

Jotafix Epoxy Primer Comp B

ther means of identification	: Not available.
roduct code	: 35983
roduct description	: Hardener.
roduct type	: Liquid.

Use in coatings - Industrial use 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
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Section 2. Hazards identification

Classification of the substance or mixture	 FLAMMABLE LIQUIDS - Category 3 SKIN CORROSION/IRRITATION - Category 2 SERIOUS EYE DAMAGE/EYE IRRITATION - Category 1 SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE (Respiratory tract irritation) - Category 3
GHS label elements	
Signal word	: Danger.
Hazard statements	: H226 - Flammable liquid and vapour.

Hazard statements	 H226 - Flammable liquid and vapour. H315 - Causes skin irritation. H318 - Causes serious eye damage. H335 - May cause respiratory irritation.
Precautionary statements	
Prevention	 P280 - Wear protective gloves. Wear eye or face protection. P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P261 - Avoid breathing vapour.

Date of issue	: 19.07.2021	1/11

Section 2. Hazards identification

Response	 P304 + P312 - IF INHALED: Call a POISON CENTER or doctor if you feel unwell. P362 - Take off contaminated clothing and wash before reuse. P302 + P352 - IF ON SKIN: Wash with plenty of water. 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	: P403 + P233 - Store in a well-ventilated place. Keep container tightly closed. P403 + P235 - Keep cool.
Disposal	: P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.
Other hazards which do not result in classification	: None known.

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	: 35983		
Ingredient name		%	CAS number
xylene		≥10 - <22	1330-20-7
ethylbenzene		<10	100-41-4
butan-1-ol		<10	71-36-3

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

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.
Skin contact	: Get medical attention immediately. Call a poison center or physician. Flush contaminated skin with plenty of 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. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Section 4. First aid measures

Section 4. First aid	neasures	
Ingestion	: Get medical attention immediately. Call a poison center or physician. Wash ou mouth with water. Remove dentures if any. Remove victim to fresh air and kee rest in a position comfortable for breathing. If material has been swallowed and 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 vomit unless directed to do so by medical personnel. If vomiting occurs, the head sho be kept low so that vomit does not enter the lungs. Chemical burns must be tre promptly by a physician. Never give anything by mouth to an unconscious perso 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.	ep at I the ing ould ated on.
Most important symptoms/eff Potential acute health effect	s, acute and delayed	
Eye contact	Causes serious eye damage.	
Inhalation	May cause respiratory irritation.	
Skin contact	Causes skin irritation.	
Ingestion	: No known significant effects or critical hazards.	
Over-exposure signs/sympt	<u>2</u>	
Eye contact	: Adverse symptoms may include the following: pain watering redness	
Inhalation	: Adverse symptoms may include the following: respiratory tract irritation coughing	
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 medi	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. 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 persor providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothin thoroughly with water before removing it, or wear gloves.	e า

See toxicological information (Section 11)

Section 5. Firefighting measures

Extinguishing media		
Suitable extinguishing media	:	Use dry chemical, CO ₂ , water spray (fog) or foam.
Unsuitable extinguishing media	1	Do not use water jet.
Specific hazards arising from the chemical	:	Flammable liquid and vapour. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion.
Hazardous thermal decomposition products	:	Decomposition products may include the following materials: carbon dioxide carbon monoxide
Date of issue		: 19.07.2021 3/1

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. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.
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. Shut off all ignition sources. No flares, smoking or flames in hazard area. Do not breathe vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment. : If specialised clothing is required to deal with the spillage, take note of any For emergency responders 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. Use spark-proof tools and explosion-proof equipment. 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. Use spark-proof tools and explosion-proof equipment. 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 a segregated and approved area. 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. Eliminate all ignition sources. Separate from oxidising materials. 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

Ingredient name	·	Exposure limits		
xylene		Ministry of Labor (Thailand, 8/2017).		
ethylbenzene		TWA: 100 ppm 8 hours. Ministry of Labor (Thailand, 8/2017). TWA: 100 ppm 8 hours.		
butan-1-ol		Ministry of Labor (Thailand, 8/2017). TWA: 100 ppm 8 hours.		
Recommended monitoring procedures	atmosphere or biological monit of the ventilation or other contro protective equipment. Referen	ents with exposure limits, personal, workplace oring may be required to determine the effectiveness of measures and/or the necessity to use respiratory ce should be made to appropriate monitoring nal guidance documents for methods for the ostances will also be required.		
Appropriate engineering controls	ventilation or other engineering contaminants below any recom also need to keep gas, vapour	Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering contro also need to keep gas, vapour or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.		
Environmental exposure controls	they comply with the requireme cases, fume scrubbers, filters c	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	<u>2</u>			
Hygiene measures	eating, smoking and using the l Appropriate techniques should	e thoroughly after handling chemical products, before avatory and at the end of the working period. be used to remove potentially contaminated clothing. efore reusing. Ensure that eyewash stations and workstation location.		
Eye/face protection	: Safety eyewear complying to El indicates this is necessary to av dusts. If contact is possible, the assessment indicates a higher	N 166 should be used when a risk assessment void exposure to liquid splashes, mists, gases or e following protection should be worn, unless the degree of protection: chemical splash goggles and/ ards exist, a full-face respirator may be required		
Skin protection				
Hand protection	be worn at all times when hand this is necessary. Considering check during use that the glove should be noted that the time to different for different glove man	gloves complying with an approved standard should ling chemical products if a risk assessment indicates the parameters specified by the glove manufacturer, as are still retaining their protective properties. It be breakthrough for any glove material may be sufacturers. In the case of mixtures, consisting of tion time of the gloves cannot be accurately		
	resistance to any individual or of The breakthrough time must be The instructions and informatio storage, maintenance and repla Gloves should be replaced regu material. Always ensure that gloves are f	e greater than the end use time of the product. n provided by the glove manufacturer on use,		
	damage and poor maintenance	tect the exposed areas of the skin but should not be		
Date of issue	• 10.07.2021	5/11		

Section 8. Exposure controls/personal protection

Responder, neoprene Not recommended, gloves(breakthrough time) < 1 hour: F	E, butyl rubber, PVC
being performed and the risks involved and should be app before handling this product. When there is a risk of igniti wear anti-static protective clothing. For the greatest prote	proved by a specialist on from static electricity, ction from static
appropriate standard or certification. Respirators must be	used according to a
respirator according to EN 140. Use respiratory mask with when spraying this product, according to EN 14387(as filte	charcoal and dust filter combination A2-P2). In
	 May be used, gloves(breakthrough time) 4 - 8 hours: Vitor Responder, neoprene Not recommended, gloves(breakthrough time) < 1 hour: P Recommended, gloves(breakthrough time) > 8 hours: nitri polyvinyl alcohol (PVA) Personal protective equipment for the body should be sele being performed and the risks involved and should be app before handling this product. When there is a risk of igniti- wear anti-static protective clothing. For the greatest protect discharges, clothing should include anti-static overalls, bod Appropriate footwear and any additional skin protection me selected based on the task being performed and the risks approved by a specialist before handling this product. Based on the hazard and potential for exposure, select a r appropriate standard or certification. Respirators must be respiratory protection program to ensure proper fitting, trai aspects of use. If workers are exposed to concentrations above the exposs respirator according to EN 140. Use respiratory mask with when spraying this product, according to EN 14387(as filte confined spaces, use compressed-air or fresh-air respirator

Section 9. Physical and chemical properties

	u	
<u>Appearance</u>		
Physical state	1	Liquid.
Colour	:	Colourless.
Odour	1	Characteristic.
Odour threshold	1	Not available.
рН	1	Not applicable.
Melting point	:	Not applicable.
Boiling point	1	Lowest known value: 119°C (246.2°F) (butan-1-ol). Weighted average: 132.85°C (271.1°F)
Flash point	1	Closed cup: 33°C (91.4°F)
Burning time	1	Not applicable.
Burning rate	1	Not applicable.
Evaporation rate	1	Highest known value: 0.84 (ethylbenzene) Weighted average: 0.72compared with butyl acetate
Flammability (solid, gas)	1	Not applicable.
Lower and upper explosive (flammable) limits	1	0.8 - 11.3%
Vapour pressure	1	Highest known value: 1.2 kPa (9.3 mm Hg) (at 20°C) (ethylbenzene). Weighted average: 0.96 kPa (7.2 mm Hg) (at 20°C)
Vapour density	:	Highest known value: 3.7 (Air = 1) (xylene). Weighted average: 3.49 (Air = 1)
Relative density	:	0.96 g/cm ³
Solubility	:	Insoluble in the following materials: cold water and hot water.
Partition coefficient: n-octanol/ water	1	Not available.
Auto-ignition temperature	:	Lowest known value: 355°C (671°F) (butan-1-ol).
Decomposition temperature	:	Not available.
SADT	:	Not available.
Viscosity	1	Kinematic (40°C): >0.205 cm²/s (>20.5 mm²/s)
Aerosol product		

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Date		1330	10

Section 9. Physical and chemical properties

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	: Avoid all possible sources of ignition (spark or flame). Do not pressurise, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition.
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
xylene	LC50 Inhalation Vapour LD50 Oral TDLo Dermal	Rat Rat Rabbit	20 mg/l 4300 mg/kg 4300 mg/kg	4 hours -
ethylbenzene	LC50 Inhalation Vapour LD50 Dermal	Rat - Male Rabbit	17.8 mg/l >5000 mg/kg	- 4 hours -
butan-1-ol	LD50 Oral LD50 Oral	Rat Rat	3500 mg/kg 790 mg/kg	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
xylene	Eyes - Mild irritant Skin - Mild irritant	Rabbit Rat	-	87 milligrams 8 hours 60 microliters	-

Sensitisation

Not available.

Mutagenicity

Not available.

Carcinogenicity

Not available.

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
xylene	Category 3	-	Respiratory tract irritation
butan-1-ol	Category 3	-	Respiratory tract irritation
	Category 3		Narcotic effects

Specific target organ toxicity (repeated exposure)

Section 11. Toxicological information

Name	555	Route of exposure	Target organs
ethylbenzene	Category 2	-	hearing organs

Aspiration hazard Result Name Result xylene ASPIRATION HAZARD - Category 1 ethylbenzene ASPIRATION HAZARD - Category 1

Potential acute health effects		
Eye contact	:	Causes serious eye damage.
Inhalation	:	May cause respiratory irritation.
Skin contact	:	Causes skin irritation.
Ingestion	:	No known significant effects or critical hazards.
Symptoms related to the physic	al,	chemical and toxicological characteristics
Inhalation	:	Adverse symptoms may include the following: respiratory tract irritation coughing
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 effect	2
General	: No known significant effects or critical hazards.
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
	7270.08 mg/kg 5069.27 mg/kg 67.05 mg/l

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
	Acute EC50 7.2 mg/l Acute EC50 2.93 mg/l Acute LC50 4.2 mg/l	Daphnia	48 hours 48 hours 96 hours

Persistence and degradability

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
xylene ethylbenzene	-		Readily Readily

Bioaccumulative potential

Product/ingredient name	LogPow	BCF	Potential
xylene	3.12	8.1 to 25.9	low
ethylbenzene	3.6	-	low
butan-1-ol	1	-	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. 2 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 nonrecyclable 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. Vapour from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

	UN	IMDG	ΙΑΤΑ
UN number	UN1263	UN1263	UN1263
UN proper shipping name	Paint	Paint	Paint
Transport hazard class(es)	3	3	3
Packing group	111		111

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Section 14. Transport information

Environmental hazards	No.	No.	No.
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 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 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.
Additional information	-	Emergency schedules F-E, <u>S-E</u>	-

Transport in bulk according to Annex II of Marpol and the IBC Code	:	Not available.
ADR / RID	1	Tunnel restriction code: (D/E) Hazard identification number: 30
		ADR/RID: Viscous substance. Not restricted, ref. chapter 2.2.3.1.5 (applicable to receptacles < 450 litre capacity).
IMDG	1	IMDG: Viscous substance. Transport in accordance with paragraph 2.3.2.5 (applicable to receptacles < 450 litre capacity).

Section 15. Regulatory information

Hazardous Substance Act B.E. 2535 (1992)

<u>Type</u>			
Ingredient name	<u>Type</u>	Authority	Conditions
ethylenediamine	1	Department of	-
-		Industrial Works	
	No known specific nationa	l and/or regional regulations a	applicable to this product

No known specific national and/or regional regulations applicable to this product (including its ingredients).

Section 16. Other information

<u>History</u>		
Date of printing	:	19.07.2021
Date of issue/Date of revision	n :	19.07.2021
Date of previous issue	:	19.07.2021
Version	:	1.09
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 = Internediate Bulk Container IMDG = 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 LogPow = logarithm of the octanol/water partition coefficient
References	1	Not available.
Indicates information that h	nas o	changed from previously issued version.
Notice to reader		

Date of issue : 19.07.2021	10/11
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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.