

Safety Data Sheet (SDS)

Phosphoric Acid 75%

Issue date 01/24/2017

Reviewed on 10/12/2018

1. Identification

- **Product Identifier**
- **Name of the product:** Phosphoric Acid 75%
- **Synonyms:** Orthophosphoric Acid; o-Phosphoric Acid; Hydrogen Phosphate
- **General Use:** Industrial applications

- **Details of the Supplier of the Safety Data Sheet:**
- **Manufacturer/Supplier:**
Ramsay Browne Chemical & Company
PO Box 6425
Moraga, CA 94570
General Number: (925) 280-1661
- **Emergency telephone number: (925) 280-1661**

2. Hazard(s) Identification

- **Classification of substance or mixture:**
- **Product definition:** Substance
- **Classification in accordance with 29 CFR 1910 (OSHA HCS) and Regulation EC No. 1272/2008**
- **Acute toxicity, oral – Category 4 (H302)**
- **Skin corrosion – Category 1B (H314)**



- **Hazard Symbol(s):**
- **Signal Word: Danger**
- **Hazard Statement(s):**
- **H302 – Harmful if swallowed**
- **H314 – Causes severe skin burns and eye damage**

- **Precautionary Statements:**
- **Prevention:**
- **P260 – Do not breathe vapor or mist.**
- **P264 – Wash hands and other skin areas exposed to material thoroughly after handling.**
- **P270 – Do not eat, drink or smoke when using this product.**
- **P280 – Wear protective gloves, protective clothing, eye protection and face protection.**

Safety Data Sheet (SDS)

Phosphoric Acid 75%

Issue date 01/24/2017

Reviewed on 10/12/2018

2. Hazard(s) Identification (continued)

- **Response:**
- **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:**
- **P405** – Store locked up

- **Disposal:**
- **P501** – Dispose of contents in accordance with national and local regulations.

- **Hazards not otherwise classified (HNOC) or not covered by GHS:** None identified.

3. Composition / Information on ingredients

CAS #	Weight Percentage	Chemical Name
7664-38-2	75	Phosphoric Acid

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.

- **Mixtures:** Not applicable

4. First-aid measures

- **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.

Safety Data Sheet (SDS)

Phosphoric Acid 75%

Issue date 01/24/2017

Reviewed on 10/12/2018

4. First-aid measures (continued)

- **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 the victim on one side with the head lower than the waist. Obtain medical attention immediately.

- **Most important symptoms and effects, both acute and delayed:**
- **Potential health symptoms and effects:**
- **Eyes:** Causes severe burns to eyes and surrounding tissue. May cause irreversible eye damage and possible blindness. Mist or vapor can cause severe eye irritation and eye damage.
- **Skin:** Causes immediate and severe irritation of the skin progressing quickly to chemical burns and ulceration.
- **Inhalation:** Causes severe irritation of the respiratory system. Symptoms may include burning of the nose and throat, constriction of the airway, difficulty breathing, shortness of breath, bronchial spasm, chest pain, pink, frothy sputum and possible coma. May cause pulmonary edema. Symptoms may be delayed.
- **Ingestion:** Harmful if swallowed. Causes burns to the lips, mouth, throat and gastrointestinal tract. Causes severe pain, nausea vomiting, diarrhea and shock. May cause hemorrhaging of the digestive tract. May cause corrosion and permanent tissue destruction of the digestive tract. Swallowing small quantity of this material will result in serious health hazard.
- **Chronic:** Repeated or prolonged inhalation may cause respiratory tract inflammation damage lungs. Prolonged and repeated contact will eventually cause permanent tissue damage and effects such as erosion of teeth, lesions on the skin, dermatitis, tracheo-bronchitis, mouth, inflammation, conjunctivitis and gastritis.

- **Indication of any immediate medical attention and special treatment needed:**
- **Advice to Doctor and Hospital Personnel:** Treat symptomatically and supportively.

Safety Data Sheet (SDS)

Phosphoric Acid 75%

Issue date 01/24/2017

Reviewed on 10/12/2018

5. Fire Fighting Measures

- **Extinguishable media:**
- **Suitable methods of extinction:** use extinguishing media suitable for surrounding fire.
- Unsuitable methods of extinction: None known
- **Special hazards arising from the substance or mixture:** Closed containers may explode due to the buildup of pressure when exposed to extreme heat. During emergency conditions overexposure to decomposition products may cause a health hazard. Symptoms may not be immediately apparent or may be delayed. Obtain medical attention.
- **Explosion hazards:** Not considered to be explosion hazard.
- **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.

6. Accidental Release Measures

- **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.
- **Environmental precautions:** Avoid dispersal of spilled material or runoff and prevent contact with soil and entry into drains, sewers or waterways.
- **Methods and materials for containment and cleaning up:** Cover drains and contain spill. Do NOT flush spill down the drain. Carefully neutralize spill with lime or soda ash. Cover spill with a large quantity of inert absorbent. Do not use combustible material such as sawdust. Collect product and place into an approved container for proper disposal. Do not use a metal container for disposal. Observe possible material restrictions (Sections 7 and 10). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material poses the same hazard as the spilled product.
- **Reference to other sections:** See Section 13 for additional waste treatment information.

7. Handling and Storage

- **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.

Safety Data Sheet (SDS)

Phosphoric Acid 75%

Issue date 01/24/2017

Reviewed on 10/12/2018

7. Handling and Storage (continued)

- **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) and food and drink. Keep away from combustible materials. Keep away from alkalis. Keep in original container or transfer only to approved containers having correct labeling. 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. Use appropriate containment to avoid environmental contamination. Ventilate enclosed areas. Do not take internally. Keep locked up and out of reach of children.
- **Specific end uses:** Apart from the uses mentioned in Section 1, no other specific uses are stipulated.

8. Exposure Controls / Personal Protection

- **Occupational Exposure Limits**

CAS No	Ingredient	OSHA – PEL	ACGIH	NIOSH
7664-38-2	Phosphoric Acid	1 mg/m ³ TWA	1 mg/m ³ TWA 3 mg/m ³ STEL	1 mg/m ³ TWA 1,000 mg/m ³ IDLH

- **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. Preventative 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 Nitrile, neoprene or PVC 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

Safety Data Sheet (SDS)

Phosphoric Acid 75%

Issue date 01/24/2017

Reviewed on 10/12/2018

8. Exposure Controls / Personal Protection (continued)

full-faced respirator with multi-purpose combinations (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.

9. Physical and Chemical Properties

- **Information on basic physical and chemical properties:**
- **Appearance:** Clear, colorless liquid
- **Odor:** Odorless
- **Odor Threshold:** No data available
- **Molecular Weight:** 98 g/mol
- **Chemical Formula:** H₃PO₄
- **pH:** 1-1.5
- **Freezing/Melting Point, Range:** -17.5 – 4.6°C (0.5 – 40.3°F), 75-80% Phosphoric Acid
- **Initial Boiling Point:** 135 - 158°C (275 - 316°F) @ 760 mm Hg
- **Evaporation Rate:** No data available
- **Flammability (solid, gas):** Not applicable
- **Flash Point:** No data available
- **Autoignition Temperature:** No data available
- **Decomposition Temperature:** No data available
- **Lower Explosive Limit (LEL):** No data available
- **Upper Explosive Limit (UEL):** No data available
- **Vapor Pressure:** 4-11 mm Hg @ 25°C
- **Vapor Density:** 3.4 (Air=1) @ 20°C
- **Relative Density:** 1.5-1.7 g/ml @ 25°C
- **Viscosity:** 7.2-16 cps @ 40°C
- **Solubility in Water:** Miscible @ 20°C
- **Partition Coefficient, n-octanol/water:** Not applicable
- **Oxidizing Properties:** Not applicable
- **Explosive Properties:** Not applicable
- **Volatiles by Weight @ 21°C:** No data available

Safety Data Sheet (SDS)

Phosphoric Acid 75%

Issue date 01/24/2017

Reviewed on 10/12/2018

10. Stability and Reactivity – update from here

- **Reactivity:** No special reactivity has been reported.
- **Chemical stability:** Stable under recommended storage conditions. Hygroscopic material, absorbs moisture from the air.
- **Possibility of hazardous reactions:** Generates hydrogen gas in contact with metals. Hazardous polymerization will not occur.
- **Conditions to avoid:** High temperatures, incompatible materials, exposure to moist air or water.
- **Incompatible materials:** Strong bases, caustics, aluminum, copper, mild steel, brass. Bronze, alcohols, aldehydes, ketones, glycols, cyanides, sulfides, amines, organic peroxides, halogenated compounds, amides, azo- and diazo- compounds, hydrazines, carbamates, esters, fluorides, mercaptans, phenols, cresols, organophosphates, phosphothioates, epoxides, combustible and flammable materials, nitromethane, sodium tetrahydroborate.
- **Hazardous decomposition products:** Thermal decomposition products include oxides of phosphorus, phosphine, hydrogen gas.

11. Toxicological Information

- **Information on toxicological effects:**
- **Acute Oral Toxicity:**
- LF50, rat: 1,530 mg/kg
- **Acute inhalation toxicity:**
- LC50, rat: >850 mg/m³, 1 h
- **Acute dermal toxicity:**
- LD50, rabbit: 2,740 mg/lg
- **Skin irritation/corrosion:** Cause severe skin/irritation and burns.
- **Eye irritation/corrosion:** Causes burns and 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

Safety Data Sheet (SDS)

Phosphoric Acid 75%

Issue date 01/24/2017

Reviewed on 10/12/2018

11. Toxicological Information (continued)

- **Specific organ toxicity – repeated exposure:** No data available
- **Aspiration hazard:** No data available
- 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 and safety practice

12. Ecological Information – update from here

- **Toxicity:** Large discharges of Phosphoric Acid to the environmental may decrease the pH of aquatic systems to a value <2, which may be fatal to aquatic life and soil micro-organisms. Depending on the concentrations, phosphorus compounds may contribute to the eutrophication of water supplies.
- **Acute and prolonged toxicity to fish:** LC50 – *Gambusia affinis* (Mosquito fish), 96 h, 138 mg/l
- **Acute toxicity to microorganisms:** EC50 – Activated sludge, 270 mg/l
- **Persistence and degradability:** Inorganic substances are not biodegradable. Methods for the determination of biodegradability are not applicable to inorganic substances. While the acidity of this substance is readily reduced in natural waters, the resulting phosphate may persist indefinitely or incorporate into biological systems.
- **Bioaccumulation potential:** Product will not bioaccumulate.
- **Mobility in soil:** Under acidic soil conditions, sparsely soluble phosphates tend to solubilize and may migrate to water.
- **Results of PBT and vPvB assessment:** PBT/vPvB assessment not available.
- **Other adverse effects:** 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.

Safety Data Sheet (SDS)

Phosphoric Acid 75%

Issue date 01/24/2017

Reviewed on 10/12/2018

13. Disposal Considerations

- **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 spill material and runoff and contact with soil, waterways, drains and sewers.
- **RCRA P-Series:** No listing
- **RCRA U-Series:** No listing

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:** Phosphoric acid solution
- **Hazard Class:** 8
- **UN/NA:** UN1805
- **Packing Group:** III
NAERG: Guide #154
- **Packaging Authorization:** Non-Bulk – 49 CFR 173.203; Bulk – 173.241
- **Packaging Exceptions:** 49 CFR 173.154
- **IMO/IMDG (Water Transportation):**
- **Proper Shipping Name:** Phosphoric acid solution
- **Hazard Class:** 8
- **UN/NA:** UN1805
- **Packing Group:** III
- **Marine Pollutant:** No
- **EMS Number:** F-A, S-B
- **ICAO/IATA (Air Transportation):**
- **Proper Shipping Name:** Phosphoric acid solution
- **Hazard Class:** 8

Safety Data Sheet (SDS)

Phosphoric Acid 75%

Issue date 01/24/2017

Reviewed on 10/12/2018

14. Transport Information (continued)

- **UN/NA:** UN1805
- **Packing Group:** III
- **Quantity Limitations:** 49 CFR 173.27 and 175.75 – Cargo Aircraft Only – 60 I; Passenger Aircraft – 5 I
- **RID/ADR (Rail Transportation)**
- **Proper Shipping Name:** Phosphoric acid solution
- **Hazard Class:** 8
- **UN/NA:** UN1805
- **Packing Group:** III

15. Regulatory Information

- **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 (DHA) Chemical Facility Anti-Terrorism Standards (CFATS Chemicals:** Not listed.
- **Superfund Amendments and Reauthorization Act (SARA):**
- **SARA Section 311/312 Hazard Categories:** Acute Health Hazard
- **SARA 313 Information:** Phosphoric Acid (CAS #7664-38-2) is subject to the threshold (de minimis) reporting requirements of Section 13 of the Emergency Planning and Community Right-to-Know Act of 1986.


Safety Data Sheet (SDS)

Phosphoric Acid 75%

Issue date 01/24/2017

Reviewed on 10/12/2018

15. Regulatory Information (continued)

- **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) – Phosphoric Acid (CAS #7664-38-2); RQ – 2,267.96 kg (5,000 lbs).
 - **Clean Air Act (CAA):** This product does not contain any chemical 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):** Phosphoric Acid (CAS #7664-38-2) 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:** Phosphoric Acid (CAS #7664-38-2) is listed on the following State Hazardous Substances Inventories, Right-to-Know lists and/or Air Quality/Air Pollutants lists – CA, DE, ID, MA, MN, NJ, NY, PA, RI, WA, WI.
 - Canada
 - WHMIS Hazard Symbol and Classification
- 
- E-Corrosive
 - 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

Safety Data Sheet (SDS)

Phosphoric Acid 75%

Issue date 01/24/2017

Reviewed on 10/12/2018

15. Regulatory Information (continued)

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

16. Other Information

- Health:** 3
- Flammability:** 0
- Physical Hazard:** 0
- Personal Protection:** C
- 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

Safety Data Sheet (SDS)

Phosphoric Acid 75%

Issue date 01/24/2017

Reviewed on 10/12/2018

16. Other Information (continued)

- **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
- **mmpcf:** 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

Disclaimer of Responsibility

This 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 responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way 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.