Safety Data Sheet

PINHONBIO® Piroctone Olamine

General powder grade | Purity ≥99% (HPLC) | Version 1.0 | 22 Oct 2026

1 Identification

Product identifier	PINHONBIO® Piroctone Olamine
INCI / CAS	PIROCTONE OLAMINE / 68890-66-4
Recommended use	Raw material for professional cosmetic and personal-care formulation, including anti-dandruff products.
Restrictions on use	Not for direct ingestion or direct application of the undiluted powder.
Supplier	Shaanxi Pinhon Biotechnology 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 | +86 173 0298 1616 | info@pinhoningredients.com | pinhoningredients.com
Emergency contact	Albert Zhao | +86 173 0298 1616 | 09:00–18:00 China Standard Time (UTC+8), Chinese/English. Business-hours contact; for urgent medical assistance contact local emergency services or a poison centre.

2 Hazard identification

GHS classification: Skin irritation Category 2; serious eye damage Category 1.
Environmental classification: Aquatic acute Category 2; aquatic chronic Category 3.



Pictogram: GHS05 (corrosion) | Signal word: DANGER

H315: Causes skin irritation.
H318: Causes serious eye damage.
H401: Toxic to aquatic life.
H412: Harmful to aquatic life with long lasting effects.

Prevention: P264 Wash thoroughly after handling. P273 Avoid release to the environment. P280 Wear protective gloves and eye/face protection.

Response: P302+P352 IF ON SKIN: Wash with plenty of water. P332+P313 If skin irritation occurs: Get medical advice/attention. P362+P364 Take off contaminated clothing and wash it before reuse. P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P310 Immediately call a POISON CENTER/doctor.

Disposal: P501 Dispose of contents/container through an authorized waste service in accordance with local requirements. Other hazards: Airborne dust can irritate the respiratory tract.

3 Composition and information on ingredients

Substance	CAS / EC	Purity specification
Piroctone olamine	68890-66-4 / 272-574-2	≥99.0% (HPLC)

Single substance: piroctone monoethanolamine salt (1:1). Formula $C_{16}H_{30}N_2O_3$; molecular weight approximately 298.43 g/mol. The HPLC value is the analytical purity specification. Ethanolamine is a constituent of the salt, not a separate 20–21% free-ethanolamine ingredient.

4 First aid measures

Eye contact	Immediately flush gently with clean water for at least 15 minutes, keeping eyelids open. Remove contact lenses if easy to do and continue rinsing. Seek immediate medical attention; serious eye injury is possible.
Skin contact	Remove contaminated clothing. Wash the area thoroughly with water and soap. If redness or irritation persists, obtain medical advice. Wash clothing before reuse.
Inhalation	Move the person to fresh air and keep comfortable for breathing. Seek medical help if cough, breathing difficulty or other symptoms persist. Trained responders should assist breathing if necessary.
Ingestion	Rinse the mouth. Do not induce vomiting. Give nothing by mouth to an unconscious person. Contact a doctor or poison centre for advice.
Symptoms and treatment	Skin redness and irritation; eye pain, watering and potentially irreversible injury. Dust may cause airway discomfort. Treat symptomatically and show this SDS to the clinician.

5 Firefighting measures

Use water spray, foam, dry chemical or carbon dioxide suitable for the surrounding fire. Avoid a strong water jet that can disperse powder. Heating or combustion can release carbon monoxide, carbon dioxide, nitrogen oxides and irritating smoke. Firefighters should wear self-contained breathing apparatus and protective clothing. Contain contaminated extinguishing water.

6 Accidental release measures

Ventilate the area and keep unprotected people away. Wear the protection specified in Section 8. Collect spilled powder carefully without raising dust, using suitable dust-controlled equipment or gentle mechanical collection. Transfer to closed, labelled containers for recovery or disposal. Do not use compressed air. Prevent entry into drains, soil and waterways; collect contaminated cleaning water.

7 Handling and storage

Handle with local exhaust where dust is generated. Avoid contact with eyes, skin and clothing. Keep containers closed between uses and wash hands after handling. Do not eat, drink or smoke in the work area.

Store tightly closed at room temperature in a cool, dry, ventilated place, away from strong light, heat and moisture. Separate from strong oxidizers and avoid contact with strong acids or bases. Shelf life: 36 months in original unopened packaging under recommended conditions.

8 Exposure controls and personal protection

Exposure limits: No substance-specific occupational exposure limit is identified in the cited SDS references. Follow applicable local workplace dust limits and assess exposure for the process.

Engineering controls: Provide local extraction, an accessible eyewash and emergency washing facilities. Eye/face protection: Chemical safety goggles; add a face shield when a splash or heavy dust exposure is possible. Skin protection: Suitable chemical-resistant gloves and protective work clothing. Select glove compatibility for any process solvents.

Respiratory protection: Where ventilation cannot control airborne dust, use a suitable approved particulate respirator selected by workplace risk assessment. Use appropriate supplied-air protection for unknown or unsafe atmospheres. Prevent dust and wash water from escaping into the environment.

9 Physical and chemical properties

Physical state / colour	White crystalline powder
Odour / threshold	Characteristic / threshold not determined
Melting point	132.0–136.0 °C (product specification)
pH	8.50–10.00 (1% aqueous preparation, 20 °C)
Water solubility	Limited; insoluble in the specified test of 0.10 g in 10 mL water
Other solubility	Soluble in methanol at 1.00 g in 10 mL (analytical test)
Particle characteristics	D(0.5): 30–50 µm
Boiling point / decomposition temperature	Not determined
Flammability / explosion limits	Not determined
Flash point / autoignition temperature	Not determined
Vapour pressure / relative vapour density	Not determined / not applicable to the supplied solid
Density / relative density	Not determined
Partition coefficient (n-octanol/water)	Not established for this product grade
Kinematic viscosity	Not applicable to the supplied powder

The pH test uses an aqueous preparation that may be a dispersion. Physical specifications above are general acceptance limits, not results for an individual batch.

10 Stability and reactivity

Stable under the recommended storage and handling conditions. Avoid strong heat, moisture, prolonged strong light and incompatible materials. Keep separate from strong oxidizers; strong acids and bases can change the salt form. No hazardous polymerization is expected in normal use. Thermal decomposition may produce carbon oxides and nitrogen oxides.

11 Toxicological information

Causes skin irritation and serious eye damage. Likely workplace exposure routes include skin/eye contact, inhalation of dust and accidental ingestion. Published substance data report oral LD50 (rat) 8,100 mg/kg; dermal LD50 (rat) >2,000 mg/kg; inhalation LC50 (rat, 4 h) >4.9 mg/L. These are reference substance data, not tests on a supplied batch.

No product-specific test data are available for sensitization, germ-cell mutagenicity, reproductive toxicity, carcinogenicity or specific target-organ toxicity. Avoid repeated uncontrolled exposure. The supplied solid does not present a liquid aspiration hazard. Product-specific endocrine-disruption data are not available.

12 Ecological information

Toxic to aquatic life and harmful to aquatic life with long lasting effects. Reported fish LC50 (Danio rerio, 96 h): 1.89 mg/L. Prevent discharge to drains or surface water. Product-specific persistence, biodegradation, bioaccumulation, mobility, PBT/vPvB and endocrine-disruption assessments are not available.

13 Disposal considerations

Collect unused material and contaminated cleaning residues in closed, labelled containers. Arrange recovery or disposal through a qualified waste contractor according to local requirements. Do not discharge into drains or dispose of by uncontrolled burning. Packaging that retains residues requires the same handling precautions until properly cleaned.

14 Transport information

Transport status	Not regulated as dangerous goods under IATA, IMDG and US DOT for the supplied solid.
UN number	Not applicable
UN proper shipping name	Not applicable
Transport hazard class / packing group	Not applicable / not applicable
Marine pollutant	No, for transport classification
Precautions	Use tightly closed packaging that prevents powder leakage. Protect from moisture, strong light, heat and package damage. Keep separate from food and incompatible chemicals.
Maritime transport in bulk	Not applicable; supplied as packaged powder.

15 Regulatory information

This SDS follows the 16-section GHS structure. The hazard information applies to the concentrated raw material. Cosmetic use, permitted concentration, product claims and labelling must comply with the destination-market requirements. Ingredient identification does not itself constitute approval of a finished formulation.

EC inventory identifier: 272-574-2. A product-specific chemical safety assessment has not been supplied. Confirm importer and chemical-inventory obligations for the intended jurisdiction.

16 Other information

Version 1.0 | Issue date: 22 Oct 2026. General English edition for Piroctone Olamine powder, purity ≥99% (HPLC). Product standards are based on the current PINHONBIO COA. No batch-specific results are included.

H315: Causes skin irritation. H318: Causes serious eye damage. H401: Toxic to aquatic life. H412: Harmful to aquatic life with long lasting effects.

Abbreviations: GHS, Globally Harmonized System; HPLC, high-performance liquid chromatography; LD50/LC50, median lethal dose/concentration; PBT/vPvB, persistent, bioaccumulative and toxic/very persistent and very bioaccumulative; IATA, International Air Transport Association; IMDG, International Maritime Dangerous Goods Code.

Reference sources consulted 22 Oct 2026:

[1] Supplied DropCare OCT (Piroctone Olamine) SDS, revised 15 May 2024: identity, skin/eye hazards and handling.

[2] TCI, Piroctone Olamine P2178; SDS version 1.1, revised 21 Nov 2025: substance safety and transport. https://www.tcichemicals.com/GB/en/p/P2178

[3] Fisher Scientific, Piroctone olamine AC46882; SDS revision 2, 20 Dec 2025: toxicology, ecology and transport. https://www.fishersci.com/store/msds?countryCode=US&language=en&partNumber=AC468820010&productDescription=PIROCTONE+OLAMINE+1 GR&vendorId=VN00032119

[4] Sigma-Aldrich, Piroctone Olamine PHR2187; SDS version 6.12, revised 6 Aug 2024: GHS aquatic categories. https://www.sigmaaldrich.com/sds/sial/phr2187

[5] Clariant, Octopirox brochure, 2018: technical solubility and ambient storage. https://www.clariant.com/-/media/Files/Solutions/Products/Brochures/O/17/Clariant-Brochure-Octopirox-2018-EN.pdf

The information supports safe handling of the identified raw material. Evaluate the actual process and finished formulation separately; this sheet is not a batch certificate.