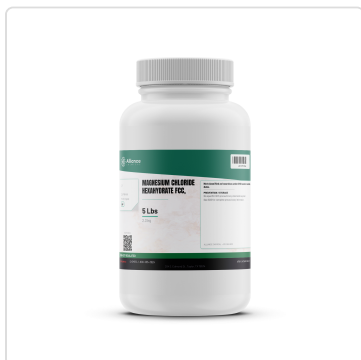


PRODUCT IDENTIFICATION



Product Name: Magnesium Chloride Hexahydrate FCC, USP GRADE

CAS Number: 7791-18-6

Molecular Formula: $\text{Cl}_2\text{H}_{12}\text{MgO}_6$

Molecular Weight: 203.30 g/mol

Grade: USP Grade

Purity / Concentration: Not Available

Synonyms: Magnesium Chloride Hexahydrate, Magnesium Chloride 6-Hydrate

PRODUCT OVERVIEW

Magnesium Chloride Hexahydrate USP Grade is a high-purity, white crystalline powder characterized by its precise 46.63% assay and stringent control over heavy metal contaminants like lead and arsenic. This versatile compound serves as a reliable raw material for laboratory and industrial applications requiring strict quality standards.

Grade Significance: USP Grade signifies that the product meets the rigorous quality and purity standards set by the United States Pharmacopeia, ensuring it is safe and consistent for sensitive applications.

CERTIFICATE OF ANALYSIS — TYPICAL VALUES

PARAMETER	UNIT	TYPICAL	MIN	MAX	TEST METHOD
Assay	%	46.63	46.5	—	Titration/Gravimetric
pH	—	8.2	5	8.5	pH Meter
Arsenic As	ppm	1	0	3	ICP-MS
Calcium Ca	%	0.4	—	0.5	ICP-MS
Heavy Metals As Pb	ppm	0.05	0	10	ICP-MS (as Pb)
Iron	%	≤ 0.001 %	—	—	ICP
Lead Pb	ppm	≤ 4 ppm	—	—	ICP-MS
Potassium K	%	0.2	0	0.5	ICP-MS
Sulfate (SO_4^{2-})	%	0.02	0	0.05	ICP-MS
Mercury Hg	ppm	0.2	0	1	ICP-MS

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

PHYSICAL & CHEMICAL PROPERTIES

Appearance	White crystalline hygroscopic powder	Form	Solid
Boiling Point	1412°C (2573.6°F)	Melting / Freezing Point	117°C (242.6°F)
Solubility	High water solubility, moderate alcohol solubility	Molecular Formula	$\text{Cl}_2\text{H}_{12}\text{MgO}_6$
Molecular Weight	203.30 g/mol		

APPLICATIONS

1. **Pharmaceuticals** — Utilized as a high-purity excipient or reagent in the formulation of mineral supplements and therapeutic solutions.
2. **Food Processing** — Serves as a coagulant in the production of tofu and as a firming agent in various food products.
3. **Analytical Laboratory** — Functions as a stable, standardized reagent for chemical synthesis and analytical testing procedures.
4. **Cosmetics** — Used as an ingredient in bath salts and skin care formulations to help maintain moisture balance.
5. **Industrial Manufacturing** — Applied in the production of magnesium-based catalysts and as a stabilizer in various chemical manufacturing processes.

STORAGE & HANDLING

Due to its highly hygroscopic nature, this material must be stored in a tightly sealed container in a cool, dry environment to prevent clumping and degradation from atmospheric moisture. Proper storage ensures the chemical remains free-flowing and maintains its purity specifications over time.

- Store in a cool, dry place away from moisture.
- Use containers made of HDPE or glass to prevent contamination.
- Avoid exposure to incompatible materials such as strong acids.
- Ensure proper ventilation when handling to avoid inhalation of dust.
- Use appropriate personal protective equipment (PPE) such as gloves and goggles.

AVAILABLE PACKAGING

- 2 lbs.
- 5 Lbs.
- 44.24 Lbs. (One Bag)
- 442.40 lbs (10 Bags)
- 884.80 lbs (20 Bags)
- 1769.60 lbs (40 Bags)

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 204 of 210 companies (only 2.9% companies provided GHS information). For more detailed information, please visit ECHA C&L website.

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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