MATERIAL SAFETY DATA SHEET #221

FERRIC AMMONIUM SULFATE, 6%
Cat # LC14270

SECTION I

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SECTION II - HAZARDOUS INGREDIENTS/IDENTITY INFORMATION

NAME: FERRIC AMMONIUM SULFATE, 6%
SYN: VOLHARD INDICATOR FOR CHLORIDE

COMPONENTS:
(1) ferric ammonium sulfate, dodecahydrate, 6% CAS: 7783-83-7
(2) water, balance FORMULA/WT. Fe(NH4)(SO4)2.12H2O/482.19
7793-18-5 H2O/18.00

CERCLA RATING (0-3): Health- U Fire- 0 Reactivity- 0 Persistance- 3
NFPA RATING (0-4): Health- U Fire- 0 Reactivity- 0

SECTION III - PHYSICAL AND CHEMICAL CHARACTERISTICS

>100°C <0°C 1.1 n/a n/a n/a slightly acidic

Appearance/Odor: light purple solution/odorless
Solubility: soluble in water

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

Flash pt: Explosion level-lower(LEL): -upper(UEL): Autoignition:
Negligible fire hazard when exposed to heat or flame

Extinguishing Media: dry chemical, carbon dioxide, water, foam.
Firefighting: no acute hazard. Move container from fire area if possible.

SECTION V - REACTIVITY DATA

Stability: stable under normal temperatures and pressures.
Condition to Avoid: none indicated.

Hazardous Decomposition/Byproducts: thermal decomposition may release toxic oxides of nitrogen and sulfur.
Hazardous Polymerization: not known to occur.

SECTION VI - HEALTH HAZARD DATA

Toxicity: dry ferric ammonium sulfate-- toxicity has not been quantified. Causes irritation to eyes, skin, mucous membranes. Iron poisoning may affect liver, kidneys, cardiovascular, respiratory, digestive, and central nervous systems. Mutation data (RTECS).
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Carcinogenicity: none reported

Exposure Limits:

<table>
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<tr>
<th>OSHA-PEL</th>
<th>ACGIH-TWA</th>
<th>STEL</th>
<th>TLV CEILING</th>
<th>IDLH</th>
<th>OTHER</th>
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<tr>
<td>n/a</td>
<td>1mg(Fe)/M3</td>
<td>n/a</td>
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Acute Health Hazards: may cause irritation to eyes and skin. Ingestion may cause irritation to gastrointestinal tract. Abdominal pain, vomiting, hematemesis, diarrhea, coma, death may occur on ingestion of large quantities.

Chronic Health Hazards: long term exposure may cause hemosiderosis with possible damage to liver and pancreas.

First Aid:
- Inhalation: remove from exposure area immediately. If breathing has stopped, give artificial respiration. Get medical aid at once.
- Skin: remove contaminated clothing. Flush skin with large amounts of water for 15-20 minutes. Get medical aid at once.
- Eyes: flush eyes with large amounts of water for 15-20 minutes. Get medical aid at once.
- Ingestion: if victim is conscious, use gastric lavage with concentrated solution of sodium bicarbonate. Get medical aid at once.

SECTION VII - PRECAUTION FOR SAFE HANDLING AND USE

Spills or Leaks: clean up with absorbent material (vermiculite) and put in plastic container for later disposal.

Disposal: dispose of according to federal, state, and local regulations.

Storage and handling: store in cool, dry area.

SECTION VIII - CONTROL MEASURES

Respiratory Protection: provide local ventilation. Firefighting—use self-contained breathing apparatus with full facepiece operated in pressure-demand mode.

Protective Clothing and Equipment: wear splash-proof goggles. Provide eye wash fountain in work area.

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[Note: n/a means "not applicable" or data "not available"]]