## SAFETY DATA SHEET



1/11

## Jotafloor Screed Comp B

## Section 1. Identification

GHS product identifier	: Jotafloor Screed
Other means of identification	: Not available.
Product code	: 491
Product description	: Hardener.
Product type	: Liquid.

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

	Identified uses	
Use in coatings - Industrial use		
Use in coatings - Professional use		

Comp B

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	1	Jotun Thailand Limited
		Phone: + 66 2 022 9888 ext. 2100, 2400, 2402

## Section 2. Hazards identification

Classification of the substance or mixture	: ACUTE TOXICITY (oral) - Category 4 SKIN CORROSION/IRRITATION - Category 1C SERIOUS EYE DAMAGE/EYE IRRITATION - Category 1 SKIN SENSITISATION - Category 1 SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE (kidneys) - Category 2 LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 3
GHS label elements	
Hazard pictograms	
Signal word	: Danger.
Hazard statements	<ul> <li>H302 - Harmful if swallowed.</li> <li>H314 - Causes severe skin burns and eye damage.</li> <li>H317 - May cause an allergic skin reaction.</li> <li>H373 - May cause damage to organs through prolonged or repeated exposure.</li> <li>(kidneys)</li> <li>H412 - Harmful to aquatic life with long lasting effects.</li> </ul>
Precautionary statements	

## Section 2. Hazards identification

Prevention	<ul> <li>P280 - Wear protective gloves. Wear eye or face protection. Wear protective clothing.</li> <li>P273 - Avoid release to the environment.</li> <li>P260 - Do not breathe vapour or spray.</li> <li>P270 - Do not eat, drink or smoke when using this product.</li> <li>P264 - Wash hands thoroughly after handling.</li> </ul>
Response	<ul> <li>P314 - Get medical attention if you feel unwell.</li> <li>P304 + P340 + P310 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or physician.</li> <li>P301 + P310 + P330 + P331 - IF SWALLOWED: Immediately call a POISON CENTER or physician. Rinse mouth. Do NOT induce vomiting.</li> <li>P303 + P361 + P353 + P363 + P310 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. Wash contaminated clothing before reuse. Immediately call a POISON CENTER or physician.</li> <li>P302 + P352 - IF ON SKIN: Wash with plenty of soap and water.</li> <li>P303 + P313 - If skin irritation or rash occurs: Get medical attention.</li> <li>P305 + P351 + P338 + P310 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or physician.</li> </ul>
Storage	: P405 - Store locked up.
Disposal	: P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.
ther 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		
CAS number	: Not applicable.		
EC number	: Mixture.		
Product code	: 491		
Ingredient name		%	CAS number
formaldehyde, polymer with benzenamine, hydrogenated benzyl alcohol 3,6-diazaoctanethylenediamin		≥25 - ≤50 ≥25 - ≤50 ≤3	135108-88-2 100-51-6 112-24-3

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

: 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.

## Section 4. First aid measures

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.
Ingestion	: Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Chemical burns must be treated promptly by a physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed

most important symptoms/ener	<i></i>	
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.
Over-exposure signs/symptor	<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 medica	<u>ıl a</u>	ttention 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 information (Section 11)

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## Section 5. Firefighting measures

Extinguishing media		
Suitable extinguishing media	4	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 nitrogen 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, protecti	ve 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. Do not breathe vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
For emergency responders	: If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
Environmental precautions	: Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities.
Methods and material for cont	ainment 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	: 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. 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		
None.		
Recommended monitoring procedures	:	If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required.
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 EN 166 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.

## Section 8. Exposure controls/personal 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 EN374.
	Recommended, gloves(breakthrough time) > 8 hours: 4H, Teflon, Viton® May be used, gloves(breakthrough time) 4 - 8 hours: nitrile rubber, neoprene, butyl rubber, Trellchen HPS
	Not recommended, gloves(breakthrough time) < 1 hour: PVC
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	<ul> <li>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.</li> </ul>
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

Appearance	
Physical state	: Liquid.
Colour	: Various colours.
Odour	: Characteristic.
Odour threshold	: Not available.
рН	: Not applicable.
Melting point	: Not applicable.
Boiling point	<ul> <li>Lowest known value: 205.3°C (401.5°F) (benzyl alcohol). Weighted average: 228.16°C (442.7°F)</li> </ul>
Flash point	: Closed cup: 218°C (424.4°F)
Burning time	: Not applicable.
Burning rate	: Not applicable.
Evaporation rate	: 0.007 (benzyl alcohol) compared with butyl acetate
Flammability (solid, gas)	: Not applicable.
Lower and upper explosive (flammable) limits	: 1.1 - 13%
Vapour pressure	<ul> <li>Highest known value: 0.007 kPa (0.05 mm Hg) (at 20°C) (benzyl alcohol).</li> <li>Weighted average: 0.003 kPa (0.02 mm Hg) (at 20°C)</li> </ul>
Vapour density	<ul> <li>Highest known value: 5.04 (Air = 1) (3,6-diazaoctanethylenediamin). Weighted average: 3.77 (Air = 1)</li> </ul>
Relative density	: 1.02 g/cm <sup>3</sup>
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## Section 9. Physical and chemical properties

Solubility	: Insoluble in the following materials: cold water and hot water.
Partition coefficient: n-octanol/ water	: Not available.
Auto-ignition temperature	: Lowest known value: 337.78°C (640°F) (3,6-diazaoctanethylenediamin).
Decomposition temperature	: Not available.
SADT	: Not available.
Viscosity	: Kinematic (40°C): >0.205 cm²/s (>20.5 mm²/s)
Aerosol product	

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	<ul> <li>Under normal conditions of storage and use, hazardous decomposition products should not be produced.</li> </ul>		

## Section 11. Toxicological information

#### Information on toxicological effects

#### Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
benzyl alcohol 3,6-diazaoctanethylenediamin	LD50 Oral LD50 Oral LD50 Oral	Mouse	1230 mg/kg 1600 mg/kg 38.5 mg/kg	- -

#### Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
benzyl alcohol	Eyes - Mild irritant	Mammal - species unspecified	-	-	-
3,6-diazaoctanethylenediamin	Eyes - Moderate irritant	Rabbit	-	24 hours 20 milligrams	-
	Eyes - Severe irritant	Rabbit	-	49 milligrams	-
	Skin - Severe irritant	Rabbit	-	24 hours 5 milligrams	-
	Skin - Severe irritant	Rabbit	-	490 milligrams	-

#### **Sensitisation**

	Route of exposure	Species	Result
3,6-diazaoctanethylenediamin		Mammal - species unspecified	Sensitising

**Mutagenicity** 

Not available.

#### **Carcinogenicity**

Not available.

#### Reproductive toxicity Not available.

#### <u>Teratogenicity</u>

## Section 11. Toxicological information

#### Not available.

#### Specific target organ toxicity (single exposure)

Not available.

#### Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
formaldehyde, polymer with benzenamine, hydrogenated	Category 2	Oral	kidneys

#### Aspiration hazard

Not available.

#### 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

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

# Potential chronic health effects General : May cause damage to organs through prolonged or repeated exposure. 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 toxicity

#### Acute toxicity estimates

Route	ATE value
	796.56 mg/kg 62429.06 mg/kg 34.38 mg/l

## Section 12. Ecological information

#### Toxicity

Product/ingredient name	Result	Species	Exposure
3,6-diazaoctanethylenediamin	Acute LC50 33900 μg/l Fresh water	Daphnia - Daphnia magna	48 hours

#### Persistence and degradability

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
benzyl alcohol 3,6-diazaoctanethylenediamin	-		Readily Not readily

#### **Bioaccumulative potential**

Product/ingredient name	LogPow	BCF	Potential
formaldehyde, polymer with benzenamine, hydrogenated	-	209 to 219	low
benzyl alcohol 3,6-diazaoctanethylenediamin	0.87 -1.66 to -1.4		low low

#### Mobility in soil

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

Other adverse effects

: No known significant effects or critical hazards.

: 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 13. Disposal considerations

Disposal methods

	UN	IMDG	IATA
UN number	UN2735	UN2735	UN2735
UN proper shipping name	Polyamines, liquid, corrosive, n.o.s. (formaldehyde, polymer with benzenamine, hydrogenated)	Polyamines, liquid, corrosive, n.o.s. (formaldehyde, polymer with benzenamine, hydrogenated)	Polyamines, liquid, corrosive, n.o.s. (formaldehyde, polymer with benzenamine, hydrogenated)
Transport hazard class(es)	8	8	8
Packing group	111	Ш	Ш
Environmental hazards	No.	No.	No.

## Section 14. Transport information

Special precautions for user	<b>Transport within user's</b> <b>premises:</b> 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.	<b>Transport within user's</b> <b>premises:</b> 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.	<b>Transport within user's</b> <b>premises:</b> 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.
Additional information	-	Emergency schedules F-A, S-B	-

Transport in bulk according to Annex II of Marpol and the IBC Code	:	Not available.
ADR / RID	:	Tunnel restriction code: (E) Hazard identification number: 80
IMDG Code Segregation group	:	18 - Alkalis
Continue 15 Docusion		

## Section 15. Regulatory information

Hazardous Substance Act B.E.	<u>2535 (1992)</u>		
<u>Type</u>			
Ingredient name	<u>Type</u>	<u>Authority</u>	Conditions
triethylenetetramine	1	Department of	-
		Industrial Works	
	No known specific nationa	l and/or regional regulations a	applicable to this product

# (including its ingredients).

History		
Date of printing	1	04.01.2021
Date of issue/Date of revision	1	04.01.2021
Date of previous issue	1	28.05.2020
Version	1	1.12
Key to abbreviations	:	ADN = European Provisions concerning the International Carriage of Dangerous Goods by Inland Waterway ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road 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 MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution) RID = The Regulations concerning the International Carriage of Dangerous Goods by Rail UN = United Nations
Defense		LogPow = logarithm of the octanol/water partition coefficient
References	-	Not available.
Indicates information that ha	s c	changed from previously issued version.
Notice to reader		

### otice to reader

## Section 16. Other information

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.