

MSDS

FERROIN INDICATOR, ORTHOPHENANTHROLINE TS

Material Safety Data Sheet

Section 1: Chemical Product and Company Identification

Catalog Number: 3140, 5464.8, F-154, F-155, F038200, SF038200, SF038220	
Product Identity: FERROIN INDICATOR, ORTHOPHENANTHROLINE TS	
Manufacturer's Name: RICCA CHEMICAL COMPANY LLC	Emergency Contact(24 hr) -- CHEMTREC® Domestic: 800-424-9300 International: 703-527-3887
CAGE Code: 0V553	
Address: 448 West Fork Dr Arlington, TX 76012	Telephone Number For Information: 817-461-5601
Date Prepared: 2/11/00	Revision: 5 Last Revised: 10/19/2005 Date Printed: 08/31/2006 1:34:00 pm

Section 2. Composition/Information on Ingredients

Component	CAS Registry #	Concentration	ACGIH TLV	OSHA PEL
1, 10-Phenanthroline Monohydrate	5144-89-8	0.5 - 2	Not Available Not Available	Not Available Not Available
Water, Deionized	7732-18-5	balance	Not Available Not Available	Not Available Not Available
Ferrous Sulfate Heptahydrate	7782-63-0	< 1	Not Available 1 mg/m3	Not Available Not Available

Section 3: Hazard Identification

Emergency Overview: WARNING! May be harmful if swallowed. Handle with care. If ingested, dilute with water, induce vomiting, and call a physician. Wash areas of contact with plenty of water. For eyes, get medical attention.

Target Organs: eyes, skin, liver.

Eye Contact: May cause slight irritation.

Inhalation: Not likely to be hazardous by inhalation.

Skin Contact: May cause slight irritation.

Ingestion: Large doses may cause stomach upset.

Chronic Effects/Carcinogenicity: Iron poisoning may develop indicated by pink urine discoloration. Repeated ingestion may affect the liver.

IARC - No.

NTP - No.

OSHA - No.

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Reproductive Information: Not Applicable.

Teratology (Birth Defect) Information: Mutation data cited in 'Registry of Toxic Effects of Chemical Substances' for 1, 10-Phenanthroline Monohydrate.
Mutation data cited in 'Registry of Toxic Effects of Chemical Substances' for Ferrous Sulfate Heptahydrate.

Section 4: First Aid Measures - In all cases, seek qualified evaluation.

Eye Contact: Irrigate immediately with large quantity of water for at least 15 minutes. Call a physician if irritation develops.

Inhalation: Remove to fresh air. Give artificial respiration if necessary. If breathing is difficult, give oxygen.

Skin Contact: Flush with plenty of water for at least 15 minutes. Call a physician if irritation develops.

Ingestion: Dilute immediately with water or milk. Induce vomiting. Call a physician.

Section 5: Fire Fighting Measures

Flash Point: Not Available.

Method Used: Not Available.

LFL: Not Available.

UFL: Not Available.

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

Fire & Explosion Hazards: Not considered to be a fire or explosion hazard.

Fire Fighting Instructions: Use normal procedures/instructions.

Fire Fighting Equipment: Use protective clothing and breathing equipment appropriate for the surrounding fire.

Section 6: Accidental Release Measures

Absorb with suitable material and dispose of in accordance with local regulations.

Section 7. Handling and Storage

As with all chemicals, wash hands thoroughly after handling. Avoid contact with eyes and skin. Protect from freezing and physical damage.

Safety Storage Code: General

Section 8: Exposure Control/Personal Protection

Engineering Controls: No specific controls are needed. Normal room ventilation is adequate.

Respiratory Protection: Normal room ventilation is adequate.

Skin Protection: Chemical resistant gloves.

Eye Protection: Safety glasses or goggles.

Section 9: Physical and Chemical Properties

Appearance: Clear, dark red liquid

Odor: Odorless

Solubility in Water: Infinite

Specific Gravity: Approximately 1.01

pH: Not Available.

Boiling Point(°C): Approximately 100

Melting Point(°C): Approximately 0

Vapor Pressure: Not Applicable.

Section 10: Stability and Reactivity

Chemical Stability: Stable under normal conditions of use and storage.

Incompatibility: Alkalis, oxidizing agents.

Hazardous Decomposition Products: May emit fumes of Carbon, Nitrogen and Sulfur Oxides when heated to decomposition.

Hazardous Polymerization: Will not occur.

Section 11. Toxicological Information

LD50, Oral, Rat: (Ferrous Sulfate) 319 mg/kg, details of toxic effects not reported other than lethal dose value; LDLo, Oral, Rat: (Ferrous Sulfate Heptahydrate) 1389 mg/kg; no information found on Phenanthroline Monohydrate.

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Section 12. Ecological Information

Ecotoxicological Information: No information found.

Chemical Fate Information: No information found.

Section 13. Disposal Considerations

Dilute with water then flush to sewer if local regulations allow for this type of disposal with iron containing products. If not allowed, save for recovery or recycling in an approved waste disposal facility. Always dispose of in accordance with local, state and federal regulations.

Section 14. Transport Information

Part Numbers:

This product is not regulated.

Section 15. Regulatory Information (Not meant to be all inclusive - selected regulation represented)

OSHA Status: These items meet the OSHA Hazard Communication Standard (29 CFR 1910.1200) definition of a hazardous material.

TSCA Status: All components of this solution are listed on the TSCA Inventory or are mixtures (hydrates) of items listed on the TSCA Inventory.

Sara Title III:

Section 302 Extremely Hazardous Substances: Not Applicable.

Section 311/312 Hazardous Categories: No

Section 313 Toxic Chemicals: Not Applicable.

California: None Reported.

Pennsylvania: Ferrous Sulfate Heptahydrate is listed as an Environmental Hazard on the state's Hazardous Substances List.

RCRA Status: Not Applicable.

CERCLA Reportable Quantity: Ferrous Sulfate Heptahydrate - 1000 pounds.

WHMIS: D-2B: Poisonous and Infectious Material. Materials causing other toxic effects - Toxic Material.



Section 16. Other Information

NFPA Ratings:

Health: 2 Flammability: 0 Reactivity: 0 Special Notice Key: None

HMIS Ratings:

Health: 2 Flammability: 0 Reactivity: 0 Protective Equipment: B (Protective Eyewear, Gloves)

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Rev 1, 8-15-2001: (Section 3) revised emergency overview; (Section 4) revised ingestion first aid measures; (Section 15) revised OSHA status; (Section 16) revised Health ratings from 1 to 2.
Rev 2, 10-09-2001: Reformatted to electronic data format.
Rev 3, 04-18-2002: (Section 1) added 'Orthophenanthroline TS' to title, added catalog number 5464.8.
Rev 4, 07-01-2004: (Section 1) added Solutions Plus catalog number F038200; (Section 2) corrected concentration of Ferrous Sulfate.
Rev 5, 10-19-2005: (Section 1) added Red Bird catalog number F-154; (Section 2) revised concentration range of Phenanthroline from 1-2.

When handled properly by qualified personnel, the product described herein does not present a significant health or safety hazard. Alteration of its characteristics by concentration, evaporation, addition of other substances, or other means may present hazards not specifically addressed herein and which must be evaluated by the user. The information furnished herein is believed to be accurate and represents the best data currently available to us. No warranty, expressed or implied, is made and RICCA CHEMICAL COMPANY assumes no legal responsibility or liability whatsoever resulting from its use.