SAFETY DATA SHEET

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SECTION 1 PRODUCT AND COMPANY INFORMATION

PRODUCT NAME: **Iron (III) chloride Hexahydrate**

PRODUCT NUMBER: 2067

CAS NUMBER: 10025-77-1

SYNONYMS: Ferric chloride, hexahydrate; Ferric trichloride hexahydrate, iron trichloride hexahydrate

MANUFACTURER:

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SECTION 2 HAZARDS IDENTIFICATION

CLASSIFICATION OF SUBSTANCE OR MIXTURE

Pictogram

Signal Word **Danger**

Hazard Statements

H290	May be corrosive to metals.
H302	Harmful if swallowed.
H315	Causes skin irritation.
H318	Causes serious eye irritation.

Precautionary Phrases

P270	Do not eat, drink, or smoke when using this product.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P301+P312	IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
P302+P352	IF ON SKIN: Wash with plenty of soap and water.
P305+P351+P338	IF IN EYES: Rinse cautiously with waster for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.
P362	Take off contaminated clothing and wash before reuse.
P406	Store in a corrosive resistant container with a resistant inner liner.

HMIS CLASSIFICATION:
Health: 2 Fire: 0 Reactivity Hazard: 0
NFPA RATING:
Health: 2 Flammability: 0 Reactivity Hazard: 0

SECTION 2 HAZARDS IDENTIFICATION (Cont.)

EYE CONTACT: May cause moderate to severe irritation of the eyes.

SKIN CONTACT: May cause irritation, redness, and pain to skin.

INHALATION: Dust causes coughing, wheezing, laryngitis, shortness of breath, headache, nausea, and vomiting.

INGESTION: Soluble iron salts may cause poisoning.

CHRONIC HEALTH EFFECTS: Prolonged ingestion may lead to damage to the liver and pancreas. Prolonged inhalation of dusts may cause pulmonary fibrosis.

ACUTE HEALTH EFFECTS: Pink urine discoloration is a strong indicator of iron poisoning. Liver damage, coma, and death may follow. Sometimes delayed as long as three days. Antidotes may be administered by expert medical personnel.

SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

Formula: $FeCl_3 \bullet 6H_2O$

Molecular Weight: 270.30

CHEMICAL NAME	CAS#	%
Iron (III) chloride hexahydrate	10025-77-1	100

SECTION 4 FIRST AID MEASURES

EYE EXPOSURE: Immediately flush the eyes with copious amounts of water for at least 15 minutes. Assure flushing under eyelids. A victim may need assistance in keeping their eyelids open. Get immediate competent medical attention.

SKIN EXPOSURE: Wash affected area with plenty of water. Remove contaminated clothes if necessary. Seek medical assistance if irritation persists.

INHALATION: Remove to fresh air and keep at rest. Closely monitor the victim for signs of respiratory problems, such as difficulty in breathing, coughing, wheezing, or pain. In such cases, seek immediate medical assistance.

INGESTION: Seek medical assistance immediately. Keep the victim calm. Give the victim water (only if conscious). Induce vomiting only if directed by medical personnel.

SECTION 5 FIREFIGHTING MEASURES

FLASH POINT: Product is not flammable

AUTO IGNITION TEMPERATURE: Not available

EXPLOSION LIMITS: Not available

EXTINGUISHING MEDIUM: Use fire fighting measures that suit the surrounding fire.

SPECIAL FIRE FIGHTING PROCEDURES: Wear self-contained, approved breathing apparatus and full protective clothing, including eye protection and boots.

HAZARDOUS COMBUSTION AND DECOMPOSITION PRODUCTS: Hydrogen chloride gas and iron oxides

SECTION 6 ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS: Wear all appropriate equipment when using this material. Ensure adequate ventilation. Avoid the formation of dust. Avoid breathing vapors, mist, gas, or dust.

ENVIRONMENTAL PRECAUTIONS: Prevent spillage from entering drains or allowing to be released into the environment.

METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP: Neutralize spill. Sweep up and place in suitable container for proper disposal.

SECTION 7 HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING: Wear appropriate personal protective equipment. Avoid contact with skin and eyes. Use with adequate ventilation. Avoid formation of dusts and aerosols. Handle under dry protective gas.

CONDITIONS FOR SAFE STORAGE: Store in cool, dry, and well-ventilated area. Hygroscopic. Store under inert gas. Store away from water, moisture, strong bases, and oxidizing agents.

SECTION 8 EXPOSURE CONTROLS AND PERSONAL PROTECTION

EXPOSURE CONTROLS:

Component	Exposure Limits	Basis	Entity
Iron (III) chloride hexahydrate	1 mg/m^3	TLV	ACGIH
	1 mg/m^3	PEL	OSHA
	1 mg/m^3	REL	NIOSH

TLV: Threshold Limit Value over 8 hours of work. REL: Recommended Exposure Limit
PEL: Permissible Exposure Limit

EYE PROTECTION: Wear chemical safety glasses or goggles and face shield.
SKIN PROTECTION: Wear nitrile or rubber gloves, and a complete suit protecting against chemicals.
VENTILATION: Provide local exhaust, preferably mechanical.
RESPIRATOR: Use an approved respirator.
ADDITIONAL PROTECTION: Provide eyewash stations, quick-drench showers and washing facilities accessible to areas of use and handling.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

COLOR AND FORM: Yellow-brown lump
ODOR: None
MOLECULAR WEIGHT: 270.30
BOILING POINT: 280-285° C (dec.)
MELTING POINT: 37° C
SPECIFIC GRAVITY: 1.82 gm/ml
VAPOR DENSITY: No data available
SOLUBILITY: Soluble

SECTION 10 STABILITY AND REACTIVITY

STABILITY: Stable
HAZARDOUS POLYMERIZATION: Will not occur
CONDITIONS TO AVOID: Exposure to moisture
INCOMPATIBILITY: Water, moisture, bases, oxidizing agents, sodium/sodium oxides, and potassium. Forms shock-sensitive mixtures with certain other materials.
DECOMPOSITION PRODUCTS: Hydrogen chloride and iron oxide

SECTION 11 TOXICOLOGICAL DATA

ACUTE TOXICITY: LD50 Oral – rat – 316mg/kg.
CARCINOGENIC EFFECTS: No components of this product present at levels greater than or equal to 0.1% is identified a carcinogen.
MUTAGENIC EFFECTS: Not available
TETRATOGENIC EFFECTS: Not available
RTECS: NO5425000

Overdose of iron compounds may have a corrosive effect on the gastrointestinal mucosa and be followed by necrosis, perforation, and stricture formation. Several hours may elapse before symptoms that can include epigastric pain, diarrhea, vomiting, nausea, and hematemesis occur. After apparent recovery a person may experience metabolic acidosis, convulsions, and coma hours or days later. Further complications may develop leading to acute liver necrosis that can result in death due to hepatic coma. Symptoms may be delayed. Effects due to ingestion may include: Epigastric pain, diarrhea, vomiting, nausea, hematemesis.

To the best of our knowledge the toxicological effects of this compound have not been fully investigated.

SECTION 12 ECOLOGICAL DATA

No data available.

SECTION 13 DISPOSAL CONSIDERATIONS

Dispose of in according to local, state, and federal regulations.

SECTION 14 TRANSPORTATION DATA

UN3260
Corrosive solid, acidic, inorganic, n.o.s.
(Iron (III) chloride hexahydrate)
CLASS 8
PG III

Marine Pollutant: No

SECTION 15 REGULATORY INFORMATION

TSCA: Not listed in the TSCA inventory
SARA 302/304: Not Listed
SARA 311/312: Acute Health Hazard
SARA (TITLE 313): Not Listed
CALIFORNIA PROP. 65: Not Listed
MASSACHUSETTS RIGHT TO KNOW COMPONENTS: Iron (III) chloride hexahydrate
NEW JERSEY RIGHT TO KNOW COMPONENTS: Iron (III) chloride hexahydrate
PENNSYLVANIA RIGHT TO KNOW COMPONENTS: Iron (III) chloride hexahydrate

SECTION 16 OTHER INFORMATION

DISCLAIMER: The information herein is believed to be accurate and reliable as of the date compiled. However, Prochem, Inc. makes no representation, warranty, or guarantee of any kind with respect to the information in this document or any use of the product based on the information.
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SDS DEPT.