SAFETY DATA SHEET



Penguard WF Comp B

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

1.1 Product identifier

Product name : Penguard WF Comp B

Product code 24120 **Product description** : Hardener. **Product type** : Liquid. : Not available.

Other means of

identification 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 A/S P.O.Box 2021 3202 Sandefjord Norway

Tel: +47 33 45 70 00 Fax: +47 33 45 72 42 E-mail: SDSJotun@jotun.no

National contact

Jotun Paints Europe (Ltd). Unit K7, Marina Commercial Park Centre Park Road Cork Ireland

Tel: +353 214 965955 Fax: +353 214 965992

SDSJotun@jotun.com

1.4 Emergency telephone number

Poisons Information Centre of Ireland: +353 1 809 3000 (8am-10pm, 7 days a week)

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 Irrit. 2, H319 Skin Sens. 1, H317 Aquatic Chronic 2, H411

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SECTION 2: Hazards identification

The product is classified as hazardous according to Regulation (EC) 1272/2008 as amended.

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

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

2.2 Label elements

Hazard pictograms







Signal word

: H226 - Flammable liquid and vapour. **Hazard statements**

H315 - Causes skin irritation.

H317 - May cause an allergic skin reaction. H319 - Causes serious eye irritation.

H411 - Toxic to aquatic life with long lasting effects.

Precautionary statements

General : Not applicable.

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.

P273 - Avoid release to the environment.

P261 - Avoid breathing vapour.

: P391 - Collect spillage. Response

P362 + P364 - Take off contaminated clothing and wash it before reuse.

P302 + P352 - IF ON SKIN: Wash with plenty of water.

P333 + P313 - If skin irritation or rash occurs: Get medical advice or attention. P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes.

Remove contact lenses, if present and easy to do. Continue rinsing. P337 + P313 - If eye irritation persists: Get medical advice or attention.

Storage : Not applicable.

Disposal : P501 - Dispose of contents and container in accordance with all local, regional,

national and international regulations.

: poxy resin (MW ≤ 700) **Hazardous ingredients**

hydrocarbons, c9-unsatd., polymd.

Phenol, methylstyrenated Phenol, styrenated

Supplemental label

elements

: EUH205 - Contains epoxy constituents. May produce an allergic reaction.

Annex XVII - Restrictions on the manufacture, placing on the market and

: Not applicable.

use of certain dangerous substances, mixtures and articles

Special packaging requirements

Containers to be fitted with child-resistant

: Not applicable.

fastenings

Tactile warning of danger: Not applicable.

2.3 Other hazards

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Type

SECTION 2: Hazards identification

Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII

: This mixture contains substances that are assessed to be a PBT or a vPvB, refer to Section 3.2.

Other hazards which do not result in classification : None known.

The mixture may be a skin sensitiser. It may also be a skin irritant and repeated contact may increase this effect.

SECTION 3: Composition/information on ingredients

3.2 Mixtures : Mixture

Product/ingredient name	Identifiers	%	Classification	Specific Conc. Limits, M-factors and ATEs	Туре
poxy resin (MW ≤ 700)	REACH #: 01-2119456619-26 EC: 216-823-5 CAS: 1675-54-3 Index: 603-073-00-2	≥50 - ≤75	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1B, H317 Aquatic Chronic 2, H411	Skin Irrit. 2, H315: C ≥ 5% Eye Irrit. 2, H319: C ≥ 5%	[1]
3-butoxypropan-2-ol	REACH #: 01-2119475527-28 EC: 225-878-4 CAS: 5131-66-8 Index: 603-052-00-8	≤10	Skin Irrit. 2, H315 Eye Irrit. 2, H319	-	[1]
hydrocarbons, c9-unsatd., polymd.	REACH #: 01-2119555292-40 EC: 701-299-7 CAS: 71302-83-5	≤10	Skin Sens. 1, H317 Aquatic Chronic 3, H412	-	[1]
1-methoxy-2-propanol	REACH #: 01-2119457435-35 EC: 203-539-1 CAS: 107-98-2 Index: 603-064-00-3	≤10	Flam. Liq. 3, H226 STOT SE 3, H336	-	[1] [2]
Phenol, methylstyrenated	REACH #: 01-2119555274-38 EC: 700-960-7 CAS: 68512-30-1	≤5	Skin Irrit. 2, H315 Skin Sens. 1, H317 Aquatic Chronic 3, H412	-	[1] [3]
Phenol, styrenated	REACH #: 02-2119629611-43 EC: 262-975-0 CAS: 61788-44-1	≤5	Skin Irrit. 2, H315 Skin Sens. 1, H317 Aquatic Chronic 2, H411	-	[1]
1-phenoxy-2-propanol	REACH #: 01-2119486566-23 EC: 212-222-7 CAS: 770-35-4	≤3	Eye Irrit. 2, H319	-	[1]
			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, vPvBs or Substances of equivalent concern, or have been assigned a workplace exposure limit and hence require reporting in this section.

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SECTION 3: Composition/information on ingredients

- Substance classified with a health or environmental hazard
- [2] Substance with a workplace exposure limit
- [3] Substance meets the criteria for vPvB according to Regulation (EC) No. 1907/2006, Annex XIII

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: Remove contact lenses, irrigate copiously with clean, fresh water, holding the

eyelids apart for at least 10 minutes and seek immediate 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.

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. 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

Over-exposure signs/symptoms

Eye contact : Adverse symptoms may include the following:

pain or irritation watering redness

Inhalation : No specific data.

Skin contact: Adverse symptoms may include the following:

irritation redness

Ingestion : No specific data.

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.

See toxicological information (Section 11)

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing

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: Recommended: alcohol-resistant foam, CO₂, powders, water spray.

Unsuitable extinguishing

media

media

: Do not use water jet.

5.2 Special hazards arising from 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.

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SECTION 5: Firefighting measures

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. 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.

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SECTION 7: Handling and storage

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.

Seveso Directive - Reporting thresholds

Danger criteria

Category	Notification and MAPP threshold	Safety report threshold
P5c	5000 tonne	50000 tonne
E2	200 tonne	500 tonne

See Technical Data Sheet / packaging for further information.

7.3 Specific end use(s)

Recommendations : Not available.

Industrial sector specific : Not available.

solutions

SECTION 8: Exposure controls/personal protection

The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

8.1 Control parameters

Occupational exposure limits

Product/ingredient name	Exposure limit values
1-methoxy-2-propanol	EH40/2005 WELs (United Kingdom (UK), 1/2020). Absorbed through skin.
	STEL: 560 mg/m³ 15 minutes. STEL: 150 ppm 15 minutes. TWA: 375 mg/m³ 8 hours. TWA: 100 ppm 8 hours.

Recommended monitoring procedures

: 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.

DNELs/DMELs

Product/ingredient name	Type	Exposure	Value	Population	Effects
epoxy resin (MW ≤ 700)	DNEL	Long term Dermal	89.3 µg/kg bw/day	General population	Systemic
	DNEL	Long term Oral	0.5 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	0.75 mg/ kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	0.87 mg/m³	General population	Systemic

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SECTION 8: Exposure controls/personal protection

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	DNEL	Long term	4.93 mg/m ³	Workers	Systemic
2 hutanumar == 0 =l	ראובי	Inhalation	44	\\/ = w < =	Curata waii a
3-butoxypropan-2-ol	DNEL	Long term Dermal	44 mg/kg	Workers	Systemic
	ראיבי	Lama trons	bw/day	VA/ = wlass = :	0
	DNEL	Long term	270.5 mg/	Workers	Systemic
	D	Inhalation	m ³	VA / L	0
	DNEL	Long term Dermal	16 mg/kg	Workers	Systemic
	סאובי	1	bw/day	0	0
	DNEL	Long term	33.8 mg/m ³		Systemic
		Inhalation		population	
	DNEL	Long term Oral	8 75 mal	[Consumers] General	Systemic
	DINCL	Long term Oral	8.75 mg/		Systemic
			kg bw/day	population [Consumers]	
	DNEL	Long term Oral	12.5 mg/	General	Systemic
	DINLL	Long term Oral	kg bw/day	population	Systemic
	DNEL	Long term Dermal	22 mg/kg	General	Systemic
	רי א⊏L	Long tolli Dellilal	bw/day	population	Cyclonic
	DNEL	Long term	43 mg/m ³	General	Systemic
	J. 1LL	Inhalation		population	- , 5.5.1115
	DNEL	Long term Dermal	52 mg/kg	Workers	Systemic
			bw/day		- , - , - , - , - , - , - , - , - , - ,
	DNEL	Long term	147 mg/m ³	Workers	Systemic
	- · · 	Inhalation	· · · · · · · · · · · · · · · · · · ·		,
hydrocarbons, c9-unsatd., polymd.	DNEL	Long term Dermal	3.5 mg/kg	Workers	Systemic
			bw/day		
	DNEL	Long term	1.41 mg/m ³	Workers	Systemic
		Inhalation			-
1-methoxy-2-propanol	DNEL	Long term Oral	33 mg/kg	General	Systemic
		=	bw/day	population	-
	DNEL	Long term	43.9 mg/m ³	General	Systemic
		Inhalation		population	
	DNEL	Long term Dermal	78 mg/kg	General	Systemic
			bw/day	population	
	DNEL	Long term Dermal	183 mg/kg	Workers	Systemic
		<u> </u>	bw/day		
	DNEL	Long term	369 mg/m ³	Workers	Systemic
	D	Inhalation		147 1	
	DNEL	Short term		Workers	Local
	ראיבי	Inhalation	m ³	M/ = wlass ::	Ot
	DNEL	Short term	553.5 mg/	Workers	Systemic
Dhonol mothylatimanatad	חאורי	Inhalation	m ³	Morkers	Cyptorsis
Phenol, methylstyrenated	DNEL	Long term Dermal	16.4 mg/	Workers	Systemic
	DNEL	Long term	kg bw/day 57 mg/m³	General	Systemic
	DINEL	Long term Inhalation	or mg/m	population	Systemic
		minaiauUn		[Consumers]	
	DNEL	Long term Dermal	8 mg/kg	General	Systemic
	DITLL	Long torm borniar	bw/day	population	Cyclonic
				[Consumers]	
	DNEL	Long term	28 mg/m ³	General	Systemic
		Inhalation	- 1.3	population	,
				[Consumers]	
	DNEL	Long term Oral	4 mg/kg	General	Systemic
			bw/day	population	
			_	[Consumers]	
	DNEL	Long term Oral	0.2 mg/kg	General	Systemic
			bw/day	population	
	DNEL	Long term	0.348 mg/	General	Systemic
		Inhalation	m³	population	
	DNEL	Long term	1.41 mg/m ³	Workers	Systemic
		Inhalation			
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SECTION 8: Exposure controls/personal protection

DNEL	Long term Dermal	1.67 mg/	General	Systemic
5			• •	
DNEL	Long term Dermal		Workers	Systemic
DNEL	Long term Oral	0.75 mg/	General	Systemic
DNEL	Long term Dermal	0.75 mg/	General	Systemic
DNEL	Long term	•	General	Systemic
DNEL	Long term Dermal	2.1 mg/kg bw/day	Workers	Systemic
DNEL	Long term Inhalation	7.4 mg/m ³	Workers	Systemic
DNEL	Long term Oral	3.65 mg/ kg bw/day	General population	Systemic
DNEL	Long term Dermal	21 mg/kg bw/day	General population	Systemic
DNEL	Long term Inhalation	•		Systemic
DNEL	Long term Dermal	42 mg/kg bw/day	Workers	Systemic
	DNEL DNEL DNEL DNEL DNEL DNEL DNEL DNEL	DNEL Long term Dermal DNEL Long term Oral DNEL Long term Dermal DNEL Long term Inhalation DNEL Long term Dermal DNEL Long term Inhalation DNEL Long term Oral DNEL Long term Oral DNEL Long term Dermal DNEL Long term Dermal	DNEL Long term Dermal 3.5 mg/kg bw/day DNEL Long term Oral 0.75 mg/ kg bw/day DNEL Long term Dermal 0.75 mg/ kg bw/day DNEL Long term 1.31 mg/m³ lnhalation DNEL Long term Dermal 2.1 mg/kg bw/day DNEL Long term 7.4 mg/m³ lnhalation DNEL Long term Oral 3.65 mg/ kg bw/day DNEL Long term Dermal 2.1 mg/kg bw/day DNEL Long term Oral 3.65 mg/ kg bw/day DNEL Long term Dermal 2.7 mg/kg bw/day DNEL Long term Dermal 2.7 mg/kg bw/day DNEL Long term Dermal 42 mg/kg	DNEL Long term Dermal S.5 mg/kg bw/day DNEL Long term Dermal DNEL Long term Dermal DNEL Long term Dermal Long term Dermal DNEL Long term Dermal DNEL Long term Dermal Long term Dermal DNEL Long term Dermal DNEL Long term Dermal

PNECs

Product/ingredient name	Compartment Detail	Value	Method Detail
poxy resin (MW ≤ 700)	Fresh water	0.006 mg/l	-
	Marine	0.0006 mg/l	-
	Sewage Treatment	10 mg/l	-
	Plant		
	Fresh water sediment	0.996 mg/l	-
	Marine water sediment	0.0996 mg/l	-
	Soil	0.196 mg/l	-
3-butoxypropan-2-ol	Fresh water	0.525 mg/l	-
	Marine	0.0525 mg/l	-
	Sewage Treatment Plant	10 mg/l	-
	Fresh water sediment	2.36 mg/kg dwt	_
	Marine water sediment	0.236 mg/kg dwt	_
	Soil	0.16 mg/kg dwt	_
hydrocarbons, c9-unsatd., polymd.	Fresh water	54 μg/l	-
	Marine	5.4 µg/l	-
	Sewage Treatment	2.2 mg/l	-
	Plant		
	Fresh water sediment	1584 mg/kg dwt	-
	Marine water sediment	158 mg/kg dwt	-
	Soil	316.7 mg/kg dwt	-
	Secondary Poisoning	200 mg/kg	-
1-methoxy-2-propanol	Fresh water	10 mg/l	-
	Marine	1 mg/l	-
	Sewage Treatment	100 mg/l	-
	Plant		
	Fresh water sediment	52.3 mg/kg dwt	-
	Marine water sediment	5.2 mg/kg dwt	-
	Soil	5.49 mg/kg dwt	-
Phenol, methylstyrenated	Fresh water	14 μg/l	-
	Marine	1.4 μg/l	-
	Sewage Treatment	2.4 mg/l	-
	Plant		
	Fresh water sediment	52.9 mg/kg dwt	-
	Marine water sediment	5.3 mg/kg dwt	-
	Soil	10.5 mg/kg dwt	-

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SECTION 8: Exposure controls/personal protection

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 measures

Hygiene measures

: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period.

Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection

: Safety eyewear complying to ISO 16321-1:2022 should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.

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.

Gloves

Wear suitable gloves tested to ISO 374-1:2016.

May be used, gloves(breakthrough time) 4 - 8 hours: neoprene (> 0.35 mm), 4H/Silver Shield® (> 0.07 mm) Recommended, gloves(breakthrough time) > 8 hours: Viton® (> 0.7 mm), butyl rubber (> 0.4 mm), nitrile rubber (> 0.75 mm)

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

Use chemical-resistant protective suit / disposable overall.
 Personnel should wear antistatic clothing made of natural fibres or of high-temperature-resistant synthetic fibres.

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.

controls

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SECTION 9: Physical and chemical properties

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

9.1 Information on basic physical and chemical properties

Appearance

Physical state : Liquid. Colour Yellow.

Odour : Characteristic. : Not applicable. **Odour threshold** : Not applicable. Melting point/freezing point

Initial boiling point and

boiling range

: Lowest known value: 120.17°C (248.3°F) (1-methoxy-2-propanol). Weighted

average: 264.7°C (508.5°F)

: Not applicable. **Flammability**

Lower and upper explosion

limit

: Greatest known range: Lower: 1.48% Upper: 13.74% (1-methoxy-2-propanol)

Flash point : Closed cup: 50°C

Auto-ignition temperature : Lowest known value: 260°C (500°F) (3-butoxypropan-2-ol).

Decomposition temperature Not available. pН : Not applicable.

: Kinematic (40°C): >20.5 mm²/s **Viscosity** Not soluble Solubility in water cold water hot water Not soluble

Partition coefficient: n-octanol/ : Not available.

water

: Highest known value: 1.1 kPa (8.5 mm Hg) (at 20°C) (1-methoxy-2-propanol). Vapour pressure

Weighted average: 0.07 kPa (0.53 mm Hg) (at 20°C)

Evaporation rate : 0.814 (1-methoxy-2-propanol) compared with butyl acetate

Density : 1.083 g/cm³

Vapour density Highest known value: 11.7 (Air = 1) (epoxy resin (MW ≤ 700)). Weighted

average: 10.28 (Air = 1)

: Not available. **Explosive properties** Not available. Oxidising properties

Particle characteristics

Median particle size : Not applicable.

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.

Stable under recommended storage and handling conditions (see Section 7). 10.2 Chemical stability 10.3 Possibility of

: Under normal conditions of storage and use, hazardous reactions will not occur. 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, decomposition products carbon dioxide, smoke, oxides of nitrogen.

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SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
poxy resin (MW ≤ 700)	LD50 Dermal	Rabbit	20 g/kg	-
	LD50 Oral	Mouse	15600 mg/kg	-
3-butoxypropan-2-ol	LD50 Dermal	Rabbit	3100 mg/kg	-
	LD50 Dermal	Rabbit	3100 mg/kg	-
hydrocarbons, c9-unsatd.,	LD50 Dermal	Rat	2000 mg/kg	-
polymd.				
	LD50 Oral	Rat	2000 mg/kg	-
1-methoxy-2-propanol	LD50 Dermal	Rabbit	13 g/kg	-
	LD50 Oral	Rat	6600 mg/kg	-
Phenol, styrenated	LD50 Dermal	Rabbit	>5010 mg/kg	-
	LD50 Oral	Rat	2500 mg/kg	-
1-phenoxy-2-propanol	LD50 Oral	Rat	2830 mg/kg	-

Acute toxicity estimates

Product/ingredient name	Oral (mg/ kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapours) (mg/l)	Inhalation (dusts and mists) (mg/l)
3 -butoxypropan-2-ol	N/A	3100	N/A	N/A	N/A
1-methoxy-2-propanol	6600	13000	N/A	N/A	N/A
Phenol, styrenated	2500	N/A	N/A	N/A	N/A
1-phenoxy-2-propanol	2830	N/A	N/A	N/A	N/A

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
poxy resin (MW ≤ 700)	Eyes - Severe irritant	Rabbit	-	24 hours 2	-
				milligrams	
	Skin - Mild irritant	Rabbit	-	500	-
				milligrams	
3-butoxypropan-2-ol	Eyes - Mild irritant	Mammal -	-	-	-
		species			
	01: 14:11: 11	unspecified			
	Skin - Mild irritant	Mammal -	-	-	-
		species			
1 month aver 2 managed	Even Mild imitent	unspecified		04 haves 500	
1-methoxy-2-propanol	Eyes - Mild irritant	Rabbit	-	24 hours 500	-
	Skin - Mild irritant	Rabbit		mg 500 mg	
Phenol, methylstyrenated	Skin - Mild irritant	Mammal -	_	300 mg	_
Frierioi, metriyistyrenated	Skiii - Wiiid II Italii	species	-	_	-
		unspecified			
Phenol, styrenated	Eyes - Mild irritant	Rabbit	_	0.1 Mililiters	_
Thomas, adjustated	Skin - Mild irritant	Mammal -	_	-	_
		species			
		unspecified			
	Skin - Mild irritant	Rabbit	-	0.5 Mililiters	-
1-phenoxy-2-propanol	Eyes - Mild irritant	Mammal -	-	-	_
		species			
		unspecified			

Sensitisation

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SECTION 11: Toxicological information

Product/ingredient name	Route of exposure	Species	Result
epoxy resin (MW ≤ 700)	skin	Mammal - species unspecified	Sensitising
hydrocarbons, c9-unsatd., polymd.	skin	Mouse	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.

Teratogenicity

No known significant effects or critical hazards.

Specific target organ toxicity (single exposure)

Product/ingredient name	Category	Route of exposure	Target organs
1-methoxy-2-propanol	Category 3	-	Narcotic effects

Specific target organ toxicity (repeated exposure)

Based on available data, the classification criteria are not met.

Aspiration hazard

Based on available data, the classification criteria are not met.

11.2 Information on other hazards

11.2.1 Endocrine disrupting properties

Not available.

11.2.2 Other information

Not available.

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
epoxy resin (MW ≤ 700)	Acute EC50 1.4 mg/l	Daphnia	48 hours
	Acute LC50 3.1 mg/l	Fish - pimephales promelas	96 hours
	Chronic NOEC 0.3 mg/l	Fish	21 days
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

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

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SECTION 12: Ecological information

12.2 Persistence and degradability

Conclusion/Summary : Not available.

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
epoxy resin (MW ≤ 700)	-	-	Not readily

12.3 Bioaccumulative potential

Product/ingredient name	LogPow	BCF	Potential
poxy resin (MW ≤ 700)	2.64 to 3.78	31	low
3-butoxypropan-2-ol	1.2	-	low
hydrocarbons, c9-unsatd., polymd.	3.627	-	low
1-methoxy-2-propanol	<1	-	low
Phenol, methylstyrenated	3.627	-	low
1-phenoxy-2-propanol	1.41	-	low

12.4 Mobility in soil

Soil/water partition coefficient (Koc)

: Not available.

Mobility : Not available.

12.5 Results of PBT and vPvB assessment

Product/ingredient name	PBT	Р	В	Т	vPvB	vP	vB
poxy resin (MW ≤ 700)	No	N/A	No	No	No	N/A	No
3-butoxypropan-2-ol	No	N/A	N/A	No	N/A	N/A	N/A
hydrocarbons, c9-unsatd., polymd.	No	N/A	N/A	No	N/A	N/A	N/A
1-methoxy-2-propanol	No	N/A	N/A	No	N/A	N/A	N/A
Phenol, methylstyrenated	No	N/A	N/A	No	SVHC (Recommend	Specified led)	Specified
Phenol, styrenated 1-phenoxy-2-propanol	No No	N/A N/A	N/A N/A	No No	N/A N/A	N/A N/A	N/A N/A

12.6 Endocrine disrupting properties

Not available.

12.7 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

The generation of waste should be avoided or minimised wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.

Hazardous waste : Yes.

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SECTION 13: Disposal considerations

Disposal considerations

Do not allow to enter drains or watercourses.

Dispose of according to all federal, state and local applicable regulations.

If this product is mixed with other wastes, the original waste product code may no longer apply and the appropriate code should be assigned.

For further information, contact your local waste authority.

European waste catalogue (EWC)

The European Waste Catalogue classification of this product, when disposed of as waste, is:

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

Packaging

Methods of disposal

: The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

Disposal considerations

Type of packaging

 Using information provided in this safety data sheet, advice should be obtained from the relevant waste authority on the classification of empty containers.
 Empty containers must be scrapped or reconditioned.
 Dispose of containers contaminated by the product in accordance with local or national local provisions.

national legal provisions.

European waste catalogue (EWC)

15 01 10* packaging containing residues of or contaminated by

hazardous substances

Special precautions

CEPE Guidelines

: 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.

SECTION 14: Transport information

	ADR/RID	ADN	IMDG	IATA
14.1 UN number or ID number	UN1263	UN1263	UN1263	UN1263
14.2 UN proper shipping name	Paint	Paint	Paint. Marine pollutant (epoxy resin (MW ≤ 700))	Paint
14.3 Transport hazard class(es)	3	3	3	3
14.4 Packing group	III	III	III	III
14.5 Environmental hazards	Yes.	Yes.	Yes.	Yes. The environmentally hazardous substance mark is not required.

Additional information

ADR/RID

: The environmentally hazardous substance mark is not required when transported in sizes of ≤5 L or ≤5 kg.

Hazard identification number 30

Tunnel code (D/E)

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SECTION 14: Transport information

ADN

: The environmentally hazardous substance mark is not required when transported in sizes of ≤5 L or ≤5 kg.

IMDG

The marine pollutant mark is not required when transported in sizes of ≤5 L or ≤5 kg.

Emergency schedules F-E, S-E

IATA

The environmentally hazardous substance mark may appear if required by other transportation regulations.

user

14.6 Special precautions 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 in the event of an accident or spillage.

14.7 Maritime transport in bulk according to IMO instruments

: 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

Annex XIV

None of the components are listed.

Substances of very high concern

Intrinsic property	Ingredient name	Status	Reference number	Date of revision
<mark>v</mark> PvB	Phenol, methylstyrenated	Recommended	D(2023) 8585-DC	23.01.2024

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 available.

Industrial emissions (integrated pollution prevention and control) -

Air

: Not listed

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

Water

Ozone depleting substances (1005/2009/EU)

Not listed.

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

Not listed.

Persistent Organic Pollutants

Not listed.

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SECTION 15: Regulatory information

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

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

assessment

: Not applicable.

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

N/A = Not available

PBT = Persistent, Bioaccumulative and Toxic PNEC = Predicted No Effect Concentration RRN = REACH Registration Number

SGG = Segregation Group

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
Skin Irrit. 2, H315	Calculation method
Eye Irrit. 2, H319	Calculation method
Skin Sens. 1, H317	Calculation method
Aquatic Chronic 2, H411	Calculation method

Full text of abbreviated H statements

H226	Flammable liquid and vapour.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

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SECTION 16: Other information

Full text of classifications [CLP/GHS]

Aquatic Chronic 2 LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 2 LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 3 Eye Irrit. 2 SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2

Flam. Liq. 3 FLAMMABLE LIQUIDS - Category 3

Skin Irrit. 2 SKIN CORROSION/IRRITATION - Category 2

Skin Sens. 1 SKIN SENSITISATION - Category 1
Skin Sens. 1B SKIN SENSITISATION - Category 1B

STOT SE 3 SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE - Category 3

Date of printing : 29.05.2024 Date of issue/ Date of : 29.05.2024

revision

Date of previous issue : 09.10.2023

Version : 2

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.

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