

## **MATERIAL SAFETY DATA SHEET**

### **FERROUS SULPHATE 98.5%** **(Heptahydrate) (Extra Pure)** **(Iron (II) Sulphate)** **MSDS CAS: 7782-63-0**

#### **Section 1: Chemical Product and Company Identification**

##### **Section 1: Chemical Product**

**Product Name:** FERROUS SULPHATE Heptahydrate

**CAS#:** 7782-63-0

**Synonym:** Iron (II) Sulphate

**Chemical Name:** Ferrous Sulphate Heptahydrate

**Chemical Formula:** FeSO<sub>4</sub>.7H<sub>2</sub>O

**Brand:** OXFORD

##### **Details Of The Supplier Of The Safety Data Sheet :**

**Company identification:** OXFORD LAB FINE CHEM LLP  
Unit. No. 12, 1st Floor, Neminath Industrial Estate No. 6,  
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#### **Section 2: Composition and Information on Ingredients**

##### **Composition:**

Name	CAS #	% by Weight
Ferrous Sulphate Heptahydrate	7782-63-0	100

**Toxicological Data on Ingredients:** Ferrous Sulphate Heptahydrate: ORAL (LD50): Acute: 1520 mg/kg [Mouse].

## Section 3: Hazards Identification

### Potential Acute Health Effects:

Hazardous in case of ingestion. Slightly hazardous in case of skin contact (irritant), of eye contact (irritant), of inhalation.

### Potential Chronic Health Effects:

**CARCINOGENIC EFFECTS:** Not available. **MUTAGENIC EFFECTS:** Mutagenic for bacteria and/or yeast. **TERATOGENIC EFFECTS:** Not available. **DEVELOPMENTAL TOXICITY:** Not available. The substance is toxic to liver. The substance may be toxic to kidneys, cardiovascular system, central nervous system (CNS). Repeated or prolonged exposure to the substance can produce target organs damage.

## Section 4: First Aid Measures

### Eye Contact:

Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Cold water may be used. Do not use an eye ointment. Seek medical attention.

### Skin Contact:

In case of contact, immediately flush skin with plenty of water. Cover the irritated skin with an emollient. Remove contaminated clothing and shoes. Cold water may be used. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention.

### Serious Skin Contact:

Wash with a disinfectant soap and cover the contaminated skin with an anti-bacterial cream. Seek immediate medical attention.

### Inhalation:

If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

Serious Inhalation: Not available.

### Ingestion:

Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If large quantities of this material are swallowed, call a physician immediately. Loosen tight clothing such as a collar, tie, belt or waistband.

Serious Ingestion: Not available.

## Section 5: Fire and Explosion Data

**Flammability of the Product:** Non-flammable.

**Auto-Ignition Temperature:** Not available.

**Flash Points:** Not available.

**Flammable Limits:** Not available.

**Products of Combustion:** Not available.

**Fire Hazards in Presence of Various Substances:** Not available.

**Explosion Hazards in Presence of Various Substances:**

Risks of explosion of the product in presence of mechanical impact: Not available.

Risks of explosion of the product in presence of static discharge: Not available.

**Fire Fighting Media and Instructions:** Not available.

**Special Remarks on Fire Hazards:** Not available.

**Special Remarks on Explosion Hazards:** Not available.

## Section 6: Accidental Release Measures

**Small Spill:**

Use appropriate tools to put the spilled solid in a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.

**Large Spill:**

Use a shovel to put the material into a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system. Be careful that the product is not present at a concentration level above TLV. Check TLV on the MSDS and with local authorities.

## Section 7: Handling and Storage

### Precautions:

Keep locked up.. Do not ingest. Do not breathe dust. Wear suitable protective clothing. In case of insufficient ventilation, wear suitable respiratory equipment. If ingested, seek medical advice immediately and show the container or the label. Avoid contact with skin and eyes. Keep away from incompatibles such as oxidizing agents, alkalis.

### Storage:

Hygroscopic. Air Sensitive. Keep container tightly closed. Keep container in a cool, well-ventilated area. Do not store above 24°C (75.2°F).

## Section 8: Exposure Controls/Personal Protection

### Engineering Controls:

Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

### Personal Protection:

Safety glasses. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent.  
Gloves.

### Personal Protection in Case of a Large Spill:

Splash goggles. Full suit. Dust respirator. Boots. Gloves. A self contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

### Exposure Limits:

TWA: 1 CEIL: 2 Consult local authorities for acceptable exposure limits.

## Section 9: Physical and Chemical Properties

Physical state and appearance	: Solid.
Odor	: Not available.
Taste	: Not available.
Molecular Weight	: 278.01 g/mole
Color	: Blue to blue-green. (Light.)
pH (1% soln/water)	: Not available.

## Section 9: Physical and Chemical Properties (Continued)

<b>Boiling Point</b>	: Not available.
<b>Melting Point</b>	: Decomposes. (140°C or 284°F)
<b>Critical Temperature</b>	: Not available.
<b>Specific Gravity</b>	: 1.898 (Water = 1)
<b>Vapor Pressure</b>	: Not applicable.
<b>Vapor Density</b>	: Not available.
<b>Volatility</b>	: Not available.
<b>Odor Threshold</b>	: Not available.
<b>Water/Oil Dist. Coeff.</b>	: Not available.
<b>Ionicity (in Water)</b>	: Not available.
<b>Dispersion Properties</b>	: See solubility in water.
<b>Solubility</b>	: Soluble in cold water.

## Section 10: Stability and Reactivity Data

**Stability:** The product is stable.

**Instability Temperature:** Not available.

**Conditions of Instability:** Not available.

**Incompatibility with various substances:**

Reactive with oxidizing agents, alkalis. Slightly reactive to reactive with moisture.

**Corrosivity:** Not available.

**Special Remarks on Reactivity:**

Hygroscopic. Oxidizes when in contact with moisture to form ferric sulfate. Air Sensitive Incompatible with alkalis, soluble carbonates, Au and Ag salts, Pb acetate, lime water, KI, K, and Na tartrate, Na Borate, tannin, vegetable astringent infusions and decoctions.

**Special Remarks on Corrosivity:** Not available.

**Polymerization:** Will not occur.

## Section 11: Toxicological Information

**Routes of Entry:** Inhalation. Ingestion.

**Toxicity to Animals:** Acute oral toxicity (LD50): 1520 mg/kg [Mouse].

**Chronic Effects on Humans:**

**MUTAGENIC EFFECTS:** Mutagenic for bacteria and/or yeast. Causes damage to the following organs: liver. May cause damage to the following organs: kidneys, cardiovascular system, central nervous system (CNS).

**Other Toxic Effects on Humans:**

Hazardous in case of skin contact (irritant, permeator), of ingestion, of inhalation.

**Special Remarks on Toxicity to Animals:**

Lowest Published Lethal Dose LDL [Rat] - Route: Oral; Dose: 1389 mg/kg.

**Special Remarks on Chronic Effects on Humans:**

May affect genetic material (mutagenic). It is excreted in maternal milk in animal.

**Special Remarks on other Toxic Effects on Humans:**

**Acute Potential Health Effects:** Skin: May cause skin irritation. Eyes: May cause eye irritation. Inhalation: May cause respiratory tract irritation. Ingestion: Harmful if swallowed. May cause gastrointestinal tract disturbances and irritation with nausea, vomiting, colic, constipation, diarrhea, black stool. May also affect behavior/Central Nervous System (somnia -general depressed activity), respiration, cardiovascular system, liver, kidneys (pink urine discoloration). **Chronic Potential Health Effects:** Repeated exposure via ingestion may increase iron levels in the liver, and spleen. Damage may occur to spleen and liver.

## Section 12: Ecological Information

**Ecotoxicity:** Not available.

**BOD5 and COD:** Not available.

**Products of Biodegradation:**

Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.

**Toxicity of the Products of Biodegradation:**

The products of degradation are less toxic than the product itself.

**Special Remarks on the Products of Biodegradation:** Not available.

## Section 13: Disposal Considerations

### Waste Disposal:

Waste must be disposed of in accordance with federal, state and local environmental control regulations.

## Section 14: Transport Information

### Land transport (ADR-RID)

General information: Not regulated.

### Sea transport (IMDG) [English only]

General information: Not regulated.

### Air transport (ICAO-IATA) [English only]

General information: Not regulated.

## Section 15: Other Regulatory Information

### Federal and State Regulations:

Connecticut carcinogen reporting list.: Ferrous sulfate heptahydrate Illinois toxic substances disclosure to employee act: Ferrous sulfate heptahydrate New York release reporting list: Ferrous sulfate heptahydrate Pennsylvania RTK: Ferrous sulfate heptahydrate Massachusetts RTK: Ferrous sulfate heptahydrate Massachusetts spill list: Ferrous sulfate heptahydrate New Jersey spill list: Ferrous sulfate heptahydrate Louisiana spill reporting: Ferrous sulfate heptahydrate CERCLA: Hazardous substances.: Ferrous sulfate heptahydrate: 1000 lbs. (453.6 kg)

### Other Regulations:

OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200).

### Other Classifications:

WHMIS (Canada): Not controlled under WHMIS (Canada).

DSCL (EEC): R36/38- Irritating to eyes and skin. S2- Keep out of the reach of children. S46- If swallowed, seek medical advice immediately and show this container or label.

### HMIS (U.S.A.):

Health Hazard: 2

Fire Hazard: 0

Reactivity: 0

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## **Section 15: Other Regulatory Information (Continued)**

**Personal Protection: E**

**National Fire Protection Association (U.S.A.):**

**Health: 2**

**Flammability: 0**

**Reactivity: 3**

**Specific hazard:**

**Protective Equipment:**

**Gloves. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Splash goggles.**

## **Section 16 - Additional Information**

**References: Not available.**

**Other Special Considerations: Not available.**

### ***Disclaimer:***

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