1. IDENTIFICATION

Product Name: FERROUS SULFATE HEPTAHYDRATE
Synonyms: Iron (II) sulfate; Copperas; Green vitriol
Formula and Formula Weight: FeSO4 7H2O  278.02
Integra numbers beginning with: F408.10; F408.50
Recommended Use: Commercial/industrial use
Restrictions on Use: No information available

2. HAZARDS IDENTIFICATION

OSHA Classification:
- Acute Toxicity - Oral: 4 Harmful if swallowed.
- Skin Corrosion/Irritation: 2 Causes skin irritation.
- Eye Damage/Irritation: 2A Causes serious eye irritation.

Signal Word: Warning

Precautionary Statements
- Prevention:
  - Wash thoroughly after handling.
  - Do not eat, drink or smoke when using this product.
  - Wear protective gloves.
  - Wear eye protection, face protection.

- Response:
  - If swallowed: Rinse mouth. Call a poison center, doctor if you feel unwell.
  - If on skin: Wash with plenty of water
  - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
  - Specific treatment (see first aid section on this label)
  - If skin irritation occurs: Get medical advice, attention.
  - If eye irritation persists: Get medical advice, attention.
  - Take off contaminated clothing and wash it before reuse.

- Disposal:
  - Dispose of contents, container in accordance with all governmental regulations.

Hazards Not Otherwise Classified: No information available

3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Component</th>
<th>Synonyms</th>
<th>CAS #</th>
<th>% Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ferrous sulfate heptahydrate</td>
<td>Iron (II) sulfate; Copperas; Green vitriol</td>
<td>07782-63-0</td>
<td>100</td>
</tr>
</tbody>
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4. FIRST AID MEASURES

- Inhalation: Remove person to fresh air.
- Eye Contact: Flush eyes with plenty of water. Remove contact lenses, if present and easy to do. If irritation persists, seek medical attention.
- Skin Contact: Wash with soap and water. Seek medical attention if irritation develops.
- Ingestion: If conscious, rinse mouth and give victim large amounts of water. Seek medical attention.
- Additional notes: Symptoms and effects include irritation of skin, eyes, mucous membranes; abdominal pain, diarrhea, vomiting

5. FIRE-FIGHTING MEASURES

- Extinguishing Media: Material is not flammable. Use extinguishing media suitable to surrounding materials.
- Special Equipment and Precautions: Use water to cool nearby containers and structures. Wear full protective equipment, including suitable respiratory protection.
- Specific Hazards: Fire conditions may liberate toxic and noxious fumes.

6. ACCIDENTAL RELEASE MEASURES

- Spill Procedures: Prevent spread of spill. Wear suitable protective equipment. Sweep or scoop into clean, dry disposal container.

INTEGRA Chemical Company
1216 6th Ave N
Kent WA 98032
Phone: 253-479-7000

24 Hour Emergency Response: CHEMTREC 800-424-9300 (Outside USA 703-527-3887)
7. HANDLING AND STORAGE

Incompatible Materials: Incompatible with strong bases. Potassium, carbonates, gold and silver salts, lead acetate, potassium iodide, potassium tartrate, sodium tartrate, sodium borate

Storage and Handling: Store in a cool, dry, well-ventilated area away from incompatible materials. Keep containers tightly closed and protect them from physical damage.

Wash thoroughly after handling.

Do not eat, drink or smoke when using this product.

Wear protective gloves.

Wear eye protection, face protection.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

OSHA & ACGIH Exposure Limits:

Ferrous sulfate heptahydrate

OSHA TWA: 1 mg/m³ (as Fe)   ACGIH TWA: 1 mg/m³ (as Fe)

Engineering Controls: Use general or local exhaust ventilation to meet TLV and PEL requirements.

Respiratory Protection: Respiratory protection required if airborne concentrations exceed PEL or TLV. Use a NIOSH approved respirator with a particulate filter.

Skin/Eye Protective Equipment: Safety goggles, protective clothing and gloves appropriate for the risk of exposure.

Facilities storing or utilizing this material should have readily accessible eyewash stations and safety showers.

Select respirators and other safety equipment in accordance with regulations and based upon the particular conditions of use and risk of exposure. Always use safe chemical-handling and good industrial hygiene practices.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Blue-green crystals or granules

Odor: No odor

Odor Threshold: Not available

pH: 3.0 - 4.0 (50g/L at 25°C)

Melting/Freezing Point: 64 °C

Initial Boiling Point and Boiling Range: Not available

Flash Point: Not available

Evaporation Rate: Not available

Flammability: Not flammable

Flammable or Explosive Limits (% by volume in air) Upper: Not available Lower: Not available

Vapor Pressure: 11 mm Hg @25°C

Vapor Density: Not available

Relative Density: 1.9 Water=1

Solubility: Soluble in water

Partition Coefficient: n-octanol/water Not available

Auto-Ignition Temperature: Not available

Decomposition Temperature: Not available

Viscosity: Not available

10. STABILITY AND REACTIVITY

Reactivity: No information available

Stability: Stable

Possibility of Hazardous Reactions: Hazardous polymerization will not occur

Conditions to Avoid: Moisture.

Incompatibles: Incompatible with strong bases. Potassium, carbonates, gold and silver salts, lead acetate, potassium iodide, potassium tartrate, sodium tartrate, sodium borate

Decomposition Products: Oxides of sulfur.

11. TOXICOLOGICAL INFORMATION

Effects of Over Exposure:

Inhalation: Inhalation may irritate the nose, throat and upper respiratory tract.

Skin Contact: Contact may cause skin irritation.

Eye Contact: Contact may be irritating to the eyes.

Ingestion: May cause gastrointestinal upset with symptoms of abdominal pain, vomiting, and diarrhea.

Chronic Effects: Liver damage.

Target Organs: Eyes, skin, respiratory system. Liver, gastrointestinal tract.

Additional Effects: None identified

Reproductive Effects: None identified

Carcinogenicity: None identified

Toxicity Data:

Flush spill area with water.
16. OTHER INFORMATION

OSHA SDS #: 25656 rev 101  3/27/2015

NE = Not established, NA = Not applicable or Not available
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***** END OF SDS *****