

SAFETY DATA SHEET



Jotun Peroxide 13

SDS Number: [A00319-000000237](#)

In accordance with the Standard for Classification and Labeling of Chemical Substance and Safety Data Sheet, Article 10 Paragraph 1

Section 1. Chemical product and company identification

A. Product name : Jotun Peroxide 13
Product code : 21780
Product description : Oxidising material.

B. Relevant identified uses of the substance or mixture and uses advised against

Identified uses

Use in coatings - Industrial use
Use in coatings - Professional use

C. Manufacturer : Chokwang Jotun Ltd.
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Section 2. Hazards identification

A. Hazard classification : FLAMMABLE LIQUIDS - Category 4
ORGANIC PEROXIDES - Type D
ACUTE TOXICITY (oral) - Category 4
SKIN CORROSION - Category 1B
SERIOUS EYE DAMAGE - Category 1
SKIN SENSITISATION - Category 1
REPRODUCTIVE TOXICITY - Category 2

This product is classified in accordance with the Industrial Safety and Health Act and the Chemical Control Act.

B. GHS label elements, including precautionary statements

Symbol :



Signal word : Danger.

Section 2. Hazards identification

- Hazard statements** : H227 - Combustible liquid.
 H242 - Heating may cause a fire.
 H302 - Harmful if swallowed.
 H314 - Causes severe skin burns and eye damage.
 H317 - May cause an allergic skin reaction.
 H361 - Suspected of damaging fertility or the unborn child.
- Precautionary statements**
- Prevention** : P201 - Obtain special instructions before use.
 P202 - Do not handle until all safety precautions have been read and understood.
 P280 - Wear protective gloves, protective clothing and eye or face protection.
 P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
 P234 - Keep only in original packaging.
 P235 - Keep cool.
 P261 - Avoid breathing vapour.
 P270 - Do not eat, drink or smoke when using this product.
 P264 - Wash hands thoroughly after handling.
 P272 - Contaminated work clothing should not be allowed out of the workplace.
- Response** : P308 + P313 - IF exposed or concerned: Get medical advice or attention.
 P304 + P340, P310 - IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or doctor.
 P301 + P310, P330, P331 - IF SWALLOWED: Immediately call a POISON CENTER or doctor. Rinse mouth. Do NOT induce vomiting.
 P303 + P361 + P353, P310 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. Immediately call a POISON CENTER or doctor.
 P363 - Wash contaminated clothing before reuse.
 P302 + P352 - IF ON SKIN: Wash with plenty of water.
 P333 + P313 - If skin irritation or rash occurs: Get medical advice or attention.
 P305 + P351 + P338, P310 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor.
- Storage** : P405 - Store locked up.
 P410 - Protect from sunlight.
 P403 - Store in a well-ventilated place.
 P420 - Store separately.
- Disposal** : P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.

C.

Other hazards which do not result in classification : None known.

Section 3. Composition/information on ingredients

- Substance/mixture** : Mixture
- Other means of identification** : Not available.

Ingredient name	Common name	Identifiers	%
methyl ethyl ketone peroxide	methyl ethyl ketone peroxide	CAS: 1338-23-4	≥25 - ≤30
3,5-dimethyl-1,2-dioxolane-3,5-diol	3,5-dimethyl-1,2-dioxolane-3,5-diol	CAS: 13784-51-5	≤10
4-hydroxy-4-methylpentan-2-one	4-hydroxy-4-methylpentan-2-one	CAS: 123-42-2	≤10

Section 3. Composition/information on ingredients

Hydrogen peroxide solution	hydrogen peroxide solution	CAS: 7722-84-1	≤1.8
pentane-2,4-dione	pentane-2,4-dione (acetylacetone)	CAS: 123-54-6	<1

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

- A. Eye contact** : Get medical attention immediately. Call a poison center or physician. Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician.
- B. Skin contact** : Get medical attention immediately. Call a poison center or physician. Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- C. Inhalation** : Get medical attention immediately. Call a poison center or physician. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
- D. Ingestion** : Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Chemical burns must be treated promptly by a physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
- E. Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- Specific treatments** : No specific treatment.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

Section 5. Firefighting measures

A. Extinguishing media

Suitable extinguishing media : Use dry chemical, CO₂, water spray (fog) or foam.

Unsuitable extinguishing media : Do not use water jet.

B. Specific hazards arising from the chemical : Combustible liquid. Runoff to sewer may create fire or explosion hazard. This material increases the risk of fire and may aid combustion. Heating may cause a fire. May re-ignite itself after fire is extinguished. Hazardous decomposition may occur. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion.

Hazardous thermal decomposition products : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide

C. Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Special precautions for fire-fighters : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

Section 6. Accidental release measures

A. Personal precautions, protective equipment and emergency procedures : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Do not breathe vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

B. Environmental precautions : Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

C. Methods and material for containment and cleaning up

Small spill : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Avoid contamination with reactive substances. Dilute with water and mop up if water-soluble. Do not absorb in sawdust or other combustible material. It may lead to a fire risk when it dries out. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Avoid contamination with reactive substances. Do not absorb in sawdust or other combustible material. It may lead to a fire risk when it dries out. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilt product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

A. Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapour or mist. Do not ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Keep away from clothing, incompatible materials and combustible materials. Temperature control may be required. Empty containers retain product residue and can be hazardous. Do not reuse container.
- Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

B. Conditions for safe storage, including any incompatibilities

- : To avoid the risk of formation of shock-sensitive crystals or loss of stability, it is important to store the product within the recommended temperature range. Temperature control may be required. Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store at temperatures not exceeding 25°C/77°F. Store locked up. Eliminate all ignition sources. Separate from oxidising materials. Separate from reducing agents and combustible materials. Keep away from rust, iron and copper. Keep container tightly closed and sealed until ready for use. Prevent product contamination. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Section 8. Exposure controls/personal protection

A. Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
methyl ethyl ketone peroxide	Ministry of Employment and Labor (Republic of Korea, 1/2020). CEIL: 0.2 ppm
4-hydroxy-4-methylpentan-2-one	Ministry of Employment and Labor (Republic of Korea, 1/2020). TWA: 50 ppm 8 hours.
Hydrogen peroxide solution	Ministry of Employment and Labor (Republic of Korea, 1/2020). TWA: 1 ppm 8 hours.
pentane-2,4-dione	ACGIH TLV (United States, 1/2023). Absorbed through skin. TWA: 25 ppm 8 hours.

- B. Appropriate engineering controls** : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapour or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment. Use with adequate ventilation.

Section 8. Exposure controls/personal protection

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

C. Personal protective equipment

Respiratory protection : If workers are exposed to concentrations above the exposure limit, they must use a respirator according to EN 140. Use respiratory mask with charcoal and dust filter when spraying this product, according to EN 14387(as filter combination A2-P2). In confined spaces, use compressed-air or fresh-air respiratory equipment. When use of roller or brush, consider use of charcoalfilter.

Eye protection : Use safety eyewear designed to protect against splash of liquids.

Hand protection : There is no one glove material or combination of materials that will give unlimited resistance to any individual or combination of chemicals. The breakthrough time must be greater than the end use time of the product. The instructions and information provided by the glove manufacturer on use, storage, maintenance and replacement must be followed. Gloves should be replaced regularly and if there is any sign of damage to the glove material. Always ensure that gloves are free from defects and that they are stored and used correctly. The performance or effectiveness of the glove may be reduced by physical/chemical damage and poor maintenance. Barrier creams may help to protect the exposed areas of the skin but should not be applied once exposure has occurred. Wear suitable gloves tested to ISO 374-1:2016. Recommended, gloves(breakthrough time) > 8 hours: butyl rubber (> 0.4 mm) May be used, gloves(breakthrough time) 4 - 8 hours: nitrile rubber (> 0.75 mm), Viton® (> 0.7 mm), PVC (> 0.5 mm), 4H/Silver Shield® (> 0.07 mm), neoprene (> 0.35 mm), polyvinyl alcohol (PVA) (> 0.3 mm)

For right choice of glove materials, with focus on chemical resistance and time of penetration, seek advice by the supplier of chemical resistant gloves.

The user must check that the final choice of type of glove selected for handling this product is the most appropriate and takes into account the particular conditions of use, as included in the user's risk assessment.

Body protection : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Section 9. Physical and chemical properties

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

A. Appearance

Physical state : Liquid.

Colour : Clear.

B. Odour : Characteristic.

C. Odour threshold : Not applicable.

D. pH : Not applicable.

E. Melting/freezing point : Not applicable.

Section 9. Physical and chemical properties

- F. Boiling point, initial boiling point, and boiling range** : Lowest known value: 108°C (226.4°F) (Hydrogen peroxide solution). Weighted average: 161.91°C (323.4°F)
- G. Flash point** : Closed cup: 65°C
- H. Evaporation rate** : 0.12 (4-hydroxy-4-methylpentan-2-one) compared with butyl acetate
- I. Flammability (solid, gas)** : Not applicable.
- J. Lower and upper explosive (flammable) limits** : 1.8 - 6.9%
- K. Vapour pressure** : Highest known value: 0.8 kPa (6.3 mm Hg) (at 20°C) (3,5-dimethyl-1,2-dioxolane-3,5-diol). Weighted average: 0.23 kPa (1.73 mm Hg) (at 20°C)
- L. Solubility** : cold water Very slightly soluble
hot water Very slightly soluble
- M. Vapour density** : Highest known value: 4 (Air = 1) (4-hydroxy-4-methylpentan-2-one). Weighted average: 3.7 (Air = 1)
- N. Relative density** : 1.13 g/cm³
- O. Partition coefficient: n-octanol/water** : Not available.
- P. Auto-ignition temperature** : Lowest known value: 603°C (1117.4°F) (4-hydroxy-4-methylpentan-2-one).
- Q. Decomposition temperature** : Not available.
- SADT** : 60°C (140°F)
- R. Viscosity** : Dynamic (room temperature): 28 mPa·s (28 cP)
Kinematic (40°C (104°F)): >20.5 mm²/s (>20.5 cSt)
- S. Molecular weight** : Not applicable.

Particle characteristics

- Median particle size** : Not applicable.

Section 10. Stability and reactivity

- A. Chemical stability** : The product is stable.
- Possibility of hazardous reactions** : Hazardous reactions or instability may occur under certain conditions of storage or use.
Conditions may include the following:
temperature increase
high temperature
Reactions may include the following:
hazardous decomposition
risk of causing fire
- B. Conditions to avoid** : Avoid all possible sources of ignition (spark or flame). Do not pressurise, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition. Avoid increased storage temperature. Drying on clothing or other combustible materials may cause fire.
- C. Incompatible materials** : Keep away from rust, iron and copper. Contact with incompatible materials, such as acids, alkalis, heavy metal compounds and reducing agents, will result in hazardous decomposition. Do not mix with peroxide accelerators.
- D. Hazardous decomposition products** : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

A. **Information on likely routes of exposure** : Not available.

Potential acute health effects

- Inhalation** : No known significant effects or critical hazards.
Ingestion : Harmful if swallowed.
Skin contact : Causes severe burns. May cause an allergic skin reaction.
Eye contact : Causes serious eye damage.

Over-exposure signs/symptoms

- Inhalation** : Adverse symptoms may include the following:
 reduced foetal weight
 increase in foetal deaths
 skeletal malformations
- Ingestion** : Adverse symptoms may include the following:
 stomach pains
 reduced foetal weight
 increase in foetal deaths
 skeletal malformations
- Skin contact** : Adverse symptoms may include the following:
 pain or irritation
 redness
 blistering may occur
 reduced foetal weight
 increase in foetal deaths
 skeletal malformations
- Eye contact** : Adverse symptoms may include the following:
 pain
 watering
 redness

B. Health hazards

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
methyl ethyl ketone peroxide	LD50 Oral	Rat	470 mg/kg	-
4-hydroxy-4-methylpentan-2-one	LD50 Dermal	Rabbit	13500 mg/kg	-
	LD50 Dermal	Rabbit	13500 mg/kg	-
	LD50 Oral	Rat	2520 mg/kg	-
pentane-2,4-dione	LD50 Oral	Mouse	951 mg/kg	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
4-hydroxy-4-methylpentan-2-one	Eyes - Mild irritant	Mammal - species unspecified	-	-	-
	Eyes - Severe irritant	Rabbit	-	24 hours	-
	Eyes - Severe irritant	Rabbit	-	100 microliters	-
	Skin - Mild irritant	Rabbit	-	20 milligrams	-
Hydrogen peroxide solution pentane-2,4-dione	Skin - Mild irritant	Rabbit	-	500 milligrams	-
	Eyes - Severe irritant	Rabbit	-	1 milligrams	-
	Eyes - Severe irritant	Rabbit	-	20 milligrams	-
	Skin - Mild irritant	Rabbit	-	6 hours 11.2 Milliliters	-
	Skin - Mild irritant	Rabbit	-	Intermittent 488 milligrams	-

Section 11. Toxicological information

	Skin - Moderate irritant	Rabbit	-	48 hours 11.2 Milliliters Intermittent	-
	Skin - Moderate irritant	Rabbit	-	6 hours 33.6 Milliliters Intermittent	-

Sensitisation

Not available.

CMR - ISHA Article 42 Occupational Exposure Limits

Product/ingredient name	Identifiers	Classification
Hydrogen peroxide	CAS: 7722-84-1	CARCINOGENICITY - Category 2

Mutagenicity

Conclusion/Summary : No known significant effects or critical hazards.

Carcinogenicity

Conclusion/Summary : No known significant effects or critical hazards.

Classification

Product/ingredient name	OSHA	IARC	NTP	ACGIH
Hydrogen peroxide solution	-	3	-	A3

Reproductive toxicity

Not available.

Teratogenicity

Conclusion/Summary : Suspected of damaging the unborn child.

Specific target organ toxicity (single exposure)

Product/ingredient name	Category	Route of exposure	Target organs
4-hydroxy-4-methylpentan-2-one	Category 3	-	Respiratory tract irritation

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Potential chronic health effects

Chronic toxicity

- General** : Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.
- Carcinogenicity** : No known significant effects or critical hazards.
- Mutagenicity** : No known significant effects or critical hazards.
- Reproductive toxicity** : Suspected of damaging fertility or the unborn child.

Numerical measures of toxicity

Acute toxicity estimates

Section 11. Toxicological information

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapours) (mg/l)	Inhalation (dusts and mists) (mg/l)
Jotun Peroxide 13	1811.9	33333.3	N/A	37.5	N/A
methyl ethyl ketone peroxide	470	N/A	N/A	11	N/A
4-hydroxy-4-methylpentan-2-one	2520	13500	N/A	N/A	N/A
Hydrogen peroxide solution	500	N/A	N/A	11	N/A
pentane-2,4-dione	500	300	N/A	3	N/A

Section 12. Ecological information

A. Ecotoxicity

No known significant effects or critical hazards.

Product/ingredient name	Result	Species	Exposure
Hydrogen peroxide solution pentane-2,4-dione	Acute EC50 1.2 mg/l Marine water	Algae - Dunaliella tertiolecta - Exponential growth phase	72 hours
	Acute EC50 5.38 mg/l Fresh water	Algae - Pseudokirchneriella subcapitata	96 hours
	Acute EC50 2320 µg/l Fresh water	Daphnia - Daphnia magna - Neonate	48 hours
	Acute LC50 30 mg/l Fresh water	Fish - Siluriformes - Fingerling	96 hours
	Chronic NOEC 989.7 ppm Fresh water	Fish - Oncorhynchus tshawytscha - Egg	43 days
	Acute EC50 75000 µg/l Fresh water	Crustaceans - Ceriodaphnia reticulata - Larvae	48 hours
	Acute LC50 47600 µg/l Fresh water	Daphnia - Daphnia magna - Neonate	48 hours
Acute LC50 60100 µg/l Fresh water	Fish - Lepomis macrochirus	96 hours	

B. Persistence and degradability

Not available.

C. Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
methyl ethyl ketone peroxide	<0.3	-	low
4-hydroxy-4-methylpentan-2-one	-0.14 to 1.03	-	low
Hydrogen peroxide solution	-1.36	-	low
pentane-2,4-dione	0.68	-	low

D. Mobility in soil

Soil/water partition coefficient (K_{oc}) : Not available.

E. Other adverse effects : No known significant effects or critical hazards.




Section 13. Disposal considerations

A. Disposal methods : The generation of waste should be avoided or minimised wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

Section 13. Disposal considerations

- B. Disposal precautions** : This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapour from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

	UN	IMDG	IATA
A. UN number	UN3105	UN3105	UN3105
B. UN proper shipping name	Organic peroxide type D, liquid (methyl ethyl ketone peroxide)	Organic peroxide type D, liquid (methyl ethyl ketone peroxide)	Organic peroxide type D, liquid (methyl ethyl ketone peroxide)
C. Transport hazard class(es)	5.2 	5.2 	5.2 
D. Packing group	-	-	-
E. Environmental hazards	No.	No.	No.

Additional information

- IMDG** : **Emergency schedules** F-J, S-R
ADR/RID : **Hazard identification number** 539
Tunnel code (D)

- F. Special precautions for user** : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

- Transport in bulk according to IMO instruments** : Not available.

Transport in accordance with ADR/RID, IMDG/IMO and ICAO/IATA and national regulation.

Section 15. Regulatory information

A. Regulation according to ISHA

ISHA article 117 (Harmful substances prohibited from manufacture) : None of the components are listed.

ISHA article 118 (Harmful substances requiring permission) : None of the components are listed.

Article 2 of Youth Protection Act on Substances Hazardous to Youth : Not applicable.

Exposure Limits of Chemical Substances and Physical Factors

The following components have an OEL:

Section 15. Regulatory information

methyl ethyl ketone peroxide
4-hydroxy-4-methylpentan-2-one
Hydrogen peroxide solution
pentane-2,4-dione

ISHA Enforcement Regs : None of the components are listed.

Annex 19 (Exposure standards established for harmful factors)

ISHA Enforcement Regs : The following components are listed: hydrogen peroxide

Annex 21 (Harmful factors subject to Work Environment Measurement)

ISHA Enforcement Regs : None of the components are listed.

Annex 22 (Harmful Factors Subject to Special Health Check-up)

Standard of Industrial Safety and Health : The following components are listed: hydrogen peroxide

Annex 12 (Hazardous substances subject to control)

B. Regulation according to Chemicals Control Act

AREC Article 17 (TRI) : The following components are listed: Hydrogen peroxide

AREC Article 32 (Banned) : None of the components are listed.

Article 19 Subject to authorization (K-Reach Article 25) : None of the components are listed.

AREC Toxic chemicals : Toxic

AREC Article 32 (Restricted) : None of the components are listed.

CCA Article 39 (Accident Precaution Chemicals) : The following components are listed: Methyl ethyl ketone peroxide

Existing Chemical Substances Subject to Registration : The following components are listed: 2-Butanone peroxide, Hydrogen peroxide

C. Dangerous Materials Safety Management Act : **Class:** Class 5 - Auto-reactive Substance
Item: 1. Organic peroxides
Threshold: 10 kg

D. Wastes regulation : Dispose of contents and container in accordance with all local, regional, national and international regulations.

E. Regulation according to other foreign laws

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Section 15. Regulatory information

Not listed.

[UNECE Aarhus Protocol on POPs and Heavy Metals](#)

Not listed.

Section 16. Other information

- A. References** : - Registry of Toxic Effects of Chemical Substances
- United States Environmental Protection Agency ECOTOX
- B. Date of issue** : 25.01.2022
Date of revision : 29.01.2024
- C. Version** : 1.04
Date of printing : **29.01.2024**

D. Other

✔ Indicates information that has changed from previously issued version.

- Key to abbreviations** : ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
N/A = Not available
SGG = Segregation Group
UN = United Nations

[Notice to reader](#)

The information in this document is given to the best of Jotun's knowledge, based on laboratory testing and practical experience. Jotun's products are considered as semi-finished goods and as such, products are often used under conditions beyond Jotun's control. Jotun cannot guarantee anything but the quality of the product itself. Minor product variations may be implemented in order to comply with local requirements. Jotun reserves the right to change the given data without further notice.

Users should always consult Jotun for specific guidance on the general suitability of this product for their needs and specific application practices.

If there is any inconsistency between different language issues of this document, the English (United Kingdom) version will prevail.