



# SAFETY DATA SHEET

## DOW CHEMICAL CANADA ULC

**Product name:** XIAMETER™ OFX-0536 Fluid

**Issue Date:** 06/17/2020

**Print Date:** 06/18/2020

DOW CHEMICAL CANADA ULC 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:** XIAMETER™ OFX-0536 Fluid

**Other means of identification:** Dimethyl siloxane, HO-term Rxn methyltrimethoxysilane and aminoethylaminopropyltrimethoxysilane

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

**Identified uses:** Additives

### COMPANY IDENTIFICATION

DOW CHEMICAL CANADA ULC  
#2400, 215 - 2ND STREET S.W.  
CALGARY AB T2P 1M4  
CANADA

**Customer Information Number:**

800-258-2436  
SDSQuestion@dow.com

### EMERGENCY TELEPHONE NUMBER

**24-Hour Emergency Contact (transportation emergencies only):** 1-800-424-9300

**Local Emergency Contact (transportation emergencies only):** 1-800-424-9300

**24-Hour Emergency Contact:** 1-989-636-4400

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## 2. HAZARDS IDENTIFICATION

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### Hazard classification

This product is hazardous under the criteria of the Hazardous Products Regulation (HPR) as implemented under the Workplace Hazardous Materials Information System (WHMIS 2015).

Flammable liquids - Category 2

Acute toxicity - Category 4 - Oral

Skin irritation - Category 2

Eye irritation - Category 2A

Reproductive toxicity - Category 2

Specific target organ toxicity - single exposure - Category 2 - Oral

Physical hazards not otherwise classified - Category 1

### Label elements

**Hazard pictograms**



Signal word: **DANGER!**

#### **Hazards**

Highly flammable liquid and vapour.

May become electrostatically charged. Sparks may ignite liquid and vapor.

Harmful if swallowed.

Causes skin irritation.

Causes serious eye irritation.

Suspected of damaging fertility or the unborn child.

May cause damage to organs (Eyes, Central nervous system) if swallowed.

#### **Precautionary statements**

##### **Prevention**

Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Keep container tightly closed.

Ground and bond container and receiving equipment.

Use explosion-proof electrical/ ventilating/ lighting equipment.

Use non-sparking tools.

Take action to prevent static discharges.

Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.

Wash skin thoroughly after handling.

Do not eat, drink or smoke when using this product.

Wear protective gloves/ protective clothing/ eye protection/ face protection.

##### **Response**

IF SWALLOWED: Call a POISON CENTER/ doctor if you feel unwell. Rinse mouth.

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.

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: Call a POISON CENTER/ doctor.

If skin irritation occurs: Get medical advice/ attention.

If eye irritation persists: Get medical advice and/or attention.

In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.

##### **Storage**

Store in a well-ventilated place. Keep cool.

Store locked up.

##### **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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**Synonyms:** Dimethyl siloxane, HO-term Rxn methyltrimethoxysilane and aminoethylaminopropyltrimethoxysilane

This product is a substance.

**Substance name:** Dimethyl siloxane, HO-term Rxn methyltrimethoxysilane and aminoethylaminopropyltrimethoxysilane

**CASRN:** 69430-37-1

| Chemical Name                                                                                   | Common name and synonym                                                                                                                               | CASRN      | Concentration (w/w) |
|-------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|------------|---------------------|
| Dimethyl siloxane, HO-term Rxn methyltrimethoxysilane and aminoethylaminopropyltrimethoxysilane | Siloxanes and Silicones, di-Me, hydroxy-terminated, reaction products with trimethoxymethylsilane and N-[3-(trimethoxysilyl)propyl]-1,2-ethanediamine | 69430-37-1 | >= 91.0 - <= 95.0 % |
| Methanol                                                                                        | methanol                                                                                                                                              | 67-56-1    | >= 3.0 - <= 5.0 %   |
| Decamethylcyclopentasiloxane                                                                    | decamethylcyclopentasiloxane                                                                                                                          | 541-02-6   | >= 0.87 - <= 1.09 % |
| Octamethyl Cyclotetrasiloxane                                                                   | octamethylcyclotetrasiloxane                                                                                                                          | 556-67-2   | >= 0.58 - <= 1.02 % |

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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 and keep comfortable for breathing. 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:** Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Obtain medical attention without delay. Wash clothing before reuse. Properly dispose of contaminated leather items, such as shoes, belts, and watchbands. Suitable emergency safety shower facility should be immediately available.

**Eye contact:** Flush eyes thoroughly with water for several minutes. Remove contact lenses after the initial 1-2 minutes and continue flushing for several additional minutes. If effects occur, consult a physician, preferably an ophthalmologist. Suitable emergency eye wash facility should be available in work area.

**Ingestion:** Do NOT induce vomiting. Seek medical attention immediately. If person is fully conscious give 1 cup or 8 ounces (240 ml) of water. If medical advice is delayed and if an adult has swallowed several ounces of chemical, then give 3-4 ounces (1/3-1/2 Cup) (90-120 ml) of hard liquor such as 80 proof whiskey. For children, give proportionally less liquor at a dose of 0.3 ounce (1 1/2 tsp.) (8 ml) liquor for each 10 pounds of body weight, or 2 ml per kg body weight [e.g., 1.2 ounce (2 1/3 tbsp.) for a 40 pound child or 36 ml for an 18 kg child].

**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. In cases where several ounces (60 - 100 ml) have been ingested, consider the use of ethanol and hemodialysis in the treatment. Consult standard literature for details of treatment. If ethanol is used, a therapeutically effective blood concentration in the range of 100 - 150 mg/dl may be achieved by a rapid loading dose followed by a continuous intravenous infusion. Consult standard literature for details of treatment. 4-Methyl pyrazole (Antizol®) is an effective blocker of alcohol dehydrogenase and should be used in the treatment of ethylene glycol (EG), di- or triethylene glycol (DEG, TEG), ethylene glycol butyl ether (EGBE), or methanol intoxication if available. Fomepizole protocol (Brent, J. et al., New England Journal of Medicine, Feb. 8, 2001, 344:6, p. 424-9): loading dose 15 mg/kg intravenously, follow by bolus dose of 10 mg/kg every 12 hours; after 48 hours, increase bolus dose to 15 mg/kg every 12 hours. Continue fomepizole until serum methanol, EG, DEG, TEG or EGBE are undetectable. The signs and symptoms of poisoning include anion gap metabolic acidosis, CNS depression, renal tubular injury, and possible late stage cranial nerve involvement. Respiratory symptoms, including pulmonary edema, may be delayed. Persons receiving significant exposure should be observed 24-48 hours for signs of respiratory distress. In severe poisoning, respiratory support with mechanical ventilation and positive end expiratory pressure may be required. If lavage is performed, suggest endotracheal and/or esophageal control. Danger from lung aspiration must be weighed against toxicity when considering emptying the stomach. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient. Skin contact may aggravate preexisting dermatitis.

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## 5. FIREFIGHTING MEASURES

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### Extinguishing media

**Suitable extinguishing media:** Alcohol-resistant foam. Dry sand. Dry chemical.

**Unsuitable extinguishing media:** High volume water jet. Do not use direct water stream..

### Special hazards arising from the substance or mixture

**Hazardous combustion products:** Silicon oxides. Nitrogen oxides (NOx). Formaldehyde. Carbon oxides.

**Unusual Fire and Explosion Hazards:** Flash back possible over considerable distance.. Exposure to combustion products may be a hazard to health.. Flammable concentrations of

vapor can accumulate at temperatures above flash point; see Section 9.. Flammable mixtures may exist within the vapor space of containers at room temperature.. Closed containers may rupture via pressure build-up when exposed to fire or extreme heat.. Fire burns more vigorously than would be expected.. Vapours may form explosive mixtures with air..

### Advice for firefighters

**Fire Fighting Procedures:** Use water spray to cool unopened containers.. Evacuate area.. Collect contaminated fire extinguishing water separately. This must not be discharged into drains.. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.. Contain fire water run-off if possible. Fire water run-off, if not contained, may cause environmental damage.. Use water spray to cool fire exposed containers and fire affected zone until fire is out and danger of reignition has passed.. Do not use a solid water stream as it may scatter and spread fire.. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Remove undamaged containers from fire area if it is safe to do so.

**Special protective equipment for firefighters:** In the event of fire, wear self-contained breathing apparatus.. Use personal protective equipment..

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## 6. ACCIDENTAL RELEASE MEASURES

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**Personal precautions, protective equipment and emergency procedures:** Remove all sources of ignition. Ventilate the area. Use personal protective equipment. Eliminate all sources of ignition in vicinity of spill or released vapor to avoid fire or explosion. Ground and bond all containers and handling equipment. Vapor explosion hazard. Keep out of sewers. Follow safe handling advice and personal protective equipment recommendations.

**Environmental precautions:** Do not release the product to the aquatic environment above defined regulatory levels. Prevent further leakage or spillage if safe to do so. Prevent spreading over a wide area (e.g. by containment or oil barriers). Retain and dispose of contaminated wash water. Local authorities should be advised if significant spillages cannot be contained.

**Methods and materials for containment and cleaning up:** Non-sparking tools should be used. Soak up with inert absorbent material. Suppress (knock down) gases/vapours/mists with a water spray jet. Clean up remaining materials from spill with suitable absorbant. Local or national regulations may apply to releases and disposal of this material, as well as those materials and items employed in the cleanup of releases. You will need to determine which regulations are applicable. For large spills, provide dyking or other appropriate containment to keep material from spreading. If dyked material can be pumped, store recovered material in appropriate container. Dispose of saturated absorbent or cleaning materials appropriately, since spontaneous heating may occur. See sections: 7, 8, 11, 12 and 13.

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## 7. HANDLING AND STORAGE

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**Precautions for safe handling:** Do not get on skin or clothing. Avoid inhalation of vapour or mist. Do not swallow. Do not get in eyes. Keep container tightly closed. Keep away from heat and sources of ignition. Take precautionary measures against static discharges. Take care to prevent spills, waste and minimize release to the environment. Non-sparking tools should be used. Handle in accordance with good industrial hygiene and safety practice. CONTAINERS MAY BE HAZARDOUS WHEN

EMPTY. Since emptied containers retain product residue follow all (M)SDS and label warnings even after container is emptied.

Use with local exhaust ventilation. Use only in an area equipped with explosion proof exhaust ventilation. Ensure all equipment is electrically grounded before beginning transfer operations. This material can accumulate static charge due to its inherent physical properties and can therefore cause an electrical ignition source to vapors. In order to prevent a fire hazard, as bonding and grounding may be insufficient to remove static electricity, it is necessary to provide an inert gas purge before beginning transfer operations. Restrict flow velocity in order to reduce the accumulation of static electricity. Ground and bond container and receiving equipment.

**Conditions for safe storage:** Keep in properly labelled containers. Store locked up. Keep tightly closed. Keep in a cool, well-ventilated place. Store in accordance with the particular national regulations. Keep away from heat and sources of ignition.

Do not store with the following product types: Strong oxidizing agents. Organic peroxides. Flammable solids. Pyrophoric liquids. Pyrophoric solids. Self-heating substances and mixtures. Substances and mixtures, which in contact with water, emit flammable gases. Explosives. Gases. Unsuitable materials for containers: None known.

## 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.

Consult local authorities for recommended exposure limits.

| Component                     | Regulation                                                                                      | Type of listing | Value             |
|-------------------------------|-------------------------------------------------------------------------------------------------|-----------------|-------------------|
| Methanol                      | ACGIH                                                                                           | TWA             | 200 ppm           |
|                               | Further information: Skin: Danger of cutaneous absorption                                       |                 |                   |
|                               | ACGIH                                                                                           | STEL            | 250 ppm           |
|                               | Further information: Skin: Danger of cutaneous absorption                                       |                 |                   |
|                               | CA AB OEL                                                                                       | TWA             | 262 mg/m3 200 ppm |
|                               | Further information: 1: Substance may be readily absorbed through intact skin                   |                 |                   |
|                               | CA AB OEL                                                                                       | STEL            | 328 mg/m3 250 ppm |
|                               | Further information: 1: Substance may be readily absorbed through intact skin                   |                 |                   |
|                               | CA BC OEL                                                                                       | TWA             | 200 ppm           |
|                               | Further information: Skin: Contributes significantly to the overall exposure by the skin route. |                 |                   |
|                               | CA BC OEL                                                                                       | STEL            | 250 ppm           |
|                               | Further information: Skin: Contributes significantly to the overall exposure by the skin route. |                 |                   |
|                               | CA QC OEL                                                                                       | TWAEV           | 262 mg/m3 200 ppm |
|                               | Further information: Pc: Skin (percutaneous)                                                    |                 |                   |
|                               | CA QC OEL                                                                                       | STEV            | 328 mg/m3 250 ppm |
|                               | Further information: Pc: Skin (percutaneous)                                                    |                 |                   |
| Decamethylcyclopentasiloxane  | US WEEL                                                                                         | TWA             | 10 ppm            |
| Octamethyl Cyclotetrasiloxane | US WEEL                                                                                         | TWA             | 10 ppm            |

### Biological occupational exposure limits

| Components | CAS-No. | Control parameters | Biological specimen | Sampling time | Permissible concentration | Basis |
|------------|---------|--------------------|---------------------|---------------|---------------------------|-------|
|------------|---------|--------------------|---------------------|---------------|---------------------------|-------|

|          |         |          |       |                                                          |         |              |
|----------|---------|----------|-------|----------------------------------------------------------|---------|--------------|
| Methanol | 67-56-1 | Methanol | Urine | End of shift (As soon as possible after exposure ceases) | 15 mg/l | ACGIH<br>BEI |
|----------|---------|----------|-------|----------------------------------------------------------|---------|--------------|

**Exposure controls**

**Engineering controls:** Use engineering controls to maintain airborne level below exposure limit requirements or guidelines. Local exhaust ventilation may be necessary for some operations. 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. Neoprene. Nitrile/butadiene rubber ("nitrile" or "NBR"). Ethyl vinyl alcohol laminate ("EVAL"). Polyvinyl alcohol ("PVA"). Polyvinyl chloride ("PVC" or "vinyl"). Viton. Examples of acceptable glove barrier materials include: Natural rubber ("latex"). 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:** Respiratory protection should be worn when there is a potential to exceed the exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, use an approved respirator. When respiratory protection is required, use an approved positive-pressure self-contained breathing apparatus or positive-pressure airline with auxiliary self-contained air supply. For emergency conditions, use an approved positive-pressure self-contained breathing apparatus. In confined or poorly ventilated areas, use an approved self-contained breathing apparatus or positive pressure air line with auxiliary self-contained air supply.

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

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**Appearance****Physical state**

liquid

**Color**

Colorless

**Odor**

alcohol-like

**Odor Threshold**

No data available

**pH**

No data available

**Melting point/range**

No data available

**Freezing point**

No data available

**Boiling point (760 mmHg)**

64.6 °C

|                                        |                                                          |
|----------------------------------------|----------------------------------------------------------|
| Flash point                            | Pensky-Martens closed cup 15.5 °C                        |
| Evaporation Rate (Butyl Acetate = 1)   | No data available                                        |
| Flammability (solid, gas)              | Not applicable                                           |
| Lower explosion limit                  | No data available                                        |
| Upper explosion limit                  | No data available                                        |
| Vapor Pressure                         | No data available                                        |
| Relative Vapor Density (air = 1)       | No data available                                        |
| Relative Density (water = 1)           | 0.985                                                    |
| Water solubility                       | No data available                                        |
| Partition coefficient: n-octanol/water | No data available                                        |
| Auto-ignition temperature              | No data available                                        |
| Decomposition temperature              | No data available                                        |
| Kinematic Viscosity                    | 40 cSt at 25 °C                                          |
| Explosive properties                   | Not explosive                                            |
| Oxidizing properties                   | The substance or mixture is not classified as oxidizing. |
| Molecular weight                       | No data available                                        |
| Particle size                          | Not applicable                                           |

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:** Not classified as a reactivity hazard.

**Chemical stability:** Stable under normal conditions.

**Possibility of hazardous reactions:** Can react with strong oxidizing agents. Vapours may form explosive mixture with air. Highly flammable liquid and vapour.

**Conditions to avoid:** Avoid static discharge. Heat, flames and sparks.

**Incompatible materials:** Oxidizing agents

**Hazardous decomposition products:**

Decomposition products can include and are not limited to: Formaldehyde.

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## 11. TOXICOLOGICAL INFORMATION

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

**Information on likely routes of exposure**

Inhalation, Eye contact, Skin contact, Ingestion.



**Acute toxicity (represents short term exposures with immediate effects - no chronic/delayed effects known unless otherwise noted)**

**Acute oral toxicity**

Low toxicity if swallowed. Small amounts swallowed incidentally as a result of normal handling operations are not likely to cause injury; however, swallowing larger amounts may cause injury. Methanol is highly toxic to humans and may cause central nervous system effects, visual disturbances up to blindness, metabolic acidosis, and degenerative damage to other organs including liver, kidney, and heart.

As product: Single dose oral LD50 has not been determined.

**Information for components:**

**Dimethyl siloxane, HO-term Rxn methyltrimethoxysilane and aminoethylaminopropyltrimethoxysilane**

Single dose oral LD50 has not been determined.

**Methanol**

Methanol is highly toxic to humans and may cause central nervous system effects, visual disturbances up to blindness, metabolic acidosis, and degenerative damage to other organs including liver, kidney, and heart. Effects may be delayed. LD50, Rat, > 5,000 mg/kg

Lethal Dose, Humans, 340 mg/kg Estimated.

Lethal Dose, Humans, 29 - 237 ml Estimated.

**Decamethylcyclopentasiloxane**

LD50, Rat, male and female, > 24,134 mg/kg

**Octamethyl Cyclotetrasiloxane**

LD50, Rat, male, > 4,800 mg/kg No deaths occurred at this concentration.

**Acute dermal toxicity**

Prolonged or widespread skin contact may result in absorption of potentially harmful amounts. Effects of methanol are the same as observed via oral and inhalation exposure and include central nervous system (CNS) depression, visual impairment up to blindness, metabolic acidosis, with effects on organ systems such as liver, kidneys and heart, even death. As product: The dermal LD50 has not been determined.

**Information for components:**

**Dimethyl siloxane, HO-term Rxn methyltrimethoxysilane and aminoethylaminopropyltrimethoxysilane**

The dermal LD50 has not been determined.

**Methanol**

Effects of methanol are the same as observed via oral and inhalation exposure and include central nervous system (CNS) depression, visual impairment up to blindness, metabolic acidosis, with effects on organ systems such as liver, kidneys and heart, even death. LD50, Rabbit, 15,800 mg/kg

**Decamethylcyclopentasiloxane**

LD50, Rabbit, male and female, > 2,000 mg/kg No deaths occurred at this concentration.

**Octamethyl Cyclotetrasiloxane**

LD50, Rat, male and female, > 2,400 mg/kg No deaths occurred at this concentration.

**Acute inhalation toxicity**

Vapor concentrations are attainable which could be hazardous on single exposure. May cause respiratory irritation and central nervous system depression. Symptoms may include headache, dizziness and drowsiness, progressing to incoordination and unconsciousness. Inhalation of methanol may cause effects ranging from headache, narcosis and visual impairment to metabolic acidosis, blindness, and even death. Effects may be delayed.

As product: The LC50 has not been determined.

**Information for components:**

**Dimethyl siloxane, HO-term Rxn methyltrimethoxysilane and aminoethylaminopropyltrimethoxysilane**

The LC50 has not been determined.

**Methanol**

Easily attainable vapor concentrations may cause serious adverse effects, even death. At lower concentrations: May cause respiratory irritation and central nervous system depression. Symptoms may include headache, dizziness and drowsiness, progressing to incoordination and unconsciousness. Inhalation of methanol may cause effects ranging from headache, narcosis and visual impairment to metabolic acidosis, blindness, and even death. Effects may be delayed.

LC50, Rat, 4 Hour, vapour, 3 mg/l

**Decamethylcyclopentasiloxane**

LC50, Rat, male and female, 4 Hour, dust/mist, 8.67 mg/l

**Octamethyl Cyclotetrasiloxane**

LC50, Rat, male and female, 4 Hour, dust/mist, 36 mg/l OECD Test Guideline 403

**Skin corrosion/irritation**

Based on information for component(s):

Brief contact may cause skin irritation with local redness.

May cause drying and flaking of the skin.

**Information for components:**

**Dimethyl siloxane, HO-term Rxn methyltrimethoxysilane and aminoethylaminopropyltrimethoxysilane**

For similar material(s):

Brief contact may cause skin irritation with local redness.

**Methanol**

Prolonged contact may cause slight skin irritation with local redness.

**Decamethylcyclopentasiloxane**

Prolonged contact is essentially nonirritating to skin.

**Octamethyl Cyclotetrasiloxane**

Brief contact is essentially nonirritating to skin.

**Serious eye damage/eye irritation**

Based on information for component(s):

May cause eye irritation.

**Information for components:**

**Dimethyl siloxane, HO-term Rxn methyltrimethoxysilane and aminoethylaminopropyltrimethoxysilane**

For similar material(s):

May cause eye irritation.

**Methanol**

May cause eye irritation.

**Decamethylcyclopentasiloxane**

Essentially nonirritating to eyes.

**Octamethyl Cyclotetrasiloxane**

Essentially nonirritating to eyes.

**Sensitization**

For skin sensitization:

No relevant data found.

For respiratory sensitization:

No relevant data found.

**Information for components:**

**Dimethyl siloxane, HO-term Rxn methyltrimethoxysilane and aminoethylaminopropyltrimethoxysilane**

For skin sensitization:

No relevant data found.

For respiratory sensitization:

No relevant data found.

**Methanol**

For skin sensitization:

No relevant data found.

For respiratory sensitization:

No relevant data found.

**Decamethylcyclopentasiloxane**

Did not demonstrate the potential for contact allergy in mice.

For respiratory sensitization:

No relevant data found.

**Octamethyl Cyclotetrasiloxane**

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

For respiratory sensitization:

No relevant data found.

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

Contains component(s) which are classified as specific target organ toxicant, single exposure, category 2.

**Information for components:**

**Dimethyl siloxane, HO-term Rxn methyltrimethoxysilane and aminoethylaminopropyltrimethoxysilane**

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

**Methanol**

Causes damage to organs.

Route of Exposure: Oral

Target Organs: Eyes, Central nervous system

**Decamethylcyclopentasiloxane**

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

**Octamethyl Cyclotetrasiloxane**

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

**Aspiration Hazard**

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

**Information for components:**

**Dimethyl siloxane, HO-term Rxn methyltrimethoxysilane and aminoethylaminopropyltrimethoxysilane**

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

**Methanol**

May be harmful if swallowed and enters airways.

**Decamethylcyclopentasiloxane**

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

**Octamethyl Cyclotetrasiloxane**

May be harmful if swallowed and enters airways.

**Chronic toxicity (represents longer term exposures with repeated dose resulting in chronic/delayed effects - no immediate effects known unless otherwise noted)**

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

Contains component(s) which have been reported to cause effects on the following organs in animals:

Kidney.

Liver.

Respiratory tract.

Female reproductive organs.

Methanol is highly toxic to humans and may cause central nervous system effects, visual disturbances up to blindness, metabolic acidosis, and degenerative damage to other organs including liver, kidney, and heart.

**Information for components:****Dimethyl siloxane, HO-term Rxn methyltrimethoxysilane and aminoethylaminopropyltrimethoxysilane**

No relevant data found.

**Methanol**

Methanol is highly toxic to humans and may cause central nervous system effects, visual disturbances up to blindness, metabolic acidosis, and degenerative damage to other organs including liver, kidney, and heart.

**Decamethylcyclopentasiloxane**

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

**Octamethyl Cyclotetrasiloxane**

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

Kidney.

Liver.

Respiratory tract.

Female reproductive organs.

**Carcinogenicity**

Results from a 2 year repeated vapour inhalation exposure study to rats of octamethylcyclotetrasiloxane (D4) indicate effects (benign uterine adenomas) in the uterus of female animals. This finding occurred at the highest exposure dose (700 ppm) only. Studies to date have not demonstrated if these effects occur through pathways that are relevant to humans. Repeated exposure in rats to D4 resulted in protoporphyrin accumulation in the liver. Without knowledge of the specific mechanism leading to the protoporphyrin accumulation the relevance of this finding to humans is unknown. Results from a 2 year repeated vapour inhalation exposure study to rats of decamethylcyclopentasiloxane (D5) indicate effects (uterine endometrial tumors) in female animals. This finding occurred at the highest exposure dose (160 ppm) only. Studies to date have not demonstrated if this effect occurs through a pathway that is relevant to humans.

**Information for components:****Dimethyl siloxane, HO-term Rxn methyltrimethoxysilane and aminoethylaminopropyltrimethoxysilane**

No relevant data found.

**Methanol**

Did not cause cancer in laboratory animals.

**Decamethylcyclopentasiloxane**

Results from a 2 year repeated vapour inhalation exposure study to rats of decamethylcyclopentasiloxane (D5) indicate effects (uterine endometrial tumors) in female animals. This finding occurred at the highest exposure dose (160 ppm) only. Studies to date have not demonstrated if this effect occurs through a pathway that is relevant to humans.

**Octamethyl Cyclotetrasiloxane**

Results from a 2 year repeated vapour inhalation exposure study to rats of octamethylcyclotetrasiloxane (D4) indicate effects (benign uterine adenomas) in the uterus of female animals. This finding occurred at the highest exposure dose (700 ppm) only. Studies to date have not demonstrated if these effects occur through pathways that are relevant to humans. Repeated exposure in rats to D4 resulted in protoporphyrin accumulation in the liver. Without knowledge of the specific mechanism leading to the protoporphyrin accumulation the relevance of this finding to humans is unknown.

**Teratogenicity**

Methanol has caused birth defects in mice at doses nontoxic to the mother as well as slight behavioral effects in offspring of rats.

**Information for components:****Dimethyl siloxane, HO-term Rxn methyltrimethoxysilane and aminoethylaminopropyltrimethoxysilane**

No relevant data found.

**Methanol**

Methanol has caused birth defects in mice at doses nontoxic to the mother as well as slight behavioral effects in offspring of rats.

**Decamethylcyclopentasiloxane**

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

**Octamethyl Cyclotetrasiloxane**

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

**Reproductive toxicity**

In animal studies on component(s), effects on reproduction were seen only at doses that produced significant toxicity to the parent animals. Contains component(s) which have interfered with fertility in animal studies.

**Information for components:****Dimethyl siloxane, HO-term Rxn methyltrimethoxysilane and aminoethylaminopropyltrimethoxysilane**

No relevant data found.

**Methanol**

In animal studies, did not interfere with reproduction.

**Decamethylcyclopentasiloxane**

In animal studies, did not interfere with reproduction.

**Octamethyl Cyclotetrasiloxane**

In laboratory animal studies, effects on reproduction have been seen only at doses that produced significant toxicity to the parent animals. In animal studies, has been shown to interfere with fertility.

**Mutagenicity**

In vitro genetic toxicity studies were negative for component(s) tested. Contains component(s) which were negative in some animal genetic toxicity studies and positive in others.

**Information for components:****Dimethyl siloxane, HO-term Rxn methyltrimethoxysilane and aminoethylaminopropyltrimethoxysilane**

No relevant data found.

**Methanol**

In vitro genetic toxicity studies were negative. Animal genetic toxicity studies were negative in some cases and positive in other cases.

**Decamethylcyclopentasiloxane**

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

**Octamethyl Cyclotetrasiloxane**

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

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**12. ECOLOGICAL INFORMATION**

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

**Toxicity****Dimethyl siloxane, HO-term Rxn methyltrimethoxysilane and aminoethylaminopropyltrimethoxysilane****Acute toxicity to aquatic invertebrates**

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).

For similar material(s):

EC50, 48 Hour, > 0.1 - 1 mg/l

**Methanol****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, Bluegill sunfish (*Lepomis macrochirus*), flow-through test, 96 Hour, 15,400 mg/l

**Acute toxicity to aquatic invertebrates**

LC50, *Daphnia magna* (Water flea), 48 Hour, > 10,000 mg/l

**Acute toxicity to algae/aquatic plants**

ErC50, *Pseudokirchneriella subcapitata* (green algae), 96 Hour, Growth rate, 22,000 mg/l, OECD Test Guideline 201 or Equivalent

**Toxicity to bacteria**

IC50, activated sludge, 3 Hour, Respiration rates., > 1,000 mg/l, OECD Test Guideline 209

**Chronic toxicity to fish**

NOEC, *Oryzias latipes* (Orange-red killifish), 200 Hour, 15,800 mg/l

**Decamethylcyclopentasiloxane****Acute toxicity to fish**

Not expected to be acutely toxic to aquatic organisms.

No toxicity at the limit of solubility  
LC50, *Oncorhynchus mykiss* (rainbow trout), 96 Hour, > 16 µg/l, OECD Test Guideline 204 or Equivalent

**Acute toxicity to aquatic invertebrates**

No toxicity at the limit of solubility  
EC50, *Daphnia magna*, 48 Hour, > 2.9 mg/l, OECD Test Guideline 202 or Equivalent

**Acute toxicity to algae/aquatic plants**

No toxicity at the limit of solubility  
ErC50, *Pseudokirchneriella subcapitata* (green algae), 96 Hour, Growth rate, > 0.012 mg/l  
No toxicity at the limit of solubility  
NOEC, *Pseudokirchneriella subcapitata* (green algae), 96 Hour, Growth rate, 0.012 mg/l

**Chronic toxicity to fish**

No toxicity at the limit of solubility  
LC50, *Oncorhynchus mykiss* (rainbow trout), 14 d, > 16 mg/l  
No toxicity at the limit of solubility  
NOEC, *Oncorhynchus mykiss* (rainbow trout), 45 d, >= 0.017 mg/l  
No toxicity at the limit of solubility  
NOEC, *Oncorhynchus mykiss* (rainbow trout), 90 d, >= 0.014 mg/l

**Chronic toxicity to aquatic invertebrates**

NOEC, *Daphnia magna*, 21 d, 0.015 mg/l

**Toxicity to soil-dwelling organisms**

This product does not have any known adverse effect on the soil organisms tested.  
NOEC, *Eisenia fetida* (earthworms), >= 76 mg/kg

**Octamethyl Cyclotetrasiloxane****Acute toxicity to fish**

Not expected to be acutely toxic to aquatic organisms.  
No toxicity at the limit of solubility  
LC50, *Oncorhynchus mykiss* (rainbow trout), flow-through, 96 Hour, > 0.022 mg/l  
No toxicity at the limit of solubility  
LC50, *Cyprinodon variegatus* (sheepshead minnow), flow-through, 14 d, > 0.0063 mg/l

**Acute toxicity to aquatic invertebrates**

No toxicity at the limit of solubility  
EC50, *Mysidopsis bahia* (opossum shrimp), flow-through test, 96 Hour, > 0.0091 mg/l  
No toxicity at the limit of solubility  
EC50, *Daphnia magna* (Water flea), flow-through test, 48 Hour, > 0.015 mg/l

**Acute toxicity to algae/aquatic plants**

No toxicity at the limit of solubility  
ErC50, *Pseudokirchneriella subcapitata* (green algae), 72 Hour, Growth rate, > 0.022 mg/l

**Chronic toxicity to fish**

No toxicity at the limit of solubility  
NOEC, *Oncorhynchus mykiss* (rainbow trout), 93 d, >= 0.0044 mg/l

**Chronic toxicity to aquatic invertebrates**

No toxicity at the limit of solubility  
NOEC, *Daphnia magna* (Water flea), 21 d, >= 0.0079 mg/l



**Persistence and degradability****Dimethyl siloxane, HO-term Rxn methyltrimethoxysilane and aminoethylaminopropyltrimethoxysilane**

**Biodegradability:** Based on data from similar materials No appreciable biodegradation is expected.

**Methanol**

**Biodegradability:** Material is readily biodegradable. Passes OECD test(s) for ready biodegradability.

**Theoretical Oxygen Demand:** 1.50 mg/mg

**Chemical Oxygen Demand:** 1.49 mg/mg Dichromate

**Biological oxygen demand (BOD)**

| Incubation Time | BOD  |
|-----------------|------|
| 5 d             | 72 % |
| 20 d            | 79 % |

**Photodegradation**

**Test Type:** Half-life (indirect photolysis)

**Sensitization:** OH radicals

**Atmospheric half-life:** 8 - 18 d

**Method:** Estimated.

**Decamethylcyclopentasiloxane**

**Biodegradability:** Material is expected to biodegrade very slowly (in the environment). Fails to pass OECD/EEC tests for ready biodegradability.

10-day Window: Not applicable

**Biodegradation:** 0.14 %

**Exposure time:** 28 d

**Method:** OECD Test Guideline 310

**Photodegradation**

**Test Type:** Half-life (indirect photolysis)

**Sensitization:** OH radicals

**Atmospheric half-life:** 7.15 d

**Method:** Estimated.

**Octamethyl Cyclotetrasiloxane**

**Biodegradability:** Material is expected to biodegrade very slowly (in the environment). Fails to pass OECD/EEC tests for ready biodegradability.

10-day Window: Not applicable

**Biodegradation:** 3.7 %

**Exposure time:** 28 d

**Method:** OECD Test Guideline 310

**Stability in Water (1/2-life)**

Hydrolysis, DT50, 69.3 - 144 Hour, pH 7, Half-life Temperature 24.6 °C, OECD Test Guideline 111

**Photodegradation**

**Atmospheric half-life:** 16 d

**Method:** Estimated.

**Bioaccumulative potential**

**Dimethyl siloxane, HO-term Rxn methyltrimethoxysilane and aminoethylaminopropyltrimethoxysilane**

**Bioaccumulation:** No relevant data found.

**Methanol**

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

**Partition coefficient: n-octanol/water(log Pow):** -0.77 Measured

**Bioconcentration factor (BCF):** < 10 Leuciscus idus (Golden orfe) Measured

**Decamethylcyclopentasiloxane**

**Bioaccumulation:** Bioconcentration potential is moderate (BCF between 100 and 3000 or Log Pow between 3 and 5).

**Partition coefficient: n-octanol/water(log Pow):** 5.2 Measured

**Bioconcentration factor (BCF):** 2,010 Fish Estimated.

**Octamethyl Cyclotetrasiloxane**

**Bioaccumulation:** Bioconcentration potential is high (BCF > 3000 or Log Pow between 5 and 7).

**Partition coefficient: n-octanol/water(log Pow):** 6.49 Measured

**Bioconcentration factor (BCF):** 12,400 Pimephales promelas (fathead minnow) Measured

**Mobility in soil**

**Dimethyl siloxane, HO-term Rxn methyltrimethoxysilane and aminoethylaminopropyltrimethoxysilane**

No relevant data found.

**Methanol**

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

**Partition coefficient (Koc):** 0.44 Estimated.

**Decamethylcyclopentasiloxane**

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

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

**Octamethyl Cyclotetrasiloxane**

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

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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. For additional information, refer to: Handling & Storage Information, MSDS Section 7 Stability & Reactivity Information, MSDS Section 10 Regulatory Information, MSDS Section 15

**Treatment and disposal methods of used packaging:** Empty containers should be recycled or otherwise disposed of by an approved waste management facility. Waste characterizations and compliance with applicable laws are the responsibility solely of the waste generator. Do not re-use containers for any purpose.

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## 14. TRANSPORT INFORMATION

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### TDG

|                      |                                                   |
|----------------------|---------------------------------------------------|
| Proper shipping name | FLAMMABLE LIQUID, N.O.S.(Aminosiloxane, Methanol) |
| UN number            | UN 1993                                           |
| Class                | 3                                                 |
| Packing group        | II                                                |
| Marine pollutant     | Aminosiloxane                                     |

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

|                                                                                      |                                                        |
|--------------------------------------------------------------------------------------|--------------------------------------------------------|
| Proper shipping name                                                                 | FLAMMABLE LIQUID, N.O.S.(Aminosiloxane, Methanol)      |
| UN number                                                                            | UN 1993                                                |
| Class                                                                                | 3                                                      |
| Packing group                                                                        | II                                                     |
| Marine pollutant                                                                     | Aminosiloxane                                          |
| Transport in bulk according to Annex I or II of MARPOL 73/78 and the IBC or IGC Code | Consult IMO regulations before transporting ocean bulk |

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

|                      |                                                   |
|----------------------|---------------------------------------------------|
| Proper shipping name | Flammable liquid, n.o.s.(Aminosiloxane, Methanol) |
| UN number            | UN 1993                                           |
| Class                | 3                                                 |
| Packing group        | II                                                |

This information is not intended to convey all specific regulatory or operational requirements/information relating to this product. Transportation classifications may vary by container volume and may be influenced by regional or country variations in regulations. Additional transportation system information can be obtained through an authorized sales or customer service representative. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the material.

## 15. REGULATORY INFORMATION

### Canadian Domestic Substances List (DSL)

All substances contained in this product are listed on the Canadian Domestic Substances List (DSL) or are not required to be listed.

## 16. OTHER INFORMATION

### Revision

Identification Number: 6017895 / A208 / Issue Date: 06/17/2020 / Version: 5.0

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)                                                                                                 |
| ACGIH BEI | ACGIH - Biological Exposure Indices (BEI)                                                                                               |
| CA AB OEL | Canada. Alberta, Occupational Health and Safety Code (table 2: OEL)                                                                     |
| CA BC OEL | Canada. British Columbia OEL                                                                                                            |
| CA QC OEL | Québec. Regulation respecting occupational health and safety, Schedule 1, Part 1: Permissible exposure values for airborne contaminants |
| STEL      | short-term exposure limit                                                                                                               |
| STEV      | Short-term exposure value                                                                                                               |
| TWA       | 8-hour time weighted average                                                                                                            |
| TWAEV     | Time-weighted average exposure value                                                                                                    |
| US WEEL   | USA. Workplace Environmental Exposure Levels (WEEL)                                                                                     |

### Full text of other abbreviations

AICS - Australian Inventory of Chemical Substances; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; EHS - Extremely Hazardous Substance; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; HMIS - Hazardous Materials Identification System; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for

Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ - Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

**Information Source and References**

This SDS is prepared by Product Regulatory Services and Hazard Communications Groups from information supplied by internal references within our company.

DOW CHEMICAL CANADA ULC 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.

CA