

MATERIAL SAFETY DATA SHEET

FE 110
July 1, 1986

SECTION I NAME

Product	FERRIC NITRATE	CHEMTREC 800-424-9300	Health	1
Chemical Synonyms	Ferric Nitrate Nonahydrate	Day 716-226-6177	Fire	0
Formula	Fe(NO ₃) ₃ ·9H ₂ O	Night 716-334-4222	Reactivity	3
Unit(s) Size	100, 500 grams, 2.5 Kg.	NFPA HAZARD RATING	LEAST	0
C.A.S. No.	7782-61-8		SLIGHT	1
			MODERATE	2
			HIGH	3
			EXTREME	4

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

Principal Hazardous Component(s)	%	TLV Units
Ferric Nitrate	100%	See Section V
DANGER! STRONG OXIDIZER CAUSES SKIN AND EYE BURNS. HARMFUL IF INHALED OR SWALLOWED		

SECTION III PHYSICAL DATA

Melting Point (°F)	47.2°C	Specific Gravity (H ₂ O = 1)	1.68 @ 21°C
Boiling Point (°F)	Decomposes 125°C	Percent Volatile by Volume (%)	Non-volatile (NA)
Vapor Pressure (mm Hg)	Negligible as solid	Evaporation Rate	= 1) Non-volatile (NA)
Vapor Density (Air = 1)	Data not listed		
Solubility in Water	Very soluble		
Appearance and Odor	Pale violet to grayish white, somewhat deliquescent crystals; odorless		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

Flash Point (Method Used)	Not flammable	Flammable Limits (H ₂ Air % by Volume)	Lower	Upper
Extinguisher Media	Flooding amounts of water in early stages. Heavy water jet advantageous.			

SPECIAL FIREFIGHTING PROCEDURES

In fire conditions, wear self-contained breathing apparatus with full face piece approved by NIOSH.

UNUSUAL FIRE AND EXPLOSION HAZARDS

See Hazardous Decomposition Products, Section VI. Oxidizing material. In contact with easily oxidizable substances, it may react rapidly enough to cause ignition, violent combustion or explosion. Increases the flammability of any combustible substance. Fire or excessive heat may produce hazardous decomposition products.

D.O.T. OXIDIZER



FREY SCIENTIFIC

905 HICKORY LANE MANSFIELD OHIO 44905

MSDS No.
Effective Date

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

SECTION V HEALTH HAZARD DATA

Threshold Limited Value
None established. Ferric nitrate nonahydrate is 14% iron. (ACGIH 1983-84). Toxicity: The dangerous dose is 30 mg/kg of IRON. TLV: 1 mg/m³ (as iron).

Effects of Overexposure
INGESTION: May cause excessive urination or bowel movement. Acid nature of this salt may cause corrosive damage to the gastrointestinal tract. SKIN: Concentrated aqueous solutions or dust may cause severe local irritation or corrosion. EYES: Can cause severe irritation or corrosion.

Emergency and First Aid Procedures
EYES: Immediately flush thoroughly with water for 15 minutes. Get immediate medical attention. SKIN: Immediately flush with water, then wash with soap and water. INGESTION: If conscious and free of convulsions, immediately give 2 to 4 glasses of water or milk and induce vomiting. Call physician immediately. INHALATION: Remove to fresh air. If ill effects develop, get medical attention.

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SECTION VI REACTIVITY DATA

Stability	Unstable	Conditions to Avoid
	Stable	See decomposition temperature, Section III

Incompatibility (Materials to avoid)
Aluminum, cyanides, phosphorus, stannous chloride, thiocyanates. Oxidizable materials including sulfur, organic materials and sodium hypophosphite.

Hazardous Decomposition Products
We have no studies on this product, but we would expect nitrogen oxide gases to be evolved in a fire.

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

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. Wash spill area with soap and water.

Waste Disposal Method
Dissolve in water and flush to sewer with copious amounts of water.

SECTION VIII SPECIAL PROTECTION INFORMATION

Discharge, treatment, or disposal may be subject to federal, state, or local laws.
Respiration Protection: None should be needed in normal laboratory handling. If dusty conditions prevail work in a fume hood or wear a NIOSH-approved dust mask.
Ventilation: Local Exhaust: Recommended. Mechanical (General): Recommended. Special: No. Other: No.

Protective Gloves
Rubber
Eye Protection: Chemical safety glasses.

SECTION IX SPECIAL PRECAUTIONS

Precautions to be Taken in Handling and Storing
Smock, apron, eye wash station, safety goggles, proper gloves, fire extinguisher. Store in a cool, dry place away from combustible materials. Wash thoroughly after handling.
Other Precautions
Head label on container before using.

For laboratory use only. Not for drug, food or household use. Keep out of reach of children.
Rev. No. No. 1 Date 1/23/87 Approved [Signature] Chemical Safety Coordinator [Signature]

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