# SAFETY DATA SHEET HELAIAN DATA KESELAMATAN



Penguard Midcoat MIO Comp A

# Section 1. Identification of the hazardous chemical and of the supplier

Product identifier	: Penguard Midcoat MIO Comp A
Product code	: 2082
Other means of identification	: Not available.
Product type	: Liquid.
Product description	: Paint.

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	: Jotun Bangladesh Ltd House No. 6, 7th Floor Road 2B, Block J Near American Emb. GSO/Japanese Emb. School, Baridhara, Dhaka-1216 Bangladesh
	Telephone +880 2 9856886 Fax +880 2 9852732
	SDSJotun@jotun.com
Emergency telephone	: Jotun Bangladesh Ltd - Telephone +880 2 9856886

#### Emergency telephone number (with hours of operation)

# Section 2. Hazards identification

Classification of the substance or mixture	: FLAMMABLE LIQUIDS - Category 3 SKIN IRRITATION - Category 2 SERIOUS EYE DAMAGE - Category 1 SKIN SENSITISATION - Category 1 HAZARDOUS TO THE AQUATIC ENVIRONMENT - CHRONIC HAZARD - Category 3
<u>GHS label elements</u> Hazard pictograms	
Signal word	: Danger.
Hazard statements	<ul> <li>H226 - Flammable liquid and vapour.</li> <li>H315 - Causes skin irritation.</li> <li>H317 - May cause an allergic skin reaction.</li> <li>H318 - Causes serious eye damage.</li> <li>H412 - Harmful to aquatic life with long lasting effects.</li> </ul>

Date of issue/Date of revision	:13.07.2023	Date of previous issue	: No previous validation	Version : 1	
Tarikh keluaran/Tarikh semakan		Tarikh Keluaran Terdahulu	: Tiada Pengesahan Terdahulu	Versi	1/13
			rcraanala		

# Section 2. Hazards identification

Precautionary statements		
General	Not applicable.	
Prevention	<ul> <li>P280 - Wear protective gloves. Wear 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>	on
Response	<ul> <li>P362 - Take off contaminated clothing and wash before reuse.</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.</li> <li>Immediately call a POISON CENTER or doctor.</li> </ul>	al
Storage	P403 + P235 - Store in a well-ventilated place. Keep cool.	
Disposal	P501 - 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 and information of the ingredients of the hazardous chemical

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

Ingredient name	%	CAS number
epoxy resin (MW ≤ 700)	≤30	1675-54-3
xylene	≤5	1330-20-7
Isobutyl alcohol	≤5	78-83-1
benzyl alcohol	≤5	100-51-6
Ethyl benzene	≤5	100-41-4

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 fire	<u>st aid measures</u>						
Eye contact	flush eyes w Check for a	: 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	victim to free suspected th or self-conta respiratory a It may be da resuscitation	attention immediately. Cash air and keep at rest in a hat fumes are still present, ained breathing apparatus. arrest occurs, provide artific angerous to the person pro n. If unconscious, place in y. Maintain an open airway	t position comfortable for the rescuer should we If not breathing, if brea cial respiration or oxyge widing aid to give mouth recovery position and g	or breathing. If it ar an appropriate athing is irregular en by trained per h-to-mouth get medical atter	is e mask r or if sonnel. ntion		
Date of issue/Date of revision	: 13.07.2023	Date of previous issue	: No previous validation	Version : 1			
Tarikh keluaran/Tarikh semakan		Tarikh Keluaran Terdahulu	: Tiada Pengesahan	Versi	2/13		

evision	. 15.01.2025	Date of previous issue	. No previous vanuation	version . I		
h semakan		Tarikh Keluaran Terdahulu	: Tiada Pengesahan Terdahulu	Versi	2/13	

## Section 4. First aid measures

	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. 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 effect	<u>s</u>	
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/sympto	on	<u>15</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
Ingestion	:	Adverse symptoms may include the following: stomach pains

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

Notes to physician	<ul> <li>Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.</li> </ul>
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)

Tarikh keluaran/Tarikh semakan

# Section 5. Firefighting 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 vapour. 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 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

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 spilt material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Do not breathe vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
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 spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities.
Methods and material for con	tai	nment and cleaning up
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 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 spilt product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.
Date of issue/Date of revision		: 13.07.2023 Date of previous issue : No previous validation Version : 1

Tarikh Keluaran Terdahulu

Versi

4/13

: Tiada Pengesahan

Terdahulu

# 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. 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 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
epoxy resin (MW ≤ 700)	DFG MAC-values list (Germany, 10/2021). Skin sensitiser.
xylene	Schedule I USECHH 2000 (Malaysia, 4/2000).
	TWA: 434 mg/m <sup>3</sup> 8 hours. TWA: 100 ppm 8 hours.
Isobutyl alcohol	Schedule I USECHH 2000 (Malaysia, 4/2000).
	TWA: 152 mg/m <sup>3</sup> 8 hours. TWA: 50 ppm 8 hours.
benzyl alcohol	DFG MAC-values list (Germany, 7/2022). Absorbed through skin. PEAK: 44 mg/m <sup>3</sup> , 4 times per shift, 15 minutes.
	PEAK: 10 ppm, 4 times per shift, 15 minutes. TWA: 22 mg/m <sup>3</sup> 8 hours. TWA: 5 ppm 8 hours.
Ethyl benzene	Schedule I USECHH 2000 (Malaysia, 4/2000). TWA: 100 ppm 8 hours. TWA: 434 mg/m <sup>3</sup> 8 hours.

### **Biological exposure indices**

Date of issue/Date of revision	:13.07.2023	Date of previous issue	: No previous validation	Version : 1	1
Tarikh keluaran/Tarikh semakan		Tarikh Keluaran Terdahulu	: Tiada Pengesahan	Versi	5/13
			Terdahulu		

# Section 8. Exposure controls/personal protection

•	
No exposure indices knowr	
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.
Individual protection measured	<u>ires</u>
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	<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. 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) &gt; 8 hours: Teflon (&gt; 0.35 mm), Viton® (&gt; 0.7 mm), 4H/Silver Shield® (&gt; 0.07 mm), nitrile rubber (&gt; 0.4 mm) May be used, gloves(breakthrough time) 4 - 8 hours: neoprene (&gt; 0.35 mm), butyl rubber (&gt; 0.4 mm), PVC (&gt; 0.5 mm), polyvinyl alcohol (PVA) (&gt; 0.3 mm)</li> </ul>
	For right choice of glove materials, with focus on chemical resistance and time of penetration, seek advice by the supplier of chemical resistant gloves. The user must check that the final choice of type of glove selected for handling this product is the most appropriate and takes into account the particular conditions of use, as included in the user's risk assessment.
Body protection	: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. 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.

Date of issue/Date of revision	:13.07.2023	Date of previous issue	: No previous validation	Version	:1	
Tarikh keluaran/Tarikh semakan		Tarikh Keluaran Terdahulu	: Tiada Pengesahan	Versi		6/13
			Terdahulu			

### Section 8. Exposure controls/personal protection

```
Respiratory protection
```

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

# 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	Grey, Red
Odour	1	Characteristic.
Odour threshold	1	Not applicable.
рН	1	Not applicable.
Melting point/freezing point	1	Not applicable.
Boiling point, initial boiling point, and boiling range	:	Lowest known value: 108°C (226.4°F) (2-methylpropan-1-ol). Weighted average: 225.27°C (437.5°F)
Flash point	:	Closed cup: 25°C (77°F)
Evaporation rate	:	Highest known value: 0.84 (ethylbenzene) Weighted average: 0.61compared with butyl acetate
Flammability	1	Not applicable.
Lower and upper explosion limit/flammability limit	:	0.8 - 13%
Vapour pressure	:	Highest known value: <1.6 kPa (<12 mm Hg) (at 20°C) (2-methylpropan-1-ol). Weighted average: 0.39 kPa (2.93 mm Hg) (at 20°C)
Relative vapour density	:	Highest known value: 11.7 (Air = 1) (epoxy resin (MW $\leq$ 700)). Weighted average: 8.23 (Air = 1)
Density	:	1.87 to 2 g/cm <sup>3</sup>
Solubility(ies)	:	
Media		Result
cold water hot water		Not soluble Not soluble
Partition coefficient: n- octanol/water	:	Not available.
Auto-ignition temperature	:	Lowest known value: 415°C (779°F) (2-methylpropan-1-ol).
Decomposition temperature	:	Not available.
Viscosity	:	Kinematic (40°C (104°F)): >20.5 mm²/s (>20.5 cSt)
Particle characteristics		

# Median particle size : Not applicable. 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.

Date of issue/Date of revision	:13.07.2023	Date of previous issue	: No previous validation	Version	:1	
Tarikh keluaran/Tarikh semakan		Tarikh Keluaran Terdahulu	: Tiada Pengesahan	Versi		7/13
			Terdahulu			

# Section 10. Stability and reactivity

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	:	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
epoxy resin (MW ≤ 700)	LD50 Dermal	Rabbit	20 g/kg	-
	LD50 Oral	Mouse	15600 mg/kg	-
xylene	LC50 Inhalation Vapour	Rat	20 mg/l	4 hours
	LD50 Oral	Rat	4300 mg/kg	-
	TDLo Dermal	Rabbit	4300 mg/kg	-
Isobutyl alcohol	LC50 Inhalation Vapour	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	-
Ethyl benzene	LC50 Inhalation Vapour	Rat - Male	17.8 mg/l	4 hours
-	LD50 Dermal	Rabbit	>5000 mg/kg	-
	LD50 Oral	Rat	3500 mg/kg	-

#### Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
epoxy resin (MW ≤ 700)	Eyes - Severe irritant	Rabbit	-	24 hours 2 milligrams	-
	Skin - Mild irritant	Rabbit	-	500 milligrams	-
xylene	Eyes - Mild irritant	Rabbit	-	87 milligrams	-
	Skin - Mild irritant	Rat	-	8 hours 60 microliters	-
Isobutyl alcohol	Eyes - Irritant	Mammal - species unspecified	-	-	-
	Skin - Mild irritant	Mammal - species unspecified	-	-	-
benzyl alcohol	Eyes - Mild irritant	Mammal - species unspecified	-	-	-

### **Sensitisation**

•••••••••••••••••••••••••••••••••••••••	Route of exposure	Species	Result
epoxy resin (MW ≤ 700)	skin	Mammal - species unspecified	Sensitising

### **Mutagenicity**

Not available.

### **Carcinogenicity**

Not available.

#### **Reproductive toxicity**

Date of issue/Date of revision Tarikh keluaran/Tarikh semakan : 13.07.2023 Date of previous issue Tarikh Keluaran Terdahulu : No previous validation : Tiada Pengesahan Terdahulu

# Section 11. Toxicological information

### 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
Isobutyl alcohol	Category 3	-	Respiratory tract irritation
	Category 3		Narcotic effects

### Specific target organ toxicity (repeated exposure)

Product/ingredient name		Route of exposure	Target organs
Ethyl benzene	Category 2	-	hearing organs

### Aspiration hazard

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

Information on likely routes of exposure	:	Not available.	
Potential acute health effects	2		
Eye contact	1	Causes serious eye damage.	
Inhalation	1	No known significant effects or critical hazards.	
Skin contact	1	Causes skin irritation. May cause an allergic skin reaction.	
Ingestion	1	No known significant effects or critical hazards.	
Symptoms related to the phy	sic	al, chemical and toxicological characteristics	
Eye contact	:	Adverse symptoms may include the following: pain watering redness	
Inhalation	1	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	<u>ts</u>	as well as chronic effects from short and long-term exposure	
<u>Short term exposure</u>			
Potential immediate effects	1	Not available.	
Potential delayed effects	:	Not available.	
Long term exposure			
Potential immediate effects	:	Not available.	
Date of issue/Date of revision Tarikh keluaran/Tarikh semakan		: 13.07.2023 Date of previous issue : No previous validation Version : 1 Tarikh Keluaran Terdahulu : Tiada Pengesahan Versi Terdahulu	

9/13

# Section 11. Toxicological information

### Potential delayed effects : Not available.

Potential chronic health effects

### Not available.

General	: Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.
Carcinogenicity	: No known significant effects or critical hazards.
Mutagenicity	: No known significant effects or critical hazards.
Reproductive toxicity	: 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)
Penguard Midcoat MIO Comp A	62058.5	24379.4	N/A	204.0	N/A
xylene	4300	1100	N/A	20	N/A
2-methylpropan-1-ol	2460	3400	N/A	N/A	N/A
benzyl alcohol	1230	N/A	N/A	11	N/A
ethylbenzene	3500	N/A	N/A	17.8	N/A

# Section 12. Ecological information

### **Toxicity**

Product/ingredient name	Result	Species	Exposure
epoxy resin (MW ≤ 700)	Acute EC50 1.4 mg/l	Daphnia	48 hours
	Acute LC50 3.1 mg/l	Fish - pimephales promelas	96 hours
	Chronic NOEC 0.3 mg/l	Fish	21 days
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
Isobutyl alcohol	Chronic NOEC 4000 µg/l Fresh water	Daphnia - Daphnia magna	21 days
Ethyl benzene	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/Ĭ	Fish	96 hours

### Persistence and degradability

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
epoxy resin (MW ≤ 700) xylene benzyl alcohol Ethyl benzene	- - -		Not readily Readily Readily Readily

### **Bioaccumulative potential**

-	BCF	Potential
2.64 to 3.78	31	low
3.12	8.1 to 25.9	low
1	-	low
0.87	<100	low
3.6	-	low
3 1 0	3.12   ).87	8.12 8.1 to 25.9 - 0.87 <100

Date of issue/Date of revision Tarikh keluaran/Tarikh semakan : 13.07.2023 Date of previous issue Tarikh Keluaran Terdahulu : No previous validation : Tiada Pengesahan Terdahulu Version : 1 Versi 10/13

# Section 12. Ecological information

### Mobility in soil

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

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

### Section 13. Disposal information

**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. Vapour from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information						
	UN	ADR/RID	IMDG	IATA		
UN number	UN1263	UN1263	UN1263	UN1263		
UN proper shipping name	Paint	Paint	Paint	Paint		
Transport hazard class(es)	3	3	3	3		
Packing group		III				
Environmental hazards	No.	No.	No.	No.		

 

 Additional information

 ADR/RID
 : Hazard identification number 30 Tunnel code (D/E) ADR/RID: Viscous substance. Not restricted, ref. chapter 2.2.3.1.5 (applicable to receptacles < 450 litre capacity).</td>

 IMDG
 : Emergency schedules F-E, S-E IMDG: Viscous substance. Transport in accordance with paragraph 2.3.2.5 (applicable to receptacles < 450 litre capacity).</td>

 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.

Date of issue/Date of revision				
Tarikh keluaran/Tarikh semakan				

11/13

# Section 14. Transport information

Transport in bulk according : Not available. to IMO instruments

## Section 15. Regulatory information

### National regulations

EHS Register

Not determined

### Poison Act, Poison List - Schedule 1

Not applicable.

Poison Act, Poison List - Schedule 3

Not applicable.

### 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

<u>History</u>	
Date of printing	: 13.07.2023
Date of issue/Date of revision	: 13.07.2023
Date of previous issue	: No previous validation
Version	: 1
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 = 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) N/A = Not available SGG = Segregation Group UN = United Nations

Procedure used to derive the classification

# Section 16. Other information

Classification	Justification
SKIN IRRITATION - Category 2 SERIOUS EYE DAMAGE - Category 1	On basis of test data Calculation method Calculation method
SKIN SENSITISATION - Category 1 HAZARDOUS TO THE AQUATIC ENVIRONMENT - CHRONIC HAZARD - Category 3	Calculation method Calculation method

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.

13/13