

TECHNICAL DATASHEET (TDS)

Company Information

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Product Name: Bulk Manganese Dioxide for Municipal Water Treatment Plants

Product Description

Bulk Manganese Dioxide for Municipal Water Treatment Plants is a high-activity manganese dioxide (MnO_2) media with a minimum purity of 85%. It is specifically engineered for the large-scale oxidation and removal of iron, manganese, and ammonia in municipal potable water systems. This product ensures consistent performance and meets the rigorous regulatory compliance standards required for municipal water treatment facilities.

Technical Specifications

The following table outlines the key chemical and physical properties of the product:

Parameter	Typical Range
Purity (MnO_2)	85% – 92%
Particle Size	0.1 mm – 1.0 mm (Customizable)
Loss on Ignition (LOI)	5% – 12%
Bulk Density	0.9 g/cm ³ – 1.3 g/cm ³
Moisture Content	≤ 5%
pH (10% slurry)	6.5 – 8.5
Iron (as Fe_2O_3)	≤ 1.0%
Silicon Dioxide (SiO_2)	≤ 0.5%

Key Features

- Superior Oxidation Capacity:** Highly effective catalyst for the oxidation of iron and manganese in municipal water systems.
- Uniform Particle Distribution:** Ensures consistent flow rates and optimal contact time within filter beds.
- Low Fines Content:** Minimized pressure drop across the media bed and reduced media loss during backwashing.
- Chemical Stability:** Stable composition ensures predictable performance over a long service life.
- Customizable Grading:** Particle size distribution can be tailored to meet specific filtration media designs.

Applications

- Municipal Waterworks:** Primary media for iron and manganese removal in large-scale drinking water plants.
- Groundwater Treatment:** Enhances the removal of color, odor, and heavy metal agents from groundwater sources.
- Drinking Water Purification:** Facilitates the oxidation of ammonia and organic compounds to ensure safe potable water.

- **Industrial Pre-treatment:** Improves the efficiency of downstream filtration and membrane systems by removing oxidative foulants.

Packaging & Supply

The product is available in several packaging options to suit different logistical requirements:

- **Bulk Bags:** 1,000 kg to 1,500 kg super sacks for large-scale industrial use.
- **Kraft Bags:** 25 kg moisture-resistant kraft paper bags for easier handling.
- **Bulk Tankers:** Direct delivery via bulk tanker for high-volume municipal projects.

All packaging is moisture-resistant and reinforced for international export, ensuring product integrity during transit.