

MAI ERIAL SAFETY DATA SHEET July 1, 1986

SECTION I NAME

Product	FERRIC CHLORIDE, 6-HYDRATE
Chemical Synonyms	Ferric Chloride, 6-Hydrate
Formula	FeCl ₃ ·6H ₂ O
Unit(s) Size	100, 500 grams, 2.5 Kg.
C.A.S. No.	10023-77-1

CHEMTREC 800-424-9300		Health	1
Day 716-226-6177		Fire	0
Night 716-334-4222		Reactivity	1
HAZARD RATING		LEAST	0
		SLIGHT	1
		MODERATE	2
		HIGH	3
		EXTREME	4

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

Principal Hazardous Component(s)	%	TLV Units
Ferric Chloride, 6-Hydrate	100%	See Section V

DANGER! CAUSES SEVERE BURNS-HARMFUL IF SWALLOWED.

SECTION III PHYSICAL DATA

Melting Point (°C)	Approx. 37°C	Specific Gravity (H ₂ O = 1)	Data not listed
Boiling Point (°F)	283°C (541°F)	Percent Volatile	Non-volatile (NA).
Vapor Pressure (mm Hg)	Negligible as solid	Evaporation Rate	= 1) Non-volatile (NA).
Vapor Density (Air = 1)	9.35		

Solubility in Water: Readily soluble in water.

Appearance and Odor: Bright yellow flakes, lumps, beads; slightly Hydrochloric acid odor.

SECTION IV FIRE AND EXPLOSION HAZARD DATA

Flash Point (Method Used)	Non-combustible (NA).	Flammable Limits in Air	Lower Upper
		% by Volume	NA

Extinguisher: Use any media suitable for extinguishing supporting fire.

SPECIAL FIREFIGHTING PROCEDURES

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

UNUSUAL FIRE AND EXPLOSION HAZARDS

Fire or excessive heat may cause production of toxic and corrosive Hydrochloric acid fumes or chlorine gas.

D.O.T. OTHER REGULATED MATERIAL-B



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. 1 mg/m³ as iron (ACGIH 1980) LD orally in rats: 500 mg/kg.

Effects of Overexposure

INHALATION: Dust may cause upper respiratory tract irritation.
EYES: Causes irritation and/or burns.
SKIN: Causes irritation. Prolonged contact may result in burns.
INGESTION: Harmful if swallowed.

Emergency and First Aid Procedures

INHALATION: Remove to fresh air. If symptoms of illness develop, get medical attention.
EYES OR SKIN: Immediately flush thoroughly with plenty of water for at least 15 minutes. For eyes, get immediate medical attention.
INGESTION: If swallowed, if conscious, give one or two glasses of water to drink, then egg whites. Get immediate medical attention.

SECTION VI REACTIVITY DATA

Stability	Unstable	Stable	Conditions to Avoid
		X	Moisture-very hygroscopic.

Incompatibility (Materials to avoid): Strong reducing agents.

Hazardous Decomposition Products

Produces Hydrochloric acid fumes on exposure to moisture or light. Chlorine gas at high temperatures.

Hazardous Polymerization

Will Not Occur

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, neutralize with Sodium bicarbonate 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. Work in a fume hood if fumes of Hydrochloric acid are present.

Ventilation

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

Protective Gloves

Other Protective Equipment	Smock, apron, eye wash station, goggles, proper gloves, ventilation hood.	Eye Protection	Chemical safety glasses.
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SECTION IX SPECIAL PRECAUTIONS

Precautions to be Taken in Handling and Storing: Store in a cool, dry place and protect from light. Wash thoroughly after handling.

Other Precautions

Read 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	11/2/87	Approved	W. H. C. C. C.	Chemical Safety Coordinator
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