

## Material Safety Data Sheet



# Manganese (II) Sulfate, Monohydrate

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**CAROLINA**  
www.carolina.com

### Section 1 - Product Description

**Product Name:** Manganous Sulfate, Monohydrate  
**Product Code(s):** 87-3920, 87-3930  
**Size:** 500 g  
**Chemical Name:** Manganese (II) Sulfate  
**CAS Number:** 7785-87-7  
**Formula:** MnSO<sub>4</sub> H<sub>2</sub>O  
**Synonyms:** Manganese sulfate, hydrate; sulfuric acid, manganese (2) salt (1:1), Monohydrate.  
**Distributor:** Carolina Biological Supply Company, 2700 York Road, Burlington, NC 27215  
**Chemical Information:** 800-227-1150 (8am-5pm (ET) M-F) Chemtrec 800-424-9300 (Transportation Spill Response 24 hours)

### Section 2 - Hazard Identification

**Emergency Overview:** Harmful by inhalation.

**Potential Health Effects:**

**Eyes:** May cause irritation.

**Ingestion:** May cause gastrointestinal discomfort.

**Skin:** May cause irritation to skin.

**Inhalation:** May cause irritation to respiratory tract.

### Section 3 - Composition / Information on Ingredients

**Principal Hazardous Components:** Manganous Sulfate (CAS# 7785-87-7) 100%  
**TLV units:** ACGIH-TLV 0.2 mg/m<sup>3</sup> (TWA) Manganese dust & compounds (as Mn)  
**PEL units:** OSHA-PEL 5 mg/m<sup>3</sup> (Ceiling for manganese compounds) (as Mn)

### Section 4 - First Aid Measures

**Emergency and First Aid Procedures:**

**Eyes** - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

**Skin** - After contact with skin, take off immediately all contaminated clothing, and wash immediately with plenty of water.

**Ingestion** - If swallowed, do not induce vomiting; seek medical advice immediately and show this container or label. If swallowed, rinse mouth with water (only if the person is conscious).

**Inhalation** - In case of accident by inhalation: remove casualty to fresh air and keep at rest.

### Section 5 - Firefighting Procedures

**Flash Point (Method Used):** N/A

**NFPA Rating:**

**Health:** 0

**Fire:** 0

**Reactivity:** 0

**Extinguisher Media:** Use media suitable to extinguish surrounding fire.

**Flammable Limits in Air % by Volume:** N/A

**Autoignition Temperature:** N/A

**Special Firefighting Procedures:** Firefighters should wear full protective equipment and NIOSH approved self-contained breathing apparatus.

**Unusual Fire and Explosion Hazards:** Fire or excessive heat may produce hazardous decomposition products.

## Section 6 - Spill or Leak Procedures

**Steps to Take in Case Material Is Released or Spilled:** Ventilate area of spill. Clean-up personnel should wear proper protective equipment. Avoid creating dust. Sweep or scoop up and containerize for disposal.

## Section 7 - Special Precautions

**Precautions to Take in Handling or Storing:** Keep container tightly closed in a cool, well-ventilated place.

Harmful: danger of serious damage to health by prolonged exposure through inhalation and if swallowed.

Use only in well-ventilated areas.

## Section 8 - Protection Information

**Respiratory Protection (Specify Type):** None needed under normal conditions of use with adequate ventilation. A NIOSH/MSHA chemical cartridge respirator should be worn if PEL or TLV is exceeded.

**Ventilation:**

**Local Exhaust:** Yes

**Mechanical(General):** Yes

**Special:** No

**Other:** No

**Protective Gloves:** Natural rubber, Neoprene, PVC or equivalent.

**Eye Protection:** Splash proof chemical safety goggles should be worn.

**Other Protective Clothing or Equipment:** Lab coat, apron, eye wash, safety shower.

## Section 9 - Physical Data

**Molecular Weight:** 151.00

**Boiling Point:** Decomposes 850 °C

**Vapor Density(Air=1):** N/A

**Percent Volatile by Volume:** N/A

**Solubility in Water:** Soluble

**Melting Point:** 700 °C

**Vapor Pressure:** N/A

**Specific Gravity (H<sub>2</sub>O=1):** 3.25

**Evaporation Rate (BuAc=1):** N/A

**Appearance and Odor:** Odorless white-pink solid.

## Section 10 - Reactivity Data

**Stability:** Stable

**Conditions to Avoid:** N/A

**Incompatibility (Materials to Avoid):** Oxidizers, Metals,

**Hazardous Decomposition Products:** SO<sub>x</sub>, MgO,

**Hazardous Polymerization:** Will not occur

## Section 11 - Toxicity Data

**Toxicity Data:** orl-rat LD<sub>50</sub> 2150 mg/kg

**Effects of Overexposure:**

**Acute:** See Section 2

**Chronic:** Mutation data cited. Reproductive data cited. Tumorigenic data cited.

**Conditions Aggravated by Overexposure:** Central Nervous System disorders,

**Target Organs:** Central Nervous System Skin Musculoskeletal system

**Primary Route(s) of Entry:** Inhalation and ingestion.

## Section 12 - Ecological Data

EPA Waste Numbers: N/A

### Section 13 - Disposal Information

**Waste Disposal Methods:** Dispose in accordance with all applicable Federal, State and Local regulations. Always contact a permitted waste disposer (TSD) to assure compliance.

### Section 14 - Transport Information

DOT Proper Shipping Name: N/A

### Section 15 - Regulatory Information

EPA TSCA Status: On TSCA Inventory  
Hazard Category for SARA Section 311/312 Reporting: Chronic

Name List:	Chemical Category:
No	Manganese comp

CERCLA Section 103 RQ(lb.): No  
RCRA Section 261.33: No

### Section 16 - Additional Information

The information provided in this Material Safety Data Sheet represents a compilation of data drawn directly from various sources available to us. Carolina Biological Supply makes no representation or guarantee as to the suitability of this information to a particular application of the substance covered in the Material Safety Data Sheet. Any employer must carefully assess the applicability of any information contained herein in regards to the particular use to which the employer puts the material.

Glossary  
ACGIH American Conference of Governmental Industrial Hygienists  
CAS Number Chemical Services Abstract Number  
CERCLA Comprehensive Environmental Response, Compensation, and Liability Act  
DOT U.S. Department of Transportation  
IARC International Agency of Research on Cancer  
N/A Not Available  
NTP National Toxicology Program  
OSHA Occupational Safety and Health Administration  
PEL Permissible Exposure Limit  
ppm Parts per million  
RCRA Resource Conservation and Recovery Act  
SARA Superfund Amendments and Reauthorization Act  
TLV Threshold Limit Value  
TSCA Toxic Substances Control Act