## SAFETY DATA SHEET



### Tankguard Special Ultra Comp B

Section 1. Chemical product and company identification		
Product name	: 酚醛环氧液舱漆 组份B	
Product code	: 8500	
Product type	: Liquid.	
Product description	: Hardener.	
Relevant identified uses	of the substance or mixture and uses advised against	
Use in coatings - Industria Use in coatings - Professi		
Supplier's details	<ul> <li>: 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</li> <li>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</li> <li>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</li> <li>Jotun COSCO Marine Coatings (Qingdao) Co. Ltd. No. 800, Chunyang Road, High-tech Zone, Qingdao, P. R. China Tel: +86-532-66726750</li> <li>SDSJotun@jotun.com</li> </ul>	
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	<ul> <li>FLAMMABLE LIQUIDS - Category 3 SKIN CORROSION/IRRITATION - Category 1B SERIOUS EYE DAMAGE/EYE IRRITATION - Category 1 SKIN SENSITISATION - Category 1 CARCINOGENICITY - Category 2 SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE (Respiratory tract irritation) - Category 3 SHORT-TERM (ACUTE) AQUATIC HAZARD - Category 2 LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 2</li> </ul>
GHS label elements	
Hazard pictograms	
Signal word	: Danger.
Hazard statements	<ul> <li>H226 - Flammable liquid and vapour.</li> <li>H314 - Causes severe skin burns and eye damage.</li> <li>H317 - May cause an allergic skin reaction.</li> <li>H335 - May cause respiratory irritation.</li> <li>H351 - Suspected of causing cancer.</li> <li>H411 - Toxic to aquatic life with long lasting effects.</li> </ul>
Precautionary statements	
General	: Not applicable.
Prevention	<ul> <li>P201 - Obtain special instructions before use.</li> <li>P280 - Wear protective gloves, protective clothing and eye or face protection.</li> <li>P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.</li> <li>P273 - Avoid release to the environment.</li> <li>P261 - Avoid breathing vapour.</li> </ul>
Response	<ul> <li>P391 - Collect spillage.</li> <li>P308 + P313 - IF exposed or concerned: Get medical advice or attention.</li> <li>P304 + P310 - IF INHALED: Immediately call a POISON CENTER or doctor.</li> <li>P301 + P310, P330, P331 - IF SWALLOWED: Immediately call a POISON</li> <li>CENTER or doctor. Rinse mouth. Do NOT induce vomiting.</li> <li>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.</li> <li>P363 - Wash contaminated clothing before reuse.</li> <li>P302 + P352 - IF ON SKIN: Wash with plenty of water.</li> <li>P333 + P313 - If skin irritation or rash occurs: Get medical advice or attention.</li> <li>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.</li> </ul>
Storage	<ul> <li>P403 + P233 - Store in a well-ventilated place. Keep container tightly closed.</li> <li>P403 + P235 - Keep cool.</li> </ul>
Disposal	: P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.
Physical and chemical hazards	: Flammable liquid and vapour.
Health hazards	: Causes severe skin burns and eye damage. May cause an allergic skin reaction. May cause respiratory irritation. Suspected of causing cancer.

### Section 3. Composition/information on ingredients

### Substance/mixture

### Other means of identification

- : Mixture
- : Not available.

Ingredient name	%	CAS number
bisphenol f epoxide resin adduct with 1,2-diaminocyclohexane	≤55	168612-07-5
xylene	≤20	1330-20-7
ethylbenzene	≤6	100-41-4
Formaldehyde, oligomeric reaction products with phenol and m- phenylenebis(methylamine)	≤6	57214-10-5
butan-1-ol	≤5	71-36-3
1,2-cyclohexanediamine	≤4	694-83-7
m-xylene-alpha,alpha'-diamine	≤4	1477-55-0

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

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### Section 4. First aid measures

Potential acute health effec	ts
Eye contact	: Causes serious eye damage.
Inhalation	: May cause respiratory irritation.
Skin contact	: Causes severe burns. May cause an allergic skin reaction.
Ingestion	: No known significant effects or critical hazards.
Over-exposure signs/symp	toms
Eye contact	: Adverse symptoms may include the following: pain watering redness
Inhalation	: Adverse symptoms may include the following: respiratory tract irritation coughing
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 med	ical 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

from the chemicalIn a fire or if heated, a pressure increase will occur and the container may burst, w the risk of a subsequent explosion. 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 oxidesSpecial protective actions for fire-fighters: Promptly isolate the scene by removing all persons from the vicinity of the inciden 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.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.		
media       Unsuitable extinguishing media       : Do not use water jet.         Specific hazards arising from the chemical       : Flammable liquid and vapour. Runoff to sewer may create fire or explosion hazar In a fire or if heated, a pressure increase will occur and the container may burst, w the risk of a subsequent explosion. 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 inciden 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.         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.	Extinguishing media	
mediaSpecific hazards arising from the chemical: Flammable liquid and vapour. Runoff to sewer may create fire or explosion hazar In a fire or if heated, a pressure increase will occur and the container may burst, w the risk of a subsequent explosion. 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 monoxide nitrogen oxidesSpecial protective actions for fire-fighters: Promptly isolate the scene by removing all persons from the vicinity of the inciden 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.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.		: Use dry chemical, CO <sub>2</sub> , water spray (fog) or foam.
from the chemicalIn a fire or if heated, a pressure increase will occur and the container may burst, w the risk of a subsequent explosion. 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 		: Do not use water jet.
decomposition productscarbon dioxide carbon monoxide nitrogen oxidesSpecial protective actions for fire-fighters: Promptly isolate the scene by removing all persons from the vicinity of the inciden 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.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.		lasting effects. Fire water contaminated with this material must be contained and
for fire-fightersthere 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.Special protective equipment for fire-fightersFire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.		carbon dioxide carbon monoxide
equipment for fire-fighters breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.		suitable training. Move containers from fire area if this can be done without risk.
Date of issue/Date of revision         : 07.05.2024         Date of previous issue         : 07.05.2024         Version         : 1.03		breathing apparatus (SCBA) with a full face-piece operated in positive pressure
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### Section 6. Accidental release measures

Personal precautions, protect	tive e	equipment and emergency procedures
For non-emergency personnel	E ei N P	lo action shall be taken involving any personal risk or without suitable training. vacuate surrounding areas. Keep unnecessary and unprotected personnel from ntering. Do not touch or walk through spilt material. Shut off all ignition sources. lo flares, smoking or flames in hazard area. Do not breathe vapour or mist. rovide adequate ventilation. Wear appropriate respirator when ventilation is nadequate. Put on appropriate personal protective equipment.
For emergency responders	in	specialised clothing is required to deal with the spillage, take note of any formation in Section 8 on suitable and unsuitable materials. See also the formation in "For non-emergency personnel".
Environmental precautions	a p	void dispersal of spilt material and runoff and contact with soil, waterways, drains nd sewers. Inform the relevant authorities if the product has caused environmental ollution (sewers, waterways, soil or air). Water polluting material. May be harmful of the environment if released in large quantities. Collect spillage.
Methods and material for cor	ntainr	ment and cleaning up
Small spill	e: A a	top leak if without risk. Move containers from spill area. Use spark-proof tools and xplosion-proof equipment. Dilute with water and mop up if water-soluble. Iternatively, or if water-insoluble, absorb with an inert dry material and place in an ppropriate waste disposal container. Dispose of via a licensed waste disposal ontractor.
Large spill	e: se co ai D m	top leak if without risk. Move containers from spill area. Use spark-proof tools and xplosion-proof equipment. Approach the release from upwind. Prevent entry into ewers, water courses, basements or confined areas. Wash spillages into an ffluent treatment plant or proceed as follows. Contain and collect spillage with non-ombustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth nd 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 mergency 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. Avoid exposure - obtain special instructions before use. 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. Avoid release to the environment. 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. Take precautionary measures against electrostatic discharges. 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.

### Section 7. Handling and storage

Conditions for safe storage,	: 3	Store in accordance with local regulations. Store in a segregated and approved
including any incompatibilities		area. Store in original container protected from direct surlight in a dry, cool and well- ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidising materials. 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
xylene	GBZ 2.1 (China, 11/2022). [Xylene]
	PC-STEL: 100 mg/m <sup>3</sup> 15 minutes.
	PC-TWA: 50 mg/m <sup>3</sup> 8 hours.
ethylbenzene	GBZ 2.1 (China, 11/2022).
•	PC-TWA: 100 mg/m <sup>3</sup> 8 hours.
	PC-STEL: 150 mg/m <sup>3</sup> 15 minutes.
butan-1-ol	GBZ 2.1 (China, 11/2022).
	PC-TWA: 100 mg/m <sup>3</sup> 8 hours.
m-xylene-alpha,alpha'-diamine	ACGIH TLV (United States, 7/2023).
••••	Absorbed through skin.
	C: 0.018 ppm

#### **Biological exposure indices**

Ingredient name	Exposure indices
xylene	<b>GBZ 2.1 (China, 11/2022)</b> BEI: 0.4 g/L, methylhippuric acids [in urine]. Sampling time: end of work shift. BEI: 0.3 g/g Cr, methylhippuric acids [in urine]. Sampling time: end of work shift.
ethylbenzene	<b>GBZ 2.1 (China, 11/2022)</b> BEI: 0.8 g/g Cr, mandelic acid and phenylglyoxylic acid (MA and PGA) [in urine]. Sampling time: end of work shift.

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.
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.
ndividual protection measure	es a la construction de
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

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showers are close to the workstation location.

### Section 8. Exposure controls/personal protection

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	<ul> <li>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.</li> <li>Gloves should be replaced regularly and if there is any sign of damage to the glove material.</li> <li>Always ensure that gloves are free from defects and that they are stored and used correctly.</li> <li>The performance or effectiveness of the glove may be reduced by physical/chemical damage and poor maintenance.</li> <li>Barrier creams may help to protect the exposed areas of the skin but should not be applied once exposure has occurred.</li> </ul>
	Wear suitable gloves tested to ISO 374-1:2016. May be used, gloves(breakthrough time) 4 - 8 hours: Viton® (> 0.7 mm), butyl rubber (> 0.4 mm), neoprene (> 0.35 mm), PVC (> 0.5 mm) Recommended, gloves(breakthrough time) > 8 hours: 4H/Silver Shield® (> 0.07 mm), Teflon (> 0.35 mm), nitrile rubber (> 0.75 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	: Use chemical-resistant protective suit / disposable overall.
	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. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.
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.
Continu O Dhuning	and chemical properties and cafety

# 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.

<u>Appearance</u>		
Physical state	1	Liquid.
Colour	1	Colourless.
Odour	1	Characteristic.
Odour threshold	1	Not applicable.
рН	1	Not applicable.
Melting point/freezing point	1	Not applicable.

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

Boiling point, initial boiling point, and boiling range	1	Lowest known value: 119°C (246.2°F) (butan-1-ol). Weighted average: 152.24°C (306°F)		
Flash point	:	Closed cup: 35°C (95°F)		
Evaporation rate	1	Highest known value: 0.84 (ethylbenzene) Weighted average: 0.73compared with butyl acetate		
Flammability	1	Not applicable.		
Lower and upper explosion limit/flammability limit	:	Greatest known range: Lower: 1.4% Upper: 11.3% (butan-1-ol)		
Vapour pressure	:	Highest known value: 1.2 kPa (9.3 mm Hg) (at 20°C) (ethylbenzene). Weighted average: 0.77 kPa (5.78 mm Hg) (at 20°C)		
Relative vapour density	1	Highest known value: 3.7 (Air = 1) (xylene). Weighted average: 3.51 (Air = 1)		
Density	1	1.043 g/cm³		
Solubility(ies)	1			
Media		Result		
cold water hot water		Not soluble Not soluble		
Solubility in water	:	Not available.		
Partition coefficient: n- octanol/water	1	Not available.		
Auto-ignition temperature	1	Lowest known value: 355°C (671°F) (butan-1-ol).		
Decomposition temperature	1	Not available.		
Viscosity	4	Kinematic (40°C (104°F)): >20.5 mm²/s (>20.5 cSt)		
Particle characteristics				
Median particle size	4	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	: 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.
Incompatible materials	: Reactive or incompatible with the following materials: oxidising materials
Hazardous decomposition products	<ul> <li>Under normal conditions of storage and use, hazardous decomposition products should not be produced.</li> </ul>

### Section 11. Toxicological information

Information on toxicological effects Acute toxicity

### Section 11. Toxicological information

Product/ingredient name	Result	Species	Dose	Exposure
xylene	LC50 Inhalation Vapour	Rat	11 mg/l	4 hours
	LD50 Oral	Rat	4300 mg/kg	-
	TDLo Dermal	Rabbit	4300 mg/kg	-
ethylbenzene	LC50 Inhalation Vapour	Rat - Male	11 mg/l	4 hours
-	LD50 Dermal	Rabbit	>5000 mg/kg	-
	LD50 Oral	Rat	3500 mg/kg	-
butan-1-ol	LD50 Oral	Rat	790 mg/kg	-
1,2-cyclohexanediamine	LD50 Oral	Rat	4556 mg/kg	-
m-xylene-alpha,alpha'- diamine	LD50 Oral	Rat	980 mg/kg	-

### Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
xylene	Eyes - Mild irritant	Rabbit	-	87 milligrams	-
•	Skin - Mild irritant	Rat	-	8 hours 60	-
m-xylene-alpha,alpha'-	Eyes - Severe irritant	Rabbit	-	microliters 24 hours 50	-
diamine	Chin Covere irritent	Dabbit		µg	
	Skin - Severe irritant	Rabbit	-	24 hours 750 μg	-

### **Sensitisation**

Product/ingredient name	Route of exposure	Species	Result	
1,2-cyclohexanediamine	skin	Mammal - species unspecified	Sensitising	
m-xylene-alpha,alpha'- diamine	skin	Mammal - species unspecified	Sensitising	

### **Mutagenicity**

Not available.

#### **Carcinogenicity**

Not available.

#### **Classification**

Product/ingredient name	IARC
ethylbenzene	2B

### **Reproductive toxicity**

Not available.

### Teratogenicity

Not available.

#### Specific target organ toxicity (single exposure)

Product/ingredient name	Category	Route of exposure	Target organs
xylene	Category 3	-	Respiratory tract irritation
butan-1-ol	Category 3	-	Respiratory tract irritation
	Category 3		Narcotic effects

### Specific target organ toxicity (repeated exposure)

Product/ingredient name	Category	Route of exposure	Target organs
ethylbenzene	Category 2	-	-

### Section 11. Toxicological information

### Aspiration hazard

Product/ingredient name	Result
	ASPIRATION HAZARD - Category 1 ASPIRATION HAZARD - Category 1

Information on likely routes of exposure	1	Not available.
Potential acute health effects	5	
Eye contact	:	Causes serious eye damage.
Inhalation	:	May cause respiratory irritation.
Skin contact	:	Causes severe burns. May cause an allergic skin reaction.
Ingestion	:	No known significant effects or critical hazards.
Symptoms related to the phy	<u>/si</u> (	cal, chemical and toxicological characteristics
Eye contact		Adverse symptoms may include the following:
-		pain
		watering redness
Inhalation		Adverse symptoms may include the following:
Innalation	1	respiratory tract irritation
		coughing
Skin contact	1	Adverse symptoms may include the following:
		pain or irritation redness
		blistering may occur
Ingestion	:	Adverse symptoms may include the following:
-		stomach pains
<b>.</b>		
	<u>ts</u>	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	:	Not available.
effects		
Potential delayed effects	:	Not available.
Potential chronic health effe	<u>ect</u>	<u>s</u>
Not available.		
General	:	Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.
Carcinogenicity	1	Suspected of causing cancer. Risk of cancer depends on duration and level of exposure.
Mutagenicity	:	No known significant effects or critical hazards.
Reproductive toxicity	:	No known significant effects or critical hazards.

### Numerical measures of toxicity Acute toxicity estimates

### Section 11. Toxicological information

Product/ingredient name	Oral (mg/ kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)		Inhalation (dusts and mists) (mg/l)
Tankguard Special Ultra Comp B	7355.3		N/A	49.8	N/A
xylene	N/A		N/A	11	N/A
butan-1-ol	500		N/A	N/A	N/A
m-xylene-alpha,alpha'-diamine	980		N/A	11	N/A

### Section 12. Ecological information

### **Toxicity**

Product/ingredient name	Result	Species	Exposure
xylene	Acute LC50 8500 µg/l Marine water	Crustaceans - Palaemonetes pugio	48 hours
	Acute LC50 13400 µg/l Fresh water	Fish - Pimephales promelas	96 hours
ethylbenzene	Acute EC50 7700 µg/l Marine water	Algae - Skeletonema costatum	96 hours
	Acute EC50 2.93 mg/l	Daphnia	48 hours
	Acute LC50 4.2 mg/l	Fish	96 hours
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

### Persistence/degradability

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
xylene ethylbenzene	-		Readily Readily

### **Bioaccumulative potential**

Product/ingredient name	LogPow	BCF	Potential
xylene	3.12	8.1 to 25.9	low
ethylbenzene	3.6	-	low
butan-1-ol	1	-	low
m-xylene-alpha,alpha'- diamine	0.18	2.69	low

#### Mobility in soil

Soil/water partition coefficient (Koc)

: 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

### Section 13. Disposal considerations

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. 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

	China	UN	IMDG	ΙΑΤΑ	
UN number	UN3470	UN3470	UN3470	UN3470	
UN proper shipping name	Paint, corrosive, flammable	Paint, corrosive, flammable	Paint, corrosive, flammable. Marine pollutant (Formaldehyde, oligomeric reaction products with phenol and m-phenylenebis (methylamine))	Paint, corrosive, flammable	
Transport hazard class(es)	8 (3)	8 (3)	8 (3)	8 (3)	
Packing group	11	11	11	11	
Environmental hazards	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.	
Additional informat	tion		·		
IMDG IATA	<u>Emergen</u>	e pollutant mark is not re <b>cy schedules</b> F-E, S-C			
		onmentally hazardous sub tion regulations.	stance mark may appea		
		triction code: (D/E) ntification number: 83			
Marking		onmental hazardous / ma containing more than 5 li			
Special precautions	upright an	t within user's premises d secure. Ensure that per of an accident or spillage	rsons transporting the pr		
Extinguishing media					
Suitable extinguisl media	hing : Use dry cl	nemical, CO₂, water spray	y (fog) or foam.		
Unsuitable extingu media	iishing : Do not us	e water jet.			
ncompatible materi	ials : Reactive o oxidising i	or incompatible with the for materials	bllowing materials:		

### Section 14. Transport information

Transport in bulk according : Not available. to IMO instruments

### 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**

Ingredient name	CAS number	Status	Reference number
xylene	1330-20-7	Listed	358
ethylbenzene	100-41-4	Listed	2566
butan-1-ol	71-36-3	Listed	2761
1,2-cyclohexanediamine	694-83-7	Listed	943

#### 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

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

Ingredient name	Status
xylene	Listed
ethylbenzene	Listed
butan-1-ol	Listed

#### International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

#### Montreal Protocol

Date of issue/Date of revision

### Section 15. Regulatory information

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**

motory	
Date of printing	: 07.05.2024
Date of issue/Date of revision	: 07.05.2024
Date of previous issue	: 07.05.2024
Version	: 1.03
Key to abbreviations	<ul> <li>ATE = Acute Toxicity Estimate BCF = Bioconcentration Factor GHS = Globally Harmonized System of Classification and Labelling of Chemicals IATA = International Air Transport Association IBC = International Air Transport Association IBC = 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</li> </ul>

#### Procedure used to derive the classification

Classification	Justification
FLAMMABLE LIQUIDS - Category 3	On basis of test data
SKIN CORROSION/IRRITATION - Category 1B	Calculation method
SERIOUS EYE DAMAGE/EYE IRRITATION - Category 1	Calculation method
SKIN SENSITISATION - Category 1	Calculation method
CARCINOGENICITY - Category 2	Calculation method
SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE (Respiratory tract	Calculation method
irritation) - Category 3	
SHORT-TERM (ACUTE) AQUATIC HAZARD - Category 2	Calculation method
LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 2	Calculation method
	1

References

: Not available.

Indicates information that has changed from previously issued version.

### 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.