

SPECIFICATION

Product Name: Magnesium Stearate
Chemical Formula: C ₃₆ H ₇₀ MgO ₄
CAS Number: 557-04-0
Molecular Weight: 591.27 g/mol
Appearance: Very Fine Light White Powder
Odor: Odorless

Chemical Composition

Parameter	Unit	Typical Value	Specification (Min/Max)
Identification:			
(A) Freezing Point	-	Complies	Freezing Point of the residue is NLT 53°
(B) Acid Value	-	204	Passes, Acid Value is 195-210
(C) Passes	-	Complies	Passes
(D) Passes	-	Complies	Aquos Soln. Should give reaction of mg
Appearance of solution	-	Complies	Sol. A is not more than YS6
Purity (Assay)	%	4.16%	3.8 - 5% on Dried Basis
Appearance of Sol. Of the Fatty Acid	-	Complies	0.5 ml of + 10 ml Chloroform Sol. Is Clear. Reference – YS5
Acidity or alkalinity	-	Complies	Passes
Acid value of the fatty acid	-	204	195 - 210

Free Stearic Acid	%	1.62	NMT 3.0%
Zinc Stearic	-	Complies	Passes
Heavy Metal as Pb	PPM	<20	NMT 20 PPM
Chlorides	PPM	<250	NMT 250 PPM
Sulphates	%	<0.6	NMT 0.6%
Loss on drying	%	2.48	NMT 6.0%
Fatty Acid Composition			
Stearic Acid	%	44.15%	NLT 40%
Stearic Acid & Palmitic Acid	%	98.28%	NLT 90%

Physical Properties

- Solubility: Practically insoluble in water. Practically insoluble in ethanol. Slightly soluble in ether.

Shelf Life & Storage

- Shelf Life: 5 years from date of manufacture under recommended storage.
- Storage Conditions: Store in a tightly closed / sealed container. Keep in a cool, dry, and well-ventilated area. Protect from moisture and humidity (it can absorb moisture and affect quality). Keep away from heat sources and direct sunlight. Avoid contact with strong oxidizing agents.

Applications

- Use: Used as a lubricating and anti-sticking agent in rubber, plastics, and polymer processing. Helps in easy mold release in manufacturing processes. Improves powder flow in chemical and industrial formulations. Provides hydrophobic properties in coatings,

construction materials, and powders. Used in products like powders and creams for smooth texture and slip. Acts as a flattening and dispersing agent.

- Dosage: Depends on formulation and process conditions.

Packaging

- Standard Packing: 25 kg woven PP bags with inner liner, 1 kgs and 100 grams, or as per customer requirement.

- Labeling: Product name, batch number, net weight, manufacture date, expiry date, and manufacturer details.

* Specifications are based on the manufacturer's provided specifications.