

MATERIAL SAFETY DATA SHEET

Product: **Ferrous Sulfate**

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Material Identity

Product Name: Ferrous Sulfate
Product Code: CH-7782630_
Chemical Formula: FeSO₄.7H₂O
General or Generic ID: Ferric Sulfate Heptahydrate

Company

ArtChemicals.com
2250 Davis Street
San Leandro, CA 94577-2204
510-639-4670

Emergency Telephone Number:

1-800-451-8346

2. COMPOSITION / INFORMATION ON INGREDIENTS

<u>CAS No.</u>	<u>Chemical Identity</u>	<u>Common Name</u>	<u>%</u>
7782-63-0	N/A	Ferrous sulfate heptahydrate	100

3. HAZARDS IDENTIFICATION

Potential Health Effects

Eye:

Hazardous in case of eye contact (irritant). Symptoms include stinging, tearing, redness and impairment of vision. The degree of injury will depend on the amount of material that gets into the eye and the speed and thoroughness of the first aid treatment.

Skin:

Hazardous in case of skin contact (irritant). The degree of injury will depend on the amount of material that gets on the skin and the speed and thoroughness of the first aid treatment.

Ingestion:

Hazardous in case of ingestion. Severe over-exposure can produce lung damage, choking, unconsciousness or death

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Inhalation:

Hazardous in case of inhalation. Inhalation of dust will produce irritation to gastro-intestinal or respiratory tract, characterized by burning, sneezing and coughing. Severe over-exposure can produce lung damage, choking, unconsciousness or death.

Symptoms of Exposure:

Not available.

Development Information:

ORAL (LD50): Acute: 1520 mg/kg [Mouse].

The substance may be toxic to blood, liver, cardiovascular system, central nervous system (CNS). Repeated or prolonged exposure to the substance can produce target organs damage.

Cancer Information:

Not available.

Primary Route(s) of Entry:

Inhalation, skin absorption, skin contact, and eye contact.

4. FIRST AID MEASURES

Inhalation:

If affected, promptly remove individual to fresh air. If not breathing, give artificial respiration. If symptoms persist, seek medical attention. If breathing is difficult, administer oxygen. Get medical attention immediately.

Ingestion:

Do NOT induce vomiting. Examine the lips and mouth to ascertain whether the tissues are damaged, a possible indication that the toxic material was ingested; the absence of such signs, however, is not conclusive. Loosen tight clothing such as a collar, tie, belt or waistband. Call physician immediately.

Eyes:

Remove contact lenses if worn. In case of contact, immediately flush with water for at least 15 minutes. Do not use eye ointment. Seek medical attention immediately.

Skin:

Immediately remove contaminated clothing and thoroughly flush skin with plenty of water (15 minutes). Wash thoroughly with disinfectant soap and water. Cold water may be use. Launder clothing before reuse. Get medical attention immediately.

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Note to Physicians:
Not available.

5. FIRE FIGHTING MEASURES

Flash Point: Non-flammable. Not applicable.
Explosive Limit: Not applicable.
Auto-ignition Temperature: Not applicable.
Hazardous Products of Combustion: Not applicable.
Extinguishing Media: Not applicable.

SPECIAL FIRE-FIGHTING PROCEDURES: Not available.

NFPA CODES: Health = 2 Flammability = 0 Reactivity = 0

6. PRECAUTIONS FOR SAFE HANDLING AND USE

Steps To Be Taken In Case Material Is Released Or Spilled:

Small Spill:

Use appropriate tools to put the spilled solid in a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface.

Large Spill:

Use a shovel to put the material into a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system. Be careful that the product is not present at a concentration level above TLV. Check TLV on the MSDS and with local authorities.

7. PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE

Hygroscopic. Air Sensitive. Keep container tightly closed. Keep container in a cool, well-ventilated area. Do not store above 24 °C (75.2 °F). Keep locked up.. Do not ingest. Do not

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breathe dust. Wear suitable protective clothing. In case of insufficient ventilation, wear suitable respiratory equipment. If ingested, seek medical advice immediately and show the container or the label. Avoid contact with skin and eyes. Keep away from incompatibles such as oxidizing agents, alkalis.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Respiratory Protection:

Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value. Be sure to use an approved/certified respirator or equivalent.

Skin Protection:

Wear resistant gloves. To prevent repeated or prolonged skin contact, wear impervious clothing and boots or lab coat.

Eye Protection:

Chemical splash goggles in compliance with OSHA regulations are advised. Face shield. Ensure that eyewash stations and safety showers are proximal to the work-station location.

Other Protective Clothing or Equipment:

Provide sufficient mechanical ventilation to maintain exposure below level of overexposure. Boots. Full suit. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling product.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance and Odor: Blue to blue-green solid. (Odor not available.)

Molecular Weight: 278.01 g/mole

pH: Not available.

Boiling Point: Not available.

Melting Point: Not available.

Specific Gravity: Not available.

Vapor Pressure: Not applicable.

Evaporation Rate: Not available.

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Solubility in Water: Easily soluble in cold water.

10. STABILITY AND REACTIVITY

Incompatibility: Moisture, air, combustible materials, oxidizing agents, organic materials.

Stability: Stable.

Hazardous Decomposition: N/A

Hazardous Polymerization: Will not occur.

Special Remarks on Reactivity: *Hygroscopic.* Oxidizes when in contact with moisture to form ferric sulfate. Air Sensitive Incompatible with alkalies, soluble carbonates, Au and Ag salts, Pb acetate, lime water, KI, K, and Na tartrate, Na Borate, tannin, vegetable astringent infusions and decoctions.

11. TOXICOLOGICAL INFORMATION

Acute oral toxicity (LD50): 1520 mg/kg [Rat].

Acute Potential Health Effects:

Skin: May cause skin irritation.

Eyes: May cause eye irritation.

Inhalation: May cause respiratory tract irritation.

Ingestion: Harmful if swallowed. May cause gastrointestinal tract disturbances and irritation with nausea, vomiting, colic, constipation, diarrhea, black stool. May also affect behavior/Central Nervous System (somnolence -general depressed activity), respiration, cardiovascular system, liver, kidneys (pink urine discoloration).

Chronic Potential Health Effects:

Not available.

12. ECOLOGICAL INFORMATION

Not available.

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Possibly hazardous short-term degradation products are not likely. However, long-term degradation products may arise.

13. DISPOSAL CONSIDERATION

Waste Disposal Method:

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

14. DOT SHIPPING NAME & IDENTIFICATION:

NON-REGULATED. Not a DOT controlled material (United States).

15. OTHER INFORMATION

The information accumulated herein is believed to be accurate but is not warranted to be, whether originating with the company or not. Recipients are advised to confirm in advance of need that information is current, applicable, and suitable to their circumstances.