

Technical Data Sheet: MnO₂ Catalyst for CO Oxidation

Company Name: BTLnewmaterial **Email:** lixifirm@outlook.com **Phone:** +8618273793022 **Website:** manganesesupply.com

1. Product Description

Manganese Dioxide Supported Catalyst for CO Oxidation is a high-activity MnO₂-based catalyst designed for efficient catalytic oxidation of carbon monoxide at low to moderate temperatures. The material typically contains 85–95% MnO₂ and provides strong redox activity and oxygen mobility. It is commonly used in air purification systems, industrial exhaust treatment, and catalytic oxidation research.

2. Key Features

- High catalytic activity for low-temperature carbon monoxide oxidation
- Large specific surface area enhances oxygen adsorption and reaction kinetics
- Stable Mn⁴⁺/Mn³⁺ redox cycle improves oxidation efficiency
- Consistent particle distribution ensures reliable catalytic performance
- Manganese Dioxide Supported Catalyst for CO Oxidation provides strong surface oxygen mobility for continuous CO conversion
- Good thermal stability under typical catalytic reaction conditions

3. Technical Specifications

Parameter	Typical Value
MnO ₂ Purity	85–95%
Particle Size	1–10 μm
BET Surface Area	60–150 m ² /g
Moisture Content	≤2.0%
Bulk Density	0.45–0.75 g/cm ³
Crystal Phase	Mainly γ-MnO ₂ / amorphous MnO ₂

4. Applications

- Industrial exhaust gas treatment – Suitable for catalytic removal of carbon monoxide from combustion or process emissions.
- Air purification catalysts – Used in catalytic filters and oxidation modules for indoor air purification systems.
- Catalytic oxidation reactors – Provides stable catalytic activity in laboratory or pilot-scale oxidation studies.
- Automotive or combustion gas research – Applied in catalyst screening for oxidation of CO in exhaust streams.
- Gas purification systems using Manganese Dioxide Supported Catalyst for CO Oxidation – Supports efficient removal of trace CO in enclosed environments.

5. Packaging & Supply

- Standard packaging: 25 kg fiber drums or 25 kg PE-lined kraft bags
- Export-grade packaging suitable for international transport
- Laboratory samples available for catalyst evaluation and testing