

Technical Data Sheet: Manganese Dioxide (MnO₂)

COMPANY DETAILS:

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1. PRODUCT DESCRIPTION

High-purity Manganese Dioxide (MnO₂) designed for chemical synthesis and oxidation processes. This grade offers stable manganese content and controlled particle size, making it ideal for the production of permanganates and various manganese salts. It is widely utilized by chemical manufacturers for producing potassium permanganate, manganese sulfate, and other related intermediates.

2. TECHNICAL SPECIFICATIONS

Parameter	Typical Value
MnO ₂ Purity	90–95%
Particle Size (D50)	5–20 μm
Surface Area	25–60 m ² /g
Moisture	≤1.5%
Bulk Density	0.6–0.9 g/cm ³
Crystal Phase	Predominantly Pyrolusite

3. KEY FEATURES

- **High Purity:** Ensures efficient oxidation and high conversion rates in chemical manufacturing.
- **Controlled Particle Size:** Improves reaction kinetics and ensures uniform dispersion in various applications.
- **Stable Composition:** Minimizes impurities, leading to consistent and high-quality end-products.
- **Reliable Reactivity:** Consistent surface activity for dependable performance in oxidation and dissolution processes.

4. APPLICATIONS

- **Potassium Permanganate Production:** Serves as a key raw material for the oxidation and conversion steps in KMnO₄ synthesis.
- **Manganese Sulfate Manufacturing:** Dissolves efficiently in acid leaching processes to produce MnSO₄ intermediates.
- **Manganese Chloride Production:** Suitable for reactions with hydrochloric acid to prepare manganese chloride solutions.

- **Chemical Oxidant:** Acts as a stable oxidizing agent in various intermediate chemical syntheses.

5. PACKAGING & SUPPLY

- **Standard Packaging:** 25 kg fiber drums with polyethylene (PE) inner liners to protect against moisture.
- **Shipping:** Export-ready packaging suitable for international shipment and palletized container loading.
- **Samples:** Available upon request for laboratory testing and quality evaluation.

6. STORAGE & HANDLING

- **Storage:** Store in a dry, well-ventilated area in tightly sealed containers. Keep away from heat, sparks, and open flames.
- **Shelf Life:** Typically maintains stable quality for 12–24 months when stored under proper conditions.

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