NATURE SCIENCE TECHNOLOGIES

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CERTIFICATE OF ANALYSIS

L-Theanine

LOT EX0414

Catalog No.: NST-10-145

CAS No.: 3081-61-6

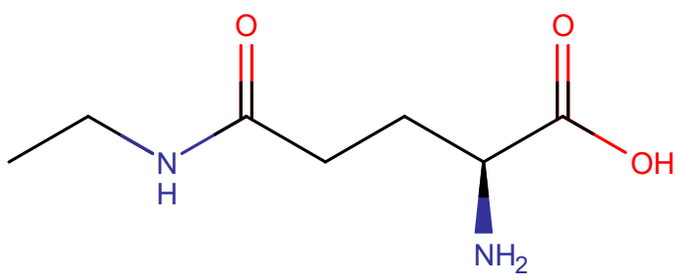
Molecular formula: $C_7H_{14}N_2O_3$

MW: 174.20

Manufacturing date: 15.07.2026

Analysis date: 23.07.2026

Shelf life: 24 months



No.	Parameter	Specification	Results	Method
1.	Appearance	Crystalline powder	Conforms	Visual
2.	Color	White	Conforms	Visual
3.	Identification	Conforms	Conforms	TLC&NMR
4.	Clarity and color of solution	Clear colorless	Conforms	Visual
5.	Specific optical rotation	+7.7° to +8.5°	+7.86°	USP <781>
6.	pH	5.0-6.0	5.35	pH meter
7.	Loss on drying	≤1.0 %	0.52 %	USP <731>
8.	Residue on ignition	≤0.2 %	0.06 %	USP <281>
9.	Chloride	≤0.02 %	Conforms	USP <221>
10.	Solvent residues	≤5000 ppm	Conforms	GC
11.	Assay	≥98.0%	99.06 %	Titration

12.	Heavy Metals	≤10 ppm	Conforms	ICP-MS
13.	Lead	≤2 ppm	Conforms	ICP-MS
14.	Arsenic	≤1 ppm	Conforms	ICP-MS
15.	Mercury	≤0.1 ppm	Conforms	ICP-MS
16.	Cadmium	≤1 ppm	Conforms	ICP-MS
17.	TPC	$<10^3$ CFU/g	Conforms	USP <2021>
18.	TYMC	$<10^2$ CFU/g	Conforms	USP <2021>
19.	*Escherichia Coli*	Absent	Conforms	USP <2022>
20.	*Salmonella*	Absent	Conforms	USP <2022>
21.	*Staphylococcus aureus*	Absent	Conforms	USP <2022>

Storage: store in a cool and dry place, keep away from strong light and heat

Stability: 24 months when properly stored

Issued by
Nature Science Technologies Ltd.

Signature:



Date: 23.07.2026

This Certificate of Analysis is based on the manufacturer's quality control documentation for the referenced batch.