



MATERIAL SAFETY DATA SHEET

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MSDS No. FF 150
Effective Date February 25, 1999

SECTION I NAME 24 HOUR EMERGENCY ASSISTANCE

Product	FERRIC SULFATE	 CHEMTREC 800-424-9300 Day 716-228-6177 NFPA HAZARD RATING LEAST SLIGHT MODERATE HIGH EXTREME 0 1 2 3 4 HMIS* 0 1 2 3 4
Chemical Synonyms	Ferric Persulfate, Iron (III) Sulfate	
Formula	Fe ₂ (SO ₄) ₃ ·XH ₂ O (X = approx. 7)	
Unit Size	up to 2.5 Kg.	
C.A.S. No.	10028-22-5	

SECTION II INGREDIENTS OF MIXTURES

Principal Component(s)	%	TLV Units
Ferric Sulfate	89.0%	See Section V.
Free Sulfuric Acid: (CAS No. 7664-93-9)	2.7%	See Section V.

CAUTION! MAY BE HARMFUL IF SWALLOWED. DUST MAY CAUSE IRRITATION TO EYES AND MUCOUS MEMBRANES.

SECTION III PHYSICAL DATA

Melting Point (°F)	Decomposes 480°C (896°F)	Specific Gravity (H ₂ O = 1)	3.097 @ 18°C.
Boiling Point (°F)	Decomposes.	Percent Volatile by Volume (%)	N/A
Vapor Pressure (mm Hg)	Negligible as solid.	Evaporation Rate (=1)	N/A
Vapor Density (Air=1)	N/A		
Solubility in Water	55 grams per 100 mL. water at 20°C.		
Appearance & Odor	Gray yellow, grayish-white, grey to brown powder or granules; no odor.		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

Flesh Point (Method Used)	Non-combustible.	Flammable Limits in Air % by Volume	N/A	Lower	Upper
Extinguisher Media	Use any media suitable for extinguishing other combustible materials in the area.				

SPECIAL FIREFIGHTING PROCEDURES

In fire conditions, wear a NIOSH/MSHA-approved self-contained breathing apparatus and full protective clothing.

UNUSUAL FIRE AND EXPLOSION HAZARDS

If water is used, the product is water soluble and water may be acid, and water should not be allowed to enter natural waterways. At temperatures above 600°C, product decomposes to iron oxide and sulfur trioxide.

D.O.T. **NON-REGULATED.**

Approved by U.S. Department of Labor "essentially similar" to form OSHA-20

SECTION V HEALTH HAZARD DATA

Threshold Limited Value TLV-TWA 1 mg/m³; STEL 2 mg/m³ as (Fe). Toxicity data: Ori-rat: LD50 1-2.5 g/kg. body weight. Inh-rat: LC50 147.9 mg/Lt.

Effects of Overexposure May cause skin irritation. May cause coughing, irritate lungs and mucous membranes. May be corrosive to the eye if not removed by washing. Prolonged dust inhalation may cause lung mottling and irritation of mucous membranes.

Emergency and First Aid Procedures

EYES: Flush thoroughly with water for at least 15 minutes, lifting upper and lower eyelids occasionally. Get immediate medical attention. **SKIN:** Flush thoroughly with water, then wash with mild soap and water. **INHALATION:** Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention. **INGESTION:** If swallowed, if conscious, give large amounts of water or milk to drink. Call a physician immediately. Never give anything by mouth to an unconscious person.

SECTION VI REACTIVITY DATA

Stability	Unstable	Conditions to Avoid	Moisture. Very hygroscopic, light sensitive.
	Stable	X	

Incompatibility (Materials to Avoid) Solution is highly corrosive to mild steel, copper, copper alloys and galvanized steel.

Hazardous Decomposition Products At temperatures above 600°C, product decomposes to iron oxide and sulfur trioxide.

Hazardous Polymerization	Conditions to Avoid	Not applicable.
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

Steps to be taken in case material is released or spilled Sweep up and place in a suitable container for disposal in an approved landfill. Wash spill area with water. If solution, neutralize with lime, soda ash or bicarbonate and remove to approved landfill.

Waste Disposal Method

Discharge, treatment, or disposal may be subject to Federal, State or Local laws. These disposal guidelines are intended for the disposal of catalog-size quantities only. Remove dry product to approved landfill. If solution, neutralize with lime, soda ash or bicarbonate and remove to approved landfill.

SECTION VIII SPECIAL PROTECTION INFORMATION

Respiration Protection (Specify Type) None needed in normal laboratory handling. If dusty conditions prevail, wear NIOSH/MSHA-approved dust respirator.

Ventilation	Local Exhaust	Recommended.	Special	No.
	Mechanical (General)	Recommended.	Other	No.

Protective Gloves Rubber may be worn. **Eye Protection** Chemical safety glasses.

Other Protective Equipment Smock, apron, eye wash station, ventilation hood.

SECTION IX SPECIAL PRECAUTIONS

Precautions to be Taken in Handling & Storing Store in a cool, dry place. Protect from light. Wash thoroughly after handling. Keep container tightly closed when not in use.

Other Precautions Read label on container before using. Do not wear contact lenses when working with chemicals. If in water solution, product is corrosive. Remove and wash contaminated clothing.

For laboratory use only. Not for drug, food or household use. Keep out of reach of children.

Revision No. 6	Date 2/25/99	Approved Michael Raszeja	Chemical Safety Coordinator MR
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