

SPECIFICATION

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

Chemical Composition

Parameter	Unit	Typical Value	Specification (Min/Max)
Identification: (A) Freezing Point (B) Acid Value (C) Fatty Acid Composition (D) Reaction on Magnesium	°C - - -	56°C Complies Complies Complies	Not Less Than 53° C The Acid Value of the fatty acid is 195 to 210 As Per IP Solution A gives the reaction of magnesium
Appearance of solution	-	Complies	Solution A is not more intensely colored than reference solution YS6
Appearance of solution of the fatty acids.	-	Complies	The solution is clear, and not more intensely colored than reference solution YS5
Acidity of Alkalinity	ml/M	0.004 ml of 0.1 M HCl is Required	NMT 0.05 ml of 0.1M HCl or 0.1 M NaOH is required to change the color of the solution

Acid value of the fatty acids	-	208.2	195 to 210
Free Stearic acid	%	1.41%	NMT 3 %
Zinc Stearate	-	Complies	No violet Precipitate is formed
Heavy Metals	PPM	Complies	Max 20 ppm
Chlorides	PPM	Complies	Max 250 ppm
Sulphates	%	Complies	Max 0.6%
Loss on Drying at 105°C, 1.0 g	%	2.86%	NMT 6.0%
Bulk Density (In House)	g/cc	0.22 g/cc	0.15 - 0.3 g/cc
Assay	%	4.75%	3.8% - 5.0% Mg on the Dried Basis
The Fatty acid Fraction Stearic Acid	%	Complies	NLT 40.0%
Sum of stearic acid and palmitic acid	%	Complies	NLT 90.0%
TAMC	Cfu/g	<1000 Cfu/g	Acceptance criterion 10^3 Cfu/g
TYMC	Cfu/g	<100 Cfu/g	Acceptance criterion 10^2 Cfu/g
Escherichia coli	-	Absent	Absent
Salmonella	-	Absent	Absent

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 container. Keep in a cool, dry place. Protect from moisture and humidity. Keep away from heat and direct sunlight. Store in a well-ventilated area. Ensure container is properly sealed after use to prevent contamination.

Applications

- Use: Widely used as a lubricant in tablet and capsule manufacturing to reduce friction during compression. Prevents sticking of powder to punches and dies in tablet machines. Improves flow properties of powders during processing.
- Dosage: Depends on formulation type and compression process.

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.