Mallinckrodt®

FERRIC CHLORIDE

Material Safety Data Sheet

Mallinckrodt Inc.
Science Products Division
P.O. Box M
Paris, Kentucky 40361

Emergency Telephone Number
314-982-5000

Effective Date: 08-07-85

PRODUCT IDENTIFICATION:

Synonyms: Iron chloride hexahydrate; ferric trichloride hexahydrate

Formula CAS No.: 10025-77-1 (Hexahydrate) Molecular Weight: 270.30
TSCA CAS No.: 7705-08-0 (Anhydrous)

Hazardous Ingredients:
Not applicable.

Chemical Formula: $FeCl_3\ 6H_2O$

PRECAUTIONARY MEASURES

WARNING! HARMFUL IF SWALLOWED. CAUSES IRRITATION.

Do not get in eyes, on skin, or on clothing.
Avoid breathing dust.
Keep container closed.
Use with adequate ventilation.
Wash thoroughly after handling.

EMERGENCY/FIRST AID

If swallowed, induce vomiting immediately by giving two glasses of water and sticking finger down throat. Never give anything by mouth to an unconscious person.
In case of contact, immediately flush skin or eyes with plenty of water for at least 15 minutes.
In all cases call a physician.

SEE SECTION 5.

DOT Hazard Class: Not Regulated

Physical Data — SECTION 1

Appearance: Yellow brown deliquescent crystals.

Odor: Odorless.

Solubility: 80% in water @ 20°C (68°F)

Boiling Point: Loses water @ 280°C (536°F)
Decomposes @ 300°C (574°F)

Vapor Density (Air=1): No information found.

Melting Point: 37°C (99°F)

Vapor Pressure (mm Hg): No information found.

Specific Gravity: 1.82

Evaporation Rate: No information found.

Fire and Explosion Information — SECTION 2

Fire: Not considered to be a fire hazard.

Explosion: Not considered to be an explosion hazard.

Fire Extinguishing Media: Use any means suitable for extinguishing surrounding fire.

Special Information: In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode.

Reactivity Data — SECTION 3

Stability: Stable under ordinary conditions of use and storage. Solutions are acidic.

Hazardous Decomposition Products: When heated to decomposition it emits toxic fumes of hydrogen chloride.

Hazardous Polymerization: Will not occur.

Incompatibilities: Metals, allyl chloride, sodium potassium. Will react with water to produce toxic and corrosive fumes.

Leak/Spill Disposal Information — SECTION 4

Ventilate area of leak or spill. Clean-up personnel require protective clothing and respiratory protection from dust.

Spills: Pick up and place in a suitable container for reclamation or disposal in a method that does not generate dust.

Disposal: Whatever cannot be saved for reclamation may be disposed in a RCRA approved hazardous waste facility.

Small quantities can be neutralized with soda ash and flushed to sewer.

Reportable Quantity (RQ) (CWA/CERCLA): 1000 lbs. (Anhydrous)

Ensure compliance with local, state and federal regulations.

Ferric Chloride

Health Hazard Information — SECTION 5

A. Exposure/Health Effects

Inhalation: Slightly irritating to mucous membranes.

Ingestion: Low toxicity in small quantities but larger doses (30 mg/kg) may cause nausea, vomiting and diarrhea. Pink urine discoloration is a strong indicator of iron poisoning. Liver damage, coma and death may follow, sometimes delayed as long as three days.

Skin Contact: May cause irritation. Solutions are corrosive and may cause skin burns.

Eye Contact: May cause severe irritation or burns with eye damage.

Chronic Exposure: No information found.

Aggravation of Pre-existing Conditions: No information found.

B. FIRST AID

Inhalation: Remove to fresh air. Get medical attention for any breathing difficulty.

Ingestion: If swallowed, induce vomiting immediately by giving two glasses of water and sticking finger down throat. Never give anything by mouth to an unconscious person. Call physician immediately.

Skin Exposure: Remove any contaminated clothing. Wash skin with soap or mild detergent and water for at least 15 minutes. Get medical attention if irritation develops or persists.

Eye Exposure: Wash eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical attention immediately.

C. TOXICITY DATA (RTECS, 1982)

Mutation references cited.

Occupational Control Measures — SECTION 6

Airborne Exposure Limits:
-OSHA Permissible Exposure Limit (PEL): 1mg(Fe)/m^3ppm (TWA)
-ACGIH Threshold Limit Value (TLV): 1mg(Fe)/m^3 (TWA); 2 mg(Fe)/m^3 (STEL)

Ventilation System: A system of local exhaust is recommended to keep employee exposures below the Airborne Exposure Limits. Local exhaust ventilation is generally preferred because it can control the emissions of the dust or vapor at its source, preventing dispersion of it into the general work area. Please refer to the ACGIH document, "Industrial Ventilation, A Manual of Recommended Practices", most recent edition, for details.

Pesonal Respirators: (NIOSH Approved) If the TLV is exceeded, a dust/mist respirator with chemical goggles may be worn, in general, up to ten times the TLV. Consult respirator supplier for limitations. Alternatively, a supplied air full facepiece respirator or airlined hood may be worn.

Skin Protection: Wear protective gloves and clean body-covering clothing.

Eye Protection: Use chemical safety goggles. Contact lenses should not be worn when working with this material.

Maintain eye wash fountain and quick-drench facilities in work area.

Storage and Special Information — SECTION 7

Keep in a tightly closed container, stored in a cool, dry, ventilated area. Protect against physical damage. Protect from moisture. Isolate from oxidizing materials.

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