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FERROUS SULFATE
Material Safety Data Sheet
Mallinckrodt Inc.
Science Products Division
P.O. Box-M
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Emergency Telephone Number
314-982-5000

Fire and Explosion Information
SECTION 2
Fire: Not considered to be a fire hazard.

Effective Date: 08-06-85
PRODUCT IDENTIFICATION:

Explosion: Not considered to be an explosion hazard.

Synonyms: Iron (II) sulfate (1:1), heptahydrate; sulfuric acid, iron (2+) salt (1:1), heptahydrate

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

Formula CAS No.: 7782-63-0 (Hydrated)
TSCA CAS No.: 7720-78-7 (Anhydrous)

Special Information: Use protective clothing and breathing equipment appropriate for the surrounding fire.

Hazardous Ingredients: Not applicable. Chemical Formula: FeSO₄ 7H₂O

Reactivity Data
SECTION 3

PRECAUTIONARY MEASURES

Stability: Stable under ordinary conditions of use and storage.

WARNING! MAY BE HARMFUL IF SWALLOWED.

Wash thoroughly after handling.

Hazardous Decomposition Products: When heated to decomposition it emits toxic fumes of sulfur oxides.

EMERGENCY/FIRST AID

Hazardous Polymerization: Will not occur.

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 a physician. SEE SECTION 5.

Incompatibilities: Alkalies, soluble carbonates, and oxidizing materials. Reacts in moist air to form ferric sulfate.

DOT Hazard Class: ORM-E

Leak/Spill Disposal Information
SECTION 4

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

Physical Data
SECTION 1

Appearance: Blue-green fine crystals.

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

Odor: Odorless.

Solubility: 48.6 g/100 g water @ 50°C (122°F)

Disposal: Whatever cannot be saved for reclamation may be disposed in a RCRA approved hazardous waste facility. Small amounts of residue may be flushed to sewer with plenty of water, but this compound should not be sent to sewers or waterways without treatment. Treat water solution of scrap material with soda ash or dilute sodium hydroxide to precipitate iron. Separate the precipitate and dispose of in an approved waste disposal facility. Neutralize the clear solution with dilute acid before flushing to sewer with lots of water.

Boiling Point: Decomposes >300°C (572°F)

Reportable Quantity (RQ) (CWA/CERCLA) : 1,000 lbs.
Ensure compliance with local, state and federal regulations.

Melting Point: Loses water @ 65°C (149°F)

Evaporation Rate: No information found.

Specific Gravity: 1.90

Vapor Pressure (mm Hg): No information found.

Health Hazard Information

SECTION 5

A. Exposure/Health Effects

Inhalation:

Excessive inhalation of dust may be irritating to the respiratory tract.

Ingestion:

Low toxicity in small quantities but larger dosages may cause nausea, vomiting, diarrhea, and black stool. Pink urine discoloration is a strong indicator of iron poisoning. Liver damage, coma, and death from iron poisoning has been recorded.

Skin Contact:

May cause mild irritation.

Eye Contact:

Contact may cause irritation, redness, and pain.

Chronic Exposure:

No information found.

Aggravation of Pre-existing Conditions:

Persons with pre-existing skin disorders or eye problems, or impaired liver, kidney or respiratory function may be more susceptible to the effects of the substance.

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:

Wash exposed area with soap and water. Get medical advice if irritation develops.

Eye Exposure:

In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Call a physician.

C. TOXICITY DATA (RTECS, 1982)

Oral mouse LD50: 1520 mg/kg
Mutation references cited.

Occupational Control Measures

SECTION 6

Airborne Exposure Limits:

-ACGIH Threshold Limit Value (TLV) for soluble iron sil
1 mg (Fe)/M³ (TWA) 2 mg(Fe)/M³ (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.

Personal Respirators
(NIOSH Approved)

If the TLV is exceeded, a dust/mist respirator may be worn up to ten times the TLV. Consult respirator supplier for details.

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. Isolate from incompatible substances.

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