

Technical Data Sheet: Agriculture Grade Manganese Carbonate for Micronutrient Fertilizers

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

1. Product Description

Agriculture Grade Manganese Carbonate is a stable and highly effective source of manganese ($Mn \geq 44\%$) specifically developed for use in micronutrient fertilizers. This product is ideal for both direct soil application and blending with NPK fertilizers to address and correct manganese deficiencies in a wide range of crops. It is manufactured with controlled impurity levels, ensuring safe and beneficial agricultural use without adverse effects on plant health or soil quality.

2. Key Features

- **Stable Manganese Source:** Provides a long-term and consistent supply of manganese to the soil, crucial for sustained plant growth and health.
- **Higher Agronomic Efficiency:** Offers superior agronomic efficiency compared to oxide forms due to its gradual release mechanism, ensuring prolonged nutrient availability and reduced leaching.
- **Controlled Impurities (Fe, Ca, Mg):** Low levels of iron (Fe), calcium (Ca), and magnesium (Mg) prevent nutrient antagonism, ensuring optimal uptake of manganese by plants.
- **Low Heavy Metals (Pb, Cd, As):** Complies with stringent fertilizer regulations regarding heavy metal content, ensuring environmental safety and crop health.
- **Consistent Particle Size:** Features a uniform particle size distribution, making it highly suitable for homogeneous blending in NPK formulations and even

application.

- **Reliable Mn Supplementation:** Guarantees effective and reliable manganese supplementation in micronutrient fertilizers, supporting essential plant physiological processes.

3. Technical Specifications

Parameter	Typical Value
MnCO ₃ Purity	≥ 98%
Manganese (Mn) Content	≥ 44%
Particle Size	80–200 mesh
Moisture	≤ 1.5%
Bulk Density	0.9–1.2 g/cm ³
Solubility in Dilute Acid	≥ 95%
Iron (Fe)	≤ 0.05–0.1%
Calcium (Ca)	≤ 0.3%
Magnesium (Mg)	≤ 0.3%
Lead (Pb)	≤ 10–30 ppm
Arsenic (As)	≤ 5 ppm
Cadmium (Cd)	≤ 5 ppm

4. Applications

Agriculture Grade Manganese Carbonate is widely applied in various agricultural practices to enhance crop nutrition:

- **Soil Micronutrient Fertilizers:** Primarily used to supply essential manganese to correct deficiencies, particularly in alkaline or high-pH soils, thereby improving plant growth and photosynthetic efficiency.

- **NPK Blending:** Highly compatible with bulk fertilizer production, allowing for balanced trace element supply when blended with nitrogen, phosphorus, and potassium (NPK) fertilizers.
- **Foliar and Granular Formulations:** Micronized particles facilitate slow-release manganese availability, making it suitable for both foliar sprays and granular applications to crops.
- **Crop Nutrition (Cereals, Legumes, Fruits):** Supports critical plant functions such as enzyme activation and chlorophyll synthesis, leading to healthier and more productive crops.
- **Micronutrient Premix Production:** Serves as a standard and reliable manganese source in the production of various micronutrient premixes for diverse agricultural needs.

5. Packaging & Supply

BTLnewmaterial ensures the secure and efficient delivery of Agriculture Grade Manganese Carbonate with the following packaging and supply options:

- **Packaging:** Provided in durable 25 kg kraft paper bags, each featuring a polyethylene (PE) liner to protect the product from moisture and maintain its quality.
- **Export:** Products are supplied with robust palletized export packaging, designed to ensure stability and integrity during international transportation.
- **Shipment:** Available for container shipment (20GP / 40HQ), accommodating various order volumes and logistical requirements for global distribution.
- **Samples:** Sample quantities are readily available for customers to conduct fertilizer testing and evaluation, facilitating product assessment and integration into their agricultural programs.

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