# SAFETY DATA SHEET



## Jotamastic 90 Comp A

Section 1. Identification		
GHS product identifier	: 低表面處理環氧耐磨漆90 組份A	
Other means of identification	: Not available.	
Product code	: 16560	
Product type	: Liquid.	
Product description	: Paint.	
Relevant identified uses of	f the substance or mixture and uses advised against	
Identified uses		
Use in coatings - Industrial u Use in coatings - Profession		
Supplier's details	<ul> <li>: 佐敦涂料(张家港)有限公司 江苏省张家港保税区扬子江化学工业园长江路15号 215634 电话: +86 512 58937988 传真: +86 512 58937986</li> <li>Jotun Coatings (Zhangjiagang) Co. Ltd No.15 Changjiang Road Jiangsu Yangtze River International Chemical Industry Park, Zhangjiagang Free Trade Zone, Jiangsu Province 215634 Tel: +86 512 58937988 Fax: +86 512 58937986</li> <li>Jotun Paints (Malaysia) Sdn Bhd, Lot 7 Persiaran Perusahaan, Section 23 40300 SHAH ALAM, Selangor Darul Ehsan Malaysia Tel: +603 51235500 Fax: +603 51235599</li> <li>SDSJotun@jotun.com</li> </ul>	
Emergency telephone number (with hours of operation)	: Jotun Coatings (Taiwan) Ltd. Co. Tel: +886 2 87705061	

# Section 2. Hazards identification

Classification of the substance or mixture	: FLAMMABLE LIQUIDS - Category 3 SKIN CORROSION/IRRITATION - Category 2 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1 SKIN SENSITIZATION - Category 1 AQUATIC HAZARD (LONG-TERM) - Category 3
	Percentage of the mixture consisting of ingredient(s) of unknown oral toxicity: 14% Percentage of the mixture consisting of ingredient(s) of unknown dermal toxicity: 14% Percentage of the mixture consisting of ingredient(s) of unknown inhalation toxicity: 14%
	Percentage of the mixture consisting of ingredient(s) of unknown hazards to the aquatic environment: 14%

## **GHS label elements**

# Section 2. Hazards identification

Hazard pictograms	:	
Signal word	:	Danger.
Hazard statements	:	Flammable liquid and vapor. Causes serious eye damage. Causes skin irritation. May cause an allergic skin reaction. Harmful to aquatic life with long lasting effects.
Precautionary statements		
Prevention	:	Wear protective gloves. Wear eye or face protection. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep container tightly closed. Avoid release to the environment. Wash hands thoroughly after handling.
Response	:	IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing and wash it before reuse. If skin irritation or rash occurs: Get medical attention. 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 physician.
Storage	1	Store in a well-ventilated place. Keep cool.
Disposal	:	Dispose of contents and container in accordance with all local, regional, national and international regulations.
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.

## **CAS number/other identifiers**

CAS number	: Not applicable.
Product code	: 16560

Concentration	CAS number
≥10 - ≤25	1675-54-3
≤10	67989-52-0
≤10	1330-20-7
≤5	71302-83-5
≤5	78-83-1
	68413-24-1
	100-51-6
	100-41-4 68512-30-1
	61788-44-1
	1675-54-3
≤10	67989-52-0
≤10	1330-20-7
≤5	71302-83-5
≤5	78-83-1
≤5	68413-24-1
	<pre>≥10 - ≤25 ≤10</pre> ≤10 ≤5 ≤5 ≤5 ≤3 ≤3 ≤3 ≥10 - ≤25

Section 3. Composition/information on ingredients

benzyl alcohol	
苯乙烷	
Phenol, methylstyrenated	
Phenol. styrenated	

100-51-6
100-41-4
100-51-6 100-41-4 68512-30-1 61788-44-1
61788-44-1

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.

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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.	
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. Remove victim to fresh air and keep at rest in a position comfortable for breathing. 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	
Eye contact	: Causes serious eye damage.
Inhalation	: No known significant effects or critical hazards.
Skin contact	: Causes skin irritation. May cause an allergic skin reaction.
Ingestion	: No known significant effects or critical hazards.
Over-exposure signs/sympton	<u>ms</u>
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

## Section 4. First aid measures

Ingestion	:	Adverse symptoms may include the following: stomach pains
Indication of immediate me	<u>dica</u>	I attention and special treatment needed, if necessary
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. Fire-fighting measures

•	-
Extinguishing media	
Suitable extinguishing media	: Use dry chemical, CO <sub>2</sub> , water spray (fog) or foam.
Unsuitable extinguishing media	: Do not use water jet.
Specific hazards arising from the chemical	: Flammable liquid and vapor. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. This material is harmful 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 halogenated compounds metal oxide/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. 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	<ul> <li>Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.</li> </ul>

# Section 6. Accidental release measures

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 spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
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.

Methods and materials for containment and cleaning up

# Section 6. Accidental release measures

Small spill	: Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. 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. Use spark-proof tools and explosion-proof equipment. Approach 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 spilled 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 vapor 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.
Conditions for safe storage, including any incompatibilities	:	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 locked up. Eliminate all ignition sources. Separate from oxidizing 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 unlabeled 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	TW Minstry of Labor, labor permissible workplace exposure standards, allowable concentration (Taiwan, 6/2014).
	STEL: 542.5 mg/m <sup>3</sup> 15 minutes. STEL: 125 ppm 15 minutes. TWA: 434 mg/m <sup>3</sup> 8 hours. TWA: 100 ppm 8 hours.
2-methylpropan-1-ol	TW Minstry of Labor, labor permissible workplace exposure standards, allowable concentration (Taiwan, 6/2014). STEL: 228 mg/m <sup>3</sup> 15 minutes. STEL: 75 ppm 15 minutes.

: 10.07.2019

# Section 8. Exposure controls/personal protection

ethylbenzene		TWA: 152 mg/m <sup>3</sup> 8 hours.					
ethylbenzene		TWA: 50 ppm 8 hours.					
		TW Minstry of Labor, labor permissible					
		workplace exposure standards, allowable					
		concentration (Taiwan, 6/2014).					
		STEL: 125 ppm 15 minutes.					
		STEL: 542.5 mg/m <sup>3</sup> 15 minutes.					
		TWA: 100 ppm 8 hours. TWA: 434 mg/m³ 8 hours.					
		1 WA. 434 mg/m 8 hours.					
Appropriate engineering		n. Use process enclosures, local exhaust					
controls		ontrols to keep worker exposure to airborne					
		ended or statutory limits. The engineering controls					
		dust concentrations below any lower explosive					
	limits. Use explosion-proof ventil	auon equipment.					
ndividual protection measure							
Respiratory protection		al 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					
Hand protection	aspects of use.	loves complying with an engraved standard should					
Hand protection		loves complying with an approved standard should ng chemical products if a risk assessment indicates					
		e parameters specified by the glove manufacturer					
		are still retaining their protective properties. It					
		preakthrough for any glove material may be					
		different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately					
	estimated.	с ,					
	There is no one glove material or combination of materials that will give unlimited						
	resistance to any individual or combination of chemicals.						
		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						
		arly and if there is any sign of damage to the glove					
	material.	a from defects and that they are stored and used					
	correctly.	ee from defects and that they are stored and used					
		s of the glove may be reduced by physical/chemica					
	damage and poor maintenance.						
		ct the exposed areas of the skin but should not be					
	applied once exposure has occur						
	Wear suitable gloves tested to El	N374.					
		bugh time) > 8 hours: Viton®, Responder, 4H,					
	Teflon						
		<b>,</b> , , , , , , , , , , , , , , , , , ,					
	Not recommended, gloves(break	through time) < 1 hour: PVC					
	May be used, gloves(breakthroug	through time) < 1 hour: PVC gh time) 4 - 8 hours: butyl rubber, nitrile rubber,					
		through time) < 1 hour: PVC gh time) 4 - 8 hours: butyl rubber, nitrile rubber,					
	May be used, gloves(breakthroug neoprene, polyvinyl alcohol (PVA	through time) < 1 hour: PVC gh time) 4 - 8 hours: butyl rubber, nitrile rubber, )					
Eye protection	May be used, gloves(breakthroug neoprene, polyvinyl alcohol (PVA : Safety eyewear complying with a	through time) < 1 hour: PVC gh time) 4 - 8 hours: butyl rubber, nitrile rubber, ) n approved standard should be used when a risk					
Eye protection	<ul> <li>May be used, gloves(breakthroug neoprene, polyvinyl alcohol (PVA)</li> <li>Safety eyewear complying with a assessment indicates this is nece</li> </ul>	through time) < 1 hour: PVC gh time) 4 - 8 hours: butyl rubber, nitrile rubber, ) n approved standard should be used when a risk essary to avoid exposure to liquid splashes, mists,					
Eye protection	<ul> <li>May be used, gloves(breakthroug neoprene, polyvinyl alcohol (PVA)</li> <li>Safety eyewear complying with a assessment indicates this is nece gases or dusts. If contact is poss</li> </ul>	through time) < 1 hour: PVC gh time) 4 - 8 hours: butyl rubber, nitrile rubber, ) n approved standard should be used when a risk essary to avoid exposure to liquid splashes, mists, sible, the following protection should be worn,					
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Eye protection	<ul> <li>May be used, gloves(breakthroug neoprene, polyvinyl alcohol (PVA)</li> <li>Safety eyewear complying with an assessment indicates this is nece gases or dusts. If contact is poss unless the assessment indicates goggles and/or face shield. If inh</li> </ul>	through time) < 1 hour: PVC gh time) 4 - 8 hours: butyl rubber, nitrile rubber, ) n approved standard should be used when a risk essary to avoid exposure to liquid splashes, mists, sible, the following protection should be worn, a higher degree of protection: chemical splash					
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Eye protection Body protection	<ul> <li>May be used, gloves(breakthroug neoprene, polyvinyl alcohol (PVA)</li> <li>Safety eyewear complying with an assessment indicates this is nece gases or dusts. If contact is poss unless the assessment indicates goggles and/or face shield. If inh required instead.</li> <li>Personal protective equipment for</li> </ul>	through time) < 1 hour: PVC gh time) 4 - 8 hours: butyl rubber, nitrile rubber, ) n approved standard should be used when a risk essary to avoid exposure to liquid splashes, mists, sible, the following protection should be worn, a higher degree of protection: chemical splash halation hazards exist, a full-face respirator may be r the body should be selected based on the task					
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Body protection	<ul> <li>May be used, gloves(breakthroug neoprene, polyvinyl alcohol (PVA)</li> <li>Safety eyewear complying with all assessment indicates this is nece gases or dusts. If contact is poss unless the assessment indicates goggles and/or face shield. If inh required instead.</li> <li>Personal protective equipment fo being performed and the risks inv before handling this product. Wh wear anti-static protective clothing discharges, clothing should includes</li> <li>Appropriate footwear and any additional content of the second s</li></ul>	through time) < 1 hour: PVC gh time) 4 - 8 hours: butyl rubber, nitrile rubber, ) n approved standard should be used when a risk essary to avoid exposure to liquid splashes, mists, sible, the following protection should be worn, a higher degree of protection: chemical splash halation hazards exist, a full-face respirator may be r the body should be selected based on the task volved and should be approved by a specialist hen there is a risk of ignition from static electricity, g. For the greatest protection from static de anti-static overalls, boots and gloves.					
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# Section 8. Exposure controls/personal protection

#### **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

<u>Appearance</u>		
Physical state	Liquid.	
Color	Various colors.	
Odor	Characteristic.	
Odor threshold	Not available.	
рН	Not applicable.	
Melting point	Not applicable.	
Boiling point	Lowest known value: 108°C (226.4°F) (2-methylpropan-1-ol). Weighted ave 228.81°C (443.9°F)	erage:
Flash point	Closed cup: 33°C (91.4°F)	
Evaporation rate	Highest known value: 0.84 (ethylbenzene) Weighted average: 0.6compare butyl acetate	d with
Flammability (solid, gas)	Not applicable.	
Lower and upper explosive (flammable) limits	0.8 - 13%	
Vapor pressure	Highest known value: <1.6 kPa (<12 mm Hg) (at 20°C) (2-methylpropan-1- Weighted average: 0.37 kPa (2.78 mm Hg) (at 20°C)	ol).
Vapor density	Highest known value: 11.7 (Air = 1) (epoxy resin (MW $\leq$ 700)). Weighted 7.74 (Air = 1)	average:
Relative density	1.457 to 1.607 g/cm <sup>3</sup>	
Solubility	Insoluble in the following materials: cold water and hot water.	
Partition coefficient: n- octanol/water	Not available.	
Auto-ignition temperature	Lowest known value: >375°C (>707°F) (hydrocarbons, c9-unsatd., polymd.)	).
Decomposition temperature	Not available.	
Viscosity	Kinematic (40°C (104°F)): >0.205 cm²/s (>20.5 mm²/s)	

# Section 10. Stability and reactivity

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 pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition.
Incompatible materials	: Keep away from the following materials to prevent strong exothermic reactions: oxidizing agents, strong alkalis, strong acids.
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
2,2'-[(1-methylethylidene)bis (4,	LD50 Dermal	Rabbit	20 g/kg	-
1-phenyleneoxymethylene)]				
bisoxirane				
	LD50 Oral	Mouse	15600 mg/kg	-
xylene	LC50 Inhalation Vapor	Rat	20 mg/l	4 hours
	LD50 Oral	Rat	4300 mg/kg	-
	TDLo Dermal	Rabbit	4300 mg/kg	-
2-methylpropan-1-ol	LC50 Inhalation Vapor	Rat	19200 mg/m <sup>3</sup>	4 hours
	LD50 Dermal	Rabbit	3400 mg/kg	-
	LD50 Oral	Rat	2460 mg/kg	-
benzyl alcohol	LD50 Oral	Rat	1230 mg/kg	-
ethylbenzene	LC50 Inhalation Gas.	Rabbit	4000 ppm	4 hours
	LD50 Dermal	Rabbit	>5000 mg/kg	-
	LD50 Oral	Rat	3500 mg/kg	-
Phenol, styrenated	LD50 Dermal	Rabbit	>5010 mg/kg	-
	LD50 Oral	Rat	2500 mg/kg	-

## Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
2,2'-[(1-methylethylidene)bis (4, 1-phenyleneoxymethylene)] bisoxirane	Eyes - Severe irritant	Rabbit	-	24 hours 2 mg	-
Phenol, styrenated	Skin - Mild irritant Eyes - Mild irritant Skin - Mild irritant	Rabbit Rabbit Rabbit	- - -	500 mg 0.1 Mililiters 0.5 Mililiters	- - -

## **Sensitization**

Not available.

### **Mutagenicity**

Not available.

#### **Carcinogenicity**

Not available.

#### **Reproductive toxicity**

Not available.

### **Teratogenicity**

Not available.

### Specific target organ toxicity (single exposure)

Name	•••	Route of exposure	Target organs
xylene	Category 3	Not applicable.	Respiratory tract irritation
2-methylpropan-1-ol	Category 3	Not applicable.	Respiratory tract irritation and Narcotic effects

## Specific target organ toxicity (repeated exposure)

Name		Route of exposure	Target organs
ethylbenzene	Category 2	Not determined	hearing organs

## Aspiration hazard

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# Section 11. Toxicological information

Name	Result
•	ASPIRATION HAZARD - Category 1 ASPIRATION HAZARD - Category 1

Information on the 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 skin irritation. May cause an allergic skin reaction.
Ingestion	1	No known significant effects or critical hazards.
Symptoms related to the physical sectors and the sectors are set of the sectors and the sectors are set of the sectors	sic	al, 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 effect	s	and also chronic effects from short and long term exposure

Short term exposure		
Potential immediate effects	: Not available.	
Potential delayed effects	: Not available.	
<u>Long term exposure</u>		
Potential immediate effects	: Not available.	
Potential delayed effects	: Not available.	
Potential chronic health eff	<u>ets</u>	
Not available.		
General	: Once sensitized, a severe allergic reaction may occur when subsequently exposito very low levels.	ed
Carcinogenicity	: No known significant effects or critical hazards.	
Mutagenicity	: No known significant effects or critical hazards.	
Teratogenicity	: No known significant effects or critical hazards.	
<b>Developmental effects</b>	: No known significant effects or critical hazards.	
Fertility effects	: No known significant effects or critical hazards.	

## Numerical measures of toxicity

#### Acute toxicity estimates

Route	ATE value
Oral	42312 mg/kg
Dermal	16640.3 mg/kg
Inhalation (vapors)	95.56 mg/l

# Section 12. Ecological information

## **Toxicity**

Product/ingredient name	Result	Species	Exposure
2,2'-[(1-methylethylidene)bis (4,	Acute EC50 1.4 mg/l	Daphnia	48 hours
1-phenyleneoxymethylene)]			
bisoxirane			
	Acute LC50 3.1 mg/l	Fish - pimephales promelas	96 hours
	Chronic NOEC 0.3 mg/l	Fish	21 days
2-methylpropan-1-ol	Chronic NOEC 4000 µg/l Fresh water	Daphnia - Daphnia magna	21 days
ethylbenzene	Acute EC50 7.2 mg/l	Algae	48 hours
-	Acute EC50 2.93 mg/l	Daphnia	48 hours
	Acute LC50 4.2 mg/l	Fish	96 hours
Phenol, styrenated	Acute EC50 100 mg/l	Algae	72 hours
· · · ·	Acute EC50 54 mg/l	Daphnia	48 hours
	Acute LC50 25.8 mg/l	Fish	96 hours

## Persistence and degradability

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
2,2'-[(1-methylethylidene)bis (4, 1-phenyleneoxymethylene)] bisoxirane	-	-	Not readily
xylene benzyl alcohol ethylbenzene		- - -	Readily Readily Readily

## **Bioaccumulative potential**

Product/ingredient name	LogPow	BCF	Potential
	2.64 to 3.78	31	low
(4,			
1-phenyleneoxymethylene)]			
bisoxirane			
xylene	3.12	8.1 to 25.9	low
hydrocarbons,	3.627	-	low
C9-unsaturated, polymerized			
2-methylpropan-1-ol	1	-	low
benzyl alcohol	0.87	<100	low
ethylbenzene	3.6	-	low
Phenol, methylstyrenated	3.627	-	low

### Mobility in soil

Soil/water partition : Not available. coefficient (Koc)

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

# Section 13. Disposal considerations

Disposal methods	: The generation of waste should be avoided or minimized 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. Vapor from product residues

## Section 13. Disposal considerations

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 spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information				
	UN	IMDG	IATA	
UN number	UN1263	UN1263	UN1263	
UN proper shipping name	Paint	Paint	Paint	
Transport hazard class(es)	3	3	3	
Packing group	III	111	III	
Environmental hazards	No.	No.	No.	
Additional information	-	Emergency schedules F-E, <u>S-E</u>	-	
ADR / RID :	Tunnel restriction code: (D/E) Hazard identification number: 30		•	
	ADR/RID: Viscous substance. No 450 litre capacity).	ot restricted, ref. chapter 2.2.3.1.	5 (applicable to receptacles <	
MDG :	IMDG: Viscous substance. Transport in accordance with paragraph 2.3.2.5 (applicable to receptacles < 30 litre capacity).			

**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.

# Section 15. Regulatory information

List of chemicals for which manufacturing or handling is defined as "work specially hazardous to health"	:	This product contains substances "Specially hazardous to health": xylene, 2-methylpropan-1-ol, butan-1-ol.	
List of chemicals reputed to be a "threat of imminent danger"	:	This product contains substances considered to be a "Threat of imminent danger": xylene, 2-methylpropan-1-ol, ethylbenzene, silica, crystalline - quartz, di-isobutyl ketone, butan-1-ol.	
Safety, health and environmental regulations specific for the product	:	No known specific national and/or regional regulations applicable to this product (including its ingredients).	
Taiwan Chemical Substances Inventory (TCSI)	1	Not determined.	
International regulations			
Chemical Weapon Convention	on	List Schedules I, II & III Chemicals	
Not listed.			
Montreal Protocol (Annexes A, B, C, E) Not listed.			
Stockholm Convention on Persistent Organic Pollutants			
Not listed.			
Rotterdam Convention on Prior Informed Consent (PIC) Not listed.			

# Section 15. Regulatory information

## UNECE Aarhus Protocol on POPs and Heavy Metals Not listed.

# Section 16. Other information

<u>History</u>	
Date of printing	: 10.07.2019
Date of previous issue	: 10.07.2019
Version	: 1.09
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 = Internediate 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) UN = United Nations</li> </ul>

✓ 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.