

## Certificate of Analysis (COA)

### - L-Tryptophan

**Issue Date:** 21 February 2026 **Product Name:** L-Tryptophan **CAS Number:** 73-22-3 **Product Number:** LTP-20260221 **Batch Number:** LTP-SH2026022101 **Brand:** SIGALD **Formula:** C<sub>11</sub>H<sub>12</sub>N<sub>2</sub>O<sub>2</sub> **Molecular Weight:** 204.23 g/mol **Quality Release Date:** 21 February 2026

Test	Specification (Food/Feed/Pharm Grade)	Result	Unit	Test Method
Appearance	White to off-white crystalline powder	White crystalline powder	-	Visual Inspection (25°C)
Odor	Odorless or slight characteristic odor	Slight characteristic odor	-	Sensory Evaluation
Assay (L-Tryptophan, Dry Basis)	≥ 98.5%	99.2%	%	High Performance Liquid Chromatography (HPLC)
Specific Rotation [α] <sub>20</sub> <sup>D</sup>	-30.0° ~ -32.5° (1% in H <sub>2</sub> O)	-31.8°	°	Polarimeter
pH Value (1% Aqueous Solution)	5.5 ~ 7.0	6.2	-	Digital pH Meter (25°C)
Loss on Drying	≤ 0.5%	0.2%	%	Oven Drying (105°C, 2h)
Residue on Ignition	≤ 0.1%	0.03%	%	Gravimetric Method (550°C, 3h)
Heavy Metals (as Pb)	≤ 5 ppm	< 0.5 ppm	ppm	Inductively Coupled Plasma-Mass Spectrometry (ICP-MS)
Arsenic (As)	≤ 1 ppm	< 0.1 ppm	ppm	Atomic Fluorescence Spectrometry (AFS)
Chloride (Cl <sup>-</sup> )	≤ 0.02%	0.005%	%	Potentiometric Titration
Sulfate (SO <sub>4</sub> <sup>2-</sup> )	≤ 0.02%	0.004%	%	Turbidimetry
Related Substances	≤ 1.0%	0.3%	%	HPLC
Total Bacterial Count	≤ 100 CFU/g	15 CFU/g	CFU/g	Plate Count Agar
E. coli	Negative in 25g	Negative	-	Microbiological Detection
Salmonella	Negative in 25g	Negative	-	ISO 6579-1

### Certification

This batch of L-Tryptophan conforms to the specifications of USP NF, FCC VIII, GB 1886.205 (Food Grade) and feed additive national standards. All test results meet the quality requirements for use in food fortification, feed additives, pharmaceutical raw materials and nutritional supplements.