

BaseBulk

CERTIFICATE OF ANALYSIS

Product Name	L-Serine
Batch No.	K240612-1
Standard	USP43 & FCC12
Quantity	1000 kg
Production Date	2024-06-13
Report Date	2024-06-18
Expiry Date	2028-06-12

Physical & Chemical Characteristics

Analysis Item	Specification	Result
Description	White crystals or crystalline powder	Conforms
Identification (IR)	Concordant with the reference spectrum	Conforms
Assay	98.5% – 101.5%	100.1%
Specific rotation $[\alpha]_{D25}$	+14.0° ~ +15.6°	+15.1°
Chloride (Cl)	<0.05%	<0.05%
Sulfate (SO ₄)	<0.03%	<0.03%
Iron (Fe)	<30 ppm	<30 ppm
Insoluble foreign matter in amino acids	No fibers longer than 5 mm are present, total weight of any foreign matter ≤ NMT 5 mg/100 g of sample	Conforms
Related Compounds	Individual impurity <0.5%, Total impurities ≤ 2.0%	Conforms
Loss on Drying	<0.20%	0.12%
Residue on Ignition	<0.10%	0.02%

Heavy Metals

Analysis Item	Specification	Result
Heavy metals (Pb)	<15 ppm	<15 ppm
Arsenic	<1.5 ppm	<1.5 ppm
Lead	<5 ppm	<5 ppm

Microbiological Tests

Analysis Item	Specification	Result
Total Plate Count	≤1000 CFU/g	Conforms

Yeast and Molds	≤100 CFU/g	Conforms
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Conclusion: Passed test according to the Standard of USP43 & FCC12.

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