

# Safety Data Sheet (SDS)

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According to GHS (Globally Harmonized System of Classification and Labelling of Chemicals)

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## Section 1: Identification

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- **Product Name:** Manganese Sulfate Monohydrate (Feed Grade)
  - **Chemical Name:** Manganese(II) sulfate monohydrate
  - **CAS No.:** 10034-96-5
  - **Formula:**  $\text{MnSO}_4 \cdot \text{H}_2\text{O}$
  - **Recommended Use:** Animal feed additive, trace mineral source for premixes.
  - **Manufacturer/Supplier Information:**
    - **Company Name:** BTLnewmaterial
    - **Email:** lixifirm@outlook.com
    - **Phone/WhatsApp:** +8618273793022
    - **Website:** [manganesesupply.com](http://manganesesupply.com)
    - **Address:** Room 706, No. 154, Wuyi East Road, Niezhou Residential Committee, Caizichi Sub-district Office, Leiyang City, Hengyang City, Hunan Province, China
  - **Emergency Telephone:** +8618273793022
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## Section 2: Hazard Identification

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- **GHS Classification:**
  - Specific target organ toxicity, repeated exposure (Category 2), H373
  - Serious eye damage/eye irritation (Category 2A), H319
  - Long-term (chronic) aquatic hazard (Category 2), H411

- **GHS Label Elements:**
    - **Signal Word:** Warning
    - **Hazard Pictograms:**
      - GHS08 (Health Hazard)
      - GHS09 (Environment)
    - **Hazard Statements:**
      - H319: Causes serious eye irritation.
      - H373: May cause damage to organs (Brain) through prolonged or repeated exposure if inhaled.
      - H411: Toxic to aquatic life with long-lasting effects.
  - **Precautionary Statements:**
    - **Prevention:** P260: Do not breathe dust. P273: Avoid release to the environment. P280: Wear protective gloves/eye protection.
    - **Response:** P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
    - **Disposal:** P501: Dispose of contents/container to an approved waste disposal plant.
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## Section 3: Composition/Information on Ingredients

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Component	CAS No.	EC No.	Concentration (w/w)
Manganese(II) sulfate monohydrate	10034-96-5	232-089-9	≥ 98% (Mn ≥ 31.8%)

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## Section 4: First-Aid Measures

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- **Inhalation:** If inhaled, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
- **Skin Contact:** Wash off with soap and plenty of water. Consult a physician.

- **Eye Contact:** Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
  - **Ingestion:** Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.
  - **Most important symptoms:** The most important known symptoms and effects are described in the labelling (see section 2).
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## Section 5: Fire-Fighting Measures

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- **Extinguishing Media:** Use water spray, alcohol-resistant foam, dry chemical, or carbon dioxide.
  - **Special Hazards:** Sulfur oxides, Manganese/manganese oxides.
  - **Advice for Firefighters:** Wear self-contained breathing apparatus for firefighting if necessary.
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## Section 6: Accidental Release Measures

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- **Personal Precautions:** Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist, or gas. Ensure adequate ventilation.
  - **Environmental Precautions:** Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.
  - **Cleanup Methods:** Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.
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## Section 7: Handling and Storage

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- **Handling:** Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed.
  - **Storage:** Store in a cool place. Keep container tightly closed in a dry and well-ventilated place. Hygroscopic.
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## Section 8: Exposure Controls/Personal Protection

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- **Control Parameters:** TWA: 0.2 mg/m<sup>3</sup> (as Mn).
  - **Engineering Controls:** Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.
  - **Personal Protective Equipment:**
    - **Eye/Face Protection:** Safety glasses with side-shields.
    - **Skin Protection:** Handle with gloves. Gloves must be inspected prior to use.
    - **Body Protection:** Complete suit protecting against chemicals.
    - **Respiratory Protection:** For nuisance exposures, use type P95 (US) or type P1 (EU EN 143) particle respirator.
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## Section 9: Physical and Chemical Properties

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- **Appearance:** Light pink powder or granular
  - **Odor:** Odorless
  - **pH:** 3.0 - 3.5 (50 g/l, H<sub>2</sub>O, 20°C)
  - **Melting Point:** 700 °C (decomposes)
  - **Initial Boiling Point:** No data available
  - **Flash Point:** Not applicable
  - **Evaporation Rate:** No data available
  - **Flammability:** Not flammable
  - **Vapor Pressure:** No data available
  - **Relative Density:** 2.95 g/cm<sup>3</sup> (Anhydrous) / Bulk Density: 0.9 - 1.3 g/cm<sup>3</sup>
  - **Solubility:** Soluble in water (approx. 350 g/l at 20°C)
  - **Partition Coefficient:** No data available
  - **Auto-ignition Temperature:** No data available
  - **Decomposition Temperature:** > 400 °C
  - **Viscosity:** No data available
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## Section 10: Stability and Reactivity

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- **Reactivity:** No data available.
  - **Chemical Stability:** Stable under recommended storage conditions.
  - **Possibility of Hazardous Reactions:** No data available.
  - **Conditions to Avoid:** Avoid moisture.
  - **Incompatible Materials:** Strong oxidizing agents.
  - **Hazardous Decomposition Products:** Hazardous decomposition products formed under fire conditions: Sulfur oxides, Manganese/manganese oxides.
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## Section 11: Toxicological Information

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- **Acute Toxicity:** LD50 Oral - Rat - 2,150 mg/kg (Anhydrous).
  - **Skin Corrosion/Irritation:** No data available.
  - **Serious Eye Damage/Irritation:** Eyes - Rabbit - Irritating to eyes.
  - **Respiratory or Skin Sensitization:** No data available.
  - **Germ Cell Mutagenicity:** No data available.
  - **Carcinogenicity:** IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible, or confirmed human carcinogen by IARC.
  - **Reproductive Toxicity:** No data available.
  - **STOT - Repeated Exposure:** May cause damage to organs (Brain) through prolonged or repeated exposure if inhaled.
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## Section 12: Ecological Information

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- **Toxicity:** Toxicity to fish: LC50 - *Oncorhynchus mykiss* (rainbow trout) - 14.5 mg/l - 96.0 h.
- **Persistence and Degradability:** Methods for determining the biological degradability are not applicable to inorganic substances.

- **Bioaccumulative Potential:** No data available.
  - **Mobility in Soil:** No data available.
  - **Other Adverse Effects:** Toxic to aquatic life with long-lasting effects.
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## Section 13: Disposal Considerations

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- **Product:** Offer surplus and non-recyclable solutions to a licensed disposal company. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.
  - **Contaminated Packaging:** Dispose of as unused product.
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## Section 14: Transport Information

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- **DOT (US):** Not dangerous goods.
  - **IMDG:**
    - UN Number: 3077
    - Class: 9
    - Packing Group: III
    - EMS-No: F-A, S-F
    - Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Manganese sulfate monohydrate)
  - **IATA:**
    - UN Number: 3077
    - Class: 9
    - Packing Group: III
    - Proper Shipping Name: Environmentally hazardous substance, solid, n.o.s. (Manganese sulfate monohydrate)
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## Section 15: Regulatory Information

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- **Safety, health and environmental regulations:** This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.
  - **Chemical Safety Assessment:** For this product, a chemical safety assessment was not carried out.
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## Section 16: Other Information

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- **Further Information:** The above information is believed to be correct but does not purport to be all-inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. BTLnewmaterial shall not be held liable for any damage resulting from handling or from contact with the above product.
- **Revision Date:** 2026-04-11