



Technical data sheet

Product Name: Magnesium Sulfate Heptahydrate

Synonyms: Epsom Salt, Magnesium Sulfate 7-Hydrate

CAS No.: 10034-99-8

EINECS No.: 231-298-2

EC Code: E518

1. Product Description

Magnesium Sulfate Heptahydrate (Food Grade) is a white crystalline substance widely used as a nutrient supplement and functional food additive. It provides essential magnesium for human nutrition and is commonly used in the food, beverage, pharmaceutical, and nutraceutical industries.

2. Specifications (Food Grade)

Parameter	Specification
Appearance	White crystalline powder or granules
Assay ($\text{MgSO}_4 \cdot 7\text{H}_2\text{O}$)	$\geq 99.0\%$
Magnesium (Mg^{2+}) Content	9.6 – 10.2%
Chloride (Cl^-)	$\leq 0.014\%$
Heavy Metals (Pb)	$\leq 10 \text{ ppm}$
Arsenic (As)	$\leq 2 \text{ ppm}$
Iron (Fe)	$\leq 20 \text{ ppm}$
Loss on Ignition	48.0 – 52.0%
pH (5% solution, 25°C)	5.0 – 9.2
Insoluble Matter	$\leq 0.05\%$
Identification	Passes test

3. Applications

Food Industry: Used as a magnesium supplement and nutrient fortifier in beverages, mineral water, dairy products, and health foods.

Nutraceuticals: Added to dietary supplements for magnesium enrichment.

Pharmaceutical Industry: Functions as a mild laxative and electrolyte replenisher.

Agriculture (food-related): Approved for use in food-grade fertilizers and animal nutrition.

4. Packaging & Storage

Packaging: 25 kg woven bag with inner PE liner, or as per customer requirements.

Storage: Store in a cool, dry, and well-ventilated place. Protect from moisture and direct sunlight.

Shelf Life: 2 years if stored under proper conditions.

5. Safety & Handling

Non-toxic at recommended levels.

Avoid inhalation of dust.

Handle with appropriate protective equipment.