

Safety Data Sheet: Pinane Hydroperoxide

1. Identification

Product	Pinane Hydroperoxide; CAS 28324-52-9; EC 248-969-0
Use	Organic hydroperoxide initiator for controlled industrial polymerization.
Company	Hainan Zhongxin Chemical Co., Ltd. (ZXCHEM)
Address	Room 1001, Building A, Caohejing Center, No. 1520 Gumei Road, Xuhui District, Shanghai, China
Telephone / email	+86-21-54265599 / sales@zxchem.com.cn
Emergency contact	ZXCHEM office number above, office hours, China time (UTC+8). For urgent medical assistance contact local emergency services.
Scope	Reference safety information for Pinane Hydroperoxide. The reference composition, concentration and supply-grade differences are described in Section 3. This document does not certify the composition or transport status of a specific delivered batch or a different formulation.

2. Hazards Identification

Classification	Heat- and contamination-sensitive organic peroxide. Formal formulation-specific GHS categories are not established by the chosen authority source.
Signal word / symbols	Reference precaution: Danger; GHS02
Hazard statements	Heating or contamination may cause fire or explosion. Contact or ingestion may cause severe injury; avoid all exposure and environmental release.
Prevention	Use adequate ventilation; avoid inhaling mist. Prevent skin and eye contact. Wear suitable chemical-resistant gloves and eye protection. Wash after handling; keep food and drink out of the work area.
Response	After exposure, stop work and seek medical advice. For severe exposure obtain urgent medical care. Rinse contaminated skin or eyes with water; move an inhalation casualty to fresh air.
Environment	Prevent uncontrolled release to drains, soil or surface water. Collect spills for appropriate disposal.



3. Composition / Information on Ingredients

Reference ingredient	Pinane hydroperoxide CAS28324-52-9; supply peroxide content50–55%. Actual diluent identity, SADT and package thermal limits are not declared.
Supply grade	Peroxide content 50–55%
Applicability	The cited concentration or purity describes the reference material. It is not a certificate of analysis for the delivered batch; different solvents or dilutions require the matching supplier safety document.

4. First-Aid Measures

General	Protect the rescuer from exposure and show the product information to medical personnel. Obtain medical advice if symptoms occur or exposure is significant.
Inhalation	Move to fresh air and keep the person comfortable. Seek medical care for breathing difficulty or persistent symptoms. Avoid exposing rescuers to mist.
Skin	Remove contaminated clothing and rinse skin thoroughly with water. Seek medical advice for persistent irritation.
Eyes	Rinse gently with clean water for at least 15 minutes. Remove contact lenses when easy and continue rinsing. Seek medical advice if irritation persists.
Ingestion	Rinse the mouth. Do not induce vomiting. Give nothing by mouth to an unconscious person. Obtain medical advice.
Effects / treatment	Avoid direct contact, ingestion and inhalation. Obtain medical assessment for significant exposure or persistent symptoms. Treatment is symptomatic and directed by a clinician.

5. Fire-Fighting Measures

Extinguishing media	Use water spray, foam, dry chemical or carbon dioxide suited to the surrounding fire.
Hazards	Heating or combustion can release irritating fumes and carbon and nitrogen oxides.
Protection	Firefighters require suitable protective clothing and self-contained breathing equipment. Prevent contaminated firefighting water entering drains.

6. Accidental Release Measures

Precautions	Exclude heat, sparks and contamination; isolate releases and use trained specialist responders.
Cleanup	Use suitable inert damp non-combustible material and clean non-sparking tools under specialist supervision. Avoid cellulose or organic absorbents.
Environment	Prevent entry to waterways, drains and confined spaces.

7. Handling and Storage

Handling	Trained personnel only. Use clean dedicated compatible equipment, splash protection and chemical gloves. Exclude ignition and contamination; never return contaminated material to supply packaging.
Storage	Use dedicated cool, ventilated organic-peroxide storage away from sunlight, ignition and contamination. Follow the actual supplier package temperature limits; no SADT is inferred.
Incompatibilities	Strong oxidizing agents and uncontrolled contamination.

8. Exposure Controls / Personal Protection

Exposure limits	No product-specific occupational exposure limit is established here. Control airborne dust and apply current local workplace exposure requirements.
Engineering controls	Use local extraction where mist can be generated. Maintain accessible eyewash and emergency washing facilities.
Personal protection	Wear chemical-resistant gloves selected for the task, suitable protective clothing and splash goggles. Add face protection for splash-prone tasks.
Respiratory protection	Use a properly selected respirator under a respiratory-protection program where engineering controls do not adequately limit airborne exposure.
Hygiene	Wash after handling, remove contaminated clothing promptly and do not eat, drink or smoke in the work area.

9. Physical and Chemical Properties

Supply appearance	Colorless to pale-yellow liquid
Supply grade	Peroxide content 50–55%
Additional properties	No unstated delivered-formulation values are inferred.

10. Stability and Reactivity

Reactivity	Heat- and contamination-sensitive organic peroxide; decomposition can accelerate and generate pressure.
Conditions to avoid	Heat, ignition sources, contamination and unapproved changes to packaging. Do not infer a safe temperature from a different peroxide or formulation.
Incompatible materials	Reducing agents, combustible absorbents, incompatible metals and organic contamination. Use dedicated equipment and supplier-approved contact materials.
Decomposition	Thermal decomposition may be violent and release irritating vapours and combustible decomposition products. Actual thermal limits require the supplied formulation data.

11. Toxicological Information

Exposure effects	Avoid direct contact, ingestion and inhalation. Obtain medical assessment for significant exposure or persistent symptoms.
Reference classification	Heat- and contamination-sensitive organic peroxide. Formal formulation-specific GHS categories are not established by the chosen authority source.
Toxicological data	The reference does not provide complete numerical acute or chronic toxicity data for the supplied grade. No absence of effects is inferred.

12. Ecological Information

Environmental effects	Prevent discharge to soil, drains and receiving water. Retain cleanup waste; the reference does not establish complete environmental fate data for the supplied grade.
Controls	Prevent uncontrolled release, collect spills and dispose of contaminated material through an authorized route.
Assessment	No product-specific PBT/vPvB assessment is claimed. Absence of data does not establish absence of environmental effects.

13. Disposal Considerations

Product	Collect surplus product and contaminated cleanup material for disposal by an authorized chemical-waste contractor in accordance with local requirements.
Packaging	Containers may retain product residues. Do not reuse contaminated packaging without an approved cleaning process; use an authorized disposal route.

14. Transport Information

Classification	Class 5.2 — Organic peroxide
UN number	UN3109
Shipping name	Organic peroxide type F, liquid
Class / packing group	NOAA reference lists UN3109, organic peroxide, Class 5.2. No packing group is assigned to Class 5.2; formulation and authorized packaging determine applicability.
Transport precautions	Protect packaging and closures from damage, secure loads and prevent releases. This reference is not a shipping declaration for a specific consignment.

15. Regulatory Information

Identity	Pinane Hydroperoxide; CAS 28324-52-9; EC 248-969-0
HS reference	290960; reference heading rather than a destination customs ruling.
Compliance	Apply applicable workplace, environmental and transport rules. A raw-material listing does not establish finished-product authorization.
Assessment	No ZXCHEM-specific chemical safety assessment or destination registration is asserted.

16. Other Information

Hazard meanings	Heating or contamination may cause fire or explosion. Contact or ingestion may cause severe injury; avoid all exposure and environmental release.
Limitations	Prepared as reference safety information for the identified material. It is not a batch analytical certificate or safety assessment of a different solvent-containing formulation.
Revision	2026.2; prepared 2026-10-06. Customer-document branding and title corrected; technical safety data retained.
Document scope	Reference safety information for the material and grade described in Sections 1 and 3. Different concentrations, solvents or formulations require the applicable safety information. This is not a batch analytical certificate.
Reference limitations	Authority-based reference safety information; not a complete manufacturing-formulation SDS. The actual 50–55% supply diluent, SADT, thermal limits and authorized packaging are not certified by this reference.

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