Material Safety Data Sheet

Section 1. Chemical Product and Company Identification

<table>
<thead>
<tr>
<th>Common Name/Trade Name</th>
<th>Sulfuric acid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distributor</td>
<td>THE SCIENCE COMPANY</td>
</tr>
<tr>
<td></td>
<td>95 LINCOLN STREET</td>
</tr>
<tr>
<td></td>
<td>DENVER, CO 80203</td>
</tr>
<tr>
<td>Commercial Name(s)</td>
<td>Oil of Vitriol</td>
</tr>
<tr>
<td>Synonym</td>
<td>Sulfuric Acid</td>
</tr>
<tr>
<td>Chemical Name</td>
<td>Hydrogen sulfate</td>
</tr>
<tr>
<td>Chemical Family</td>
<td>Inorganic acid. (Acid.)</td>
</tr>
<tr>
<td>Chemical Formula</td>
<td>H2-SO4</td>
</tr>
<tr>
<td>Supplier</td>
<td>SPECTRUM LABORATORY PRODUCTS INC.</td>
</tr>
<tr>
<td></td>
<td>14422 S. SAN PEDRO STREET</td>
</tr>
<tr>
<td></td>
<td>GARDENA, CA 90248</td>
</tr>
</tbody>
</table>

Section 2. Composition and Information on Ingredients

<table>
<thead>
<tr>
<th>Name</th>
<th>CAS #</th>
<th>TWA (mg/m³)</th>
<th>STEL (mg/m³)</th>
<th>CEIL (mg/m³)</th>
<th>% by Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Sulfuric acid</td>
<td>7664-93-9</td>
<td>1</td>
<td>3</td>
<td>91</td>
<td>- 98</td>
</tr>
</tbody>
</table>

Toxicological Data on Ingredients

| Sulfuric acid:          | Acute: 2140 mg/kg [Rat], 510 mg/m³ 2 hours [Rat], 320 mg/m³ 2 hours [Mouse], 347 ppm 1 hours |

Section 3. Hazards Identification

Potential Acute Health Effects

Very hazardous in case of skin contact (corrosive, irritant), of eye contact (irritant, corrosive), of ingestion, of inhalation. Liquid or spray mist may produce tissue damage particularly on mucous membranes of eyes, mouth and respiratory tract. Skin contact may produce burns. Inhalation of the spray mist may produce severe irritation of respiratory tract, characterized by coughing, choking, or shortness of breath. Severe over-exposure can result in death. Inflammation of the eye is characterized by redness, watering, and itching. Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering.
### Potential Chronic Health Effects

**CARCINOGENIC EFFECTS:** Classified 1 (Proven for human,) by IARC (for strong-inorganic-acid mists containing sulfuric acid). Classified A2 (Suspected for human,) by ACGIH (for strong-inorganic-acid mists containing sulfuric acid).

**MUTAGENIC EFFECTS:** Not available.

**TERATOGENIC EFFECTS:** Not available.

**DEVELOPMENTAL TOXICITY:** Not available.

The substance may be toxic to lungs, mucous membranes, upper respiratory tract, skin, eyes, teeth. Repeated or prolonged exposure to the substance can produce target organs damage. Repeated or prolonged contact with spray mist may produce chronic eye irritation and severe skin irritation. Repeated or prolonged exposure to spray mist may produce respiratory tract irritation leading to frequent attacks of bronchial infection. Repeated exposure to a highly toxic material may produce general deterioration of health by an accumulation in one or many human organs.

### Section 4. First Aid Measures

#### Eye Contact

Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. Get medical attention immediately.

#### Skin Contact

In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Cover the irritated skin with an emollient. Cold water may be used. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention immediately.

#### Serious Skin Contact

Wash with a disinfectant soap and cover the contaminated skin with an anti-bacterial cream. Seek immediate medical attention.

#### Inhalation

If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.

#### Serious Inhalation

Evacuate the victim to a safe area as soon as possible. Loosen tight clothing such as a collar, tie, belt or waistband. If breathing is difficult, administer oxygen. If the victim is not breathing, perform mouth-to-mouth resuscitation. **WARNING:** It may be hazardous to the person providing aid to give mouth-to-mouth resuscitation when the inhaled material is toxic, infectious or corrosive. Seek immediate medical attention.

#### Ingestion

Do **NOT** induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention if symptoms appear.

#### Serious Ingestion

Not available.

### Section 5. Fire and Explosion Data

#### Flammability of the Product

Non-flammable.

#### Auto-Ignition Temperature

Not applicable.

#### Flash Points

Not applicable.

#### Flammable Limits

Not applicable.

#### Products of Combustion

Products of combustion are not available since material is non-flammable. However, products of decomposition include fumes of oxides of sulfur. Will react with water or steam to produce toxic and corrosive fumes. Reacts with carbonates to generate carbon dioxide gas. Reacts with cyanides and sulfides to form poisonous hydrogen cyanide and hydrogen sulfide respectively.

#### Fire Hazards in Presence of Various Substances

Combustible materials, oxidizing materials

#### Explosion Hazards in Presence of Various Substances


#### Fire Fighting Media and Instructions

Not applicable.

#### Special Remarks on Fire Hazards

Metal acetylides (Monocesium and Monorubidium), and carbides ignite with concentrated sulfuric acid. White Phosphorous + boiling Sulfuric acid or its vapor ignites on contact. May ignite other combustible materials. May cause fire when sulfuric acid is mixed with Cyclopentadiene, cyclopentanone oxime, nitroaryl amines, hexalithium disilicide, phosphorous (III) oxide, and oxidizing agents such as chlorates, halogens, permanganates.
Sulfuric acid

**Special Remarks on Explosion Hazards**

Mixtures of sulfuric acid and any of the following can explode: p-nitrotoluene, pentasilver trihydroxydiaminophosphate, perchlorates, alcohols with strong hydrogen peroxide, ammonium tetraperoxycromate, mercuric nitrite, potassium chloride, potassium permanganate with potassium chloride, carbides, nitro compounds, nitrates, carbides, phosphorous, iodides, picrates, fulminates, dienes, alcohols (when heated).

Nitramide decomposes explosively on contact with concentrated sulfuric acid. 1,3,5-Trinitrosobenzene-1,3,5-triazine + sulfuric acid causes explosive decomposition.

**Section 6. Accidental Release Measures**

**Small Spill**

Dilute with water and mop up, or absorb with an inert dry material and place in an appropriate waste disposal container. If necessary: **Neutralize the residue with a dilute solution of sodium carbonate.**

**Large Spill**

Corrosive liquid. Poisonous liquid. Stop leak if without risk. Absorb with DRY earth, sand or other non-combustible material. Do not get water inside container. Do not touch spilled material. Use water spray curtain to divert vapor drift. Use water spray to reduce vapors. Prevent entry into sewers, basements or confined areas; dike if needed. Call for assistance on disposal. **Neutralize the residue with a dilute solution of sodium carbonate.** Be careful that the product is not present at a concentration level above TLV. Check TLV on the MSDS and with local authorities.

**Section 7. Handling and Storage**

**Precautions**

Keep container dry. Do not ingest. Do not breathe gas/fumes/vapor/spray. Never add water to this product. In case of insufficient ventilation, wear suitable respiratory equipment. If ingested, seek medical advice immediately and show the container or the label. Avoid contact with skin and eyes. Keep away from incompatibles such as oxidizing agents, reducing agents, combustible materials, organic materials, metals, acids, alkalis, moisture.

May corrode metallic surfaces. Store in a metallic or coated fiberboard drum using a strong polyethylene inner package.

**Storage**

Hygroscopic. Reacts violently with water. Keep container tightly closed. Keep container in a cool, well-ventilated area.

**Section 8. Exposure Controls/Personal Protection**

**Engineering Controls**

Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value. Ensure that eyewash stations and safety showers are proximal to the work-station location.

**Personal Protection**

Face shield. Full suit. Vapor respirator. In well ventilated areas or if used in a fume hood, respiratory protection is not normally required. Wear a vapor respirator with an acid gas cartridge in combination with a particulate filter in confined, poorly ventilated areas, and if airborne concentrations have exceeded the recommended exposure limits. Be sure to use an approved/certified respirator or equivalent. Gloves. Boots.

**Personal Protection in Case of a Large Spill**

Splash goggles. Full suit. Vapor respirator. Boots. Gloves. A self contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

**Exposure Limits**

TWA: 1 STEL: 3 (mg/m³) [Australia] Inhalation
TWA: 1 (mg/m³) from OSHA (PEL) [United States] Inhalation
TWA: 1 (mg/m³) from NIOSH [United States] Inhalation
TWA: 1 (mg/m³) [United Kingdom (UK)]
TWA: 1 STEL: 3 (mg/m³) [Canada]

Consult local authorities for acceptable exposure limits.

**Section 9. Physical and Chemical Properties**

<table>
<thead>
<tr>
<th>Physical state and appearance</th>
<th>Liquid. (Thick oily liquid.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Molecular Weight</td>
<td>98.08 g/mole</td>
</tr>
<tr>
<td>pH (1% soln/water)</td>
<td>Acidic.</td>
</tr>
<tr>
<td>Boiling Point</td>
<td>270°C (518°F) - 340 deg. C</td>
</tr>
<tr>
<td>Melting Point</td>
<td>-35°C (-31°F) to 10.36 deg. C (93% to 100% purity)</td>
</tr>
<tr>
<td>Critical Temperature</td>
<td>Not available.</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>1.823 - 1.84 (Water = 1)</td>
</tr>
</tbody>
</table>

**Odor** Odorless, but has a choking odor when hot.

**Taste** Marked acid taste. (Strong.)

**Color** Colorless.
### Dispersion

- Ionicity
- Water/Oil
- Volatility
- Vapor
- Vapor

### Special Substances

- Reactivity
- Conditions
- Stability
- Instability

### Section 10. Stability and Reactivity Data

#### Stability
The product is stable.

#### Instability Temperature
Not available.

#### Conditions of Instability
Conditions to Avoid: Incompatible materials, excess heat, combustible material materials, organic materials, exposure to moist air or water, oxidizers, amines, bases. Always add the acid to water, never the reverse.

#### Incompatibility with various substances
Reactive with oxidizing agents, reducing agents, combustible materials, organic materials, metals, acids, alkalis, moisture.

#### Corrosivity
Extremely corrosive in presence of aluminum, of copper, of stainless steel(316). Highly corrosive in presence of stainless steel(304). Non-corrosive in presence of glass.

#### Special Remarks on Reactivity
Hygroscopic. Strong oxidizer. Reacts violently with water and alcohol especially when water is added to the product. Incompatible (can react explosively or dangerously) with the following: ACETIC ACID, ACRYLIC ACID, AMMONIUM HYDROXIDE, CRESOL, CUMENE, DICHLOROETHYL ETHER, ETHYLENE CYANOHYDRIN, ETHYLENEIMINE, NITRIC ACID, 2-NITROPROPAINE, PROPYLENE OXIDE, SULFOLANE, VINYLIDENE CHLORIDE, DIETHYLENE GLYCOL MONOMETHYL ETHER, ETHYL ACETATE, ETHYLENE CYANOHYDRIN, ETHYLENE GLYCOL MONOETHYL ETHER ACETATE, GLYOXAL, METHYL ETHYL KETONE, dehydrating agents, organic materials, moisture, water, Acetic anhydride, Acetone, cyanohydrin, Acetone+nitric acid. Acetone + potassium dichromate, Acetonitrile, Acrolein, Acrylonitrile, Acrylonitrile+water, Alcohols + hydrogen peroxide, ally compounds such as Allyl alcohol, and Allyl Chloride, 2-Aminoethanol, Ammonium hydroxide, Ammonium triperchlorate, Aniline, Bromate + metals, Bromine pentafluoride, n-Butylaldehyde, Carbies, Cesium acetylene carbide, Chlorates, Cyclopentanone oxime, chlorinates, Chlorates + metals, Chlorine trifluoride, Chlorosulfonic acid, 2-cyano-4-nitrobenzenediazonium hydrogen sulfate, Cuprous nitride, p-chloronitrobenzene, 1,5-Dinitroanaphthlene + sulfur, Diisobutylene, p-dimethylanobenzaldehyde, 1,3-Diazidobenzene, Dimethylbenzylicarbinol + hydrogen peroxide, Epichlorohydrin, Ethyl alcohol + hydrogen peroxide, Ethylene diamine, Ethylene glycol and other glycols, Ethylenimine, Fulminates, hydrogen peroxide, Hydrochloric acid, Hydrofluoric acid, Iodine heptfluoride, Indane + nitric acid, Iron, Isoprene, Lithium silicide, Mercuric nitride, Mesityl oxide, Mercury nitride, Metals (powdered), Nitromethane, Nitric acid + glycerides, p-Nitrotoluene, Pentasilver trihydroxydiaminophosphate, Perchlorates, Perchloric acid, Permanganates + benzene, 1-Phenyl-2-methylpropyl alcohol + hydrogen peroxide, Phosphorus, Phosphorus isocyanate, Picrates, Potassium tert-butoxide, Potassium chloride, Potassium Permanganate and other permanganates, halogens, amines, Potassium Permanganate + Potassium chloride, Potassium Permanganate + water, Propiolactone (beta)-, Pyridine, Rubidium acetylene carbide, Silver permanganate, Sodium, Sodium carbonate, sodium hydride, Steel, styrene monomer, tolune + nitric acid, Vinyl acetate, Thalium (I) azidodithiocarbonate, Zinc chloride, Zinc iodide, azides, carbonates, cyanides, sulfides, sulfites, alkali hydrides, carboxylic acid anhydrides, nitriles, olefinic organics, aqueous acids, cyclopentadiene, cyano-alcohols, metal acetylides, Hydrogen gas is generated by the action of the acid on most metals (i.e. lead, copper, tin, zinc, aluminum, etc.). Concentrated sulfuric acid oxidizes, dehydrates, or sulfonates most organic compounds.

#### Special Remarks on Corrosivity
Non-corrosive to lead and mild steel, but dilute acid attacks most metals. Attacks many metals releasing hydrogen. Minor corrosive effect on bronze. No corrosion data on brass or zinc.

### Polymerization
Will not occur.
**Section 11. Toxicological Information**

<table>
<thead>
<tr>
<th>Routes of Entry</th>
<th>Toxicity to Animals</th>
<th>Chronic Effects on Humans</th>
<th>Other Toxic Effects on Humans</th>
<th>Special Remarks on Toxicity to Animals</th>
<th>Special Remarks on Chronic Effects on Humans</th>
<th>Special Remarks on other Toxic Effects on Humans</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Acute oral toxicity (LD50): 2140 mg/kg [Rat]. Acute toxicity of the vapor (LC50): 320 mg/m³ 2 hours [Mouse].</td>
<td>CARCINOGENIC EFFECTS: Classified 1 (Proven for human.) by IARC (for strong-inorganic-acid mists containing sulfuric acid); Classified A2 (Suspected for human.) by ACGIH (for strong-inorganic-acid mists containing sulfuric acid). May cause damage to the following organs: lungs, mucous membranes, upper respiratory tract, skin, eyes, teeth.</td>
<td>Very hazardous in case of skin contact (corrosive, irritant), of eye contact (corrosive), of ingestion, in case of inhalation.</td>
<td>Not available.</td>
<td>Reproductive effects and Teratogenicity: According the the Registry of Toxic Effects of Chemical Substances (RTECS reference - Murry et al, &quot;Embryotoxicity of Inhaled Sulfuric Acid Aerosol in Mice and Rabbits&quot;, Journal of Environmental Science and Health, Part C, Vol. 13, pages 251-266, 1979), musculoskeletal developmental abnormalities were found in rabbits at a dose of 20 mg/m³ for 7 hrs. However, REPROTOX and Shepard's Catalog of Teratogenic Agents, citing this same study, stated that inhalation of sulfuric acid fumes did not increase congenital anomalies in the offspring of treated pregnant mice or rabbits. Furthermore, the Hazard Substance Data Bank (HSDB) also stated that in a developmental toxicity study conducted under a method similar to OECD test Guideline 414 that no significant effects on mean numbers of implants/dam, live fetuses/litter or resorptions/litter were observed in mice and rabbits exposed by inhalation to sulfuric acid aerosol at 5 and 20 mg/m³ during gestation and therefore could not be considered embryotoxic, or fetotoxic. May cause cancer. However, evidence is inconclusive. Cancer Status: The International Agency for Research on Cancer (IARC) has classified &quot;strong inorganic acid mists containing sulfuric acid&quot; as a known human carcinogen, (IARC Group 1). However, this classification applies only to mists containing sulfuric acid generated during an industrial process and not to (almost) pure sulfuric acid or sulfuric acid solutions; The ACGIH has classified &quot;strong inorganic acid mists containing sulfuric acid&quot; as a suspected human carcinogen (ACGIH Group A2). However, this classification applies only to mists containing sulfuric acid generated during an industrial process and not to (almost) pure sulfuric acid or sulfuric acid solutions.</td>
<td>Acute Potential Health Effects: Skin: Corrosive. Causes severe skin irritation and burns. Continued contact can cause tissue necrosis. Eye: Corrosive. Causes severe eye irritation and burns. May cause irreversible eye injury. Ingestion: Corrosive. Harmful if swallowed. May cause permanent damage to the digestive tract. Causes digestive/gastrointestinal tract (mouth, throat, stomach) burns, nausea, vomiting (vomit resembling &quot;coffee grounds&quot;), severe gastritis and epigastric pain. May also cause perforation of the stomach, GI bleeding, edema of the glottis, necrosis and scarring, and sudden circulatory shock/ collapse(similar to acute inhalation). It may also cause systemic toxicity with acidosis. Inhalation: Causes severe irritation of the respiratory tract and mucous membranes with sore throat, coughing, sneezing, shortness of breath, and delayed lung edema. Can cause chemical burns (corrosive action) to the respiratory tract and mucous membranes. Inhalation may be fatal as a result of bronchospasm, inflammation, edema of the larynx and bronchi, chemical pneumonitis, and pulmonary edema. May affect cardiovascular system (hypotension, depressed cardiac output, bradycardia). Circulatory shock/collapse with clammy skin, weak and rapid pulse, shallow respiration, and scanty urine may follow. Ischemic liver and heart lesions, kidney failure may occur several hours after unchecked circulatory collapse. Circulatory shock is often the immediate cause of death. May also affect teeth(changes in teeth and supporting structures - erosion, discoloration). Chronic Potential Health Effects: Inhalation: Prolonged or repeated inhalation may affect behavior (muscle contraction or spasticity), urinary system (kidney damage), and respiratory system/lungs(pulmonary edema, lung damage)changes in lung function with chronic bronchitis and emphysema), teeth (dental discoloration, erosion). Skin: Prolonged or repeated skin contact may cause dermatitis. Eyes: Conjunctivitis is also a common finding with chronic exposure.</td>
</tr>
</tbody>
</table>

**Section 12. Ecological Information**

<table>
<thead>
<tr>
<th>Ecotoxicity</th>
<th>Ecotoxicity in water (LC50): 49 mg/l 48 hours [Fish (bluegill/sunfish)]. 29 mg/l 24 hours [Daphnia (daphnia magna)]. 500 mg/l 96 hours [Fish (Brachydaniexten sox)].</th>
</tr>
</thead>
<tbody>
<tr>
<td>BOD5 and COD</td>
<td>Not available.</td>
</tr>
<tr>
<td>Products of Biodegradation</td>
<td>Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.</td>
</tr>
</tbody>
</table>

Continued on Next Page
### Section 13. Disposal Considerations

**Waste Disposal**  
Sulfuric acid may be placed in sealed container or absorbed in vermiculite, dry sand, earth, or a similar material. It may also be diluted and neutralized. Be sure to consult with local or regional authorities (waste regulators) prior to any disposal. Waste must be disposed of in accordance with federal, state and local environmental control regulations.

### Section 14. Transport Information

**DOT Classification**  
Class 8: Corrosive material

**Identification**  
UNNA: 1830 : Sulfuric acid  PG: II

**Special Provisions for Transport**  
Not available.

**DOT (Pictograms)**  
![Corrosive Pictogram](image)

### Section 15. Other Regulatory Information and Pictograms

**Federal and State Regulations**  
California prop. 65: This product contains the following ingredients for which the State of California has found to cause cancer, birth defects or other reproductive harm, which would require a warning under the statute: Sulfuric acid (Listed as strong inorganic acid mists containing sulfuric acid and applies only to mists containing sulfuric acid generated during an industrial process and not to (almost) pure sulfuric acid or sulfuric acid solutions).  
California prop. 65: This product contains the following ingredients for which the State of California has found to cause cancer which would require a warning under the statute: Sulfuric acid (Listed as strong inorganic acid mists containing sulfuric acid and applies only to mists containing sulfuric acid generated during an industrial process and not to (almost) pure sulfuric acid or sulfuric acid solutions).  
New York release reporting list: Sulfuric acid  
Pennsylvania RTK: Sulfuric acid  
Minnesota: Sulfuric acid  
Massachusetts RTK: Sulfuric acid  
New Jersey: Sulfuric acid  
New Jersey spill list: Sulfuric acid  
Louisiana spill reporting: Sulfuric acid  
California Director's List of Hazardous Substances (8 CCR 339): Sulfuric acid  
TSCA 8(b) inventory: Sulfuric acid  
SARA 302/304/311/312 extremely hazardous substances: Sulfuric acid  
SARA 313 toxic chemical notification and release reporting: Sulfuric acid  
CERCLA: Hazardous substances.: Sulfuric acid: 1000 lbs. (453.6 kg)

**California Proposition 65 Warnings**  
California prop. 65: This product contains the following ingredients for which the State of California has found to cause cancer which would require a warning under the statute: Sulfuric acid (Listed as strong inorganic acid mists)  
California prop. 65: This product contains the following ingredients for which the State of California has found to cause birth defects which would require a warning under the statute: No products were found.

**Other Regulations**  
EINECS. This product is on the European Inventory of Existing Commercial Chemical Substances. (EINECS No. 231-639-5).  
Canada: Listed on Canadian Domestic Substance List (DSL).  
China: Listed on National Inventory.  
Japan: Listed on National Inventory (ENCS).  
Korea: Listed on National Inventory (KECI).  
Philippines: Listed on National Inventory (PICCS).  
Australia: Listed on AICS.

**Other Classifications**  
WHMIS (Canada)  
CLASS D-1A: Material causing immediate and serious toxic effects (VERY TOXIC).  
CLASS E: Corrosive liquid.
<table>
<thead>
<tr>
<th><strong>Sulfuric acid</strong></th>
<th><strong>Page Number:</strong> 7</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>DSCL (EEC)</strong></td>
<td><strong>R35-</strong> Causes severe burns.</td>
</tr>
<tr>
<td><strong>S26-</strong> In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.</td>
<td></td>
</tr>
<tr>
<td><strong>S30-</strong> Never add water to this product.</td>
<td></td>
</tr>
<tr>
<td><strong>S45-</strong> In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>HMIS (U.S.A.)</strong></th>
<th><strong>National Fire Protection Association (U.S.A.)</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Health Hazard</td>
<td>3</td>
</tr>
<tr>
<td>Fire Hazard</td>
<td>0</td>
</tr>
<tr>
<td>Reactivity</td>
<td>2</td>
</tr>
<tr>
<td>Personal Protection</td>
<td>0</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>WHMIS (Canada) (Pictograms)</strong></th>
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<table>
<thead>
<tr>
<th><strong>DSCL (Europe)</strong> (Pictograms)</th>
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<table>
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<tr>
<th><strong>TDG (Canada) (Pictograms)</strong></th>
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<table>
<thead>
<tr>
<th><strong>ADR (Europe) (Pictograms)</strong></th>
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</thead>
</table>

<table>
<thead>
<tr>
<th><strong>Protective Equipment</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Gloves.</td>
</tr>
<tr>
<td>Full suit.</td>
</tr>
<tr>
<td>Vapor respirator. Be sure to use an approved/certified respirator or equivalent. Wear appropriate respirator when ventilation is inadequate.</td>
</tr>
<tr>
<td>Face shield.</td>
</tr>
</tbody>
</table>
### Section 16. Other Information

<table>
<thead>
<tr>
<th>MSDS Code</th>
<th>S5290</th>
</tr>
</thead>
<tbody>
<tr>
<td>References</td>
<td>Not available.</td>
</tr>
<tr>
<td>Other Special Considerations</td>
<td>Not available.</td>
</tr>
</tbody>
</table>

Validated by Sonia Owen on 6/8/2012.  
Verified by Sonia Owen.  
Printed 6/8/2012.

**CALL (310) 516-8000**

**Notice to Reader**

All chemicals may pose unknown hazards and should be used with caution. This Material Safety Data Sheet (MSDS) applies only to the material as packaged. If this product is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this MSDS. It shall be the user's responsibility to develop proper methods of handling and personal protection based on the actual conditions of use. While this MSDS is based on technical data judged to be reliable, Spectrum Quality Products, Inc. assumes no responsibility for the completeness or accuracy of the information contained herein.