SAFETY DATA SHEET

1. IDENTIFICATION

Product identifier

Product code: C1431
Product Name: COPPER SULFATE, PENTAHYDRATE, GRANULAR, FCC

Other means of identification

Synonyms: Blue vitriol; Copper (II) Sulfate Pentahydrate
CAS #: 7758-99-8
RTECS #: GL8900000
CI#: Not available

Recommended use of the chemical and restrictions on use

Recommended use: No information available.
Uses advised against: No information available

Supplier:
Spectrum Chemical Mfg. Corp
14422 South San Pedro St.
Gardena, CA 90248
(310) 516-8000

Order Online At: https://www.spectrumchemical.com

Emergency telephone number
Chemtrec 1-800-424-9300
Contact Person: Martin LaBenz (West Coast)
Contact Person: Ibad Tirmiz (East Coast)

2. HAZARDS IDENTIFICATION

Classification

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

<table>
<thead>
<tr>
<th>Hazard Category</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute toxicity - Oral</td>
<td>Category 3</td>
</tr>
<tr>
<td>Skin corrosion/irritation</td>
<td>Category 2</td>
</tr>
<tr>
<td>Serious eye damage/eye irritation</td>
<td>Category 2A</td>
</tr>
</tbody>
</table>

Label elements
Danger

Hazard statements
Toxic if swallowed
Causes skin irritation
Causes serious eye irritation

Hazard not otherwise classified (HNOC)
Not Applicable

Other hazards
Very toxic to aquatic life with long lasting effects
Very toxic to aquatic life

Precautionary Statements - Prevention
Wash face, hands and any exposed skin thoroughly after handling
Do not eat, drink or smoke when using this product
Wear protective gloves
Wear eye/face protection

Precautionary Statements - Response
Specific treatment (see .? on this label)
Specific treatment (see .? on this label)
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
IF ON SKIN: Wash with plenty of soap and water
If skin irritation occurs: Get medical advice/attention
Take off contaminated clothing and wash before reuse
IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician
Rinse mouth

Precautionary Statements - Storage
Store locked up

Precautionary Statements - Disposal
Dispose of contents/container to an approved waste disposal plant

3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Weight %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Copper Sulfate, Pentahydrate</td>
<td>7758-99-8</td>
<td>100</td>
</tr>
</tbody>
</table>

Product code: C1431
Product name: COPPER SULFATE, PENTAHYDRATE, GRANULAR, FCC
4. FIRST AID MEASURES

First aid measures
General Advice: Poison information centers in each State capital city can provide additional assistance for scheduled poisons (13 1126)

Skin Contact: Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes. Get medical attention. If skin irritation persists, call a physician.

Eye Contact: Flush eyes with water for 15 minutes. Get medical attention.

Inhalation: Move to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

Ingestion: Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Immediate medical attention is required. Toxic if swallowed.

Most important symptoms and effects, both acute and delayed
Symptoms Causes eye irritation. Causes skin irritation. May cause a greenish discoloration of the skin. May cause discoloration of the cornea. May cause ulceration of the cornea. Ingestion may cause gastrointestinal irritation, nausea, vomiting, and diarrhea. Oral mucosa, vomitus, stools, and saliva may be stained blue or green following ingestion. May cause metallic taste. Abdominal pain. May cause metabolic acidosis. May cause methemoglobinemia. May affect the liver. Jaundice. It may affect the kidneys. May cause central nervous system effects. May affect the cardiovascular system. Hypotension. Perforation of the nasal septum if inhaled in excessive quantities. Irritating to respiratory system. Coughing and wheezing.

Indication of any immediate medical attention and special treatment needed
Notes to Physician: Treat symptomatically

Protection of first-aiders
First-Aid Providers: Avoid exposure to blood or body fluids. Wear gloves and other necessary protective clothing. Dispose of contaminated clothing and equipment as bio-hazardous waste

5. FIRE-FIGHTING MEASURES

Extinguishing Media
Suitable Extinguishing Media: The product is not flammable. If it is involved in a fire, extinguish the fire using an agent suitable for the type of surrounding fire.

Unsuitable Extinguishing Media: No information available.

Specific hazards arising from the chemical
Hazardous Combustion Products: If involved in a fire, the following may be released: copper oxides, sulfur oxides

Specific hazards: No information available.

Special Protective Actions for Firefighters
Specific Methods: No information available.

Special Protective Equipment for Firefighters: As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear

Product code: C1431
Product name: COPPER SULFATE, PENTAHYDRATE, GRANULAR, FCC
6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal Precautions: Keep people away from and upwind of spill/leak. Ensure adequate ventilation. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Avoid contact with skin, eyes and clothing. Use personal protective equipment.

Environmental precautions Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. Prevent entry into waterways, sewers, basements or confined areas.

Methods and material for containment and cleaning up

Methods for containment Stop leak if you can do it without risk. Cover with plastic sheet to prevent spreading.

Methods for cleaning up Sweep up and shovel into suitable containers for disposal. Clean contaminated surface thoroughly.

7. HANDLING AND STORAGE

Precautions for safe handling

Technical Measures/Precautions: Provide sufficient air exchange and/or exhaust in work rooms. Keep away from incompatible materials.

Safe Handling Advice Wear personal protective equipment. Avoid contact with skin, eyes and clothing. Do not ingest. Do not breathe vapours/dust. Handle in accordance with good industrial hygiene and safety practice.

Conditions for safe storage, including any incompatibilities

Technical Measures/Storage Conditions: Keep container tightly closed in a dry and well-ventilated place. Store at room temperature in the original container. Store away from incompatible materials.


8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

National occupational exposure limits

United States

<table>
<thead>
<tr>
<th>Components</th>
<th>OSHA</th>
<th>NIOSH</th>
<th>ACGIH</th>
<th>AIHA WHEEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Copper Sulfate, Pentahydrate 7758-99-8</td>
<td>None</td>
<td>1 mg/m³ TWA (as Cu)</td>
<td>1 mg/m³ TWA (as Cu)</td>
<td>None</td>
</tr>
</tbody>
</table>

Canada

<table>
<thead>
<tr>
<th>Components</th>
<th>Alberta</th>
<th>British Columbia</th>
<th>Ontario</th>
<th>Quebec</th>
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</thead>
<tbody>
<tr>
<td>Copper Sulfate, Pentahydrate 7758-99-8</td>
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<td>None</td>
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</table>

Australia and Mexico

<table>
<thead>
<tr>
<th>Components</th>
<th>Australia</th>
<th>Mexico</th>
</tr>
</thead>
<tbody>
<tr>
<td>Copper Sulfate, Pentahydrate 7758-99-8</td>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>

Product code: C1431 Product name: COPPER SULFATE, PENTAHYDRATE, GRANULAR, FCC
Appropriate engineering controls

Engineering measures to reduce exposure: Ensure adequate ventilation. Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

Individual protection measures, such as personal protective equipment

Personal Protective Equipment

Eye protection: Goggles. or. Safety glasses with side-shields.

Skin and body protection: Chemical resistant apron. Long sleeved clothing. Gloves.

Respiratory protection: Effective dust mask. Use a dust respirator under conditions where exposure to the substance is apparent (e.g. generation of high concentration of dust (dust clouds), inadequate ventilation, development of respiratory tract irritation), and engineering controls are not feasible. Be sure to use an approved/certified respirator or equivalent.

Hygiene measures: Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product. When using, do not eat, drink or smoke.

9. PHYSICAL AND CHEMICAL PROPERTIES
### 9. PHYSICAL AND CHEMICAL PROPERTIES

**Physical state:** Solid.  
**Appearance:** Crystals. Granular. Powder.  
**Color:** Light blue.  
**Odor:** Odorless.  
**Taste:** Nauseating. Metallic.  
**Molecular/Formula weight:** 249.69  
**Flammability:** No information available  
**Flashpoint (°C/°F):** No information available.  
**Lower Explosion Limit (%):** No information available  
**Melting point/range(°C/°F):** 110°C/230°F  
**Bulk density:** No information available  
**Vapor pressure @ 20°C (kPa):** No information available  
**VOC content (g/L):** No information available  
**Viscosity:** No information available  
**Miscibility:** No information available  
**Formula:** CuSO₄•5H₂O

### 10. STABILITY AND REACTIVITY

**Reactivity**  
Anhydrous copper sulfate causes hydroxylamine to ignite and the hydrated salt is vigorously reduced  
Copper salts and nitromethane spontaneously form explosive materials  
Copper salts promote the decomposition of hydrazine  
Dangerous acetyldes may be formed from many copper salts. The copper acetyldes formed in ammonical or caustic solutions with Cu(II) salts and acetylene are more explosive than those derived from cuprous Cu(I) salts

**Chemical stability**  
**Stability:** Stable under recommended storage conditions.  
**Possibility of Hazardous Reactions:** Hazardous polymerization does not occur  
**Conditions to avoid:** Incompatible materials.  
**Hazardous decomposition products:** When heated to decomposition it emits toxic fumes. Sulfur oxides.
### 11. Toxicological Information

#### Information on likely routes of exposure

**Principal Routes of Exposure:**
- Ingestion.
- Inhalation.

**Acute Toxicity**

**Component Information**

*Copper Sulfate, Pentahydrate - 7758-99-8*

<table>
<thead>
<tr>
<th>Route</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>LD50/oral/rat</td>
<td>960 mg/kg Oral LD50 Rat (LOLI) 300 mg/kg (RTECS)</td>
</tr>
<tr>
<td>LD50/oral/mouse</td>
<td>43 mg/kg Oral LD50 Mouse</td>
</tr>
<tr>
<td>LD50/dermal/rat</td>
<td>&gt;2000 mg/kg</td>
</tr>
<tr>
<td>LD50/dermal/rabbit</td>
<td>No information available</td>
</tr>
<tr>
<td>LC50/ Inhalation/rat</td>
<td>No information available</td>
</tr>
<tr>
<td>LC50/ inhalation/mouse</td>
<td>No information available</td>
</tr>
</tbody>
</table>

**Other LD50 or LC50 information**

- LD50/dermal/rabbit: No information available
- LC50/ inhalation/mouse: No information available
- Other LD50 or LC50 information: Lowest Lethal Dose (LDL) for human: 1088 mg/kg

**Product Information**

<table>
<thead>
<tr>
<th>Route</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>LD50/oral/rat</td>
<td>VALUE - Acute Tox Oral = 300mg/kg</td>
</tr>
<tr>
<td>LD50/oral/mouse</td>
<td>VALUE - Acute Tox Oral = 43mg/kg</td>
</tr>
<tr>
<td>LD50/dermal/rabbit</td>
<td>VALUE - Acute Tox Dermal = No information available</td>
</tr>
<tr>
<td>LD50/dermal/rat</td>
<td>VALUE - Acute Tox Dermal = &gt; 2000mg/kg</td>
</tr>
</tbody>
</table>

**LC50/ Inhalation/rat**

- VALUE-Vapor = No information available
- VALUE-Gas = No information available
- VALUE-Dust/Mist = No information available

**LC50/ Inhalation/mouse**

- VALUE-Vapor = No information available
- VALUE-Gas = No information available
- VALUE-Dust/Mist = No information available

**Symptoms**

**Skin Contact:**

Causes skin irritation. May cause skin burns, itching allergic dermatitis, eczema, and greenish discoloration of the skin and hair.

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**Product code:** C1431  
**Product name:** COPPER SULFATE, PENTAHYDRATE, GRANULAR, FCC
Eye Contact: Causes serious eye irritation. May cause burns. May cause conjunctivitis. May cause corneal opacity. May cause corneal discoloration, ulceration.

Inhalation Causes respiratory tract (nose, throat, lung) irritation with coughing and wheezing. May cause ulceration and perforation of the nasal septum if inhaled in excessive quantities. Burning copper sulfate may result in irritating and poisonous gases which may irritate the respiratory tract and lungs, and may cause fume metal fever which is characterized by flu-like symptoms such as fever, chills, muscle aches.

Ingestion Toxic if swallowed. May cause gastrointestinal tract irritation with nausea, vomiting, hypermotility, diarrhea, metallic taste, burning sensation in the stomach or epigastrum, abdominal pain, and possible gastrointestinal tract bleeding. May affect metabolism (metabolic acidosis, anorexia, weight loss), liver (liver damage, jaundice), blood (rarely Methemoglobinemia, hemolytic anemia), urinary system (kidney damage, hematuria, hemoglobinuria, albuminuria), behavior/central nervous system (CNS depression, headache, seizures, somnolence, tremor, psychosis, muscle weakness, coma), cardiovascular system (lowering of blood pressure, dysrythmia). Oral mucosa, vomitus, stools, and saliva may be stained blue or green following ingestion. Aspiration pneumonia may develop following emesis (vomiting).

Aspiration hazard No information available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Chronic Toxicity Repeated or prolonged skin contact may cause thickening of the skin

Sensitization: No information available

Mutagenic Effects: Animal experiments showed mutagenic effects

Carcinogenic effects: Not considered carcinogenic

<table>
<thead>
<tr>
<th>Components</th>
<th>IARC - Carcinogens</th>
<th>ACGIH - Carcinogens</th>
<th>NTP</th>
<th>OSHA HCS - Carcinogens</th>
<th>Australia - Notifiable Carcinogenic Substances</th>
<th>Australia - Prohibited Carcinogenic Substances</th>
</tr>
</thead>
<tbody>
<tr>
<td>Copper Sulfate, Pentahydrate</td>
<td>Not listed</td>
<td>Not listed</td>
<td>Not listed</td>
<td>Not listed</td>
<td>Not listed</td>
<td>Not listed</td>
</tr>
</tbody>
</table>

Reproductive toxicity No data is available

Reproductive Effects: No information available
Developmental Effects: No information available
Teratogenic Effects: No information available

Specific Target Organ Toxicity

STOT - single exposure No information available
STOT - repeated exposure No information available
Target Organs: No information available

12. ECOLOGICAL INFORMATION

Ecotoxicity

Product code: C1431

Product name: COPPER SULFATE,
PENTAHYDRATE, GRANULAR, FCC
12. ECOLOGICAL INFORMATION

Ecotoxicity effects: Aquatic environment.

Copper Sulfate, Pentahydrate - 7758-99-8

Freshwater Fish Species Data:
- 0.09 - 0.19 mg/L LC50 Oncorhynchus mykiss 96 h static 1
- 0.1478 - 0.165 mg/L LC50 Oncorhynchus mykiss 96 h flow-through 1
- 0.66 - 1.15 mg/L LC50 Lepomis macrochirus 96 h semi-static 1
- 0.96 - 1.8 mg/L LC50 Lepomis macrochirus 96 h static 1
- 0.6752 mg/L LC50 Pimephales promelas 96 h static 1

Water Flea Data: 0.147 - 0.227 mg/L EC50 Daphnia magna 48 h

Persistence and degradability: If released to soil, copper sulfate may leach to groundwater, be partly oxidized, or bind to humic materials, clay, or hydrous of iron and manganese. In water, it will bind to carbonates as well as humic materials, clay and hydrous oxides of iron and manganese. Copper is accumulated by plants and animals, but it does not appear to biomagnify from plants to animals. This lack of biomagnification appears common with heavy metals. In air, copper aerosols (in general) have a residence time of 2 to 10 days in an unpolluted atmosphere and 0.1 to >4 in a polluted, urban areas.

Bioaccumulative potential: No information available

Mobility: No information available

13. DISPOSAL CONSIDERATIONS

Disposal Methods

Waste from residues / unused products: Waste must be disposed of in accordance with Federal, State and Local regulation.

Contaminated packaging:
Empty containers should be taken for local recycling, recovery or waste disposal

<table>
<thead>
<tr>
<th></th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Copper Sulfate, Pentahydrate</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>

14. TRANSPORT INFORMATION

DOT

- UN-No: UN3077
- Proper Shipping Name: Environmentally hazardous substance, solid, n.o.s. (Cupric Sulfate)
- Hazard Class: 9
- Subsidiary Risk: No information available
- Packing Group: III
- ERG No: 171
- Marine Pollutant: Marine Pollutant
- DOT RQ (lbs): No information available
- Symbol(s): G

TDG (Canada)

- UN-No: UN3077
- Proper Shipping Name: Environmentally hazardous substance, solid, n.o.s.
- Hazard Class: 9

Product code: C1431
Product name: COPPER SULFATE, PENTAHYDRATE, GRANULAR, FCC
14. TRANSPORT INFORMATION

Subsidiary Risk: No information available
Packing Group: III
Description: No information available

ADR
UN-No: UN3077
Proper Shipping Name: Environmentally hazardous substance, solid, n.o.s.
Hazard Class: 9
Packing Group: III
Subsidiary Risk: No information available
Classification Code: No information available
Description: No information available
CEFIC Tremcard No: No information available

IMO / IMDG
UN-No: UN3077
Proper Shipping Name: Environmentally hazardous substance, solid, n.o.s.
Hazard Class: 9
Subsidiary Risk: No information available
Packing Group: III
Description: No information available
IMDG Page: No information available
Marine Pollutant: Marine Pollutant
EMS: F-A
MFAG: No information available
Maximum Quantity: No information available

RID
UN-No: UN3077
Proper Shipping Name: Environmentally hazardous substance, solid, n.o.s.
Hazard Class: 9
Subsidiary Risk: No information available
Packing Group: III
Classification Code: No information available
Description: No information available

ICAO
UN-No: UN3077
Proper Shipping Name: Environmentally hazardous substance, solid, n.o.s.
Hazard Class: 9
Subsidiary Risk: No information available
Packing Group: III
Description: No information available

IATA
UN-No: UN3077
Proper Shipping Name: Environmentally hazardous substance, solid, n.o.s.
Hazard Class: 9
Subsidiary Risk: No information available
Packing Group: III
ERG Code: 9L
Description: No information available

15. REGULATORY INFORMATION

International Inventories

Product code: C1431  Product name: COPPER SULFATE, PENTAHYDRATE, GRANULAR, FCC
Components | U.S. TSCA | KOREA KECL (PICCS) | Philippines | Japan ENCS | CHINA | Australia (AICS) | EINECS-No.
---|---|---|---|---|---|---|---
Copper Sulfate, Pentahydrate | Not Listed | Not present | Present | Not present | Present | Present | Not present

**U.S. Regulations**

*Copper Sulfate, Pentahydrate*

**FDA - Food Additives Generally Recognized as Safe (GRAS): 21 CFR 184.1261**

**California Prop. 65: Safe Drinking Water and Toxic Enforcement Act of 1986.**

**Chemicals Known to the State of California to Cause Cancer:**
This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

**Chemicals Known to the State of California to Cause Reproductive Toxicity:**
This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

<table>
<thead>
<tr>
<th>Components</th>
<th>Carcinogen</th>
<th>Developmental Toxicity</th>
<th>Male Reproductive Toxicity</th>
<th>Female Reproductive Toxicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Copper Sulfate, Pentahydrate</td>
<td>Not Listed</td>
<td>Not Listed</td>
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</table>

**CERCLA/SARA**

<table>
<thead>
<tr>
<th>Components</th>
<th>CERCLA - Hazardous Substances and their Reportable Quantities</th>
<th>Section 302 Extremely Hazardous Substances and TPQs</th>
<th>Section 302 Extremely Hazardous Substances and RQs</th>
<th>Section 313 - Chemical Category</th>
<th>Section 313 - Reporting de minimis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Copper Sulfate, Pentahydrate</td>
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<td>None</td>
<td>None</td>
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</table>

**U.S. TSCA**

<table>
<thead>
<tr>
<th>Components</th>
<th>TSCA Section 5(a)2 - Chemicals With Significant New Use Rules (SNURS)</th>
<th>TSCA 8(d) - Health and Safety Reporting</th>
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<tbody>
<tr>
<td>Copper Sulfate, Pentahydrate</td>
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<td>Not Applicable</td>
</tr>
</tbody>
</table>

**Canada**

**WHMIS hazard class:**
- D1B  Toxic materials
- D2B  Toxic materials

**Copper Sulfate, Pentahydrate**
- D2B

**Canada Controlled Products Regulation:**
This product has been classified according to the hazard criteria of the CPR (Controlled Products Regulation) and the MSDS contains all of the information required by the CPR.

**Inventory**

<table>
<thead>
<tr>
<th>Components</th>
<th>Canada (DSL)</th>
<th>Canada (NDSL)</th>
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</thead>
<tbody>
<tr>
<td>Copper Sulfate, Pentahydrate</td>
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<table>
<thead>
<tr>
<th>Components</th>
<th>CEPA Schedule I - Toxic Substances</th>
<th>CEPA - 2010 Greenhouse Gases Subject to Manditory Reporting</th>
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</thead>
<tbody>
<tr>
<td>Copper Sulfate, Pentahydrate</td>
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<td>Not listed</td>
</tr>
</tbody>
</table>

**Product code:** C1431  **Product name:** COPPER SULFATE, PENTAHYDRATE, GRANULAR, FCC
EU Classification

**R-phrase(s)**
- R25 - Toxic if swallowed.
- R36 - Irritating to eyes.
- R38 - Irritating to skin.
- R50 - Very toxic to aquatic organisms.
- R53 - May cause long-term adverse effects in the aquatic environment.

**S-phrase(s)**
- S26 - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
- S46 - If swallowed, seek medical advice immediately and show this container or label.
- S60 - This material and its container must be disposed of as hazardous waste.
- S61 - Avoid release to the environment. Refer to special instructions/safety data sheets.
- S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection.

<table>
<thead>
<tr>
<th>Components</th>
<th>Classification</th>
<th>Concentration Limits:</th>
<th>Safety Phrases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Copper Sulfate, Pentahydrate</td>
<td></td>
<td>No information</td>
<td></td>
</tr>
</tbody>
</table>

The product is classified in accordance with Annex VI to Directive 67/548/EEC

**Indication of danger:**
- T - Toxic
- Xi - Irritant.

16. OTHER INFORMATION
16. OTHER INFORMATION

Disclaimer:

All chemicals may pose unknown hazards and should be used with caution. This Safety Data Sheet (SDS) 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 SDS. The physical properties reported in this SDS are obtained from the literature and do not constitute product specifications. Information contained herein does not constitute a warranty, whether expressed or implied, as to the safety, merchantability or fitness of the goods for a particular purpose. Spectrum Chemicals & Laboratory Products, Inc. assumes no responsibility for results obtained or for incidental or consequential damages, including lost profits, arising from the use of these data. No warranty against infringement of any patent, copyright or trademark is made or implied. 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 SDS is based on technical data judged to be reliable, Spectrum assumes no responsibility for the completeness or accuracy of the information contained herein.

Preparation Date: 03/11/2015
Revision Date: 1/28/2016
Prepared by: Sonia Owen

End of Safety Data Sheet