



# American International Chemical, Inc.

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## MATERIAL SAFETY DATA SHEET

### FERROUS SULFATE MONOHYDRATE

#### SECTION 1 - CHEMICAL PRODUCT AND COMPANY INFORMATION

American International Chemical, Inc. 135 Newbury Street Framingham, MA 01701	Emergency Number: Chemtrec Information Number:	800-424-9300 703-527-3887 800-238-0001
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Date: August 2007

Synonyms: Dried Ferrous Sulfate

CAS #: 13463-43-9 7720-78-7

DOT Hazard Class: Not Regulated

#### SECTION 2 - COMPOSITION AND INFORMATION ON INGREDIENTS

Ferrous Sulfate Monohydrate 82% min.

#### SECTION 3 - HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW: White-gray fine powder which may cause some irritation to the skin and respiratory tract. May be corrosive to eyes.

POTENTIAL HEALTH EFFECTS:

**Eye Contact:** Corrosive

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.

**Skin Contact:**

Acute Exposure: May cause irritation.

Chronic Exposure: Repeated exposure to irritants may cause dermatitis.

**Inhalation:** Irritant

Acute Exposure: May cause irritation of the respiratory tract

Chronic Exposure: No information available

**Section 3 continued:**

**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

CARCINOGENICITY: Not listed under OSHA, IARC, or NTP.

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#### **SECTION 4 - FIRST AID MEASURES**

**Eyes:** Immediately wash out with water for at least 15 minutes. Consult physician

**Skin:** Remove contaminated clothing and shoes immediately. Wash affected area with soap and water.

**Inhalation:** Remove from exposure area to the fresh air. If breathing has stopped, perform artificial respiration. Consult physician.

**Ingestion:** 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 20 gm/L. Leave 10 grams of deferoxamine in 50 ml of 5% sodium bicarbonate in the stomach. Maintain airway, blood pressure and respiration. Treat symptomatically and supportively. (Dreisbach, Handbook of Poisoning, 11th edition). Get medical attention. Treatment should be administered by qualified medical personnel.

The decision whether the severity of poisoning requires administering of any antidotes and actual dose required should be made by qualified medical personnel.

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#### **SECTION 5 - FIRE FIGHTING MEASURES**

Flash Point: Not Applicable

Flammable Limits: Not Applicable

Extinguishing Media: Dry chemical, carbon dioxide, water spray or foam.

Special Fire Fighting Procedures: Use fire fighting procedure that is appropriate to treat surrounding fire. Move container from fire area if possible. Do not scatter spilled material with high pressure water.

Unusual Fire Explosion Hazard: Negligible fire hazard.

Auto Ignition Temperature: Not Applicable

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#### **SECTION 6 - ACCIDENTAL RELEASE MEASURES**

Isolate hazard area and deny entry to unnecessary or unprotected personnel.

Contain spill, sweep up, collect and place in a disposal container. Avoid runoff into storm sewers and ditches which lead to waterways.

#### **SECTION 7 - HANDLING AND STORAGE**

Avoid contact with skin, eyes and clothing. Avoid breathing dust. Use normal personal hygiene and housekeeping. Store in cool dry area away from other incompatible materials. Product is slightly hygroscopic and should be stored in a dry area to prevent moisture pick up and caking.

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## **SECTION 8 - EXPOSURE CONTROLS, PERSONAL PROTECTION**

RESPIRATORY PROTECTION: Use NIOSH/MSHA approved respirators.

VENTILATION REQUIREMENTS: Ventilate as necessary to eliminate dust from the work area.

SKIN AND EYE PROTECTION:

Use rubber or neoprene gloves, chemical goggles and clothing sufficient to protect skin from dust.

WORK, HYGIENIC PRACTICES:

As required to protect skin and eyes from dust, safety showers and/or eye wash should be available. Do not leave food or smoke in work area. Wash thoroughly and remove or clean any contaminated clothing.

EXPOSURE LIMITS: Iron salts, soluble as Fe  
1 mg/m<sup>3</sup> ACGIH TWA

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## **SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES**

Boiling Point: Not Applicable

Vapor Pressure (MM Hg): Not Applicable

Vapor Density (AIR=1): Not Applicable

Specific Gravity (H<sub>2</sub>O=1): Not Applicable

Bulk Density: 30 lbs/cu. ft. (loose) 45 lbs/cu.ft. (packed)

Percent Volatile by Volume (%): Not Applicable

Melting Point: Decomposes at 671°C

Evaporation Rate (Butyl Acetate=1): Not Applicable

Solubility in Water: Slowly Soluble in water

pH: 1-% solution 2.8-5

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## **SECTION 10 - STABILITY AND REACTIVITY**

CHEMICAL STABILITY: Stable under normal temperatures and pressures.

HAZARDOUS POLYMERIZATION: Will not occur under normal conditions.

### **Section 10 continued:**

HAZARDOUS DECOMPOSITION PRODUCTS: Thermal decomposition products may include toxic sulfur oxides.

KEEP AWAY FROM: Alkalis arsenic trioxide and sodium nitrate, spontaneously combustible mixture  
Methyl isocyanacetate may decompose explosively at 25°C.

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**SECTION 11 - TOXICOLOGICAL INFORMATION**

1480 mg/kg oral-rat LD50

Carcinogen: Non-carcinogenic

Local effects: Corrosive-eye, ingestion. Skin irritant, mucous membranes.

Acute Toxicity Level: Moderately toxic by ingestion (heptahydrate)

Organs affected: Poisoning may affect the liver, kidneys, circulatory, cardiovascular and central nervous systems.

Additional Data: Interactions with medicines may cause adverse effects.

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**SECTION 12 - ECOLOGICAL INFORMATION**

Not available

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**SECTION 13 - DISPOSAL CONSIDERATIONS**

Dispose of in accordance with all federal, state and local regulations.

RCRA WASTE #: Not Listed

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**SECTION 14 - TRANSPORTATION INFORMATION**

D.O.T. SHIPPING NAME:.....Ferrous Sulfate Monohydrate Not Regulated

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**SECTION 15 - REGULATORY INFORMATION**

TSCA (TOXIC SUBSTANCE CONTROL ACT):

This product is listed on the TSCA Inventory.

CERCLA REPORTABLE REQUIREMENTS: (RQ) 1,000 lbs

SARA TITLE III INFORMATION:

Section 302 Extremely Hazardous Substance: Unlisted

Section 313 Toxic Chemicals: Unlisted

Section 311/312 Hazard Category: Immediate (acute), Delayed (chronic)

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**SECTION 16 - OTHER INFORMATION**

<b>NFPA Rating</b>	Health	2
	Fire	0
	Reactivity	0

Reason for Issue: Changed Date

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