



LABORATORY CHEMICALS AND CONSUMABLES

# MATERIAL SAFETY DATA SHEET

## FERROUS SULPHATE HEPTAHYDRATE

### 1. Chemical Product and Company information

**Product name:** Ferrous Sulphate Heptahydrate

**Contact Information:**

Radchem cc  
PO Box 166982  
Brackendowns  
Alberton 1454  
Telephone : **011 867 3726 / 2864**

### 2. Hazard Identification

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

### 3. Composition / information on ingredients

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

**Synonym:**

**Chemical Name:** Ferric Sulphate Heptahydrate

**Chemical Formula:**  $\text{Fe}_2(\text{SO}_4)_3 \cdot x\text{H}_2\text{O}$

### 4. First Aid Measures

**Eye Contact:** Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. Get 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.

#### **5. Fire-fighting measures**

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

**Fire Hazards in Presence of Various Substances:** Not applicable

**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. Explosive in presence of heat.

**Fire Fighting Media and Instructions:** Not applicable

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

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

#### **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.

#### **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

#### **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:** Splash goggles. 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.



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| <p><b><u>9. Physical and chemical properties</u></b></p> <p><b>Physical state and appearance:</b> Solid</p> <p><b>Odour:</b> Not available</p> <p><b>Taste:</b> Not available</p> <p><b>Colour:</b> Blue to blue-green (Light)</p> <p><b>Boiling Point:</b> Not available</p> <p><b>Melting Point:</b> Not available</p>  | <p><b>Odour Threshold:</b> Not available</p> <p><b>Ionicity (in Water):</b> Not available.</p> <p><b>Dispersion Properties:</b> See solubility in water</p> <p><b>Solubility:</b> Soluble in cold water</p> <p><b>Critical Temperature:</b> Not available</p> <p><b>Specific Gravity:</b> 1.898 (Water = 1)</p> <p><b>Vapour Density:</b> Not available</p> <p><b>Volatility:</b> Not available</p> |
| <p><b><u>10. Stability and reactivity</u></b></p> <p><b>Stability:</b> The product is stable.</p> <p><b>Instability Temperature:</b> Not available.</p> <p><b>Conditions of Instability:</b> Incompatibles</p> <p><b>Incompatibility with various substances:</b> Reactive with oxidizing agents, alkalis. Slightly reactive to reactive with moisture.</p> <p><b>Corrosivity:</b> Non-corrosive in presence of glass</p> <p><b>Special Remarks on Reactivity:</b> Hygroscopic. Oxidizes when in contact with moisture to form ferric sulphate. Air Sensitive Incompatible with alkalise, soluble carbonates, Au and Ag salts, Pb acetate, lime water, KI, K, and Na tartrate, Na Borate, tannin, vegetable astringent infusions and decoctions.</p> <p><b>Special Remarks on Corrosivity:</b> Not available</p> <p><b>Polymerization:</b> Will not occur.</p>  |   |
| <p><b><u>11. Toxicological information</u></b></p> <p><b>Routes of Entry:</b> Inhalation. Ingestion.</p> <p><b>Toxicity to Animals:</b> Acute oral toxicity (LD50): 1520 mg/kg [Mouse]</p> <p><b>Chronic Effects on Humans:</b> 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).</p> <p><b>Other Toxic Effects on Humans:</b> Hazardous in case of skin contact (irritant), of ingestion, of inhalation.</p> <p><b>Special Remarks on Toxicity to Animals:</b> Lowest Published Lethal Dose LDL [Rat] - Route: Oral; Dose: 1389 mg/kg</p> <p><b>Special Remarks on Chronic Effects on Humans:</b> May affect genetic material (mutagenic). It is excreted in maternal milk in animal.</p> <p><b>Special Remarks on other Toxic Effects on Humans:</b> Acute Potential Health Effects: Skin: May cause skin irritation. Eyes: May cause eye irritation. Inhalation: May cause respiratory tract irritation. Ingestion: Harmful if</p> |   |

swallowed. May cause gastrointestinal tract disturbances and irritation with nausea, vomiting, colic, constipation, diarrhoea, black stool. May also affect behaviour/Central Nervous System (somnolence-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.

## **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.

## **13. Disposal considerations**

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

## **14. Transport information**

**DOT Classification:** Not a DOT controlled material

**Identification:** : Not available. : NA9121 PG: III

**Special Provisions for Transport:** Not available

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