

Technical Data Sheet

Pharmacy Chemistry Electrolytic Manganese Dioxide (EMD)

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1. Product Description

Pharmacy chemistry electrolytic manganese dioxide (EMD) is a high-purity $\geq 99.0\%$ MnO_2 material produced by controlled electrolysis for pharmaceutical and fine chemical synthesis. It is suitable as an oxidizing agent and catalyst intermediate where low heavy metal content and stable reactivity are required. This grade is manufactured under strict impurity control to meet pharmacy chemistry standards.

2. Key Features

- High chemical purity suitable for **pharmacy chemistry electrolytic manganese dioxide** applications.
- Low heavy metal impurities to meet pharmaceutical synthesis requirements.
- Controlled particle size distribution for consistent reaction kinetics.
- Stable oxidation potential and reproducible batch performance.
- Low residual sulfate and chloride content.
- Available in fine powder or customized particle grades.

3. Technical Specifications

Parameter	Typical Range	Test Method
MnO ₂ Content	≥ 99.0%	Redox titration
Mn (Total)	≥ 63.0%	ICP-OES
Fe	≤ 0.01%	ICP
Pb	≤ 0.002%	ICP
Cu	≤ 0.002%	ICP
Moisture	≤ 1.0%	105°C drying
pH (10% slurry)	4.0 – 6.5	pH meter
Surface Area	30 – 60 m ² /g	BET
Particle Size (D50)	5 – 20 μm	Laser diffraction

4. Applications

- **Pharmaceutical intermediate synthesis** – Used as a selective oxidizing agent in API and intermediate production.
- **Fine chemical oxidation reactions** – Suitable for alcohol-to-aldehyde or ketone conversions.
- **Laboratory-scale and pilot-scale research** – Consistent activity for process validation.
- **Specialty organic synthesis** – Reliable performance in controlled redox reactions.
- **Pharmacy chemistry electrolytic manganese dioxide** for regulated manufacturing environments requiring impurity control.

5. Packaging & Supply

- 25 kg fiber drum with double PE inner liner.
- 500 kg or 1000 kg bulk bags available.
- Palletized and export-grade packaging.

- Suitable for sea and air freight shipment.

6. Customization & Technical Support

- Adjustable particle size distribution and surface area.
- Impurity levels optimized based on target pharmacopeia standards.
- Batch COA and traceability documentation provided.
- Technical support for reaction optimization and scale-up assistance.

For detailed specifications or regulatory documentation, technical data sheets are available upon request.