

SEM MINERALS, L.P.

MANUFACTURERS AND DISTRIBUTORS OF

TRACE ELEMENTS AND PREMIXES FOR AGRICULTURE

3806 Gardner Expressway
Quincy, IL 62305 USA

Phone: 217-224-0618
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SAFETY DATA SHEET

PRODUCT GROUP: FERROUS SULFATE

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SECTION I. CHEMICAL PRODUCT and COMPANY INFORMATION

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MANUFACTURERS NAME: SEM Minerals, L.P.
ADDRESS: 3806 Gardner Expressway
Quincy, Illinois 62305
TELEPHONE NO: (217) 919-9718 Keith Mizwicki

EMERGENCY PHONE NO: (800) 424-9300 CHEMTREC

TRADE NAME/LABEL NAME: Ferrous Sulfate Monohydrate

CHEMICAL FAMILY: Iron (II) Sulfate, Inorganic salt

CAS NUMBER: 17375-41-6

EPA NUMBER: N/A

SDS NUMBER: N/A

PRIMARY USE: Mineral, Nutrient/Additive for the Feed Industry

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SECTION II. HAZARDS IDENTIFICATION

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Emergency Overview

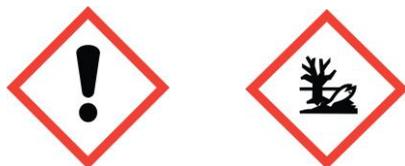
WARNING! Harmful if swallowed. May cause skin irritation and severe eye irritation. Very Toxic to Aquatic Life with Long Lasting Effects.

Classification According to (EC) 1272/2008 (GHS-CLP)

H302: Acute Toxicity, Oral (Category 4)
H315: Causes skin irritation (Category 2)
H319: Cause serious eye irritation (Category 2)

H335: May Cause respiratory irritation (Category 2)
H373: May cause damage to organs through prolonged or repeated exposure
(Category 2)
H410: Very toxic to aquatic life with long-lasting effects (Category 1)

GHS Pictogram:



Label Signal Word: Warning

Hazard Statements:

H302: Harmful if swallowed.
H315: Causes skin irritation
H319: Cause serious eye irritation
H335: May Cause respiratory irritation
H373: May cause damage to organs through prolonged or repeated exposure
H410: Very toxic to aquatic life with long-lasting effects

Precautionary Statements:

P264: Wash skin thoroughly after handling
P270: Do not eat drink or smoke when using this product
P273: Avoid release into the environment

Response:

P501: Dispose of contents/containers in accordance with
local/regional/national/international regulations.

NFPA: Health: 2 Flammability: 0 Reactivity: 0

Health Effects:

INHALATION: Acute inhalation exposure may cause irritation to respiratory tract.

SKIN CONTACT: Acute skin contact may cause irritation

EYE CONTACT: Contact with eyes may cause severe irritation and corrosive action due acidity.

INGESTION: 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.
Symptoms: 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 is approximately 200 to 250 mg per kg of body weight.

CARCINOGENICITY DATA: See Section 11

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: Respiratory infections.

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SECTION III. COMPOSITION/INFORMATION on INGREDIENT
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Formula: FeSO₄.H₂O
Molecular Weight: 169.92 g/mol
CAS NUMBER: 17375-41-6
OSHA LIMITS: N/A
ACGIH LIMITS: TWA: 1mg/m³
OTHER LIMITS: See Section 11,12,15

APPEARANCE AND ODOR: A light gray powder or granular material

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SECTION IV. FIRST AID MEASURES
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Effects and Symptoms: Chills, fever, nausea, vomiting, coughing, weakness and headaches

First Aid:

Skin Contact: Wash immediately with plenty of water and soap.
Inhalation: Remove victim to fresh clean air. Clean nasal cavity with water. Give oxygen if breathing difficulty. Seek medical attention.
Eye Contact: Remove contact lenses, flush eyes with clean water for 15 minutes. Seek medical attention.
Ingestion: Immediately rinse mouth with water. Do not induce vomiting. Give large quantities of water or milk to drink. See medical attention.

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SECTION V. FIRE FIGHTING MEASURES
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Fire: Non Combustible
Flammability: Non Flammable
Flash Point: Non Combustible
Extinguishing Media: In case of fire, use any extinguishing agent.
Protection of Fire-Fighters: Use breathing self-contained apparatus with full shield. Wear suitable

Hazardous combustion and
Decomposition Products : protective clothing.
None

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SECTION VI. ACCIDENTAL RELEASE MEASURES & SPILL LEAK PROCEDURES
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Procedures to follow in Case of Leak or Spill: Use personal protective equipment. See Section 8.

- Personal Precautions:** Wear suitable gloves, eye and face protection. Wear Single filter nose and mouth respirator.
- Environmental Precautions:** Avoid allowing product to enter drains sewage system, ground water.
- Methods for Cleanup:** Sweep up and shovel into suitable containers for disposal. Reuse or recycle waste. See Section 7.

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SECTION VII. HANDLING and STORAGE
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Handling & Storing: Good housekeeping - store in cool dry place
Avoid making dust. Avoid moisture.

Packing Materials: All material suitable.

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SECTION VIII. EXPOSURE CONTROLS / PERSONAL PROTECTION
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NIOS REL: TWA 1 mg/m³

Respiratory Protection: Respiratory protection equipment necessary when dust is apparent Type P1 respirator (EN 143.)

Hand Protection: Protective Gloves
Material: leather gloves, cotton gloves, rubber gloves

Skin Protection: Work Clothes

Eye Protection: Chemical goggles or safety glasses

Engineering Measures: Mechanical ventilation is recommended

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SECTION IX. PHYSICAL AND CHEMICAL PROPERTIES
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BOILING POINT: N/A **SPECIFIC GRAVITY (H₂O = 1)** 3.0

VAPOR PRESSURE: (mm Hg) N/A

MELTING POINT: N/A

VAPOR DENSITY: (AIR=1) N/A

EVAPORATION RATE: (BUTYL ACETATE=1) N/A

SOLUBILITY IN WATER: Soluble

PHYSICAL STATE: SOLID

pH (25 g/liter @ 25°C): 2-3

APPEARANCE AND ODOR: A light gray powder or granular material

SECTION X. STABILITY AND REACTIVITY DATA

STABILITY: Stable under ordinary conditions, avoid moisture

CONDITIONS TO AVOID: Water of crystallization will be released when exposed to temperatures over 300° C.

INCOMPATIBILITY (MATERIALS TO AVOID): Strong oxidizing agent. Avoid moisture.

HAZARDOUS DECOMPOSITION OR BYPRODUCTS: SO₂ & SO₃ fumes if heated to 300° C.

HAZARDOUS POLYMERIZATION: Will not occur.

CONDITIONS TO AVOID: Moisture

SECTION XI. TOXICOLOGICAL INFORMATION

Acute Toxicity: LD50 Oral - Rat 319 mg/kg

Inhalation: May be harmful if inhaled. May cause respiratory track irritation.

Dermal: May be harmful if absorbed through skin. May cause skin irritation.

Ingestion: Harmful if swallowed.

Dermal Irritation: Can cause minor irritation.

Eye Irritation: May cause eye irritation.

Chronic Toxicity: Severe or chronic ferrous sulfate poisoning may damage blood vessels. Large chronic doses cause rickets in infants. Chronic exposure of the eyes may cause discoloration.

Sensitization: N/A

Carcinogenicity: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IRAC, ACGIH, NTP or OSHA.

Mutagenicity: Not Available.

Reproduction: No Data Available

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SECTION XII. ECOLOGICAL INFORMATION
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Persistent and Degradability: No Data Available
Bioaccumulation: No Data Available
Mobility in Soil: No Data Available
Ecotoxicity: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

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SECTION XIII. DIPOSIBLE CONSIDERATIONS
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Disposal of Product: Observe all federal, state and local environmental regulations. Contact a professional waste disposal service to dispose of this material.

Contaminated Packaging: Dispose of as unused product.

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SECTION XIV. TRANSPORTATION INFORMATION
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US DOT NOT a controlled material unless packaged above RQ.

FOR PACKAGES, BULK TRUCKS, AND BULK RAIL CARS CONTAINING 1,000 LB. OR MORE:

D.O.T. PROPER SHIPPING NAME: Environmentally Hazardous Substance, Solid, N.O.S. (Ferrous Sulfate)
D.O.T. HAZARDOUS CLASS: 9
D.O.T. IDENTIFICATION NO: UN3077
REPORTABLE QUANTITY (R.Q.): 1,000 LB.
PACKING GROUP: III
D.O.T. LABELS: UN3077 Label (Required October 1, 1994)

FOR PACKAGES CONTAINING LESS THAN 1,000 LB:

FREIGHT SHIPPING NAME: Iron Sulfate

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SECTION XV. REGULATORY INFORMATION

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REGULATORY STATUS

OSHA HAZARDS: Toxic by Ingestion

DSL STATUS: All components of this product are on the Canadian DSL list.

<u>Product or Component of Products</u>	<u>CERCLA Sec. 103 RQ lbs.</u>	<u>RCRA Sec. 261.33</u>	<u>SARA EHS Sec. 302 RQ TPQ</u>	<u>SARA 313 Name List</u>	<u>Chemicals Chemical Catagory</u>
Ferrous Sulfate (17375-41-6)	No	No	No	No	No

SARA Section 302 EHS RQ:

Reportable Quantity of Extremely Hazardous Substance, listed at 40 CFR 355.

SARA Section 302 EHS TPQ:

Threshold Planning Quantity of Extremely Hazardous Substance. An asterisk (*) following a Threshold Planning Quantity signifies that if the material is a solid and has a particle size equal to or larger than 100 micrometers, the Threshold Planning Quantity = 10,000 LB^A.

SARA Section 313 Chemicals:

Toxic substances subject to annual release reporting requirements listed at 40 CFR 372.65.

CERCLA Sec. 103:

Comprehensive Environmental Response, Compensation and Liability Act (Superfund). Releases to air, land or water of these hazardous substances which exceed the Reportable Quantity (RQ) must be reported to the National Response Center, (800/424-8802); listed at 40 CFR 302.4.

RCRA:

Resource Conservation and Reclamation Act. Commercial product wastes designated as acute hazardous and toxic under 40 CFR 261.33.

California Prop. 65 Components: This product does not contain any chemical known to the State of California to cause cancer, birth defects, or any other reproductive harm.

Pennsylvania Right To Know Components:

	CAS #	Revision Date
Iron Sulphate Hydrate	13463-43-9	04-24-1993

Massachusetts Right To Know Components:

	CAS #	Revision Date
Iron Sulphate Hydrate	13463-43-9	04-24-1993

New Jersey Right To Know Components:

	CAS #	Revision Date
Iron Sulphate Hydrate	13463-43-9	04-24-1993

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SECTION XVI. OTHER INFORMATION
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SDS Issue Date May 17, 2015
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