SAFETY DATA SHEET



1/13

Marathon IQ2 Comp A

Section 1. Chen	nical product and company identification
Product name	: Marathon IQ2 Comp A
Product code	: 35042
Product type	: Liquid.
Product description	: Paint.
Relevant identified uses	of the substance or mixture and uses advised against
Use in coatings - Industria	luse
Use in coatings - Profession	onal use
Supplier's details	: Chokwang Jotun Ltd. 30th Block Jisa science park, 1205 Jisa-dong, Gangseo-ku, Busan, South Korea Tel: + 82 51 797 6000 Fax: + 82 51 711 7735
	朝光 JOTUN 株式會社 大韓民國 釜山廣域市 江西區 科學産團 1路 96 (智士洞) Tel: + 86 535 3088 586 Fax: + 82 51 711 7735
	SDSJotun@jotun.com
Emergency telephone number (with hours of operation)	: +86 535 3088 586

Section 2. Hazards identification

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

Classification of the substance or mixture	 SKIN CORROSION/IRRITATION - Category 2 SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2A SKIN SENSITISATION - Category 1 LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 2
GHS label elements	
Hazard pictograms	
Signal word	: Warning.
Hazard statements	 H315 - Causes skin irritation. H317 - May cause an allergic skin reaction. H319 - Causes serious eye irritation. H411 - Toxic to aquatic life with long lasting effects.
Date of issue/Date of revision	: 27.11.2024 Date of previous issue : 25.11.2024 Version : 1.07

Section 2. Hazards identification

Precautionary statements		
General	:	Not applicable.
Prevention	:	P280 - Wear protective gloves. Wear eye or face protection. P273 - Avoid release to the environment. P261 - Avoid breathing vapour.
Response	:	 P391 - Collect spillage. P362 + P364 - Take off contaminated clothing and wash it before reuse. P302 + P352 - IF ON SKIN: Wash with plenty of water. P333 + P313 - If skin irritation or rash occurs: Get medical advice or attention. P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337 + P313 - If eye irritation persists: Get medical advice or attention.
Storage	:	Not applicable.
Disposal	:	P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.
Physical and chemical hazards	:	No known significant effects or critical hazards.
Health hazards	:	Causes skin irritation. May cause an allergic skin reaction. Causes serious eye irritation.

Section 3. Composition/information on ingredients

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

Ingredient name	%	CAS number
epoxy resin (MW ≤ 700)	≤50	1675-54-3
oxirane, 2,2'-[1,6-hexanediylbis(oxymethylene)]bis-	≤5	16096-31-4
silane, trimethyoxy[3-(oxiranyl-methoxy)propyl]-	<3	2530-83-8
benzyl alcohol	≤3	100-51-6

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 necess	ary first aid measures
Eye contact	 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. Get medical attention.
Inhalation	: Remove victim to fresh air and keep at rest in a position comfortable for breathing. 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. Get medical attention if adverse health effects persist or are severe. 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.

Section 4. First aid measures

Skin contact	: 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. Get medical attention. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.
Ingestion	: 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. Get medical attention if adverse health effects persist or are severe. 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 irritation.		
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.		
<u>Over-exposure signs/symp</u>	<u>s</u>		
Eye contact	Adverse symptoms may include the following: pain or irritation watering redness		
Inhalation	No specific data.		
Skin contact	Adverse symptoms may include the following: irritation redness		
Ingestion	No specific data.		
Indication of immediate medical attention and special treatment needed, if necessary			
Notes to physician	In case of inhalation of decomposition products in a fire, symptoms may be de The exposed person may need to be kept under medical surveillance for 48 he		
Specific treatments	No specific treatment.		
Protection of first-aiders	No action shall be taken involving any personal risk or without suitable training may be dangerous to the person providing aid to give mouth-to-mouth resuscil Wash contaminated clothing thoroughly with water before removing it, or wear gloves.	tation.	

See toxicological information (Section 11)

Section 5. Firefighting measures

Extinguishing media	
Suitable extinguishing media	: Use an extinguishing agent suitable for the surrounding fire.
Unsuitable extinguishing media	: None known.
Specific hazards arising from the chemical	: In a fire or if heated, a pressure increase will occur and the container may burst. This material is toxic to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

Date of issue/Date of revision

Section 5. Firefighting measures

	_
Hazardous thermal decomposition products	: Decomposition products may include the following materials: carbon dioxide carbon monoxide sulfur oxides halogenated compounds carbonyl halides 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.
Special protective equipment for fire-fighters	 Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel	:	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Avoid breathing 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. Collect spillage.
Methods and material for cor	nta	inment and cleaning up
Small spill	:	Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
Large spill	:	Stop leak if without risk. Move containers from spill area. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilt 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 ingest. Avoid breathing vapour or mist. Avoid release to the environment. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

Section 7. Handling and storage

	-	•
Advice on general occupational hygiene	:	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
Conditions for safe storage, including any incompatibilities	:	Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. 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 lim	<u>its</u>	
None.		
Biological exposure indice	<u>s</u>	
No exposure indices known.	-	
Appropriate engineering controls	:	Good general ventilation should be sufficient to control worker exposure to airborne contaminants.
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 measu	res	
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.
Skin protection		
Hand protection	:	There is no one glove material or combination of materials that will give unlimited resistance to any individual or combination of chemicals. The breakthrough time must be greater than the end use time of the product. The instructions and information provided by the glove manufacturer on use, storage, maintenance and replacement must be followed. Gloves should be replaced regularly and if there is any sign of damage to the glove material. Always ensure that gloves are free from defects and that they are stored and used correctly. The performance or effectiveness of the glove may be reduced by physical/chemical damage and poor maintenance. Barrier creams may help to protect the exposed areas of the skin but should not be applied once exposure has occurred.

Section 8. Exposure controls/personal protection

•	• •
	Wear suitable gloves tested to ISO 374-1:2016. Recommended, gloves(breakthrough time) > 8 hours: neoprene (> 0.35 mm), Viton® (> 0.7 mm), 4H/Silver Shield® (> 0.07 mm), butyl rubber (> 0.4 mm) May be used, gloves(breakthrough time) 4 - 8 hours: polyvinyl alcohol (PVA) (> 0.3 mm), nitrile rubber (> 0.75 mm), PVC (> 0.5 mm)
	For right choice of glove materials, with focus on chemical resistance and time of penetration, seek advice by the supplier of chemical resistant gloves.
	The user must check that the final choice of type of glove selected for handling this product is the most appropriate and takes into account the particular conditions of use, as included in the user's risk assessment.
Body protection	 Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Other skin protection	 Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Respiratory protection	: Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Section 9. Physical and chemical properties and safety characteristics

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

Appearance

point, and boiling range 283.04°C (541.5°F) Flash point : Closed cup: 100°C (212°F) Evaporation rate : 0.007 (benzyl alcohol) compared with butyl acetate Flammability : Not applicable. Lower and upper explosion : Not applicable. limit/flammability limit : Not applicable. Vapour pressure : Highest known value: 0.007 kPa (0.05 mm Hg) (at 20°C) (benzyl alcohol). Weighted average: 0.0003 kPa (0.002 mm Hg) (at 20°C) Relative vapour density : Highest known value: 11.7 (Air = 1) (epoxy resin (MW ≤ 700)). Weighted 11.41 (Air = 1) Density : 1.632 to 1.664 g/cm³ Solubility (ies) : Image: Solubility in water : Not available. Not available. Not available. Solubility in water : Not available. Partition coefficient: n- octanol/water : Not available. Auto-ignition temperature : Not available. Decomposition temperature : Not available.	Appearance		
Odour:Characteristic.Odour threshold:Not applicable.pH:Not applicable.Melting point/freezing point:Not applicable.Boiling point, initial boiling point, and boiling range:Lowest known value: $205.3^{\circ}C$ ($401.5^{\circ}F$) (benzyl alcohol). Weighted averag $283.04^{\circ}C$ ($541.5^{\circ}F$)Flash point:Closed cup: $100^{\circ}C$ ($212^{\circ}F$)Evaporation rate: 0.007 (benzyl alcohol) compared with butyl acetateFlammability:Not applicable.Lower and upper explosion:Not applicable.Lower and upper explosion:Not applicable.Lower and upper explosion:Not applicable.Imit/flammability limit:Not applicable.Vapour pressure:Highest known value: 0.007 KPa (0.05 mm Hg) (at 20° C) (benzyl alcohol). Weighted average: 0.003 kPa (0.002 mm Hg) (at 20° C) (benzyl alcohol). Weighted at average: 0.003 kPa (0.002 mm Hg) (at 20° C)Relative vapour density:Highest known value: 11.7 (Air = 1) (epoxy resin (MW \leq 700)). Weighted 11.41 (Air = 1)Density::1.632 to 1.664 g/cm³Solubility(ies)::MediaResult Not soluble Not solubleSolubility in water:Not available.Partition coefficient: n- cotanol/water:Auto-ignition temperature:Not available.Decomposition temperature:Not available.Decomposition temperature:Not available.<	Physical state	:	Liquid.
Odour threshold : Not applicable. pH : Not applicable. Melting point/freezing point : Not applicable. Boiling point, initial boiling : Lowest known value: 205.3°C (401.5°F) (benzyl alcohol). Weighted averag 283.04°C (541.5°F) Flash point : Closed cup: 100°C (212°F) Evaporation rate : 0.007 (benzyl alcohol) compared with butyl acetate Flash point : Closed cup: 100°C (212°F) Evaporation rate : 0.007 (benzyl alcohol) compared with butyl acetate Flammability : Not applicable. Lower and upper explosion limit/flammability limit : Not applicable. Vapour pressure : Highest known value: 0.007 kPa (0.05 mm Hg) (at 20°C) (benzyl alcohol). Weighted average: 0.0003 kPa (0.002 mm Hg) (at 20°C) Relative vapour density : Highest known value: 11.7 (Air = 1) (epoxy resin (MW ≤ 700)). Weighted 11.41 (Air = 1) Density : 1.632 to 1.664 g/cm³ Solubility(ies) : Media Result cold water Not soluble Not available. Not available. Partition coefficient: n- : Not available. octanol/water : Not available. Partition coefficient: n- : Not available.	Colour	:	Black, Blue., Green., Grey, Off-white., Red, Yellow.
pH : Not applicable. Melting point/freezing point : Not applicable. Boiling point, initial boiling point, and boiling range : Lowest known value: 205.3°C (401.5°F) (benzyl alcohol). Weighted average 283.04°C (541.5°F) Flash point : Closed cup: 100°C (212°F) Evaporation rate : 0.007 (benzyl alcohol) compared with butyl acetate Flammability : Not applicable. Lower and upper explosion limit/flammability limit : Not applicable. Vapour pressure : Highest known value: 0.007 kPa (0.05 mm Hg) (at 20°C) (benzyl alcohol). Weighted average: 0.0003 kPa (0.002 mm Hg) (at 20°C) Relative vapour density : Highest known value: 11.7 (Air = 1) (epoxy resin (MW ≤ 700)). Weighted 11.41 (Air = 1) Density : 1.632 to 1.664 g/cm³ Solubility(ies) : Media Result cold water Not soluble hot water : Not available. Partition coefficient: n- : Not available. octanol/water : Not available. Auto-ignition temperature : Not available. Decomposition temperature : Not available.	Odour	1	Characteristic.
Melting point/freezing point : Not applicable. Boiling point, initial boiling point, and boiling range : Lowest known value: 205.3°C (401.5°F) (benzyl alcohol). Weighted average 283.04°C (541.5°F) Flash point : Closed cup: 100°C (212°F) Evaporation rate : 0.007 (benzyl alcohol) compared with butyl acetate Flammability : Not applicable. Lower and upper explosion : Not applicable. Imit/flammability limit : Not applicable. Vapour pressure : Highest known value: 0.007 kPa (0.05 mm Hg) (at 20°C) (benzyl alcohol). Weighted average: 0.0003 kPa (0.002 mm Hg) (at 20°C) Relative vapour density : Highest known value: 11.7 (Air = 1) (epoxy resin (MW ≤ 700)). Weighted 11.41 (Air = 1) Density : 1.632 to 1.664 g/cm³ Solubility(ies) : Media Result kot soluble Not soluble Solubility in water : Not available. Partition coefficient: n- : Not available. Partition temperature : Not available. Decomposition temperature : Not available.	Odour threshold	1	Not applicable.
Boiling point, initial boiling point, and boiling range : Lowest known value: 205.3°C (401.5°F) (benzyl alcohol). Weighted averag 283.04°C (541.5°F) Flash point : Closed cup: 100°C (212°F) Evaporation rate : 0.007 (benzyl alcohol) compared with butyl acetate Flammability : Not applicable. Lower and upper explosion limit/flammability limit : Not applicable. Vapour pressure : Highest known value: 0.007 kPa (0.05 mm Hg) (at 20°C) (benzyl alcohol). Weighted average: 0.0003 kPa (0.002 mm Hg) (at 20°C) Relative vapour density : Highest known value: 11.7 (Air = 1) (epoxy resin (MW ≤ 700)). Weighted 11.41 (Air = 1) Density : 1.632 to 1.664 g/cm³ Solubility(ies) : Media Result Not soluble Not soluble Solubility in water : Not available. Partition coefficient: n- octanol/water : Not available. Partition temperature : Not available. Decomposition temperature : Not available.	рН	:	Not applicable.
point, and boiling range $283.04^{\circ}C (541.5^{\circ}F)$ Flash point: Closed cup: 100°C (212°F)Evaporation rate: 0.007 (benzyl alcohol) compared with butyl acetateFlammability: Not applicable.Lower and upper explosion: Not applicable.Imit/flammability limit: Not applicable.Vapour pressure: Highest known value: 0.007 kPa (0.05 mm Hg) (at 20°C) (benzyl alcohol). Weighted average: 0.0003 kPa (0.002 mm Hg) (at 20°C)Relative vapour density: Highest known value: 11.7 (Air = 1) (epoxy resin (MW ≤ 700)). Weighted 11.41 (Air = 1)Density: 1.632 to 1.664 g/cm³Solubility(ies):MediaResult Not soluble Not solubleSolubility in water: Not available.Partition coefficient: n- octanol/water: Not available.Auto-ignition temperature: Not applicable.Decomposition temperature: Not available.	Melting point/freezing point	:	Not applicable.
Evaporation rate : 0.007 (benzyl alcohol) compared with butyl acetate Flammability : Not applicable. Lower and upper explosion : Not applicable. limit/flammability limit : Not applicable. Vapour pressure : Highest known value: 0.007 kPa (0.05 mm Hg) (at 20°C) (benzyl alcohol). Weighted average: 0.0003 kPa (0.002 mm Hg) (at 20°C) (benzyl alcohol). Relative vapour density : Highest known value: 11.7 (Air = 1) (epoxy resin (MW ≤ 700)). Weighted 11.41 (Air = 1) Density : 1.632 to 1.664 g/cm³ Solubility(ies) : Media Result cold water Not soluble Not available. Not soluble Solubility in water : Not available. Partition coefficient: n- : Not available. octanol/water Auto-ignition temperature Auto-ignition temperature : Not available.		:	Lowest known value: 205.3°C (401.5°F) (benzyl alcohol). Weighted average: 283.04°C (541.5°F)
Flammability : Not applicable. Lower and upper explosion : Not applicable. limit/flammability limit : Not applicable. Vapour pressure : Highest known value: 0.007 kPa (0.05 mm Hg) (at 20°C) (benzyl alcohol). Weighted average: 0.0003 kPa (0.002 mm Hg) (at 20°C) Relative vapour density : Highest known value: 11.7 (Air = 1) (epoxy resin (MW ≤ 700)). Weighted 11.41 (Air = 1) Density : 1.632 to 1.664 g/cm³ Solubility(ies) : Media Result cold water Not soluble hot water : Not available. Partition coefficient: n- octanol/water : Not available. Auto-ignition temperature : Not available. Decomposition temperature : Not available.	Flash point	:	Closed cup: 100°C (212°F)
Lower and upper explosion limit/flammability limit : Not applicable. Vapour pressure : Highest known value: 0.007 kPa (0.05 mm Hg) (at 20°C) (benzyl alcohol). Weighted average: 0.0003 kPa (0.002 mm Hg) (at 20°C) Relative vapour density : Highest known value: 11.7 (Air = 1) (epoxy resin (MW ≤ 700)). Weighted 11.41 (Air = 1) Density : 1.632 to 1.664 g/cm³ Solubility(ies) : Media Result cold water hot water Not soluble Not soluble Solubility in water : Not available. Partition coefficient: n- octanol/water : Not applicable. Auto-ignition temperature : Not available. Decomposition temperature : Not available.	Evaporation rate	:	0.007 (benzyl alcohol) compared with butyl acetate
limit/flammability limit Vapour pressure : Highest known value: 0.007 kPa (0.05 mm Hg) (at 20°C) (benzyl alcohol). Weighted average: 0.0003 kPa (0.002 mm Hg) (at 20°C) Relative vapour density : Highest known value: 11.7 (Air = 1) (epoxy resin (MW ≤ 700)). Weighted 11.41 (Air = 1) Density : 1.632 to 1.664 g/cm³ Solubility(ies) : Media Result cold water Not soluble Not soluble Not soluble Solubility in water : Not available. Partition coefficient: n- octanol/water : Not available. Auto-ignition temperature : Not available. Decomposition temperature : Not available.	Flammability	:	Not applicable.
Weighted average: 0.0003 kPa (0.002 mm Hg) (at 20°C) Relative vapour density : Highest known value: 11.7 (Air = 1) (epoxy resin (MW ≤ 700)). Weighted 11.41 (Air = 1) Density : 1.632 to 1.664 g/cm³ Solubility(ies) : Media Result cold water Not soluble hot water Not soluble Solubility in water : Not available. Partition coefficient: n- octanol/water : Not available. Auto-ignition temperature : Not applicable. Decomposition temperature : Not available.		;	Not applicable.
11.41 (Air = 1) Density : 1.632 to 1.664 g/cm³ Solubility(ies) : Media Result cold water Not soluble hot water Not soluble Solubility in water : Not available. Partition coefficient: n- : Not available. octanol/water Auto-ignition temperature Auto-ignition temperature : Not available.	Vapour pressure	1	
Solubility(ies) : Media Result cold water Not soluble hot water Not soluble Solubility in water : Solubility in water : Partition coefficient: n- : octanol/water : Auto-ignition temperature : Not available.	Relative vapour density	:	Highest known value: 11.7 (Air = 1) (epoxy resin (MW ≤ 700)). Weighted average: 11.41 (Air = 1)
Media Result cold water Not soluble hot water Not soluble Solubility in water : Not available. Partition coefficient: n- : Not available. octanol/water . Auto-ignition temperature : Not applicable. Decomposition temperature : Not available.	Density	:	1.632 to 1.664 g/cm ³
cold water hot water Not soluble Not soluble Solubility in water : Not available. Partition coefficient: n- octanol/water : Not available. Auto-ignition temperature : Not applicable. Decomposition temperature : Not available.	Solubility(ies)	:	
hot water Not soluble Solubility in water : Not available. Partition coefficient: n- : Not available. octanol/water : Not available. Auto-ignition temperature : Not applicable. Decomposition temperature : Not available.	Media		Result
Partition coefficient: n- octanol/water : Not available. Auto-ignition temperature : Not applicable. Decomposition temperature : Not available.			
octanol/water Auto-ignition temperature : Not applicable. Decomposition temperature : Not available.	Solubility in water	:	Not available.
Decomposition temperature : Not available.		:	Not available.
· ·	Auto-ignition temperature	:	Not applicable.
Date of issue/Date of revision : 27.11.2024 Date of previous issue : 25.11.2024 Version : 1	Decomposition temperature	1	Not available.
	Date of issue/Date of revision		: 27.11.2024 Date of previous issue : 25.11.2024 Version : 1.07 6/13

Section 9. Physical and chemical properties and safety characteristics

: Not applicable.

Viscosity

reactions

VISCOSILY Deutlete et en et en le ti

Particle characteristics

: Kinematic (40°C (104°F)): >20.5 mm²/s (>20.5 cSt)

Median particle size 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 : Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions to avoid	:	No specific data.
Incompatible materials	:	No specific data.
Hazardous decomposition products	:	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Irritation/Corrosion

Product/ingredient name	Result	Species	Dose	Exposure
epoxy resin (MW ≤ 700)	LD50 Dermal	Rabbit	20 g/kg	-
	LD50 Oral	Mouse	15600 mg/kg	-
benzyl alcohol	LD50 Oral	Rat	1230 mg/kg	-

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	-
oxirane, 2,2'- [1,6-hexanediylbis (oxymethylene)]bis-	Eyes - Mild irritant	Mammal - species unspecified	-	-	-
	Skin - Mild irritant	Mammal - species unspecified	-	-	-
silane, trimethyoxy[3- (oxiranyl-methoxy)propyl]-	Eyes - Irritant	Mammal - species unspecified	-	-	-
benzyl alcohol	Eyes - Mild irritant	Mammal - species unspecified	-	-	-

Sensitisation

Section 11. Toxicological information

Product/ingredient name	Route of exposure	Species	Result	
epoxy resin (MW ≤ 700)	skin	Mammal - species unspecified	Sensitising	
oxirane, 2,2'- [1,6-hexanediylbis (oxymethylene)]bis-	skin	Mammal - species unspecified	Sensitising	

Mutagenicity

Not available.

Carcinogenicity

Not available.

Classification

Product/ingredien	t name	IARC
epoxy resin (MW ≤	700)	3

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on likely routes : Not available. of exposure

Potential acute health effects

Eye contact	: Causes serious eye irritation.
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.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact	: Adverse symptoms may include the following: pain or irritation watering redness
Inhalation	: No specific data.
Skin contact	: Adverse symptoms may include the following: irritation redness
Ingestion	: No specific data.

Delayed and immediate eff	ects as well as chronic effects from sho	ort and long-term ex	<u>posure</u>
Short term exposure			
Potential immediate effects	: Not available.		
Date of issue/Date of revision	: 27.11.2024 Date of previous issue	: 25.11.2024	Version

Section 11. Toxicological information

	-
Potential delayed effects	: Not available.
Long term exposure	
Potential immediate effects	: Not available.
Potential delayed effects	: Not available.
Potential chronic health effe	<u>cts</u>
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)
Marathon IQ2 Comp A		N/A	N/A	901.6	N/A
benzyl alcohol		N/A	N/A	11	N/A

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
epoxy resin (MW ≤ 700)	Acute EC50 1.4 mg/l Acute LC50 3.1 mg/l Chronic NOEC 0.3 mg/l	Daphnia Fish - pimephales promelas Fish	48 hours 96 hours 21 days
oxirane, 2,2'- [1,6-hexanediylbis (oxymethylene)]bis-	Acute EC50 47 mg/l	Daphnia	48 hours
(,	Acute LC50 30 mg/l	Fish - Cyprinidae (Leuciscus idus)	96 hours

Persistence/degradability

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
epoxy resin (MW ≤ 700) silane, trimethyoxy[3- (oxiranyl-methoxy)propyl]-	-		Not readily Not readily
benzyl alcohol	-	-	Readily

Bioaccumulative potential

Product/ingredient name	LogPow	BCF	Potential
epoxy resin (MW ≤ 700) oxirane, 2,2'- [1,6-hexanediylbis	2.64 to 3.78 0.822	31 -	low low
(oxymethylene)]bis- benzyl alcohol	0.87	<100	low

Section 12. Ecological information

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 should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

UN proper E	UN3082	UN3082	UN3082	UN3082
	Environmentally hazardous substance, liquid, n.o.s. (epoxy resin (MW ≤ 700))	Environmentally hazardous substance, liquid, n.o.s. (epoxy resin (MW ≤ 700))	Environmentally hazardous substance, liquid, n.o.s. (epoxy resin (MW ≤ 700)). Marine pollutant (epoxy resin (MW ≤ 700))	Environmentally hazardous substance liquid, n.o.s. (epoxy resin (MW ≤ 700))
Transport hazard S class(es)	9	9	9	9
Packing group	III	Ш		ш
Environmental hazards	Yes.	Yes.	Yes.	Yes.

	sizes of ≤5 L or ≤5 kg.
UN	: This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8.
IMDG	 This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8. <u>Emergency schedules</u> F-A, S-F
ΙΑΤΑ	 This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 5.0.2.4.1, 5.0.2.6.1.1 and 5.0.2.8.
ADR / RID	: Tunnel restriction code: (-) Hazard identification number: 90

Section 14. Transport information

•		
Marking	-	The environmental hazardous / marine pollutant mark is only applicable for packages containing more than 5 litres for liquids and 5 kg for solids.
Special precautions for user	:	Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.
Extinguishing media		
Suitable extinguishing media	1	Use an extinguishing agent suitable for the surrounding fire.
Unsuitable extinguishing media	1	None known.
Incompatible materials	:	No specific data.
Transport in bulk according to IMO instruments	:	Not available.

Section 15. Regulatory information

Safety, health and environmental regulations specific for the product:

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

Regulations on the Control over Safety of Dangerous Chemicals Measures for Environmental Management of New Chemical Substances Law of the People's Republic of China on the Prevention and Control of Environment Pollution Caused by Solid Wastes Safety regulations for the use of chemicals in the workplace General Rule for Classification and Hazard Communication of Chemicals Classification and code of dangerous goods

List of Goods banned for Importing

None of the components are listed.

Drug Precursors Requiring an Import/Export License

None of the components are listed.

Inventory of Hazardous Chemicals

None of the components are listed.

List of Explosive Precursors

None of the components are listed.

List of Goods banned for Exporting

None of the components are listed.

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

None of the components are listed.

Catalogue and classification of drug precursor chemicals

None of the components are listed.

Inventory of highly toxic articles

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

Ingredient name	Status
barium sulfate	Listed
titanium dioxide	Listed

Date of issue/Date of revision

Section 15. Regulatory information

Catalogue of Occupational Disease Hazard Factors - Chemical Factors

Ingredient name

barium sulfate

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	: 27.11.2024
Date of issue/Date of revision	: 27.11.2024
Date of previous issue	: 25.11.2024
Version	: 1.07
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 = 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

Procedure used to derive the classification

Classification	Justification
SKIN CORROSION/IRRITATION - Category 2	Calculation method
SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2A	Calculation method
SKIN SENSITISATION - Category 1	Calculation method
LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 2	Calculation method

References

: Not available.

✓ Indicates information that has changed from previously issued version.

Notice to reader

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.

Status

Listed

Section 16. Other information

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