

## 1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: OlyBond500 Canisters, Part 1

Supplier: OMG, Inc.  
153 Bowles Road  
Agawam, MA 01001 USA  
Phone: (01) 413-789-0252  
Fax: (01) 413-786-1453  
www.OMGRoofing.com

24-hour Emergency Response Number:  
Chemtrec: 800-424-9300

Product Use(s): One component of a two-component polyurethane system

## 2. HAZARDS IDENTIFICATION

Classifications: Acute Toxicity, Inhalation: Hazard Category 4  
Respiratory Sensitization: Hazard Category 1  
Skin Sensitization: Hazard Category 1  
Skin Irritation: Hazard Category 2  
Eye Irritation: Hazard Category 2B  
Specific Target Organ Toxicity, Single Exposure: Hazard Category 3  
Specific Target Organ Toxicity, Repeated Exposure: Hazard Category 2  
Gases Under Pressure: Compressed Gas  
Physical Hazards Not Otherwise Classified: None  
Health Hazards Not Otherwise Classified: None

Symbols: Health Hazard  
Exclamation Point  
Gas Cylinder



Signal Word: Danger

Hazard Statements: May be harmful if inhaled.  
May cause allergy or asthma symptoms or breathing difficulties if inhaled.  
May cause respiratory irritation.  
May cause an allergic skin reaction.  
Causes eye and skin irritation.  
May cause damage to the respiratory system and/or skin through prolonged or repeated exposure.  
Contains gas under pressure; may explode if heated.

Precautionary Statements: Do not breathe mist, spray, or vapors.  
Use only outdoors or in a well-ventilated area.  
In case of inadequate ventilation wear proper respiratory protection.  
Wear protective gloves and eye protection.  
Wash hands and forearms thoroughly after handling.  
Contaminated work clothing must not be allowed out of the workplace.

**IF INHALED:** remove person to fresh air and keep comfortable for breathing. If experiencing respiratory symptoms or if you feel unwell, call a doctor or Poison Control Center.

Precautionary Statements: (continued) **IF ON SKIN:** Wash with plenty of soap and water. Take off contaminated clothing and wash before reuse. If skin irritation or rash occurs, get medical advice/attention.

**IF IN EYES:** Rinse cautiously with water for at several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists, get medical advice/attention.

Get medical advice/attention if you feel unwell.

Protect from sunlight. Store in a well-ventilated place.

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

Dispose of contents/container in accordance with applicable regulations.

Other Hazards None known

### EMERGENCY OVERVIEW

Overexposure to components of this product by inhalation may cause respiratory irritation, asthma-like symptoms, and/or respiratory sensitization.

Skin contact may cause irritation and/or allergy-like symptoms, and eye contact may cause irritation. Avoid skin and eye contact, using proper personal protective equipment as needed. See Section #7 for recommendations on proper handling and work practices, and Section #8 for recommendations on personal protective equipment.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

<u>Ingredient</u>	<u>CAS Number</u>	<u>Percentage</u>	<u>Impurities</u>
4,4'-Methylenediphenyl Diisocyanate	101-68-8	25-50	None known
Diphenylmethane Diisocyanate, Isomers and Homologues	9016-87-9	>50	None known
Trans-1,3,3,3-Tetrafluoroprop-1-ene	29118-24-9	10-25	None known

### 4. FIRST AID MEASURES

Eyes: Hold eyes open and flush with lukewarm water for at least 15 minutes. Seek immediate medical assistance.

Skin: Remove contaminated clothing. Wash affected areas with soap and water for at least five minutes. If irritation persists or a rash occurs, seek medical attention. Launder or dry-clean clothing before reuse.

Ingestion: DO NOT induce vomiting. If the subject is conscious, wash mouth with water. Seek immediate medical assistance. Do not attempt to give anything by mouth to an unconscious or convulsive person.

**Inhalation:** If signs and symptoms of respiratory toxicity are observed, remove subject from area and seek immediate medical attention. Keep the subject warm and at rest. If necessary, administer oxygen or perform artificial respiration if necessary and qualified personnel are available to do so.

**Guidance for Physician or Poison Control Center:** Inhalation exposure can irritate the respiratory tract and induce respiratory sensitization. Treatment of acute irritation and bronchial constriction should be done according to symptoms. Eye contact can cause irritation. Skin contact can cause moderate irritation and may elicit an allergic response among susceptible individuals. Treat eye and skin irritation or injury according to symptoms. Extended medical treatment may be necessary for individuals exhibiting respiratory sensitization and/or skin disorders.

## 5. FIREFIGHTING MEASURES

**Extinguishing Media:** Water spray, carbon dioxide, dry chemical or chemical foam. DO NOT use water jet.

**Fire and Explosion Hazards:** The container may burst if exposed to elevated temperatures, spilling the contents. Material reacts slowly with water, releasing carbon dioxide which can cause pressure buildup and rupture of closed containers. If present in a fire or explosion, potential decomposition byproducts include carbon monoxide, oxides of nitrogen, isocyanates, hydrogen cyanide, hydrogen fluoride, and carbonyl halides.

**Firefighting Instructions:** If fighting a fire in which this product is present, wear a self-contained breathing apparatus with full-facepiece operated in pressure-demand or other positive pressure mode.

## 6. ACCIDENTAL RELEASE MEASURES

**Methods and Materials:** Absorb spilled material with a sorbent such as sawdust or calcium silicate hydrate. When absorbed, transfer to an impervious container. Neutralize with solution of 8-10% sodium carbonate and 2% liquid detergent in water (10:1 ratio of solution to product). Do not seal container, as CO<sub>2</sub> will be released. Neutralize in a well-ventilated area for at least 48 hours before sealing containers for disposal.

**Personal Precautions:** Avoid contact with skin, eyes, and mucous membranes. Wear appropriate personal protective equipment (see Section #8) during cleanup and decontamination. Restrict unauthorized personnel during cleanup and disposal operations.

**Environmental Precautions:** Prevent spills from entering sewers or contaminating soil.

## 7. HANDLING AND STORAGE

**Handling Precautions:** Containers should be kept tightly closed to prevent contact with moisture and other chemicals. Do not reuse empty containers for any purpose. When handling the product, avoid contact with eyes, skin,

and clothing, using protective equipment as needed. Do not use this product around children and secure it away from children.

**Work and Hygiene Practices:** To prevent ingestion or contact following use of the product, wash hands and face before eating, drinking, applying cosmetics, or using tobacco. Remove contaminated clothing and protective equipment before entering eating/drinking areas.

**Storage Precautions:** Keep containers tightly sealed during storage. Store in a dry, well-ventilated area away from sources of ignition and incompatible materials (see Section #10). Protect from heat and direct sunlight. Recommended temperature for storage is 55-85°F. (12.8-29.4°C.).

**8. EXPOSURE CONTROLS AND PERSONAL PROTECTION**

**Exposure Limits**

Ingredient	OSHA PEL	ACGIH TLV	Other
4,4'-Methylenediphenyl Diisocyanate	0.02 ppm Ceiling	0.005 ppm	
Diphenylmethane Diisocyanate, Isomers and Homologues	None	None	
Trans-1,3,3,3-Tetrafluoroprop-1-ene	None	None	800 ppm (manufacturer recommended)

Ingredients	<u>Ingredient</u>	<u>Biological Limit(s)</u>
Biological Limits:	4,4'-Methylenediphenyl Diisocyanate	No ACGIH BEIs or other biological limits
	Diphenylmethane Diisocyanate, Isomers and homologues	No ACGIH BEIs or other biological limits
	Trans-1,3,3,3-Tetrafluoroprop-1-ene	No ACGIH BEIs or other biological limits

**Engineering Controls:** Use appropriate ventilation (dilution or local exhaust) whenever natural ventilation is restricted or inadequate to maintain concentrations of all components within their applicable standards.

**Eye/Face Protection:** Wear eye protection adequate to prevent eye contact with the product. Plastic-frame spectacles with side shields, chemical goggles, or a face shield are recommended.

**Skin Protection:** Wear protective gloves and clothing to prevent skin irritation or injury from contact with the product. Glove materials known to be effective against permeation by isocyanates include butyl rubber, nitrile rubber, and polychloroprene.

**Respiratory Protection:** If an exposure level to a component exceeds an applicable standard, use a NIOSH-approved respirator of a class and configuration effective for

protection from the component(s) generated. Where exposures exceed the OSHA *Permissible Exposure Limit (PEL)*, an airline respirator or self-contained breathing apparatus (SCBA) is recommended. Consult OSHA regulations (29CFR1910.134) and/or American National Standard Z88.2 (ANSI, New York, NY 10036, USA) for guidance.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: cream-colored liquid	Lower Explosive Limit: not determined
Odor: aromatic	Upper Explosive Limit: not determined
Odor threshold: not determined	Vapor pressure: <0.00001 mmHg @ 25C (MDI)
pH: not applicable	Vapor density: not determined
Melting point: not determined.	Evaporation Rate: not determined
Freezing point: not determined	VOCs (per EPA Method 24): none
Boiling point: not determined	Relative density (H <sub>2</sub> O): approx. 1.23
Boiling range: not applicable (aerosol)	Solubility (H <sub>2</sub> O): reactive
Flash Point: not applicable (aerosol)	Oil-water partition coefficient: not determined
Autoignition Point: not determined	Decomposition temperature: not determined
Flammability Class: not applicable (aerosol)	Viscosity: not determined

## 10. STABILITY AND REACTIVITY

Stability:	Stable
Reactivity:	May react with water and incompatible materials
Hazardous Polymerization:	May occur at temperatures >392°F./200°C.
Risk of Dangerous Reactions:	None reasonably foreseeable
Incompatible Materials:	Water, alcohols, acids, alkalis, and amines
Potential Decomposition Byproducts:	Carbon monoxide, carbon dioxide, nitrogen oxides, isocyanates, hydrogen cyanide, hydrogen fluoride, and carbonyl halides.

## 11. TOXICOLOGICAL INFORMATION

<b><u>Ingredients Toxicology Data</u></b>	<b><u>LD<sub>50</sub> Oral</u></b>	<b><u>LD<sub>50</sub> Dermal</u></b>	<b><u>LC<sub>50</sub></u></b>
4,4'-Methylenediphenyl Diisocyanate	>10,000 mg/kg (rat)	No data available	2.24 mg/l. for 1 hour (rat)
Diphenylmethane Diisocyanate, Isomers and Homologues	No data available	No data available	No data available
Trans-1,3,3,3-Tetrafluoroprop-1-ene	No data available	No data available	>207000 ppm/4h (rat)

Primary Route(s) of Entry: Inhalation; ingestion

Eye Hazards: This product may cause eye irritation.

Skin Hazards: This product may cause mild to moderate skin irritation and has the potential to cause skin sensitization among susceptible individuals.

Ingestion Hazards:	The product is nontoxic by ingestion, but ingestion may cause nausea, vomiting, and/or gastrointestinal irritation.
Inhalation Hazards:	Inhalation of toxicologically-significant quantities of ingredients is unlikely when the product is used in a well-ventilated area and in accordance with instructions.
Symptoms Related to Overexposure:	Inhalation overexposure to isocyanates may cause respiratory irritation, breathing difficulties, and asthma-like symptoms.
Delayed Effects from Long Term Overexposure:	Long-term inhalation overexposure to this product may result in respiratory damage, which may be irreversible.
Carcinogenicity:	A single inhalation study exposing rats to aerosolized polymeric 4,4'-Methylenediphenyl Diisocyanate identified a single malignant pulmonary tumor among sixty animals exposed at the highest exposure level. Observations of pulmonary fibrosis and other pathological anomalies in the test animals precluded definitive determination as to the cause(s) of the tumor. Epidemiological studies of humans occupationally exposed to the isocyanates in this product have found no strong association or consistent pattern with respect to carcinogenicity.
Germ Cell Mutagenicity:	No ingredients have been determined to be germ cell mutagens.
Reproductive Toxicity:	No ingredients have been determined to be damaging to fertility or to the unborn child.
Acute Toxicity Estimates:	LD <sub>50</sub> (oral): >10,000 mg/kg LD <sub>50</sub> (dermal): >9,400 mg/kg LC <sub>50</sub> : 2.24 mg/L/1 hr as aerosol
Interactive Effects of Components:	No data available

## 12. ECOLOGICAL INFORMATION

4,4'-Methylene-diphenyl Diisocyanate	Aquatic Toxicity to Fish: LC <sub>50</sub> >1,000 mg/l. for 96 h. (zebra fish) Aquatic Toxicity to Invertebrates: EC <sub>50</sub> >1,000 mg/l. for 24 h. (daphnia) Aquatic Toxicity to Plants: EC <sub>50</sub> >1,640 mg/l. for 72 h. (algae) Aquatic Toxicity to Microorganisms: EC <sub>50</sub> >100 mg/l. for 3 h. (bacteria) Toxicity to Terrestrial Organisms: EC <sub>No</sub> = 1,000 mg/kg for 14 d. (worms) No data available for Persistence and Degradability, Bioaccumulation Potential, or Mobility in Soil.
Diphenylmethane Diisocyanate, Isomers and homologues	No data available for Aquatic Toxicity to Fish, Invertebrates, Plants, or Microorganisms, Toxicity to Terrestrial Organisms, Persistence and Degradability, Bioaccumulation Potential, or Mobility in Soil.
Trans-1,3,3,3-Tetrafluoroprop-1-ene	Aquatic Toxicity to Fish: LC <sub>50</sub> >117 mg/l. for 96 h. (carp) Aquatic Toxicity to Invertebrates: EC <sub>50</sub> >160 mg/l. for 48 h. (daphnia) Aquatic Toxicity to Plants: EC <sub>50</sub> >170 mg/l. for 72 h. (algae)

Not readily biodegradable. No bioaccumulation is expected. No data available for Aquatic Toxicity to Microorganisms, Toxicity to Terrestrial Organisms, or Mobility in Soil.

Ozone Depletion Potential: This product neither contains nor is manufactured with any ingredients known to deplete the ozone layer.

### 13. DISPOSAL CONSIDERATIONS

Do not discharge waste product into sanitary or storm sewers or allow it to contaminate soil. Empty containers should be decontaminated prior to disposal. Consult applicable Federal, State/Provincial, and local regulations.

### 14. TRANSPORTATION INFORMATION

Proper Shipping Name: Chemical Under Pressure, n.o.s.  
(trans-1,3,3,3-Tetrafluoroprop-1-ene, Nitrogen)  
Identification Number: UN3500  
Hazard Class: 2.2  
Packing Group: not applicable

### 15. REGULATORY INFORMATION

#### United States Regulatory Information

TSCA Information: All ingredients of this product are listed in the TSCA Registry.

SARA Hazard Classes: Refer to Section 2 for the OSHA Hazard Classification

EPCRA Section 313 Notification: This product contains these ingredients in concentrations  $\geq 1\%$  (for carcinogens  $\geq 0.1\%$ ) regulated under Section 313 of the *Emergency Planning and Community Right-To-Know Act* of 1986 or 40 CFR 372:

1. 4,4'-Methylenediphenyl Diisocyanate (CASRN 101-68-8)
2. Diphenylmethane Diisocyanate, Isomers and Homologues (CASRN 9016-87-9)

CERCLA Information: Under requirements of the *Comprehensive Environmental Response, Compensation, and Liability Act* (CERCLA), 4,4'-Methylene Bisphenyl Isocyanate (CASRN 101-68-8) has a *Reportable Quantity* of 5,000 lbs. Any spill or release above this *RQ* must be reported to the National Response Center (800-424-8802).

#### Canadian Regulatory Information

All ingredients in this product are listed in the Domestic Substances List (DSL) or the Nondomestic Substances List (NDSL).

This product has been classified in accordance with Canada's *Hazardous Products Regulations* (SOR/DORS/2015-15).

**16. OTHER INFORMATION**

Hazardous Materials Information System (HMIS III) Ratings (Legend):	<u>Health</u> 2* (moderate hazard, “*” indicating potential for chronic effects)	<u>Flammability</u> 0 (minimal hazard)	<u>Physical Hazard</u> 1 (slight hazard)	<u>PPE</u> See Note
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Note regarding PPE: OMG, Inc. recommends use of protective eyewear and skin protection (Personal Protection Index "B") as standard PPE for the anticipated conditions of use of this product. However, HMIS recommends that its ratings be used only in conjunction with a fully implemented HMIS program, and that specific PPE codes should be created by the user, who is familiar with the actual conditions under which the product is used. We cannot anticipate every condition of the product's use, and it is the user's responsibility to evaluate the hazards pertinent to its specific operations, and to determine the specific PPE required.

National Fire Protection Association (NFPA) Ratings:	<u>Health</u> 2	<u>Flammability</u> 0	<u>Reactivity</u> 1
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Revision Information: Publication Date: 23 November 2020  
Date of Prior SDS: 24 January 2018  
Section(s) Revised: 3, 5, 8, 9, 10, 11, 12, 14

**DISCLAIMER**

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**1. PRODUCT AND COMPANY IDENTIFICATION**

Product Name: OlyBond500 Canisters Part 2

Supplier: OMG, Inc.  
153 Bowles Road  
Agawam, MA 01001 USA  
Phone: (01) 413-789-0252  
Fax: (01) 413-786-1453  
www.OMGRoofing.com

24-hour Emergency Response Number:  
Chemtrec: 800-424-9300

Product Use(s): One component of a two-component polyurethane system

**2. HAZARDS IDENTIFICATION**

Classifications: Acute Oral Toxicity: Hazard Category 4  
Gases Under Pressure: Compressed Gas  
Physical Hazards Not Otherwise Classified: None  
Health Hazards Not Otherwise Classified: None

Symbols: Exclamation Point  
Gas Cylinder



Signal Word: Warning

Hazard Statements: Harmful if swallowed.  
Contains gas under pressure; may explode if heated.

Precautionary Statements: Wash hands and forearms thoroughly after handling.  
Do not eat, drink or smoke when using this product.  
**IF SWALLOWED:** Call a Poison Center or doctor if you feel unwell. Rinse mouth.  
Protect from sunlight. Store in a well-ventilated place.  
Dispose of contents/container in accordance with applicable regulations.

**EMERGENCY OVERVIEW**

Harmful if swallowed. There are no known serious health effects from inhalation or skin contact. See Section #7 for recommendations on proper handling and work practices, and Section #8 for recommendations on personal protective equipment.

This product is formulated to be mixed with another component (OlyBond Canisters Part 1) that, if handled improperly, may cause potentially serious health effects such as respiratory irritation, asthma-like symptoms, and/or respiratory sensitization. Do not handle or mix the two components together until you have read and understood that information in the *Safety Data Sheets* for both components.

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

<u>Ingredient</u>	<u>CAS Number</u>	<u>Percentage</u>	<u>Impurities</u>
Diethylene Glycol	111-46-6	1-10	None known
Polypropylene Glycol	25322-69-4	30-40	None known

Trans-1,3,3,3-Tetrafluoroprop-1-ene

29118-24-9

10-15

None known

#### 4. FIRST AID MEASURES

Eyes:	Hold eyes open and flush with lukewarm water for at least 15 minutes. Seek immediate medical assistance.
Skin:	Remove contaminated clothing. Wash affected areas with soap and water for at least five minutes. If irritation occurs or persists, seek medical attention. Launder or dry-clean clothing before reuse.
Ingestion:	DO NOT induce vomiting. If the subject is conscious, wash mouth and give 2 or more cups of milk or water. Seek immediate medical assistance. Do not attempt to give anything by mouth to an unconscious or convulsive person.
Inhalation:	If signs and symptoms of respiratory toxicity are observed, remove subject from area and seek immediate medical attention. Keep the subject warm and at rest. If necessary, administer oxygen or perform artificial respiration if necessary and qualified personnel are available to do so.
Guidance for Physician or Poison Control Center:	None of the components of this product are acutely toxic by inhalation. Harmful if swallowed. Eye contact can cause mild irritation. Skin contact can cause mild irritation. Ingestion is unlikely to occur in industrial use, but if ingestion occurs it may cause nausea, vomiting, and gastrointestinal irritation. Chronic ingestion can cause kidney injury.

#### 5. FIREFIGHTING MEASURES

Extinguishing Media:	Water spray, carbon dioxide, dry chemical or chemical foam. DO NOT use water jet.
Fire and Explosion Hazards:	The container may burst if exposed to elevated temperatures, spilling the contents. This product may ignite if exposed to sources of ignition at temperatures above its flash point. If present in a fire or explosion, potential thermal decomposition byproducts include carbon monoxide, hydrogen fluoride, carbonyl halides, smoke, and irritant decomposition byproducts.
Firefighting Instructions:	If fighting a fire in which this product is present, wear a self-contained breathing apparatus with full-facepiece operated in pressure-demand or other positive pressure mode.

#### 6. ACCIDENTAL RELEASE MEASURES

Methods and Materials:	Absorb spilled material with a sorbent such as sawdust, vermiculite, or calcium silicate hydrate. When absorbed, transfer to an impervious container.
Personal Precautions:	Avoid contact with skin, eyes, and mucous membranes. Wear appropriate personal protective equipment (see Section #8) during cleanup and decontamination.

Environmental Precautions: Prevent spills from entering sewers or contaminating soil.

**7. HANDLING AND STORAGE**

Handling Precautions: Containers should be kept tightly closed to prevent contact with moisture and other chemicals. Do not reuse empty containers for any purpose. When handling the product, avoid contact with eyes, skin, and clothing, using protective equipment as needed. Do not use this product around children and secure it away from children.

Work and Hygiene Practices: To prevent ingestion or contact following use of the product, wash hands and face before eating, drinking, applying cosmetics, or using tobacco. Remove contaminated clothing and protective equipment before entering eating/drinking areas.

Storage Precautions: Store containers tightly sealed in a dry, well-ventilated, area away from incompatible materials (see Section #10). Recommended temperature range for storage is 55-85°F. (12.8-29.4°C.).

**8. EXPOSURE CONTROLS AND PERSONAL PROTECTION**

**Exposure Limits**

Ingredient	OSHA PEL	ACGIH TLV	Other
Diethylene Glycol	None	None	10 mg/m3 AIHA WEEL
Polypropylene Glycol	None	None	
Trans-1,3,3,3-Tetrafluoroprop-1-ene	None	None	800 ppm (manufacturer recommended)

Ingredients	<u>Ingredient</u>	<u>Biological Limit(s)</u>
Biological Limits:	Diethylene Glycol	No ACGIH BEIs or other biological limits
	Polypropylene Glycol	No ACGIH BEIs or other biological limits
	Trans-1,3,3,3-Tetrafluoroprop-1-ene	No ACGIH BEIs or other biological limits

Engineering Controls: Use appropriate ventilation (dilution or local exhaust) whenever this product is used in conjunction with OlyBond Canisters, Part 1 in conditions where natural ventilation is restricted.

Eye/Face Protection: Wear eye protection adequate to prevent eye contact with the product. Plastic-frame spectacles with side shields, chemical goggles, or a face shield are recommended.

Skin Protection: Wear protective gloves and clothing to prevent skin irritation or injury from contact with the product. Glove materials known to be effective against permeation by this product include butyl rubber, nitrile rubber, and polyvinyl

alcohol.

Respiratory Protection: If an exposure level to a component exceeds an applicable standard, use a NIOSH-approved respirator of a class and configuration effective for protection from the component(s) generated. Consult OSHA regulations (29CFR1910.134) and/or American National Standard Z88.2 (ANSI, New York, NY 10036, USA) for guidance.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: red viscous liquid	Lower Explosive Limit: not determined
Odor: mildly sweet	Upper Explosive Limit: not determined
Odor threshold: not determined	Vapor pressure: <10 mmHg @ 20C (Polyol)
pH: not determined	Vapor density: not determined
Melting point: not determined	Evaporation Rate: not determined
Freezing point: not determined	VOCs: not determined
Boiling point: not determined	Relative density (H <sub>2</sub> O): approx. 1.03
Boiling range: not applicable (aerosol)	Solubility (H <sub>2</sub> O): partial
Flash Point: not applicable (aerosol)	Oil-water partition coefficient: not determined
Autoignition Point: not determined	Decomposition temperature: not determined
Flammability Class: not applicable (aerosol)	Viscosity: not determined

## 10. STABILITY AND REACTIVITY

Stability:	Stable
Reactivity:	Polymerizes with isocyanate-containing substances
Hazardous Polymerization:	Will not occur
Risk of Dangerous Reactions:	None reasonably foreseeable
Incompatible Materials:	Oxidizing agents
Potential Decomposition Byproducts:	Carbon monoxide, carbon dioxide, hydrogen fluoride, carbonyl halides, smoke, and irritant decomposition byproducts

## 11. TOXICOLOGICAL INFORMATION

<u>Ingredients Toxicology Data</u>	<u>LD<sub>50</sub> Oral</u>	<u>LD<sub>50</sub> Dermal</u>	<u>LC<sub>50</sub></u>
Diethylene Glycol	14,850 mg/kg (rat)	11,890 mg/kg (hamster)	No data available
Polypropylene Glycol	500-2000 mg/kg (rat)	>10,000 mg/kg (rabbit)	No data available
Trans-1,3,3,3-Tetrafluoroprop-1-ene	No data available	No data available	>207000 ppm/4h (rat)

Primary Route(s) of Entry: Inhalation; ingestion

Eye Hazards: This product may cause mild eye irritation.

Skin Hazards: This product may cause mild skin irritation. Irritation may be more pronounced on abraded skin.

Ingestion Hazards:	Ingestion may cause nausea, vomiting, and/or gastrointestinal irritation.
Inhalation Hazards:	Inhalation of toxicologically-significant quantities of ingredients is unlikely when the product is used in a well-ventilated area and in accordance with instructions.
Symptoms Related to Overexposure:	Inhalation overexposure may cause respiratory irritation.
Delayed Effects from Long Term Overexposure:	Long-term ingestion may damage the kidneys and the gastrointestinal system.
Carcinogenicity:	No ingredients are classified as potential or confirmed human carcinogens by OSHA, NTP, or IARC.
Germ Cell Mutagenicity:	No ingredients have been determined to be germ cell mutagens.
Reproductive Toxicity:	No ingredients have been determined to be damaging to fertility or to the unborn child.
Acute Toxicity Estimates:	LD <sub>50</sub> (oral): 1124 mg/kg LD <sub>50</sub> (dermal): >10,000 mg/kg LC <sub>50</sub> : no data available
Interactive Effects of Components:	No data available

## 12. ECOLOGICAL INFORMATION

Diethylene Glycol	Aquatic Toxicity to Fish: LC <sub>50</sub> = >100 mg/l. for 96 h. (fathead minnows) Aquatic Toxicity to Invertebrates: EC <sub>50</sub> = >10,000 mg/l. for 48 h. (daphnia)  Readily biodegradable.
Polypropylene Glycol	Aquatic Toxicity to Fish: LC <sub>50</sub> = >100 mg/l. for 96 h. (bluegill sunfish) Aquatic Toxicity to Invertebrates: EC <sub>50</sub> = >100 mg/l. for 48 h. (daphnia) Not readily biodegradable
Trans-1,3,3,3-Tetrafluoroprop-1-ene	Aquatic Toxicity to Fish: LC <sub>50</sub> >117 mg/l. for 96 h. (carp) Aquatic Toxicity to Invertebrates: EC <sub>50</sub> >160 mg/l. for 48 h. (daphnia) Aquatic Toxicity to Plants: EC <sub>50</sub> >170 mg/l. for 72 h. (algae) Not readily biodegradable. No bioaccumulation is expected. No data available for Aquatic Toxicity to Microorganisms, Toxicity to Terrestrial Organisms, or Mobility in Soil.
Ozone Depletion Potential:	This product neither contains nor is manufactured with any ingredients known to deplete the ozone layer.

## 13. DISPOSAL CONSIDERATIONS

Do not discharge waste product into sanitary or storm sewers or allow it to contaminate soil. Empty containers should be decontaminated prior to disposal. Consult applicable Federal, State/Provincial, and local regulations.

**14. TRANSPORTATION INFORMATION**

Proper Shipping Name: Chemical Under Pressure, n.o.s.  
(trans-1,3,3,3-Tetrafluoroprop-1-ene, Nitrogen)  
Identification Number: UN3500  
Hazard Class: 2.2  
Packing Group: not applicable

**15. REGULATORY INFORMATION**

**United States Regulatory Information**

TSCA Information: All ingredients of this product are listed in the TSCA Registry.

SARA Hazard Classes: Refer to Section 2 for the OSHA Hazard Classification

EPCRA Section 313 Notification: This product contains no ingredients in concentrations  $\geq 1\%$  ( $\geq 0.1\%$  for carcinogens) regulated under Section 313 of the *Emergency Planning and Community Right-To-Know Act* of 1986 or 40 CFR 372.

**Canadian Regulatory Information**

All ingredients in this product are listed in the Domestic Substances List (DSL) or the Nondomestic Substances List (NDSL).

This product has been classified in accordance with Canada's *Hazardous Products Regulations* (SOR/DORS/2015-15).

**16. OTHER INFORMATION**

Hazardous Materials Information System (HMIS III) Ratings (Legend):	<u>Health</u> 1 (slight hazard)	<u>Flammability</u> 1 (slight hazard)	<u>Physical Hazard</u> 0 (minimal hazard)	<u>PPE</u> See Note
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Note regarding PPE: OMG, Inc. recommends use of protective eyewear and skin protection (Personal Protection Index "B") as standard PPE for the anticipated conditions of use of this product. However, HMIS recommends that its ratings be used only in conjunction with a fully implemented HMIS program, and that specific PPE codes should be created by the user, who is familiar with the actual conditions under which the product is used. We cannot anticipate every condition of the product's use, and it is the user's responsibility to evaluate the hazards pertinent to its specific operations, and to determine the specific PPE required.

**16. OTHER INFORMATION (continued)**

National Fire Protection Association (NFPA) Ratings:	<u>Health</u> 1	<u>Flammability</u> 1	<u>Reactivity</u> 0
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