

SAFETY DATA SHEET**Jota Armour FG Comp A****SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1 Product identifier**

Product name	: Jota Armour FG Comp A
Product code	: 25620
Product description	: Paint.
Product type	: Liquid.
Other means of identification	: Not available.

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

Uses in Coatings - Industrial use
Uses in Coatings - Professional use

1.3 Details of the supplier of the safety data sheet

JOTUN INDIA PRIVATE LIMITED
Fulcrum, A wing – 601(II) / 602,
Next to Hyatt Regency,
Sahar Road, Andheri – East, Mumbai – 99
India

SDSJotun@jotun.com

1.4 Emergency telephone number

Jotun India Pvt Ltd +91 2138 671300

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
Skin Irrit. 2, H315
Eye Dam. 1, H318
Skin Sens. 1, H317
Aquatic Chronic 3, H412

Classification according to Directive 1999/45/EC [DPD]

The product is classified as dangerous according to Directive 1999/45/EC and its amendments.

Classification : R10
Xi; R36/38
R43
R52/53

Physical/chemical hazards : Flammable.

Human health hazards : Irritating to eyes and skin. May cause sensitisation by skin contact.

Environmental hazards : Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

See Section 16 for the full text of the R phrases or H statements declared above.

SECTION 2: Hazards identification

See Section 11 for more detailed information on health effects and symptoms.

2.2 Label elements**Hazard pictograms****Signal word**

: Danger.

Hazard statements

: Flammable liquid and vapour.
Causes serious eye damage.
Causes skin irritation.
May cause an allergic skin reaction.
Harmful to aquatic life with long lasting effects.

Precautionary statements**General**

: Not applicable.

Prevention

: Wear protective gloves. Wear eye or face protection. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Avoid release to the environment.

Response

: 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. If skin irritation or rash occurs: Get medical attention.

Storage

: Store in a well-ventilated place. Keep cool.

Disposal

: Dispose of contents and container in accordance with all local, regional, national and international regulations.

Hazardous ingredients

: epoxy resin (MW ≤ 700)
hydrocarbons, C9-unsaturated, polymerized
2-methylpropan-1-ol

Supplemental label elements

: Contains epoxy constituents. May produce an allergic reaction.

2.3 Other hazards**Other hazards which do not result in classification**

: None known.

SECTION 3: Composition/information on ingredients**Substance/mixture**

: Mixture

Product/ingredient name	Identifiers	%	Classification		Type	Notes
			67/548/EEC	Regulation (EC) No. 1272/2008 [CLP]		
epoxy resin (MW ≤ 700)	REACH #: 01-2119456619-26 EC: 500-033-5 CAS: 25068-38-6 Index: 603-074-00-8	≥10 - <25	Xi; R36/38 R43 N; R51/53	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317 Aquatic Chronic 2, H411	[1]	-
hydrocarbons, C9-unsaturated, polymerized	REACH #: 01-2119555292-40 EC: 615-276-3 CAS: 71302-83-5	≤10	R43 R52/53	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	R10 Xn; R20/21 Xi; R38	Flam. Liq. 3, H226 Acute Tox. 4, H312 Acute Tox. 4, H332 Skin Irrit. 2, H315 Eye Irrit. 2, H319	[1] [2]	C
2-methylpropan-1-ol	REACH #: 01-2119484609-23 EC: 201-148-0	≤5	R10 Xi; R41, R37/38 R67	Flam. Liq. 3, H226 Skin Irrit. 2, H315 Eye Dam. 1, H318	[1]	-

Date of issue

: 26.07.2017

SECTION 3: Composition/information on ingredients

ethylbenzene	CAS: 78-83-1 Index: 603-108-00-1 REACH #: 01-2119489370-35 EC: 202-849-4	≤3	F; R11 Xn; R20, R48/20, R65	STOT SE 3, H335 STOT SE 3, H336 Flam. Liq. 2, H225 Acute Tox. 4, H332 STOT RE 2, H373 (hearing organs)	[1] [2]	-
benzyl alcohol	CAS: 100-41-4 Index: 601-023-00-4 REACH #: 01-2119492630-38 EC: 202-859-9	≤3	Xn; R20/22	Asp. Tox. 1, H304 Acute Tox. 4, H302 Acute Tox. 4, H332	[1]	-
12-hydroxyoctadecanoic acid, reaction products with 1, 3-benzenedimethanamine and hexamethylenediamine	CAS: 100-51-6 REACH #: 01-0000017900-73 EC: 432-840-2 CAS: 220926-97-6 Index: 616-201-00-7	≤3	Xn; R20 R53	Acute Tox. 4, H332 STOT RE 2, H373 Aquatic Chronic 4, H413	[1]	-
			See Section 16 for the full text of the R-phrases declared above.	See Section 16 for the full text of the H statements declared above.		

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 or vPvBs or have been assigned a workplace exposure limit and hence require reporting in this section.

Type

[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

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.
- Inhalation** : 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.
- 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.
- 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 delayedPotential acute health effects

- Eye contact** : Causes serious eye damage.
- Inhalation** : No known significant effects or critical hazards.
- Skin contact** : Causes skin irritation. May cause an allergic skin reaction.
- Ingestion** : No known significant effects or critical hazards.

SECTION 4: First aid measures

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 immediate medical attention and special treatment needed

- Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- Specific treatments** : No specific treatment.

SECTION 5: Firefighting measures

5.1 Extinguishing media

- Suitable extinguishing media** : Recommended: alcohol-resistant foam, CO₂, powders, water spray.
- Unsuitable extinguishing media** : Do not use water jet.

5.2 Special hazards arising from the substance or mixture

- Hazards from the substance or mixture** : Flammable liquid and vapour. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Runoff to sewer may create fire or explosion hazard. 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
halogenated compounds
metal oxide/oxides

5.3 Advice for firefighters

- 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. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

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

SECTION 6: Accidental release measures

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 : 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.

6.3 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. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilt product.

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.

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

SECTION 7: Handling and storage

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 solutions : Not available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits

Product/ingredient name	Exposure limit values
xylene	EU OEL (Europe, 12/2009). Absorbed through skin. Notes: list of indicative occupational exposure limit values STEL: 442 mg/m ³ 15 minutes. STEL: 100 ppm 15 minutes. TWA: 221 mg/m ³ 8 hours. TWA: 50 ppm 8 hours.
ethylbenzene	EU OEL (Europe, 12/2009). Absorbed through skin. Notes: list of indicative occupational exposure limit values TWA: 100 ppm 8 hours. TWA: 442 mg/m ³ 8 hours. STEL: 200 ppm 15 minutes. STEL: 884 mg/m ³ 15 minutes.

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 monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

Derived no effect levels

Product/ingredient name	Type	Exposure	Value	Population	Effects
epoxy resin (MW ≤ 700)	DNEL	Short term Dermal	8,33 mg/kg bw/day	Workers	Systemic
	DNEL	Short term Inhalation	12,25 mg/m ³	Workers	Systemic
	DNEL	Long term Dermal	8,33 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	12,25 mg/m ³	Workers	Systemic
	DNEL	Short term Dermal	3,571 mg/kg bw/day	Consumers	Systemic
	DNEL	Short term Oral	0,75 mg/kg bw/day	Consumers	Systemic
	DNEL	Long term Dermal	3,571 mg/kg bw/day	Consumers	Systemic
	DNEL	Long term Oral	0,75 mg/kg bw/day	Consumers	Systemic

SECTION 8: Exposure controls/personal protection

hydrocarbons, C9-unsaturated, polymerized	DNEL	Long term Dermal	16,4 mg/kg bw/day	Workers	Systemic	
	DNEL	Long term Inhalation	57 mg/m ³	Workers	Systemic	
	DNEL	Long term Dermal	8 mg/kg bw/day	Consumers	Systemic	
	DNEL	Long term Inhalation	28 mg/m ³	Consumers	Systemic	
	xylene	DNEL	Long term Oral	4 mg/kg bw/day	Consumers	Systemic
		DNEL	Short term Inhalation	289 mg/m ³	Workers	Systemic
		DNEL	Short term Inhalation	289 mg/m ³	Workers	Local
		DNEL	Long term Dermal	180 mg/kg bw/day	Workers	Systemic
		DNEL	Long term Inhalation	77 mg/m ³	Workers	Systemic
		DNEL	Long term Dermal	108 mg/kg bw/day	Consumers	Systemic
	2-methylpropan-1-ol	DNEL	Long term Inhalation	14,8 mg/m ³	Consumers	Systemic
		DNEL	Long term Oral	1,6 mg/kg bw/day	Consumers	Systemic
DNEL		Long term Inhalation	310 mg/m ³	Workers	Local	
DNEL		Long term Oral	25 mg/kg bw/day	Consumers	Systemic	
ethylbenzene	DNEL	Long term Inhalation	55 mg/m ³	Consumers	Local	
	DNEL	Short term Inhalation	293 mg/m ³	Workers	Local	
	DNEL	Long term Dermal	180 mg/kg bw/day	Workers	Systemic	
	DNEL	Long term Inhalation	77 mg/m ³	Workers	Systemic	
	DNEL	Long term Inhalation	15 mg/m ³	Consumers	Systemic	
	DNEL	Long term Oral	1,6 mg/kg bw/day	Consumers	Systemic	
benzyl alcohol	DNEL	Short term Inhalation	450 mg/m ³	Workers	Systemic	
	DNEL	Long term Inhalation	90 mg/m ³	Workers	Systemic	
	DNEL	Short term Dermal	47 mg/kg bw/day	Workers	Systemic	
	DNEL	Long term Dermal	9,5 mg/kg bw/day	Workers	Systemic	
	DNEL	Short term Dermal	28,5 mg/kg bw/day	Consumers	Systemic	
	DNEL	Short term Oral	25 mg/kg bw/day	Consumers	Systemic	
	DNEL	Long term Dermal	5,7 mg/kg bw/day	Consumers	Systemic	
	DNEL	Long term Oral	5 mg/kg bw/day	Consumers	Systemic	
	DNEL	Long term Inhalation	8,11 mg/m ³	Consumers	Systemic	
	DNEL	Short term Inhalation	40,55 mg/m ³	Consumers	Systemic	

[Predicted no effect concentrations](#)

SECTION 8: Exposure controls/personal protection

Product/ingredient name	Type	Compartment Detail	Value	Method Detail
epoxy resin (MW ≤ 700)	PNEC	Fresh water	0,006 mg/l	-
	PNEC	Marine	0,0006 mg/l	-
	PNEC	Sewage Treatment Plant	10 mg/l	-
	PNEC	Fresh water sediment	0,996 mg/l	-
	PNEC	Marine water sediment	0,0996 mg/l	-
	PNEC	Soil	0,196 mg/l	-
	PNEC	Fresh water	54 µg/l	-
hydrocarbons, C9-unsaturated, polymerized	PNEC	Marine	5,4 µg/l	-
	PNEC	Sewage Treatment Plant	2,2 mg/l	-
	PNEC	Fresh water sediment	1584 mg/kg dwt	-
	PNEC	Marine water sediment	158 mg/kg dwt	-
	PNEC	Marine water sediment	158 mg/kg dwt	-
	PNEC	Soil	316,7 mg/kg dwt	-
	PNEC	Secondary Poisoning	200 mg/kg	-
	PNEC	Fresh water	0,327 mg/l	-
	PNEC	Marine	0,327 mg/l	-
	PNEC	Sewage Treatment Plant	6,58 mg/l	-
xylene	PNEC	Fresh water sediment	12,46 mg/kg dwt	-
	PNEC	Marine water sediment	12,46 mg/kg dwt	-
	PNEC	Soil	2,31 mg/kg dwt	-
	PNEC	Fresh water	0,4 mg/l	-
	PNEC	Marine	0,04 mg/l	-
	PNEC	Sewage Treatment Plant	10 mg/l	-
	PNEC	Fresh water sediment	1,52 mg/kg dwt	-
2-methylpropan-1-ol	PNEC	Marine water sediment	0,152 mg/kg dwt	-
	PNEC	Soil	0,0699 mg/kg dwt	-
	PNEC	Fresh water	0,1 mg/l	-
	PNEC	Marine	0,01 mg/l	-
	PNEC	Sewage Treatment Plant	9,6 mg/l	-
	PNEC	Fresh water sediment	13,7 mg/kg dwt	-
	PNEC	Soil	2,68 mg/kg dwt	-
ethylbenzene	PNEC	Secondary Poisoning	20 mg/kg	-
	PNEC	Fresh water	1 mg/l	-
	PNEC	Marine	0,1 mg/l	-
	PNEC	Sewage Treatment Plant	39 mg/l	-
benzyl alcohol	PNEC	Fresh water sediment	5,27 mg/kg dwt	-
	PNEC	Marine water sediment	0,527 mg/kg dwt	-
	PNEC	Soil	0,456 mg/kg dwt	-

8.2 Exposure controls**Appropriate engineering controls**

: 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 controls also need to keep gas, vapour or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

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.

SECTION 8: Exposure controls/personal protection

- 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** : 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: Viton®, Responder, 4H, Teflon
Not recommended, gloves(breakthrough time) < 1 hour: PVC
May be used, gloves(breakthrough time) 4 - 8 hours: butyl rubber, nitrile rubber, neoprene, polyvinyl alcohol (PVA)
- 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** : 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. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves. Refer to European Standard EN 1149 for further information on material and design requirements and test methods.
- 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** : 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.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

- Physical state** : Liquid.
- Colour** : Various
- Odour** : Characteristic.
- Odour threshold** : Not available.
- pH** : Not applicable.
- Melting point/freezing point** : Not applicable.

SECTION 9: Physical and chemical properties

Initial boiling point and boiling range	: Not available.
Flash point	: Closed cup: 35°C
Evaporation rate	: Highest known value: 0.84 (ethylbenzene) Weighted average: 0.66 compared with butyl acetate
Flammability (solid, gas)	: Not applicable.
Burning time	: Not applicable.
Burning rate	: Not applicable.
Upper/lower flammability or explosive limits	: 0.8 - 13%
Vapour pressure	: Highest known value: <1.6 kPa (<12 mm Hg) (at 20°C) (2-methylpropan-1-ol). Weighted average: 0.32 kPa (2.4 mm Hg) (at 20°C)
Vapour density	: Highest known value: 3.7 (Air = 1) (xylene). Weighted average: 3.49 (Air = 1)
Relative density	: 1.5 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., polyimd.).
Decomposition temperature	: Not available.
Viscosity	: Not available.
Explosive properties	: Not available.
Oxidising properties	: Not available.

9.2 Other information

No additional information.

SECTION 10: Stability and reactivity

10.1 Reactivity	: No specific test data related to reactivity available for this product or its ingredients.
10.2 Chemical stability	: The product is stable.
10.3 Possibility of hazardous reactions	: Under normal conditions of storage and use, hazardous reactions will not occur.
10.4 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.
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	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

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. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and, in extreme cases, loss of consciousness.

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.

If splashed in the eyes, the liquid may cause irritation and reversible damage.

Ingestion may cause nausea, diarrhea and vomiting.

This takes into account, where known, delayed and immediate effects and also chronic effects of components from short-term and long-term exposure by oral, inhalation and dermal routes of exposure and eye contact.

Based on the properties of the epoxy constituent(s) and considering toxicological data on similar mixtures, this mixture

SECTION 11: Toxicological information

may be a skin sensitiser and an irritant. It contains low molecular weight epoxy constituents which are irritating to eyes, mucous membrane and skin. Repeated skin contact may lead to irritation and to sensitisation, possibly with cross-sensitisation to other epoxies. Skin contact with the mixture and exposure to spray mist and vapour should be avoided.

Contains epoxy resin (MW ≤ 700), hydrocarbons, C9-unsaturated, polymerized. May produce an allergic reaction.

Product/ingredient name	Result	Species	Dose	Exposure
xylene	LC50 Inhalation Vapour	Rat	20 mg/l	4 hours
	LD50 Oral	Rat	4300 mg/kg	-
2-methylpropan-1-ol	TDLo Dermal	Rabbit	4300 mg/kg	-
	LC50 Inhalation Vapour	Rat	19200 mg/m ³	4 hours
	LD50 Dermal	Rabbit	3400 mg/kg	-
ethylbenzene	LD50 Oral	Rat	2460 mg/kg	-
	LC50 Inhalation Gas.	Rabbit	4000 ppm	4 hours
	LD50 Dermal	Rabbit	>5000 mg/kg	-
benzyl alcohol	LD50 Oral	Rat	3500 mg/kg	-
	LD50 Oral	Rat	1230 mg/kg	-

Acute toxicity estimates

Route	ATE value
Oral	55909,1 mg/kg
Dermal	13213,2 mg/kg
Inhalation (vapours)	82,71 mg/l
Inhalation (dusts and mists)	131,6 mg/l

Specific target organ toxicity (single exposure)

Product/ingredient name	Category	Route of exposure	Target organs
2-methylpropan-1-ol	Category 3	Not applicable.	Respiratory tract irritation and Narcotic effects

Specific target organ toxicity (repeated exposure)

Product/ingredient name	Category	Route of exposure	Target organs
ethylbenzene	Category 2	Not determined	hearing organs
12-hydroxyoctadecanoic acid, reaction products with 1, 3-benzenedimethanamine and hexamethylenediamine	Category 2	Not determined	Not determined

Aspiration hazard

Product/ingredient name	Result
ethylbenzene	ASPIRATION HAZARD - Category 1

SECTION 12: Ecological information

12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
epoxy resin (MW ≤ 700)	Acute EC50 1,4 mg/l	Daphnia	48 hours
	Acute LC50 3,1 mg/l	Fish - fathead minnow	96 hours
2-methylpropan-1-ol	Chronic NOEC 4000 µg/l Fresh water	Daphnia - Daphnia magna	21 days
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

Conclusion/Summary : This material is harmful to aquatic life with long lasting effects.

12.2 Persistence and degradability

Conclusion/Summary : Not available.

SECTION 12: Ecological information

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
epoxy resin (MW ≤ 700)	-	-	Not readily
xylene	-	-	Readily
ethylbenzene	-	-	Readily
benzyl alcohol	-	-	Readily

12.3 Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
epoxy resin (MW ≤ 700)	2.64 to 3.78	31	low
hydrocarbons, C9-unsaturated, polymerized	3,627	-	low
xylene	3,12	8.1 to 25.9	low
2-methylpropan-1-ol	1	-	low
ethylbenzene	3,6	-	low
benzyl alcohol	0,87	<100	low

12.4 Mobility in soil

Soil/water partition coefficient (K_{oc}) : Not available.

Mobility : Not available.

12.5 Results of PBT and vPvB assessment

PBT : Not applicable.

vPvB : Not applicable.

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

Do not allow to enter drains or watercourses. Material and/or container must be disposed of as hazardous waste.

European waste catalogue (EWC)

08 01 11* Waste paint and varnish containing organic solvents or other dangerous substances

SECTION 14: Transport information

Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Transport in accordance with ADR/RID, IMDG/IMO and ICAO/IATA and national regulation.

International transport regulations

14.1 UN number : 1263

14.2 UN proper shipping name : Paint

14.3 Transport hazard class(es) : 3



14.4 Packing group : III

14.5 Environmental hazards : No.

SECTION 14: Transport information

- 14.6 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.
- Additional information**
- ADR / RID** : Tunnel restriction code: (D/E)
Hazard identification number: 30
Special provisions: 640E
ADR/RID: Viscous substance. Not restricted, ref. chapter 2.2.3.1.5 (applicable to receptacles < 450 litre capacity).
- IMDG** : **Emergency schedules (EmS)**
F-E, S-E
IMDG: Viscous substance. Transport in accordance with paragraph 2.3.2.5 (applicable to receptacles < 30 litre capacity).
- 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code** : Not available.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

EU Regulation (EC) No. 1907/2006 (REACH)

Annex XIV - List of substances subject to authorisation

Substances of very high concern

None of the components are 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

Europe inventory : At least one component is not listed.

Black List Chemicals : Not listed

Priority List Chemicals : Not determined

Industrial emissions (integrated pollution prevention and control) - Air : Not listed

Industrial emissions (integrated pollution prevention and control) - Air

Industrial emissions (integrated pollution prevention and control) - Water : Not listed

Industrial emissions (integrated pollution prevention and control) - Water

International regulations

Chemical Weapons Convention List Schedule I Chemicals : Not listed

Chemical Weapons Convention List Schedule II Chemicals : Not listed

Chemical Weapons Convention List Schedule III Chemicals : Not listed

15.2 Chemical safety assessment : This product contains substances for which Chemical Safety Assessments are still required.

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]
 DNEL = Derived No Effect Level
 EUH statement = CLP-specific Hazard statement
 PNEC = Predicted No Effect Concentration
 RRN = REACH Registration Number

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
Skin Irrit. 2, H315	Calculation method
Eye Dam. 1, H318	Calculation method
Skin Sens. 1, H317	Calculation method
Aquatic Chronic 3, H412	Calculation method

Full text of abbreviated H statements

: H225 Highly flammable liquid and vapour.
 H226 Flammable liquid and vapour.
 H302 Harmful if swallowed.
 H304 May be fatal if swallowed and enters airways.
 H312 Harmful in contact with skin.
 H315 Causes skin irritation.
 H317 May cause an allergic skin reaction.
 H318 Causes serious eye damage.
 H319 Causes serious eye irritation.
 H332 Harmful if inhaled.
 H335 May cause respiratory irritation.
 H336 May cause drowsiness or dizziness.
 H373 May cause damage to organs through prolonged or repeated exposure. (hearing organs)
 H373 May cause damage to organs through prolonged or repeated exposure. (hearing organs)
 H411 Toxic to aquatic life with long lasting effects.
 H412 Harmful to aquatic life with long lasting effects.
 H413 May cause long lasting harmful effects to aquatic life.

Full text of classifications [CLP/GHS]

: Acute Tox. 4, H302 ACUTE TOXICITY (oral) - Category 4
 Acute Tox. 4, H312 ACUTE TOXICITY (dermal) - Category 4
 Acute Tox. 4, H332 ACUTE TOXICITY (inhalation) - Category 4
 Aquatic Chronic 2, H411 LONG-TERM AQUATIC HAZARD - Category 2
 Aquatic Chronic 3, H412 LONG-TERM AQUATIC HAZARD - Category 3
 Aquatic Chronic 4, H413 LONG-TERM AQUATIC HAZARD - Category 4
 Asp. Tox. 1, H304 ASPIRATION HAZARD - Category 1
 Eye Dam. 1, H318 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1
 Eye Irrit. 2, H319 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2
 Flam. Liq. 2, H225 FLAMMABLE LIQUIDS - Category 2
 Flam. Liq. 3, H226 FLAMMABLE LIQUIDS - Category 3
 Skin Irrit. 2, H315 SKIN CORROSION/IRRITATION - Category 2
 Skin Sens. 1, H317 SKIN SENSITIZATION - Category 1
 STOT RE 2, H373 (hearing organs) SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (hearing organs) - Category 2
 STOT RE 2, H373 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2
 STOT SE 3, H335 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
 STOT SE 3, H336 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3

Full text of abbreviated R phrases

: R11- Highly flammable.
 R10- Flammable.
 R20- Harmful by inhalation.
 R20/21- Harmful by inhalation and in contact with skin.
 R20/22- Harmful by inhalation and if swallowed.
 R48/20- Harmful: danger of serious damage to health by prolonged exposure through inhalation.
 R65- Harmful: may cause lung damage if swallowed.
 R41- Risk of serious damage to eyes.

SECTION 16: Other information

R38- Irritating to skin.
 R36/38- Irritating to eyes and skin.
 R37/38- Irritating to respiratory system and skin.
 R43- May cause sensitisation by skin contact.
 R67- Vapours may cause drowsiness and dizziness.
 R51/53- Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
 R52/53- Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
 R53- May cause long-term adverse effects in the aquatic environment.

Full text of classifications [DSD/DPD] : F - Highly flammable
 Xn - Harmful
 Xi - Irritant
 N - Dangerous for the environment

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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.