Safety Data Sheet

PINHONBIO® Hydrolyzed Sponge 99%

General grade | Version 1.1 | 29 Oct 2026

1. Identification

Product identifier	PINHONBIO® Hydrolyzed Sponge 99%
INCI / other names	HYDROLYZED SPONGE / sponge spicules; sponge microneedle powder
Recommended use	Raw material for professional cosmetic formulation and development.
Supplier	SHAANXI PINHON BIOTECH CO., LTD.
Address	Room 704, Unit 2, Building 1, I-Duhui, No. 11 Tangyan South Road, Yanta District, Xi'an, Shaanxi, China
Contact	Albert Zhao | +86 19829300704 | info@pinhoningredients.com | www.pinhoningredients.com
Emergency information	Contact the supplier for product information. For urgent medical assistance contact local emergency services or a poison centre. The supplier contact is not a dedicated 24-hour emergency service.

2. Hazard identification

GHS classification: Not classified as hazardous based on the available information for the supplied material.

Label elements: No GHS hazard pictogram, signal word or hazard statement is required on the available classification basis.

Other hazards: Needle-shaped particles can mechanically irritate or abrade skin and eyes. Dust may irritate the respiratory tract. Skin contact can cause prickling or redness, particularly with rubbing. Avoid breathing dust and avoid eye contact.

Precautions: Use dust control, gloves and eye protection. Wash exposed skin gently. Do not rub the eyes or apply raw powder directly to skin.

3. Composition and information on ingredients

Material identity	Description
HYDROLYZED SPONGE	Processed freshwater sponge-derived raw material containing siliceous spicules
CAS / EC identification	Not assigned for this natural material.

Spicule content: ≥99%, determined on an as-received sample by gravimetric analysis combined with microscopic examination. Loss on drying: <7%; residual ethanol: <2,000 ppm.

The material consists of processed sponge-derived siliceous structures. Its skeletal component is hydrated biogenic silica. The spicule-content specification describes the natural raw material and is not a chemical SiO_2-purity assay.

4. First aid measures

Inhalation	Move to fresh air. Seek medical assistance if coughing, breathing difficulty or other symptoms persist. Severe breathing difficulty requires urgent medical care.
Skin contact	Remove contaminated clothing. Gently wash with water and soap without rubbing or scrubbing. Seek medical advice if pain, redness or irritation persists.
Eye contact	Immediately rinse cautiously with clean water for at least 15 minutes, including under the eyelids. Remove contact lenses if easy. Do not rub the eyes. Seek prompt medical attention because particles may cause abrasion.
Ingestion	Rinse the mouth. Do not induce vomiting. Give nothing by mouth to an unconscious person. Obtain medical advice for significant ingestion or symptoms.
Symptoms / medical advice	Prickling, redness, foreign-body sensation, tearing, coughing or mechanical irritation may occur. Treat according to symptoms and assess for retained particles or abrasion. Show this SDS to medical personnel.

5. Firefighting measures

Use water spray, foam, dry chemical or carbon dioxide as appropriate for the surrounding fire. The mineral skeletal fraction is non-combustible; packaging or residual organic material may burn. Avoid jets that disperse powder. Firefighters should use appropriate protective clothing and self-contained breathing apparatus.

6. Accidental release measures

Restrict access and ventilate. Wear gloves, goggles and respiratory protection where dust control is insufficient. Collect using a suitable HEPA-filtered vacuum or carefully dampened methods; place in closed, labelled containers. Do not use compressed air or uncontrolled dry sweeping. Prevent release to drains and waterways.

7. Handling and storage

Minimize dust generation and skin contact during transfer, weighing and blending. Use enclosed handling or local extraction where practicable. Do not eat, drink or smoke in handling areas. Wash hands before breaks and keep contaminated clothing away from personal areas.

Store in tightly closed original packaging in a cool, dry, well-ventilated place away from strong light and heat. Protect from moisture and contamination. Keep away from incompatible chemicals. Shelf life: 24 months under recommended storage conditions in unopened original packaging.

8. Exposure controls and personal protection

Exposure limits: No product-specific occupational exposure limit is established for this grade. NIOSH lists a 6 mg/m³ time-weighted-average REL for amorphous silica, provided here as a material reference rather than a validated spicule exposure limit. Apply local requirements and control airborne particles as far as practicable.

Provide local exhaust and an accessible eyewash. Wear closed protective goggles, suitable gloves and work clothing. Where ventilation cannot adequately control dust, use an approved particulate respirator selected through an exposure assessment and the applicable respiratory-protection programme.

9. Physical and chemical properties

Property	Information
Physical state / appearance	Uniform fine white powder
Odour / odour threshold	Characteristic / not determined
pH	5.0–8.0 (1% aqueous suspension)
Water solubility	Siliceous spicules are insoluble; dispersion is possible.
Particle characteristics	Microscopic needle-like structures. Sieve specification: ≥98% passes 80 mesh. Length, diameter and respirable fraction are not specified.
Loss on drying	<7% (quality specification)
Melting / freezing point	Not established for the complete natural material
Boiling point / range	Not applicable to the mineral particulate fraction
Flammability / flash point	Mineral fraction not expected to sustain combustion; whole-product flammability not tested / no liquid flash point applicable
Explosion limits / autoignition	Not determined
Decomposition temperature	Not determined
Vapour pressure / vapour density	Not applicable to the solid skeletal fraction
Density / bulk density	Not determined for this grade
Kinematic viscosity / log Kow	Not applicable to the insoluble mineral particulate fraction

10. Stability and reactivity

Stable under recommended handling and storage conditions. No hazardous polymerization is expected. Avoid unnecessary heating and dust dispersion. The silica fraction is incompatible with powerful fluorinating agents and can be attacked by hydrofluoric acid and strong alkalis. Heating residual organic matter or packaging may generate irritating fumes and carbon oxides.

11. Toxicological information

Likely exposure routes are inhalation of dust, skin or eye contact, and accidental ingestion. Needle-like particles may cause local mechanical injury; eye exposure warrants prompt attention. Published studies show that sponge spicules can physically alter the skin barrier. The magnitude of this effect is species-, shape-, dose- and formulation-dependent.

Acute toxicity: No numerical LD50 or LC50 is available for this grade. Skin and eye effects: Mechanical irritation and abrasion are possible. Respiratory effects: Airborne particles may irritate the airways; avoid repeated or prolonged inhalation. Sensitization, germ-cell mutagenicity, carcinogenicity, reproductive toxicity, specific target-organ toxicity and aspiration hazard: No product-specific data available.

12. Ecological information

Aquatic toxicity, bioaccumulation and soil mobility: No product-specific data available. The inorganic skeletal fraction is not subject to conventional organic biodegradation. Insoluble particles may settle in water. Prevent bulk release into soil, drains and waterways. PBT/vPvB and endocrine-disrupting properties: No assessment data available for this natural material.

13. Disposal considerations

Collect waste in closed, labelled containers without generating dust. Dispose of product and contaminated packaging in accordance with local waste requirements through an appropriate waste contractor. Do not discharge bulk powder to drains. Empty packaging may retain sharp particles or dust; handle with the same precautions.

14. Transport information

DOT (US)	Not regulated as dangerous goods.
IMDG (sea)	Not regulated as dangerous goods.
IATA (air)	Not regulated as dangerous goods.
UN number / proper shipping name	Not applicable.
Transport hazard class / packing group	Not applicable.
Marine pollutant	Not classified as a marine pollutant on the available information.
Special precautions	Use tightly closed, dust-tight inner packaging and a protective outer container. Protect from moisture and damage.
Bulk maritime transport	Not intended for bulk carriage under IMO instruments.

Transport classification is based on the available information for the supplied dry hydrolyzed-sponge raw material. Maintain closed, dust-tight packaging and comply with the carrier's normal packaging and documentation requirements.

15. Regulatory information

This document uses the 16-section SDS structure for professional raw-material handling. HYDROLYZED SPONGE is a cosmetic ingredient name; ingredient naming does not itself authorize every finished-product use or establish safety. Compliance with applicable chemical, workplace, cosmetic and transport requirements must be assessed for the destination and intended use.

16. Other information and references

Issue / revision date: 29 Oct 2026 | Version: 1.1 | General 99% spicule grade.

Basis: PINHONBIO quality specification, manufacturer-confirmed test method, published material information and a weight-of-evidence assessment of identified hazards. Public literature and comparable-material information are reference evidence, not test reports issued for PINHONBIO batches.

CDC/NIOSH Pocket Guide: Silica, amorphous — exposure control and general material hazards.

NOAA CAMEO Chemicals: Silica, amorphous — reactivity and emergency information.

Zhang et al. (2021). Pharmaceutics 13(12):2119 — physical effects of sponge spicules.

Selco: Sponge Spicule technical leaflet, 25 Mar 2026 — physical form and handling.

Hunan Sunshine Bio-Tech: Hydrolyzed Sponge MSDS, 03 Jan 2023 — Section 14, transport.

Hunan Sunshine Bio-Tech: published sponge-spicule safety assessment summary, 26 Nov 2025.

Krasko et al. (2000). European Journal of Biochemistry — hydrated amorphous biogenic silica.

COSMILE Europe: HYDROLYZED SPONGE — ingredient identity.

Abbreviations: GHS, Globally Harmonized System; REL, recommended exposure limit; HEPA, high-efficiency particulate air; ppm, parts per million. This information describes handling precautions for the stated raw material, not a guarantee of finished-product safety or a batch quality certificate.