

SECTION 1: Identification of the substance/preparation and of the company/undertaking

Identification of the Product

Product Name: Iron(II) sulfate heptahydrate
Alternate Name(s): Ferrous sulfate heptahydrate, Ferrous sulfate 7-hydrate,
Iron(II) sulfate 7-hydrate

Use of the Product/Preparation

Laboratory reagent, industrial manufacturing, and water treatment applications.

Details of the supplier of the safety data sheet

PHINE KEMIKALS INDIA
Plot No. 1/2/3/90/P3A, G.I.D.C. Industrial Estate, Godhra, Gujarat 389002
INDIA
T +919824063593
info@phinekem.in, www.phinekem.in

Emergency telephone number

Emergency number : + 919023930031 (24 hrs)
Classification according to Regulation (EC) No. 1272/2008 [CLP]

SECTION 2: Composition/information on ingredients

Substance: Ferrous Sulphate Heptahydrate
CAS No.: 7782-63-0
EC No.: 231-753-5
Molecular weight: 278.01 g/mol

SECTION 3: Hazards Identification

Harmful if swallowed (H302)
Causes skin irritation (H315)
Causes serious eye irritation (H319)

SECTION 4: First aid measures

Inhalation: Move to fresh air. Seek medical advice if symptoms persist.
Skin contact: Wash thoroughly with water. Remove contaminated clothing.
Eye contact: Rinse with plenty of water for several minutes. Seek medical advice.
Ingestion: Rinse mouth. Do NOT induce vomiting. Seek immediate medical attention.

SECTION 5: Firefighting measures

Extinguishing media: Use water spray, dry chemical, foam, or CO₂.

Special hazards: May release toxic fumes of SO_x and Fe oxides when heated.

Protective equipment: Wear self-contained breathing apparatus (SCBA).

SECTION 6: Accidental release measures

Personal precautions: Use personal protective equipment. Avoid dust formation.

Environmental precautions: Avoid release into water bodies.

Cleanup methods: Sweep up and place in appropriate waste containers. Avoid raising dust.

SECTION 7: Handling and storage

Handling: Use in well-ventilated areas. Avoid contact with eyes, skin, and clothing.

Storage: Keep in a cool, dry, and well-ventilated place. Store in tightly sealed containers.

SECTION 8: Exposure controls/personal protection

Engineering controls: Ensure good ventilation.

Eye protection: Chemical safety goggles.

Skin protection: Protective gloves and clothing.

Respiratory protection: Use NIOSH-approved respirator if needed.

SECTION 9: Physical and chemical properties

Physical State: Solid, crystalline

Color: Pale green to blue-green

Odor: Odorless

pH: 3–4 (5% solution)

Melting point: ~64 °C (loses water)

Boiling point: Not applicable

Density: ~1.9 g/cm³

Solubility: Soluble in water

SECTION 10: Stability and reactivity

Stability: Stable under recommended conditions.

Conditions to avoid: Moisture, high temperatures

Incompatible materials: Strong oxidizers, alkalis

Decomposition: Produces SO_x, Fe oxides

SECTION 11: Toxicological information

Acute oral toxicity (rat): LD₅₀ ~ 319 mg/kg

Effects: Irritation to eyes, skin, and GI tract.

Chronic effects: May affect liver, kidneys, and cause iron overload.

SECTION 12: Ecological information

Toxicity: Harmful to aquatic life.

Persistence and degradability: Not biodegradable (inorganic).

Environmental precautions: Avoid release into soil and water systems.

SECTION 13: Disposal considerations

Disposal method: Dispose in accordance with local, regional, and national regulations.

Packaging: Dispose as per applicable regulations or through approved recycling systems.

SECTION 14: Transport information

Not Subject to transport regulations (ADR/RID, AND, IATA, IMDG)

SECTION 15: Regulatory information

EU Classification:

Symbol: Xn (Harmful)

R-phrases: R22 (Harmful if swallowed)

S-phrases: S24/25 (Avoid contact with skin and eyes)

SECTION 16: Other information

Reasons for Alteration:

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| Release 1. 18/03/2016 | Original |
| Release 2. 01/03/2019 | Composition table added in Chapter.2 (Composition/information on ingredients).
Address & Email altered. |
| Release 3. 01/06/2020 | Detailed Information added in Chapter 14 (Transport Information) |
| Release 4. 23/03/2025 | Information updated in all the chapters, also changed the design template of the MSDS. |
- Regional representation:** India: given in Chapter 1 (company identification)

Disclaimer:

This Safety Data Sheet (SDS) information is based on our current knowledge and is intended to describe the product for health, safety, and environmental purposes only. It should not be interpreted as a guarantee of any specific product



MATERIAL SAFETY DATA SHEET
Product: Ferrous Sulphate Heptahydrate
Company: Phine Kemikals India

property.