

# SAFETY DATA SHEET



## Epoxy HR Comp B

### Section 1. Chemical product and company identification

**Product name** : 酚醛环氧耐高温漆 组份B  
**Product code** : 1506  
**Product type** : Liquid.  
**Product description** : Hardener.

#### Relevant identified uses of the substance or mixture and uses advised against

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

**Supplier's details** : 佐敦涂料（张家港）有限公司  
中国江苏扬子江国际化学工业园南海路39号 215634  
电话: +86 512 58937988  
传真: +86 512 58937986

Jotun Coatings (Zhangjiagang) Co. Ltd  
NO.39 Nanhai Road Jiangsu Yangtze River International Chemical Industry Park,  
Jiangsu Province 215634 China  
Tel: +86 512 58937988  
Fax: +86 512 58937986

中远佐敦船舶涂料（青岛）有限公司  
中国山东省青岛市高新区春阳路800号  
总机电话：+86-532-68689888  
总机传真：+86-532-66726750

Jotun COSCO Marine Coatings (Qingdao) Co. Ltd.  
No. 800, Chunyang Road, High-tech Zone, Qingdao, P. R. China  
Tel: +86-532-68689888  
Fax: +86-532-66726750

SDSJotun@jotun.com

**Emergency telephone number (with hours of operation)** : Emergency Services for Chemical Incident of China. Tel: +86 532 83889090

### Section 2. Hazards identification

Classification of the substance or mixture according to GB 13690-2009 and GB 30000-2013

## Section 2. Hazards identification

**Classification of the substance or mixture** : ACUTE TOXICITY (oral) - Category 4  
 SKIN CORROSION/IRRITATION - Category 1B  
 SERIOUS EYE DAMAGE/EYE IRRITATION - Category 1  
 SKIN SENSITISATION - Category 1  
 SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE - Category 2  
 SHORT-TERM (ACUTE) AQUATIC HAZARD - Category 2  
 LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 2

### GHS label elements

#### Hazard pictograms



#### Signal word

: Danger.

#### Hazard statements

: H302 - Harmful if swallowed.  
 H314 - Causes severe skin burns and eye damage.  
 H317 - May cause an allergic skin reaction.  
 H373 - May cause damage to organs through prolonged or repeated exposure. (kidneys)  
 H411 - Toxic to aquatic life with long lasting effects.

### Precautionary statements

#### General

: Not applicable.

#### Prevention

: P280 - Wear protective gloves, protective clothing and eye or face protection.  
 P273 - Avoid release to the environment.  
 P260 - Do not breathe vapour or spray.  
 P270 - Do not eat, drink or smoke when using this product.

#### Response

: P391 - Collect spillage.  
 P304 + P310 - IF INHALED: 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 + P533, 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

: Not applicable.

#### Disposal

: P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.

### Physical and chemical hazards

: No known significant effects or critical hazards.

### Health hazards

: Harmful if swallowed. Causes severe skin burns and eye damage. May cause an allergic skin reaction.

## Section 3. Composition/information on ingredients

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

| Ingredient name  | %    | CAS number  |
|--|------|-------------|
| formaldehyde, polymer with benzenamine, hydrogenated                                   | ≤50  | 135108-88-2 |
| benzyl alcohol   | ≤48  | 100-51-6    |
| Formaldehyde, oligomeric reaction products with phenol and m-phenylenebis(methylamine) | ≤10  | 57214-10-5  |
| m-xylene-alpha,alpha'-diamine  | ≤6.8 | 1477-55-0   |
| cyclohexanamine, 4,4'-methylenebis-  | ≤5   | 1761-71-3   |
| salicylic acid   | <3   | 69-72-7     |

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

### Description of necessary first aid measures

- 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.
- 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. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- 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.
- 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.

### Most important symptoms/effects, acute and delayed

#### Potential acute health effects

## Section 4. First aid measures

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

### Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:  
pain  
watering  
redness
- Inhalation** : No specific data.
- Skin contact** : Adverse symptoms may include the following:  
pain or irritation  
redness  
blistering may occur
- Ingestion** : Adverse symptoms may include the following:  
stomach pains

### Indication of immediate medical attention and special treatment needed, if necessary

- Notes to physician** : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- 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

### Extinguishing media

- Suitable extinguishing media** : Use an extinguishing agent suitable for the surrounding fire.
- Unsuitable extinguishing media** : None known.

**Specific hazards arising from the chemical** : In a fire or if heated, a pressure increase will occur and the container may burst. This material is toxic to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

- Hazardous thermal decomposition products** : Decomposition products may include the following materials:  
carbon dioxide  
carbon monoxide  
nitrogen oxides

**Special protective actions 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.

**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.

## Section 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : 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 spilled material. Do not breathe vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
- For emergency responders** : If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

- Environmental precautions** : Avoid dispersal of spilled 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). Water polluting material. May be harmful to the environment if released in large quantities. Collect spillage.

### Methods and material for containment and cleaning up

- Small spill** : Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. 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. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. 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 spill product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

## Section 7. Handling and storage

### 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. Do not get in eyes or on skin or clothing. Do not breathe vapour or mist. Do not ingest. Avoid release to the environment. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. 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.

- Conditions for safe storage, including any incompatibilities** : Store in accordance with local regulations. 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 locked up. Keep container tightly closed and sealed until ready for use. 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

### Control parameters

#### Occupational exposure limits

| Ingredient name               | Exposure limits  |
|-------------------------------|--|
| m-xylene-alpha,alpha'-diamine | <b>ACGIH TLV (United States, 1/2023).<br/>Absorbed through skin.</b><br>C: 0.018 ppm |

#### Biological exposure indices

No exposure indices known.

- Appropriate engineering controls** : If user operations generate dust, fumes, gas, vapour or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.
- 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.

### Individual protection measures

- 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.

- Eye/face protection** : Safety eyewear complying to ISO 16321-1:2022 should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles and/or face shield. If inhalation hazards exist, a full-face respirator may be required instead.

### Skin protection

- 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: Viton® (> 0.7 mm), 4H/Silver Shield® (> 0.07 mm), neoprene (> 0.35 mm) May be used, gloves(breakthrough time) 4 - 8 hours: butyl rubber (> 0.4 mm), nitrile rubber (> 0.75 mm), PVC (> 0.5 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.

## Section 8. Exposure controls/personal protection

- 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.
- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

## Section 9. Physical and chemical properties and safety characteristics

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

### Appearance

- Physical state** : Liquid.
- Colour** : Colourless.
- Odour** : Characteristic.
- Odour threshold** : Not applicable.
- pH** : Not applicable.
- Melting point/freezing point** : Not applicable.
- Boiling point, initial boiling point, and boiling range** : Lowest known value: 205.3°C (401.5°F) (benzyl alcohol). Weighted average: 230.7°C (447.3°F)
- Flash point** : Closed cup: 102°C (215.6°F)
- Evaporation rate** : 0.007 (benzyl alcohol) compared with butyl acetate
- Flammability** : Not applicable.
- Lower and upper explosion limit/flammability limit** : 1.3 - 13%
- Vapour pressure** : Highest known value: 0.007 kPa (0.05 mm Hg) (at 20°C) (benzyl alcohol). Weighted average: 0.003 kPa (0.02 mm Hg) (at 20°C)
- Relative vapour density** : Highest known value: 3.7 (Air = 1) (benzyl alcohol).
- Density** : 1.07 g/cm<sup>3</sup>
- Solubility(ies)** :

| Media      | Result      |
|------------|-------------|
| cold water | Not soluble |
| hot water  | Not soluble |

- Solubility in water** : Not available.
- Partition coefficient: n-octanol/water** : Not available.
- Auto-ignition temperature** : Not applicable.
- Decomposition temperature** : Not available.
- Viscosity** : Kinematic (40°C (104°F)): >20.5 mm<sup>2</sup>/s (>20.5 cSt)
- Particle characteristics**
- Median particle size** : Not applicable.
- No additional information.

## Section 10. Stability and reactivity

- Reactivity** : No specific test data related to reactivity available for this product or its ingredients.
- Chemical stability** : The product is stable.
- Possibility of hazardous reactions** : Under normal conditions of storage and use, hazardous reactions will not occur.
- Conditions to avoid** : No specific data.
- Incompatible materials** : No specific data.
- Hazardous decomposition products** : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## Section 11. Toxicological information

### Information on toxicological effects

#### Acute toxicity

| Product/ingredient name                              | Result    | Species | Dose       | Exposure |
|--|-----------|---------|------------|----------|
| formaldehyde, polymer with benzenamine, hydrogenated | LD50 Oral | Rat     | 300 mg/kg  | -        |
| benzyl alcohol                                       | LD50 Oral | Rat     | 1230 mg/kg | -        |
| m-xylene-alpha,alpha'-diamine                        | LD50 Oral | Rat     | 980 mg/kg  | -        |

#### Irritation/Corrosion

| Product/ingredient name                           | Result                 | Species                      | Score | Exposure                | Observation |
|---|------------------------|------------------------------|-------|-------------------------|-------------|
| benzyl alcohol                                    | Eyes - Mild irritant   | Mammal - species unspecified | -     | -                       | -           |
| m-xylene-alpha,alpha'-diamine                     | Eyes - Severe irritant | Rabbit                       | -     | 24 hours 50 µg          | -           |
|   | Skin - Severe irritant | Rabbit                       | -     | 24 hours 750 µg         | -           |
| cyclohexanamine, 4,4'-methylenebis-salicylic acid | Eyes - Severe irritant | Rabbit                       | -     | 24 hours 10 microliters | -           |
|   | Eyes - Mild irritant   | Mammal - species unspecified | -     | -                       | -           |
|   | Skin - Mild irritant   | Mammal - species unspecified | -     | -                       | -           |

#### Sensitisation

| Product/ingredient name             | Route of exposure | Species                      | Result      |
|-------------------------------------|-------------------|------------------------------|-------------|
| m-xylene-alpha,alpha'-diamine       | skin              | Mammal - species unspecified | Sensitising |
| cyclohexanamine, 4,4'-methylenebis- | skin              | Mammal - species unspecified | Sensitising |

#### Mutagenicity

Not available.

#### Carcinogenicity

Not available.

#### Reproductive toxicity



## Section 11. Toxicological information

| Product/ingredient name | Maternal toxicity | Fertility | Developmental toxin | Species | Dose            | Exposure |
|-------------------------|-------------------|-----------|---------------------|---------|-----------------|----------|
| salicylic acid          | -                 | -         | Positive            | Rat     | Oral: 150 mg/kg | -        |

### Teratogenicity

Not available.

### Specific target organ toxicity (single exposure)

Not available.

### Specific target organ toxicity (repeated exposure)

| Product/ingredient name  | Category                 | Route of exposure | Target organs    |
|--|--------------------------|-------------------|------------------|
| formaldehyde, polymer with benzenamine, hydrogenated cyclohexanamine, 4,4'-methylenebis- | Category 2<br>Category 2 | oral<br>-         | kidneys<br>liver |

### Aspiration hazard

Not available.

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

### Potential acute health effects

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

### Symptoms related to the physical, chemical and toxicological characteristics

- Eye contact** : Adverse symptoms may include the following:  
 pain  
 watering  
 redness
- Inhalation** : No specific data.
- Skin contact** : Adverse symptoms may include the following:  
 pain or irritation  
 redness  
 blistering may occur
- Ingestion** : Adverse symptoms may include the following:  
 stomach pains

### Delayed and immediate effects as well as chronic effects from short and long-term exposure

#### Short term exposure

- Potential immediate effects** : Not available.  
**Potential delayed effects** : Not available.

#### Long term exposure

- Potential immediate effects** : Not available.  
**Potential delayed effects** : Not available.

### Potential chronic health effects

Not available.

## Section 11. Toxicological information

- General** : May cause damage to organs through prolonged or repeated exposure. 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** : No known significant effects or critical hazards.

### Numerical measures of toxicity

#### Acute toxicity estimates

| Product/ingredient name                              | Oral (mg/kg) | Dermal (mg/kg) | Inhalation (gases) (ppm) | Inhalation (vapours) (mg/l) | Inhalation (dusts and mists) (mg/l) |
|--|--------------|----------------|--------------------------|-----------------------------|-------------------------------------|
| Epoxy HR Comp B                                      | 544.5        | N/A            | N/A                      | 24.6                        | N/A                                 |
| formaldehyde, polymer with benzenamine, hydrogenated | 300          | N/A            | N/A                      | N/A                         | N/A                                 |
| benzyl alcohol                                       | 1230         | N/A            | N/A                      | 11                          | N/A                                 |
| m-xylene-alpha,alpha'-diamine                        | 980          | N/A            | N/A                      | 11                          | N/A                                 |
| cyclohexanamine, 4,4'-methylenebis-                  | 500          | N/A            | N/A                      | N/A                         | N/A                                 |
| salicylic acid                                       | 500          | N/A            | N/A                      | N/A                         | N/A                                 |

## Section 12. Ecological information

### Toxicity

| Product/ingredient name   | Result                          | Species                                | Exposure |
|---|---------------------------------|--|----------|
| Formaldehyde, oligomeric reaction products with phenol and m-phenylenebis (methylamine) | Acute LC50 25.9 mg/l            | Fish                                   | 96 hours |
| m-xylene-alpha,alpha'-diamine   | Acute EC50 12 mg/l              | Algae                                  | 72 hours |
| cyclohexanamine, 4,4'-methylenebis-   | Acute EC50 6.84 mg/l            | Daphnia                                | 48 hours |
| salicylic acid  | Acute IC50 140 mg/l             | Algae                                  | 72 hours |
|   | Acute LC50 46 mg/l              | Fish                                   | 96 hours |
|   | Acute LC50 32 µg/l Fresh water  | Daphnia - Daphnia magna - Neonate      | 48 hours |
|   | Chronic NOEC 1 mg/l Fresh water | Daphnia - Daphnia longispina - Neonate | 21 days  |

### Persistence/degradability

| Product/ingredient name             | Aquatic half-life | Photolysis | Biodegradability |
|-------------------------------------|-------------------|------------|------------------|
| benzyl alcohol                      | -                 | -          | Readily          |
| cyclohexanamine, 4,4'-methylenebis- | -                 | -          | Not readily      |

### Bioaccumulative potential

## Section 12. Ecological information

| Product/ingredient name                              | LogP <sub>ow</sub> | BCF        | Potential |
|--|--------------------|------------|-----------|
| formaldehyde, polymer with benzenamine, hydrogenated | -                  | 209 to 219 | low       |
| benzyl alcohol                                       | 0.87               | <100       | low       |
| m-xylene-alpha,alpha'-diamine                        | 0.18               | 2.69       | low       |
| cyclohexanamine, 4,4'-methylenebis-                  | 2.03               | -          | low       |
| salicylic acid                                       | 2.21 to 2.26       | -          | low       |

### Mobility in soil





**Soil/water partition coefficient (K<sub>oc</sub>)** : Not available.

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

## Section 13. Disposal considerations

**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. 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. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

## Section 14. Transport information

|                                   | China  | UN   | IMDG  | IATA   |
|-----------------------------------|--|--|---|--|
| <b>UN number</b>                  | UN2735   | UN2735   | UN2735  | UN2735   |
| <b>UN proper shipping name</b>    | Polyamines, liquid, corrosive, n.o.s. (m-xylene-alpha,alpha'-diamine, cyclohexanamine, 4,4'-methylenebis-) | Polyamines, liquid, corrosive, n.o.s. (m-xylene-alpha,alpha'-diamine, cyclohexanamine, 4,4'-methylenebis-) | Polyamines, liquid, corrosive, n.o.s. (m-xylene-alpha,alpha'-diamine, cyclohexanamine, 4,4'-methylenebis-).<br>Marine pollutant (Formaldehyde, oligomeric reaction products with phenol and m-phenylenebis (methylamine)) | Polyamines, liquid, corrosive, n.o.s. (m-xylene-alpha,alpha'-diamine, cyclohexanamine, 4,4'-methylenebis-) |
| <b>Transport hazard class(es)</b> | 8<br>                   | 8<br>                   | 8<br>   | 8<br>                 |
| <b>Packing group</b>              | II   | II   | II  | II   |
| <b>Environmental hazards</b>      | Yes. The environmentally hazardous substance mark is not required.   | Yes. The environmentally hazardous substance mark is not required.   | Yes.  | Yes. The environmentally hazardous substance mark is not required.   |

## Section 14. Transport information

### Additional information

- IMDG** : The marine pollutant mark is not required when transported in sizes of ≤5 L or ≤5 kg.  
**Emergency schedules** F-A, S-B  
 Segregation Group: 18 - Alkalis
- IATA** : The environmentally hazardous substance mark may appear if required by other transportation regulations.
- ADR / RID** : Tunnel restriction code: (E)  
 Hazard identification number: 80
- Marking** : The environmental hazardous / marine pollutant mark is only applicable for packages containing more than 5 litres for liquids and 5 kg for solids.

**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.

### Extinguishing media

**Suitable extinguishing media** : Use an extinguishing agent suitable for the surrounding fire.

**Unsuitable extinguishing media** : None known.

**Incompatible materials** : No specific data.

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

## Section 15. Regulatory information

**Safety, health and environmental regulations specific for the product:**

### Law of the People's Republic of China on the Prevention and Control of Occupational Diseases

Regulations on the Control over Safety of Dangerous Chemicals

Measures for Environmental Management of New Chemical Substances

Law of the People's Republic of China on the Prevention and Control of Environment Pollution Caused by Solid Wastes

Safety regulations for the use of chemicals in the workplace

General Rule for Classification and Hazard Communication of Chemicals

Classification and code of dangerous goods

### List of Goods banned for Importing

None of the components are listed.

### Drug Precursors Requiring an Import/Export License

None of the components are listed.

### Inventory of Hazardous Chemicals

None of the components are listed.

### List of Explosive Precursors

None of the components are listed.

### List of Goods banned for Exporting

None of the components are listed.

### List of Toxic Chemicals Severely Restricted for Importing & Exporting by China

None of the components are listed.

### Catalogue and classification of drug precursor chemicals

None of the components are listed.

### Inventory of highly toxic articles

## Section 15. Regulatory information

None of the components are listed.

### [Catalogue of Hazardous Chemicals of Priority Management](#)

None of the components are listed.

### [Catalogue of Occupational Disease Hazard Factors - Dust](#)

None of the components are listed.

### [Catalogue of Occupational Disease Hazard Factors - Chemical Factors](#)

None of the components are listed.

### [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 \(PIC\)](#)

Not listed.

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

Not listed.

## Section 16. Other information

### [History](#)

**Date of printing** : 17.01.2024

**Date of issue/Date of revision** : 17.01.2024

**Date of previous issue** : 15.01.2024

**Version** : 1.02

### [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

### [Procedure used to derive the classification](#)

| Classification  | Justification      |
|---|--------------------|
| ACUTE TOXICITY (oral) - Category 4                              | Calculation method |
| SKIN CORROSION/IRRITATION - Category 1B                         | Calculation method |
| SERIOUS EYE DAMAGE/EYE IRRITATION - Category 1                  | Calculation method |
| SKIN SENSITISATION - Category 1                                 | Calculation method |
| SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE - Category 2 | Calculation method |
| SHORT-TERM (ACUTE) AQUATIC HAZARD - Category 2                  | Calculation method |
| LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 2                 | Calculation method |

**References** : Not available.

🔍 Indicates information that has changed from previously issued version.

### [Notice to reader](#)

## Section 16. Other information

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.