

SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION

1.1 Product identifier

Product Name: Glacial Acetic Acid

Synonym(s): Ethanoic Acid

REACH Registration Number: No data available at this time

1.2 Relevant identified uses of the substance or mixture and uses advised against

General use: Industrial applications

Uses advised against: None known

1.3 Details of the supplier and of the safety data sheet

Manufacturer/Distributor

Silver Fern Chemical, Inc.

2226 Queen Anne Avenue North

Suite C

Seattle, WA 98109 USA

1-866-282-3384

Website - www.silverfernchemical.com; email address - info@silverfernchemical.com

1.4 Emergency telephone number: INFO-TRAC +1-800-535-5053; Outside USA & Canada +1-352-323-3500

SECTION 2 - HAZARDS IDENTIFICATION

2.1 Classification of substance or mixture

Product definition: Substance

Classification in accordance with 29 CFR 1910 (OSHA HCS) and Regulation EC No. 1272/2008

Flammable liquid - Category 3 [H226]

Skin corrosion - Category 1A [H314]

2.2 Label Elements

Hazard Symbol(s):



GHS02



GHS05

Signal Word:

Danger

Hazard Statement(s):

H226 - Flammable liquid and vapor

H314 - Causes severe skin burns and eye damage

Precautionary Statements:

[Prevention]

P210 - Keep away from heat, open flames and hot surfaces. No smoking.

P233 - Keep container tightly closed.

P240 - Ground and bond container and receiving equipment.

P241 + P242 - Use explosion-proof electrical, ventilating, lighting, and mixing equipment; use only non-sparking tools.

P243 - Take precautionary measures against static discharge.

P260 - Do not breathe vapor, fumes or mist.

P264 - Wash hands and other skin areas exposed to material thoroughly after handling.

P280 - Wear protective gloves, protective clothing, eye protection and face protection.

[Response]

P370 + P378 - In case of fire: Use water spray or fog, foam, dry chemical or carbon dioxide for extinction.

P301 + P330 + P331 + P310 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor.

P303 + P361 + P350 - IF ON SKIN: Remove immediately all contaminated clothing. Rinse skin with water or shower.

P304 + P340 + P310 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor.

P305 + P351 + P338 + P310 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON Center or doctor.

P363 - Wash contaminated clothing before reuse.

P321 - Specific treatment: Contact a POISON CENTER or doctor. Refer to Section 4 of this SDS.

[Storage]
[Disposal]

P405 + P403 + P233 + P235 - Store locked up in a well-ventilated place. Keep container tightly closed. Keep cool.
P501 - Dispose of contents and containers in accordance with national and local regulations.

2.3 Hazards not otherwise classified (HNOC) or not covered by GHS

None identified

SECTION 3 - COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

% by Weight	Ingredient	CAS Number	EC Number	Annex Number	GHS Classification
>99	Glacial Acetic Acid	64-19-7	200-580-7	607-002-00-6	H226, H314

There are no ingredients present in this product which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

3.2 Mixtures

Not applicable

SECTION 4 - FIRST AID MEASURES

4.1 Description of first aid measures

Inhalation: If product vapor or mist causes respiratory irritation or distress, move the exposed person to fresh air immediately. If breathing is difficult or irregular, administer oxygen; if respiratory arrest occurs, start artificial respiration by trained personnel. Loosen tight fitting clothing such as a collar, tie, belt or waistband. Seek immediate medical attention.

Eyes: Immediately flush eyes with large amounts of water for 15 minutes, occasionally lifting the upper and lower lids. Remove contact lenses, if present and easy to do, after the first 2 minutes and continue rinsing. Seek immediate medical attention, preferably from an ophthalmologist.

Skin: Flush skin with large amounts of water while removing contaminated clothing, and continue rinsing for at least 15 minutes. Wash contaminated clothing thoroughly before reuse. Discard contaminated shoes. Seek immediate medical attention.

Ingestion: Rinse mouth with water if the victim is conscious. Remove dentures, if any. Give 2 glasses of water or milk to drink if the victim is conscious, alert and able to swallow. DO NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious or convulsing person. Do not leave the victim unattended. To prevent aspiration of swallowed product, lay victim on one side with the head lower than the waist. Obtain medical attention immediately.

4.2 Most important symptoms and effects, both acute and delayed

Potential health symptoms and effects

Eyes: Causes burns serious eye damage. Symptoms may include redness, swelling, pain, tearing, burns, blurred vision, corneal clouding, permanent eye damage and possible blindness. Mist or vapor can cause severe eye irritation and eye damage.

Skin: Causes severe skin irritation and burns. May be harmful if absorbed through the skin. Contact with skin may cause blackening and hyperkeratosis of the skin and hands.

Inhalation: Harmful if inhaled. Causes chemical burns to the respiratory tract with mucousal irritation, cough and shortness of breath. Exposure may lead to bronchitis, pharyngitis, edemas in the respiratory tract and dental erosion. Effects may be delayed. May be absorbed through the lungs.

Ingestion: Harmful if swallowed. Causes burns to the lips, mouth, throat and gastrointestinal tract. May cause severe and permanent damage to the digestive tract. Causes severe pain, nausea, vomiting, diarrhea and shock. May cause damage to the kidneys and kidney failure. Rapidly absorbed from the gastrointestinal tract. Pulmonary failure is possible after aspiration of vomit.

Chronic: Chronic exposure may cause erosion of dental enamel, bronchitis, eye irritation, darkening of the skin and chronic inflammation of the respiratory tract. May cause occupational asthma. Effects may be delayed. Skin sensitization to acetic acid is rare, but has occurred. Persons with pre-existing skin disorders or impaired respiratory or pulmonary function may be at increased risk to the effects of this substance.

4.3 Indication of any immediate medical attention and special treatment needed

Advice to Doctor and Hospital Personnel

Treat symptomatically and supportively.

SECTION 5 - FIRE FIGHTING MEASURES

5.1 Extinguishable media

Suitable methods of extinction: Use extinguishing media such as water fog or spray, dry chemical, carbon dioxide or foam.

Unsuitable methods of extinction: None known

5.2 Special hazards arising from the substance or mixture

Flammable liquid and vapor. Approach fire from upwind to avoid hazardous vapors and toxic decomposition products. Vapors are heavier than air and can travel along the ground to a source of ignition and flash back. Vapors can spread along the ground and collect in low or confined areas. Containers may explode if exposed to fire. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Symptoms of overexposure to these gases may not be apparent. Seek medical advice.

Explosion hazards: Vapor may form an explosive mixture with air at elevated temperatures, especially in confined spaces.

5.3 Advice for firefighters

Full protective equipment including self-contained breathing apparatus should be used. Water may be used to cool closed containers to prevent

pressure buildup and possible autoignition or explosion when exposed to extreme heat. Water contaminated by this material must be contained from being discharged to any waterway, sewer or drain to prevent environmental contamination.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Clean up spills immediately. Wear appropriate protective clothing designated in Section 8. Approach spill from upwind. Remove all sources of ignition. Ventilate the area. Spill creates a slip hazard.

6.2 Environmental precautions

Avoid dispersal of spilled material or runoff and prevent contact with soil and entry into drains, sewers or waterways.

6.3 Methods and materials for containment and cleaning up

Cover drains and contain spill. Do not flush spill to the drain. Carefully neutralize the spill with soda ash (sodium carbonate) or calcium carbonate. Cover spill with a large quantity of inert absorbent. Do not use combustible material such as sawdust. Collect product using non-sparking tools and place into an approved container for proper disposal. Do not use a metal container for disposal. Observe possible material restrictions (Sections 7.2 and 10.5). Dispose of via a licensed waste disposal contractor. Contaminated absorbent may pose the same hazard as the spilled product.

6.4 Reference to other sections

See Section 13 for additional waste treatment information.

SECTION 7 - HANDLING AND STORAGE

7.1 Precautions for safe handling

Wear all appropriate personal protective equipment specified in Section 8. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. If normal use of material presents a respiratory hazard, use only adequate ventilation or wear an appropriate respirator. Wash contaminated clothing before reuse. Destroy contaminated shoes.

Advice on protection against fire and explosion

Keep away from heat and incompatible materials.

7.2 Conditions for safe storage, including any incompatibilities

Store in original container in a dry, cool, well ventilated area away from incompatible materials (refer to Section 10.5) and food and drink. Ground and bond containers when transferring material. Transfer only to approved containers having correct labeling. DO NOT store in metal containers. Keep containers tightly closed when not in use. Protect container from physical damage. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not pressurize, cut, weld, braze, solder, drill, grind or expose empty containers to heat or ignition sources. Use appropriate containment to avoid environmental contamination. Ventilate enclosed areas. Do not take internally. Keep locked up and out of reach of children.

7.3 Specific end uses

Apart from the uses mentioned in Section 1.2, no other specific uses are stipulated.

SECTION 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control parameters

Occupational Exposure Limits

CAS Number	Ingredient	OSHA - PEL	ACGIH	NIOSH
64-19-7	Acetic Acid	10 ppm, 25 mg/m ³ TWA	10 ppm; 25 mg/m ³ TWA 15 ppm, 37 mg/m ³ STEL	10 ppm; 25 mg/m ³ TWA; 15 ppm 37 mg/m ³ STEL; 50 ppm IDHL

8.2 Exposure controls

Engineering measures: Technical measures and appropriate working operations should be given priority over the use of personal protective equipment. Use adequate ventilation. Local exhaust is preferable.

Individual protection measures: Wear protective clothing to prevent repeated or prolonged contact with product. Protective clothing needs to be selected specifically for the workplace, depending on concentrations and quantities of hazardous substances handled. The chemical resistance of the protective equipment should be enquired at the representative supplier.

Hygiene measures: Facilities storing or using this material should be equipped with an eyewash station and safety shower. Change contaminated clothing. Preventive skin protection is recommended. Wash hands thoroughly after use, before eating, drinking, smoking or using the lavatory.

Eye/face protection: Wear chemical splash goggles or safety glasses with unperforated side shields and a face shield during use.

Hand Protection: Wear Chloroprene gloves or those recommended by glove supplier for protection against materials in Section 3. Gloves should be impermeable to chemicals and oil. Breakthrough time of selected gloves must be greater than the intended use period.

Skin protection: Wear protective clothing. Wear protective boots if the situation requires.

Respiratory protection: Always use an approved respirator when vapor/aerosols are generated. Where risk assessment shows air-purifying respirators are appropriate use a full-faced respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). Follow OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149.

Environmental exposure controls: Do not empty into drains.

PPE must not be considered a long-term solution to exposure control. PPE usage must be accompanied by employer programs to properly select, maintain, clean fit and use. Consult a competent industrial hygiene resource to determine hazard potential and/or the PPE manufacturers to ensure adequate protection.



SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance	Clear, colorless liquid
Odor	Pungent, vinegar-like
Odor Threshold	0.23 - 100.1 ppm
Molecular Weight	60.05 g/mol
Chemical Formula	C ₂ H ₄ O ₂
pH	2.47 (1 M aqueous solution)
Freezing/Melting Point, Range	17 °C (62.6 °F)
Initial Boiling Point	116 - 118 °C (241 - 244 °F)
Evaporation Rate	0.97 (n-BuOAc = 1)
Flammability (solid, gas)	Not applicable
Flash Point	39 °C (102.2 °F)
Autoignition Temperature	516 °C (960.8 °F)
Decomposition Temperature	No data available
Lower Explosive Limit (LEL)	4% (v)
Upper Explosive Limit (UEL)	19.9% (v)
Vapor Pressure	15.7 mm Hg @ 25 °C
Vapor Density	2.07 (Air = 1)
Specific Gravity	1.05 @ 20 °C
Viscosity	1.22 cps @ 20 °C
Solubility in Water	Miscible
Partition Coefficient: n-octanol/water	log Pow = -0.17 @ 25 °C
Oxidizing Properties	Not applicable
Explosive Properties	Not applicable
Volatiles by Weight @ 21 °C	100%

9.2 Other data

May be corrosive to metals

SECTION 10 - STABILITY AND REACTIVITY

10.1 Reactivity

Stable when used under recommended handling and storage conditions.

10.2 Chemical stability

Stable under recommended (ambient) storage conditions.

10.3 Possibility of hazardous reactions

Generates hydrogen gas in contact with metals.

Hazardous polymerization will not occur.

10.4 Conditions to avoid

Heat, flames, sources of ignition and contact with incompatible materials.

10.5 Incompatible materials

Strong oxidizing agents, strong alkalis, strong bases, metals, amines, halogens, alcohols, peroxides, peroxi compounds, metal salts, alcohols, potassium permanganate, acetaldehyde, carbonates, nonmetallic halides. Incompatible with some plastics, rubbers and coatings.

10.6 Hazardous decomposition products

Thermal decomposition products include oxides of carbon, hydrogen gas, irritating and toxic fumes.

SECTION 11 - TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute Oral Toxicity

LD₅₀, rat: 3,310 mg/kg

Acute inhalation toxicity

LC₅₀, rat: 11.40 mg/m³, 4 h

Acute dermal toxicity

LC₅₀, rabbit: 1,112 mg/kg



Skin irritation/corrosion

Cause severe skin irritation and burns

Eye irritation/corrosion

Causes burns and permanent eye damage. Risk of blindness.

Sensitization

No data available

Genotoxicity in vitro

No data available

Mutagenicity

No data available

Specific organ toxicity - single exposure

No data available

Specific organ toxicity - repeated exposure

No data available

Aspiration hazard

No data available

11.2 Further information

This product contains no substances present at levels greater than or equal to the 0.1% threshold (de minimis) that are identified as a probable, possible, potential or confirmed carcinogens by ACGIH, IARC, NTP or OSHA. No data is available regarding the mutagenicity or teratogenicity of this product, nor is there any available data that indicates it causes adverse developmental or fertility effects.

Handle in accordance with good industrial hygiene and safety practice.

SECTION 12 - ECOLOGICAL INFORMATION**12.1 Toxicity**

Large discharges of Glacial Acetic Acid to the environment may decrease the pH of aquatic systems to a value <2, which may be fatal to aquatic life and soil micro-organisms.

Acute and prolonged toxicity to fish:LC₅₀ - Lepomis macrochirus (Bluegill/Sunfish), 96 h: 75 mg/lLC₅₀ - Pimephales promelas (Fathead minnow), static, 96 h: 88 mg/l**Acute toxicity to aquatic invertebrates:**EC₅₀ - Daphnia magna (Water flea), 24 - 48 h: 32 - 47 mg/l**Acute and prolonged toxicity to Aquatic plants:**IC₅₀ - Scenedesmus quadricauda (Green algae), 16 h: 4,000 mg/l**12.2 Persistence and degradability**

Readily biodegradable

12.3 Bioaccumulation potential

Product will not bioaccumulate.

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

Substance does not meet the criteria for PBT or vPvB according to Regulation (EC) No 1907/2006, Annex XIII.

12.6 Other adverse effects**Additional ecological information**

Do not allow material to run into surface waters, wastewater or soil.

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

SECTION 13 - DISPOSAL CONSIDERATIONS**13.1 Waste treatment methods**

Methods of disposal: The generation of waste should be avoided or minimized whenever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe way. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

RCRA P-Series: No listing

RCRA U-Series: No listing

SECTION 14 - TRANSPORT INFORMATION

Note: Transportation information provided is for reference only. Customer is urged to consult 49 CFR 100 - 177, IMDG, IATA, EC, United Nations TDG and WHMIS (Canada) TDG information manuals for detailed regulations and exceptions covering specific container sizes, packaging materials and methods of shipping.

US DOT (Domestic Ground Transportation)

Proper Shipping Name: Acetic Acid, Glacial
Hazard Class: 8 (3)
UN/NA: UN2789
Packing Group: II
NAERG: Guide #132
Packaging Authorization: Non-Bulk: 49 CFR 173.202; Bulk: 173.243
Packaging Exceptions: 49 CFR 173.154

**IMO/IMDG (Water Transportation)**

Proper Shipping Name: Acetic Acid, Glacial
Hazard Class: 8 (3)
UN/NA: UN2789
Packing Group: II
Marine Pollutant: No
EMS Number: F-E, S-C

ICAO/IATA (Air Transportation)

Proper Shipping Name: Acetic Acid, Glacial
Hazard Class: 8 (3)
UN/NA: UN2789
Packing Group: II
Quantity Limitations: 49 CFR 173.27 and 175.75 - Cargo Aircraft Only: 30 l; Passenger Aircraft: 1 l

RID/ADR (Rail Transportation)

Proper Shipping Name: Acetic Acid, Glacial
Hazard Class: 8 (3)
UN/NA: UN2789
Packing Group: II

SECTION 15 - REGULATORY INFORMATION**15.1 Safety, health and environmental regulations/legislation specific for substance or mixture****U. S. Federal Regulations**

OSHA Hazard Communication Standard: This substance is classified as hazardous in accordance with OSHA 29 CFR 1910-1200.

OSHA Process Safety Management Standard: This product is not regulated under OSHA PSM Standard 29 CFR 1910.119.

EPA Risk Management Planning Standard: This product is not regulated under EPA RMP Standard (RMP) 40 CFR Part 68.

EPA Federal Insecticide, Fungicide and Rodenticide Act: This product is not a registered Pesticide under the FIFRA, 40 CFR Part 150.

Toxic Substance Control Act (TSCA) Inventory: This substance is listed on the TSCA Inventory. It is not subject to TSCA 12(b) Export Notification.

Drug Enforcement Administration (DEA) List 2, Essential Chemicals (21 CFR 1310.02(b) and 1310.4(f)(2) and Chemical Code Number
Not listed

Drug Enforcement Administration (DEA) List s1 & 2, Exempt Chemical Mixtures (21 CFR 1310.12(c)) and Code Number
Not listed

Department of Homeland Security (DHS) Chemical Facility Anti-Terrorism Standards (CFATS) Chemicals
Not listed

Superfund Amendments and Reauthorization Act (SARA)

SARA Section 311/312 Hazard Categories: Fire Hazard, Acute Health Hazard, Chronic Health Hazard

SARA 313 Information: None of the components of the product exceed the threshold (de minimis) reporting requirements of Section 13 of the Emergency Planning and Community Right-to Know Act of 1986.

SARA 302/304 Extremely Hazardous Substance: None of the components of the product exceed the threshold (de minimis) reporting levels established by of these sections of Title III of SARA.

SARA 302/304 Emergency Planning & Notification: None of the components of the product exceed the threshold (de minimis) reporting levels established by of these sections of Title III of SARA.

Comprehensive Response Compensation and Liability Act (CERCLA): This product contains the following CERCLA reportable substance(s): Acetic Acid (CAS #64-19-7), RQ - 2,267.96 kg (5,000 lbs)

Clean Air Act (CAA)

This product does not contain any chemicals listed as Hazardous Air Pollutants (HAPs) designated in CAA Section 112 (b).

This product does not contain any Class 1 Ozone depleters.

This product does not contain any Class 2 Ozone depleters.

Clean Water Act (CWA)

Acetic Acid (CAS #64-19-7) is listed as a Hazardous Substance under the CWA.

None of the chemicals in this product are listed as Priority Pollutants under the CWA.

None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

U.S. State Regulations**California Prop 65, Safe Drinking Water and Toxic Enforcement Act of 1986**

This product contains no chemical(s) known to the State of California to cause cancer, birth defects or other reproductive harm.

Other U.S. State Inventories

Glacial Acetic Acid (CAS #64-19-7) is listed on the following State Hazardous Substance Inventories, Right-to-Know lists and/or Air Quality/Air Pollutants lists: CA, DE, FL, ID, MA, MN, NC, NJ, NY, PA, RI, WA, WI.

Canada

WHMIS Hazard Symbol and Classification



E - Corrosive



B3 - Flammable liquid with flash points greater than 38 °C (100 °F) but inferior to 93 °C (199.4 °F)

Canadian National Pollutant Release Inventory (NPRI): None of the substances in this product are listed on the NPRI.

European Economic Community

WGK, Germany (Water danger/protection): 1

Global Chemical Inventory Lists

Country	Inventory Name	Inventory Listing*
Canada:	Domestic Substance List (DSL)	Yes
Canada:	Non-Domestic Substance List (NDSL)	No
Europe:	Inventory of New and Existing Chemicals (EINECS)	Yes
United States:	Toxic Substance Control Act (TSCA)	Yes
Australia:	Australian Inventory of Chemical Substances (AICS)	Yes
New Zealand:	New Zealand Inventory of Chemicals (NZIoC)	Yes
China:	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Japan:	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea:	Existing Chemicals List (ECL)	Yes
Philippines:	Philippines Inventory of Chemicals and Chemical Substances (PICCS)	Yes

*Yes - All components of this product are in compliance with the inventory requirements administered by the governing country.

No - One or more components of this product are not on the inventory or are exempt from listing.

15.2 Chemical safety assessment

For this product a chemical safety assessment was not carried out.

SECTION 16 - OTHER INFORMATION

Hazardous Material Information System (HMIS)

Health	3
Flammability	2
Physical Hazard	0
Personal Protection	C

HMIS Hazard Rating Legend

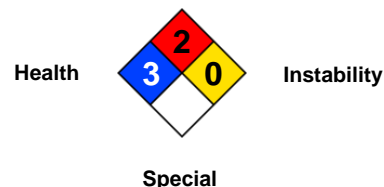
0 = Minimal 1 = Slight 2 = Moderate 3 = Serious
4 = Severe * = Chronic Health Hazard

NFPA Hazard Rating Legend

0 = Insignificant 1 = Slight 2 = Moderate
3 = High 4 = Extreme

National Fire Protection Association (NFPA)

Flammability



Abbreviation Key

ACGIH	American Conference of Governmental Industrial Hygienists
ADR	Accord Dangereux Routier (European regulations concerning the international transport of dangerous goods by road)
CAS	Chemical Abstract Services
CFR	Code of Federal Regulations
DOT	Department of Transportation
EMS Guide	Emergency Response Procedures for Ships Carrying Dangerous Goods
EPA	Environmental Protection Agency
ERG	Emergency Response Guide Book
FDA	Food and Drug Administration
GHS	Globally Harmonized System of Classification and Labelling of Chemicals (GHS)
HCS	Hazard Communication Standard
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association half maximal
ICAO	International Civil Aviation Organization
IDLH	Immediately Dangerous to Life and Health
IMDG	International Maritime Dangerous Goods
IMO	International Maritime Organization
mppcf	Millions of Particles Per Cubic Foot
NA	North America
NAERG	North American Emergency Response Guide Book
NIOSH	National Institute for Occupational Safety

NTP	National Toxicology Program
OSHA	Occupational Safety and Health Administration
PBT	Persistent, Bioaccumulating and Toxic
PEL	Permissible exposure limit
PMCC	Pensky-Martens Closed Cup
ppm	Parts Per Million
RCRA	Resource Conservation and Recovery Act
RID	Dangerous Goods by Rail
RQ	Reportable Quantity
TCC/Tag	Tagliabue Closed Cup
TLV	Threshold Limit Value
TSCA	Toxic Substance Control Act
TWA	Time-weighted Average
UN	United Nations
VOC	Volatile Organic Compounds
vPvB	Very Persistent and Very Bioaccumulating
WHMIS	Workplace Hazardous Materials Information System

DISCLAIMER OF RESPONSIBILITY

The information on this SDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, expressed or implied, regarding its correctness. Some information presented and conclusions drawn herein are from sources other than direct test data on the substance itself. The conditions or methods of handling, storage, use and disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume damage or expense arising out of or in any way responsibility and expressly disclaim liability for loss, connected with handling, storage, use, or disposal of this product. If the product is used as a component in another product, this SDS information may not be applicable.

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