless
<b>Odor threshold</b>	No data available
<b>pH</b>	14 (8%)
<b>pH solution</b>	8%
<b>Melting point</b>	12 °C
<b>Freezing point</b>	No data available
<b>Boiling point</b>	143 °C
<b>Flash Point</b>	Not applicable
<b>Evaporation rate (Ether = 1)</b>	No data available
<b>Flammability (solid, gas)</b>	Non flammable
<b>Vapor pressure (Pa)</b>	1.2 hPa (20°C)
<b>Vapor Density at (20°C)</b>	No data available
<b>Relative density</b>	1.5
<b>Specific Gravity/density</b>	1525 kg/m <sup>3</sup>
<b>Molecular mass</b>	40 g/mol
<b>Solubility in Water</b>	Exothermically soluble in water. Soluble in ethanol. Soluble in methanol. Soluble in glycerol. Water: Complete
<b>Partition coefficient n-octanol/water (Log Kow)</b>	No data available
<b>Auto-ignition temperature</b>	Not applicable
<b>Decomposition temperature</b>	No data available
<b>Viscosity, kinematic</b>	No data available
<b>Viscosity, dynamic</b>	79 mPa.s (20 °C)
<b>Explosion limits</b>	No data available
<b>Explosive properties</b>	Not applicable
<b>Oxidizing properties</b>	None.
<b>Volatiles (% by weight)</b>	NA
<b>Octanol/Water Partition Coefficient</b>	NA

### 9.2. Other information

**Minimum ignition energy:**

Not applicable

**VOC content:**

Not applicable (inorganic)

**Other properties:**

Clear, Hygroscopic. Slightly volatile. Substance has basic reaction.



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## 10. Stability and reactivity

### 10.1. Reactivity

Violent exothermic reaction with water (moisture); (increased) risk of fire. On heating: release of corrosive gases/vapours. Absorbs the atmospheric CO<sub>2</sub>. Violent exothermic reaction with (some) acids. May be corrosive to metals. Reacts with (some) metals: release of highly flammable gases/vapours (hydrogen).

### 10.2. Chemical stability

Stable under normal circumstances. Absorbs atmospheric CO<sub>2</sub>. Hygroscopic. Not established.

### 10.3. Possibility of hazardous reactions

No data available.

### 10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures.

### 10.5. Incompatible materials

Strong acids, metals.

### 10.6. Hazardous decomposition products

Sodium oxide. Thermal decomposition generates: Corrosive vapors.

## 11. Toxicological information

**Likely routes of exposure:** Skin and eye contact

**Acute toxicity:** Not classified

### Acute toxicity

Ingredient	Oral LD50, mg/kg rat	Dermal LD50, mg/kg	Inhalation Vapor LC50, mg/L/4hr	Inhalation Dust/Mist LC50, mg/L/4hr	Inhalation Gas LC50, ppm
SODIUM HYDROXIDE SOLUTION (1310-73-2)	No data available	1350 mg/kg body weight	No data available	No data available	No data available

Note: When no route specific LD50 data is available for an acute toxin, the converted acute toxicity point estimate was used in the calculation of the product's ATE (Acute Toxicity Estimate).

Classification	Category	Hazard Description
Skin corrosion/irritation	1B	Causes severe skin burns and eye damage. pH: 14 (8%)
Serious eye damage/irritation	1	Causes serious eye damage.
Respiratory sensitization	---	Not classified
Skin sensitization	---	Not classified
Germ cell mutagenicity	---	Not classified



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		Based on available data, the classification criteria are not met
<b>Carcinogenicity</b>	---	Not classified
<b>Reproductive toxicity</b>	---	Not classified
		Based on available data, the classification criteria are not met
<b>Single target organ toxicity- single exposure</b>	---	Not Applicable
<b>Single target organ toxicity- repeated exposure</b>	---	Not Applicable
<b>Aspiration hazard</b>	---	Not classified
<b>Potential Adverse human health effects and symptoms</b>	---	Causes severe skin burns. Causes serious eye damage.
<b>Symptoms/effects after inhalation</b>	---	Exposure to high concentrations: Dry/sore throat, coughing. Irritation of the respiratory tract. Irritation of the nasal mucous membranes. Following symptoms may appear later: Possible laryngeal spasm/oedema. Risk of lung edema. Respiratory difficulties.
<b>Symptoms/effects after skin contact</b>		Caustic burns/corrosion of the skin. Slow-healing wounds.
<b>Symptoms/effects after eye contact</b>		Corrosion of the eye tissue. Permanent eye damage. Causes serious eye damage.
<b>Symptoms/effects after ingestion</b>		Vomiting. Diarrhea. Burns to the gastric/intestinal mucosa. Possible esophageal perforation. Bleeding of the gastrointestinal tract. Shock. After absorption of large quantities. Disturbances of consciousness
<b>Chronic symptoms</b>		On continuous/repeated exposure: Dry skin. Skin rash/inflammation. Possible inflammation of the respiratory tract.

## 12. Ecological information

### 12.1. Toxicity

**Ecology – general:** Not classified as dangerous for the environment according to the criteria of Regulation (EC) No 1272/2008.

**Ecology – air:** Not classified as dangerous for the ozone layer (Regulation (EC) No 1005/2009). None of the known components is included in the list of fluorinated greenhouse gases (Regulation (EC) No 842/2006).

**Ecology - water:** Ground water pollutant. Maximum concentration in drinking water: 200 mg/l (sodium) (Directive 98/83/EC). Harmful to fishes. Harmful to invertebrates (Daphnia). pH shift.



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## Aquatic Ecotoxicity

LC50 fish 1: 45.4 mg/l (LC50; Other; 96 h; Salmo gairdneri; Static system; Fresh water; Experimental value.

## 12.2. Persistence and degradability

Biodegradability: not applicable. No test data on mobility of the components available

## Biochemical oxygen demand (BOD)

Not applicable

Chemical oxygen demand (COD)

Not applicable

ThOD

Not applicable

## 12.3. Bioaccumulative potential

Not Measured

## 12.4. Mobility in soil

No data available.

## 12.5. Results of PBT and vPvB assessment

This product contains no PBT/vPvB chemicals.

## 12.6. Other adverse effects

Avoid release to the environment.

## 13. Disposal considerations

### 13.1. Waste treatment methods

#### Waste disposal recommendations

Remove waste in accordance with local and/or national regulations. Hazardous waste shall not be mixed with other waste. Different types of hazardous waste shall not be mixed if this may entail a risk of pollution or create problems for the further management of the waste. Hazardous waste shall be managed responsibly. All entities that store, transport, or handle hazardous waste shall take the necessary measures to prevent risks of pollution or damage to people or animals. Recycle/reuse. Remove for physico-chemical/biological treatment. Do not discharge into drains or the environment.

#### Additional information

LWCA (the Netherlands): KGA category 05. Hazardous waste according to Directive 2008/98/EC.

#### Ecology - waste materials

Avoid release to the environment.

## 14. Transport information

NOTE: Containers holding less than 1 kilo (2.2 lbs.) are shipped as non-hazardous LTD QTY. Below data is for containers holding greater than 2.2 lbs.





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## Department of Transportation (DOT)

In accordance with DOT

Transport document description:

UN1824 Sodium hydroxide solution, 8, II

UN-No. (DOT)

UN1824

Proper Shipping Name (DOT)

Sodium hydroxide solution

Transport hazard class(es) (DOT)

8 - Class 8 - Corrosive material 49 CFR

173.136

Packing group (DOT)

II - Medium Danger

Hazard labels (DOT)

8 - Corrosive



**Corrosive 8**

DOT Packaging Non Bulk (49 CFR 173.xxx)

202

DOT Packaging Bulk (49 CFR 173.xxx)

242

DOT Special Provisions (49 CFR 172.102)

B2 - MC 300, MC 301, MC 302, MC 303, MC 305, and MC 306 and DOT 406 cargo tanks are not authorized. IB2 - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composite (31HZ1). Additional Requirement: Only liquids with a vapor pressure less than or equal to 110 kPa at 50 C (1.1 bar at 122 F), or 130 kPa at 55 C (1.3 bar at 131 F) are authorized. N34 - Aluminum construction materials are not authorized for any part of a packaging which is normally in contact with the hazardous material. T7 - 4 178.274(d)(2) Normal..... 178.275(d)(3) TP2 - a. The maximum degree of filling must not exceed the degree of filling determined by the following: (image) Where: tr is the maximum mean bulk temperature during transport, tf is the temperature in degrees celsius of the liquid during filling, and a is the mean coefficient of cubical expansion of the liquid between the mean temperature of the liquid during filling (tf) and the maximum mean bulk temperature during transportation (tr) both in degrees celsius. b. For liquids transported under ambient conditions may be calculated



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using the formula:  $\rho = \frac{m}{V}$  Where:  $\rho_{15}$  and  $\rho_{50}$  are the densities (in units of mass per unit volume) of the liquid at 15 C (59 F) and 50 C (122 F), respectively.

DOT Packaging Exceptions (49 CFR 173.xxx)	154
DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27)	1 L
DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75)	30 L
DOT Vessel Stowage Location "on deck" or and on a passenger vessel.	A - The material may be stowed "under deck" on a cargo vessel

## 15. Regulatory information

### 15.1. US Federal regulations

<b>Sodium Hydroxide Solution (1310-73-2)</b>	
Listed on the United States TSCA (Toxic Substances Control Act) inventory Not subject to reporting requirements of the United States SARA Section 313	
RQ (Reportable quantity, section 304 of EPA's List of Lists)	1000 lb
SARA Section 311/312 Hazard Classes	Health hazard - Skin corrosion or Irritation Health hazard - Serious eye damage or eye irritation

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>Sodium Hydroxide Solution (1310-73-2)</b>	
RQ (Reportable quantity, section 304 of EPA's List of Lists)	1000 lb
<b>SARA Section 311/312 Hazard Classes</b>	Immediate (acute) health hazard

### 15.2. International regulations

#### CANADA

<b>Sodium Hydroxide Solution (1310-73-2)</b>	
Listed on the Canadian DSL (Domestic Substances List)	

#### EU-Regulations

No additional information available



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## National Regulations

No additional information available

### 15.3. US State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

## 16. Other information

The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, expressed 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 our products. Customers/users of this product must comply with all applicable health and safety laws, regulations, and orders.

The full text of the phrases appearing in section 3 is:

H290 May be corrosive to metals.

H314 Causes severe skin burns and eye damage

H318 Causes serious eye damage

H402 Harmful to aquatic life

<b>NFPA health hazard</b>	3 - Materials that, under emergency conditions, can cause serious or permanent injury.
<b>NFPA fire hazard</b>	0 - Materials that will not burn under typical dire conditions, including intrinsically noncombustible materials such as concrete, stone, and sand.
<b>NFPA reactivity</b>	1 - Materials that in themselves are normally stable but can become unstable at elevated temperatures and pressures.



<b>Hazard Rating Health</b>	3 Serious Hazard - Major injury likely unless prompt action is taken and medical treatment is given
<b>Flammability Physical</b>	0 Minimal Hazard - Materials that will not burn 1 Slight Hazard - Materials that are normally stable but can become unstable (self-react) at high temperatures and pressures. Materials may react non-violently with water or undergo hazardous polymerization in the absence of inhibitors.
<b>Personal protection</b>	H - Splash goggles, Gloves, Synthetic apron, Vapor respirator

The opinions expressed are those of qualified experts within ComStar International Inc. We believe that the information contained is current as of the date of the Safety Data Sheet.

Since the use of this information and of these opinions and the conditions of the use of the product are not within the control of ComStar International Inc., it is the user's obligation to determine the conditions of safe use of the product.

End of Document





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