Dear Customer,

This File Contains Both The ANSI Material Safety Data Sheet and The GHS Safety Data Sheet For The Same Product

Spectrum is currently transitioning all chemical product labeling from the ANSI\(^1\) format to the GHS\(^2\) format (see note below). In order to ensure that you receive complete labelling during the transition, we have included both the ANSI MSDS and the GHS SDS in a single file. The ANSI MSDS is given first, followed by the GHS SDS. Please use whichever matches the container label.

Why It Matters:

The complete precautionary labeling for this chemical consists of BOTH the label on the container AND the matching Material Safety Data Sheet (for ANSI labels) or Safety Data Sheet (for GHS labels). Both elements of the labeling [Label + (M)SDS] are written to be read and understood together, so as to provide complete precautionary information. It is intended for you to read and understood BOTH before handling or using the chemical.

Picking the Right One: 2 Easy Ways To Tell Whether Your Container Has an ANSI Label or a GHS Label

1) GHS labels: any pictogram displayed in the upper left-hand corner will be inside a red diamond. ANSI labels: pictograms, if present, will be inside individual black boxes.

2) GHS labels: on the bottom of the right-hand panel of the label, locate the Lot Number. Directly to the left will be a string of control characters, followed by a single letter. For GHS labels, the string of characters will end in "GHS:"

---

CORPORATE OFFICES
14422 South San Pedro Street
Gardena, California 90248
PHONE 310.516.8000
FAX 310.516.9843

AN ISO 9001:2008 REGISTERED COMPANY

www.spectrumchemical.com
Sincerely,

Regulatory Affairs
SAFETY DATA SHEET

Product code: F1305
Product Name: FERRIC SUBSULFATE SOLUTION, USP

Other means of identification
Synonyms: Monsel's Solution
CAS #: Mixture
RTECS #: Not available
Cl#: Not available

Recommended use of the chemical and restrictions on use
Recommended use: Styptic agent used after minor surgical procedures, such as curettage and biopsies, to control bleeding and achieve hemostasis.
Uses advised against: No information available

Supplier: Spectrum Chemicals and Laboratory Products, Inc.
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 not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)
Not a dangerous substance or mixture according to the Globally Harmonized System (GHS)

Label elements
Not classified

Hazardos not otherwise classified (HNOC)
Not Applicable

Other hazards
Not available
3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Weight %</th>
<th>Trade Secret</th>
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</thead>
<tbody>
<tr>
<td>Water</td>
<td>7732-18-5</td>
<td>78-80</td>
<td>*</td>
</tr>
<tr>
<td>Ferric Subsulfate</td>
<td>1310-45-8</td>
<td>20-22</td>
<td>*</td>
</tr>
</tbody>
</table>

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. Get medical attention if irritation develops.

Eye Contact: Flush eye with water for 15 minutes. Get medical attention if irritation occurs.

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. Consult a physician if necessary.

Most important symptoms and effects, both acute and delayed


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: No information available.

Specific hazards: No information available.

Special Protective Actions for Firefighters

Product code: F1305

Product name: FERRIC SUBSULFATE SOLUTION, USP
Specific Methods: Extinguish fire using an agent suitable for type of surrounding fire, the substance itself does not burn.

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

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal Precautions: Ensure adequate ventilation. Use personal protective equipment. Avoid contact with skin, eyes and clothing.

Environmental precautions Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Prevent entry into waterways, sewers.

Methods and material for containment and cleaning up

Methods for containment Stop leak if you can do it without risk. Absorb spill with inert material (e.g. vermiculite, dry sand or earth). In case of large spill, dike if needed. Dike far ahead of liquid spill for later disposal.

Methods for cleaning up Use appropriate tools to put the spilled material in a suitable chemical waste disposal container. 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 vapors or spray mist. Protect from light. Handle in accordance with good industrial hygiene and safety practice.

Conditions for safe storage, including any incompatibilities

Technical Measures/Storage Conditions: Sensitive to light. Store in light-resistant containers. Keep container tightly closed in a dry and well-ventilated place. Store at temperature over 22 deg. C. Crystallization may occur if the solution is exposed to temperatures below 22 deg. C. Crystals will redissolve up gentle warming.

Incompatible Materials: No information available.

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>
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Product code: F1305
Product name: FERRIC SUBSULFATE SOLUTION, USP
Canada

<table>
<thead>
<tr>
<th>Components</th>
<th>Alberta</th>
<th>British Columbia</th>
<th>Ontario</th>
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Australia and Mexico

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<td>Ferric Subsulfate</td>
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<td>None</td>
</tr>
<tr>
<td>1310-45-8</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Appropriate engineering controls

Engineering measures to reduce exposure: Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors and mist below their respective threshold limit value.

Individual protection measures, such as personal protective equipment

Personal Protective Equipment

Eye protection: Goggles.

Skin and body protection: Chemical resistant apron. Gloves.

Respiratory protection: Respiratory protection is not necessary for normal handling. Good room ventilation or use of local exhaust (fume hood) is sufficient. Use a vapor respirator under conditions where exposure to the substance is apparent (e.g. generation of high concentrations of mist or vapor, 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. When using, do not eat, drink or smoke. Wash hands before breaks and immediately after handling the product.

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

**Physical state:** Liquid.
**Odor:** Slight. Practically odorless.
**Formula:** Fe₄(OH)₂(SO₄)₅
**Flash Point Tested according to:** Not available
**Autoignition Temperature (°C/°F):** No information available
**Boiling point/range(°C/°F):** No information available
**Specific gravity:** 1.5-1.548
**Evaporation rate:** No information available
**Odor threshold (ppm):** No information available
**Miscibility:** Miscible with water

**Appearance:** No information available
**Taste** Astringent. Sour. Strong.
**Flash point (°C):** No data available
**Decomposition temperature(°C/°F):** No information available
**Vapor pressure @ 20°C (kPa):** No information available
**Partition coefficient (n-octanol/water):** No information available
**Miscibility:** Miscible with water

**Color:** Reddish-Brown.
**Molecular/Formula weight:** 737.71 g/mol
**Flashpoint (°C/°F):** No information available.
**Melting point/range(°C/°F):** No information available
**Vapor pressure:** No information available
**Density (g/cm³):** No information available
**Partition coefficient:** No information available
**Molecular weight:** No information available

10. STABILITY AND REACTIVITY

**Reactivity**
No information available

**Chemical stability**
**Stability:** Sensitive to light. Exposure to light accelerates decomposition. Stable under recommended storage conditions.

**Possibility of Hazardous Reactions:** Hazardous polymerization does not occur

**Conditions to avoid:** Exposure to light. Temperatures below 22°c.

**Incompatible Materials:** No information available.

**Hazardous decomposition products:** No information available.

**Other Information**
**Corrosivity:** No information available

**Special Remarks on Corrosivity:** No information available

11. TOXICOLOGICAL INFORMATION

**Information on likely routes of exposure**

**Product code:** F1305
**Product name:** FERRIC SUBSULFATE SOLUTION, USP
Principal Routes of Exposure:
Skin. Eyes. Ingestion.

Acute Toxicity

Component Information

Water - 7732-18-5
LD50/oral/rat = > 90 mL/kg Oral LD50 Rat
LD50/oral/mouse = No information available
LD50/dermal/rabbit = No information available
LD50/dermal/rat = No information available
LC50/inhalation/rat = No information available
LC50/inhalation/mouse = No information available
Other LD50 or LC50 information = No information available

Ferric Subsulfate - 1310-45-8
LD50/oral/rat = No information available
LD50/oral/mouse = No information available
LD50/dermal/rabbit = No information available
LD50/dermal/rat = No information available
LC50/inhalation/rat = No information available
LC50/inhalation/mouse = No information available
Other LD50 or LC50 information = No information available

Product Information
LD50/oral/rat =
VALUE- Acute Tox Oral = No information available

LD50/oral/mouse =
Value - Acute Tox Oral = No information available

LD50/dermal/rabbit
VALUE-Acute Tox Dermal = No information available

LD50/dermal/rat
VALUE -Acute Tox Dermal = No information available

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: May cause skin irritation.

Eye Contact: Splashes may cause eye irritation.

Product code: F1305
Product name: FERRIC SUBSULFATE SOLUTION, USP
Inhalation
Not expected to be an inhalation hazard. Inhalation of mist or vapors may cause respiratory tract irritation.

Ingestion
May be harmful if swallowed. There is a low toxicity in small quantities, but large doses may lead to iron poisoning and cause gastrointestinal tract irritation (gastroenteritis) with nausea, retching & vomiting, abdominal pain, hypermotility, diarrhea, colic or constipation, and black stool. Liver damage and kidney failure have also been reported from iron poisoning. Pink urine discoloration is a strong indicator of iron poisoning. Iron poisoning may also affect behavior/Central Nervous System (seizures/convulsions, lethargy, drowsiness, hyporeflexia, coma), respiratory system (cyanosis, pulmonary), cardiovascular system (weak pulse, tachycardia, hypotension), metabolism (metabolic acidosis), and blood (leukocytosis). It may also cause coagulation defects, and hypoglycemia.

Aspiration hazard
No information available

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

Chronic Toxicity
Prolonged eye contact may cause a brownish discoloration of the eyes. Prolonged or repeated ingestion may lead to much iron build-up in the body, particularly in the liver and cause liver damage. Symptoms of chronic iron poisoning may be similar that of acute ingestion.

Sensitization:
No information available

Mutagenic Effects:
No information available

Carcinogenic effects:
Not considered carcinogenic

<table>
<thead>
<tr>
<th>Components</th>
<th>ACGIH - Carcinogens</th>
<th>IARC</th>
<th>NTP</th>
<th>OSHA HCS - Carcinogens</th>
<th>Australia - Prohibited Carcinogenic Substances</th>
<th>Australia - Notifiable Carcinogenic Substances</th>
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<td>Not listed</td>
<td>Not listed</td>
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<td>Not listed</td>
<td>Not listed</td>
<td>Not listed</td>
<td>Not listed</td>
<td>Not listed</td>
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</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: Liver.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Ecotoxicity effects:
No data available.

Persistence and degradability:
No information available
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>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Water</td>
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<td>None</td>
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</table>

14. TRANSPORT INFORMATION

DOT

UN-No: Not Regulated
Proper Shipping Name: No information available
Hazard Class: No information available
Subsidiary Risk: Not applicable
Packing Group: None
ERG No: No information available
Marine Pollutant: No data available
DOT RQ (lbs): No information available

TDG (Canada)

UN-No: Not Regulated
Proper Shipping Name: No information available
Hazard Class: No information available
Subsidiary Risk: No information available
Packing Group: No information available
Description: No information available

ADR

UN-No: Not Regulated
Proper Shipping Name: No information available
Hazard Class: No information available
Packing Group: No information available
Subsidiary Risk: No information available
Classification Code: No information available
Description: No information available
CEFIC Tremcard No: No information available

IMO / IMDG

UN-No: Not Regulated
Proper Shipping Name: No information available
Hazard Class: No information available
Subsidiary Risk: No information available

Product code: F1305
Product name: FERRIC SUBSULFATE SOLUTION, USP
14. TRANSPORT INFORMATION

Packing Group: No information available
Description: No information available
IMDG Page: No information available
Marine Pollutant: No information available
MFAG: No information available
Maximum Quantity: No information available

RID
UN-No: Not Regulated
Proper Shipping Name: No information available
Hazard Class: No information available
Subsidiary Risk: No information available
Packing Group: No information available
Classification Code: No information available
Description: No information available

ICAO
UN-No: Not Regulated
Proper Shipping Name: No information available
Hazard Class: No information available
Subsidiary Risk: No information available
Packing Group: No information available
Description: No information available

IATA
UN-No: Not Regulated
Proper Shipping Name: No information available
Hazard Class: No information available
Subsidiary Risk: No information available
Packing Group: No information available
Description: No information available

15. REGULATORY INFORMATION

International Inventories

<table>
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<tr>
<th>Components</th>
<th>U.S. TSCA</th>
<th>KOREA KECL (PICCS)</th>
<th>Philippines (PICCS)</th>
<th>Japan ENCS</th>
<th>CHINA</th>
<th>Australia (AICS)</th>
<th>EINECS-No.</th>
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<td>Present KE-21089</td>
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<td>Present (1)-359</td>
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<td>Present</td>
<td>Present 215-179-2</td>
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</table>

U.S. Regulations


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>
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<tbody>
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Product code: F1305
Product name: FERRIC SUBSULFATE SOLUTION, USP
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>
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U.S. TSCA

<table>
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<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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<td>Ferric Subsulfate</td>
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</table>

Canada

WHMIS hazard class: Non-controlled

Water

Uncontrolled product according to WHMIS classification criteria

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

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<th>Components</th>
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EU Classification

S -phrase(s)

none

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<th>Safety Phrases</th>
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<tr>
<td>Ferric Subsulfate</td>
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<td>No information</td>
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</tbody>
</table>

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

Indication of danger:
None.

Product code: F1305
Product name: FERRIC SUBSULFATE SOLUTION, USP
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.

End of Safety Data Sheet
Section 1. Chemical Product and Company Identification

Common Name/Trade Name: Ferric Subsulfate Solution

Manufacture: SPECTRUM LABORATORY PRODUCTS INC.
14422 S. SAN PEDRO STREET
GARDENA, CA 90248

Commercial Name(s): Monsel's Solution

Synonym: Not available.

Chemical Name: Not applicable.

Chemical Family: Salt.

Chemical Formula: Not applicable.

Manufacturer: SPECTRUM LABORATORY PRODUCTS INC.
14422 S. SAN PEDRO STREET
GARDENA, CA 90248

Section 2. Composition and Information on Ingredients

<table>
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<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>
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</thead>
<tbody>
<tr>
<td>1) Water</td>
<td>7732-18-5</td>
<td>78-80</td>
<td>20-22</td>
<td></td>
<td></td>
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<tr>
<td>2) Ferric subsulfate</td>
<td>1310-45-8 (anhydrous CAS no.)</td>
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Section 3. Hazards Identification

Potential Acute Health Effects: Slightly hazardous in case of skin contact (irritant), of eye contact (irritant), of ingestion, .

Potential Chronic Health Effects:

CARCINOGENIC EFFECTS: Not available.

MUTAGENIC EFFECTS: Not available.

TERATOGENIC EFFECTS: Not available.

DEVELOPMENTAL TOXICITY: Not available.

The substance may be toxic to blood, kidneys, liver, lymphatic system, pancreas.

Repeated or prolonged exposure to the substance can produce target organs damage. Repeated exposure to a highly toxic material may produce general deterioration of health by an accumulation in one or many human organs.

Continued on Next Page
## 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 if irritation occurs.

### Skin Contact
Wash with soap and water. Cover the irritated skin with an emollient. Get medical attention if irritation develops. Cold water may be used.

### Serious Skin Contact
Not available.

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

### Serious Inhalation
Not available.

### Ingestion
If swallowed, 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 immediately.

### 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
Not available.

### Fire Hazards in Presence of Various Substances
Not applicable.

### Explosion Hazards in Presence of Various Substances
Non-explosive in presence of open flames and sparks, of shocks.

### Fire Fighting Media and Instructions
Not applicable.

### Special Remarks on Fire Hazards
Not available.

### Special Remarks on Explosion Hazards
Not available.

## 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. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.

### Large Spill
Stop leak if without risk. Do not get water inside container. Do not touch spilled material. Use water spray to reduce vapors. Prevent entry into sewers, basements or confined areas; dike if needed. Call for assistance on disposal. Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system. 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
Do not ingest. Do not breathe gas/fumes/vapor/spray. Wear suitable protective clothing. If ingested, seek medical advice immediately and show the container or the label.

Storage
Keep container tightly closed. Keep container in a cool, well-ventilated area. Sensitive to light. Store in light-resistant containers. Product may freeze/crystallize at very cool temperatures. Crystals will redissolve upon gentle heating.

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.

Personal Protection
Safety glasses. Lab coat. Gloves (impervious). Respiratory protection is not necessary for normal handling. Good room ventilation or use of local exhaust (fume hood) is sufficient. Use a vapor respirator under conditions where exposure to the substance is apparent (e.g., generation of high concentrations of mist or vapor, inadequate ventilation, development of respiratory tract irritation), and engineering controls are not feasible. Be sure to use an approved/certified respirator or equivalent.

Personal Protection in Case of a Large Spill
Splash goggles. Full suit. Boots. Gloves. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

Exposure Limits
TWA: 1 (mg(Fe)/m³) from ACGIH (TLV) [United States]
Consult local authorities for acceptable exposure limits.

Section 9. Physical and Chemical Properties

Physical state and appearance
Liquid.

Odor
Slight.

Molecular Weight
Not applicable.

Taste
Astringent. sour (Strong.)

pH (1% soln/water)
Acidic to litmus

Color
Brownish-red.

Boiling Point
The lowest known value is 100°C (212°F) (Water).

Melting Point
Not available.

Critical Temperature
Not available.

Specific Gravity
1.548 @ 25°C (Water = 1)

Vapor Pressure
The highest known value is 2.3 kPa (@ 20°C) (Water).

Vapor Density
The highest known value is 0.62 (Air = 1) (Water).

Vapor Density
Not available.

Odor Threshold
Not available.

Water/Oil Dist. Coeff.
Not available.

Ionicity in Water
Not available.

Dispersion Properties
See solubility in water.

Solubility
Easily soluble in cold water, hot water.

Section 10. Stability and Reactivity Data

Stability
The product is stable.

Instability Temperature
Not available.

Conditions of Instability
Light, incompatible materials

Incompatibility with various substances
Not available.

Corrosivity
Non-corrosive in presence of glass.

Continued on Next Page
### Special Remarks on Reactivity
Sensitive to light.
No other information found at this time.

### Special Remarks on Corrosivity
Not available.

### Polymerization
Will not occur.

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## Section 11. Toxicological Information

### Routes of Entry
Absorbed through skin. Eye contact.

### Toxicity to Animals
LD50: Not available.
LC50: Not available.

### Chronic Effects on Humans
May cause damage to the following organs: blood, kidneys, liver, lymphatic system, pancreas.

### Other Toxic Effects on Humans
Slightly hazardous in case of skin contact (irritant), of ingestion, of inhalation.

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### Acute Potential Health Effects:
- **Skin**: May cause skin irritation, but no adverse effects are expected.
- **Eyes**: Splashes may cause eye irritation.
- **Inhalation**: Vapor may cause respiratory tract irritation.
- **Ingestion**: May be harmful if swallowed. There is a low toxicity in small quantities, but larger doses may lead to iron poisoning and cause gastrointestinal tract irritation (gastroenteritis) with nausea, retching & vomiting, abdominal pain, hypermotility, diarrhea, colic or constipation, and black stool. Liver damage and renal failure have also been reported from iron poisoning. Pink urine discoloration is a strong indicator of iron poisoning. Iron poisoning may also affect behavior/Central Nervous System (somnolence -general depressed activity, seizures, irritability, lethargy, restlessness, drowsiness, hyporeflexia, confusion, coma), respiration, cardiovascular system (weak pulse, hypotension), metabolism (metabolic acidosis), and blood (leukocytosis). Chronic Potential Health Effects:
  - **Ingestion**: Repeated high exposures may lead to iron build-up in the body (particularly in the liver, spleen, and lymphatic system) causing nausea, vomiting, stomach pain, constipation or diarrhea, black bowel movements, mild lethargy, irritability, leukocytosis, normocytic anemia, hemochromatosis in the Kupfer cells of the liver or in the reticuloendothelial cells of the bone marrow. Damage may occur to the spleen, lymphatic system, and liver (cirrhosis, hemosiderosis). Fibrosis or other damage may also occur to the pancreas. Symptoms may include hypoglycemia, hyperglycemia.
  - **Eyes**: Prolonged eye contact may cause brownish discoloration of eyes.
  - Toxicity information was extrapolated from Ferric Sulfate, Ferrous Sulfate, and Iron.

### Chronic Effects on Humans
Ingestion: Repeated high exposures may lead to iron build-up in the body (particularly in the liver, spleen, and lymphatic system) causing nausea, vomiting, stomach pain, constipation or diarrhea, black bowel movements, mild lethargy, irritability, leukocytosis, normocytic anemia, hemochromatosis in the Kupfer cells of the liver or in the reticuloendothelial cells of the bone marrow. Damage may occur to the spleen, lymphatic system, and liver (cirrhosis, hemosiderosis). Fibrosis or other damage may also occur to the pancreas. Symptoms may include hypoglycemia, hyperglycemia.

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## Section 12. Ecological Information

### Ecotoxicity
Not available.

### BOD5 and COD
Not available.

### Products of Biodegradation
Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.

### Toxicity of the Products of Biodegradation
The products of degradation are less toxic than the product itself.

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### Special Remarks on the Products of Biodegradation
Not available.
**Section 13. Disposal Considerations**

**Waste Disposal**
Waste must be disposed of in accordance with federal, state and local environmental control regulations.

**Section 14. Transport Information**

**DOT Classification**
Not a DOT controlled material (United States).

**Identification**
Not applicable.

**Special Provisions for Transport**
Not applicable.

**Section 15. Other Regulatory Information and Pictograms**

**Federal and State Regulations**
TSCA 8(b) inventory: Ferric subsulfate; Water

**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: No products were found.
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**

**Other Classifications**

| WHMIS (Canada) | Not controlled under WHMIS (Canada). |
| DSCL (EEC)     | Not Available     | Not Available |

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<td>Health Hazard</td>
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**National Fire Protection Association (U.S.A.)**

**WHOIS (Canada)**

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Protective Equipment

Gloves (impervious).

Lab coat.

Not applicable.

Safety glasses.

Section 16. Other Information

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<td>References</td>
<td>Manufacturer’s Material Safety Data Sheet. Some toxicity information was also extrapolated from Ferrous Sulfate</td>
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<tr>
<td>Other Special Considerations</td>
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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.