Technical Data Sheet: Active Manganese Dioxide for Organic Oxidation

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1. Product Description

Active Manganese Dioxide for Selective Organic Oxidation is a high-surface-area MnO_2 grade designed for laboratory and industrial oxidation reactions. With MnO_2 purity of 85–92% and controlled moisture content, it provides reliable conversion of allylic, benzylic, and activated alcohols. This grade is optimized for consistent reactivity and easy filtration in organic synthesis processes.

2. Technical Specifications

Parameter	Specification Range
MnO_2 Content	85–92 %
Mn (Total)	≥ 55 %
Moisture	≤ 5.0 %
Surface Area (BET)	80–150 m^2/g
Bulk Density	0.35–0.60 g/cm^3
pH (5% slurry)	3.0–5.5
Particle Size (D50)	10–30 µm
Insoluble Residue	≤ 1.5 %

3. Key Features

- High specific surface area for efficient contact with organic substrates.
- Controlled particle size for improved suspension and filtration performance.
- Stable oxidation activity across batch production.
- Low heavy metal impurities for sensitive organic synthesis.
- Suitable as Active Manganese Dioxide for Selective Organic Oxidation in laboratory and pilot-scale applications.
- Consistent moisture control to maintain reaction reproducibility.

4. Applications

- Oxidation of allylic and benzylic alcohols to aldehydes or ketones.
- Selective oxidation of activated alcohols in fine chemical intermediates.
- Preparation of fragrance and flavor intermediates requiring mild oxidizing conditions.
- Oxidative transformation in pharmaceutical intermediate synthesis.
- Small-scale and pilot-scale organic synthesis processes.

5. Packaging & Supply

- 25 kg kraft paper bags with inner PE liner.
- 500 kg / 1000 kg jumbo bags available.
- Custom small-pack options for laboratory supply (1–5 kg).
- Suitable for sea and air export with moisture-proof packaging.