1. Identification

Product Name: Colloidal Iron Stock Solution

Synonyms: N/A

Recommended Use: Special Stains

Restrictions on Use: N/A

Manufacturer/Supplier:
Avantik Biogroup
32 Commerce Street
Springfield, NJ 07081
1-888-392-8411

In Case of Emergency:
Chemtrec US 1-800-424-9300
Chemtrec International 703-527-3887

2. Hazards Identification

OSHA Hazard Classification(s):
Skin Corrosion - Category 1A
Eye Damage - Category 1

Signal Word: Danger

Hazard Statement(s): Causes severe skin burns and eye damage. Causes serious eye damage.

Pictogram(s):

Precautionary Statement(s): Prevention: Do not breathe dusts or mists. Wash body thoroughly after handling. Wear protective gloves, protective clothing, eye protection and face protection. Wear eye protection, face protection.

Response: If swallowed: Rinse mouth. Do NOT induce vomiting. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. Take off all contaminated clothing and wash it before reuse. If inhaled: Remove person to fresh air and keep comfortable for breathing. Immediately call a doctor. Specific treatment (see first aid section on this label). If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue Rinsing

Storage: Store locked up.

Disposal: Dispose of contents/container in accordance with local regulations.

Descriptions of Hazards not otherwise classified: N/A

Percent of mixture with unknown acute toxicity: N/A

3. Composition and Information on Ingredients

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Common Name</th>
<th>CAS #</th>
<th>Concentration %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water</td>
<td></td>
<td>7732-18-5</td>
<td>Trade Secret</td>
</tr>
<tr>
<td>Ferric Chloride</td>
<td></td>
<td>10025-77-1</td>
<td>Trade Secret</td>
</tr>
</tbody>
</table>

4. First Aid Measures

Eye Contact: 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 immediately.

Skin Contact: If on skin (or hair): Take off immediately all contaminated clothing and wash before reuse. Wash with plenty of water. If skin irritation occurs: Get medical advice/attention immediately.

Inhalation: Remove to fresh air; give artificial respiration if breathing has stopped. Get medical advice/attention if you feel unwell.

Ingestion: Do not induce vomiting. If vomiting occurs spontaneously, keep head below hips to prevent aspiration of liquid into the lungs. Get medical attention.

Symptoms: Irritation eyes, nose, throat; headache, dizziness

Recommendations for immediate medical care/special treatment: Get medical advice/attention if you feel unwell.
5. Fire-Fighting Measures

**Extinguishing Media:** Dry chemical, carbon dioxide, alcohol foam, water.

**Fire Hazards (Chemical):** Not flammable.

**Special Protective Equipment:** Fire fighters should use self-contained breathing apparatus and protective clothing.

**Precautions for Firefighters:** Fire fighters should use self-contained breathing apparatus and protective clothing.

6. Accidental Release Measures

**Emergency Procedures:** Evacuate the area of all unnecessary personnel. Wear suitable protective equipment. Eliminate all sources of ignition and provide ventilation.

**Protective Equipment:** See section 8

**Environmental Precautions:** Prevent release to the environment by using barriers.

**Containment and Clean-Up Procedures:** Use barriers to prevent spreading. Collect spill in container. Call waste authorities.

7. Handling and Storage

**Handling:** Do not breathe vapors. Do not eat, drink or smoke when using this product. See section 8 for personal protection measures.

**Storage:** Store locked up. Store in a well-ventilated, cool place. Keep lid tightly closed until ready to use. Do not store in metal container.

8. Exposure Controls/Personal Protection

**OSHA Permissible Exposure Limits (PELs):**

<table>
<thead>
<tr>
<th>Reagent</th>
<th>CAS #</th>
<th>OSHA PEL TWA</th>
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<tbody>
<tr>
<td>Ferric Chloride</td>
<td>10025-77-1</td>
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**ACGIH Threshold Limit Values (TLVs):**

<table>
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<th>Reagent</th>
<th>CAS #</th>
<th>ACGIH PEL TLV</th>
<th>ACGIH STEL</th>
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<tr>
<td>Ferric Chloride</td>
<td>10025-77-1</td>
<td>1 mg(Fe)/m3</td>
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**Engineering Controls:** Use in a well ventilated area to prevent exposure. Maintain eyewash fountain and quick-drench facilities in work areas.

**Personal Protective Measures:** Wear gloves, lab coat, eye protection and impervious footwear. Contact lenses should not be worn when working with this material.

**Special PPE Requirements:** If ventilation hood not available wear respirator.

9. Physical and Chemical Properties Section

**Appearance:** Brown, Brown Liquid

**Molecular Weight:** N/A

**Molecular Formula:** N/A

**pH:** 1.5-1.7

**Boiling Point and Boiling Range:** N/A

**Melting Point/Freezing Point:** N/A

**Flash Point:** N/A

**Specific Gravity/Relative Density:** N/A

**Odor:** N/A

**Odor Threshold:** N/A

**Color:** Brown

**Flammability (solid/gas):** N/A

**Vapor Density:** N/A
Colloidal Iron Stock Solution

Upper/Lower flammability or explosive limits: N/A
Vapor Pressure: N/A
Evaporation Rate: N/A
Partition Coefficient: n-octanol/water: N/A
Viscosity: N/A
Auto-ignition temperature: N/A
Solubility: N/A
Decomposition Temperature: N/A

10. Stability and Reactivity

Reactivity: N/A
Chemical Stability: Stable
Conditions of Stability/Instability: N/A
Stabilizers needed: None
Safety issue indicated by appearance change: N/A
Other: N/A
Hazardous Reactions: N/A
Hazardous Polymerization: Does not occur
Conditions to avoid: N/A
Classes of Incompatible Materials: Oxidizers, Strong Acids, Strong Bases, may be corrosive to metals.
Hazardous Decomposition Products: Thermal-oxidation degradation can produce oxides of carbon. Toxic gases and vapors (I.e. Carbon monoxide) may be released in a fire.

11. Toxicological Information

Likely Routes of Exposure
   Eyes: Corrosive to eyes. May cause permanent damage to corneal and loss of vision. May cause pain, redness, swelling. Very acidic solution.
   Skin: Corrosive to skin. May cause permanent damage and scarring. May cause pain, redness and swelling. Very acidic solution.
   Inhalation: Dizziness, headache.
   Ingestion: Corrosive solution. May cause burns to mouth, throat, stomach and digestive tract. May cause nausea.

Signs or Symptoms of Exposure: Nausea.
Effects from short term exposure (delayed, immediate, chronic): Irritation to the eyes, nose, throat; headache, dizziness, nausea.
Acute Toxicity (Numerical Measures): N/A
Carcinogenicity (NTP, IARC, OSHA): N/A

12. Ecological Information

Ecotoxicity:
Persistence and degradability:
Bioaccumulation Potential (octanol-water partition coefficient, BCF):
Mobility in the soil:
Adverse Environmental Effects: Toxic to aquatic life with long lasting effects.

13. Disposal Considerations

Recommended Disposal Containers: Check with your local waste authorities*
Recommended Disposal Methods: Do not dispose of in drains, check with your local waste authorities.*
Physical/Chemical Properties affecting Disposal: See section 2 and section 9 applicable information.*
Special Precautions for Landfill and Incineration Activities: Check with your local waste authorities.*
Waste Stream: Consult your local or regional authorities.*

14. Transport Information
UN Number: UN2582
UN Proper Shipping Name: Ferric Chloride Solution
Transport Hazard Class(es): 8
Packing Group Number: III
Environmental Hazards (IMDG code):
  Marine Pollutant: No
Transport in Bulk (IBC Code):
Special Transport Precautions:

15. Regulatory Information
OSHA:
DOT:
EPA:
CPSC:
16. Other Information

**Revision Date:** 01/07/2015

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</tr>
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Notice to Reader:

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