

SECTION 1: Identification of the substance/mixture and of the company/ undertaking

1.1 Product identifier	
Product name	: Jotamastic 90 Alu B15 Comp B
Product code	: 20684
Product description	: Hardener.
Product type	: Liquid.
Other means of identification	: Not available.

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

Use in coatings - Industrial use Use in coatings - Professional use

1.3 Details of the supplier of the safety data sheet

Jotun Paints (Europe) Ltd. Stather Road Flixborough, Scunthorpe North Lincolnshire **DN15 8RR** England

Tel: +44 17 24 40 00 00 Fax: +44 17 24 40 01 00 SDSJotun@jotun.com

1.4 Emergency telephone number

Contact NHS Direct; phone 0845 4647 or 111. Open 24/7.

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition : Mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Flam. Liq. 3, H226 Acute Tox. 4, H302 Skin Corr. 1B, H314 Eye Dam. 1, H318 Skin Sens. 1, H317 Aquatic Chronic 2, H411

The product is classified as hazardous according to Regulation (EC) 1272/2008 as amended. See Section 11 for more detailed information on health effects and symptoms.



SECTION 2: Hazards	
Hazard statements	 H226 - Flammable liquid and vapour. H302 - Harmful if swallowed. H314 - Causes severe skin burns and eye damage. H317 - May cause an allergic skin reaction. H411 - Toxic to aquatic life with long lasting effects.
Precautionary statements	
General	: Not applicable.
Prevention	 P280 - Wear protective gloves. Wear eye or face protection. Wear protective clothing. P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P273 - Avoid release to the environment.
Response	 P391 - Collect spillage. P304 + P340 + P310 - IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or physician. P301 + P310 + P331 - IF SWALLOWED: Immediately call a POISON CENTER of physician. 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 CENTE or physician. P333 + P313 - If skin irritation or rash occurs: Get medical attention. P305 + P351 + P338 + P310 - IF IN EYES: Rinse cautiously with water for severa minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or physician.
Storage	: P403 - Store in a well-ventilated place. P235 - Keep cool.
Disposal	: P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.
Hazardous ingredients	 aminepoxyadduct hydrocarbons, c9-unsatd., polymd. 3-aminomethyl-3,5,5-trimethylcyclohexylamine Phenol, methylstyrenated Phenol, styrenated
Supplemental label elements	: Not applicable.
Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles	: Not applicable.
Special packaging requirem	ents de la constante de la const
Containers to be fitted with child-resistant fastenings	: Not applicable.
Tactile warning of danger	: Not applicable.
.3 Other hazards	
Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII	: This mixture does not contain any substances that are assessed to be a PBT or a vPvB.
Other hazards which do not result in classification	: None known.

2/17

SECTION 3: Composition/information on ingredients

3.2 Mixtures : Mixture						
Product/ingredient name	Identifiers	Weight %	Regulation (EC) No. 1272/2008 [CLP]	Туре		
aminepoxyadduct	CAS: 1075254-00-0	≥25 - ≤50	Acute Tox. 4, H302 Eye Dam. 1, H318 Skin Sens. 1, H317 Aquatic Chronic 2, H411	[1]		
benzyl alcohol	REACH #: 01-2119492630-38 EC: 202-859-9 CAS: 100-51-6	≥10 - ≤25	Acute Tox. 4, H302 Acute Tox. 4, H332 Eye Irrit. 2, H319	[1]		
hydrocarbons, c9-unsatd., polymd.	REACH #: 01-2119555292-40 EC: 615-276-3 CAS: 71302-83-5	≥10 - ≤25	Skin Sens. 1, H317 Aquatic Chronic 3, H412	[1]		
xylene	REACH #: 01-2119488216-32 EC: 215-535-7 CAS: 1330-20-7 Index: 601-022-00-9	≥10 - ≤16	Flam. Liq. 3, H226 Acute Tox. 4, H312 Acute Tox. 4, H332 Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335 Asp. Tox. 1, H304	[1] [2]		
3-aminomethyl- 3,5,5-trimethylcyclohexylamine	REACH #: 01-2119514687-32 EC: 220-666-8 CAS: 2855-13-2 Index: 612-067-00-9	≤10	Acute Tox. 4, H302 Acute Tox. 4, H312 Skin Corr. 1B, H314 Eye Dam. 1, H318 Skin Sens. 1, H317 Aquatic Chronic 3, H412	[1]		
Phenol, methylstyrenated	REACH #: 01-2119555274-38 EC: 270-966-8 CAS: 68512-30-1	≤10	Skin Irrit. 2, H315 Skin Sens. 1, H317 Aquatic Chronic 3, H412	[1]		
Phenol, styrenated	REACH #: 02-2119629611-43 EC: 262-975-0 CAS: 61788-44-1	≤10	Skin Irrit. 2, H315 Skin Sens. 1, H317 Aquatic Chronic 2, H411	[1]		
ethylbenzene	REACH #: 01-2119489370-35 EC: 202-849-4 CAS: 100-41-4 Index: 601-023-00-4	≤5	Flam. Liq. 2, H225 Acute Tox. 4, H332 STOT RE 2, H373 (hearing organs) Asp. Tox. 1, H304	[1] [2]		
2-methylpentane-1,5-diamine	EC: 239-556-6 CAS: 15520-10-2	≤3	Acute Tox. 4, H302 Acute Tox. 4, H312 Acute Tox. 4, H332 Skin Corr. 1A, H314 Eye Dam. 1, H318 STOT SE 3, H335 See Section 16 for the full text of the H statements declared above.	[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, are PBTs, vPvBs or Substances of equivalent concern, or have been assigned a workplace exposure limit and hence require reporting in this section.

<u>Type</u>

[1] Substance classified with a health or environmental hazard

[2] Substance with a workplace exposure limit

[3] Substance meets the criteria for PBT according to Regulation (EC) No. 1907/2006, Annex XIII

[4] Substance meets the criteria for vPvB according to Regulation (EC) No. 1907/2006, Annex XIII

[5] Substance of equivalent concern

[6] Additional disclosure due to company policy

Date of issue/Date of revision

3/17

SECTION 3: Composition/information on ingredients

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

SECTION 4: First aid measures

4.1 Description of first aid measures

General		In all cases of doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and seek medical advice.
Eye contact		Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Seek immediate medical attention.
irregular or if resp		Remove to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel.
Skin contact	:	Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water or use recognised skin cleanser. Do NOT use solvents or thinners.
Ingestion	:	If swallowed, seek medical advice immediately and show the container or label. Keep person warm and at rest. Do NOT induce vomiting.
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.

4.2 Most important symptoms and effects, both acute and delayed

There are no data available on the mixture itself. The mixture has been assessed following the conventional method of the CLP Regulation (EC) No 1272/2008 and is classified for toxicological properties accordingly. See Sections 2 and 3 for details.

Exposure to component solvent vapour concentrations in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and central nervous system. Solvents may cause some of the above effects by absorption through the skin. Repeated or prolonged contact with the mixture may cause removal of natural fat from the skin, resulting in non-allergic contact dermatitis and absorption through the skin. Ingestion may cause nausea, diarrhea and vomiting.

Over-exposure signs/symptoms

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
4.3 Indication of any imr	nediate medical attention and special treatment needed
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.

See toxicological information (Section 11)

4/17

SECTION 5: Firefighting measures

5.1 Extinguishing media		
Suitable extinguishing media	:	Recommended: alcohol-resistant foam, CO ₂ , powders, water spray.
Unsuitable extinguishing media	:	Do not use water jet.
5.2 Special hazards arising fr	om	the substance or mixture
Hazards from the substance or mixture	:	Fire will produce dense black smoke. Exposure to decomposition products may cause a health hazard.
Hazardous combustion products	:	Decomposition products may include the following materials: carbon monoxide, carbon dioxide, smoke, oxides of nitrogen.
5.3 Advice for firefighters		
Special protective actions for fire-fighters	:	Cool closed containers exposed to fire with water. Do not release runoff from fire to drains or watercourses.
Special protective equipment for fire-fighters	:	Appropriate breathing apparatus may be required.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures						
For non-emergency personnel	:	Exclude sources of ignition and ventilate the area. Avoid breathing vapour or mist. Refer to protective measures listed in sections 7 and 8.				
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".				
6.2 Environmental precautions	:	Do not allow to enter drains or watercourses. If the product contaminates lakes, rivers, or sewers, inform the appropriate authorities in accordance with local regulations.				
6.3 Methods and material for containment and cleaning up	:	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). Preferably clean with a detergent. Avoid using solvents.				
6.4 Reference to other sections	:	See Section 1 for emergency contact information. See Section 8 for information on appropriate personal protective equipment. See Section 13 for additional waste treatment information				

SECTION 7: Handling and storage

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

7.1 Precautions for safe handling

Prevent the creation of flammable or explosive concentrations of vapours in air and avoid vapour concentrations higher than the occupational exposure limits.

In addition, the product should only be used in areas from which all naked lights and other sources of ignition have been excluded. Electrical equipment should be protected to the appropriate standard.

Mixture may charge electrostatically: always use earthing leads when transferring from one container to another.

Operators should wear antistatic footwear and clothing and floors should be of the conducting type.

Keep away from heat, sparks and flame. No sparking tools should be used.

Avoid contact with skin and eyes. Avoid the inhalation of dust, particulates, spray or mist arising from the application of this mixture. Avoid inhalation of dust from sanding.

Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed.

SECTION 7: Handling and storage

Put on appropriate personal protective equipment (see Section 8).

Never use pressure to empty. Container is not a pressure vessel.

Always keep in containers made from the same material as the original one.

Comply with the health and safety at work laws.

Do not allow to enter drains or watercourses.

Information on fire and explosion protection

Vapours are heavier than air and may spread along floors. Vapours may form explosive mixtures with air.

When operators, whether spraying or not, have to work inside the spray booth, ventilation is unlikely to be sufficient to control particulates and solvent vapour in all cases. In such circumstances they should wear a compressed air-fed respirator during the spraying process and until such time as the particulates and solvent vapour concentration has fallen below the exposure limits.

7.2 Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations.

Notes on joint storage

Keep away from: oxidising agents, strong alkalis, strong acids.

Additional information on storage conditions

Observe label precautions. Store in a dry, cool and well-ventilated area. Keep away from heat and direct sunlight. Keep away from sources of ignition. No smoking. Prevent unauthorised access. Containers that have been opened must be carefully resealed and kept upright to prevent leakage.

7.3 Specific end use(s)

Recommendations : Not available. Industrial sector specific : Not available. solutions

SECTION 8: Exposure controls/personal protection

The information in this section contains generic advice and guidance. Information is provided based on typical anticipated uses of the product. Additional measures might be required for bulk handling or other uses that could significantly increase worker exposure or environmental releases.

8.1 Control parameters

Occupational exposure limits

Product/ingredient na	ne Exposure limit values
xylene ethylbenzene	 EH40/2005 WELs (United Kingdom (UK), 8/2018). Absorbed through skin. STEL: 441 mg/m³ 15 minutes. STEL: 100 ppm 15 minutes. TWA: 220 mg/m³ 8 hours. TWA: 50 ppm 8 hours. EH40/2005 WELs (United Kingdom (UK), 8/2018). Absorbed through skin. STEL: 552 mg/m³ 15 minutes. STEL: 125 ppm 15 minutes. TWA: 100 ppm 8 hours. TWA: 441 mg/m³ 8 hours.
procedures at of pr th th lir at of (V fo	his product contains ingredients with exposure limits, personal, workplace nosphere or biological monitoring may be required to determine the effectiveness the ventilation or other control measures and/or the necessity to use respiratory otective equipment. Reference should be made to monitoring standards, such as a following: European Standard EN 689 (Workplace atmospheres - Guidance for assessment of exposure by inhalation to chemical agents for comparison with it values and measurement strategy) European Standard EN 14042 (Workplace nospheres - Guide for the application and use of procedures for the assessment exposure to chemical and biological agents) European Standard EN 482 forkplace atmospheres - General requirements for the performance of procedures the measurement of chemical agents) Reference to national guidance cuments for methods for the determination of hazardous substances will also be
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DNELs/DMELs

SECTION 8: Exposure controls/personal protection

required.

Product/ingredient name	Exposure	Value	Population	Effects
benzyl alcohol	Short term Inhalation	450 mg/m ³	Workers	Systemic
	Long term Inhalation	90 mg/m³	Workers	Systemic
	Short term Dermal	47 mg/kg bw/day	Workers	Systemic
	Long term Dermal	9.5 mg/kg bw/day	Workers	Systemic
	Short term Dermal	28.5 mg/ kg bw/day	General population [Consumers]	Systemic
	Short term Oral	25 mg/kg bw/day	General population [Consumers]	Systemic
	Long term Dermal	5.7 mg/kg bw/day	General population [Consumers]	Systemic
	Long term Oral	5 mg/kg bw/day	General population [Consumers]	Systemic
	Long term Inhalation	8.11 mg/m³		Systemic
	Short term Inhalation	40.55 mg/ m³	General population [Consumers]	Systemic
hydrocarbons, c9-unsatd., polymd.	Long term Dermal	16.4 mg/ kg bw/day	Workers	Systemic
	Long term Inhalation	57 mg/m ³	Workers	Systemic
	Long term Dermal	8 mg/kg bw/day	General population [Consumers]	Systemic
	Long term Inhalation	28 mg/m³	General population [Consumers]	Systemic
	Long term Oral	4 mg/kg bw/day	General population [Consumers]	Systemic
xylene	Short term Inhalation	289 mg/m³	Workers	Systemic
	Short term Inhalation	289 mg/m³	Workers	Local
	Long term Dermal	180 mg/kg bw/day	Workers	Systemic
	Long term Inhalation	77 mg/m³	Workers	Systemic
	Long term Dermal	108 mg/kg bw/day	General population [Consumers]	Systemic
	Long term Inhalation	14.8 mg/m³	General population [Consumers]	Systemic
	Long term Oral	1.6 mg/kg bw/day	General population [Consumers]	Systemic
3-aminomethyl- 3,5,5-trimethylcyclohexylamine	Long term Oral	0.526 mg/ kg bw/day	General population	Systemic

SECTION 8: Exposure controls/personal protection

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	Phenol, methylstyrenated	Long term Dermal	16.4 mg/	[Consumers] Workers	Systemic
		Long term Derman	kg bw/day	VVOIKEIS	Systemic
		Long term	57 mg/m³	General	Systemic
		Inhalation		population [Consumers]	
		Long term Dermal	8 mg/kg	General	Systemic
			bw/day	population [Consumers]	
		Long term	28 mg/m³	General	Systemic
		Inhalation	0	population	,
				[Consumers]	
		Long term Oral	4 mg/kg bw/day	General population	Systemic
			bw/uay	[Consumers]	
	ethylbenzene	Short term	293 mg/m ³	Workers	Local
		Inhalation			
		Long term Dermal	180 mg/kg bw/day	Workers	Systemic
		Long term Inhalation	77 mg/m³	Workers	Systemic
		Long term	15 mg/m³	General	Systemic
		Inhalation	. • g	population	-)
				[Consumers]	
		Long term Oral	1.6 mg/kg	General	Systemic
			bw/day	population [Consumers]	
			bw/day	population	Oysternic

PNECs

Product/ingredient name	Compartment Detail	Value	Method Detail
benzyl alcohol	Fresh water	1 mg/l	-
-	Marine	0.1 mg/l	-
	Sewage Treatment Plant	39 mg/l	-
	Fresh water sediment	5.27 mg/kg dwt	-
	Marine water sediment	0.527 mg/kg dwt	-
	Soil	0.456 mg/kg dwt	-
hydrocarbons, c9-unsatd., polymd.	Fresh water	54 µg/l	-
	Marine	5.4 µg/l	-
	Sewage Treatment Plant	2.2 mg/l	-
	Fresh water sediment	1584 mg/kg dwt	-
	Marine water sediment	158 mg/kg dwt	-
	Marine water sediment	158 mg/kg dwt	-
	Soil	316.7 mg/kg dwt	-
	Secondary Poisoning	200 mg/kg	-
xylene	Fresh water	0.327 mg/l	-
,	Marine	0.327 mg/l	-
	Sewage Treatment Plant	6.58 mg/l	-
	Fresh water sediment	12.46 mg/kg dwt	-
	Marine water sediment	12.46 mg/kg dwt	-
	Soil	2.31 mg/kg dwt	-
3-aminomethyl- 3,5,5-trimethylcyclohexylamine	Fresh water	0.06 mg/l	-
	Marine	0.006 mg/l	-
	Sewage Treatment Plant	3.18 mg/l	-
	Fresh water sediment	5.784 mg/kg dwt	-
	Marine water sediment	0.578 mg/kg dwt	-
	Soil	1.121 mg/kg dwt	-
Phenol, methylstyrenated	Fresh water	14 µg/l	-
te of issue/Date of revision : 11.06.202	20 Date of previous issue	: No previous validation	n Version :1

ECTION 8: Exposure controls/personal protection					
	Marine	1.4 µg/l	-		
	Sewage Treatment Plant	2.4 mg/l	-		
	Fresh water sediment	52.9 mg/kg dwt	-		
	Marine water sediment	5.3 mg/kg dwt	-		
	Soil	10.5 mg/kg dwt	-		
ethylbenzene	Fresh water	0.1 mg/l	-		
	Marine	0.01 mg/l	-		
	Sewage Treatment	9.6 mg/l	-		
	Plant				
	Fresh water sediment	13.7 mg/kg dwt	-		
	Soil	2.68 mg/kg dwt	-		
	Secondary Poisoning	20 mg/kg	-		

8.2 Exposure controls			
Appropriate engineering controls	Provide adequate ventilation. Where reasonably practicable, this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates and solvent vapours below the OEL, suitable respiratory protection must be worn.		
Individual protection mea			
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			
Gloves	 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. May be used, gloves(breakthrough time) 4 - 8 hours: PVC, neoprene Recommended, gloves(breakthrough time) > 8 hours: fluor rubber, Viton®, 4H, Teflon, polyvinyl alcohol (PVA), nitrile rubber, butyl rubber 		
	For right choice of glove materials, with focus on chemical resistance and time of penetration, seek advice by the supplier of chemical resistant gloves.		
	The user must check that the final choice of type of glove selected for handling this product is the most appropriate and takes into account the particular conditions of use, as included in the user's risk assessment.		
Body protection	: Personnel should wear antistatic clothing made of natural fibres or of high- temperature-resistant synthetic fibres.		
Date of issue/Date of revision	: 11.06.2020 Date of previous issue : No previous validation Version : 1 9/17		

SECTION 8: Exposure controls/personal protection

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	: 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.
Environmental exposure controls	: Do not allow to enter drains or watercourses.

SECTION 9: Physical and chemical properties

9.1 Information on basic physica	and chemical properties
<u>Appearance</u>	
Physical state	: Liquid.
Colour	: Various
Odour	: Characteristic.
Odour threshold	: Not applicable.
рН	: Not applicable.
Melting point/freezing point	: Not applicable.
Initial boiling point and boiling range	: Lowest known value: 136.1°C (277°F) (ethylbenzene). Weighted average: 228.19°C (442.7°F)
Flash point	: Closed cup: 39°C
Evaporation rate	: Highest known value: 0.84 (ethylbenzene) Weighted average: 0.37compared with butyl acetate
Flammability (solid, gas)	: Not applicable.
Upper/lower flammability or explosive limits	: 0.8 - 13%
Vapour pressure	: Highest known value: 1.2 kPa (9.3 mm Hg) (at 20°C) (ethylbenzene). Weighted average: 0.22 kPa (1.65 mm Hg) (at 20°C)
Vapour density	: Highest known value: 3.7 (Air = 1) (benzyl alcohol). Weighted average: 3.7 (Air = 1)
Density	: 0.988 g/cm ³
Solubility(ies)	: Insoluble in the following materials: cold water and hot water.
Partition coefficient: n-octanol/ water	: Not available.
Auto-ignition temperature	: Lowest known value: >375°C (>707°F) (hydrocarbons, c9-unsatd., polymd.).
Decomposition temperature	: Not available.
Viscosity	: Kinematic (40°C): >0.205 cm²/s (>20.5 mm²/s)
Explosive properties	: Not available.
Oxidising properties	: Not available.

9.2 Other information

No additional information.

SECTION 10: Stability and reactivity

 10.1 Reactivity 10.2 Chemical stability 10.3 Possibility of hazardous reactions 10.4 Conditions to avoid 10.5 Incompatible materials 10.6 Hazardous decomposition products No specific test data related to reactivity available for this product or its ingredients. Stable under recommended storage and handling conditions (see Section 7). Under normal conditions of storage and use, hazardous reactions will not occur. When exposed to high temperatures may produce hazardous decomposition products. Keep away from the following materials to prevent strong exothermic reactions: oxidising agents, strong alkalis, strong acids. Decomposition products may include the following materials: carbon monoxide, carbon dioxide, smoke, oxides of nitrogen. 		-	
 10.3 Possibility of hazardous reactions 10.4 Conditions to avoid When exposed to high temperatures may produce hazardous decomposition products. 10.5 Incompatible materials Keep away from the following materials to prevent strong exothermic reactions: oxidising agents, strong alkalis, strong acids. 10.6 Hazardous Decomposition products may include the following materials: carbon monoxide, 	10.1 Reactivity	:	No specific test data related to reactivity available for this product or its ingredients.
 hazardous reactions 10.4 Conditions to avoid When exposed to high temperatures may produce hazardous decomposition products. 10.5 Incompatible materials Keep away from the following materials to prevent strong exothermic reactions: oxidising agents, strong alkalis, strong acids. 10.6 Hazardous Decomposition products may include the following materials: carbon monoxide, 	10.2 Chemical stability	:	Stable under recommended storage and handling conditions (see Section 7).
 products. 10.5 Incompatible materials Keep away from the following materials to prevent strong exothermic reactions: oxidising agents, strong alkalis, strong acids. 10.6 Hazardous Decomposition products may include the following materials: carbon monoxide, 		1	Under normal conditions of storage and use, hazardous reactions will not occur.
oxidising agents, strong alkalis, strong acids.10.6 Hazardous: Decomposition products may include the following materials: carbon monoxide,	10.4 Conditions to avoid	1	
	10.5 Incompatible materials	1	
		1	

SECTION 11: Toxicological information

11.1 Information on toxicological effects

There are no data available on the mixture itself. The mixture has been assessed following the conventional method of the CLP Regulation (EC) No 1272/2008 and is classified for toxicological properties accordingly. See Sections 2 and 3 for details.

Exposure to component solvent vapour concentrations in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and central nervous system. Solvents may cause some of the above effects by absorption through the skin. Repeated or prolonged contact with the mixture may cause removal of natural fat from the skin, resulting in non-allergic contact dermatitis and absorption through the skin. Ingestion may cause nausea, diarrhea and vomiting.

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
benzyl alcohol	LD50 Oral	Rat	1230 mg/kg	-
xylene	LC50 Inhalation Vapour	Rat	20 mg/l	4 hours
	LD50 Oral	Rat	4300 mg/kg	-
	TDLo Dermal	Rabbit	4300 mg/kg	-
3-aminomethyl-	LD50 Oral	Rat	1030 mg/kg	-
3,5,5-trimethylcyclohexylamine			0.0	
Phenol, styrenated	LD50 Dermal	Rabbit	>5010 mg/kg	-
	LD50 Oral	Rat	2500 mg/kg	-
ethylbenzene	LC50 Inhalation Vapour	Rat - Male	17.8 mg/l	4 hours
, ,	LD50 Dermal	Rabbit	>5000 mg/kg	-
	LD50 Oral	Rat	3500 mg/kg	-
2-methylpentane- 1,5-diamine	LD50 Oral	Rat	1690 mg/kg	-

Acute toxicity estimates

Route	ATE value
	1122.99 mg/kg 5340.58 mg/kg 43.54 mg/l

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
aminepoxyadduct	Eyes - Irritant	Mammal - species unspecified	-	-	-
benzyl alcohol	Eyes - Mild irritant	Mammal - species unspecified	-	-	-
xylene	Eyes - Mild irritant Skin - Mild irritant	Rabbit Rat	-	87 milligrams 8 hours 60 microliters	-
Phenol, methylstyrenated	Skin - Mild irritant	Mammal - species	-	-	-
ate of issue/Date of revision	: 11.06.2020 Date of prev	vious issue : No	previous va	alidation Versi	ion :1 11/1

SECTION 11: Toxicological information

	-				
		unspecified			
Phenol, styrenated	Eyes - Mild irritant	Rabbit	-	0.1 Mililiters	-
-	Skin - Mild irritant	Rabbit	-	0.5 Mililiters	-
	Skin - Mild irritant	Mammal -	-	-	-
		species			
		unspecified			
2-methylpentane-	Eyes - Severe irritant	Rabbit	-	0.1 Mililiters	-
1,5-diamine					
	Skin - Severe irritant	Rabbit	-	0.5 Mililiters	-

Sensitisation

Product/ingredient name	Route of exposure	Species	Result
aminepoxyadduct	skin	Mammal - species unspecified	Sensitising
hydrocarbons, c9-unsatd., polymd.	skin	Mammal - species unspecified	Sensitising
3-aminomethyl- 3,5,5-trimethylcyclohexylamine	skin	Mammal - species unspecified	Sensitising
Phenol, methylstyrenated	skin	Mammal - species unspecified	Sensitising
Phenol, styrenated	skin	Mammal - species unspecified	Sensitising

Mutagenicity

No known significant effects or critical hazards.

Carcinogenicity

No known significant effects or critical hazards.

Reproductive toxicity

Developmental effects

: No known significant effects or critical hazards.

Fertility effects

: No known significant effects or critical hazards.

Specific target organ toxicity (single exposure)

Product/ingredient name	Category	Route of exposure	Target organs
xylene	Category 3	Not applicable.	Respiratory tract irritation
2-methylpentane-1,5-diamine	Category 3	Not applicable.	Respiratory tract irritation

Specific target organ toxicity (repeated exposure)

Product/ingredient name	Category	Route of exposure	Target organs
ethylbenzene	Category 2	Not determined	hearing organs

Aspiration hazard

Product/ingredient name	Result		
xylene	ASPIRATION HAZARD - Category 1		
ethylbenzene	ASPIRATION HAZARD - Category 1		

Other information

: None identified.

SECTION 12: Ecological information

12.1 Toxicity

There are no data available on the mixture itself. Do not allow to enter drains or watercourses.

The mixture has been assessed following the summation method of the CLP Regulation (EC) No 1272/2008 and is classified for eco-toxicological properties accordingly. See Sections 2 and 3 for details.

Product/ingredient name	Result	Species	Exposure
aminepoxyadduct	Acute EC50 8.1 mg/l	Algae - Pseudokirchneriella subcapitata	72 hours
	Acute EC50 5.7 mg/l	Daphnia - Daphnia magna	48 hours
	Acute LC50 7.9 mg/l	Fish - Oncorhynchus Mykiss	96 hours
3-aminomethyl-	Acute EC50 17.4 to 21.5 mg/l Fresh	Daphnia - Daphnia magna	48 hours
3,5,5-trimethylcyclohexylamine			
	Acute IC50 37 mg/l	Algae	72 hours
Phenol, styrenated	Acute EC50 100 mg/l	Algae	72 hours
-	Acute EC50 54 mg/l	Daphnia	48 hours
	Acute LC50 25.8 mg/l	Fish	96 hours
ethylbenzene	Acute EC50 7.2 mg/l	Algae	48 hours
	Acute EC50 2.93 mg/l	Daphnia	48 hours
	Acute LC50 4.2 mg/l	Fish	96 hours

This material is toxic to aquatic life with long lasting effects.

12.2 Persistence and degradability

Product/ingredient name	Test	Result	Dose	Inoculum
aminepoxyadduct	-	0 % - Not readily - 28 days	-	-
Not available.		•		

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

12.3 Bioaccumulative potential

Product/ingredient name	LogPow	BCF	Potential
benzyl alcohol	0.87	<100	low
hydrocarbons, c9-unsatd., polymd.	3.627	-	low
xylene	3.12	8.1 to 25.9	low
3-aminomethyl-	0.99	-	low
3,5,5-trimethylcyclohexylamine			
Phenol, methylstyrenated	3.627	-	low
ethylbenzene	3.6	-	low

12.4 Mobility in soil

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

12.5 Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

SECTION 12: Ecological information

12.6 Other adverse effects : No known significant effects or critical hazards.

SECTION 13: Disposal considerations

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

13.1 Waste treatment methods

Product				
Methods of disposal	Disposal of this with the require and any regiona recyclable produ	of waste should be avoided or minimised wherever possible. product, solutions and any by-products should at all times comply ments of environmental protection and waste disposal legislation al local authority requirements. Dispose of surplus and non- ucts via a licensed waste disposal contractor. Waste should not be reated to the sewer unless fully compliant with the requirements of ith jurisdiction.		
Hazardous waste	: Yes.			
Disposal considerations	Dispose of acco If this product is longer apply and	enter drains or watercourses. ording to all federal, state and local applicable regulations. I mixed with other wastes, the original waste product code may no d the appropriate code should be assigned. mation, contact your local waste authority.		
European waste catalogue (EWC)	: 08 01 11* Wast substances	: 08 01 11* Waste paint and varnish containing organic solvents or other dangerous substances		
Packaging				
Methods of disposal		of waste should be avoided or minimised wherever possible. Waste Id be recycled. Incineration or landfill should only be considered is not feasible.		
Disposal considerations	the relevant was Empty containe	on provided in this safety data sheet, advice should be obtained from ste authority on the classification of empty containers. rs must be scrapped or reconditioned. ainers contaminated by the product in accordance with local or ovisions.		
Type of packaging		European waste catalogue (EWC)		
CEPE Paint Guidelines	15 01 10*	packaging containing residues of or contaminated by hazardous substances		
Special precautions	taken when han Empty containe residues may cr container. Do n thoroughly inter	nd its container must be disposed of in a safe way. Care should be adling emptied containers that have not been cleaned or rinsed out. rs or liners may retain some product residues. Vapour from product reate a highly flammable or explosive atmosphere inside the not cut, weld or grind used containers unless they have been cleaned nally. Avoid dispersal of spilt material and runoff and contact with drains and sewers.		

SECTION 14: Transport information

	ADR/RID	ADN	IMDG	ΙΑΤΑ
I4.1 UN number	UN3469	UN3469	UN3469	UN3469
14.2 UN proper shipping name	PAINT RELATED MATERIAL, FLAMMABLE, CORROSIVE	PAINT RELATED MATERIAL, FLAMMABLE, CORROSIVE	PAINT RELATED MATERIAL, FLAMMABLE, CORROSIVE. Marine pollutant (aminepoxyadduct)	PAINT RELATED MATERIAL, FLAMMABLE, CORROSIVE

Jotamastic 90 Alu	B15 Comp) B			
SECTION 14:	Transp	ort info	ormation		
14.3 Transport hazard class(es)	3 (8)				
14.4 Packing group		>			
14.5 Environmental hazards	Yes.		Yes.	Yes.	Yes. The environmentally hazardous substance mark is not required.
Additional informa ADR/RID ADN	<u>uon</u>	sizes o <u>Hazar</u> <u>Tunne</u> : The er	of ≤5 L or ≤5 kg. <u>d identification num</u> <u>el code</u> (D/E) nvironmentally hazaro	iber 38	not required when transported in not required when transported in
IMDG	sizes of ≤5 L or ≤5 kg. : The marine pollutant mark is not required when transported in sizes of ≤5 L or ≤5 kg <u>Emergency schedules</u> F-E, S-C				
ΙΑΤΑ	 The environmentally hazardous substance mark may appear if required by other transportation regulations. 				
14.6 Special precau user	cautions for : 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 i the event of an accident or spillage.				
14.7 Transport in b according to Anne Marpol and the IBC	x II of	: Not ap	plicable.		

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture <u>EU Regulation (EC) No. 1907/2006 (REACH)</u>

Annex XIV - List of substa	nces subject to authorisation
Annex XIV	
None of the components a	re listed.
Substances of very high	<u>concern</u>
None of the components a	re listed.
Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles	: Not applicable.
Other EU regulations	
VOC	The provisions of Directive 2004/42/EC on VOC apply to this product. Refer to the product label and/or technical data sheet for further information.
VOC for Ready-for-Use Mixture	: Not applicable.
Date of issue/Date of revision	: 11.06.2020 Date of previous issue : No previous validation Version : 1 15/17

SECTION 15: Regulatory information

Europe inventory : Not determined.

Ozone depleting substances (1005/2009/EU) Not listed.

Prior Informed Consent (PIC) (649/2012/EU)

Not listed.

Seveso Directive

This product may add to the calculation for determining whether a site is within the scope of the Seveso Directive on major accident hazards.

National regulations

Industrial use

: The information contained in this safety data sheet does not constitute the user's own assessment of workplace risks, as required by other health and safety legislation. The provisions of the national health and safety at work regulations apply to the use of this product at work.

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol (Annexes A, B, C, E)

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

15.2 Chemical safety : Not applicable.

assessment

SECTION 16: Other information

Indicates information that has changed from previously issued version.

Abbreviations and acronyms	 ATE = Acute Toxicity Estimate CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008] DMEL = Derived Minimal Effect Level DNEL = Derived No Effect Level EUH statement = CLP-specific Hazard statement PBT = Persistent, Bioaccumulative and Toxic PNEC = Predicted No Effect Concentration PRN = REACH Registration Number
	RRN = REACH Registration Number vPvB = Very Persistent and Very Bioaccumulative

Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Classification	Justification
Flam. Liq. 3, H226	On basis of test data
Acute Tox. 4, H302	Calculation method
Skin Corr. 1B, H314	Calculation method
Eye Dam. 1, H318	Calculation method
Skin Sens. 1, H317	Calculation method
Aquatic Chronic 2, H411	Calculation method

Full text of abbreviated H statements

Joldinastic 90 Alu B 15 Comp B				
SECTION 16: Other	information			
H225 H226 H302 H304 H312 H314 H315 H317 H318 H319 H332 H335 H373	Highly flammable liquid and vapour. Flammable liquid and vapour. Harmful if swallowed. May be fatal if swallowed and enters airways. Harmful in contact with skin. Causes severe skin burns and eye damage. Causes skin irritation. May cause an allergic skin reaction. Causes serious eye damage. Causes serious eye damage. Causes serious eye irritation. Harmful if inhaled. May cause respiratory irritation. May cause damage to organs through prolonged or repeated exposure.			
H411 H412	Toxic to aquatic life with long lasting effects. Harmful to aquatic life with long lasting effects.			
Full text of classifications				
Acute Tox. 4, H302 Acute Tox. 4, H312 Acute Tox. 4, H312 Aquatic Chronic 2, H411 Aquatic Chronic 3, H412 Asp. Tox. 1, H304 Eye Dam. 1, H318 Eye Irrit. 2, H319 Flam. Liq. 2, H225 Flam. Liq. 3, H226 Skin Corr. 1A, H314 Skin Corr. 1B, H314 Skin Irrit. 2, H315 Skin Sens. 1, H317 STOT RE 2, H373 STOT SE 3, H335	ACUTE TOXICITY (oral) - Category 4 ACUTE TOXICITY (dermal) - Category 4 ACUTE TOXICITY (inhalation) - Category 4 LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 2 LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 3 ASPIRATION HAZARD - Category 1 SERIOUS EYE DAMAGE/EYE IRRITATION - Category 1 SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2 FLAMMABLE LIQUIDS - Category 2 FLAMMABLE LIQUIDS - Category 3 SKIN CORROSION/IRRITATION - Category 1A SKIN CORROSION/IRRITATION - Category 1B SKIN CORROSION/IRRITATION - Category 2 SKIN SENSITISATION - Category 1 SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE - Category 2 SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE (Respiratory tract irritation) - Category 3			
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Version	: 1			

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.