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QUALITY SPECIFICATION

L-Theanine 98% from Green Tea Extract

Catalog No.: NST-10-145-2

CAS No.: 3081-61-6

Molecular formula: $C_7H_{14}N_2O_3$

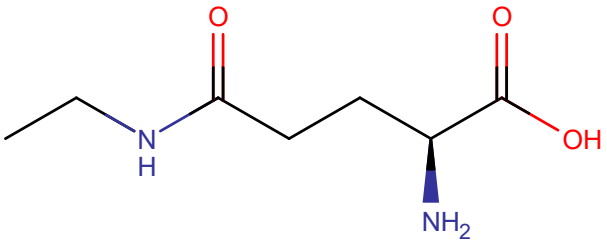
MW: 174.20

Source: *Camellia sinensis L.*

Part used: leaves

Solvents used: purified water, ethyl acetate, ethanol

Shelf life: 24 months



No.	Parameter	Specification	Method
1.	Appearance	Crystalline powder	Visual
2.	Color	White to off-white	Visual
3.	Identification	Conforms to R.S. sample	HPTLC
4.	Odor	Characteristic	Organoleptic
5.	Taste	Characteristic	Organoleptic
6.	Mesh size/sieve	≥95 % pass 80 mesh	80 mesh
7.	Loss on drying	≤5.0 %	Ph. Eur. 2.8.17
8.	Residue on ignition	≤1.0 %	Ph. Eur. 2.4.16
9.	Assay (L-Theanine)	≥98.0 %	HPLC
10.	Assay (Caffeine)	≤0.5 %	HPLC
11.	Solvent residues	Ph. Eur. 2.4.24	Ph. Eur. 2.4.24
12.	Pesticide residues	EC 396/2005	Third lab

13.	Ethylene oxide	EC 396/2005	HACCP
14.	Benzo[a]pyrene	(EU) 2023/915	HPLC
15.	PAHs	(EU) 2023/915	HPLC
16.	Heavy Metals	≤10 ppm	ICP-MS
17.	Lead	≤2 ppm	ICP-MS
18.	Arsenic	≤1 ppm	ICP-MS
19.	Mercury	≤0.1 ppm	ICP-MS
20.	Cadmium	≤1 ppm	ICP-MS
21.	TPC	$<10^3$ CFU/g	AOAC,BAM
22.	TYMC	$<10^2$ CFU/g	AOAC,BAM
23.	*Escherichia Coli*	Absent	AOAC,BAM
24.	*Salmonella*	Absent	AOAC,BAM
25.	*Staphylococcus aureus*	Absent	AOAC,BAM

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

Stability: 24 months when properly stored