

# Technical Datasheet (TDS)

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## Manganese Sulfate Powder for Swine and Ruminant Diets (Mn 31.8%)

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### Company Information

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### 1. Product Description

Manganese Sulfate Powder for Swine and Ruminant Diets is a high-quality feed-grade  $\text{MnSO}_4 \cdot \text{H}_2\text{O}$  with a minimum manganese content of 31.8%. It is specifically designed as a highly bioavailable trace mineral source for livestock nutrition. This product is ideal for integration into premixes and complete feed formulations for swine, cattle, sheep, and other ruminants, supporting essential metabolic pathways and structural integrity.

## 2. Technical Specifications

Parameter	Specification (Typical Value)
Chemical Formula	MnSO <sub>4</sub> · H <sub>2</sub> O
Appearance	Light pink powder
MnSO <sub>4</sub> · H <sub>2</sub> O Purity	≥ 98%
Manganese (Mn) Content	≥ 31.8%
Moisture	≤ 0.5%
Particle Size	100–200 mesh (Customizable)
Bulk Density	0.9–1.3 g/cm <sup>3</sup>
Iron (Fe)	≤ 0.05%
Calcium (Ca)	≤ 0.3%
Magnesium (Mg)	≤ 0.3%
Lead (Pb)	≤ 10 ppm
Arsenic (As)	≤ 5 ppm
Cadmium (Cd)	≤ 5 ppm
Copper (Cu)	≤ 5 ppm
Zinc (Zn)	≤ 5 ppm

## 3. Key Features

- **High Bioavailability:** Superior absorption efficiency compared to oxide sources, serving as a benchmark for manganese supplementation in livestock.
- **Enzyme Activation:** Essential for the activation of enzymes involved in carbohydrate, lipid, and protein metabolism.
- **Impurity Control:** Strictly limited Fe, Ca, and Mg levels to minimize mineral antagonism and ensure optimal nutrient uptake.

- **Safety Compliance:** Low heavy metal profiles (Pb, Cd, As) ensuring adherence to global feed safety regulations.
- **Blending Consistency:** Fine powder form (100–200 mesh) ensures uniform dispersion and prevents segregation in mineral premixes.

## 4. Applications

- **Swine Nutrition:** Supports skeletal development, reproductive health, and metabolic enzyme systems in all growth stages.
- **Ruminant Diets (Cattle/Sheep):** Contributes to improved reproductive performance, hoof health, and metabolic efficiency.
- **Mineral Premix Production:** A reliable and standardized manganese source for compound feed and premix manufacturers.
- **Complete Feed Formulation:** Ensures consistent and accurate manganese levels across diverse livestock feed recipes.

## 5. Packaging & Supply

- **Standard Packaging:** 25 kg kraft paper bags with PE inner liner.
- **Logistics:** Palletized for export, available in 20GP / 40HQ container shipments.
- **Customization:** Adjustable Mn content and particle size options available upon request.
- **Storage:** Store in a dry, ventilated area. Keep containers tightly closed to prevent moisture absorption and maintain product flowability.

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*Disclaimer: The information provided in this TDS is based on our current knowledge and experience. Users should conduct their own tests to determine the suitability of the product for their specific purposes.*