TECHNICAL DATA SHEET

Magnesium Hydroxide Technical

Revised: 08/09/2026

PRODUCT IDENTIFICATION

Product Name: Magnesium Hydroxide Technical
CAS Number: 1309-42-8
Molecular Formula: H_2MgO_2
Molecular Weight: 58.320 g/mol
Grade: Technical Grade
Purity / Concentration: Not Available
Synonyms: Milk of Magnesia, Magnesium Hydroxide Suspension

PRODUCT OVERVIEW

Magnesium Hydroxide Technical Grade is a versatile, high-purity white powder with an assay of 99% that serves as a reliable chemical base. Its low heavy metal content and consistent chemical profile make it an ideal choice for industrial neutralization and material enhancement applications.

Grade Significance: Technical Grade indicates that this product is manufactured for industrial and commercial use where high chemical consistency is required, but it does not meet the strict regulatory standards for food or pharmaceutical ingestion.

CERTIFICATE OF ANALYSIS — TYPICAL VALUES

PARAMETER	UNIT	TYPICAL	MIN	MAX	TEST METHOD
Assay (Titration)	%	99	95	100.5	Titration
Calcium	%	0.45	—	1.5	Per specification
Heavy Metals As Pb	ppm	6	—	20	ICP-MS (as Pb)
Iron	ppm	0.036	—	0.12	ICP

ND = Not Detected. Values are typical and may vary by lot.

PHYSICAL & CHEMICAL PROPERTIES

Appearance	White, odorless powder	**Odor**	Odorless
Form	Solid	**Boiling Point**	354°C (669.2°F)
Melting / Freezing Point	350 °C (decomposes)	**Specific Gravity**	2.36
Solubility	Slightly soluble in water, insoluble in alcohol	**Molecular Formula**	H_2MgO_2
Molecular Weight	58.320 g/mol	**Density (25°C)**	2.36 g/mL

APPLICATIONS

1. **Pharmaceuticals** — Utilized as a key ingredient in antacid formulations to effectively neutralize stomach acid and provide relief from indigestion.
2. **Environmental Services** — Applied as a safe, alkaline agent to adjust and stabilize pH levels in industrial wastewater treatment processes.
3. **Manufacturing** — Incorporated into polymers and coatings as a flame retardant additive to enhance fire resistance and safety in finished goods.
4. **Plastics Production** — Used as a functional filler to improve the mechanical properties and structural integrity of various plastic products.

STORAGE & HANDLING

Magnesium Hydroxide should be stored in a cool, dry, and well-ventilated area to prevent moisture absorption, which can cause clumping and compromise the powder's flowability. Maintaining a stable environment ensures the product remains chemically consistent for your specific industrial applications.

- Store in a cool, dry place away from moisture and incompatible materials.
- Use appropriate personal protective equipment (PPE) such as gloves and goggles when handling.
- Avoid exposure to strong acids or oxidizing agents.
- Keep containers tightly closed when not in use to prevent contamination.

AVAILABLE PACKAGING

- 2 lbs.
- 5 Lbs.
- 55 Lbs.

SAFETY SUMMARY (CROSS-REFERENCE TO SDS)

Signal Word: Warning

No GHS pictograms assigned.

Hazard Statements:

- Not Classified
- Reported as not meeting GHS hazard criteria by 630 of 736 companies

Emergency Contact: CHEMTEL - 800-255-3924 (24 Hours/Day, 7 Days/Week)

For complete safety information, refer to the Safety Data Sheet (SDS) for this product.

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