TECHNICAL DATA SHEET

Talc Powder ACS

Revised: 04/27/2026

PRODUCT IDENTIFICATION

Product Name: Talc Powder ACS
CAS Number: 14807-96-6
Molecular Formula: $H_2Mg_3O_{12}Si_4$
Molecular Weight: 379.27 g/mol
Grade: ACS Grade
Purity / Concentration: Not Available
Synonyms: Talcum Powder, Magnesium Silicate

PRODUCT OVERVIEW

Alliance Chemical offers high-purity Talc Powder ACS, a finely milled magnesium silicate essential for precision applications. With a low residue after ignition of 0.02% and trace heavy metal levels at 0.0005 ppm, this grade ensures superior consistency and performance in sensitive industrial processes.

Grade Significance: ACS Grade signifies that this talc meets the rigorous purity standards set by the American Chemical Society, ensuring it is suitable for laboratory use and high-precision industrial applications where consistency is critical.

CERTIFICATE OF ANALYSIS — TYPICAL VALUES

PARAMETER	UNIT	TYPICAL	MIN	MAX	TEST METHOD
Assay (wt%)	%	Meets ACS Requirements	—	—	ACS Reagent Chemicals
Color (APHA)	APHA	10	—	10	ASTM D1209
Residue After Ignition	%	0.02	—	0.1	ACS Reagent Chemicals
Water Content	%	0.1	—	0.2	Karl Fischer Titration
Heavy Metals (as Pb)	ppm	0.0005	—	0.0010	ICP-OES
Iron (Fe)	ppm	0.0005	—	0.0010	ICP-OES
Chloride (Cl^-)	ppm	5	—	0.0010	Ion Chromatography
Sulfate (SO_4^{2-})	ppm	0.0020	—	0.01	Ion Chromatography
Acidity	—	Passes Test	—	—	ACS Reagent Chemicals
Alkalinity	—	Passes Test	—	—	ACS Reagent Chemicals
Loss On Ignition	%	0.5	—	1	Gravimetric

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

PHYSICAL & CHEMICAL PROPERTIES

Appearance	Fine, soft powder	**Odor**	Odorless
Form	Powder	**Boiling Point**	1800°C (3272°F)
Melting / Freezing Point	900°C (1652°F)	**Flash Point**	Not applicable
Specific Gravity	2.75	**Solubility**	Insoluble in water
Molecular Formula	$H_2Mg_3O_{12}Si_4$	**Molecular Weight**	379.27 g/mol
Density (25°C)	2.58 g/mL		

APPLICATIONS

1. **Cosmetics** — Utilized for its exceptional absorbent properties and soft texture, this talc serves as a base ingredient in high-quality powders and skincare formulations.
2. **Plastics Manufacturing** — Acts as a high-performance filler to enhance the mechanical strength, stiffness, and heat resistance of various plastic components.
3. **Industrial Lubricants** — Functions as an effective dry lubricant to reduce friction and improve surface finishes in complex manufacturing machinery.
4. **Agricultural Chemicals** — Serves as an inert carrier for pesticide formulations, ensuring uniform distribution and stability of active ingredients.

STORAGE & HANDLING

Talc Powder should be stored in a cool, dry, and well-ventilated area to prevent moisture absorption, which can alter its flow characteristics. Although it is not classified as hazardous, keeping the containers tightly sealed prevents contamination and maintains the integrity of its analytical specifications.

- Store in a cool, dry place away from moisture.
- Use appropriate PPE, including gloves and dust masks, when handling.
- Avoid contact with incompatible materials such as strong acids.
- Keep containers tightly closed when not in use to prevent contamination.

AVAILABLE PACKAGING

- 2 lbs.
- 5 Lbs.
- 50 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 4523 of 4758 companies (only 4.9% 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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