Medical Chemical Corp.
19430 Van Ness Ave.
Torrance, CA 90501
Customer Service: Phone (310)787-6800
FAX (310)787-4464
CHEMTREC Emergency Response Telephone Number: (800)424-9300
Note: The CHEMTREC phone number is only for emergencies involving spills, leaks, fire, exposure or accident. Please direct all other inquiries to our customer service phone number.

Section I - Product Identification
A slightly acidic solution of ferric and ferrous ammonium sulfate in water.

Section II - Hazards Identification
Overview: May be harmful if swallowed. May be irritating to skin, eyes and respiratory tract.

Safety Ratings
Health: Slight  Flammability: None  Reactivity: None  Contact: Slight
Recommended safety equipment: safety goggles, lab coat and proper gloves
Storage: General storage
NFPA Ratings
Health = 1  Flammability = 0  Reactivity = 0

Potential Health Effects
The toxicology of this compound have not been completely examined. It is presumed that the toxicity of this item is similar to other weak acids.
Inhalation: May be irritating
Ingestion: While the toxicity of this compound is low, large doses may cause nausea, vomiting, diarrhea, etc.
Skin contact: Not normally a problem
Eye contact: May be irritating
Chronic Exposure: Unknown
Aggravation of preexisting conditions: Unknown

Section III - Composition/Information on Components

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>CAS#</th>
<th>OSHA Pel</th>
<th>ACGIH TLV</th>
<th>Other Limits</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ferrous ammonium sulfate</td>
<td>10045-89-3</td>
<td>1 mg (Fe)/m3</td>
<td>1 mg (Fe)/m3</td>
<td>1% w/v</td>
<td></td>
</tr>
<tr>
<td>Ferric ammonium sulfate</td>
<td>10138-04-2</td>
<td>1 mg (Fe)/m³</td>
<td>1 mg (Fe)/m³</td>
<td>1% w/v</td>
<td></td>
</tr>
<tr>
<td>Hydrochloric acid</td>
<td>7647-01-0</td>
<td>5 ppm ceiling</td>
<td>2 ppm ceiling</td>
<td>1% w/v</td>
<td></td>
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</tbody>
</table>

Section IV - First Aid Measures

Inhalation: Remove from source of exposure and get medical attention for any breathing difficulty.
Ingestion: If the victim is conscious, induce vomiting. Never give anything by mouth to an unconscious person.
Skin Contact: Wash affected area with soap and water. Get medical advice if irritation develops.
Eye Contact: Rinse thoroughly with running water. Get medical advice if irritation develops.
Section V - Fire Fighting Measures

Flash point: Not applicable.
Flammable Limits: Not applicable.
Explosion: Not Normally an explosion hazards.
Fire Extinguishing Media: Any means suitable for surrounding fire.
Special information: Pyrolysis will release corrosive oxides.

Section VI - Accidental Release Measures

Absorb with a suitable absorbent (such as paper towels) and store in a suitable container for disposal.

Section VII - Handling and Storage

Store in a closed container, protected from freezing.

Section VIII - Exposure Control/Personal Protection

Airborne Exposure Limits: See section III.
Ventilation System: Usually not required. When required, Refer to the ACGIH document, “Industrial Ventilation, a Manual of Recommended Practices” for details about ventilation.
Personal Respirator: Usually not required. In case of emergency, or when exposure levels are unknown, use a positive pressure, full face piece, air supplied respirator.
Skin protection: Protective gloves are not required but recommended as part of good laboratory practice.
Eye Protection: Laboratory safety goggles or similar products are not required but recommended as part of good laboratory practice.

Section IX - Physical and Chemical Properties

Boiling Point: 100 °C
Density: 1.02 g/ml
Vapor pressure (mm Hg): 18 @ 20 °C
Evaporation Rate (water = 1): 1
Vapor Density (air = 1): 0.6
Solubility: Infinitely miscible with water
Appearance and Odor: A clear yellowish liquid with a pungent odor.

Section X - Stability and Reactivity

Stability: Freezes at low temperature.
Hazardous Decomposition Products: Nothing unusual.
Hazardous polymerization: Will not occur.
Incompatibilities: Nothing unusual.
Conditions to avoid: Excessive cold/heat and light.

Section XI - Toxicological Information

None relating to normal exposure.

Cancer lists

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Known Carcinogenicity?</th>
<th>Anticipated?</th>
<th>IARC Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ferrous ammonium sulfate</td>
<td>no</td>
<td>no</td>
<td>none</td>
</tr>
<tr>
<td>Ferric ammonium sulfate</td>
<td>no</td>
<td>no</td>
<td>none</td>
</tr>
<tr>
<td>hydrochloric acid</td>
<td>no</td>
<td>no</td>
<td>3</td>
</tr>
</tbody>
</table>

Section XII - Ecological Information

Environmental Fate: Biodegradable
Environmental Toxicity: Iron salts are expected to be toxic to aquatic life.
Section XIII - Disposal Considerations
Generally not restricted but local governments have the authority to restrict flushing anything down the drain. Insure compliance with all government regulations.

Section XIV - Transportation Information
Not regulated.

Section XV - Regulatory Information

### Chemical Inventory Status

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>TSCA</th>
<th>EC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ferrous ammonium sulfate</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Ferric ammonium sulfate</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

### Federal, State and International Regulations

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>SARA 302</th>
<th>SARA 313</th>
<th>RCRA 261.33</th>
<th>TSCA 8(D)</th>
<th>Ca. Prop 65</th>
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</thead>
<tbody>
<tr>
<td>Ferrous ammonium sulfate</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Ferric ammonium sulfate</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Hydrochloric acid</td>
<td>5000</td>
<td>500</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

Chemical Weapons Convention: No  TSCA 12(b): No  CDTA: No
SARA 311/312: Acute: Yes, Chronic: Yes

Section XVI - Other Information
This information is believed to be correct but is not waranteed as such, nor does it purport to be all inclusive.
Revision Date: Jan. 3, 2018