

Material Safety Data Sheet

Martrex, Inc.
P.O. Box 1709
Minnetonka, MN 55345-3793

1. CHEMICAL IDENTIFICATION

Chemical Name: Ferrous Sulfate Monohydrate
Component: Ferrous Sulfate Monohydrate
Chemical Family: Inorganic salt
Iron Salts soluble as Fe: 1 mg/m³ AGGIH TWA (1000 lbs reportable qty.)
CAS No.: 13463-43-9
Chemical Formula: FeSO₄H₂O

2. PERSONAL PROTECTION INFORMATION

Respiratory Protection:

Specific respirators selected must be based on levels of the substance in the workplace. They must not exceed the working limits of the respirator and be jointly approved by the National Institute for Occupational Safety and Health and the Mine Safety and Health Administration (NIOSH – MSHA).

Eye Protection:

Dust resistant safety goggles recommended. Eye wash station.

Skin Protection:

Rubber gloves or other appropriate protective gloves. Clean body covering clothing is recommended.

3. HEALTH EFFECTS AND FIRST AID

INHALATION:

Acute Exposure: May cause irritation of the respiratory tract.

Chronic Exposure: No information available

First Aid: Remove from exposure area to fresh air. If breathing has stopped, perform artificial respiration. Consult physician.

SKIN CONTACT:

Acute Exposure: May cause irritation

Chronic Exposure: Repeated exposure to irritants may cause dermatitis.

First Aid: Remove contaminated clothing and shoes immediately. Wash affected area with soap and water.

EYE CONTACT:

Acute Exposure: Contact with eyes may cause severe irritation and corrosive action due to acidity

Chronic Exposure: Effects depend on concentration and duration of exposure. Prolonged contact with corrosives may result in conjunctivitis.

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INGESTION:

Acute Exposure: Side effects of ingestion of iron salts may include heartburn, nausea, gastric discomfort, constipation, or diarrhea. Symptoms of severe poisoning may occur within 30 minutes or be delayed for several hours. Severe hemorrhagic gastritis with abdominal pain, retching, violent diarrhea and vomiting may occur. Circulatory system may be affected with symptoms of shock, rapid, weak or no pulse, severe hypotension and pulmonary changes with dyspnea, and emphysema may occur. The average lethal dose of iron is about 200 to 250 mg per kg of body weight.

Chronic Exposure: Reproductive effects have been reported in animals
First Aid: In patients not in shock or coma, induce emesis with syrup of ipecac if vomiting has not occurred. Follow with gastric lavage using deferoxamine, 2 grams in 1 liter of water, which contains sodium bicarbonate in the stomach. Maintain airway, blood pressure and respiration. Treat symptomatically and supportively.

4. EMERGENCY/HAZARDS OVERVIEW

HEALTH: 2 REACTIVITY: 0 FLAMMABILITY: 0 ENVIRONMENT: N/A

(0=Insignificant 1=Slight 2=Moderate 3=High 4=Extreme)

5. PHYSICAL DATA

Description: Grayish White Powder
Boiling Point (°F): N/A
Melting Point: Decomposes at 671°
Density: 30 lb/cu.ft. (loose), 45 lb/cu.ft. (packed)
Solubility: Slowly soluble in water
PH (10% solution): 2.8 - 5

6. REACTIVITY

Stability: Stable under normal temperature and pressures
Incompatibilities: Alkalis
Arsenic trioxide and sodium nitrate: Spontaneously combustible mixture
Methyl isocyanacetate: May decompose explosively at 25°
Decomposition: Thermal decomposition products may include toxic sulfur oxides
Polymerization: Does not occur

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7. FIRE AND EXPLOSIONS HAZARDS

Fire and Explosion Hazard: Negligible fire hazard when exposed to heat and flame.
Firefighting Media: Dry chemical, carbon dioxide, water spray or foam.

Firefighting: Move container from fire area if possible. Do not scatter spilled material with high-pressure water. Use agents appropriate to surrounding fire.

8. STORAGE AND DISPOSAL

Obey all Federal, State and Local regulations when storing or disposing of ferrous sulfate monohydrate. Always store away from incompatible substances.

Conditions to avoid: Dispersion of dust in air

9. SPILL OR LEAK INFORMATION

Contain soil spill or liquid spills and neutralize with lime or sodium carbonate if necessary. Place into suitable container for alternate disposal.

10. US DOT Shipping Name:

Environmentally hazardous substances, solid, n.o.s. (Ferrous Sulfate), 9, UN 3077, PG III, Erg 31

US DOT Hazard Class:

9 – Miscellaneous hazardous material

US DOT Identification Number:

UN 3077

10. MSDS PREPARATION INFORMATION

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For Chemical Emergencies Call CHEMTREC - Day or Night - at 800-424-9300