



Safety Data Sheet

According to Regulation (EC) No 1907/2006, Annex II, Amended by COMMISSION

REGULATION (EU) 2015/830, According to REGULATION (EC) No 1272/2008

Paramenthane Hydroperoxide

Version 1.0

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Section 1 Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier:

Identification on the label/Trade name: Paramenthane Hydroperoxide

Additional identification: Not available

Identification of the product: See section 3

Index Number: See section 3

REACH registration No.: See section 3

1.2 Relevant identified uses of the substance or mixture and uses advised against:

1.2.1 Identified uses:

Polymerization initiator.

1.2.2 Uses advised against:

Not available.

1.3 Details of the supplier of the safety data sheet:

Supplier(Only representative): **Famico Trading Limited.**

UK Office Address: Henleaze Business Centre, 13 Harbury Rd., Bristol BS9 4PN, United Kingdom.

China Office Address: 20 - 1209, Qingli Jiayuan Bldg, No.1127 Fenghuang Road, Huzhou, Zhejiang, China

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1.4 Emergency telephone Number:

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Section 2 Hazards Identification

2.1 Classification of the substance or mixture:

2.1.1 Classification:

The mixture is classified as following according to REGULATION (EC) No 1272/2008:

REGULATION (EC) No 1272/2008	
Hazard classes/Hazard categories	Hazard statement
Flam. Liq. 3	H226
Org. Perox. F	H242
Asp. Tox. 1	H304
Skin Corr. 1A	H314
Eye Dam. 1	H318
STOT RE 2	H373

For full text of H phrases: see section 2.2.

2.2 label elements:

Product name: Paramenthane Hydroperoxide

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Hazard Pictograms:

Danger

Signal Word(S):

H226: Flammable liquid and vapour

Hazard Statement:

H242: Heating may cause a fire.

H304: May be fatal if swallowed and enters airways

H314: Causes severe skin burns and eye damage.

H318: Causes serious eye damage.

Precautionary statement:

H373: May cause damage to organs through prolonged or repeated exposure.

P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P220: Keep/Store away from clothing/combustible materials.

P233: Keep container tightly closed.

P234: Keep only in original container.

P240: Ground/bond container and receiving equipment.

P241: Use explosion-proof electrical/ventilating/lighting equipment.

P242: Use only non-sparking tools.

P243: Take precautionary measures against static discharge.

P260: Do not breathe dust/fume/ gas/mist/vapours/spray.

P264: Wash hands thoroughly after handling.

P280: Wear protective gloves/protective clothing/eye protection/face protection.

P301 + P330 + P331: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P301 + P310: IF SWALLOWED: Immediately call a POISON CENTER/ doctor.

P303 + P361 + P353: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower.

P304 + P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing.

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.

P314: Get medical advice/attention if you feel unwell.

P331: Do NOT induce vomiting.

P363: Wash contaminated clothing before reuse.

P370 + P378: In case of fire: Use Carbon dioxide, dry chemical, foam to extinguish.

P403 + P235: Store in a well-ventilated place. Keep cool.

P405: Store locked up.

P410: Protect from sunlight.

P411 + P235: Store at temperatures not exceeding 35°C. Keep cool.

P420: Store away from other materials.

2.3 Other hazards:

P501: Dispose of contents/container in accordance with local/regional/national/international regulation.



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Not applicable.

Section 3 Composition/information on ingredients

Substance/Mixture: Mixture

Ingredient(s):

Chemical Name	Registration No.	CAS No.	EC No.	Concentration	Classification
Para-menthane hydroperoxide	N/A	26762-92-5	247-987-6	50-55%	H242 H314(1A) H373
Para-menthane(cis+trans)	N/A	99-82-1	202-790-4	10-50%	H226 H304 H315
Para-menthane-1-ol(cis-or trans-)	N/A	21129-27-1	244-230-1	1-10%	Not classified
Para-menthan-8-ol(cis-or trans-)	N/A	498-81-7	207-871-8	1-10%	Not classified
Pinane hydroperoxide	N/A	28324-52-9	248-969-0	0-1%	Not available

0-1% of the mixture consists of component (s) of unknown toxicity.

0-1% of components with unknown hazards to the aquatic environment.

Section 4 First aid measures

4.1 Description of first aid measures:

In all cases of doubt, or when symptoms persist, seek medical attention.

4.1.1 In case of inhalation:

Seek fresh air immediately. If breathing is difficult, get medical attention.

4.1.2 In case of skin contact:

Remove contaminated clothing. Wash affected areas with plenty of soap and water thoroughly. If irritation develops, get medical attention.

4.1.3 In case of eyes contact:

Flush with water at least 15 minutes. If irritation develops, get medical attention.

4.1.4 In case of ingestion:

Drink lots of water to dilute substance. Get medical attention immediately.

4.2 Most important symptoms and effects, both acute and delayed:

May be fatal if swallowed and enters airways. Causes severe skin burns and eye damage. May cause damage to organs through prolonged or repeated exposure.

4.3 Indication of any immediate medical attention and special treatment needed:

If skin irritation or rash occurs, get medical advice/attention.

Section 5 Firefighting measures

5.1 Extinguishing media:

Suitable extinguishing media:

Carbon dioxide, dry chemical, foam.

Unsuitable extinguishing media:

If water must used, use as a spray only.

5.2 Special hazards arising from the substance or mixture

Flammable liquid. Exposure of containers to fire results in contents decomposition, buildup should not be attempted until all products have been cooled. Hazardous decomposition products: carbon dioxide, carbon monoxide, acrid fumes.

5.3 Advice for firefighters:

In the event of fire, wear self-contained breathing apparatus. Use personal



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protective equipment. Wear chemical resistant oversuit. Cool containers / tanks with water spray.

Section 6 Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures:

6.1.1 For non-emergency personnel: Prevent further leakage or spillage if safe to do so. Keep away from Incompatible products.

6.1.2 For emergency responders: Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. Ventilate the area. Wear suitable protective clothing.

6.2 Environmental Precautions:

Should not be released into the environment. Do not flush into surface water or sanitary sewer system. If the product contaminates rivers and lakes or drains inform respective authorities.

6.3 Methods and material for Containment and Cleaning up:

Small spills should be absorbed by dirt, sand or other suitable adsorbent. Large spills may be pumped into closed containers for recovery or disposal. Cleanup should not be attempted until all products have been cooled.

6.4 Reference to other sections:

See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for information on disposal.

Section 7 Handling and storage

7.1 Precautions for safe handling:

7.1.1 Protective measures:

Wear goggles or full face shield, rubber gloves and apron when handling. Under no conditions should this product be allowed to reach 60 °C . Above this temperature spontaneous and violent decomposition may occur. In transferring, use only clean, dry receptacles. The use of aluminum, copper, brass or lead is not recommended for piping or storage vessels.

7.1.2 Advice on general occupational hygiene:

Do not eat, drink and smoke in work areas. Wash hands after use. Remove contaminated clothing and protective equipment before entering eating areas.

7.2 Conditions for safe storage, including any incompatibilities:

Storage tanks should be light in color to reduce the effects of the sun' s radiant energy. In order to maintain the highest activity of the product, storage at less than 35°C is recommended. Storage of drums in direct sunlight should be avoided. Storage buildings should be well ventilated and equipped with a sprinkler system. Drums should be tightly closed to prevent the introduction of contaminants. Depending on local conditions, prolonged storage in drums will result in a gradual increase in internal pressure. Periodic release of this pressure is necessary to prevent rupture. Storage tanks and reactor vessels should be adequately ventilated and fitted to relieve any sudden increase in pressure.

7.3 Specific end use(s):

Not applicable.

Section 8 Exposure Controls/Personal Protection

8.1 Control parameters:

8.1.1 Occupational exposure limits: Not available.

8.1.2 Additional exposure limits under the conditions of use: Not available.

8.1.3 DNEL/DMEL and PNEC-Values: Not available.

8.2 Exposure controls:

8.2.1 Appropriate engineering controls: Ensure adequate ventilation. Apply technical measures to comply with the occupational exposure limits.

8.2.2 Individual protection measures, such as personal protective equipment:



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Eye/face protection:	Wear goggles or full face shield.
Hand protection:	Wear standard industrial type rubber gloves.
Body protection:	A rubber apron is recommended when handling large quantities of this material.
Respiratory protection:	A respirator is not normally required. If the vapor concentration is high, use a NIOSH approved organic vapor respirator.
Thermal hazards:	Wear suitable protective clothing to prevent heat.
8.2.3 Environmental exposure controls:	Avoid discharge into the environment. According to local regulations, Federal and official regulations.

Section 9 Physical and chemical properties

9.1 Information on basic physical and chemical properties:

Appearance:	Liquid
Colour:	Colorless or pale yellow
Odour:	Pine-type
Odour threshold:	Not available
pH:	4.0-7.2
Melting point/range (°C):	Not available
Boiling point/range (°C):	Not available
Flash point (°C):	52°C
Evaporation rate:	Not available
Flammability limit - lower (%):	Not available
Flammability (solid, gas):	Not available
Ignition temperature (°C):	Not available
Upper/lower explosive limits:	Not available
Vapour pressure (20°C):	Ca.1 mmHg @20°C
Vapour density:	Ca. 5.8(air=1)
Relative Density:	0.91-0.94(15.5°C)
Bulk density (kg/m³):	Not available
Water solubility (g/l):	Not available
n-Octanol/Water (log Po/w):	Not available
Auto-ignition temperature:	Not available
Decomposition temperature:	Not available
Viscosity:	8.27mm ² /s, 40°C
Explosive properties:	Explosive decomposition may occur at temperatures above 60°C
Oxidising properties:	Strong oxidizer

9.2. Other information:

Fat solubility(solvent-oil to be specified)	Not available
etc:	
Surface tension:	Not available
Dissociation constant in water(pKa):	Not available
Oxidation-reduction Potential:	Not available

Section 10 Stability and reactivity

10.1 Reactivity:	The substance is stable under normal storage and handling conditions.
10.2 Chemical stability:	Stable at room temperature in closed containers under normal storage and handling conditions.



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10.3 Possibility of hazardous reactions:	No dangerous reactions known.
10.4 Conditions to avoid:	Incompatible materials. Exposure to temperature above 60°C may cause explosive decomposition.
10.5 Incompatible materials:	Strong acids and bases.
10.6 Hazardous decomposition products:	Carbon monoxide, carbon dioxide, acrid fumes.

Section 11 Toxicological information

11.1 Information on toxicological effects:

Acute toxicity:	
ATE_{mix}(oral):	Not available
ATE_{mix}(inhalation):	Not available
ATE_{mix}(Dermal):	Not available
Para-menthane hydroperoxide(CAS#26762-92-5)	
LD50(Oral, Rat):	> 2000 mg/kg
LC50(Inhalation, Rat):	Not available
LD50(Dermal, Rabbit):	Not available
Skin corrosion/Irritation:	Causes severe skin burns and eye damage.
Serious eye damage/irritation:	Causes serious eye damage.
Respiratory or skin sensitization:	Not classified
Germ cell mutagenicity:	Not classified
Carcinogenicity:	Not classified
Reproductive toxicity:	Not classified
STOT- single exposure:	Not classified
STOT-repeated exposure:	May cause damage to organs through prolonged or repeated exposure.
Aspiration hazard:	May be fatal if swallowed and enters airways

Section 12 Ecological information

12.1 Toxicity:

Para-menthane hydroperoxide(CAS#26762-92-5)

Acute (short-term) toxicity:

LC50(96h, Fish):	1.7 mg/L
EC50 (48h, Crustacea):	4.1 mg/L
EC50(72h, Algae/aquatic plants):	> 11.5 mg/L

Chronic (long-term) toxicity:

NOEC(Fish):	Not available
NOEC(Crustacea):	Not available
EC50(Algae/aquatic plants):	Not available

12.2 Persistence and degradability:	Not available.
12.3 Bioaccumulative potential:	Not available.
12.4 Mobility in soil:	Not available.
12.5 Results of PBT and vPvB assessment:	Not applicable
12.6 Other adverse effects:	Not available.

Section 13 Disposal considerations



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13.1 Waste treatment methods:

Dispose of in accordance with all applicable local and national regulations. Use recovery/recycling where feasible, otherwise incineration is the recommended method of disposal. Empty containers may contain hazardous residues. Do not cut, puncture or weld on or near to the container. Labels should not be removed from containers until they have been cleaned. Contaminated containers must not be treated as household waste. Containers should be cleaned by appropriate methods and then re-used or disposed of by landfill or incineration as appropriate. Do not incinerate closed containers.

Section 14 Transport information

	Land transport (ADR/RID)	Inland waterways (ADN)	Sea transport (IMDG)	Air transport (ICAO/IATA)
UN number	3109	3109	3109	3109
UN Proper shipping name	ORGANIC PEROXIDE TYPE F, LIQUID (para-Menthane Hydroperoxide)	ORGANIC PEROXIDE TYPE F, LIQUID (para-Menthane Hydroperoxide)	ORGANIC PEROXIDE TYPE F, LIQUID (para-Menthane Hydroperoxide)	ORGANIC PEROXIDE TYPE F, LIQUID (para-Menthane Hydroperoxide)
Transport hazard Class(es)	5.2	5.2	5.2	5.2
Packing group	II	II	II	II
Environmental hazards	No	No	No	No
Special precautions for user	See section 2.2	See section 2.2	See section 2.2	See section 2.2
Transport in bulk according to Annex II of Marpol and the IBC Code	IBC520	IBC520	IBC520	IBC520

Section 15 Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture:

Relevant information regarding authorization:

Not applicable.

Relevant information regarding restriction:

Not applicable.

Other EU regulations:

Employment restrictions concerning young person must be observed.
For use only by technically qualified individuals.

Other National regulations:

Not applicable

15.2 Chemical safety assessment

YES

NO

Section 16 Other information

16.1 Indication of changes:

Version 1.0 Amended by (EU) 2015/830

16.2 Abbreviations and acronyms:

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

RID: Regulation for rail International transportation of Dangerous goods

ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways

IMDG: Code international maritime dangerous goods code

ICAO: International Civil Aviation Organization

IATA: International Air Transport Association



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LC50: median lethal concentration

EC50: The effective concentration of substance that causes 50% of the maximum response.

NOEC: No Observed Effect Concentration

DNEL: derived no-effect level

PNEC: predicted no-effect concentration

16.3 Key literature references and sources for data

ECHA Registered substances data

16.4 Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]

Classification according to Regulation (EC) No. 1272/2008		Classification procedure
Flam. Liq. 3	H226	Calculation method
Org. Perox. F	H242	Calculation method
Asp. Tox. 1	H304	Calculation method
Skin Corr. 1A	H314	Calculation method
Eye Dam. 1	H318	Calculation method
STOT RE 2	H373	Calculation method

16.5 Relevant H-statements (number and full text):

H226: Flammable liquid and vapour

H242: Heating may cause a fire.

H304: May be fatal if swallowed and enters airways

H314: Causes severe skin burns and eye damage.

H315: Causes skin irritation

H318: Causes serious eye damage.

H373: May cause damage to organs through prolonged or repeated exposure.

16.6 Training instructions:

Not applicable.

16.7 Further information:

This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product.

16.8 Notice to reader:

Employers should use this information only as a supplement to other information gathered by them, and should make independent judgment of suitability of this information to ensure proper use and protect the health and safety of employees. This information is furnished without warranty, and any use of the product not in conformance with this Safety Data Sheet, or in combination with any other product or process, is the responsibility of the user.