

# SAFETY DATA SHEET



## Jotamastic 90 Comp A

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

#### 1.1 Product identifier

**Product name** : Jotamastic 90 Comp A  
**UFI** : ESUF-W1PX-300C-223W  
**Product code** : 16560  
**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

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

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

#### 1.4 Emergency telephone number

##### National advisory body/Poison Centre

**Telephone number** : Contact NHS Direct; phone 0845 4647 or 111. Open 24/7.

##### Supplier

**Telephone number** : +47 33 45 70 00 Jotun Norway (head office)

### SECTION 2: Hazards identification

#### 2.1 Classification of the substance or mixture

**Product definition** : Mixture

##### Classification according to UK CLP/GHS

Flam. Liq. 3, H226  
Skin Irrit. 2, H315  
Eye Dam. 1, H318  
Skin Sens. 1, H317  
Aquatic Chronic 3, H412

The product is classified as hazardous according to UK CLP Regulation SI 2019/720 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

## SECTION 2: Hazards identification

### Hazard pictograms

:



### Signal word

: Danger.

### Hazard statements

: H226 - Flammable liquid and vapour.  
H315 - Causes skin irritation.  
H317 - May cause an allergic skin reaction.  
H318 - Causes serious eye damage.  
H412 - Harmful 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.

#### 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, P310 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
Immediately call a POISON CENTER or doctor.

#### Storage

: Not applicable.

#### Disposal

: P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.

### Supplemental label elements

: EUH205 - Contains epoxy constituents. May produce an allergic reaction.  
EUH211 - Warning! Hazardous respirable droplets may be formed when sprayed.  
Do not breathe spray or mist.

### Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles

: Not applicable.

### Special packaging requirements

#### Containers to be fitted with child-resistant fastenings

: Not applicable.

#### Tactile warning of danger

: Not applicable.

### 2.3 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.

**SECTION 3: Composition/information on ingredients****3.2 Mixtures**

: Mixture

Product/ingredient name	Identifiers	%	Classification	Type
epoxy resin (MW ≤ 700)	REACH #: 01-2119456619-26 EC: 216-823-5 CAS: 1675-54-3 Index: 603-073-00-2	≤14	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1B, H317 Aquatic Chronic 2, H411	[1]
talc (non-asbestos form)	EC: 238-877-9 CAS: 14807-96-6	≥10 - ≤25	Not classified.	[2]
titanium dioxide	REACH #: 01-2119489379-17 EC: 236-675-5 CAS: 13463-67-7 Index: 022-006-00-2	≥10 - ≤25	Carc. 2, H351 (inhalation)	[1] [2] [*]
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, reaction products with fatty acids, C18-unsatd., dimers	EC: 500-180-5 CAS: 67989-52-0	≤8.6	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317 Aquatic Chronic 2, H411	[1]
xylene	REACH #: 01-2119488216-32 EC: 215-535-7 CAS: 1330-20-7 Index: 601-022-00-9	≤10	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 Aquatic Chronic 3, H412	[1] [2]
hydrocarbons, c9-unsatd., polymd.	REACH #: 01-2119555292-40 EC: 701-299-7 CAS: 71302-83-5	≤5	Skin Sens. 1, H317 Aquatic Chronic 3, H412	[1]
glycidyl ether of 3-alkyl phenol	REACH #: 01-2119982994-15 EC: 500-210-7 CAS: 68413-24-1	≤5	Skin Sens. 1, H317	[1]
2-methylpropan-1-ol	REACH #: 01-2119484609-23 EC: 201-148-0 CAS: 78-83-1 Index: 603-108-00-1	≤5	Flam. Liq. 3, H226 Skin Irrit. 2, H315 Eye Dam. 1, H318 STOT SE 3, H335 STOT SE 3, H336	[1] [2]
benzyl alcohol	REACH #: 01-2119492630-38 EC: 202-859-9 CAS: 100-51-6 Index: 603-057-00-5	≤3	Acute Tox. 4, H302 Acute Tox. 4, H332 Eye Irrit. 2, H319	[1]
ethylbenzene	REACH #: 01-2119489370-35 EC: 202-849-4 CAS: 100-41-4 Index: 601-023-00-4	≤3	Flam. Liq. 2, H225 Acute Tox. 4, H332 STOT RE 2, H373 (hearing organs) Asp. Tox. 1, H304 Aquatic Chronic 3, H412	[1] [2]
Phenol, methylstyrenated	REACH #: 01-2119555274-38 EC: 270-966-8 CAS: 68512-30-1	≤3	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	≤1.5	Skin Irrit. 2, H315 Skin Sens. 1, H317 Aquatic Chronic 2, H411	[1]
silica, crystalline - quartz	EC: 238-878-4 CAS: 14808-60-7	≤0.3	STOT RE 2, H373 (lungs) (inhalation)	[1] [2]

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

di-isobutyl ketone	EC: 203-620-1 CAS: 108-83-8 Index: 606-005-00-X	≤0.1	Flam. Liq. 3, H226 STOT SE 3, H335	[1] [2]
Distillates (petroleum), hydrotreated light	REACH #: 01-2119456377-30 EC: 265-149-8 CAS: 64742-47-8 Index: 649-422-00-2	≤0.1	Asp. Tox. 1, H304	[1] [2]
magnesium oxide	REACH #: Annex V EC: 215-171-9 CAS: 1309-48-4	≤0.1	Not classified.	[2]
alumina	REACH #: 01-2119529248-35 EC: 215-691-6 CAS: 1344-28-1	≤0.1	Not classified.	[2]
2,6-ditert-butyl-p-cresol	REACH #: 01-2119565113-46 EC: 204-881-4 CAS: 128-37-0	<0.1	Aquatic Acute 1, H400 (M=1) Aquatic Chronic 1, H410 (M=1) <b>See Section 16 for the full text of the H statements declared above.</b>	[1] [2]

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.

Type

[1] Substance classified with a health or environmental hazard

[2] Substance with a workplace exposure limit

[\*] The classification as a carcinogen by inhalation applies only to mixtures placed on the market in powder form containing 1% or more of titanium dioxide particles with aerodynamic diameter ≤ 10 µm not bound within a matrix.

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

**SECTION 4: First aid measures****4.1 Description of first aid measures**

- Eye contact** : Get medical attention immediately. Call a poison center or physician. Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician.
- Inhalation** : Get medical attention immediately. Call a poison center or physician. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
- Skin contact** : Get medical attention immediately. Call a poison center or physician. Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.

**SECTION 4: First aid measures**

- Ingestion** : Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Chemical burns must be treated promptly by a physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
- 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. 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 may be a skin sensitizer 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 ( $MW \leq 700$ ), 4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, reaction products with fatty acids, C18-unsatd., dimers, hydrocarbons, C9-unsaturated, polymerized, glycidyl ether of 3-alkyl phenol, Phenol, methylstyrenated, Phenol, styrenated. May produce an allergic reaction.

**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 4: First aid measures

See toxicological information (Section 11)

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

**Suitable extinguishing media** : Recommended: alcohol-resistant foam, CO<sub>2</sub>, 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. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. 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 combustion 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.

## 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.

**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.



**SECTION 6: Accidental release measures**

- Large spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilt product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

- 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**

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Do not breathe vapour or mist. Do not ingest. Avoid release to the environment. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.
- Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

**7.2 Conditions for safe storage, including any incompatibilities**

Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidising materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

**Seveso Directive - Reporting thresholds****Danger criteria**

Category	Notification and MAPP threshold	Safety report threshold
P5c	5000 tonne	50000 tonne

See Technical Data Sheet / packaging for further information.

**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
talc (non-asbestos form)	<b>EH40/2005 WELs (United Kingdom (UK), 1/2020).</b> TWA: 1 mg/m <sup>3</sup> 8 hours. Form: respirable dust
titanium dioxide	<b>EH40/2005 WELs (United Kingdom (UK), 1/2020).</b> TWA: 4 mg/m <sup>3</sup> 8 hours. Form: respirable TWA: 10 mg/m <sup>3</sup> 8 hours. Form: total inhalable
xylene	<b>EH40/2005 WELs (United Kingdom (UK), 1/2020). Absorbed through skin.</b> STEL: 441 mg/m <sup>3</sup> 15 minutes. STEL: 100 ppm 15 minutes. TWA: 220 mg/m <sup>3</sup> 8 hours. TWA: 50 ppm 8 hours.
2-methylpropan-1-ol	<b>EH40/2005 WELs (United Kingdom (UK), 1/2020).</b> STEL: 231 mg/m <sup>3</sup> 15 minutes. STEL: 75 ppm 15 minutes. TWA: 154 mg/m <sup>3</sup> 8 hours. TWA: 50 ppm 8 hours.
ethylbenzene	<b>EH40/2005 WELs (United Kingdom (UK), 1/2020). Absorbed through skin.</b> STEL: 552 mg/m <sup>3</sup> 15 minutes. STEL: 125 ppm 15 minutes. TWA: 100 ppm 8 hours. TWA: 441 mg/m <sup>3</sup> 8 hours.
silica, crystalline - quartz	<b>EH40/2005 WELs (United Kingdom (UK), 1/2020).</b> TWA: 0.1 mg/m <sup>3</sup> 8 hours. Form: Respirable fraction
di-isobutyl ketone	<b>EH40/2005 WELs (United Kingdom (UK), 1/2020).</b> TWA: 25 ppm 8 hours. TWA: 148 mg/m <sup>3</sup> 8 hours.
Distillates (petroleum), hydrotreated light	<b>EH40/2005 WELs (United Kingdom (UK), 2005).</b> TWA: 100 ppm 8 hours. TWA: 566 mg/m <sup>3</sup> 8 hours. STEL: 150 ppm 15 minutes. STEL: 850 mg/m <sup>3</sup> 15 minutes.
magnesium oxide	<b>EH40/2005 WELs (United Kingdom (UK), 1/2020).</b> TWA: 4 mg/m <sup>3</sup> , (as Mg) 8 hours. Form: respirable dust <b>EH40/2005 WELs (United Kingdom (UK), 1/2020). Notes: as Mg</b> TWA: 10 mg/m <sup>3</sup> , (as Mg) 8 hours. Form: inhalable dust fume
alumina	<b>EH40/2005 WELs (United Kingdom (UK), 1/2020).</b> TWA: 4 mg/m <sup>3</sup> 8 hours. Form: respirable dust TWA: 10 mg/m <sup>3</sup> 8 hours. Form: inhalable dust
2,6-ditert-butyl-p-cresol	<b>EH40/2005 WELs (United Kingdom (UK), 1/2020).</b> TWA: 10 mg/m <sup>3</sup> 8 hours.

**Biological exposure indices**

No exposure indices known.

**Recommended monitoring procedures** : Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

**DNELs/DMELs**



**SECTION 8: Exposure controls/personal protection**

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
talc (non-asbestos form)	DNEL	Long term Dermal	0.75 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	0.87 mg/m <sup>3</sup>	General population	Systemic
	DNEL	Long term Inhalation	4.93 mg/m <sup>3</sup>	Workers	Systemic
	DNEL	Short term Inhalation	1.08 mg/m <sup>3</sup>	General population	Systemic
	DNEL	Long term Inhalation	1.08 mg/m <sup>3</sup>	General population	Systemic
	DNEL	Short term Inhalation	1.8 mg/m <sup>3</sup>	General population	Local
	DNEL	Long term Inhalation	1.8 mg/m <sup>3</sup>	General population	Local
	DNEL	Short term Inhalation	2.16 mg/m <sup>3</sup>	Workers	Systemic
	DNEL	Long term Inhalation	2.16 mg/m <sup>3</sup>	Workers	Systemic
	DNEL	Long term Dermal	2.27 mg/cm <sup>2</sup>	General population	Local
	DNEL	Short term Inhalation	3.6 mg/m <sup>3</sup>	Workers	Local
	DNEL	Long term Inhalation	3.6 mg/m <sup>3</sup>	Workers	Local
	DNEL	Long term Dermal	4.54 mg/cm <sup>2</sup>	Workers	Local
	DNEL	Long term Dermal	21.6 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	43.2 mg/kg bw/day	Workers	Systemic
	DNEL	Short term Oral	160 mg/kg bw/day	General population	Systemic
	DNEL	Long term Oral	160 mg/kg bw/day	General population	Systemic
	DNEL	Short term Dermal	0.00476 mg/cm <sup>2</sup>	General population	Local
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, reaction products with fatty acids, C18-unsatd., dimers	DNEL	Long term Dermal	0.00476 mg/cm <sup>2</sup>	General population	Local
	DNEL	Short term Dermal	0.0079 mg/cm <sup>2</sup>	Workers	Local
	DNEL	Long term Dermal	0.0079 mg/cm <sup>2</sup>	Workers	Local
	DNEL	Short term Dermal	3.3 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	3.3 mg/kg bw/day	General population	Systemic
	DNEL	Short term Dermal	5.6 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Dermal	5.6 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	23.5 mg/m <sup>3</sup>	General population	Local
	DNEL	Long term Inhalation	23.5 mg/m <sup>3</sup>	General population	Systemic
	DNEL	Short term	39.2 mg/m <sup>3</sup>	Workers	Local

**SECTION 8: Exposure controls/personal protection**

xylene	DNEL	Inhalation Long term	39.2 mg/m <sup>3</sup>	Workers	Local
	DNEL	Inhalation Short term	39.2 mg/m <sup>3</sup>	Workers	Systemic
	DNEL	Inhalation Long term	39.2 mg/m <sup>3</sup>	Workers	Systemic
	DNEL	Inhalation Long term	65.3 mg/m <sup>3</sup>	General population	Local
	DNEL	Inhalation Short term	260 mg/m <sup>3</sup>	General population	Local
	DNEL	Inhalation Short term	260 mg/m <sup>3</sup>	General population	Systemic
	DNEL	Inhalation Long term	221 mg/m <sup>3</sup>	Workers	Local
	DNEL	Inhalation Long term Oral	12.5 mg/ kg bw/day	General population	Systemic
	DNEL	Inhalation Long term	65.3 mg/m <sup>3</sup>	General population	Systemic
	DNEL	Dermal Long term	125 mg/kg bw/day	General population	Systemic
	DNEL	Dermal Long term	212 mg/kg bw/day	Workers	Systemic
	DNEL	Dermal Long term	221 mg/m <sup>3</sup>	Workers	Systemic
	DNEL	Inhalation Short term	442 mg/m <sup>3</sup>	Workers	Local
	DNEL	Inhalation Short term	442 mg/m <sup>3</sup>	Workers	Systemic
hydrocarbons, c9-unsatd., polymd.	DNEL	Inhalation Long term	3.5 mg/kg bw/day	Workers	Systemic
	DNEL	Inhalation Long term	1.41 mg/m <sup>3</sup>	Workers	Systemic
glycidyl ether of 3-alkyl phenol	DNEL	Dermal Long term	0.21 mg/ kg bw/day	Workers	Systemic
	DNEL	Dermal Long term	0.73 mg/m <sup>3</sup>	Workers	Systemic
2-methylpropan-1-ol	DNEL	Inhalation Long term	55 mg/m <sup>3</sup>	General population	Systemic
	DNEL	Inhalation Long term	310 mg/m <sup>3</sup>	Workers	Systemic
	DNEL	Inhalation Long term	55 mg/m <sup>3</sup>	General population	Local
	DNEL	Inhalation Long term	310 mg/m <sup>3</sup>	Workers	Local
benzyl alcohol	DNEL	Inhalation Long term Oral	4 mg/kg bw/day	General population	Systemic
	DNEL	Dermal Long term	4 mg/kg bw/day	General population	Systemic
	DNEL	Dermal Long term	5.4 mg/m <sup>3</sup>	General population	Systemic
	DNEL	Inhalation Long term	8 mg/kg bw/day	General population	Systemic
	DNEL	Dermal Long term	8 mg/kg bw/day	Workers	Systemic
	DNEL	Oral Short term	20 mg/kg bw/day	General population	Systemic
	DNEL	Dermal Short term	20 mg/kg bw/day	General population	Systemic
	DNEL	Dermal Long term	22 mg/m <sup>3</sup>	Workers	Systemic
	DNEL	Inhalation Short term	27 mg/m <sup>3</sup>	General population	Systemic
	DNEL	Inhalation Short term	40 mg/kg bw/day	Workers	Systemic
	DNEL	Dermal Short term	110 mg/m <sup>3</sup>	Workers	Systemic

**SECTION 8: Exposure controls/personal protection**

ethylbenzene	DNEL	Inhalation Long term Oral	1.6 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	15 mg/m <sup>3</sup>	General population	Systemic
	DNEL	Long term Inhalation	77 mg/m <sup>3</sup>	Workers	Systemic
	DNEL	Long term Dermal	180 mg/kg bw/day	Workers	Systemic
	DNEL	Short term Inhalation	293 mg/m <sup>3</sup>	Workers	Local
	DMEL	Long term Inhalation	442 mg/m <sup>3</sup>	Workers	Local
Phenol, methylstyrenated	DMEL	Short term Inhalation	884 mg/m <sup>3</sup>	Workers	Systemic
	DNEL	Long term Dermal	16.4 mg/ kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	57 mg/m <sup>3</sup>	General population [Consumers]	Systemic
	DNEL	Long term Dermal	8 mg/kg bw/day	General population [Consumers]	Systemic
	DNEL	Long term Inhalation	28 mg/m <sup>3</sup>	General population [Consumers]	Systemic
	DNEL	Long term Oral	4 mg/kg bw/day	General population [Consumers]	Systemic
	DNEL	Long term Oral	0.2 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	0.348 mg/ m <sup>3</sup>	General population	Systemic
	DNEL	Long term Inhalation	1.41 mg/m <sup>3</sup>	Workers	Systemic
	DNEL	Long term Dermal	1.67 mg/ kg bw/day	General population	Systemic
Phenol, styrenated	DNEL	Long term Dermal	3.5 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Oral	7.5 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	7.5 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	13.1 mg/m <sup>3</sup>	General population	Systemic
	DNEL	Long term Dermal	21 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	74 mg/m <sup>3</sup>	Workers	Systemic
di-isobutyl ketone	DNEL	Long term Dermal	7.7 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	53 mg/m <sup>3</sup>	Workers	Systemic
alumina	DNEL	Long term Inhalation	15.63 mg/ m <sup>3</sup>	Workers	Local
	DNEL	Long term Oral	3.29 mg/ kg bw/day	General population [Consumers]	Systemic
	DNEL	Long term Inhalation	0.75 mg/m <sup>3</sup>	General population	Local
	DNEL	Long term Inhalation	0.75 mg/m <sup>3</sup>	General population	Systemic
	DNEL	Long term Oral	1.32 mg/ kg bw/day	General population	Systemic

Jotamastic 90 Comp A

**SECTION 8: Exposure controls/personal protection**

2,6-ditert-butyl-p-cresol	DNEL	Long term Inhalation	3 mg/m <sup>3</sup>	Workers	Local
	DNEL	Long term Inhalation	3 mg/m <sup>3</sup>	Workers	Systemic
	DNEL	Long term Oral	0.25 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	0.435 mg/m <sup>3</sup>	General population	Systemic
	DNEL	Long term Inhalation	1.76 mg/m <sup>3</sup>	Workers	Systemic
	DNEL	Long term Dermal	0.25 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	0.5 mg/kg bw/day	Workers	Systemic

**PNECs**

Product/ingredient name	Compartment Detail	Value	Method Detail
epoxy resin (MW ≤ 700)	Fresh water	0.006 mg/l	-
	Marine	0.0006 mg/l	-
	Sewage Treatment Plant	10 mg/l	-
	Fresh water sediment	0.996 mg/l	-
	Marine water sediment	0.0996 mg/l	-
	Soil	0.196 mg/l	-
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	-
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	-
	Soil	316.7 mg/kg dwt	-
2-methylpropan-1-ol	Secondary Poisoning	200 mg/kg	-
	Fresh water	0.4 mg/l	-
	Marine	0.04 mg/l	-
	Sewage Treatment Plant	10 mg/l	-
	Fresh water sediment	1.52 mg/kg dwt	-
	Marine water sediment	0.152 mg/kg dwt	-
benzyl alcohol	Soil	0.0699 mg/kg dwt	-
	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	-
ethylbenzene	Soil	0.456 mg/kg dwt	-
	Fresh water	0.1 mg/l	-
	Marine	0.01 mg/l	-
	Sewage Treatment Plant	9.6 mg/l	-
	Fresh water sediment	13.7 mg/kg dwt	-
	Soil	2.68 mg/kg dwt	-
Phenol, methylstyrenated	Secondary Poisoning	20 mg/kg	-
	Fresh water	14 µg/l	-
	Marine	1.4 µg/l	-
	Sewage Treatment	2.4 mg/l	-

**SECTION 8: Exposure controls/personal protection**

alumina	Plant		
	Fresh water sediment	52.9 mg/kg dwt	-
	Marine water sediment	5.3 mg/kg dwt	-
	Soil	10.5 mg/kg dwt	-
	Fresh water	74.9 µg/l	-
	Sewage Treatment Plant	20 mg/l	-

**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.

**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 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.

**Gloves**

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

Recommended, gloves(breakthrough time) > 8 hours: Viton® (> 0.7 mm), nitrile rubber (> 0.4 mm), 4H/Silver Shield® (> 0.07 mm), Teflon (> 0.35 mm)

Not recommended, gloves(breakthrough time) < 1 hour: PVC (> 0.5 mm)

May be used, gloves(breakthrough time) 4 - 8 hours: neoprene (> 0.35 mm), butyl rubber (> 0.4 mm), polyvinyl alcohol (PVA) (> 0.3 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**

- : 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.

**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.

**SECTION 8: Exposure controls/personal protection**

- 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**

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** : Black, White.
- Odour** : Characteristic.
- Odour threshold** : Not applicable.
- Melting point/freezing point** : Not applicable.
- Initial boiling point and boiling range** : Lowest known value: 108°C (226.4°F) (2-methylpropan-1-ol). Weighted average: 228.81°C (443.9°F)
- Flammability** : Not applicable.
- Upper/lower flammability or explosive limits** : 0.8 - 13%
- Flash point** : Closed cup: 33°C (91.4°F)
- Auto-ignition temperature** : Lowest known value: >375°C (>707°F) (hydrocarbons, c9-unsatd., polymd.).
- Decomposition temperature** : Not available.
- pH** : Not applicable.
- Viscosity** : Kinematic (40°C): >20.5 mm<sup>2</sup>/s
- Partition coefficient: n-octanol/ water** : Not available.
- Vapour pressure** : Highest known value: <1.6 kPa (<12 mm Hg) (at 20°C) (2-methylpropan-1-ol). Weighted average: 0.35 kPa (2.63 mm Hg) (at 20°C)
- Evaporation rate** : Highest known value: 0.84 (ethylbenzene) Weighted average: 0.6 compared with butyl acetate
- Density** : 1.47 to 1.607 g/cm<sup>3</sup>
- Vapour density** : Highest known value: 11.7 (Air = 1) (epoxy resin (MW ≤ 700)). Weighted average: 7.74 (Air = 1)
- Explosive properties** : Not available.
- Oxidising properties** : Not available.
- 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.
- 10.2 Chemical stability** : Stable under recommended storage and handling conditions (see Section 7).
- 10.3 Possibility of hazardous reactions** : Under normal conditions of storage and use, hazardous reactions will not occur.
- 10.4 Conditions to avoid** : When exposed to high temperatures may produce hazardous decomposition products.



**SECTION 10: Stability and reactivity**

**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** : Decomposition products may include the following materials: carbon monoxide, carbon dioxide, smoke, oxides of nitrogen.

**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 may be a skin sensitizer 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), 4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, reaction products with fatty acids, C18-unsatd., dimers, hydrocarbons, C9-unsaturated, polymerized, glycidyl ether of 3-alkyl phenol, Phenol, methylstyrenated, Phenol, styrenated. May produce an allergic reaction.

**Acute toxicity**

Product/ingredient name	Result	Species	Dose	Exposure
epoxy resin (MW ≤ 700)	LD50 Dermal	Rabbit	20 g/kg	-
	LD50 Oral	Mouse	15600 mg/kg	-
xylene	LC50 Inhalation Vapour	Rat	20 mg/l	4 hours
	LD50 Oral	Rat	4300 mg/kg	-
	TDLo Dermal	Rabbit	4300 mg/kg	-
hydrocarbons, C9-unsaturated, polymerized	LD50 Dermal	Rat	>2000 mg/kg	-
	LD50 Oral	Rat	>2000 mg/kg	-
2-methylpropan-1-ol	LC50 Inhalation Vapour	Rat	19200 mg/m <sup>3</sup>	4 hours
	LD50 Dermal	Rabbit	3400 mg/kg	-
	LD50 Oral	Rat	2460 mg/kg	-
benzyl alcohol	LD50 Oral	Rat	1230 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	-
Phenol, styrenated	LD50 Dermal	Rabbit	>5010 mg/kg	-
	LD50 Oral	Rat	2500 mg/kg	-
2,6-dimethylheptan-4-one	LD50 Dermal	Rabbit	16120 mg/kg	-
	LD50 Oral	Rat	5750 mg/kg	-

**Acute toxicity estimates**

Jotamastic 90 Comp A

**SECTION 11: Toxicological information**

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapours) (mg/l)	Inhalation (dusts and mists) (mg/l)
Jotamastic 90 Comp A (MM-WCSE)	49200.0	19349.2	N/A	164.5	N/A
xylene	4300	1100	N/A	20	N/A
2-methylpropan-1-ol	2460	3400	N/A	N/A	N/A
benzyl alcohol	1230	N/A	N/A	11	N/A
ethylbenzene	3500	N/A	N/A	17.8	N/A
Phenol, styrenated	2500	N/A	N/A	N/A	N/A
2,6-dimethylheptan-4-one	5750	16120	N/A	N/A	N/A

**Irritation/Corrosion**

Product/ingredient name	Result	Species	Score	Exposure	Observation
epoxy resin (MW ≤ 700)	Eyes - Severe irritant	Rabbit	-	24 hours 2 milligrams	-
	Skin - Mild irritant	Rabbit	-	500 milligrams	-
titanium dioxide	Skin - Mild irritant	Human	-	72 hours	-
	Eyes - Mild irritant	Rabbit	-	87 milligrams	-
	Skin - Mild irritant	Rat	-	8 hours 60 microliters	-
2-methylpropan-1-ol	Eyes - Irritant	Mammal - species unspecified	-	-	-
	Skin - Mild irritant	Mammal - species unspecified	-	-	-
benzyl alcohol	Eyes - Mild irritant	Mammal - species unspecified	-	-	-
Phenol, methylstyrenated	Skin - Mild irritant	Mammal - species unspecified	-	-	-
Phenol, styrenated	Eyes - Mild irritant	Rabbit	-	0.1 Milliliters	-
	Skin - Mild irritant	Mammal - species unspecified	-	-	-
2,6-dimethylheptan-4-one	Skin - Mild irritant	Rabbit	-	0.5 Milliliters	-
	Eyes - Mild irritant	Human	-	15 minutes	-
	Eyes - Mild irritant	Rabbit	-	25 parts per million	-
	Skin - Mild irritant	Rabbit	-	500 milligrams	-
	Skin - Mild irritant	Rabbit	-	24 hours 10 milligrams	-
2,6-ditert-butyl-p-cresol	Skin - Mild irritant	Rabbit	-	500 milligrams	-
	Eyes - Moderate irritant	Rabbit	-	24 hours 100 milligrams	-
	Skin - Mild irritant	Human	-	48 hours 500 milligrams	-
	Skin - Moderate irritant	Rabbit	-	48 hours 500 milligrams	-

**Sensitisation**

**SECTION 11: Toxicological information**

Product/ingredient name	Route of exposure	Species	Result
epoxy resin (MW ≤ 700)	skin	Mammal - species unspecified	Sensitising
hydrocarbons, C9-unsaturated, polymerized glycidyl ether of 3-alkyl phenol	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**

It has been observed that the carcinogenic hazard of this product arises when respirable dust is inhaled in quantities leading to significant impairment of particle clearance mechanisms in the lung.

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
xylene	Category 3	-	Respiratory tract irritation
2-methylpropan-1-ol	Category 3	-	Respiratory tract irritation
2,6-dimethylheptan-4-one	Category 3	-	Narcotic effects
	Category 3	-	Respiratory tract irritation

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

Product/ingredient name	Category	Route of exposure	Target organs
ethylbenzene	Category 2	-	hearing organs
silica, crystalline - quartz	Category 2	inhalation	lungs

**Aspiration hazard**

Product/ingredient name	Result
xylene	ASPIRATION HAZARD - Category 1
ethylbenzene	ASPIRATION HAZARD - Category 1
Distillates (petroleum), hydro- treated light	ASPIRATION HAZARD - Category 1

**Potential 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.

**Symptoms related to the physical, chemical and toxicological characteristics**

**Eye contact** : Adverse symptoms may include the following:  
pain  
watering  
redness

Jotamastic 90 Comp A

**SECTION 11: Toxicological information**

<b>Inhalation</b>	: No specific data.
<b>Skin contact</b>	: Adverse symptoms may include the following: pain or irritation redness blistering may occur
<b>Ingestion</b>	: Adverse symptoms may include the following: stomach pains
<b>General</b>	: Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.
<b>Other information</b>	: 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
epoxy resin (MW ≤ 700)	Acute EC50 1.4 mg/l Acute LC50 3.1 mg/l Chronic NOEC 0.3 mg/l	Daphnia Fish - pimephales promelas Fish	48 hours 96 hours 21 days
titanium dioxide	Acute LC50 3 mg/l Fresh water  Acute LC50 6.5 mg/l Fresh water	Crustaceans - Water flea - Ceriodaphnia dubia - Neonate Daphnia - Water flea - Daphnia pulex - Neonate	48 hours  48 hours
xylene	Acute LC50 >1000000 µg/l Marine water Acute LC50 8500 µg/l Marine water  Acute LC50 13400 µg/l Fresh water	Fish - Mummichog - Fundulus heteroclitus Crustaceans - Daggerblade grass shrimp - Palaemonetes pugio Fish - Fathead minnow - Pimephales promelas	96 hours  48 hours  96 hours
2-methylpropan-1-ol	Chronic NOEC 4000 µg/l Fresh water	Daphnia - Water flea - Daphnia magna	21 days
ethylbenzene	Acute EC50 7700 µg/l Marine water  Acute EC50 2.93 mg/l Acute LC50 4.2 mg/l	Algae - Diatom - Skeletonema costatum Daphnia Fish	96 hours  48 hours 96 hours
Phenol, styrenated	Acute EC50 100 mg/l Acute EC50 54 mg/l Acute LC50 25.8 mg/l	Algae Daphnia Fish	72 hours 48 hours 96 hours

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

**12.2 Persistence and degradability**

**Conclusion/Summary** : Not available.

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

**12.3 Bioaccumulative potential**

**SECTION 12: Ecological information**

Product/ingredient name	LogP <sub>ow</sub>	BCF	Potential
epoxy resin (MW ≤ 700)	2.64 to 3.78	31	low
xylene	3.12	8.1 to 25.9	low
hydrocarbons, C9-unsaturated, polymerized	3.627	-	low
2-methylpropan-1-ol	1	-	low
benzyl alcohol	0.87	<100	low
ethylbenzene	3.6	-	low
Phenol, methylstyrenated	3.627	-	low
2,6-dimethylheptan-4-one	3.71	-	low
2,6-ditert-butyl-p-cresol	5.1	330 to 1800	high

**12.4 Mobility in soil**

**Soil/water partition coefficient (K<sub>oc</sub>)** : 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.

**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** : 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.

**Waste catalogue**

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.

Type of packaging	Waste catalogue
CEPE Guidelines	15 01 10* packaging containing residues of or contaminated by hazardous substances

**Special precautions** : 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	UN1263	UN1263	UN1263	UN1263
14.2 UN proper shipping name	Paint	Paint	Paint	Paint
14.3 Transport hazard class(es)	3 	3 	3 	3 
14.4 Packing group	III	III	III	III
14.5 Environmental hazards	No.	Yes.	No.	No.

**Additional information****ADR/RID**

: **Hazard identification number** 30  
**Tunnel code** (D/E)

ADR/RID: Viscous substance. Not restricted, ref. chapter 2.2.3.1.5 (applicable to receptacles < 450 litre capacity).

**ADN**

: The product is only regulated as an environmentally hazardous substance when transported in tank vessels.

**IMDG**

: **Emergency schedules** F-E, S-E

IMDG: Viscous substance. Transport in accordance with paragraph 2.3.2.5 (applicable to receptacles < 450 litre capacity).

**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.

**14.7 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**  
**UK (GB)/REACH****Annex XIV - List of substances subject to authorisation****Annex XIV**

None of the components are listed.

**Substances of very high concern**

None of the components are listed.

**Ozone depleting substances**

Not listed.

**Prior Informed Consent (PIC)**

Not listed.

**Persistent Organic Pollutants**

Not listed.



Jotamastic 90 Comp A

**SECTION 15: Regulatory information**

**Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles** : Not applicable.

**Seveso Directive**

This product is controlled under the Seveso Directive.

**Danger criteria****Category**

P5c

**National regulations**

Product/ingredient name	List name	Name on list	Classification	Notes
silica, crystalline - quartz	UK Occupational Exposure Limits EH40 - WEL	silica, respirable crystalline respirable fraction	Carc.	-

**EU regulations**

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

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

**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** : 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
- GB CLP = UK CLP (EC No 1272/2008) on the Classification, Labelling and Packaging of Substances and Mixtures as amended by (EU Exit) Regulations 2019 No. 720 and amendments
- DMEL = Derived Minimal Effect Level
- DNEL = Derived No Effect Level
- EUH statement = GB CLP-specific Hazard statement
- N/A = Not available
- PBT = Persistent, Bioaccumulative and Toxic
- PNEC = Predicted No Effect Concentration
- RRN = REACH Registration Number

Jotamastic 90 Comp A

**SECTION 16: Other information**

SGG = Segregation Group

vPvB = Very Persistent and Very Bioaccumulative

**Procedure used to derive the classification**

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.
H351	Suspected of causing cancer.
H373	May cause damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

**Full text of classifications**

Acute Tox. 4	ACUTE TOXICITY - Category 4
Aquatic Acute 1	SHORT-TERM (ACUTE) AQUATIC HAZARD - Category 1
Aquatic Chronic 1	LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 1
Aquatic Chronic 2	LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 2
Aquatic Chronic 3	LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 3
Asp. Tox. 1	ASPIRATION HAZARD - Category 1
Carc. 2	CARCINOGENICITY - Category 2
Eye Dam. 1	SERIOUS EYE DAMAGE/EYE IRRITATION - Category 1
Eye Irrit. 2	SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2
Flam. Liq. 2	FLAMMABLE LIQUIDS - 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 RE 2	SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE - Category 2
STOT SE 3	SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE - Category 3

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