

# SAFETY DATA SHEET



## Hardtop AX Comp A

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

#### 1.1 Product identifier

**Product name** : Hardtop AX Comp A  
**Product code** : 16480  
**Product description** : Paint.  
**Product type** : Liquid.  
**Other means of identification** : Not available.

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

##### Identified uses

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

#### 1.3 Details of the supplier of the safety data sheet

MANUFACTURER/SUPPLIER:  
Jotun Paints (Europe) Ltd.  
Stather Road  
Flixborough, Scunthorpe  
North Lincolnshire  
DN15 8RR  
England

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

#### 1.4 Emergency telephone number

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

### SECTION 2: Hazards identification

#### 2.1 Classification of the substance or mixture

**Product definition** : Mixture

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

Flam. Liq. 3, H226  
Skin Sens. 1, H317  
STOT SE 3, H336  
Aquatic Chronic 3, H412

#### 2.2 Label elements

**Date of issue** : 02.01.2018

**SECTION 2: Hazards identification****Hazard pictograms****Signal word**

: Warning.

**Hazard statements**

: H226 - Flammable liquid and vapour.  
 H317 - May cause an allergic skin reaction.  
 H336 - May cause drowsiness or dizziness.  
 H412 - Harmful to aquatic life with long lasting effects.

**Precautionary statements****General**:  Not applicable.**Prevention**:  P260 - Do not breathe vapour or spray.**Response**

:  P304 + P340 + P312 - IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or physician if you feel unwell.  
 P333 + P313 - If skin irritation or rash occurs: Get medical attention.

**Storage**

:  P403 - Store in a well-ventilated place.  
 P235 - Keep cool.

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

:  n-butyl acetate  
 bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate  
 methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate  
 2-hydroxyethyl methacrylate

**Supplemental label elements**

: Not applicable.

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

: None known.

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

| Product/ingredient name   | Identifiers  | %         | Classification   |         |       |
|---|--|-----------|--|---------|-------|
|   |  |           | Regulation (EC) No. 1272/2008 [CLP]  | Type    | Notes |
| <input checked="" type="checkbox"/> n-butyl acetate   | REACH #:<br>01-2119485493-29<br>EC: 204-658-1<br>CAS: 123-86-4                           | ≥10 - ≤25 | Flam. Liq. 3, H226<br>STOT SE 3, H336<br>EUH066                                      | [1] [2] | -     |
| pentane-2,4-dione   | REACH #:<br>01-2119458968-15<br>EC: 204-634-0<br>CAS: 123-54-6                           | ≤3        | Flam. Liq. 3, H226<br>Acute Tox. 4, H302<br>Acute Tox. 3, H311<br>Acute Tox. 3, H331 | [1]     | -     |
| 12-hydroxyoctadecanoic acid, reaction products with 1,3-benzenedimethanamine and hexamethylenediamine | REACH #:<br>01-0000017900-73<br>EC: 432-840-2<br>CAS: 220926-97-6<br>Index: 616-201-00-7 | ≤3        | Acute Tox. 4, H332<br>STOT RE 2, H373<br>Aquatic Chronic 4, H413                     | [1]     | -     |
| bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate   | REACH #:<br>01-2119491304-40<br>EC: 255-437-1<br>CAS: 41556-26-7                         | ≤1.8      | Skin Sens. 1, H317<br>Aquatic Acute 1, H400 (M=1)<br>Aquatic Chronic 1, H410 (M=1)   | [1]     | -     |

**Date of issue**

: 02.01.2018

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

|   |  |       |  |     |   |
|---|--|-------|--|-----|---|
| methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate | REACH #:<br>01-2119491304-40<br>EC: 280-060-4<br>CAS: 82919-37-7 | ≤0.62 | Skin Sens. 1, H317<br>Aquatic Acute 1, H400 (M=1)<br>Aquatic Chronic 1, H410 (M=1)   | [1] | - |
| 2-hydroxyethyl methacrylate                       | EC: 212-782-2<br>CAS: 868-77-9<br>Index: 607-124-00-X            | ≤0.3  | Skin Irrit. 2, H315<br>Eye Irrit. 2, H319<br>Skin Sens. 1, H317<br><b>See Section 16 for the full text of the H statements declared above.</b> | [1] | D |

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs or vPvBs or have been assigned a workplace exposure limit and hence require reporting in this section.

Type

[1] Substance classified with a health or environmental hazard

[2] Substance with a workplace exposure limit

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

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

[5] Substance of equivalent concern

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

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

- General** : In all cases of doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and seek medical advice.
- Inhalation** : Remove to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel.
- Skin contact** : Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water or use recognised skin cleanser. Do NOT use solvents or thinners.
- Eye contact** : Remove contact lenses, irrigate copiously with clean, fresh water, holding the eyelids apart for at least 10 minutes and seek immediate medical advice.
- Ingestion** : If swallowed, seek medical advice immediately and show the container or label. Keep person warm and at rest. Do NOT induce vomiting.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

**4.2 Most important symptoms and effects, both acute and delayed**

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

Exposure to component solvent vapour concentrations in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and central nervous system. 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.

## **SECTION 4: First aid measures**

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.

Contains bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate, methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate, 2-hydroxyethyl methacrylate. May produce an allergic reaction.

### **Potential acute health effects**

- Eye contact** : No known significant effects or critical hazards.
- Inhalation** : Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness.
- Skin contact** : May cause an allergic skin reaction.
- Ingestion** : Can cause central nervous system (CNS) depression.

### **Over-exposure signs/symptoms**

- Eye contact** : No specific data.
- Inhalation** : Adverse symptoms may include the following:
  - nausea or vomiting
  - headache
  - drowsiness/fatigue
  - dizziness/vertigo
  - unconsciousness
- 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** : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- Specific treatments** : No specific treatment.

## **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. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Runoff to sewer may create fire or explosion hazard. This material is harmful to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.
- Hazardous thermal decomposition products** : Decomposition products may include the following materials:
  - carbon dioxide
  - carbon monoxide
  - nitrogen oxides
  - sulfur oxides
  - metal oxide/oxides

### **5.3 Advice for firefighters**

## SECTION 5: Firefighting measures

- Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

## SECTION 6: Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Shut off all ignition sources. No flares, smoking or flames in hazard area. 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. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilt product.

### 6.4 Reference to other sections

- : See Section 1 for emergency contact information.  
See Section 8 for information on appropriate personal protective equipment.  
See Section 13 for additional waste treatment information.

## SECTION 7: Handling and storage

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

### 7.1 Precautions for safe handling

## **SECTION 7: Handling and storage**

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

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

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

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

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

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

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

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

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

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

Comply with the health and safety at work laws.

Do not allow to enter drains or watercourses.

### **Information on fire and explosion protection**

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

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

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

Store in accordance with local regulations.

#### **Notes on joint storage**

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

#### **Additional information on storage conditions**

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

### **7.3 Specific end use(s)**

**Recommendations** : Not available.

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

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

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).

### **8.1 Control parameters**

#### **Occupational exposure limits**

| <b>Product/ingredient name</b> | <b>Exposure limit values</b>  |
|--------------------------------|---|
| n-butyl acetate                | <b>EH40/2005 WELs (United Kingdom (UK), 12/2011).</b><br>STEL: 966 mg/m <sup>3</sup> 15 minutes.<br>STEL: 200 ppm 15 minutes.<br>TWA: 724 mg/m <sup>3</sup> 8 hours.<br>TWA: 150 ppm 8 hours. |

**Recommended monitoring procedures** : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment

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

of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

**Derived no effect levels**

| Product/ingredient name | Type | Exposure              | Value                    | Population | Effects  |
|-------------------------|------|-----------------------|--------------------------|------------|----------|
| n-butyl acetate         | DNEL | Short term Inhalation | 960 mg/m <sup>3</sup>    | Workers    | Systemic |
|                         | DNEL | Short term Inhalation | 960 mg/m <sup>3</sup>    | Workers    | Local    |
|                         | DNEL | Long term Inhalation  | 480 mg/m <sup>3</sup>    | Workers    | Systemic |
|                         | DNEL | Long term Inhalation  | 480 mg/m <sup>3</sup>    | Workers    | Local    |
|                         | DNEL | Short term Inhalation | 859.7 mg/m <sup>3</sup>  | Consumers  | Systemic |
|                         | DNEL | Short term Inhalation | 859.7 mg/m <sup>3</sup>  | Consumers  | Local    |
|                         | DNEL | Long term Inhalation  | 102.34 mg/m <sup>3</sup> | Consumers  | Systemic |
|                         | DNEL | Long term Inhalation  | 102.34 mg/m <sup>3</sup> | Consumers  | Local    |

**Predicted no effect concentrations**

| Product/ingredient name | Type | Compartment Detail     | Value            | Method Detail |
|-------------------------|------|------------------------|------------------|---------------|
| n-butyl acetate         | PNEC | Fresh water            | 0.18 mg/l        | -             |
|                         | PNEC | Marine                 | 0.018 mg/l       | -             |
|                         | PNEC | Sewage Treatment Plant | 35.6 mg/l        | -             |
|                         | PNEC | Fresh water sediment   | 0.981 mg/kg dwt  | -             |
|                         | PNEC | Marine water sediment  | 0.0981 mg/kg dwt | -             |
|                         | PNEC | Soil                   | 0.0903 mg/kg dwt | -             |

**8.2 Exposure controls**

**Appropriate engineering controls** : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapour or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

**Individual protection measures**

**Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

**Eye/face protection** : Safety eyewear complying to EN 166 should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.

**Skin protection**

## SECTION 8: Exposure controls/personal protection

- Hand protection** : There is no one glove material or combination of materials that will give unlimited resistance to any individual or combination of chemicals. The breakthrough time must be greater than the end use time of the product. The instructions and information provided by the glove manufacturer on use, storage, maintenance and replacement must be followed. Gloves should be replaced regularly and if there is any sign of damage to the glove material. Always ensure that gloves are free from defects and that they are stored and used correctly. The performance or effectiveness of the glove may be reduced by physical/chemical damage and poor maintenance. Barrier creams may help to protect the exposed areas of the skin but should not be applied once exposure has occurred. Wear suitable gloves tested to EN374. Not recommended, gloves(breakthrough time) < 1 hour: PE Recommended, gloves(breakthrough time) > 8 hours: Teflon, polyvinyl alcohol (PVA), fluor rubber May be used, gloves(breakthrough time) 4 - 8 hours: 4H, nitrile rubber, neoprene, butyl rubber, PVC, Viton®
- For right choice of glove materials, with focus on chemical resistance and time of penetration, seek advice by the supplier of chemical resistant gloves. The user must check that the final choice of type of glove selected for handling this product is the most appropriate and takes into account the particular conditions of use, as included in the user's risk assessment.
- Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves. Refer to European Standard EN 1149 for further information on material and design requirements and test methods.
- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : If workers are exposed to concentrations above the exposure limit, they must use a respirator according to EN 140. Use respiratory mask with charcoal and dust filter when spraying this product, according to EN 14387(as filter combination A2-P2). In confined spaces, use compressed-air or fresh-air respiratory equipment. When use of roller or brush, consider use of charcoal filter.
- Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

#### Appearance

- Physical state** : Liquid.
- Colour** : Various
- Odour** : Characteristic.
- Odour threshold** : Not applicable.
- pH** : Not applicable.
- Melting point/freezing point** : Not applicable.
- Initial boiling point and boiling range** : Lowest known value: 126°C (258.8°F) (n-butyl acetate). Weighted average: 129.53°C (265.2°F)



**SECTION 9: Physical and chemical properties**

|   |  |
|---|--|
| <b>Flash point</b>                                  | : Closed cup: 28°C   |
| <b>Evaporation rate</b>                             | : Highest known value: 1 (n-butyl acetate) Weighted average: 0.94 compared with butyl acetate                                  |
| <b>Flammability (solid, gas)</b>                    | : Not applicable.  |
| <b>Burning time</b>                                 | : Not applicable.  |
| <b>Burning rate</b>                                 | : Not applicable.  |
| <b>Upper/lower flammability or explosive limits</b> | : 1.05 - 11.6%   |
| <b>Vapour pressure</b>                              | : Highest known value: 1.5 kPa (11.3 mm Hg) (at 20°C) (n-butyl acetate).<br>Weighted average: 1.38 kPa (10.35 mm Hg) (at 20°C) |
| <b>Vapour density</b>                               | : Highest known value: 4 (Air = 1) (n-butyl acetate). Weighted average: 3.96 (Air = 1)   |
| <b>Relative density</b>                             | : <input checked="" type="checkbox"/> to 1.508 g/cm <sup>3</sup>   |
| <b>Solubility(ies)</b>                              | : Insoluble in the following materials: cold water and hot water.  |
| <b>Partition coefficient: n-octanol/ water</b>      | : Not available.   |
| <b>Auto-ignition temperature</b>                    | : Lowest known value: 340°C (644°F) (pentane-2,4-dione).   |
| <b>Decomposition temperature</b>                    | : Not available.   |
| <b>Viscosity</b>                                    | : <input checked="" type="checkbox"/> Kinematic (40°C): >0.205 cm <sup>2</sup> /s (>20.5 mm <sup>2</sup> /s)                   |
| <b>Explosive properties</b>                         | : Not available.   |
| <b>Oxidising properties</b>                         | : Not available.   |

**9.2 Other information**

No additional information.

**SECTION 10: Stability and reactivity**

|  |   |
|--|---|
| <b>10.1 Reactivity</b>                         | : No specific test data related to reactivity available for this product or its ingredients.  |
| <b>10.2 Chemical stability</b>                 | : The product is stable.  |
| <b>10.3 Possibility of hazardous reactions</b> | : Under normal conditions of storage and use, hazardous reactions will not occur.   |
| <b>10.4 Conditions to avoid</b>                | : Avoid all possible sources of ignition (spark or flame). Do not pressurise, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition.   |
| <b>10.5 Incompatible materials</b>             | : Keep away from the following materials to prevent strong exothermic reactions: oxidising agents, strong alkalis, strong acids.<br><input checked="" type="checkbox"/> Under normal conditions of storage and use, hazardous reactions will not occur. |
| <b>10.6 Hazardous decomposition products</b>   | : Under normal conditions of storage and use, hazardous decomposition products should not be produced.  |

**SECTION 11: Toxicological information****11.1 Information on toxicological effects**

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

Exposure to component solvent vapour concentrations in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and central nervous system. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and, in extreme cases, loss of consciousness.

Solvents may cause some of the above effects by absorption through the skin. Repeated or prolonged contact with the mixture may cause removal of natural fat from the skin, resulting in non-allergic contact dermatitis and absorption through the skin.

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

**SECTION 11: Toxicological information**

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.

Contains bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate, methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate, 2-hydroxyethyl methacrylate. May produce an allergic reaction.

| Product/ingredient name     | Result                 | Species | Dose         | Exposure |
|-----------------------------|------------------------|---------|--------------|----------|
| n-butyl acetate             | LC50 Inhalation Vapour | Rat     | >21.1 mg/l   | 4 hours  |
|                             | LD50 Dermal            | Rabbit  | >17600 mg/kg | -        |
|                             | LD50 Oral              | Rat     | 13100 mg/kg  | -        |
| pentane-2,4-dione           | LD50 Oral              | Mouse   | 951 mg/kg    | -        |
| 2-hydroxyethyl methacrylate | LD50 Oral              | Rat     | 5050 mg/kg   | -        |

**Acute toxicity estimates**

| Route                        | ATE value   |
|------------------------------|-------------|
| Oral                         | 31685 mg/kg |
| Dermal                       | 19011 mg/kg |
| Inhalation (vapours)         | 190.1 mg/l  |
| Inhalation (dusts and mists) | 148.6 mg/l  |

**Irritation/Corrosion**

| Product/ingredient name | Result                   | Species | Score | Exposure                               | Observation |
|-------------------------|--------------------------|---------|-------|--|-------------|
| pentane-2,4-dione       | Eyes - Severe irritant   | Rabbit  | -     | 20 milligrams                          | -           |
|                         | Skin - Mild irritant     | Rabbit  | -     | 488 milligrams                         | -           |
|                         | Skin - Mild irritant     | Rabbit  | -     | 6 hours 11.2 Milliliters Intermittent  | -           |
|                         | Skin - Moderate irritant | Rabbit  | -     | 48 hours 11.2 Milliliters Intermittent | -           |
|                         | Skin - Moderate irritant | Rabbit  | -     | 6 hours 33.6 Milliliters Intermittent  | -           |

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

| Product/ingredient name | Category   | Route of exposure | Target organs    |
|-------------------------|------------|-------------------|------------------|
| n-butyl acetate         | Category 3 | Not applicable.   | Narcotic effects |

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

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

**Aspiration hazard**

Not available.

**Potential acute health effects**

- Eye contact** : No known significant effects or critical hazards.
- Inhalation** : Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness.
- Skin contact** : May cause an allergic skin reaction.
- Ingestion** : Can cause central nervous system (CNS) depression.

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

**SECTION 11: Toxicological information**

|  |   |
|--|---|
| <b>Eye contact</b>                             | : No specific data.   |
| <b>Inhalation</b>                              | : Adverse symptoms may include the following:<br>nausea or vomiting<br>headache<br>drowsiness/fatigue<br>dizziness/vertigo<br>unconsciousness |
| <b>Skin contact</b>                            | : Adverse symptoms may include the following:<br>irritation<br>redness  |
| <b>Ingestion</b>                               | : No specific data.   |
| <b><u>Potential chronic health effects</u></b> |   |
| <b>General</b>                                 | : Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.   |
| <b>Carcinogenicity</b>                         | : No known significant effects or critical hazards.   |
| <b>Mutagenicity</b>                            | : No known significant effects or critical hazards.   |
| <b>Teratogenicity</b>                          | : No known significant effects or critical hazards.   |
| <b>Developmental effects</b>                   | : No known significant effects or critical hazards.   |
| <b>Fertility effects</b>                       | : No known significant effects or critical hazards.   |

**SECTION 12: Ecological information****12.1 Toxicity**

| Product/ingredient name | Result                            | Species  | Exposure |
|-------------------------|-----------------------------------|--|----------|
| pentane-2,4-dione       | Acute EC50 75000 µg/l Fresh water | Crustaceans - Ceriodaphnia reticulata - Larvae | 48 hours |
|                         | Acute LC50 47600 µg/l Fresh water | Daphnia - Daphnia magna - Neonate              | 48 hours |
|                         | Acute LC50 60100 µg/l Fresh water | Fish - Lepomis macrochirus                     | 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 |
|---|-------------------|------------|------------------|
| bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate   | -                 | -          | Not readily      |
| methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate | -                 | -          | Not readily      |

**12.3 Bioaccumulative potential**

| Product/ingredient name     | LogP <sub>ow</sub> | BCF | Potential |
|-----------------------------|--------------------|-----|-----------|
| n-butyl acetate             | 2.3                | -   | low       |
| pentane-2,4-dione           | 0.68               | -   | low       |
| 2-hydroxyethyl methacrylate | 0.42               | -   | low       |

**12.4 Mobility in soil**

**Soil/water partition coefficient (K<sub>oc</sub>)** : Not available.

**Mobility** : Not available.

## SECTION 12: Ecological information

### 12.5 Results of PBT and vPvB assessment

- PBT** : Not applicable.  
**vPvB** : Not applicable.

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

## SECTION 13: Disposal considerations

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

### 13.1 Waste treatment methods

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

**European waste catalogue (EWC)** : 08 01 11\* Waste paint and varnish containing organic solvents or other dangerous substances

## SECTION 14: Transport information

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

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

### International transport regulations

- 14.1 UN number** : 1263  
**14.2 UN proper shipping name** : Paint  
**14.3 Transport hazard class(es)** : 3



- 14.4 Packing group** : III  
**14.5 Environmental hazards** : No.  
**14.6 Special precautions for user** : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

### Additional information

**ADR / RID** :  Funnel restriction code: (D/E)  
Hazard identification number: 30  
ADR/RID: Viscous substance. Not restricted, ref. chapter 2.2.3.1.5 (applicable to receptacles < 450 litre capacity).

**IMDG** : **Emergency schedules (EmS)**  
F-E, S-E  
IMDG: Viscous substance. Transport in accordance with paragraph 2.3.2.5 (applicable to receptacles < 30 litre capacity).

**14.7 Transport in bulk according to Annex II of Marpol and the IBC Code** : Not available.

**IMDG Code Segregation group** :  Not available.

## SECTION 14: Transport information

## SECTION 15: Regulatory information

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

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

##### Annex XIV - List of substances subject to authorisation

###### Substances of very high concern

None of the components are listed.

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

##### Other EU regulations

**Europe inventory** :  At least one component is not listed.

**Black List Chemicals** : Not listed

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

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


**Chemical Weapons Convention List Schedule I Chemicals** : Not listed

**Chemical Weapons Convention List Schedule II Chemicals** : Not listed

**Chemical Weapons Convention List Schedule III Chemicals** : Not listed

**15.2 Chemical safety assessment** : Not applicable.

## SECTION 16: Other information

 Indicates information that has changed from previously issued version.

**Abbreviations and acronyms** : ATE = Acute Toxicity Estimate  
CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]  
DNEL = Derived No Effect Level  
EUH statement = CLP-specific Hazard statement  
PNEC = Predicted No Effect Concentration  
RRN = REACH Registration Number

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

**SECTION 16: Other information**

| Classification   | Justification   |
|--|---|
| Flam. Liq. 3, H226<br>Skin Sens. 1, H317<br>STOT SE 3, H336<br>Aquatic Chronic 3, H412 | On basis of test data<br>Calculation method<br>Calculation method<br>Calculation method |

|   |   |
|---|---|
| <b>Full text of abbreviated H statements</b>  | : H226 Flammable liquid and vapour.<br>H302 Harmful if swallowed.<br>H311 Toxic in contact with skin.<br>H315 Causes skin irritation.<br>H317 May cause an allergic skin reaction.<br>H319 Causes serious eye irritation.<br>H331 Toxic if inhaled.<br>H332 Harmful if inhaled.<br>H336 May cause drowsiness or dizziness.<br>H373 May cause damage to organs through prolonged or repeated exposure.<br>H400 Very toxic to aquatic life.<br>H410 Very toxic to aquatic life with long lasting effects.<br>H412 Harmful to aquatic life with long lasting effects.<br>H413 May cause long lasting harmful effects to aquatic life.  |
| <b>Full text of classifications [CLP/GHS]</b> | : Acute Tox. 3, H311 ACUTE TOXICITY (dermal) - Category 3<br>Acute Tox. 3, H331 ACUTE TOXICITY (inhalation) - Category 3<br>Acute Tox. 4, H302 ACUTE TOXICITY (oral) - Category 4<br>Acute Tox. 4, H332 ACUTE TOXICITY (inhalation) - Category 4<br>Aquatic Acute 1, H400 ACUTE AQUATIC HAZARD - Category 1<br>Aquatic Chronic 1, H410 LONG-TERM AQUATIC HAZARD - Category 1<br>Aquatic Chronic 3, H412 LONG-TERM AQUATIC HAZARD - Category 3<br>Aquatic Chronic 4, H413 LONG-TERM AQUATIC HAZARD - Category 4<br>EUH066 Repeated exposure may cause skin dryness or cracking.<br>Eye Irrit. 2, H319 SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2<br>Flam. Liq. 3, H226 FLAMMABLE LIQUIDS - Category 3<br>Skin Irrit. 2, H315 SKIN CORROSION/IRRITATION - Category 2<br>Skin Sens. 1, H317 SKIN SENSITISATION - Category 1<br>STOT RE 2, H373 SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE - Category 2<br>STOT SE 3, H336 SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE (Narcotic effects) - Category 3 |
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Users should always consult Jotun for specific guidance on the general suitability of this product for their needs and specific application practices.

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