

SPECIFICATION

Product Name: Valine
Chemical Formula: $C_5H_{11}NO_2$
CAS Number: 72-18-4
Molecular Weight: 117.15 g/mol
Appearance: White Powder
Odor: Odorless.

Chemical Composition

Parameter	Unit	Typical Value	Specification (Min/Max)
Assay (Titration Method USP 29 NF 24 Page No. 2234)	%	99.5%	98.5 – 101.5%
Loss on drying	%	0.41%	Max. 1.0%
Heavy metals	mg/kg	3.0	Max. 15.0
Lead (pb)	mg/kg	Not detected	Max. 5.0
Arsenic (AS)	mg/kg	Not Detected	Max. 1.0

Microbiological Analysis

Total Plate Count	cfu/gm	135	Max. 1000
Yeast & Mold	cfu/gm	60	Max. 100
Salmonella	cfu/25 gm	Absent	Negative
E. Coli	cfu/10 gm	Absent	Negative
S. Aureus	cfu/10 gm	Absent	Negative

Physical Properties

- Solubility: Soluble in water. Insoluble in ethanol. Insoluble in acetone. Insoluble in ether.
Insoluble in chloroform.

Shelf Life & Storage

- Shelf Life: 2 years from date of manufacture under recommended storage.
- Storage Conditions: Store in a tightly closed container in a cool, dry, and well-ventilated place, protected from moisture, humidity, heat, and direct sunlight. Keep the container tightly sealed when not in use to maintain product quality.

Applications

- Use: Widely used in pharmaceutical, nutraceutical, food, beverage, sports nutrition, and animal feed applications. Since the human body cannot synthesize L-Valine, it must be obtained through diet or supplementation.
- Dosage: Depends on Intended application, Age and nutritional status, Dietary protein intake, Product formulation, Regulatory requirements.

Packaging

- Standard Packing: 25 kg woven PP bags with inner liner 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.