# CHEMTRADE

# Oleum with <30% free sulfur trioxide

Safety Data Sheet

 $According to U.S.\ Federal\ Register\ /\ Vol.\ 77,\ No.\ 58\ /\ Monday,\ March\ 26,\ 2012\ /\ Rules\ And\ Regulations\ and\ according\ to\ Canada's$ 

Hazardous Products Regulation, February 11, 2015.

Revision Date: 01/03/2019 Date of Issue: 05/01/2015 Version: 2.0

#### **SECTION 1: IDENTIFICATION**

#### **Product Identifier**

**Product Form: Substance** 

Product Name: Oleum with <30% free sulfur trioxide

Formula: H<sub>2</sub>SO<sub>4</sub>-SO<sub>3</sub>

#### Intended Use of the Product

Industrial use. Used in the manufacture of organic sulfonates, fibers and explosives.

#### Name, Address, and Telephone of the Responsible Party

#### Manufacturer

CHEMTRADE LOGISTICS INC. 155 Gordon Baker Road Suite 300

Toronto, Ontario M2H 3N5
For SDS Info: (416) 496-5856
www.chemtradelogistics.com
Emergency Telephone Number

Emergency Number : Canada: CANUTEC +1-613-996-6666 / US: CHEMTREC +1-800-424-9300

INTERNATIONAL: +1-703-741-5970 Chemtrade Emergency Contact: (866) 416-4404

For Chemical Emergency, Spill, Leak, Fire, Exposure, or Accident, call CHEMTREC - Day or Night

#### **SECTION 2: HAZARDS IDENTIFICATION**

#### Classification of the Substance or Mixture

#### **GHS Classification**

Acute Tox. 2 (Inhalation:vapor) H330 Skin Corr. 1A H314 Eye Dam. 1 H318 Carc. 1A H350

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

# Label Elements GHS Labeling

Hazard Pictograms







Signal Word : Danger

**Hazard Statements** : H314 - Causes severe skin burns and eye damage.

H318 - Causes serious eye damage.

H330 - Fatal if inhaled.

H350 - May cause cancer (Inhalation).

**Precautionary Statements** : P201 - Obtain special instructions before use.

P202 - Do not handle until all safety precautions have been read and understood.

P260 - Do not breathe fume, vapors, mist, spray.

P264 - Wash hands, forearms, and other exposed areas thoroughly after handling.

P271 - Use only outdoors or in a well-ventilated area.

P280 - Wear protective gloves, protective clothing, and eye protection. P284 - In case of inadequate ventilation wear respiratory protection. P301+P330+P331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing.

Rinse skin with water.

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P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P308+P313 - If exposed or concerned: Get medical advice/attention.

P310 - Immediately call a POISON CENTER or doctor.

P320 - Specific treatment is urgent (see section 4 on this SDS).

P363 - Wash contaminated clothing before reuse.

P403+P233 - Store in a well-ventilated place. Keep container tightly closed.

P405 - Store locked up.

P501 - Dispose of contents/container in accordance with local, regional, national, territorial, provincial, and international regulations.

#### **Other Hazards**

Exposure may aggravate pre-existing eye, skin, or respiratory conditions.

#### **Unknown acute toxicity**

No data available

#### SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

#### **Substance**

Name : Oleum with <30% free sulfur trioxide

Name	Product Identifier	<b>%</b> *	GHS Ingredient Classification
Sulfuric acid, fuming†	(CAS-No.) 8014-95-7	100	Acute Tox. 2 (Inhalation), H330
			Skin Corr. 1A, H314
			Eye Dam. 1, H318
			Carc. 1A, H350

Full text of H-phrases: see section 16

#### **SECTION 4: FIRST AID MEASURES**

#### **Description of First-aid Measures**

**General:** Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

**Inhalation:** First, take proper precautions to ensure your own safety before attempting rescue (e.g. wear appropriate respiratory protective equipment, use the buddy system), then remove the exposed person to fresh air. Keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/physician.

**Skin Contact:** Remove contaminated clothing. Immediately flush skin with plenty of water for at least 30 minutes. Get immediate medical advice/attention. Wash contaminated clothing before reuse.

**Eye Contact:** Rinse cautiously with water for at least 30 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get immediate medical advice/attention.

Ingestion: Rinse mouth. Do NOT induce vomiting. Obtain medical attention.

#### Most Important Symptoms and Effects Both Acute and Delayed

**General:** Fatal if inhaled. Corrosive to eyes, respiratory system and skin. May cause cancer.

**Inhalation:** Inhalation of this material can cause serious health effects in small amounts, leading to unconsciousness and death. May be corrosive to the respiratory tract.

**Skin Contact:** Causes severe irritation which will progress to chemical burns.

**Eye Contact:** Causes permanent damage to the cornea, iris, or conjunctiva.

Ingestion: May cause burns or irritation of the linings of the mouth, throat, and gastrointestinal tract.

**Chronic Symptoms:** Prolonged inhalation of fumes or mists may cause erosion of the teeth. May cause cancer when contained in strong inorganic acid mist.

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<sup>\*</sup>Percentages are listed in weight by weight percentage (w/w%) for liquid and solid ingredients. Gas ingredients are listed in volume by volume percentage (v/v%).

<sup>†</sup>Strong inorganic acid aerosols/mists containing this substance are carcinogenic to humans via inhalation. Under normal conditions of use this route of exposure is not expected.

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#### Indication of Any Immediate Medical Attention and Special Treatment Needed

If exposed or concerned, get medical advice and attention. If medical advice is needed, have product container or label at hand.

#### **SECTION 5: FIRE-FIGHTING MEASURES**

#### **Extinguishing Media**

Suitable Extinguishing Media: Use extinguishing media appropriate for surrounding fire.

Unsuitable Extinguishing Media: Do not use extinguishing media containing water.

#### **Special Hazards Arising From the Substance or Mixture**

Fire Hazard: Not flammable.

**Explosion Hazard:** Product is not explosive.

Reactivity: This product may act as an oxidizer. May react exothermically with water releasing heat. Adding an acid to a base or base

to an acid may cause a violent reaction. May be corrosive to metals.

#### **Advice for Firefighters**

Precautionary Measures Fire: Exercise caution when fighting any chemical fire.

Firefighting Instructions: Use water spray or fog for cooling exposed containers.

**Protection During Firefighting:** Do not enter fire area without proper protective equipment, including respiratory protection.

Hazardous Combustion Products: Sulfur oxides.

**Reference to Other Sections** 

Refer to Section 9 for flammability properties.

#### SECTION 6: ACCIDENTAL RELEASE MEASURES

#### Personal Precautions, Protective Equipment and Emergency Procedures

**General Measures:** Do not get in eyes, on skin, or on clothing. Do not breathe vapor, mist or spray. Do not handle until all safety precautions have been read and understood.

#### For Non-Emergency Personnel

Protective Equipment: Use appropriate personal protective equipment (PPE).

Emergency Procedures: Evacuate unnecessary personnel.

#### For Emergency Personnel

Protective Equipment: Equip cleanup crew with proper protection.

**Emergency Procedures:** Upon arrival at the scene, a first responder is expected to recognize the presence of dangerous goods, protect oneself and the public, secure the area, and call for the assistance of trained personnel as soon as conditions permit. Ventilate area.

#### **Environmental Precautions**

Prevent entry to sewers and public waters.

#### Methods and Materials for Containment and Cleaning Up

**For Containment:** Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. As an immediate precautionary measure, isolate spill or leak area in all directions. Ventilate area.

**Methods for Cleaning Up:** Clean up spills immediately and dispose of waste safely. Transfer spilled material to a suitable container for disposal. Cautiously neutralize spilled liquid. Contact competent authorities after a spill.

#### **Reference to Other Sections**

See Section 8 for exposure controls and personal protection and Section 13 for disposal considerations.

#### **SECTION 7: HANDLING AND STORAGE**

#### **Precautions for Safe Handling**

Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Use only outdoors or in a well-ventilated area. Do not get in eyes, on skin, or on clothing. Do not breathe vapors, mist, spray, fume. Handle empty containers with care because they may still present a hazard. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood.

Additional Hazards When Processed: May release corrosive vapors.

Hygiene Measures: Handle in accordance with good industrial hygiene and safety procedures.

#### **Conditions for Safe Storage, Including Any Incompatibilities**

**Technical Measures:** Comply with applicable regulations.

**Storage Conditions:** Keep container closed when not in use. Store in a dry, cool place. Keep/Store away from extremely high or low temperatures and incompatible materials. Store in original container or corrosive resistant and/or lined container.

Incompatible Materials: Bases. Water. Organic materials. Combustible materials. Reducing agents. Metals.

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#### Specific End Use(s)

Industrial use. Used in the manufacture of organic sulfonates, fibers and explosives.

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

#### **Control Parameters**

For substances listed in section 3 that are not listed here, there are no established Exposure limits from the manufacturer, supplier, importer, or the appropriate advisory agency including: ACGIH (TLV), AIHA (WEEL), NIOSH (REL), OSHA (PEL), Canadian provincial governments, or the Mexican government.

#### **Exposure Controls**

Appropriate Engineering Controls: Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Ensure adequate ventilation, especially in confined areas. Ensure all national/local regulations are observed. Gas detectors should be used when toxic gases may be released.

**Personal Protective Equipment:** Gloves. Protective clothing. Protective goggles. Insufficient ventilation: wear respiratory protection. Face shield.











Materials for Protective Clothing: Acid-resistant clothing.

Hand Protection: Wear protective gloves.

**Eye Protection:** Chemical safety goggles and face shield. **Skin and Body Protection:** Wear suitable protective clothing.

**Respiratory Protection:** If exposure limits are exceeded or irritation is experienced, approved respiratory protection should be worn. In case of inadequate ventilation, oxygen deficient atmosphere, or where exposure levels are not known wear approved respiratory protection.

Other Information: When using, do not eat, drink or smoke.

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

#### Information on Basic Physical and Chemical Properties

Physical State : Liquid

**Appearance** : Clear, Colorless to Amber, Oily

Odor : Sharp
Odor Threshold : < 1 ppm
pH : < 0.3
Evaporation Rate : 0.56

**Melting Point** : 10.4 °C (50.7 °F) 10%: -2°C (28.4°F); 20%: 1°C (33.8°F); 25%: 14°C (57.2°F);

7%: 32°C (89.6°F) (50.72 °F)

Freezing Point : Not available

**Boiling Point** : 290 °C (554 °F),10%: 175 °C (347 °F); 20%: 140 °C (284 °F); 25%: 130 °C (266 °F);

37%: 100°C (212°F). (554 °F)

Flash Point : Not applicable
Auto-ignition Temperature : Not applicable
Decomposition Temperature : Not available
Flammability (solid, gas) : Not applicable
Lower Flammable Limit : Not applicable
Upper Flammable Limit : Not applicable

Vapor Pressure : 0.0035 mm Hg at 20 °C (68 °F): 10%: 0.4 mmHg; 20%: 1.1 mmHg; 25%: 2.9

mmHg, 37%: 47.8 mmHg

Relative Vapor Density at 20°C : 2.8 (air = 1)

**Relative Density** : 1.83 @ 4°C (39°F): 10%: 1.880; 20%: 1.916; 25%: 1.935; 37%: 1.976

Specific Gravity : 1.89 g/l

**Solubility** : Water: Miscible. Reacts violently with water.

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Partition Coefficient: N-Octanol/Water : Not available Viscosity : Not available

#### **SECTION 10: STABILITY AND REACTIVITY**

**Reactivity:** This product may act as an oxidizer. May react exothermically with water releasing heat. Adding an acid to a base or base to an acid may cause a violent reaction. May be corrosive to metals.

Chemical Stability: Stable under recommended handling and storage conditions (see section 7).

**Possibility of Hazardous Reactions:** Hazardous polymerization will not occur.

**Conditions to Avoid:** Extremely high or low temperatures and incompatible materials.

<u>Incompatible Materials</u>: Bases. Water. Organic materials. Combustible materials. Reducing agents. Metals. **Hazardous Decomposition Products:** Thermal decomposition generates: Corrosive vapors. Sulfur oxides.

#### SECTION 11: TOXICOLOGICAL INFORMATION

#### **Information on Toxicological Effects - Product**

Acute Toxicity (Oral): Not classified
Acute Toxicity (Dermal): Not classified

Acute Toxicity (Inhalation): Inhalation:vapor: Fatal if inhaled.

LD50 and LC50 Data:

Oleum with <30% free sulfur trioxide	
ATE (Vapors)	0.50 mg/l/4h

**Skin Corrosion/Irritation:** Causes severe skin burns and eye damage.

pH: < 0.3

**Eye Damage/Irritation:** Causes serious eye damage.

pH: < 0.3

Respiratory or Skin Sensitization: Not classified

Germ Cell Mutagenicity: Not classified

Carcinogenicity: May cause cancer (Inhalation).

Specific Target Organ Toxicity (Repeated Exposure): Not classified

Reproductive Toxicity: Not classified

Specific Target Organ Toxicity (Single Exposure): Not classified

Aspiration Hazard: Not classified

**Symptoms/Effects After Inhalation:** Inhalation of this material can cause serious health effects in small amounts, leading to unconsciousness and death. May be corrosive to the respiratory tract.

**Symptoms/Effects After Skin Contact:** Causes severe irritation which will progress to chemical burns. **Symptoms/Effects After Eye Contact:** Causes permanent damage to the cornea, iris, or conjunctiva.

**Symptoms/Effects After Ingestion:** May cause burns or irritation of the linings of the mouth, throat, and gastrointestinal tract. **Chronic Symptoms:** Prolonged inhalation of fumes or mists may cause erosion of the teeth. May cause cancer when contained in strong inorganic acid mist.

#### Information on Toxicological Effects - Ingredient(s)

#### LD50 and LC50 Data:

Sulfuric acid, fuming (8014-95-7)	
LD50 Oral Rat	2140 mg/kg
LC50 Inhalation Rat	347 ppm/1h
LC50 Inhalation Rat	0.63 mg/l/4h
Sulfuric acid, fuming (8014-95-7)	
IARC Group	1
OSHA Hazard Communication Carcinogen List	In OSHA Hazard Communication Carcinogen list.
Strong inorganic acid mists containing sulfuric acid	
National Toxicology Program (NTP) Status	Known Human Carcinogens.

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#### **SECTION 12: ECOLOGICAL INFORMATION**

Toxicity

**Ecology - General:** Not classified.

**Persistence and Degradability** 

Ole	um with <30% free sulfur trioxide	
Per	sistence and Degradability	Not established.

**Bioaccumulative Potential** 

Oleum with <30% free sulfur trioxide	
Bioaccumulative Potential	Not established.

Mobility in Soil Not available

**Other Adverse Effects** 

Other Information: Avoid release to the environment.

#### **SECTION 13: DISPOSAL CONSIDERATIONS**

**Waste Disposal Recommendations:** Dispose of contents/container in accordance with local, regional, national, territorial, provincial, and international regulations.

Additional Information: Container may remain hazardous when empty. Continue to observe all precautions.

**Ecology - Waste Materials:** Avoid release to the environment.

#### **SECTION 14: TRANSPORT INFORMATION**

The shipping description(s) stated herein were prepared in accordance with certain assumptions at the time the SDS was authored, and can vary based on a number of variables that may or may not have been known at the time the SDS was issued.

TRANSPORTATION	DOT	TDG	IMDG	IATA
CLASSIFICATION				
Identification Number	UN1831	UN1831	UN1831	UN1831
Proper Shipping Name	SULFURIC ACID,	SULFURIC ACID,	SULPHURIC ACID,	SULPHURIC ACID,
	FUMING	FUMING	FUMING	FUMING
Transport Hazard	8 (6.1)	8 (6.1)	8 (6.1)	8 (6.1)
Class(es)				
	CORROSVE RIMALATION MAZARO	8 8		Not applicable
Packing Group	I	I	1	Not applicable
Environmental Hazards	Marine Pollutant : No	Marine Pollutant : No	Marine Pollutant : No	Marine Pollutant: N/A
Emergency Response	ERG Number: 137	ERAP Index: 1 000	<b>EMS</b> : F-A, S-B	ERG code (IATA): 8P
Additional Information	Not applicable	Not applicable	Not applicable	Not applicable

#### **SECTION 15: REGULATORY INFORMATION**

## **US Federal Regulations**

Chemical Name (CAS No.)	CERCLA RQ	EPCRA 304 RQ	SARA 302 TPQ	SARA 313
Sulfuric acid, fuming (8014-95-	1000 lb	Not applicable	Not applicable	No
7)				

#### SARA 311/312

#### Oleum with <30% free sulfur trioxide

Immediate (acute) health hazard. Delayed (chronic) health hazard. Reactive hazard

**US TSCA Flags** Not present

#### **US State Regulations**

#### **California Proposition 65**

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Chemical Name (CAS No.)	Carcinogenicity	Developmental Toxicity	Female Reproductive Toxicity	Male Reproductive Toxicity
Sulfuric acid, fuming (8014-95-7)	No	No	No	No

#### **State Right-To-Know Lists**

#### Sulfuric acid, fuming (8014-95-7)

- U.S. Massachusetts Right To Know List Yes
- U.S. New Jersey Right to Know Hazardous Substance List Yes
- U.S. Pennsylvania RTK (Right to Know) Environmental Hazard List Yes
- U.S. Pennsylvania RTK (Right to Know) Special Hazardous Substances No
- U.S. Pennsylvania RTK (Right to Know) List Yes

#### **Canadian Regulations**

#### Sulfuric acid, fuming (8014-95-7)

Listed on the Canadian DSL (Domestic Substances List)

Not listed on the Canadian NDSL (Non-Domestic Substances List)

#### **International Inventories/Lists**

Chemical Name (CAS No.)	Australia AICS	Turkey CICR	Korea ECL	EU EINECS	EU ELINCS	EU SVHC	EU NLP	Mexico INSQ
Sulfuric acid, fuming (8014- 95-7)	Yes	No	Yes	No	No	No	No	No
Chemical Name (CAS No.)	China IECSC	Japan ENCS	Japan ISHL	Japan PDSCL	Japan PRTR	Philippines PICCS	New Zealand NZIOC	US TSCA
Sulfuric acid, fuming (8014- 95-7)	Yes	Yes	No	Yes	No	Yes	Yes	Yes

# SECTION 16: OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION

**Date of Preparation or Latest Revision** : 01/03/2019

#### **Revision Summary**

Section	Change	Date Changed
2	Classification modified	01/03/2019
2	Language modified	01/03/2019
3	Classification modified	01/03/2019
4	Language modified	01/03/2019
5	Language modified	01/03/2019
6	Language modified	01/03/2019
7	Language modified	01/03/2019
8	Language modified	01/03/2019
10	Language modified	01/03/2019
11	Data modified	01/03/2019
13	Language modified	01/03/2019
14	Classification modified	01/03/2019
15	Data modified	01/03/2019
16	Data modified	01/03/2019

#### **Other Information**

: This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200 and Canada's Hazardous Products Regulations (HPR).

#### **GHS Full Text Phrases:**

Acute Tox. 2 (Inhalation)	Acute toxicity (inhalation) Category 2
Acute Tox. 2 (Inhalation:vapor)	Acute toxicity (inhalation:vapor) Category 2
Carc. 1A	Carcinogenicity Category 1A

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Eye Dam. 1	Serious eye damage/eye irritation Category 1
Skin Corr. 1A	Skin corrosion/irritation Category 1A
H314	Causes severe skin burns and eye damage
H318	Causes serious eye damage
H330	Fatal if inhaled
H350	May cause cancer

**NFPA 704** 

**NFPA Health Hazard** : 3 - Materials that, under emergency conditions, can cause

serious or permanent injury.

: 0 - Materials that will not burn under typical dire **NFPA Fire Hazard** 

conditions, including intrinsically noncombustible materials

such as concrete, stone, and sand.

**NFPA Reactivity Hazard** 2 - Materials that readily undergo violent chemical change

at elevated temperatures and pressures.

**NFPA Specific Hazards** W - Materials that react violently or explosively with water.

**HMIS Rating** 

Health : 3 Serious Hazard - Major injury likely unless prompt action is taken and medical treatment is

\* Chronic - Chronic (long-term) health effects may result from repeated overexposure

**Flammability** : 0 Minimal Hazard **Physical** : 2 Moderate Hazard **PPE** See Section 8

#### Abbreviations and Acronyms

LC50 - Median Lethal Concentration AICS - Australian Inventory of Chemical Substances

ACGIH - American Conference of Governmental Industrial Hygienists LD50 - Median Lethal Dose

LOAEL - Lowest Observed Adverse Effect Level AIHA - American Industrial Hygiene Association ATE - Acute Toxicity Estimate

Log Pow - Octanol/water Partition Coefficient BCF - Bioconcentration factor BEI - Biological Exposure Indices (BEI)

CAS No. - Chemical Abstracts Service number Identification of the Hazards of Materials for Emergency Response CERCLA RQ - Comprehensive Environmental Response, Compensation, and NIOSH - National Institute for Occupational Safety and Health

Liability Act - Reportable Quantity

CICR - Turkish Inventory and Control of Chemicals

DOT - 49 CFR - US Department of Transportation - Code of Federal

NOEC - No-Observed Effect Concentration Regulations Title 49 - Transportation. NZIOC - New Zealand Inventory of Chemicals

EC50 - Median effective concentration ECL - Korea Existing Chemicals List

EINECS - European Inventory of Existing Commercial Chemical Substances

**ELINCS - European List of Notified Chemical Substances** EmS - IMDG Emergency Schedule Fire & Spillage

ENCS - Japanese Existing and New Chemical Substances Inventory

EPA - Environmental Protection Agency

EPCRA 304 RQ – EPCRA 304 Extremely Hazardous Substance Emergency Planning and Community Right-to-Know-Act – Reportable Quantity ERAP Index – Emergency Response Assistance Plan Quantity Limit

ErC50 - EC50 in Terms of Reduction Growth Rate

ERG code (IATA) - Emergency Response Drill Code as found in the International

Civil Aviation Organization (ICAO)

ERG No. - Emergency Response Guide Number **HCCL - Hazard Communication Carcinogen List** HMIS - Hazardous Materials Information System IARC - International Agency for Research on Cancer

IATA - International Air Transport Association - Dangerous Goods Regulations

IDLH - Immediately Dangerous to Life or Health

IECSC - Inventory of Existing Chemical Substances Produced or Imported in

China

IMDG - International Maritime Dangerous Goods Code INSQ - Mexican National Inventory of Chemical Substances

ISHL - Japan Industrial Safety and Health Law

LOEC - Lowest-observed-effect Concentration

NFPA 704 - National Fire Protection Association - Standard System for the

NLP - Europe No Longer Polymers List NOAEL - No-Observed Adverse Effect Level

**OEL - Occupational Exposure Limits** 

OSHA - Occupational Safety and Health Administration

PEL - Permissible Exposure Limits

PICCS - Philippine Inventory of Chemicals and Chemical Substances PDSCL - Japan Poisonous and Deleterious Substances Control Law

PPE – Personal Protective Equipment

PRTR - Japan Pollutant Release and Transfer Register

**REL - Recommended Exposure Limit** 

SADT - Self Accelerating Decomposition Temperature SARA - Superfund Amendments and Reauthorization Act

SARA 302 - Section 302, 40 CFR Part 355

SARA 311/312 - Sections 311 and 312, 40 CFR Part 370 Hazard Categories

SARA 313 - Section 313, 40 CFR Part 372 SRCL - Specifically Regulated Carcinogen List

STEL - Short Term Exposure Limit

SVHC – European Candidate List of Substance of Very High Concern TDG - Transport Canada Transport of Dangerous Goods Regulations

TLM - Median Tolerance Limit TLV - Threshold Limit Value TPQ - Threshold Planning Quantity

TSCA - United StatesToxic Substances Control Act

TWA - Time Weighted Average

WEEL - Workplace Environmental Exposure Levels

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Handle product with due care and avoid unnecessary contact. This information is supplied under U.S. OSHA'S "Right to Know" (29 CFR 1910.1200) and Canada's WHMIS regulations. Although certain hazards are described herein, we cannot guarantee these are the only hazards that exist. The information contained herein is based on data available to us and is believed to be true and accurate but it is not offered as a product specification. No warranty, expressed or implied, regarding the accuracy of this data, the hazards connected with the use of the product, or the results to be obtained from the use thereof, is made and Chemtrade and its affiliates assume no responsibility. Chemtrade is a member of the CIAC (Chemistry Industry Association of Canada) and adheres to the codes and principles of Responsible Care $^{\text{TM}}$ .



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