

SAFETY DATA SHEET

FERRIC CHLORIDE, SOLID

Section 1 - Chemical Product and Company Identification

SDS Name: Ferric Chloride, Solid

Catalog Numbers: SO-643

Company Identification: Transene Company, Inc., DBA ROWLEY BIOCHEMICAL Inc.
10 ELECTRONICS AVENUE
DANVERS, MA 01923

For information, call: 978-739-4883

Emergency Number: 800-424-9300

For CHEMTREC assistance, call: 800-424-9300

Section 2 - Hazards Identification

GHS Classifications

H290-Corrosive to metals: 1

H302-Acute toxicity, oral: 4

H314-Skin corrosion/irritation: 1B

H318-Serious eye damage/eye irritation: 1

H332-Acute toxicity, inhalation: 4

H371-Specific target organ toxicity, single exposure: 2

H373-Specific target organ toxicity, repeated exposure: 2

Pictograms or Hazard symbols and Hazard statement(s):



Signal word: Danger

Hazard Statements:

H290-May be corrosive to metals

H302-Harmful if swallowed

H314-Causes severe skin burns and eye damage

H318-Causes serious eye damage
H332-Harmful if inhaled
H371-May cause damage to organs
H373-May cause damage to organs through prolonged or repeated exposure (kidney, liver, blood)

Precautionary Statements:

P234-Keep only in original container.
P260-Do not breathe dust/fume/gas/mist/vapours/spray.
P261-Avoid breathing dust/fume/gas/mist/vapours/spray.
P264-Wash thoroughly after handling.
P270-Do not eat, drink, or smoke when using this product.
P271-Use only outdoors or in a well-ventilated area.
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.
P301+P330+P331-If swallowed: Rinse mouth. Do NOT induce vomiting.
P303+P361+P353-If on skin (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304+P340-If inhaled: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305+P351+P338-If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P309+P311-If exposed or if you feel unwell: Call a Poison Center or doctor/physician.
P310-Immediately call a Poison Center or doctor/physician.
P312-Call a Poison Center or doctor/physician if you feel unwell.
P314-Get medical advice/attention if you feel unwell.
P330-Rinse mouth.
P363-Wash contaminated clothing before reuse.
P390-Absorb spillage to prevent material damage.
P405-Store locked up.
P406-Store in corrosive resistant/container with a resistant inner liner.
P501-Dispose of contents/container in accordance with local/regional/national/international regulations.

Section 3 - Composition, Information on Ingredients

CAS#	Chemical Name	Percent
10025-77-1	Ferric Chloride Hexahydrate	100

Section 4 - First Aid Measures

Eye Exposure: In case of contact with eyes, flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. May cause blindness. Seek immediate medical attention.

Dermal Exposure: In case of skin contact, flush with copious amounts of water for at least 15 minutes. Remove contaminated clothing and shoes. Seek medical advice.

Oral Exposure: If swallowed, seek immediate medical advice. May cause severe and permanent damage to the digestive tract. Causes gastrointestinal burns and perforation of the digestive tract. Do not induce vomiting. Drink water.

Inhalation Exposure: If inhaled, remove to fresh air. Seek immediate medical attention.

Section 5 - Fire Fighting Measures

General Information: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. During a fire, irritating gases may be generated by thermal decomposition or combustion.

Extinguishing Media: Use dry chemical, carbon dioxide, dry sand, water spray, or alcohol-resistant foam.

Hazardous Combustion Products: Hydrogen chloride gas, chlorine, iron oxides, irritating and toxic fumes and gases.

Flash Point: Not available

Autoignition Temperature: Not available

Explosion Limits, Lower: Not available

Upper: Not available

NFPA Rating: (estimated) Health: 3; Flammability: 0; Instability: 1

Section 6 - Accidental Release Measures

Procedure(s) of Personal Precaution(s):

Wear personal protective equipment. Do not ingest or inhale. Do not get on skin or clothing. Do not get in eyes. Ensure adequate ventilation. Avoid dust formation.

Methods for Cleaning up: Absorb with sand, earth, or vermiculite. Carefully sweep up and containerize for proper disposal. Do not release to the environment. Do not release to drains. Avoid dust formation.

Section 7 - Handling and Storage

Use care when handling. Wear personal protective equipment. Ensure adequate ventilation. Wash thoroughly after handling. Do not ingest or inhale. Do not get on skin or clothing. Do not get in eyes. Avoid dust formation. Store in a tightly closed container at room temperature. Keep away from incompatible materials.

Section 8 - Exposure Controls, Personal Protection

Engineering Controls: Use explosion-proof ventilation equipment. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits.

Personal Protective Equipment

Eyes: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin: Wear appropriate protective gloves to prevent skin exposure.

Clothing: Wear appropriate protective clothing to prevent skin exposure.

Respirators: A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant a respirator's use.

Exposure Limits:

Chemical Name	ACGIH	NIOSH	OSHA - PELs
Ferric Chloride Hexahydrate CAS#10025-77-1	1 mg/m3 TWA	1 mg/m3 TWA	1 mg/m3 TWA (vacated)

Section 9 - Physical and Chemical Properties

Physical State: Solid

Appearance: Dark yellow-amber

Odor: Not available

Vapor Pressure: Not available

Odor threshold: Not available

Vapor Density: Not available

pH: Not available

Relative density: Not available

Melting point/freezing point: 37 degrees C

Solubility: Soluble in water

Boiling Point: 280-285 degrees C

Flash point: Not available

Evaporation Rate: Not available

Flammability (solid, gas): Not available

Partition coefficient: n-octanol/water: Not available

Auto-ignition temperature: Not available

Decomposition temperature: Not available

Viscosity: Not available

Specific Gravity/Density: Not available

Section 10 - Stability and Reactivity

Chemical Stability: Stable under normal temperatures and pressures.

Conditions to Avoid: Incompatible materials, ignition sources, excess heat, freezing, exposure to air or moisture.

Incompatibilities with Other Materials: Strong oxidizing agents, metals, strong bases.

Hazardous Decomposition Products: Hydrogen chloride gas, chlorine, iron oxides, irritating toxic fumes and gases.

Note: contact with metals may evolve flammable hydrogen gas.

Section 11 - Toxicological Information

CAS#10025-77-1 Ferric Chloride Hexahydrate: RTECS#: NO5425000

LD50 Oral: 900 mg/kg (rat)

LD50 Dermal: Not available

LC50 Inhalation: Not available

Carcinogenicity: Ferric Chloride Hexahydrate CAS#10025-77-1 is not listed by IARC, NTP, ACGIH, OSHA, or California Prop 65.

Carcinogenicity: Not available

Epidemiology: Not available

Teratogenicity: Not available

Reproductive Effects: Not available

Developmental Effects: Not available

Neurotoxicity: Not available

Mutagenicity: Not available

Specific Target Organ Toxicity, Single Exposure: Not available

Specific Target Organ Toxicity, Repeated Exposure: Kidney, liver, blood

The toxicological properties of this material have not been thoroughly investigated.

Note: Strong caustic effect on skin and mucous membranes. Strong irritant with danger of severe eye injury. Swallowing will lead to a strong caustic effect on mouth and throat and is a danger of perforation of esophagus and stomach.

Section 12 - Ecological Information

Ecotoxicity: Do not release to the environment. Do not release to drains. Toxic to aquatic life. May cause long-term adverse effects to the environment.

CAS#10025-77-1 Ferric Chloride Hexahydrate:

LC50, freshwater fish: 20.3 mg/L 96h (Lepomis macrochirus – Bluegill sunfish)

EC50, water flea: 9.6 mg/L 48h (Daphnia magna)

Persistence and degradability: Not available

Bio-accumulative potential: Not available

Mobility: Will likely be mobile in the environment due to its water solubility.

Section 13 - Disposal Considerations

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

Section 14 – Transport Information

DOT

Proper shipping name: Corrosive solid, acidic, inorganic, N.O.S. (Ferric chloride hexahydrate)
UN3260
PG III
Hazard class 8

Section 15 - Regulatory Information

Canada Regulatory Information

WHMIS Classification: This product has been classified in accordance with the hazard criteria of the CPR, and the SDS contains all the information required by the CPR.

Section 16 - Additional Information

SDS Creation Date: 10/15/12

Revision #1. 5-2-14 YM

Revision #2. 2-15-18

Revision #3. 3-31-22

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