SAFETY DATA SHEET



Jotafloor EP SL Uni Comp A

Section 1. Identification	
GHS product identifier	: Jotafloor EP SL Uni Comp A
Other means of identification	: Not available.
Product code	: 47882
Product description	: Paint.
Product type	: Liquid.
Relevant identified uses o	f the substance or mixture and uses advised against
	Identified uses
Use in coatings - Industrial Use in coatings - Profession	
Supplier's details	: Jotun (Singapore) Pte Ltd 37 Tuas View Crescent Singapore 637236 Phone: 6508 8288 Fax: 6265 7484 SDSJotun@jotun.com
Emergency telephone number	: Jotun (Singapore) Pte Ltd, Tel: 6508 8288

Section 2. Hazards identification **Classification of the** SKIN CORROSION/IRRITATION - Category 2 2 substance or mixture SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2A **SKIN SENSITISATION - Category 1** LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 3 **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. H412 - Harmful to aquatic life with long lasting effects. **Precautionary statements Prevention** : P280 - Wear protective gloves. Wear eye or face protection. P273 - Avoid release to the environment. P261 - Avoid breathing vapour. Response : 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.

Section 2. Hazards identification

```
Disposal
```

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

Other hazards which do not : None known. result in classification

Section 3. Composition/information on ingredients

Substance/mixture	:	Mixture
Other means of identification	:	Not available.
CAS number/other identifiers		
CAS number	÷	Not applicable.
EC number	÷	Mixture.
Product code	:	47882
	_	

Ingredient name	%	CAS number	
epoxy resin (MW ≤ 700)	≥10 - <25	1675-54-3	
Phenol, methylstyrenated	≤5	68512-30-1	
oxirane, mono[(c12-14-alkyloxy)methyl]derivs	≤3	68609-97-2	
Fatty acids, C18-unsatd., dimers, oligomeric reaction products with	≤0.3	68475-94-5	
1-chloro-2,3-epoxypropane			

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.

Chemical formula

: Not applicable.

Section 4. First aid measures

Description of necessary 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.
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/effe	ects, 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.

Section 4. First aid measures

Ingestion	:	No known significant effects or critical hazards.
Over-exposure signs/symptoms		
Eye contact	:	Adverse symptoms may include the following: pain or irritation watering redness
Inhalation	1	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	:	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
Specific treatments	1	No specific treatment.
Protection of first-aiders	:	No action shall be taken involving any personal risk or without suitable training. 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.
Contextentent information	- 10	Partian (4)

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 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.
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.
Methods and material for containment and cleaning up		

Methods and material for containment and cleaning up

Date of issue	: 19.04.2023	
---------------	--------------	--

Section 6. Accidental release measures

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.
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 limits	
None.	
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 measures	
Hygiene measures :	Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
Eye/face protection :	Safety eyewear complying to ISO 16321-1:2022 should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.
Skin protection	

Section 8. Exposure controls/personal protection

•	· · ·
Hand protection	 There is no one glove material or combination of materials that will give unlimited resistance to any individual or combination of chemicals. The breakthrough time must be greater than the end use time of the product. The instructions and information provided by the glove manufacturer on use, storage, maintenance and replacement must be followed. Gloves should be replaced regularly and if there is any sign of damage to the glove material. Always ensure that gloves are free from defects and that they are stored and used correctly. The performance or effectiveness of the glove may be reduced by physical/ chemical damage and poor maintenance. Barrier creams may help to protect the exposed areas of the skin but should not be applied once exposure has occurred. Wear suitable gloves tested to ISO 374-1:2016. Recommended, gloves(breakthrough time) > 8 hours: butyl rubber (> 0.4 mm), nitrile rubber (> 0.4 mm), neoprene (> 0.35 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

<u>Appearance</u>	
Physical state	: Liquid.
Colour	: Various
Odour	: Characteristic.
Odour threshold	: Not available.
рН	: Not applicable.
Melting point	: Not applicable.
Boiling point	 Lowest known value: >260°C (>500°F)(epoxy resin (MW ≤ 700)). Weighted average: 288.37°C (551.1°F)
Flash point	: Closed cup: 100°C (212°F)
Burning time	: Not applicable.
Burning rate	: Not applicable.
Evaporation rate	: Not available.
Flammability (solid, gas)	: Not applicable.
Lower and upper explosive (flammable) limits	: Not applicable.
Vapour pressure	 Highest known value: 0.001 kPa (0.008 mm Hg) (at 20°C) (Phenol, methylstyrenated). Weighted average: 0.0002 kPa (0.002 mm Hg) (at 20°C)
Vapour density	: Highest known value: 11.7(Air = 1)(epoxy resin (MW ≤ 700)).
Relative density	: 1.803 to 1.976 g/cm ³
Solubility	: Insoluble in the following materials: cold water and hot water.
Solubility in water	: Not available.

Section 9. Physical and chemical properties

Partition coefficient: n- octanol/water	Not available.	
Auto-ignition temperature	Lowest known value: >385°C (>725°F) (Phenol, methylstyrenated).	
Decomposition temperature	Not available.	
SADT	Not available.	
Viscosity	Dynamic: Highest known value: 165 cP (Phenol, methylstyrenated) Weighte average: 33.92 cP Kinematic (40C): >20.5 cSt	ed

Section 10. Stability and reactivity

Reactivity	: No specific test data related to reactivity available for this product or its ingredients.
Chemical stability	: The product is stable.
Possibility of hazardous reactions	: Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid	: No specific data.
Incompatible materials	: Keep away from the following materials to prevent strong exothermic reactions: oxidising agents, strong alkalis, strong acids.
Hazardous decomposition products	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.
SADT	: Not available.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
epoxy resin (MW ≤ 700)	LD50 Dermal LD50 Oral	Rabbit Mouse	20 g/kg 15600 mg/kg	-
oxirane, mono[(c12-14-alkyloxy)methyl]	LD50 Oral	Rat	17100 mg/kg	-
(c12-14-alkyloxy)methyl] derivs				

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	-
Phenol, methylstyrenated	Skin - Mild irritant	Mammal - species unspecified	-	-	-
oxirane, mono[(c12-14-alkyloxy)methyl] derivs	Skin - Mild irritant	Mammal - species unspecified	-	-	-
	Skin - Moderate irritant	Rabbit	-	24 hours 500 µl	-
Fatty acids, C18-unsatd., dimers, oligomeric reaction products with 1-chloro- 2,3-epoxypropane	Eyes - Mild irritant	Mammal - species unspecified	-	-	-
_,, -, -, -, -, -, -, -, -, -, -, -, -,	Skin - 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	
Phenol, methylstyrenated	skin	Mammal - species unspecified	Sensitising	
oxirane, mono[(c12-14-alkyloxy)methyl] derivs	skin	Mammal - species unspecified	Sensitising	
Fatty acids, C18-unsatd., dimers, oligomeric reaction products with 1-chloro- 2,3-epoxypropane	skin	Mammal - species unspecified	Sensitising	

Mutagenicity

Not available.

Carcinogenicity

Not available.

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 phy	sical, 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 effec	ts as well as chronic effects from short and long-term exposure	
<u>Short term exposure</u>		
Potential immediate effects	: Not available.	
Potential delayed effects	: Not available.	
<u>Long term exposure</u>		
Potential immediate effects	: Not available.	
Date of issue	: 19.04.2023	

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.
Teratogenicity	: No known significant effects or critical hazards.
Developmental effects	: No known significant effects or critical hazards.
Fertility effects	: No known significant effects or critical hazards.
Numerical measures of toxi	<u>iity</u>

Acute toxicity estimates

Not available.

Section 12. Ecological information

	D K		. .		-
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
Persistence/degradability					
Product/ingredient name	Aquatic half-life	Photoly	sis	Biodegrad	ability
epoxy resin (MW ≤ 700)	-			Not readily	
Bioaccumulative potential				·	
Product/ingredient name	LogP _{ow} BCF		Potential		
epoxy resin (MW ≤ 700) Phenol, methylstyrenated oxirane, mono[(c12-14-alkyloxy)methyl] derivs	2.64 to 3.78 3.627 3.77	3.627 - lo		low low low	
<u>Mobility in soil</u>					
Soil/water partition coefficient (K _{oc})	: 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.
	Do not allow to enter drains or watercourses. Material and/or container must be disposed of as hazardous waste.

Section 14 Transport information

	UN	IMDG	ΙΑΤΑ
UN number	Not regulated.	Not regulated.	Not regulated.
UN proper shipping name	-	-	-
Transport hazard class(es)	-	-	-
Packing group	-	-	-
Environmental hazards	No.	No.	No.
Additional information	-	-	-

This preparation is not classified as dangerous according to international transport regulations (ADR/RID, IMDG or ICAO/IATA).

Additional information

ADR / RID

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.

Transport in bulk according : Not available. to IMO instruments

Section 15. Regulatory information

Singapore - hazardous chemicals under government control

None.

Section 16. Other information

Key to abbreviations	IATA = Internati IBC = Intermed IMDG = Interna LogPow = logar MARPOL = Inter	entration Factor Harmonized System of Classification and Labelling of Chemicals ional Air Transport Association iate Bulk Container tional Maritime Dangerous Goods ithm of the octanol/water partition coefficient ernational Convention for the Prevention of Pollution From Ships, ad by the Protocol of 1978. ("Marpol" = marine pollution)
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 guality 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.