

## Safeguard Universal ES Comp A

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

#### 1.1 Product identifier

**Product name** : Safeguard Universal ES Comp A  
**UFI** : RKW2-80RT-4005-QYXK  
**Product code** : 1055  
**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

#### 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 Irrit. 2, H319  
Skin Sens. 1, H317  
Aquatic Chronic 3, H412

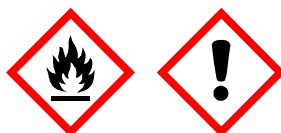
The product is classified as hazardous according to UK CLP Regulation SI 2019/720 as amended.

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

**Hazard pictograms** :



## SECTION 2: Hazards identification

|   |  |
|---|--|
| <b>Signal word</b>  | : Warning.   |
| <b>Hazard statements</b>  | : H226 - Flammable liquid and vapour.<br>H315 - Causes skin irritation.<br>H317 - May cause an allergic skin reaction.<br>H319 - Causes serious eye irritation.<br>H412 - Harmful to aquatic life with long lasting effects.   |
| <b><u>Precautionary statements</u></b>  |  |
| <b>General</b>  | : Not applicable.  |
| <b>Prevention</b>   | : P280 - Wear protective gloves. Wear eye or face protection.<br>P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.<br>P273 - Avoid release to the environment.<br>P261 - Avoid breathing vapour.   |
| <b>Response</b>   | : P362 + P364 - Take off contaminated clothing and wash it before reuse.<br>P302 + P352 - IF ON SKIN: Wash with plenty of water.<br>P333 + P313 - If skin irritation or rash occurs: Get medical advice or attention.<br>P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.<br>P337 + P313 - If eye irritation persists: Get medical advice or attention. |
| <b>Storage</b>  | : Not applicable.  |
| <b>Disposal</b>   | : P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.   |
| <b>Supplemental label elements</b>  | : EUH205 - Contains epoxy constituents. May produce an allergic reaction.<br>EUH211 - Warning! Hazardous respirable droplets may be formed when sprayed. Do not breathe spray or mist.   |
| <b>Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles</b> | : Not applicable.  |
| <b><u>Special packaging requirements</u></b>  |  |
| <b>Containers to be fitted with child-resistant fastenings</b>  | : Not applicable.  |
| <b>Tactile warning of danger</b>  | : Not applicable.  |

### 2.3 Other hazards

|  |   |
|--|---|
| <b>Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII</b> | : This mixture does not contain any substances that are assessed to be a PBT or a vPvB. |
| <b>Other hazards which do not result in classification</b>   | : None known.   |

## SECTION 3: Composition/information on ingredients

**3.2 Mixtures** : Mixture

| Product/ingredient name | Identifiers  | %         | Classification   | Type    |
|-------------------------|--|-----------|--|---------|
| Xylene                  | REACH #:<br>01-2119488216-32<br>EC: 215-535-7<br>CAS: 1330-20-7<br>Index: 601-022-00-9 | ≥10 - <20 | Flam. Liq. 3, H226<br>Acute Tox. 4, H312<br>Acute Tox. 4, H332<br>Skin Irrit. 2, H315<br>Eye Irrit. 2, H319<br>STOT SE 3, H335<br>Asp. Tox. 1, H304<br>Aquatic Chronic 3, H412 | [1] [2] |

### SECTION 3: Composition/information on ingredients

|   |   |     |  |                |
|---|---|-----|--|----------------|
| ethylbenzene  | REACH #:<br>01-2119489370-35<br>EC: 202-849-4<br>CAS: 100-41-4<br>Index: 601-023-00-4   | <10 | Flam. Liq. 2, H225<br>Acute Tox. 4, H332<br>STOT RE 2, H373<br>(hearing organs)<br>Asp. Tox. 1, H304<br>Aquatic Chronic 3,<br>H412 | [1] [2]        |
| epoxy resin (MW ≤ 700)  | REACH #:<br>01-2119456619-26<br>EC: 216-823-5<br>CAS: 1675-54-3<br>Index: 603-073-00-2  | ≤10 | Skin Irrit. 2, H315<br>Eye Irrit. 2, H319<br>Skin Sens. 1B, H317<br>Aquatic Chronic 2,<br>H411                                     | [1]            |
| bisphenol A/F-epoxy resins (MW <700)  | CAS: 40216-08-8   | ≤5  | Skin Irrit. 2, H315<br>Eye Irrit. 2, H319<br>Skin Sens. 1, H317<br>Aquatic Chronic 2,<br>H411                                      | [1]            |
| 1-methoxy-2-propanol  | REACH #:<br>01-2119457435-35<br>EC: 203-539-1<br>CAS: 107-98-2<br>Index: 603-064-00-3   | ≤5  | Flam. Liq. 3, H226<br>STOT SE 3, H336  | [1] [2]        |
| titanium dioxide  | REACH #:<br>01-2119489379-17<br>EC: 236-675-5<br>CAS: 13463-67-7<br>Index: 022-006-00-2 | ≤3  | Carc. 2, H351<br>(inhalation)  | [1] [2]<br>[*] |
| <b>See Section 16 for the full text of the H statements declared above.</b> |   |     |  |                |

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** : 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. Get medical attention.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. 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. Get medical attention if adverse health effects persist or are severe. 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** : 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. Get medical attention. 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** : 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. Get medical attention if adverse health effects persist or are severe. 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. 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 ≤ 700), bisphenol A/F-epoxy resins (MW <700). May produce an allergic reaction.

**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 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. Avoid breathing 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.

**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

## SECTION 6: Accidental release measures

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 ingest. Avoid breathing vapour or mist. 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. 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

## SECTION 8: Exposure controls/personal protection

| Product/ingredient name | Exposure limit values   |
|-------------------------|---|
| xylene                  | <b>EH40/2005 WELs (United Kingdom (UK), 1/2020). Absorbed through skin.</b><br>STEL: 441 mg/m <sup>3</sup> 15 minutes.<br>STEL: 100 ppm 15 minutes.<br>TWA: 220 mg/m <sup>3</sup> 8 hours.<br>TWA: 50 ppm 8 hours.  |
| ethylbenzene            | <b>EH40/2005 WELs (United Kingdom (UK), 1/2020). Absorbed through skin.</b><br>STEL: 552 mg/m <sup>3</sup> 15 minutes.<br>STEL: 125 ppm 15 minutes.<br>TWA: 100 ppm 8 hours.<br>TWA: 441 mg/m <sup>3</sup> 8 hours. |
| 1-methoxy-2-propanol    | <b>EH40/2005 WELs (United Kingdom (UK), 1/2020). Absorbed through skin.</b><br>STEL: 560 mg/m <sup>3</sup> 15 minutes.<br>STEL: 150 ppm 15 minutes.<br>TWA: 375 mg/m <sup>3</sup> 8 hours.<br>TWA: 100 ppm 8 hours. |
| titanium dioxide        | <b>EH40/2005 WELs (United Kingdom (UK), 1/2020).</b><br>TWA: 4 mg/m <sup>3</sup> 8 hours. Form: respirable<br>TWA: 10 mg/m <sup>3</sup> 8 hours. Form: total inhalable  |

### 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

| Product/ingredient name | Type         | Exposure              | Value                  | Population         | Effects            |
|-------------------------|--------------|-----------------------|------------------------|--------------------|--------------------|
| xylene                  | DNEL         | Long term Inhalation  | 65.3 mg/m <sup>3</sup> | General population | Local              |
|                         | DNEL         | Short term Inhalation | 260 mg/m <sup>3</sup>  | General population | Local              |
|                         | DNEL         | Short term Inhalation | 260 mg/m <sup>3</sup>  | General population | Systemic           |
|                         | DNEL         | Long term Inhalation  | 221 mg/m <sup>3</sup>  | Workers            | Local              |
|                         | DNEL         | Long term Oral        | 12.5 mg/kg bw/day      | General population | Systemic           |
|                         | DNEL         | Long term Inhalation  | 65.3 mg/m <sup>3</sup> | General population | Systemic           |
|                         | DNEL         | Long term Dermal      | 125 mg/kg bw/day       | General population | Systemic           |
|                         | DNEL         | Long term Dermal      | 212 mg/kg bw/day       | Workers            | Systemic           |
|                         | DNEL         | Long term Inhalation  | 221 mg/m <sup>3</sup>  | Workers            | Systemic           |
|                         | DNEL         | Short term Inhalation | 442 mg/m <sup>3</sup>  | Workers            | Local              |
|                         | DNEL         | Short term Inhalation | 442 mg/m <sup>3</sup>  | Workers            | Systemic           |
|                         | ethylbenzene | DNEL                  | Long term Oral         | 1.6 mg/kg bw/day   | General population |
| 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            | 293 mg/m <sup>3</sup>  | Workers            | Local              |

### SECTION 8: Exposure controls/personal protection

|                        |      |                                |                             |                       |          |
|------------------------|------|--------------------------------|-----------------------------|-----------------------|----------|
| epoxy resin (MW ≤ 700) | DMEL | Inhalation<br>Long term        | 442 mg/m <sup>3</sup>       | Workers               | Local    |
|                        | DMEL | Inhalation<br>Short term       | 884 mg/m <sup>3</sup>       | Workers               | Systemic |
|                        | DNEL | Inhalation<br>Long term Dermal | 89.3 µg/kg<br>bw/day        | General<br>population | Systemic |
|                        | DNEL | Long term Oral                 | 0.5 mg/kg<br>bw/day         | General<br>population | Systemic |
|                        | DNEL | Long term Dermal               | 0.75 mg/<br>kg bw/day       | Workers               | Systemic |
|                        | DNEL | Long term<br>Inhalation        | 0.87 mg/m <sup>3</sup>      | General<br>population | Systemic |
| 1-methoxy-2-propanol   | DNEL | Long term<br>Inhalation        | 4.93 mg/m <sup>3</sup>      | Workers               | Systemic |
|                        | DNEL | Long term Oral                 | 33 mg/kg<br>bw/day          | General<br>population | Systemic |
|                        | DNEL | Long term<br>Inhalation        | 43.9 mg/m <sup>3</sup>      | General<br>population | Systemic |
|                        | DNEL | Long term Dermal               | 78 mg/kg<br>bw/day          | General<br>population | Systemic |
|                        | DNEL | Long term Dermal               | 183 mg/kg<br>bw/day         | Workers               | Systemic |
|                        | DNEL | Long term<br>Inhalation        | 369 mg/m <sup>3</sup>       | Workers               | Systemic |
|                        | DNEL | Short term<br>Inhalation       | 553.5 mg/<br>m <sup>3</sup> | Workers               | Local    |
|                        | DNEL | Short term<br>Inhalation       | 553.5 mg/<br>m <sup>3</sup> | Workers               | Systemic |

#### PNECs

| Product/ingredient name | Compartment Detail        | Value           | Method Detail |
|-------------------------|---------------------------|-----------------|---------------|
| xylene                  | Fresh water               | 0.327 mg/l      | -             |
|                         | Marine                    | 0.327 mg/l      | -             |
|                         | Sewage Treatment<br>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  | -             |
| ethylbenzene            | Fresh water               | 0.1 mg/l        | -             |
|                         | Marine                    | 0.01 mg/l       | -             |
|                         | Sewage Treatment<br>Plant | 9.6 mg/l        | -             |
|                         | Fresh water sediment      | 13.7 mg/kg dwt  | -             |
|                         | Soil                      | 2.68 mg/kg dwt  | -             |
|                         | Secondary Poisoning       | 20 mg/kg        | -             |
| epoxy resin (MW ≤ 700)  | Fresh water               | 0.006 mg/l      | -             |
|                         | Marine                    | 0.0006 mg/l     | -             |
|                         | Sewage Treatment<br>Plant | 10 mg/l         | -             |
|                         | Fresh water sediment      | 0.996 mg/l      | -             |
|                         | Marine water sediment     | 0.0996 mg/l     | -             |
|                         | Soil                      | 0.196 mg/l      | -             |
| 1-methoxy-2-propanol    | Fresh water               | 10 mg/l         | -             |
|                         | Marine                    | 1 mg/l          | -             |
|                         | Sewage Treatment<br>Plant | 100 mg/l        | -             |
|                         | Fresh water sediment      | 52.3 mg/kg dwt  | -             |
|                         | Marine water sediment     | 5.2 mg/kg dwt   | -             |
|                         | Soil                      | 5.49 mg/kg dwt  | -             |

#### 8.2 Exposure controls



## SECTION 8: Exposure controls/personal protection

**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.

### 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), butyl rubber (> 0.4 mm), PVC (> 0.5 mm)

Recommended, gloves(breakthrough time) > 8 hours: nitrile rubber (> 0.4 mm), Teflon (> 0.35 mm), polyvinyl alcohol (PVA) (> 0.3 mm), 4H/Silver Shield® (> 0.07 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.

**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 charcoal filter.

**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**

|   |   |
|---|---|
| <b>Physical state</b>                               | : Liquid.   |
| <b>Colour</b>                                       | : Purple.   |
| <b>Odour</b>  | : Characteristic.   |
| <b>Odour threshold</b>                              | : Not applicable.   |
| <b>Melting point/freezing point</b>                 | : Not applicable.   |
| <b>Initial boiling point and boiling range</b>      | : Lowest known value: 120.17°C (248.3°F) (1-methoxy-2-propanol). Weighted average: 158.33°C (317°F) |
| <b>Flammability</b>                                 | : Not applicable.   |
| <b>Upper/lower flammability or explosive limits</b> | : 0.8 - 13.74%  |
| <b>Flash point</b>                                  | : Closed cup: 26°C (78.8°F)   |
| <b>Auto-ignition temperature</b>                    | : Lowest known value: 270°C (518°F) (1-methoxy-2-propanol).   |
| <b>Decomposition temperature</b>                    | : Not available.  |
| <b>pH</b>   | : Not applicable.   |
| <b>Viscosity</b>                                    | : Kinematic (40°C): >20.5 mm <sup>2</sup> /s  |
| <b>Solubility(ies)</b>                              | :   |

| Media      | Result      |
|------------|-------------|
| cold water | Not soluble |
| hot water  | Not soluble |

**Partition coefficient: n-octanol/ water** : Not available.

**Vapour pressure** : Highest known value: 1.2 kPa (9.3 mm Hg) (at 20°C) (ethylbenzene). Weighted average: 0.83 kPa (6.23 mm Hg) (at 20°C)

**Evaporation rate** : Highest known value: 0.84 (ethylbenzene) Weighted average: 0.79 compared with butyl acetate

**Density** : 1.528 to 1.54 g/cm<sup>3</sup>

**Vapour density** : Highest known value: 11.7 (Air = 1) (epoxy resin (MW ≤ 700)). Weighted average: 4.92 (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.

**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), bisphenol A/F-epoxy resins (MW <700). May produce an allergic reaction.

**Acute toxicity**

| Product/ingredient name | Result                 | Species    | Dose        | Exposure |
|-------------------------|------------------------|------------|-------------|----------|
| xylene                  | LC50 Inhalation Vapour | Rat        | 20 mg/l     | 4 hours  |
|                         | LD50 Oral              | Rat        | 4300 mg/kg  | -        |
|                         | TDLo Dermal            | Rabbit     | 4300 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  | -        |
| epoxy resin (MW ≤ 700)  | LD50 Dermal            | Rabbit     | 20 g/kg     | -        |
|                         | LD50 Oral              | Mouse      | 15600 mg/kg | -        |
|                         | LD50 Dermal            | Rabbit     | 13 g/kg     | -        |
| 1-methoxy-2-propanol    | LD50 Dermal            | Rabbit     | 13 g/kg     | -        |
|                         | LD50 Oral              | Rat        | 6600 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) |
|-------------------------------|--------------|----------------|--------------------------|-----------------------------|-------------------------------------|
| Safeguard Universal ES Comp A | N/A          | 6746.1         | N/A                      | 89.2                        | N/A                                 |
| xylene                        | 4300         | 1100           | N/A                      | 20                          | N/A                                 |
| ethylbenzene                  | 3500         | N/A            | N/A                      | 17.8                        | N/A                                 |
| 1-methoxy-2-propanol          | 6600         | 13000          | N/A                      | N/A                         | N/A                                 |

**Irritation/Corrosion**

| Product/ingredient name              | Result                 | Species                      | Score | Exposure               | Observation |
|--------------------------------------|------------------------|------------------------------|-------|------------------------|-------------|
| xylene                               | Eyes - Mild irritant   | Rabbit                       | -     | 87 milligrams          | -           |
|                                      | Skin - Mild irritant   | Rat                          | -     | 8 hours 60 microliters | -           |
| epoxy resin (MW ≤ 700)               | Eyes - Severe irritant | Rabbit                       | -     | 24 hours 2 milligrams  | -           |
|                                      | Skin - Mild irritant   | Rabbit                       | -     | 500 milligrams         | -           |
| bisphenol A/F-epoxy resins (MW <700) | Eyes - Mild irritant   | Mammal - species unspecified | -     | -                      | -           |
|                                      | Skin - Mild irritant   | Mammal - species             | -     | -                      | -           |

## SECTION 11: Toxicological information

|                      |  |                    |        |                    |        |
|----------------------|--|--------------------|--------|--------------------|--------|
| 1-methoxy-2-propanol | Eyes - Mild irritant                         | unspecified Rabbit | -      | 24 hours 500 mg    | -      |
| titanium dioxide     | Skin - Mild irritant<br>Skin - Mild irritant | Rabbit<br>Human    | -<br>- | 500 mg<br>72 hours | -<br>- |

### Sensitisation

| Product/ingredient name              | Route of exposure | Species                      | Result      |
|--------------------------------------|-------------------|------------------------------|-------------|
| epoxy resin (MW ≤ 700)               | skin              | Mammal - species unspecified | Sensitising |
| bisphenol A/F-epoxy resins (MW <700) | 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 |
| 1-methoxy-2-propanol    | Category 3 | -                 | Narcotic effects             |

### Specific target organ toxicity (repeated exposure)

| Product/ingredient name | Category   | Route of exposure | Target organs  |
|-------------------------|------------|-------------------|----------------|
| ethylbenzene            | Category 2 | -                 | hearing organs |

### Aspiration hazard

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

### Potential acute health effects

**Eye contact** : Causes serious eye irritation.

**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 or irritation  
watering  
redness

**Inhalation** : No specific data.

**Skin contact** : Adverse symptoms may include the following:  
irritation  
redness

**SECTION 11: Toxicological information**

|                          |   |
|--------------------------|---|
| <b>Ingestion</b>         | : No specific data.   |
| <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 |
|-------------------------|---------------------------------------|---|----------|
| xylene                  | Acute LC50 8500 µg/l Marine water     | Crustaceans - Daggerblade grass shrimp - Palaemonetes pugio | 48 hours |
|                         | Acute LC50 13400 µg/l Fresh water     | Fish - Fathead minnow - Pimephales promelas                 | 96 hours |
| ethylbenzene            | Acute EC50 7700 µg/l Marine water     | Algae - Diatom - Skeletonema costatum                       | 96 hours |
|                         | Acute EC50 2.93 mg/l                  | Daphnia   | 48 hours |
|                         | Acute LC50 4.2 mg/l                   | Fish  | 96 hours |
| 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  |
| titanium dioxide        | Acute LC50 3 mg/l Fresh water         | Crustaceans - Water flea - Ceriodaphnia dubia - Neonate     | 48 hours |
|                         | Acute LC50 6.5 mg/l Fresh water       | Daphnia - Water flea - Daphnia pulex - Neonate              | 48 hours |
|                         | Acute LC50 >1000000 µg/l Marine water | Fish - Mummichog - Fundulus heteroclitus                    | 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 |
|-------------------------|-------------------|------------|------------------|
| xylene                  | -                 | -          | Readily          |
| ethylbenzene            | -                 | -          | Readily          |
| epoxy resin (MW ≤ 700)  | -                 | -          | Not readily      |

**12.3 Bioaccumulative potential**

| Product/ingredient name | LogP <sub>ow</sub> | BCF         | Potential |
|-------------------------|--------------------|-------------|-----------|
| xylene                  | 3.12               | 8.1 to 25.9 | low       |
| ethylbenzene            | 3.6                | -           | low       |
| epoxy resin (MW ≤ 700)  | 2.64 to 3.78       | 31          | low       |
| 1-methoxy-2-propanol    | <1                 | -           | low       |

**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.

## SECTION 12: Ecological information

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

## SECTION 13: Disposal considerations

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

### 13.1 Waste treatment methods

#### Product

**Methods of disposal** : 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   |
|--|--|--|---|--|
| <b>14.1 UN number</b>                  | UN1263   | UN1263   | UN1263  | UN1263   |
| <b>14.2 UN proper shipping name</b>    | Paint  | Paint  | Paint   | Paint  |
| <b>14.3 Transport hazard class(es)</b> | 3<br> | 3<br> | 3<br> | 3<br> |
| <b>14.4 Packing group</b>              | III  | III  | III   | III  |
| <b>14.5 Environmental hazards</b>      | No.  | Yes.   | No.   | No.  |

#### Additional information

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

## SECTION 14: Transport information

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

**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

#### EU regulations

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

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

## SECTION 15: Regulatory information

### 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  
 SGG = Segregation Group  
 vPvB = Very Persistent and Very Bioaccumulative

### Procedure used to derive the classification

| Classification   | Justification   |
|--|---|
| Flam. Liq. 3, H226<br>Skin Irrit. 2, H315<br>Eye Irrit. 2, H319<br>Skin Sens. 1, H317<br>Aquatic Chronic 3, H412 | On basis of test data<br>Calculation method<br>Calculation method<br>Calculation method<br>Calculation method |

### Full text of abbreviated H statements

|       |  |
|-------|--|
| ✔H225 | Highly flammable liquid and vapour.                                |
| H226  | Flammable liquid and vapour.                                       |
| 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.                               |
| 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. |
| H411  | Toxic to aquatic life with long lasting effects.                   |
| H412  | Harmful to aquatic life with long lasting effects.                 |

### Full text of classifications



**SECTION 16: Other information**

|                   |   |
|-------------------|---|
| Acute Tox. 4      | ACUTE TOXICITY - Category 4                                     |
| 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 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   |

**Date of printing** : 21.04.2023

**Date of issue/ Date of revision** : 21.04.2023

**Date of previous issue** : 30.03.2023

**Version** : 1.02

**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.