

Jotafloor Topcoat E Clear Comp B

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

GHS product identifier	: Jotafloor Topcoat E Clear Comp B
Product code	: 39202
Other means of identification	: Not available.
Product description	: Hardener.
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 (Cambodia) Limited Oval Office Tower – 18th floor, Street 360 (corner Norodom Boulevard), Sangkat Boeung Keng Kang I Khan Chamkarmon, Phnom Penh, Cambodia.
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Section 2. Hazards identification

Classification of the substance or mixture	ACUTE TOXICITY (oral) - Category 4 SKIN CORROSION/IRRITATION - Category 1 SERIOUS EYE DAMAGE/EYE IRRITATION - Category 1 SKIN SENSITISATION - Category 1A	
GHS label elements		
Hazard pictograms		
Signal word	Danger.	
Hazard statements	H302 - Harmful if swallowed.	
	H314 - Causes severe skin burns and eye damage.	
	H317 - May cause an allergic skin reaction.	
Precautionary statements		
General	P102 - Keep out of reach of children.	
Prevention	 P280 - Wear protective gloves, protective clothing and eye or face protect P261 - Avoid breathing vapour. P270 - Do not eat, drink or smoke when using this product. 	tion.

Section 2. Hazards identification

Response	 P304 + P310 - IF INHALED: Immediately call a POISON CENTER or doctor. P301 + P310, P330, P331 - IF SWALLOWED: Immediately call a POISON CENTER or doctor. Rinse mouth. Do NOT induce vomiting. P303 + P361 + P353, P310 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. Immediately call a POISON CENTER or doctor. 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, P310 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor.
Storage	: P405 - Store locked up.
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 identification	: Not available.

Ingredient name	%	CAS number
benzyl alcohol 3-aminomethyl-3,5,5-trimethylcyclohexylamine salicylic acid		100-51-6 2855-13-2 69-72-7

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	: Get medical attention immediately. Call a poison center or physician. Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician.
Inhalation	: Get medical attention immediately. Call a poison center or physician. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. 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.
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.

Section 4. First aid measures

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/e	ffe	cts, acute and delayed
Potential acute health effect	<u>ts</u>	
Eye contact	:	Causes serious eye damage.
Inhalation	:	No known significant effects or critical hazards.
Skin contact	:	Causes severe burns. May cause an allergic skin reaction.
Ingestion	:	Harmful if swallowed.
Over-exposure signs/symp	ton	<u>ns</u>
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
Indication of immediate med	lica	l attention and special treatment needed, if necessary
Notes to physician	:	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.
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 informatio	n (\$	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	
Hazardous thermal decomposition products	: Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides	
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Section 5. Firefighting measures

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 : No action shall be taken involving any personal risk or without suitable training. personnel Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. 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). 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

: 19.12.2023

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. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. 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. Store locked up. 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
occupational	chposure	111113

None.

Appropriate engineering controls	: If user operations generate dust, fumes, gas, vapour or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.
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 and/or face shield. If inhalation hazards exist, a full-face respirator may be required instead.
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.

Section 8. Exposure controls/personal protection

: 4H/Silver Shield® (> 0.07 n), Viton® (> 0.7 mm) nitrile rubber (> 0.75 mm),
e selected based on the task approved by a specialist
on measures should be risks involved and should be
ct a respirator that meets the st be used according to a I, training, and other important
xposure limit, they must use a with charcoal and dust filter s filter combination A2-P2). In piratory equipment. When use
n), nitri se se ap on n risk: ct a st b l, tra xpo wit s fil

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

<u>Appearance</u>						
Physical state	:	Liquid.				
Colour	1	Clear.				
Odour	1	Characteristic.				
Odour threshold	:	Not available.				
рН	:	Not applicable.				
Melting point/freezing point	:	Not applicable.				
Boiling point, initial boiling point, and boiling range	1	Lowest known value: 205.3°C (401.5°F) (benzyl alcohol). Weighted average: 228.04°C (442.5°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	1	1.2 - 13%				
Vapour pressure	1	Highest known value: 0.007 kPa (0.05 mm Hg) (at 20°C) (benzyl alcohol). Weighted average: 0.005 kPa (0.04 mm Hg) (at 20°C)				
Relative vapour density	:	Highest known value: 3.7 (Air = 1) (benzyl alcohol).				
Relative density	:	1 g/cm³				
Solubility	1	cold water Not soluble hot water Not soluble				
Partition coefficient: n- octanol/water	1	Not available.				
Auto-ignition temperature	1	Lowest known value: 380°C (716°F) (3-aminomethyl- 3,5,5-trimethylcyclohexylamine).				
Decomposition temperature	:	Not available.				
Viscosity	:	Not available.				
Flow time (ISO 2431)	:	Not available.				
Particle characteristics						

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Section 9. Physical and chemical properties and safety 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	3.			
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

Α	CI	ut	e	to	xi	ci	ty	

Product/ingredient name	Result	Species	Dose	Exposure
benzyl alcohol 3-aminomethyl- 3,5,5-trimethylcyclohexylamine	LD50 Oral LD50 Oral		1230 mg/kg 1030 mg/kg	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
benzyl alcohol	Eyes - Mild irritant	Mammal - species unspecified	-	-	-
salicylic acid	Eyes - Mild irritant	Mammal - species unspecified	-	-	-
	Skin - Mild irritant	Mammal - species unspecified	-	-	-

Sensitisation

••••••	Route of exposure	Species	Result
3-aminomethyl- 3,5,5-trimethylcyclohexylamine	skin	Mammal - species unspecified	Sensitising

Mutagenicity

Not available.

Carcinogenicity

Not available.

Reproductive toxicity

Section 11. Toxicological information

Product/ingredient name	Maternal toxicity	Fertility	Developmental toxin	Species	Dose	Exposure
salicylic acid	-	-	Positive	Rat	Oral: 150 mg/kg	-

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 damage.
Inhalation	: No known significant effects or critical hazards.
Skin contact	: Causes severe burns. May cause an allergic skin reaction.
Ingestion	: Harmful if swallowed.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact	: Adverse symptoms may include the following: pain watering redness
Inhalation	: No specific data.
Skin contact	: Adverse symptoms may include the following: pain or irritation redness blistering may occur
Ingestion	: Adverse symptoms may include the following: stomach pains
Delayed and immediate eff	ects 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.

Potential immediate : Not available. effects

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.

Section 11. Toxicological information

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)
Jotafloor Topcoat E Clear Comp B (MM-WCS)	1217.6	N/A	N/A	24.4	N/A
benzyl alcohol	1230	N/A	N/A	11	N/A
3-aminomethyl-3,5,5-trimethylcyclohexylamine	1030	N/A	N/A	N/A	N/A
salicylic acid	500	N/A	N/A	N/A	N/A

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
3-aminomethyl- 3,5,5-trimethylcyclohexylamine	Acute EC50 17.4 to 21.5 mg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute IC50 37 mg/l	Algae	72 hours
salicylic acid	Acute LC50 32 µg/l Fresh water	Daphnia - Daphnia magna - Neonate	48 hours
	Chronic NOEC 1 mg/l Fresh water	Daphnia - Daphnia longispina - Neonate	21 days

Persistence and degradability

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
benzyl alcohol 3-aminomethyl- 3,5,5-trimethylcyclohexylamine	-		Readily Not readily

Bioaccumulative potential

Product/ingredient name	LogPow	BCF	Potential
benzyl alcohol	0.87	<100	low
3-aminomethyl-	0.99	-	low
3,5,5-trimethylcyclohexylamine			
salicylic acid	2.21 to 2.26	-	low

Mobility in soil	
Soil/water partition coefficient (Koc)	: Not available.
Other adverse effects	: No known significant e

: 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	UN2735	UN2735	UN2735
UN proper shipping name	Amines, liquid, corrosive, n.o.s. (3-aminomethyl- 3,5,5-trimethylcyclohexylamine)	Amines, liquid, corrosive, n.o.s. (3-aminomethyl- 3,5,5-trimethylcyclohexylamine)	Amines, liquid, corrosive, n.o. s. (3-aminomethyl- 3,5,5-trimethylcyclohexylamine)
Transport hazard class(es)	8	8	8
Packing group			
Environmental hazards	No.	No.	No.
Additional information ADR / RID : Hazard identification number 80 Tunnel code (E) UN : IMDG : Emergency schedules F-A, S-B			
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

Harmful Chemicals List : Listed

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals Not listed.

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Montreal Protocol

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Section 15. Regulatory information

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

Section 16. Other information

<u>History</u>	
Date of printing	: 19.12.2023
Date of issue/Date of revision	: 19.12.2023
Date of previous issue	: 15.12.2023
Version	: 1.01
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
ACUTE TOXICITY (oral) - Category 4	Calculation method
SKIN CORROSION/IRRITATION - Category 1	Calculation method
SERIOUS EYE DAMAGE/EYE IRRITATION - Category 1	Calculation method
SKIN SENSITISATION - Category 1A	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.