

FERROIN INDICATOR SOLUTION

1. Product Identification

Synonyms: 1,10 Phenanthroline solution

CAS No.: Not applicable to mixtures.

Molecular Weight: Not applicable to mixtures.

Chemical Formula: Not applicable to mixtures.

Product Codes: 39031

2. Composition/Information on Ingredients

Ingredient	CAS No	Percent
1,10-Phenanthroline	66-71-7	1.5%
Ferrous Sulfate	7720-78-7	7.8%
Water	7732-18-5	> 90%

3. Hazards Identification

Potential Health Effects

Inhalation: No adverse health effects expected from inhalation. May cause mild irritation to the respiratory tract.

Ingestion: Extremely large oral dosages may produce gastrointestinal disturbances.

Skin Contact: Not expected to be a health hazard from skin exposure. May cause mild irritation and redness.

Eye Contact: No adverse health effects expected, but splashes may cause irritation.

Chronic Exposure: Repeated high exposure could cause too much iron to build up in the body. Symptoms of upset stomach, nausea, constipation and black bowel movements may occur.

Aggravation of Pre-existing Conditions: No information found.

4. First Aid Measures

Inhalation: Not expected to require first aid measures. Remove to fresh air. Get medical attention for any breathing difficulty.

Ingestion: If swallowed, give several glasses of water to drink to dilute. If large amounts were swallowed or symptoms occur, get medical advice. Never give anything by mouth to an unconscious person.

Skin Contact: Not expected to require first aid measures. Wash exposed area with soap and water. Get medical advice if irritation develops.

Eye Contact: Not expected to require first aid measures. Wash thoroughly with running water. Get medical advice if irritation develops.

5. Fire Fighting Measures

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



Registered Off. : 101-A, Deep Enclave, Pocket 'D', Ashok Vihar, Phase-III, Delhi-110 052 (India)
Corporate Off. : 152, Vardhman City Centre, Near Shakti Nagar Underbridge, Delhi-110052 (India)
Works : Plot No.1022, Modern Industrial Estate, Bahadurgarh-124507, Haryana (India)
Telephone : 0091 - 11 - 23646422 E-mail : tecpharm@gmail.com
Website : www.technopharmchem.com

6. Accidental Release Measures

Ventilate area of leak or spill. Wear appropriate personal protective equipment as specified in Section 8.

7. Handling and Storage

Keep in a tightly closed container, stored in a cool, dry, ventilated area. Protect against physical damage. Protect from freezing.

8. Exposure Controls/Personal Protection

Airborne Exposure Limits:

-ACGIH Threshold Limit Value (TLV): 1 mg/m³ (TWA) soluble iron salt as Fe

Ventilation System: A system of local and/or general 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 contaminant at its source, preventing dispersion of it into the general work area.

Personal Respirators (NIOSH Approved): If the exposure limit is exceeded and engineering controls are not feasible, a half facepiece particulate respirator (NIOSH type N95 or better filters) may be worn for up to ten times the exposure limit or the maximum use concentration specified by the appropriate regulatory agency or respirator supplier, whichever is lowest.

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

Eye Protection: Use chemical safety goggles. Maintain eye wash fountain and quick-drench facilities in work area.

9. Physical and Chemical Properties

Appearance: Clear, dark red solution.

Odor: Odorless.

Solubility: Infinitely miscible.

Specific Gravity: ca. 1.0

pH: No information found.

% Volatiles by volume @ 21C (70F): No information found.

Boiling Point: ca. 100C (ca. 212F)

Melting Point: ca. 0C (ca. 32F)

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

Vapor Pressure (mm Hg): No information found.

Evaporation Rate (BuAc=1): No information found.

10. Stability and Reactivity

Stability: Stable under ordinary conditions of use and storage.

Hazardous Decomposition Products: May form carbon oxides, nitrogen oxides, and sulfur oxides when heated to decomposition.

Hazardous Polymerization: Will not occur.

Incompatibilities: No information found.

Conditions to Avoid: No information found.

The information contained herein is in good faith but makes no representations as to its comprehensiveness or accuracy. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product. The conditions or methods of handling, storage, use or disposal of the product are beyond our control and may be beyond our knowledge. We do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. Individuals receiving the information must exercise their independent judgment in determining its appropriateness for a particular purpose.



Serving Scientific Community
Since 1985



TECHNO PHARMCHEM

An ISO 9001 : 2008 Certified Company

Registered Off. : 101-A, Deep Enclave, Pocket 'D', Ashok Vihar, Phase-III, Delhi-110 052 (India)
Corporate Off. : 152, Vardhman City Centre, Near Shakti Nagar Underbridge, Delhi-110052 (India)
Works : Plot No.1022, Modern Industrial Estate, Bahadurgarh-124507, Haryana (India)
Telephone : 0091 - 11 - 23646422 E-mail : tecpharm@gmail.com
Website : www.technopharmchem.com

11. Toxicological Information

Ferrous sulfate: oral rat LD50: 319 mg/kg; investigated as a mutagen, tumorigen, reproductive effector.

1,10-phenanthroline: Investigated as a mutagen, reproductive effector.

-----\Cancer Lists\-----

---NTP Carcinogen---

Ingredient	Known	Anticipated	IARC Category
1,10-Phenanthroline (66-71-7)	No	No	None
Ferrous Sulfate (7720-78-7)	No	No	None
Water (7732-18-5)	No	No	None

12. Ecological Information

Environmental Fate: No information found.

Environmental Toxicity: No information found

13. Disposal Considerations

Dispose of container and unused contents in accordance with federal, state and local requirements.

14. Transport Information

Not regulated.

15. Regulatory Information

SARA 311/312: Acute: Yes Chronic: Yes Fire: No Pressure: No

Reactivity: No (Mixture / Liquid)

16. Other Information

Product Use:

Laboratory Reagent.