

Material Safety Data Sheet (MSDS)

Product Name: Manganese Sulphate Monohydrate Food Grade

MSDS Generate Date: 20-05-2017

Revision Date: 30-12-2024

Supplier:

Rawpharma Biz Pvt Ltd

1101- City Centre 2,

Science City Road,

Sola Ahmedabad Gujarat,

India - 380060.

Contact No.: +91 97272 88479

Email: info@rawpharmabiz.com

Website: www.rawpharmabiz.com

1. Identification of the Substance/Preparation and Company

Product Name: Manganese Sulphate Monohydrate (Food Grade)

Chemical Formula: $\text{MnSO}_4 \cdot \text{H}_2\text{O}$

CAS No.: 10034-96-5

EINECS No.: 232-089-9

Recommended Use: Nutrient supplement, food additive, animal feed additive, laboratory chemical.

2. Hazards Identification

Classification (GHS):

- Acute Toxicity (Oral) – Category 4
- Eye Irritation – Category 2A
- Specific Target Organ Toxicity (Repeated Exposure) – Category 2 (Neurological effects from prolonged exposure)

Signal Word: *Warning*

Hazard Statements:

- H302: Harmful if swallowed.
- H319: Causes serious eye irritation.
- H373: May cause damage to the nervous system through prolonged or repeated exposure.

Precautionary Statements:

- P264: Wash hands thoroughly after handling.
- P270: Do not eat, drink, or smoke when using this product.
- P280: Wear protective gloves/eye protection.
- P301 + P312: If swallowed, call a doctor if you feel unwell.

3. Composition / Information on Ingredients

Chemical Name: Manganese(II) Sulphate Monohydrate

Synonyms: Manganous Sulphate Monohydrate

CAS No.: 10034-96-5

Molecular Formula: $\text{MnSO}_4 \cdot \text{H}_2\text{O}$

Molecular Weight: 169.02 g/mol

Purity: $\geq 98\%$

4. First Aid Measures

Inhalation: Move to fresh air. If breathing becomes difficult, seek medical attention.

Skin Contact: Wash skin thoroughly with soap and water. Remove contaminated clothing.

Eye Contact: Rinse cautiously with water for several minutes. Seek medical advice if irritation persists.

Ingestion: Rinse mouth. Do not induce vomiting. Seek medical attention immediately.

Most Important Symptoms: Nausea, vomiting, dizziness, headache, and neurological symptoms in cases of prolonged exposure.

5. Fire Fighting Measures

Suitable Extinguishing Media: Use water spray, foam, or dry chemical.

Unsuitable Media: None known.

Special Hazards: Non-combustible. However, toxic fumes of sulfur oxides and manganese oxides may form when heated.

Protective Equipment: Firefighters should wear full protective clothing and self-contained breathing apparatus.

6. Accidental Release Measures

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

Environmental Precautions: Prevent contamination of soil and waterways.

Cleanup Methods: Sweep up and place into suitable labeled containers for disposal. Avoid raising dust.

7. Handling and Storage

Handling: Avoid contact with eyes, skin, and clothing. Avoid breathing dust.

Storage: Store in tightly closed containers in a cool, dry, well-ventilated area away from incompatible substances.

8. Exposure Controls / Personal Protection

Occupational Exposure Limits (as Mn):

- ACGIH TLV: 0.1 mg/m³ (TWA, inhalable fraction)

Engineering Controls: Provide adequate ventilation.

Personal Protection:

- **Eye Protection:** Safety goggles.
- **Skin Protection:** Protective gloves.
- **Respiratory Protection:** Dust mask or respirator when airborne dust is generated.

- **Hygiene Measures:** Wash hands thoroughly after handling.
-

9. Physical and Chemical Properties

- **Appearance:** Pale pink crystalline solid
 - **Odor:** Odorless
 - **pH (1% solution):** 4.0–5.0
 - **Melting Point:** 700°C (decomposes)
 - **Solubility:** Soluble in water
 - **Specific Gravity:** 2.95
 - **Boiling Point:** Not applicable (decomposes)
 - **Vapor Pressure:** Negligible
 - **Molecular Weight:** 169.02 g/mol
-

10. Stability and Reactivity

Chemical Stability: Stable under normal conditions.

Incompatible Materials: Strong oxidizers, alkalis.

Conditions to Avoid: Moisture and high temperatures.

Hazardous Decomposition Products: Manganese oxides and sulfur oxides.

11. Toxicological Information

Acute Toxicity (Oral): LD₅₀ (rat) = 782 mg/kg

Skin Corrosion/Irritation: Mild irritant.

Serious Eye Damage/Irritation: Causes eye irritation.

Chronic Effects: Prolonged exposure to high concentrations may affect the central nervous system and lungs.

12. Ecological Information

Ecotoxicity: Harmful to aquatic life at high concentrations.

Persistence and Degradability: Inorganic compound – not biodegradable.

Bioaccumulation: May accumulate in aquatic organisms.

Mobility in Soil: Soluble in water; may leach into soil and groundwater.

13. Disposal Considerations

Dispose of contents/container in accordance with local, regional, and national regulations. Avoid release into the environment.

14. Transport Information (Detailed)

UN Number: Not regulated (Non-hazardous for transport)

UN Proper Shipping Name: Manganese Sulphate Monohydrate

Transport Hazard Class: Not classified as hazardous

Packing Group: Not applicable

Environmental Hazards: Not a marine pollutant

Transport by Road (ADR/RID):

- Not regulated. Ensure containers are tightly sealed and secured.

Transport by Air (IATA):

- Non-dangerous goods under IATA regulations.
- Packaging must prevent dust emission and moisture exposure.

Transport by Sea (IMDG):

- Not classified as dangerous goods.
- Keep in dry conditions, away from incompatible materials.

Special Precautions for User:

- Avoid spillage during loading/unloading.
- Ensure labeling is compliant with local transport rules.
- Handle with care to prevent dust generation.

Bulk Transport (Annex II MARPOL / IBC Code):

- Not applicable for solid cargo.

15. Regulatory Information

Regulation (EC) No 1907/2006 (REACH): Registered substance.

GHS Classification: As per Section 2.

India (Factories Act): Listed under Schedule of Chemical Substances for safe handling.

16. Other Information

Disclaimer:

The information provided above is believed to be accurate and represents the best data currently available. However, Rawpharmabiz makes no warranty of merchantability or any other warranty, expressed or implied. Users should conduct their own investigations to determine the suitability of the product for their particular purposes.

- **MSDS Generate Date:** 20-05-2017
- **Revision Date:** 30-12-2024
- **Website:** www.rawpharmabiz.com
- MSDS are based on the manufacturer's provided information.