



Material Safety Data Sheet

Ferroin, indicator

Section 1 - Chemical Product and Company Identification

MSDS Name:

Ferroin, indicator

Catalog Numbers:

LC14450

Synonyms:

o-Phenanthroline ferrous sulfate complex

Company Identification:

LabChem, Inc.
200 William Pitt Way
Pittsburgh, PA 15238

Company Phone Number:

(412) 826-5230

Emergency Phone Number:

(800) 424-9300

CHEMTREC Phone Number:

(800) 424-9300

Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name:	Percent
7732-18-5	Water	balance
5144-89-8	Ferroin, indicator	1.2
7782-63-0	Ferrous sulfate heptahydrate	1.2

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Appearance: Deepred

May cause eye and skin irritation. May cause digestive tract irritation.

Target Organs: Noneknown.

Potential Health Effects**Eye:**

May cause eye irritation. Ferrous sulfate may cause severe irritation and corrosive action to the eyes because of acidity.

Skin:

May cause skin irritation.



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Ingestion:

Ingestion may cause severe gastrointestinal tract irritation including vomiting, diarrhea, dehydration. The average lethal dose of iron for man is 200-250mg/Kg of body weight.

Inhalation:

May cause respiratory tract irritation.

Chronic:

May cause dermatitis and conjunctivitis.

Section 4 - First Aid Measures

Eyes:

Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower lids until no evidence of chemical remains. Get medical aid at once.

Skin:

Get medical aid. Immediately flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes. Remove contaminated clothing and shoes.

Ingestion:

Treat symptomatically and supportively. Get medical aid at once. If vomiting occurs, keep head lower than hip to prevent aspiration.

Inhalation:

Give artificial respiration if necessary. Get medical aid. Keep victim warm, at rest. Move victim to fresh air.

Notes to Physician:

Treat symptomatically and supportively.

Section 5 - Fire Fighting Measures

General Information:

Negligible fire and explosion hazard when exposed to heat or flame. Move container if possible, avoid breathing vapors or dust.

Extinguishing Media:

For small fires, use dry chemical, carbon dioxide, water spray or alcohol-resistant foam.

Autoignition Temperature:

No information found.

Flash Point:

No information found.

NFPA Rating:

CAS# 7732-18-5: Not published.

CAS# 5144-89-8: Not published.

CAS# 7782-63-0: Not published.

Explosion Limits:

Lower: Upper:



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Section 6 - Accidental Release Measures

General Information:

Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks:

Absorb spills with absorbent (vermiculite, sand, fuller's earth) and place in plastic bags for later disposal.

Section 7 - Handling and Storage

Handling:

Wash thoroughly after handling. Avoid breathing dust, vapor, mist, or gas.

Storage:

Store capped at room temperature. Protect from heat and incompatibles.

Section 8 - Exposure Controls, Personal Protection

Engineering Controls:

Provide local exhaust or general dilution ventilation.

Exposure Limits

Chemical Name:	ACGIH	NIOSH	OSHA
Water	None of the components are on this list.	None of the components are on this list.	None of the components are on this list.
Ferriin, indicator	None of the components are on this list.	None of the components are on this list.	None of the components are on this list.
Ferrous sulfate heptahydrate	None of the components are on this list.	None of the components are on this list.	None of the components are on this list.

OSHA Vacated PELs

Personal Protective Equipment

Eyes:

Do not wear contact lenses when working with chemicals. An eye wash fountain should be available in the immediate work area. Wear splash-proof safety goggles.

Skin:

Wear appropriate protective gloves to prevent skin exposure.

Clothing:

Wear appropriate protective clothing to prevent skin exposure.

Respirators:

Not required for normal use. Firefighting--any self-contained breathing apparatus with full facepiece operated in pressure-demand mode.

Section 9 - Physical and Chemical Properties

Physical State: Clear liquid

Color: Deep red



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Odor: Odorless
pH: Acidic
Vapor Pressure: No information found.
Vapor Density: No information found.
Evaporation Rate: No information found.
Viscosity: No information found.
Boiling Point: No information found.
Freezing/Melting Point: No information found.
Decomposition Temperature: No information found.
Solubility in water: Soluble.
Specific Gravity/Density: 1.0
Molecular Formula: No information found.
Molecular Weight: No information found.

Section 10 - Stability and Reactivity

Chemical Stability:

Stable under normal temperatures and pressures.

Conditions to Avoid:

None reported.

Incompatibilities with Other Materials

None reported.

Hazardous Decomposition Products

Oxides of sulfur.

Hazardous Polymerization

Has not been reported

Section 11 - Toxicological Information

RTECS:

CAS# 7732-18-5: ZC0110000.

CAS# 5144-89-8: SF8437000.

CAS# 7782-63-0: NO8510000.

LD50/LC50:

CAS# 7732-18-5:

Oral, rat: LD50 = >90 mL/kg.

CAS# 5144-89-8:

No information found. CAS# 7782-63-0:

Oral, mouse: LD50 = 1520 mg/kg.

Carcinogenicity:

CAS# 7732-18-5: Not listed as a carcinogen by ACGIH, IARC, NIOSH, NTP, OSHA, or CA Prop 65.

CAS# 5144-89-8: Not listed as a carcinogen by ACGIH, IARC, NIOSH, NTP, OSHA, or CA Prop 65.

CAS# 7782-63-0: Not listed as a carcinogen by ACGIH, IARC, NIOSH, NTP, OSHA, or CA Prop 65.



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Epidemiology:
Teratogenicity:
Reproductive:
Mutagenicity:
Neurotoxicity:

Section 12 - Ecological Information

No information found.

Section 13 - Disposal Considerations

Dispose of in accordance with Federal, State, and local regulations.

Section 14 - Transport Information

US DOT

Shipping Name: Not regulated.

Hazard Class:

UN Number:

Packing Group:

Section 15 - Regulatory Information

US Federal

TSCA

CAS# 7732-18-5 is listed on the TSCA Inventory.

CAS# 5144-89-8 is not on the TSCA Inventory, however, its anhydrous form is on the inventory and so this hydrate is exempt from TSCA Inventory requirements (40CFR270.3(u)(2)).

CAS# 7782-63-0 is not listed on the TSCA Inventory. It is for research and development use only.

SARA Reportable Quantities (RQ)

CAS# 7782-63-0: final RQ = 1000 pounds (454 kg) (Listed under "Ferrous sulfate")

CERCLA/SARA Section 313

None of the components are on this list.

OSHA - Highly Hazardous

None of the components are on this list.

US State

State Right to Know

Ferrous sulfate heptahydrate can be found on the following state Right-to-Know lists: Pennsylvania, Massachusetts.

California Regulations

European/International Regulations



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Canadian DSL/NDSL

CAS# 7732-18-5 is listed on Canada's DSL List.

Canada Ingredient Disclosure List

CAS# 7732-18-5 is not listed on Canada's Ingredient Disclosure List.

CAS# 5144-89-8 is not listed on Canada's Ingredient Disclosure List.

CAS# 7782-63-0 is not listed on Canada's Ingredient Disclosure List.

Section 16 - Other Information

MSDS Creation Date: October 4, 1998

Revision Date: July 12, 2007

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