Product Specification Sheet

1. Product Description

Product Name:	L-Theanine 98% — Bulk Food Grade
Chemical / Common Name:	L-Theanine
Synonyms:	N-Ethyl-L-glutamine, L-γ-Glutamylethylamide
Ingredient Statement:	L-Theanine
Molecular Formula / Weight:	C7H14N2O3 / 174.2 g/mol
CAS No. / HS Code:	3081-61-6 / —
Grade:	☐ Conventional ☐ Organic ☒ Food Grade ☐ USP / FCC
Country of Origin:	China
Description:	White to slightly yellow powder with a characteristic odour and taste, freely soluble in water (clear, colourless solution).

2. Physical & Chemical Characteristics

Parameter	Specification	Method
Appearance	Powder	Organoleptic
Colour	White or slightly yellow	Organoleptic
Odour & Taste	Characteristic	Organoleptic
pH	5.0 – 6.0	USP <791>
Loss on Drying (%)	≤ 10	USP <731>
Residue on Ignition (%)	≤ 0.2	USP <281>
Assay, dry basis (%)	98 – 102	USP
Specific Rotation	+7.7° to +8.5°	USP <781>
Sulfate (%)	≤ 0.02	USP <221>
Chloride (%)	≤ 0.02	USP <221>
Iron (ppm)	≤ 10	USP <241>
Solution Clarity	Clear and colourless	USP

3. Contaminants

Parameter	Specification	Method
Heavy Metals (as Pb) (ppm)	≤ 10	USP <231>
Lead (Pb) (ppm)	≤ 0.5	USP <232>
Arsenic (As) (ppm)	≤ 2	USP <232>
Cadmium (Cd) (ppm)	≤ 1	USP <232>
Mercury (Hg) (ppm)	≤ 0.1	USP <232>

4. Microbiological Characteristics

Parameter	Specification	Method
Total Plate Count (CFU/g)	≤ 10,000	USP <2021>
Yeast & Mould (CFU/g)	≤ 1,000	USP <2021>
Coliforms	Negative	USP <2021>
Salmonella	Negative	USP <2022>

5. Allergen Declaration

Priority Allergen (Health Canada)	Present in Product	Same Line / Facility
Peanuts	☐ Yes ☒ No	☐ Yes ☐ No
Tree nuts	☐ Yes ☒ No	☐ Yes ☐ No
Sesame seeds	☐ Yes ☒ No	☐ Yes ☐ No
Milk	☐ Yes ☒ No	☐ Yes ☐ No
Eggs	☐ Yes ☒ No	☐ Yes ☐ No
Fish	☐ Yes ☒ No	☐ Yes ☐ No
Crustaceans & molluscs	☐ Yes ☒ No	☐ Yes ☐ No
Soy	☐ Yes ☒ No	☐ Yes ☐ No
Wheat & triticale	☐ Yes ☒ No	☐ Yes ☐ No
Gluten (barley, oats, rye)	☐ Yes ☒ No	☐ Yes ☐ No
Mustard	☐ Yes ☒ No	☐ Yes ☐ No
Sulphites (≥ 10 ppm)	☐ Yes ☒ No	☐ Yes ☐ No

6. Regulatory Status

GMO Status:	☒ Non-GMO ☐ Contains GMO ☐ Not applicable
Irradiation:	☒ Not irradiated ☐ Irradiated
Certifications:	☐ Kosher ☐ Halal ☐ Organic ☐ Vegan ☐ Other: _____
BSE / TSE Statement:	Free from BSE/TSE risk.
Standard of Quality:	Complies with the manufacturer's specification (USP test methods).

7. Packaging, Storage & Shelf Life

Uses:	Amino acid ingredient for functional beverages and supplements.
Packaging:	Food-grade sealed pouches, repacked from the manufacturer's original packaging.
Storage Conditions:	Store in a cool, dry place in a well-closed container, away from heat, moisture and dust.
Shelf Life:	24 months.
Lot Code Format:	YYYYMMDDNN (repack date + sequence), traceable to the manufacturer lot.

8. Quality Assurance Review

Reviewed By (QA): LiquidShop Quality Assurance **Review Date:** 2026-10-08

This document was prepared electronically and reviewed by LiquidShop Quality Assurance. It is valid without a signature.

The information contained in this document is accurate to the best of our knowledge. It is the responsibility of the user to ensure the product is suitable for its intended application and complies with applicable regulations.