SAFETY DATA SHEET



Jotafloor Topcoat E Comp A

Section 1. Identification of the substance/mixture and of the company/undertaking

GHS product identifier	: Jotafloor Topcoat E Comp A
Product code	: 29980
Other means of identification	: Not available.
Product description	: Paint.
Product type	: Liquid.

Relevant identified uses of the substance or mixture and uses advised against

Use in coatings - Consumer use: Apply this product only as specified on the label. Use in coatings - Professional use

Manufacturing country	:	Jotun Thailand Limited 700/353 Amata Nakorn Industrial Estate (BIP 2) Moo 6, Tumbol Donhualoh, Amphur Muang Chonburi Chonburi 20000 Thailand
		Phone: + 66 2 022 9888 Fax: + 66 2 022 9888 , + 66 38 214 375
		SDSJotun@jotun.com
Emergency telephone number	:	Jotun Thailand Limited Phone: + 66 2 022 9888 ext. 2100, 2400, 2402

Section 2. Hazards identification

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.
Precautionary statements	

Section 2. Hazards identification

General	: P102 - Keep out of reach of children.
Prevention	 P280 - Wear protective gloves. Wear eye or face protection. P273 - Avoid release to the environment. P261 - Avoid breathing vapour. P264 - Wash hands thoroughly after handling.
Response	 P391 - Collect spillage. P362 - Take off contaminated clothing and wash before reuse. P363 - Wash contaminated clothing 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.

Other hazards which do not	1	None known.
result in classification		

Section 3. Composition/information on ingredients

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

Ingredient name	%	CAS number
epoxy resin (MW ≤ 700)	≥25 - ≤50	1675-54-3
oxirane, mono[(c12-14-alkyloxy)methyl]derivs	≤10	68609-97-2
Phenol, methylstyrenated	≤5	68512-30-1

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

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.

Section 4. First aid measures

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 sympton	oms/effects, acute and delayed
Potential acute health	<u>effects</u>
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.
Over-exposure signs	/symptoms
Even a surfacet	A decomposition of the state of

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	: Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
Specific treatments	: No specific treatment.
Protection of first-aiders	: No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

Section 5. Firefighting measures

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.
Hazardous thermal decomposition products	: Decomposition products may include the following materials: carbon dioxide carbon monoxide halogenated compounds metal oxide/oxides

Section 5. Firefighting measures

Special protective actions	: Promptly isolate the scene by removing all persons from the vicinity of the incident if
for fire-fighters	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 containment 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.
Advice on general occupational hygiene	: Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Section 7. Handling and storage

Conditions for safe storage,	: Store in accordance with local regulations. Store in original container protected
including any	from direct sunlight in a dry, cool and well-ventilated area, away from incompatible
incompatibilities	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 e	<u>xposure limits</u>
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 meas	ures
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	: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
	 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: PVC (> 0.5 mm), neoprene (> 0.35 mm), nitrile rubber (> 0.75 mm), butyl rubber (> 0.4 mm)

Section 8. Exposure controls/personal protection

-	
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.
	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	Brown., Grey, MCI Base 1, MCI Base 3, Red, Yellow.
Odour	1	Characteristic.
Odour threshold	1	Not available.
рН	:	Not applicable.
Melting point/freezing point	:	Not applicable.
Boiling point, initial boiling point, and boiling range	:	Lowest known value: >260°C (>500°F)(epoxy resin (MW \leq 700)). Weighted average: 287.36°C (549.2°F)
Flash point	:	Closed cup: 100°C (212°F)
Evaporation rate	:	Not available.
Flammability	:	Not applicable.
Lower and upper explosion limit/flammability limit	:	Not available.
Vapour pressure	1	Highest known value: 0.001 kPa (0.008 mm Hg) (at 20°C) (Phenol, methylstyrenated). Weighted average: 9e-005 kPa (0.0007 mm Hg) (at 20°C)
Relative vapour density	:	Highest known value: 11.7 (Air = 1) (epoxy resin (MW ≤ 700)).
Relative density	:	1.505 to 1.604 g/cm ³
Solubility	1	cold water Not soluble hot water Not soluble
Partition coefficient: n- octanol/water	1	Not available.
Auto-ignition temperature	:	Lowest known value: >385°C (>725°F) (Phenol, methylstyrenated).
Decomposition temperature	:	Not available.
Viscosity	:	Kinematic (40°C (104°F)): >20.5 mm²/s (>20.5 cSt)
Flow time (ISO 2431)	:	Not available.
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.
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.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
epoxy resin (MW ≤ 700) oxirane, mono[(c12-14-alkyloxy)methyl] derivs	LD50 Dermal LD50 Oral LD50 Oral	Mouse	20 g/kg 15600 mg/kg 17100 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	-
oxirane, mono[(c12-14-alkyloxy)methyl] derivs	Skin - Mild irritant	Mammal - species unspecified	-	-	-
	Skin - Moderate irritant	Rabbit	-	24 hours 500 µl	-
Phenol, methylstyrenated	Skin - Mild irritant	Mammal - species unspecified	-	-	-

Sensitisation

Product/ingredient name	Route of exposure	Species	Result
epoxy resin (MW ≤ 700)	skin	Mammal - species unspecified	Sensitising
oxirane, mono[(c12-14-alkyloxy)methyl] derivs	skin	Mammal - species unspecified	Sensitising
Phenol, methylstyrenated	skin	Mammal - species unspecified	Sensitising

Mutagenicity

Not available.

Carcinogenicity

Not available.

Section 11. Toxicological information

Reproductive toxicity Not available.	
<u>Teratogenicity</u>	
Not available.	
Specific target organ toxici	<u>ty (single exposure)</u>
Not available.	
Specific target organ toxici Not available.	ty (repeated exposure)
Aspiration hazard	
Not available.	
Information on likely routes of exposure	: Not available.
Potential acute health effect	<u>s</u>
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	vsical, 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 effect	cts as well as chronic effects from short and long-term exposure
Short term exposure	
Potential immediate effects	: Not available.
Potential delayed effects	: Not available.
Long term exposure	
Potential immediate effects	: Not available.
Potential delayed effects	: Not available.
Potential chronic health eff	ects
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

Section 11. Toxicological information

Acute toxicity estimates

Product/ingredient name	Oral (mg/ kg)			(vapours) (mg/l)	Inhalation (dusts and mists) (mg/l)
oxirane, mono[(c12-14-alkyloxy)methyl]derivs	17100	N/A	N/A	N/A	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		

Persistence and degradability

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
epoxy resin (MW ≤ 700)	-	-	Not readily

Bioaccumulative potential

Product/ingredient name	LogPow	BCF	Potential
epoxy resin (MW ≤ 700) oxirane, mono[(c12-14-alkyloxy)methyl] derivs	2.64 to 3.78 3.77	31 160 to 263	low low
Phenol, methylstyrenated	3.627	-	low

Mobility in soil

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

Other adverse effects

: No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or 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	IMDG	ΙΑΤΑ	
UN number	UN3082	UN3082	UN3082	
UN proper shipping name	Environmentally ha: substance, liquid, n (epoxy resin (MW ≤	o.s. substance, liquid, n.o	o.s. substance, liquid, n.o.s. 700)). (epoxy resin (MW ≤ 700))	
Transport hazard class(es)	9	9	9	
Packing group	111		III	
Environmental hazards	Yes.	Yes.	Yes.	
Additional information	ion			
ADR / RID	or ≤5 k and 4.1 <u>Hazard</u> <u>Tunne</u> : This pr	g, provided the packagings meet t .1.4 to 4.1.1.8. identification number 90 code (-) oduct is not regulated as a danger	ous good when transported in sizes of ≤5 he general provisions of 4.1.1.1, 4.1.1.2 ous good when transported in sizes of ≤5	
or ≤5 kg, provided the packagings meet the general provisions of 4.1.1.1, and 4.1.1.4 to 4.1.1.8.			he general provisions of 4.1.1.1, 4.1.1.2	
IMDG	or ≤5 k and 4.1	This product is not regulated as a dangerous good when transported in sizes of \leq 5 L or \leq 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. Emergency schedules F-A, S-F		
ΙΑΤΑ	or ≤5 k	 This product is not regulated as a dangerous good when transported in sizes of ≤5 I 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. 		
Special precautions	upright	ser : 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 the event of an accident or spillage.		
Fransport in bulk a	cording : Not ava	ilable.		

to IMO instruments

Section 15. Regulatory information

Harmful Chemicals List : Listed

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.

Section 15. Regulatory information

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

Section 16. Other information

<u>History</u>	
Date of printing	: 29.05.2024
Date of issue/Date of revision	: 29.05.2024
Date of previous issue	: 29.05.2024
Version	: 1.03
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

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.

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