

SPECIFICATION

Product name	L-Serine
Product code	SPLS01
Production site	Heilongjiang NHU Biotechnology
Trade name	L-Serine (intermediate, technical application)
Description	
Ingredients	L-Serine
Formula	C ₃ H ₇ NO ₃
Molecular weight	105,09 g/mol
CAS No	56-45-1
Properties	
Shelf life	24 months after production date in unopened original packaging
Appearance	white crystal or crystalline powder, odourless
Solubility	readily soluble in water, almost insoluble in ethanol (96 %), acetone or ether
Assay on dried basis	98,50 % - 101,0 %
Transmittance of solution	> 98 %
Particle size	> 90 % through #20 mesh <10 % through #80 mesh
pH	5,5 to 6,5
Identification 1 (TIC)	The location and colour of the main spots in the test solution should be the same as the main spots in the control solution
Identification 2 (IR)	IR meets requirement
Appearance of solution	clear and ≤ BY ₆
optical rotation	+14,0 ° – +16,0 °
Chlorides	≤ 200 mg/kg
Sulfates	≤ 300 mg/kg
Ammonium	≤ 200 mg/kg
Iron (Fe)	≤ 10 mg/kg
Arsenic (As)	≤ 1,0 mg/kg
Lead	≤ 0,5 mg/kg
Cadmium (Cd)	≤ 0,5 mg/kg
Mercury (Hg)	≤ 0,1 mg/kg
Loss on drying	≤ 0,2 %
Residue on ignition	≤ 0,1 %

Related Impurities

Phenylpropanoide compounds ≤ 100 mg/kg
Ninhydrin-positive substances Any ninhydrin-positive substance:
for each impurity $\leq 0,2$ %
Total impurities: $\leq 0,5$ %

Residual solvent (as Methanol) ≤ 3000 mg/kg

Microbiology

Total plate count ≤ 1000 CFU/g
Yeasts and Moulds ≤ 100 CFU/g
E. coli negative in 10 g
Salmonella negative in 25 g
Staph. aureus negative 25 g

Handling

Usage Product can be used as intermediate (technical application).

Storage Store in a dry place, in sealed original container.

The product complies to EP.

NHU EUROPE GmbH