

SPECIFICATION

Product Name: Tryptophan
Chemical Formula: $C_{11}H_{12}N_2O_2$
CAS Number: 73-22-3
Molecular Weight: 204.23 g/mol
Appearance: Light yellow Powder
Odor: Odorless.

Chemical Composition

Parameter	Unit	Typical Value	Specification (Min/Max)
Assay (Titration Method USP 29 NF 24 Page No. 1410)	%	99.1%	98.5 – 101.5%
Loss on drying	%	0.11%	Max. 0.3%
Sulphate	%	Not Detected	Max. 0.03
Chloride	%	Not detected	Max. 0.05
Iron	%	Not Detected	Max. 0.003
PH	-	7.5	5.5 – 8.0
Heavy metals	PPM	6.0	Max. 15

Microbiological Analysis

Total Plate Count	cfu/gm	700	Max. 1000
Yeast & Mold	cfu/gm	75	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: Slightly soluble in water. Slightly soluble in ethanol. Slightly soluble in methanol. Practically 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, light-resistant 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 and stability.

Applications

- Use: Widely used in pharmaceutical, nutraceutical, food, beverage, sports nutrition, and animal feed applications. It is a precursor to serotonin, melatonin, and niacin (Vitamin B3) and plays an important role in protein synthesis and overall well-being.
- 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.