

Safety Data Sheet: P-Menthane Hydroperoxide (PMHP)

1. Identification

Product	P-Menthane Hydroperoxide (PMHP); CAS 26762-92-5; EC 247-987-6
Use	Professional industrial ingredient and polymer formulation development.
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 P-Menthane Hydroperoxide (PMHP). 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	Flammable liquid Category 3; organic peroxide Type F; aspiration hazard Category 1; skin corrosion Category 1A; serious eye damage Category 1; repeated-exposure organ toxicity Category 2.
Signal word / symbols	Danger; GHS02, GHS05, GHS08
Hazard statements	H226: flammable liquid and vapour. H242: heating may cause fire. H304: may be fatal if swallowed and enters airways. H314/H318: causes severe skin burns and serious eye damage. H373: may damage organs through repeated exposure.
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	Reference mixture: PMHP 50–55%, paramenthane 10–50%, menthanols 1–10% each and pinane hydroperoxide 0–1%. These reference ranges are not the delivered solvent declaration.
Supply grade	Peroxide content 51–55%
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	Obtain urgent medical assistance for significant exposure. Protect rescuers from liquid and vapour.
Inhalation	Move to fresh air safely. Obtain immediate medical advice for breathing difficulty or significant exposure.
Skin	Remove contaminated clothing while flushing thoroughly with water. Obtain urgent treatment for burns.
Eyes	Rinse gently for at least 15 minutes, remove lenses when easy and obtain immediate specialist medical care.
Ingestion	Rinse the mouth. Do not induce vomiting or force fluids because aspiration can be fatal. Obtain immediate medical assistance; give nothing orally to an unconscious person.

5. Fire-Fighting Measures

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

6. Accidental Release Measures

Personnel	Isolate the spill and provide ventilation. Use chemical-resistant gloves and eye protection; avoid contact and mist exposure.
Environment	Contain the release and protect drains and waterways. Report significant environmental contamination to the responsible authority.
Cleanup	Stop the leak if safe. Absorb liquid with a compatible inert material and collect in closed labelled containers. Do not wash into drains.

7. Handling and Storage

Handling	Only trained personnel should transfer this organic peroxide. Use clean dedicated compatible equipment, ignition control, ventilation, chemical gloves, goggles and face protection. Prevent contaminated material returning to the supply package.
Storage	Use dedicated cool, ventilated organic-peroxide storage, protected from sunlight, ignition and contamination. The selected reference recommends below 35°C; avoid heating and incompatible materials.
Package integrity	Use approved organic-peroxide containers and closures. Inspect seals and pressure-relief provisions without modifying them; protect the package from impact and follow the supplier pressure-management procedure.
Incompatibilities	Strong acids, bases and uncontrolled contamination; avoid incompatible metal transfer equipment.

8. Exposure Controls / Personal Protection

Exposure limits	The selected reference establishes no specific occupational limit. Assess vapour and mist exposure and apply local 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

Appearance, supply	Colorless to pale-yellow liquid
Peroxide content, supply	51–55%
Active oxygen, supply	4.65–5.12%
Refractive index, 20°C, supply	1.450–1.470
pH of extract, supply	4.0–7.2
Additional properties	No delivered-formulation SADT, flash point or additional physicochemical value is inferred.

10. Stability and Reactivity

Thermal sensitivity	Heat and contamination may cause accelerating decomposition. The reference warns of violent decomposition above 60°C; this is not a permitted operating temperature or a delivered-package SADT.
Conditions to avoid	Heat, sunlight, ignition, contamination and incompatible transfer equipment.
Incompatibilities	Strong acids, bases and uncontrolled contamination; avoid incompatible metal transfer equipment.
Decomposition	Organic-peroxide decomposition and fire may release carbon oxides and irritating fumes.

11. Toxicological Information

Exposure effects	Corrosive contact, aspiration and chronic exposure hazards require strict protection. Heat or contamination can accelerate decomposition.
Reference classification	Flammable liquid Category 3; organic peroxide Type F; aspiration hazard Category 1; skin corrosion Category 1A; serious eye damage Category 1; repeated-exposure organ toxicity Category 2.
Toxicological data	The reference identifies severe corrosion, aspiration hazard and repeated-exposure organ effects. Ingredient data do not establish delivered-mixture toxicity.

12. Ecological Information

Environmental effects	Complete mixture environmental-fate data are unavailable. Prevent releases and retain contaminated cleanup material.
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	UN 3109
Shipping name	Organic peroxide type F, liquid (para-menthane hydroperoxide)
Modes	ADR/RID, ADN, IMDG and ICAO/IATA in the selected reference.
Packing group	Not assigned to Class 5.2.
Consignment limits	Transport authorization, packaging and thermal requirements depend on the actual formulation and package. Reference supply packing is not a shipment approval.

15. Regulatory Information

Identity	P-Menthane Hydroperoxide (PMHP); CAS 26762-92-5; EC 247-987-6
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	H226: flammable liquid and vapour. H242: heating may cause fire. H304: may be fatal if swallowed and enters airways. H314/H318: causes severe skin burns and serious eye damage. H373: may damage organs through repeated exposure.
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.

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