

Technical Datasheet (TDS)

Product Name: High Bioavailability Manganese Oxide for Ruminant Nutrition
Manufacturer: BTLnewmaterial **Website:** manganesesupply.com **Email:** lixifirm@outlook.com **Phone:** +8618273793022

1. Product Description

High Bioavailability Manganese Oxide for Ruminant Nutrition is a premium feed-grade manganese source specifically formulated for mineral premixes and complete cattle feed. It provides a highly stable and bioavailable manganese supply, essential for supporting metabolic enzyme activity, reproductive health, skeletal integrity, and immune function in beef and dairy cattle. This product is designed to ensure consistent trace mineral supplementation in modern livestock nutrition programs.

2. Technical Specifications

Parameter	Typical Value
MnO Purity	≥ 90–95%
Manganese (Mn) Content	≥ 60%
Particle Size	80–200 mesh
Moisture	≤ 1.5%
Bulk Density	1.0–1.5 g/cm ³
Solubility in 2% Citric Acid	≥ 85–90%
Arsenic (As)	≤ 5 ppm
Lead (Pb)	≤ 10 ppm
Cadmium (Cd)	≤ 5 ppm

3. Key Features

- **High Bioavailability:** Optimized solubility in digestive acids ($\geq 85\text{--}90\%$ in citric acid) ensures effective mineral absorption.
- **Concentrated Nutrient Source:** High manganese content ($\geq 60\%$) allows for efficient inclusion in mineral premixes.
- **Strict Safety Standards:** Controlled heavy metal levels (As, Pb, Cd) meet international feed safety requirements for livestock.
- **Excellent Mixability:** Stable 80–200 mesh particle size distribution supports uniform blending and prevents mineral segregation.
- **Metabolic Support:** Enhances enzyme systems involved in carbohydrate/lipid metabolism, bone development, and fertility.

4. Applications

- **Cattle Mineral Premixes:** Essential manganese source for beef and dairy cattle premix formulations.
- **Dairy Cow Nutrition:** Supports skeletal development, milk production efficiency, and reproductive performance.
- **Feedlot Rations:** Stabilizes trace mineral levels in high-energy commercial beef production diets.
- **Mineral Supplement Blocks:** Ideal for free-choice mineral supplements and lick blocks for grazing livestock.
- **Compound Feed Manufacturing:** Used by feed mills for consistent trace mineral fortification in complete feeds.

5. Packaging & Supply

- **Standard Packaging:** 25 kg kraft paper bags with inner PE liner.
- **Export Packaging:** Palletized for secure international containerized shipments.
- **Supply Formats:** Available in full container loads (FCL) and bulk supply for industrial feed mills.

- **Samples:** Testing samples are available for nutritional formulation and premix development.
- **Storage:** Store in a cool, dry, and well-ventilated warehouse. Keep containers tightly sealed to maintain chemical stability and prevent moisture absorption.
- **Shelf Life:** 24 months under recommended storage conditions.

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