

TECHNICAL DATA SHEET

L-Serine

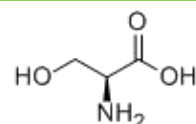
USP

Chemical Properties

CAS: 56-45-1

Chemical Formula: C₃H₇NO₃

Molecular Weight: 105.09



Description

The amino acid L-serine, one of the so-called non-essential amino acids, plays a central role in cellular proliferation. L-Serine is the predominant source of one-carbon groups for the de novo synthesis of purine nucleotides and deoxythymidine monophosphate. L-serine and the products of its metabolism have been recognized not only to be essential for cell proliferation, but also to be necessary for specific functions in the central nervous system.

Solubility

L-Serine is soluble in water.

Specification

Item	Specification	Test Method
Appearance	White crystals or crystalline powder	Visual
Identification		
Infrared Absorption	Concordant with the reference spectrum	USP
Assay	98.5%~101.5%	USP
Specific rotation [α] _D ²⁵	+14.0°~+15.6°	USP
Loss on drying	Max 0.20%	USP
Residue on ignition	Max 0.10%	USP
Chromatographic purity		
Individual Impurity	Max 0.5%	USP
Total Impurities	Max 2.0%	USP
Organic volatile impurities	Meet the requirements of USP	USP
Chloride	Max 0.05%	USP
Sulfate	Max 0.03%	USP
Heavy metals (Pb)	Max 15ppm	USP
Iron(Fe)	Max 30ppm	USP
Total Plate Count	Max 1,000cfu/g	USP
Total Yeast & Mold	Max 100cfu/g	USP
<i>E. Coli</i>	Negative	USP
<i>Salmonella</i>	Negative	USP

Ingredients

Pure L-Serine.

Labeling

In the United States and the European Union: L-Serine

Applications

L-serine is used as pharmaceutical raw material. L-serine is widely used in configuring the third-generation of compound amino acid infusion and nutritional supplements. It can use for the synthesis of a variety of amino acid derivatives, such as cardiovascular, cancer, AIDS, drugs and genetic engineering of protected amino acids;

L-serine can be used for food supplement. L-serine used in sports drinks, diet drinks amino acid;

L-serine can be also used for feed supplement. L-serine used in animal feed to promote animal growth and Development.

Safety

This product is safe for the intended use. Avoid ingestion, inhalation of dust or direct contact by applying suitable protective measures and personal hygiene. See Material Safety Data Sheet for full safety information.

Handling recommendations

Keep away from heat. Keep away from sources of ignition. Empty containers pose a fire risk, evaporate the residue under a fume hood. Ground all equipment containing material. Do not ingest. Do not breathe dust. Wear suitable protective clothing. If ingested, seek medical advice immediately and show the container or the label.

Packaging, Storage & Shelf Life

Package	25kg/drum; or according to customers' requirements.
Storage	Store in a well-closed container away from moisture and direct sunlight.
Shelf Life	2 years if sealed and stored properly.