

Technical Datasheet

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

1. Product Description

MnO₂ Catalyst for Formaldehyde Decomposition in Air Purifiers is a high-activity catalytic grade manganese dioxide with MnO₂ purity of 85–95%, designed for room-temperature oxidation of formaldehyde (HCHO) in indoor air systems. It enables continuous catalytic conversion of formaldehyde into CO₂ and H₂O without secondary pollution. Suitable for HEPA composite filters and industrial air purification modules.

2. Key Features

- High catalytic activity for MnO₂ Catalyst for Formaldehyde Decomposition in Air Purifiers at ambient temperature
- Stable γ -phase structure with consistent oxidation performance
- No external energy or UV activation required
- Low pressure drop when integrated into filter media
- Long service life with minimal deactivation
- Compatible with activated carbon and composite filter substrates

3. Applications

- **Residential air purifiers** – Continuous decomposition of indoor formaldehyde released from furniture and coatings.
- **Commercial HVAC systems** – Integrated into filter modules for centralized air treatment.

- **Industrial air purification units** – Effective for low-concentration formaldehyde exhaust streams.
- **New house air treatment equipment** – Rapid reduction of formaldehyde in renovation environments.
- **Automotive cabin air filters** – Suitable for confined-space VOC control.

MnO₂ Catalyst for Formaldehyde Decomposition in Air Purifiers is particularly suitable where long-term, passive catalytic oxidation is required without ozone generation.

4. Technical Specifications

Parameter	Specification Range
MnO ₂ Content	85–95%
Crystal Type	γ-MnO ₂ / Activated MnO ₂
Particle Size	100–500 mesh (customizable)
Surface Area (BET)	80–250 m ² /g
Bulk Density	0.4–0.8 g/cm ³
Moisture Content	≤ 3%
Formaldehyde Removal Efficiency	≥ 90% (1 ppm, 25°C)
Operating Temperature	0–80°C
Service Life	12–36 months (application dependent)

5. Packaging & Supply

- 25 kg fiber drums with PE inner lining
- 500 kg / 1000 kg jumbo bags
- Vacuum-sealed moisture-proof packaging available
- Suitable for sea and air export shipment

Stable supply capacity for bulk industrial orders.

6. Customization & Technical Support

Particle size, surface area, and catalytic activity can be adjusted according to airflow rate and filter design. Technical support includes catalyst selection guidance, loading ratio recommendations, and performance testing assistance for air purifier manufacturers and engineering contractors.