

# SAFETY DATA SHEET

Prepared to U.S. OSHA, CMA, ANSI, Canadian WHMIS Standards, REACH, European Union CLP EC 1272/2008, and the Global Harmonization Standard

## 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

### IDENTIFICATION of the SUBSTANCE or PREPARATION:

**Trade/Material Name:** SULFURIC ACID < 51%  
**Chemical Names, Common Names:** Sulfuric Acid  
**Synonyms:** Hydrogen Sulfate; Oil of Vitrol; Vitrol Brown Oil; Matting Acid; Battery Acid  
**Product Use:** Various  
**Molecular Formula:** H<sub>2</sub>SO<sub>4</sub>  
**Product Catalog Numbers:** ACS-10-1; ACS-1-1; ACS-1-3; ACS-4-1; ACS-5-1; PP112-01A/5SA; PP114-250a/.5SA; PP123-32A/5SA; SVCS-10-1; SVCS-1-1; SVCS-1-3; SVCS-4-1; SVCS-5-1

### COMPANY/UNDERTAKING IDENTIFICATION:

**U.S. Manufacturer's Name:** EP Scientific Products/ThermoFisher  
**Address:** 520 North Main Street  
Miami, OK 74354  
**Business Phone:** 1-(828)-658-2711  
**Emergency Phone:** CHEMTREC: 1-800-424-9300 (U.S./Canada/Puerto Rico) [24-hours]  
CHEMTREC: +1-703-527-3887 (Outside North America) [24-hours]

### EMAIL ADDRESS FOR PRODUCT INFORMATION: [cservice@epsscientific.com](mailto:cservice@epsscientific.com)

ALL WHMIS required information is included in appropriate sections based on the ANSI Z400.1-2004 format. This product has been classified in accordance with the hazard criteria of the CPR and the SDS contains all the information required by the CPR. The product is also classified per all applicable EU Directives through EC 1907: 2006, the European Union CLP EC 1272/2008 and the Global Harmonization Standard.

## 2. HAZARD IDENTIFICATION

**GLOBAL HARMONIZATION AND EU CLP REGULATION (EC) 1272/2008 LABELING AND CLASSIFICATION:** This product has been classified per GHS Standards under European regulations. For information on EU classification under (67/548/EEC), see below. This is a published and self-classification.

**Classification:** Corrosive to Metals Cat. 1, Skin Corrosion/Damage Cat. 1A, Corrosive to Respiratory Tract

**Signal Word:** Danger

**Hazard Statements Codes:** H290, H314, EUH071

**Precautionary Statement Codes:** P260, P264, P271, P280, P301 + P330 + P331, P303 + P361 + P353, P304 + P340 + P310, P305 + P351 + P338, P306 + P353, P312, P330, P363, P321, P405, P406, P501

**Hazard Symbols/Pictograms:** GHS05



**EU LABELING AND CLASSIFICATION 67/548/EEC:** This product has been classified as per European Community Council Directive 67/548/EEC or subsequent Directives. This is a published classification.

**Classification:** Corrosive

**Risk Phrase Codes:** R34

**Safety Phrase Codes:** S9, S23, S24/25, S26, R36/37/39, S45, S46

**Hazard Symbols:** C



See Section 16 for full text of Classification

**EMERGENCY OVERVIEW: Product Description:** This product is a clear, colorless liquid with strong, acrid odor. **Health Hazards: DANGER!** This product is corrosive and can cause severe irritation or burns by all routes of exposure. May be fatal by inhalation or ingestion. Symptoms by inhalation may be delayed. Repeated inhalation of low level concentrations may cause reduced lung capacity. Chronic skin exposure to low concentration may result in dermatitis. Strong inorganic acid mists containing sulfuric acid may cause cancer. **Flammability Hazards:** This product is not flammable or combustible. If involved in a fire it may generate irritating fumes and toxic gases (e.g., sodium oxides). **Reactivity Hazards:** Concentrated Sulfuric Acid reacts violently with water and many other substances under certain conditions. Reaction with water can generate significant heat. Hygroscopic (absorbs moisture from the air). Sulfuric Acid is corrosive to many metals and contact may produce flammable hydrogen gas. **Environmental Hazards:** This product may cause harm to organisms if accidentally released. **Emergency Considerations:** Emergency responders should wear appropriate protection for situation to which they respond.

## 3. COMPOSITION and INFORMATION ON INGREDIENTS

CHEMICAL NAME	CAS #	EINECS#	WT%	LABEL ELEMENTS EU Classification (67/548/EEC) GHS & EU Classification (1272/2008 EC) Risk Phrases/Hazard Statements
Sulfuric Acid	7664-93-9	231-639-5	< 51.0%	SELF AND PUBLISHED CLASSIFICATION <u>EU 67/548</u> Classification: Corrosive Risk Phrase Codes: R34 <u>GHS &amp; EU 1272/2008</u> Classification: Metal Corrosion Cat. 1, Skin Corrosion/Damage Cat. 1A, Corrosive to the Respiratory Tract Cat. 1 Hazard Statement Codes: H290, H314, EUH071

See Section 16 for classification information

## 5. FIRE-FIGHTING MEASURES (Continued)

**SPECIAL PROTECTIVE ACTIONS FOR FIRE-FIGHTERS (continued):** Cooling should begin as soon as possible (within several minutes) and should concentrate on any un-wetted portions of the container. Apply water from the side and a safe distance. Cooling should continue until well after the fire is out. If this is not possible, use unmanned monitor nozzles and immediately evacuate the area. Use water spray in large quantities to knock down fumes. The resulting sulfuric acid solutions are very corrosive. Dike fire control water for appropriate disposal. DO NOT direct water at open or leaking containers and take precautions not to get water into containers. If protective equipment is contaminated by this product, it should be thoroughly washed with soapy water prior to removal of SCBA respiratory protection. Firefighters whose protective equipment becomes contaminated should thoroughly shower with warm, soapy water and should receive medical evaluation if they experience any adverse effects.

## 6. ACCIDENTAL RELEASE MEASURES

**PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES:** Trained personnel using pre-planned procedures should respond to uncontrolled releases. In case of a spill, clear the affected area and protect people. Do not touch or walk through spilled material. Stop leak if you can do it without risk. Avoid allowing water runoff to contact spilled material. Call CHEMTREC (1-800-424-9300) for emergency assistance. Or if in Canada, call CANUTEC (613-996-6666). The atmosphere must have levels of components lower than those listed in Section 8, (Exposure Controls and Personal Protective Equipment), if applicable, and have at least 19.5 percent oxygen before personnel can be allowed into the area without Self-Contained Breathing Apparatus.

**PROTECTIVE EQUIPMENT:** Proper protective equipment should be used.

**Small Spills:** Wear double-gloves (rubber over latex gloves), rubber apron, and splash goggles or safety glasses.

**Large Spills:** Trained personnel following pre-planned procedures should handle non-incident releases. Minimum Personal Protective Equipment should be rubber gloves, rubber boots, face shield, and Tyvek suit. Minimum level of personal protective equipment for releases in which the level of oxygen is less than 19.5% or is unknown must be **Level B: triple-gloves (rubber gloves and nitrile gloves over latex gloves), chemical resistant suit and boots, hard hat, and Self-Contained Breathing Apparatus.**

**METHODS FOR CLEAN-UP AND CONTAINMENT:**

**Small Spills:** Neutralize spill area with sodium bicarbonate or other material appropriate for acidic materials. Absorb spilled liquid with polypads, or other suitable absorbent materials. Absorb spilled liquid with polypads, or other suitable absorbent materials. Do not use sawdust or other organic material. Wash contaminated area with soap and water, absorb with polypads or other appropriate material, and rinse with water.

**Large Spills:** Neutralize spill area with sodium bicarbonate or other material appropriate for acidic materials. Absorb spilled liquid with polypads, or other suitable absorbent materials. Ensure adequate ventilation. Prevent material from entering sewer or confined spaces, waterways, soil or public waters. Monitor area and confirm levels are below exposure limits given in Section 8 (Exposure Controls-Personal Protection), if applicable, before non-response personnel are allowed into the spill area.

**Large Spills:** Place all spill residue in a double plastic bag or other containment and seal, place in appropriate container and dispose of properly. Decontaminate the area thoroughly. After all spill residue has been removed from the area, rinse the area with flooding quantities of water. Do not mix with wastes from other materials. If necessary, discard all stained response equipment or rinse with soapy water before returning such equipment to service.

**ENVIRONMENTAL PRECAUTIONS:** Prevent material from entering sewer or confined spaces, waterways, soil or public waters. Do not flush to sewer.

**REFERENCE TO OTHER SECTIONS:** See Section 13, Disposal Considerations for more information.

## 7. HANDLING and USE

**PRECAUTIONS FOR SAFE HANDLING:** All employees who handle this product should be trained to handle it safely. As with all chemicals, avoid getting this product ON YOU or IN YOU. Do not eat, drink, smoke, or apply cosmetics while handling this product. Wash hands thoroughly after handling this product or equipment and containers of this compound. Follow SPECIFIC USE INSTRUCTIONS supplied with product. Avoid breathing vapors or mists generated by this product. Use in a well-ventilated location. Open containers slowly on a stable surface. Containers of this product must be properly labeled. Empty containers may contain residual liquid or vapors; therefore, empty containers should be handled with care. Do not allow water to get into containers. Corrosion of equipment and surfaces should be considered in areas where hot or misted Phosphoric Acid is present. Have emergency equipment (for fires, spills, leaks, etc.) readily available. Soda ash or lime should be kept nearby for emergency use.

**CONDITIONS FOR SAFE STORAGE:** Store containers in a cool, dry location, away from direct sunlight, sources of intense heat, or where freezing is possible. Store away from incompatible materials (see Section 10, Stability and Reactivity). Material should be stored in secondary containers or in a diked area, as appropriate. Keep container tightly closed when not in use. Storage areas should be made of fire and corrosion resistant materials. If appropriate, post warning signs in storage and use areas. Inspect all incoming containers before storage to ensure containers are properly labeled and not damaged. If drums are swollen, contact the manufacturer/supplier immediately for assistance. Handling swollen drums requires special procedures and equipment.

**SPECIFIC END USE(S):** This product has various uses in different industries. Follow all industry standards for use of this product.

## 8. EXPOSURE CONTROLS - PERSONAL PROTECTION (Continued)

### PROTECTIVE EQUIPMENT (continued):

**Eye Protection:** Splash goggles or safety glasses with a faceshield. If necessary, refer to appropriate country regulations and standards for further information.

**Hand Protection:** Use butyl rubber, Teflon, Viton, Saranex, or Responder gloves for routine industrial use. Use triple gloves for spill response, as stated in Section 6 (Accidental Release Measures) of this SDS. If necessary, refer to applicable regulations.

**Body Protection:** Use body protection appropriate for task. An apron or other impermeable body protection is suggested. Full-body chemical protective clothing is recommended for emergency response procedures. Full-body chemical protective clothing is recommended for emergency response procedures. If a hazard of injury to the feet exists due to falling objects, rolling objects, where objects may pierce the soles of the feet or where employee's feet may be exposed to electrical hazards, use foot protection. Refer to appropriate country regulations and standards for further information.

## 9. PHYSICAL and CHEMICAL PROPERTIES

**FORM:** Oily liquid.

**MOLECULAR WEIGHT:** 98.0716

**ODOR:** Strong, acrid odor.

**ODOR THRESHOLD:** Sulfuric Acid is odorless. Irritation has been experienced between 1 and 3 mg/m<sup>3</sup>.

**BOILING POINT:** 105-325°C (221-617°F) [20-100% H<sub>2</sub>SO<sub>4</sub>]

**EVAPORATION RATE (water = 1):** > 1

**VAPOR PRESSURE (air = 1) @ 20°C:** < 0.00120 mmHg

**SPECIFIC GRAVITY/DENSITY:** 1.1-1.3

**DECOMPOSITION TEMPERATURE:** 340°C (644°F)

**COEFFICIENT WATER/OIL DISTRIBUTION:** Not applicable (ionizable compounds)

**HOW TO DETECT THIS SUBSTANCE (identification properties):** Litmus paper will turn red in contact with this product and may assist in identification in event of accidental release.

**COLOR:** Clear, colorless to yellow liquid.

**MOLECULAR FORMULA:** H<sub>2</sub>SO<sub>4</sub>

**pH:** 0.3 (1N solution)

**FREEZING POINT:** 11°C (51.8°F)

**SOLUBILITY IN WATER:** Soluble with much heat.

**VAPOR DENSITY (air= 1):** 3.38

**VISCOSITY @ 25°C:** 21 mPas

**OXIDIZING PROPERTIES:** Not an oxidizer.

## 10. STABILITY and REACTIVITY

**CHEMICAL STABILITY:** Sulfuric Acid reacts with most metals, especially when diluted with water. Sulfuric Acid can be stable when properly stored (see Section 7, Handling and Storage) at normal temperature. Contact with metals can produce highly flammable hydrogen gas.

**DECOMPOSITION PRODUCTS: Combustion:** If exposed to extremely high temperatures, thermal decomposition may generate irritating fumes and toxic gases (e.g. sulfur oxides). **Hydrolysis:** None.

**MATERIALS WITH WHICH SUBSTANCE IS INCOMPATIBLE:** Sulfuric Acid is a very reactive substance. Sulfuric Acid is water-reactive. The concentrated acid oxidizes, dehydrates, or sulfonates most organic compounds. Sulfuric acid reacts vigorously, violently or explosively with many organic and inorganic chemicals including acrylonitrile, alkali solutions, carbides, chlorates, fulminates, nitrates, perchlorates, permanganates, picrates, powdered metals, metal acetylides or carbides, epichlorohydrin, aniline, ethylenediamine, alcohols with strong hydrogen peroxide, chlorosulfonic acid, cyclopentadiene, hydrofluoric acid, nitromethane, 4-nitrotoluene, phosphorus (III) oxide, potassium, sodium, ethylene glycol, isoprene, styrene. Hazardous gases, such as hydrogen, hydrogen cyanide, hydrogen sulfide and acetylene, are evolved on contact with chemicals such as metals, cyanides, sulfides and mercaptans and carbides respectively. Sulfuric acid attacks many plastics, such as nylon, polyvinylidene chloride, acrylonitrile-butadiene-styrene, styrene acrylonitrile, polyurethane (rigid), polyetherether ketone, polyethylene terephthalate, high-density polyethylene, thermoset polyester bisphenol A fumarate, thermoset polyester isophthalic acid, polystyrene, ethylene vinyl acetate; elastomers, such as butyl rubber (isobutylene isoprene), nitrile buna N (nitrile rubber), chloroprene (neoprene), isoprene, natural rubber, hard rubber, soft rubber, chlorosulfonated polyethylene, styrene-butadiene, polyacrylate, polyurethane, chlorinated polyethylene, nylon 11 and 12, silicone rubbers, flexible polyvinyl chloride, low density polyethylene, ethylene vinyl acetate. Sulfuric Acid also attacks many types of polymer coatings.

**POSSIBILITY OF HAZARDOUS REACTIONS OR POLYMERIZATION:** Acetaldehyde and allyl chloride may polymerize violently in the presence of Sulfuric Acid.

**CONDITIONS TO AVOID:** Avoid extreme temperatures and contact with water and incompatible chemicals.

## 11. TOXICOLOGICAL INFORMATION

**SYMPTOMS OF EXPOSURE BY ROUTE OF EXPOSURE:** The health hazard information provided below is pertinent to employees using this product in an occupational setting. The following paragraphs describe the symptoms of exposure by route of exposure.

**Inhalation:** If vapors, mists or sprays of this solution are inhaled, symptoms of exposure may include breathing difficulty, irritation of the mucus membranes, coughing, nasal congestion, and a sore throat. Damage to the tissues of the respiratory system may also occur, especially after prolonged exposure or exposure to high concentrations of this solution. Severe inhalation exposure can lead to chemical pneumonitis, pulmonary edema, and death. Chronic inhalation exposure may result in dental erosion and perforation of the nasal septum. Exposure may impair lung function and cause mucostasis (reduced mucous clearance).

**Contact with Skin or Eyes:** Contact with the eyes will cause severe irritation, pain, reddening, watering, and possibly, blindness. Depending on the duration of skin contact, skin exposure may cause reddening, discomfort, severe irritation, and chemical burns. Chemical burns result in blistering of the skin and possible scarring. Repeated skin exposure to low concentrations can result in dermatitis (inflammation and reddening of the skin).

## 11. TOXICOLOGICAL INFORMATION (Continued)

**REPRODUCTIVE TOXICITY INFORMATION:** Listed below is information concerning the effects of Sulfuric Acid on human and animal reproductive systems.

**Mutagenicity:** The components of this product are not reported to cause human mutagenic effects. There are no mutagenicity studies specifically of sulfuric acid. However, there are established effects of reduced pH in mutagenicity testing, as would be caused by sulfuric acid. These effects are an artifact of low pH and are not necessarily due to biological effects of sulfuric acid itself.

**Embryotoxicity/Teratogenicity:** The components of this product are not reported to cause human embryotoxic or teratogenic effects. Sulfuric Acid was not teratogenic in mice and rabbits, but was slightly embryotoxic in rabbits (a minor, rare skeletal variation). The animals were exposed to 5 and 20 mg/m<sup>3</sup> for 7 hr/day throughout pregnancy. Slight maternal toxicity was present at the highest dose in both species.

**Reproductive Toxicity:** The components of this product are not reported to cause human reproductive effects.

**ACGIH BIOLOGICAL EXPOSURE INDICES (BEIs):** Currently, ACGIH Biological Exposure Indices (BEIs) have not been determined for the components of this product.

## 12. ECOLOGICAL INFORMATION

ALL WORK PRACTICES MUST BE AIMED AT ELIMINATING ENVIRONMENTAL CONTAMINATION.

**MOBILITY IN SOIL:** Since Sulfuric Acid is miscible with water, the presence of water in the soil or falling as precipitation at the time of the spill will influence the rate of chemical movement in the soil. Dilution through mixture with water will decrease the viscosity more than the mass density. This will have the net effect of increasing the velocity of downward movement in the soil. Upon reaching the groundwater table, the acid will continue to move in the direction of groundwater flow and downward since its mass density exceeds that of water. A contaminated plume will be produced, with diffusion and dispersion serving to reduce the acid concentration somewhat.

**PERSISTENCE AND BIODEGRADABILITY:** Sulfuric Acid has led to increased weathering of calcium from soils and rocks so that the calcium ion rises in concentration in waters above pH 6, and also in those below pH 5.

**BIO-ACCUMULATION POTENTIAL:** Sulfuric Acid does not bioconcentrate.

**ECOTOXICITY:** This product has not been tested for aquatic or animal toxicity. All release to terrestrial, atmospheric, and aquatic environments should be avoided. The following aquatic toxicity data are available for Sulfuric Acid:

TLm ( <i>Gambusia affinis</i> mosquito fish) 48 hours = 42 mg/L turbid water/Conditions of bioassay not specified	LC <sub>50</sub> (Flounder) 48 hours = 100 to 330 mg/L; aerated water/Conditions of bioassay not specified
TLm ( <i>Lepomis macrochirus</i> bluegill) 48 hours = 49 mg/L tap water 20°C/Conditions of bioassay not specified	LC <sub>50</sub> (Shrimp) 48 hours = 80 to 90 mg/L; aerated water /Conditions of bioassay not specified
TLm ( <i>Lepomis macrochirus</i> bluegill) 24 hours = 24.5 ppm/fresh water/Conditions of bioassay not specified	LC <sub>50</sub> (Prawn) 48 hours = 42.5 ppm/salt water /Conditions of bioassay not specified

**RESULTS OF PBT and vPvB ASSESSMENT:** No data available. PBT and vPvB assessments are part of the chemical safety report required for some substances in European Union Regulation (EC) 1907/2006, Article 14.

**OTHER ADVERSE EFFECTS:** This material is not listed or expected to have having ozone depletion potential.

**ENVIRONMENTAL EXPOSURE CONTROLS:** Controls should be engineered to prevent release to the environment, including procedures to prevent spills, atmospheric release and release to waterways.

## 13. DISPOSAL CONSIDERATIONS

**WASTE TREATMENT/DISPOSAL METHODS:** It is the responsibility of the generator to determine at the time of disposal whether the product meets the criteria of a hazardous waste per regulations of the area in which the waste is generated and/or disposed of. Waste disposal must be in accordance with appropriate Federal, State, and local regulations. This product, if unaltered by use, may be disposed of by treatment at a permitted facility or as advised by your local hazardous waste regulatory authority. Shipment of wastes must be done with appropriately permitted and registered transporters.

**DISPOSAL CONTAINERS:** Waste materials must be placed in and shipped in appropriate 5-gallon or 55-gallon poly or metal waste pails or drums. Permeable cardboard containers are not appropriate and should not be used. Ensure that any required marking or labeling of the containers be done to all applicable regulations.

**PRECAUTIONS TO BE FOLLOWED DURING WASTE HANDLING:** Wear proper protective equipment when handling waste materials. Dispose of in accordance with applicable Federal, State, and local procedures and standards.

**EPA WASTE NUMBER:** Wastes from this product should be tested to see if they meet D002 (Waste Characteristic-Corrosivity).

**EUROPEAN WASTE CODES:** 16 05 08: Discarded Organic Chemicals Consisting of or Containing Dangerous Substances.

## 14. TRANSPORTATION INFORMATION

**U.S. DEPARTMENT OF TRANSPORTATION REGULATIONS:** This product is classified as dangerous goods, per U.S. DOT regulations, under 49 CFR 172.101.

UN Identification Number:	UN 2796
Proper Shipping Name:	Sulfuric acid with not more than 51 per cent acid or Battery acid, fluid
Hazard Class Number and Description:	8 (Corrosive)
Packing Group:	PG II
DOT Label(s) Required:	Class 8 (Corrosive)
North American Emergency Response Guidebook Number (2012):	157

## 14. TRANSPORTATION INFORMATION (Continued)

### EUROPEAN AGREEMENT CONCERNING THE INTERNATIONAL CARRIAGE OF DANGEROUS GOODS BY ROAD (continued):

Excepted Quantities: E2  
Packagings: Instructions: P001, IBC02; Special Provisions: None  
Mixed Packing Provisions: MP15  
Portable Tank & Bulk Containers: Instructions: T8; Special Provisions: TP2  
Hazard Identification No.: 80

**TRANSPORT IN BULK ACCORDING TO THE IBC CODE:** See the information under the individual jurisdiction listings for IBC information.

**ENVIRONMENTAL HAZARDS:** This material does not meet the criteria of environmentally hazardous according to the criteria of the UN Model Regulations (as reflected in the IMDG Code, ADR, RID, and ADN); components are not specifically listed in Annex III under MARPOL 73/78.

## 15. REGULATORY INFORMATION

### UNITED STATES REGULATIONS:

**U.S. SARA Reporting Requirements:** Sulfuric Acid is subject to the reporting requirements of Sections 302, 304, and 313 of Title III of the Superfund Amendments and Reauthorization Act, as follows.

CHEMICAL NAME	SARA 302 (40 CFR 355, Appendix A)	SARA 304 (40 CFR Table 302.4)	SARA 313 (40 CFR 372.65)
Sulfuric Acid	No	No	Yes (aerosol forms only)

**U.S. SARA Section 302 Threshold Planning Quantity (TPQ):** 1000 lb (454 kg)

**U.S. SARA Section 304 Reportable Quantity (TPQ):** 1000 lb (454 kg)

**U.S. CERCLA Reportable Quantity (RQ):** 1000 lb (454 kg)

**U.S. TSCA Inventory Status:** Sulfuric Acid is listed on the TSCA Inventory.

**Other U.S. Federal Regulations:** Sulfuric Acid has requirements under additional U.S. regulations, as follows:

**CLEAN WATER ACT:** Sulfuric Acid is designated as a hazardous substance under section 311(b)(2)(A) of the Federal Water Pollution Control Act and further regulated by the Clean Water Act Amendments of 1977 and 1978. These regulations apply to discharges of this substance.

**CERCLA REPORTABLE QUANTITIES:** Releases of CERCLA hazardous substances are subject to the release reporting requirement of CERCLA section 103, codified at 40 CFR part 302, in addition to the requirements of 40 CFR part 355. Sulfuric acid is an extremely hazardous substance (EHS) subject to reporting requirements when stored in amounts in excess of its threshold planning quantity (TPQ) of 1,000 lbs.

**California Safe Drinking Water and Toxic Enforcement Act (Proposition 65):** Strong inorganic acid mists containing sulfuric acid are on the California Proposition 65 Lists. **WARNING!** Strong inorganic mists containing Sulfuric Acid are known to the State of California to cause cancer.

### CANADIAN REGULATIONS:

**Canadian DSL/NDL Status:** This material is listed on the DSL inventory.

**Canadian Environmental Protection Agency (CEPA) Priorities Substances List:** Substance with Greatest Potential For Human Exposure Substance on Environment Canada/Health Canada Pilot Project List (CEPA 1999, Section 73). Meets categorization criteria: \*may present, to individuals in Canada, the greatest potential for exposure; or \*are persistent or bio-accumulative in accordance with the regulations, and inherently toxic to human beings or to non-human organisms, as determined by laboratory or other studies.

**Canadian WHMIS Classification and Symbols:** Class E: Corrosive Material, Class D1A: Poisonous and Infectious Material: Materials Causing Immediate and Serious Toxic Effects, Very Toxic, Class D2A, Poisonous and Infectious Material: Other toxic effects



### EUROPEAN REGULATIONS:

**Safety, Health, and Environmental Regulations/Legislation Specific for the Product:** Currently, there is no specific legislation pertaining to this product.

**Chemical Safety Assessment:** No data available. The chemical safety assessment is required for some substances according to European Union Regulation (EC) 1907/2006, Article 14.

## 16. OTHER INFORMATION

**U.S. ANSI STANDARD LABELING (Precautionary Statements):** **DANGER! CORROSIVE. WATER REACTIVE.** CAUSES BURNS BY ALL ROUTES OF EXPOSURE. MAY BE HARMFUL OR FATAL IF SWALLOWED. CHRONIC, LOW-LEVEL INHALATION MAY CAUSE REDUCED LUNG FUNCTION. CHRONIC, LOW-LEVEL SKIN EXPOSURE MAY CAUSE DERMATITIS. CONTACT WITH WATER CAN CAUSE VIOLENT REACTION. Can react dangerously with many organic and inorganic materials. Strong inorganic acid mists containing sulfuric acid may cause cancer. Do not taste or swallow. Do not get on skin or in eyes. Avoid breathing vapors or mist. Keep container closed. Avoid accidental contact with water. Use only with adequate ventilation. Wash thoroughly after handling. Wear gloves, goggles, faceshields, suitable body protection, and NIOSH-approved respiratory protection, as appropriate. **FIRST-AID:** In case of contact, immediately flush skin or eyes with plenty of water for at least 20 minutes while removing contaminated clothing and shoes. If inhaled, remove to fresh air. If ingested, do not induce vomiting. Get medical attention. **IN CASE OF FIRE:** Use water fog, dry chemical, CO<sub>2</sub>, or "alcohol" foam. **IN CASE OF SPILL:** Absorb spill with inert material or neutralizing agent for acids. Place residue in suitable container. Consult Safety Data Sheet for additional information.