XI'AN LAND NUTRA CO.,LTD
Room 1202, Building 1, Vanke Huizhi Center, No. 56, Xifeng Road, Yanta District, Xi'an City, Shaanxi Province,China

Technical Data Sheet

1. Product and Company Information

Product Name: Huperzine A Powder
Product Code: HUP-A-1%
Botanical Name: Huperzia serrata (Thunb.) Trev.
Part Used: Whole herb
Active Ingredient: Huperzine A
Specification: >1.0%
Recommended Use: Dietary supplement ingredient, Functional food additive, Cognitive health support, Cholinesterase inhibitor
Restrictions: Not for diagnostic or therapeutic use.
Manufacturer Details: Xi'an Land Nutra Co., Ltd.
Address: 12th Floor, Vanke Huizhi Center, Yanta District, Xi'an City, Shaanxi, China
Email: sale01@landnutra.com

2. Product Composition

Component	Chemical/Botanical Name	CAS No.	Content
Active Ingredient	Huperzine A	102518-79-6	> 1.0%
Moisture	Water	7732-18-5	≤ 5.0%
Total Ash	--	--	≤ 5.0%
Others	--	--	Balance

3. Physical and Chemical Properties

Property	Specification	Test Method
Appearance	Brown to yellow-brown fine powder	Visual
Odor	Characteristic	Organoleptic
Taste	Characteristic	Organoleptic
Molecular	$C_{15}H_{18}N_2O$	--

Property	Specification	Test Method
Formula		
Molecular Weight	242.32 g/mol	--
Bulk Density	0.4–0.6 g/cm³ (typical)	USP <616>
Particle Size	95% < 180 μm (pass 80 mesh)	Laser diffraction
Solubility	Soluble in methanol, ethanol, chloroform; slightly soluble in water	Visual
Loss on Drying	≤ 5.0%	USP <731>
Water Activity (aw)	≤ 0.25	ISO 21807

4. Technical Performance Data

Performance Parameter	Specification	Test Method
Potency Analysis		
Huperzine A Content	> 1.0%	HPLC
Heavy Metals		
Total Heavy Metals	≤ 10 ppm	ICP-MS
Lead (Pb)	≤ 3.0 ppm	ICP-MS
Arsenic (As)	≤ 1.0 ppm	ICP-MS
Cadmium (Cd)	≤ 1.0 ppm	ICP-MS
Mercury (Hg)	≤ 0.1 ppm	ICP-MS
Microbiological Control		

Performance Parameter	Specification	Test Method
Total Plate Count	≤ 1,000 CFU/g	USP <61>
Yeast & Mold	≤ 100 CFU/g	USP <61>
E. coli	Negative	USP <62>
Salmonella	Negative	USP <62>
Staphylococcus aureus	Negative	USP <62>
Solvents Residue	USP Standard	GC
Pesticides Residue	USP Standard	GC-MS
Stability Data		
6-month stability at 25°C/60% RH	Retention ≥ 95%	Accelerated study
12-month stability at 25°C/60% RH	Retention ≥ 90%	Accelerated study
Physical Performance		
Flowability	Good	USP <1174>
Disintegration time (in tablet)	≤ 30 minutes	USP <701>

5. Application Guidelines

Recommended Applications:
Dietary supplements (capsules, tablets, powders) for cognitive health
Functional foods and beverages for memory support
Nootropic formulations
Research and development applications
Product Functions :
Cholinesterase inhibitor, supports cognitive function
May help improve memory and learning
Neuroprotective properties
Supports mental clarity and focus
Usage Recommendations:

Parameter	Recommendation

Parameter	Recommendation
Typical dosage range	50–200 mcg (micrograms) Huperzine A per serving (5–20 mg of 1% product)
Suggested daily intake	100–400 mcg daily, typically divided into 2 doses
Compatibility	Compatible with most herbal and nutritional ingredients
Processing conditions	Stable below 60°C; protect from light and moisture
Mixing instructions	Dry blend in powder formulations with appropriate dilution due to high potency

6. Storage and Handling Information

Parameter	Requirement
Storage Temperature	15–25°C (59–77°F); room temperature
Relative Humidity	< 60% RH
Light Protection	Store in opaque containers; avoid direct sunlight
Container	Keep tightly sealed in original packaging; away from moisture
Shelf Life	24 months from date of manufacture
Special Precautions	Protect from moisture and light; store in cool, dry place

7. Packaging Specifications

Package Type	Net Weight	Packaging Material
Small package	1 kg	Double-layer polyethylene bag with aluminum foil lining
Standard package	25 kg	Double-layer food-grade PE bag + aluminum foil + fiber drum

Package Type	Net Weight	Packaging Material
Bulk packaging	Customizable	Upon request

8. Remarks & Compliance

Allergen Statement: This product is free from major allergens (gluten, soy, dairy, egg, shellfish, nuts).
GMO Status: Non-Genetically Modified .
Botanical Source: Whole herb of Huperzia serrata (Thunb.) Trev. (also known as Lycopodium serratum Thunb.) .
Extraction Method: Ethanol-water extraction .
Certifications: Manufactured in a GMP-compliant facility. COA provided with each batch.
Regulatory Status:
Complies with USP/EP standards for botanical extracts
Product for manufacturing and processing use only
Not for direct human consumption without further formulation
Remark: This product is a standardized Huperzia serrata extract with Huperzine A content >1%. Huperzine A is a naturally occurring alkaloid that acts as a potent, reversible acetylcholinesterase inhibitor . It has been extensively studied for its cognitive-enhancing and neuroprotective properties. Suitable for dietary supplements, functional foods, and nootropic formulations targeting memory support and cognitive health.