



NEWAY SINOPHC TECH. LIMITED

ADD:RM. 204, BUILDING 3, NO. 188, AONA RD., CHINA (SHANGHAI) PILOT FREE TRADE ZONE.
Email:marketing01@newayphc.com; Phone:+86-021-50350029 <https://www.newayphc.com>

Safety Data Sheet (MSDS)

(According to GB/T 16483 and GB/T 17519; Adapts to GHS, IMDG, IATA Standards)

SECTION 1: Identification

1.1 Product Identifiers

- Product Name: Manganese Dioxide
- Product Number: MNO-20260226
- Brand: SIGALD
- CAS-No.: 1313-13-9
- Synonyms: Manganese(IV) Oxide; Pyrolusite

1.2 Details of the supplier of the safety data sheet

- Company : NEWAY SINOPHC TECH. LIMITED
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- Telephone : +86-021-50350029
- Fax : +86-021-50350029

1.3 Emergency telephone

Emergency Phone # : +86-021-50350029
(CHEMTREC)

1.4 Uses

- Identified Uses: Battery depolarizer (dry cell batteries), catalyst, oxidizing agent, water treatment (iron removal), glass coloring, ceramic pigment.
- Uses Advised Against: Direct oral consumption; use in explosive mixtures without authorization.

SECTION 2: Hazards Identification

2.1 GHS Classification: Eye irritation (Category 2A); Skin irritation (Category 2); Respiratory sensitization (Category 1); Aquatic toxicity (Category 1)

2.2 GHS Label Elements

- Hazard Pictogram: GHS07 (Exclamation mark), GHS08 (Health hazard), GHS09 (Environment)
- Signal Word: Warning
- Hazard Statements: H315 (Causes skin irritation), H319 (Causes serious eye irritation), H334 (May cause allergy or asthma symptoms or breathing difficulties if inhaled), H400 (Very toxic to aquatic life)
- Precautionary Statements: P261 (Avoid breathing dust/fume/gas/mist), P264 (Wash hands thoroughly after handling), P273 (Avoid release to the environment), P280 (Wear protective gloves/eye protection/respiratory protection), P305+P351+P338 (If in eyes: Rinse cautiously with water)

SECTION 3: Composition

- Substance: Pure Substance
- Formula: MnO_2
- Molecular Weight: 86.94 g/mol
- Concentration: $\geq 90.0\%$ (MnO_2)



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SECTION 4: First Aid Measures

- Inhaled: Move to fresh air. If breathing difficulties occur, give oxygen and consult a doctor.
- Skin Contact: Rinse skin with running water for 10 minutes.
- Eye Contact: Rinse eyes thoroughly with running water for 15 minutes. Consult a doctor if irritation persists.
- Swallowed: Rinse mouth with water. Do not induce vomiting. Seek medical advice.

SECTION 5: Firefighting Measures

- Suitable Extinguishing Media: Water spray, foam, dry powder, CO₂.
- Special Hazards: Oxidizing agent; may intensify fire. Reacts with reducing agents to produce heat.
- Firefighter Protection: Wear full protective equipment and self-contained breathing apparatus.

SECTION 6: Accidental Release Measures

- Personal Precautions: Wear respiratory protection, gloves, eye/face protection.
- Environmental Precautions: Prevent runoff into waterways.
- Cleanup Methods: Sweep up with inert material, transfer to sealed containers for disposal.

SECTION 7: Handling and Storage

- Handling: Avoid dust inhalation. Operate in well-ventilated area. Do not mix with reducing agents, combustibles, or acids.
- Storage: Store in cool, dry, well-ventilated warehouse. Keep container tightly closed. Separate from reducing agents, combustibles, and acids.
- Shelf Life: 24 months (unopened, proper storage).

SECTION 8: Exposure Controls/Personal Protection

- PPE: Respirator (P2/N95), nitrile gloves, safety goggles, protective clothing.
- Engineering Controls: Good ventilation, dust collection system, local exhaust ventilation.

SECTION 9: Physical and Chemical Properties

- Physical State: Powder
- Color: Black
- Odor: Odorless
- Melting Point: 535°C (decomposes)
- Boiling Point: Decomposes
- Solubility: Insoluble in water; soluble in concentrated hydrochloric acid (releases chlorine gas).
- Density: 5.03 g/cm³ (25°C)
- Particle Size: 1-20 μm (customizable)
- Oxidizing Properties: Strong oxidizing agent.

SECTION 10: Stability and Reactivity

- Stable under normal conditions. Incompatible with reducing agents, combustibles, acids, ammonia.

SECTION 11: Toxicological Information



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- Oral LD₅₀ (Rat): > 10000 mg/kg
- Skin Irritation: Mild to moderate irritation.
- Eye Irritation: Moderate to severe irritation.
- Respiratory Sensitization: May cause asthma-like symptoms in sensitive individuals.

SECTION 12: Ecological Information

- Aquatic Toxicity: Very toxic to fish (Zebrafish LC₅₀: < 100 mg/L, 96h).
- Biodegradability: Not biodegradable.
- Bioaccumulation: May accumulate in aquatic organisms and soil.

SECTION 13: Disposal Considerations

- Dispose in accordance with local regulations. Classified as hazardous waste (oxidizing agent, heavy metal-containing).

SECTION 14: Transport Information

- UN Number: UN1463
- Transport Hazard Class: 5.1 (Oxidizing substances)
- Packaging Group: III

SECTION 15: Regulatory Information

- Complies with GHS, REACH, TSCA, EU REACH SVHC (not listed).

SECTION 16: Other Information

- Revision Date: 26 FEB 2026

纳维盈医化科技
NEWAY SINOPHC TECH