

MATERIAL SAFETY DATA SHEET

1. Identification of Substance

Product Name: Huperzine A Powder
Synonyms: Huperzia serrata Extract, HupA
Botanical Source: *Huperzia serrata*
Specification: Huperzine A > 1% (HPLC)
CAS No.: 102518-79-6
Molecular Formula: C₁₅H₁₈N₂O
Molecular Weight: 242.32 g/mol
Product Form: Off-white to pale yellow fine powder
Supplier: Xi'an Land Nutra Co., Ltd.
Email: sale01@landnutra.com

2. Hazards Identification

Classification (GHS): DANGER – Very Toxic
Hazard Statements:
H301+H311+H331: Toxic if swallowed, on skin or inhaled
H315: Causes skin irritation
H319: Causes serious eye irritation
H335: May cause respiratory irritation
Precautionary Statements:
P261: Avoid breathing dust
P280: Wear protective gloves/eye protection
P301+P310: IF SWALLOWED: Call POISON CENTER
P305+P351+P338: IF IN EYES: Rinse with water
Other Hazards: Contains potent pharmaceutical ingredient; moderate/severe irritant; combustible dust

3. Composition

Component	CAS No.	Specification
Huperzine A	102518-79-6	> 1.0%
Plant Matrix	-	Balance
Moisture	-	≤ 5.0%

Toxicity: Very Toxic (T+)

4. First Aid Measures

Inhalation: Remove to fresh air. Give oxygen if needed. Seek immediate medical attention.

Skin Contact: Wash with water 15 min. Remove contaminated clothing. Seek immediate medical attention.

Eye Contact: Rinse with water 15 min. Remove contact lenses. Seek immediate medical attention.

Ingestion: Rinse mouth. Do NOT induce vomiting. Seek immediate medical attention.

5. Fire-Fighting Measures

Extinguishing Media: Water spray, CO₂, dry chemical, foam

Specific Hazards: Toxic fumes (CO, CO₂, NO_x) upon combustion; dust explosion risk

Protective Equipment: SCBA + full protective clothing

6. Accidental Release

Personal Protection: Full PPE (respirator, gloves, goggles, protective clothing)

Cleanup: Absorb with inert material; place in sealed container; dispose as hazardous waste

Environmental: Prevent entry to drains/waterways

7. Handling & Storage

Handling: Trained personnel only; use fume hood; avoid dust; wash hands after handling

Storage: -20°C (long-term) or 4°C (short-term); keep tightly sealed; protect from light

Shelf Life: 24-36 months

8. Exposure Controls/PPE

Exposure	Protection
Respiratory	NIOSH/MSHA-approved respirator
Hands	Chemical-resistant rubber gloves
Eyes	Chemical safety goggles
Skin	Impervious clothing

Engineering: Fume hood, eyewash station, safety shower

9. Physical & Chemical Properties

Property	Specification
Appearance	Off-white to pale yellow powder

Property	Specification
Solubility	DMSO, methanol, ethanol
Purity	> 1% Huperzine A
Molecular Weight	242.32 g/mol

10. Stability & Reactivity

Stability: Stable when stored properly (-20°C, sealed, protected from light)

Avoid: Light, heat, air exposure, moisture, strong oxidizers/acids/bases

Decomposition: CO, CO₂, NO_x upon combustion

11. Toxicological Information

Acute Toxicity (LD₅₀ mouse): Oral 4.6 mg/kg; IP 1.8 mg/kg; IV 0.63 mg/kg – VERY TOXIC

Skin/Eye: Causes irritation (H315, H319)

Respiratory: May cause irritation (H335)

Genotoxicity: Negative in Ames test

Reproductive: Possible risk (R62/R63 – precautionary)

Carcinogenicity: Not classified

12. Ecological Information

Ecotoxicity: Avoid release to environment; no data available

Degradability: No data

13. Disposal

Dispose as hazardous waste per local regulations. Incineration recommended. Do not dispose in sewers/waterways.

14. Transport Information

Regulation	Classification
UN Number	1544 (Alkaloids, solid, n.o.s.)
Class	6.1 (Toxic)
Packing Group	II/III
IMDG/IATA/DOT	Regulated – Dangerous Goods

15. Regulatory Information

China: Pharmaceutical ingredient (Chinese Pharmacopoeia). Not in Catalog of Hazardous Chemicals but should be managed as hazardous.

EU: CLP: Acute Tox. 2 (H300), Skin Irrit. 2 (H315), Eye Irrit. 2 (H319), STOT SE 3 (H335)

US: Research use only. California Prop 65 compliant.

16. Other Information

Disclaimer: For research use only. Contains potent active ingredient. User assumes all risk. No warranty expressed or implied.

