

SAFETY DATA SHEET



Hardtop AX Comp A

Section 1. Identification

GHS product identifier : Hardtop AX Comp A
Product code : 16480
Other means of identification : Not available.
Product type : Liquid.
Product description : Paint.

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

Use in coatings - Industrial use
Use in coatings - Professional use

Supplier's details : 佐敦涂料（张家港）有限公司
江苏省张家港保税区扬子江化学工业园长江路15号 215634
电话: +86 512 58937988
传真: +86 512 58937986

Jotun Coatings (Zhangjiagang) Co. Ltd
No.15 Changjiang Road Jiangsu Yangtze River International Chemical Industry Park,
Zhangjiagang Free Trade Zone, Jiangsu Province 215634
Tel: +86 512 58937988
Fax: +86 512 58937986

Jotun Paints (Malaysia) Sdn Bhd, Lot 7 Persiaran Perusahaan, Section 23
40300 SHAH ALAM, Selangor Darul Ehsan
Malaysia
Tel: +603 51235500
Fax: +603 51235599

SDSJotun@jotun.com

Emergency telephone number (with hours of operation) : Jotun Coatings (Taiwan) Ltd. Co. Tel: +886 2 87705061

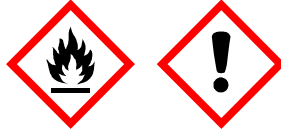
Section 2. Hazards identification

Classification of the substance or mixture : FLAMMABLE LIQUIDS - Category 3
SKIN SENSITISATION - Category 1
SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE (Narcotic effects) - Category 3
AQUATIC TOXICITY (ACUTE) - Category 3
AQUATIC TOXICITY (CHRONIC) - Category 3

GHS label elements

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

Prevention

: P280 - Wear protective gloves.
 P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
 P273 - Avoid release to the environment.
 P261 - Avoid breathing vapour.

Response

: P304 + P312 - IF INHALED: Call a POISON CENTER or doctor if you feel unwell.
 P362 + P364 - Take off contaminated clothing and wash it before reuse.
 P302 + P352 - IF ON SKIN: Wash with plenty of water.
 P333 + P313 - If skin irritation or rash occurs: Get medical advice or attention.

Storage

: P403 + P233 - Store in a well-ventilated place. Keep container tightly closed.
 P403 + P235 - Keep cool.

Disposal

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

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

Section 3. Composition/information on ingredients

Substance/mixture

: Mixture

Other means of identification

: Not available.

| Product name | % (w/w) | CAS number | Type |
|--|-----------|--------------------|---------|
| n-butyl acetate | ≥10 - ≤25 | 123-86-4 | [1] [2] |
| hydrocarbons, C9, aromatics | ≤3 | 64742-95-6 | [1] |
| 2-methoxy-1-methylethyl acetate | ≤3 | 108-65-6 | [1] |
| pentane-2,4-dione | ≤3 | 123-54-6 | [1] |
| decanedioic acid, 1,10-bis(1,2,2,6,6-pentamethyl-4-piperidiny) ester, mixt. with 1-methyl 10-(1,2,2,6,6-pentamethyl-4-piperidiny) decanedioate | ≤2.1 | 1065336-91-5 | [1] |
| Neodecanoic acid, zinc salt, basic | ≤0.24 | 84418-68-8 | [1] |
| 物品名稱 | % (w/w) | 化學文摘社登記號碼(CAS No.) | 類型 |
| 丁酸丁酯 | ≥10 - ≤25 | 123-86-4 | [1] [2] |
| 輕質芳香烴石腦油 | ≤3 | 64742-95-6 | [1] |
| 丙二醇甲醚乙酸酯 | ≤3 | 108-65-6 | [1] |
| 2,4-戊二酮 | ≤3 | 123-54-6 | [1] |
| decanedioic acid, 1,10-bis(1,2,2,6,6-pentamethyl- | ≤2.1 | 1065336-91-5 | [1] |

Section 3. Composition/information on ingredients

| | | | |
|---|-------|------------|-----|
| 4-piperidinyl) ester, mixt. with 1-methyl 10-(1,2,2,6,6-pentamethyl-4-piperidinyl) decanedioate | | | |
| Neodecanoic acid, zinc salt, basic | ≤0.24 | 84418-68-8 | [1] |

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 and hence require reporting in this section.

Type

[1] Substance classified with a health or environmental hazard

[2] Substance with a workplace exposure limit

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

Section 4. First aid measures

Description of necessary 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 if irritation occurs.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If necessary, call a poison center or physician. 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. 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.
- 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.
- 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 necessary, call a poison center or physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed

Potential acute health effects

- Eye contact** : No known significant effects or critical hazards.
- Inhalation** : May cause drowsiness or dizziness.
- Skin contact** : May cause an allergic skin reaction.
- Ingestion** : No known significant effects or critical hazards.

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

Section 4. First aid measures

- Skin contact** : Adverse symptoms may include the following:
irritation
redness
- Ingestion** : No specific data.

Indication of immediate medical attention and special treatment needed, if necessary

- 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.
- 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.

See toxicological information (Section 11)

Section 5. Firefighting measures

Extinguishing media

- Suitable extinguishing media** : Use dry chemical, CO₂, water spray (fog) or foam.
- Unsuitable extinguishing media** : Do not use water jet.

Specific hazards arising from the chemical : 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 thermal decomposition products** : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
nitrogen oxides
sulfur oxides
halogenated compounds
carbonyl halides
metal oxide/oxides

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

Personal precautions, protective equipment and emergency procedures : 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.

Section 6. Accidental release measures

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.

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 material may pose the same hazard as the spilt product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

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.

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

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Section 8. Exposure controls/personal protection

| Ingredient name | Exposure limits |
|-----------------|--|
| n-butyl acetate | <p>TW Minstry of Labor, labor permissible workplace exposure standards, allowable concentration (Taiwan, 3/2018).</p> <p>STEL: 890 mg/m³ 15 minutes. STEL: 187.5 ppm 15 minutes. TWA: 712 mg/m³ 8 hours. TWA: 150 ppm 8 hours.</p> |

Biological exposure indices

No exposure indices known.

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

Respiratory protection : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

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 ISO 374-1:2016. Recommended, gloves(breakthrough time) > 8 hours: Teflon (> 0.35 mm), polyvinyl alcohol (PVA) (> 0.3 mm), butyl rubber (> 0.4 mm) May be used, gloves(breakthrough time) 4 - 8 hours: 4H/Silver Shield® (> 0.07 mm), neoprene (> 0.35 mm), nitrile rubber (> 0.75 mm), PVC (> 0.5 mm), Viton® (> 0.7 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.

Eye 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: safety glasses with side-shields.

Body protection : Use chemical-resistant protective suit / disposable overall.

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.

Section 8. Exposure controls/personal protection

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.

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

Section 9. Physical and chemical properties and safety characteristics

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

Appearance

Physical state : Liquid.

Colour : Brown., Black, Blue., Brown., Clear., Green., Grey, MCI Base 1, MCI Base 2, MCI Base 3, MCI Base 5, MCI Base 6, Off-white., Orange, Orange, Red, Violet., White., Yellow., Yellow-base

Odour : Characteristic.

Odour threshold : Not available.

pH : Not applicable.

Melting point/freezing point : Not applicable.

Boiling point, initial boiling point, and boiling range : Not available.

Flash point : Closed cup: 28°C (82.4°F)

Flammability : Not available.

Lower and upper explosion limit/flammability limit : Greatest known range: Lower: 2.4% Upper: 11.6% (pentane-2,4-dione)

Vapour pressure :

| Ingredient name | Vapour Pressure at 20°C | | | Vapour pressure at 50°C | | |
|---|-------------------------|------------|----------------|-------------------------|-------|-------------|
| | mm Hg | kPa | Method | mm Hg | kPa | Method |
| acetone; propan-2-one | 180.01463 | 24 | | | | |
| 2-methylpropan-2-ol | 40.6 | 5.4 | | | | |
| methyl methacrylate | 27.75236 | 3.7 | | | | |
| n-butyl acetate | 11.25096 | 1.5 | DIN EN 13016-2 | | | |
| 1-methoxy-2-propanol | 8.5 | 1.1 | | | | |
| pentane-2,4-dione | 6.97557 | 0.93 | | | | |
| 2-methoxy-1-methylethyl acetate | 2.7 | 0.36 | OECD 104 | | | |
| hydrocarbons, C9, aromatics | 2.5 | 0.33 | | | | |
| propanoic acid, 3-ethoxy-, ethyl ester | 1.72514 | 0.23 | | | | |
| isobutyl methacrylate | 1.58263 | 0.21 | OECD 104 | | | |
| hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2% aromatics | 0.75006 to 2.25018 | 0.1 to 0.3 | | | | |
| maleic anhydride | 0.24752 | 0.033 | | | | |
| 2-Hydroxyethyl methacrylate | 0.06001 | 0.008 | OECD 104 | | | |
| neodecanoic acid | 0.015 | 0.002 | ASTM D 2878 | 0.09001 | 0.012 | ASTM D 2878 |

Section 9. Physical and chemical properties and safety characteristics

| | | | | | | |
|---|----------|-----------|--|--|--|--|
| Oleic acid, compound | 0.000011 | 0.0000015 | | | | |
| talc (non-asbestos form) | 0 | 0 | | | | |
| decanedioic acid, 1,10-bis (1,2,2,6,6-pentamethyl-4-piperidiny) ester, mixt. with 1-methyl 10-(1,2,2,6,6-pentamethyl-4-piperidiny) decanedioate | 0 | 0 | | | | |
| 12-hydroxyoctadecanoic acid, reaction products with 1,3-benzenedimethanamine and hexamethylenediamine | 0 | 0 | | | | |

Relative vapour density : Not available.

Density : 1.323 to 1.509 g/cm³

Solubility(ies) :

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

Partition coefficient: n-octanol/water : Not applicable.

Auto-ignition temperature :

| Ingredient name | °C | °F | Method |
|--|------------|------------|------------|
| Indolo[3,2-b:3',2'-m]triphenodioxazine, 8,18-dichloro-5,15-diethyl-5,15-dihydro- | 250 | 482 | |
| 1-methoxy-2-propanol | 270 | 518 | |
| hydrocarbons, C9, aromatics | 280 to 470 | 536 to 878 | |
| hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2% aromatics | 280 to 470 | 536 to 878 | |
| 2-methoxy-1-methylethyl acetate | 333 | 631.4 | DIN 51794 |
| pentane-2,4-dione | 340 | 644 | |
| 2-Hydroxyethyl methacrylate | 375 | 707 | |
| neodecanoic acid | 375 | 707 | ASTM E 659 |
| propanoic acid, 3-ethoxy-, ethyl ester | 377 | 710.6 | |
| quinacridone | 380 | 716 | |
| isobutyl methacrylate | 385 | 725 | |
| methyl methacrylate | 400 | 752 | DIN 51794 |
| n-butyl acetate | 415 | 779 | EU A.15 |
| pyrrolo[3,4-c]pyrrole-1,4-dione, 3,6-bis (4-chlorophenyl)-2,5-dihydro- | >400 | >752 | |
| acetone; propan-2-one | 465 | 869 | |
| 2-methylpropan-2-ol | 470 | 878 | DIN 51794 |
| maleic anhydride | 477 | 890.6 | |

Decomposition temperature : Not available.

Viscosity : Kinematic (40°C (104°F)): >20.5 mm²/s (>20.5 cSt)

Particle characteristics

Median particle size : Not applicable.

Section 10. Stability and reactivity

- Chemical stability** : The product is stable.
- Possibility of hazardous reactions** : Under normal conditions of storage and use, hazardous reactions will not occur.
- Conditions to avoid** : Avoid all possible sources of ignition (spark or flame). Do not pressurise, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition.
- Incompatible materials** : Reactive or incompatible with the following materials:
oxidising materials
- Hazardous decomposition products** : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

| 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 | - |
| 2-methoxy-1-methylethyl acetate | LD50 Dermal | Rabbit | >5 g/kg | - |
| | LD50 Oral | Rat | 8532 mg/kg | - |
| pentane-2,4-dione | LD50 Oral | Mouse | 951 mg/kg | - |

Irritation/Corrosion

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

Sensitisation

Not available.

Mutagenicity

Not available.

Carcinogenicity

Not available.

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

Section 11. Toxicological information

| Product/ingredient name | Category | Route of exposure | Target organs |
|--|--------------------------|-------------------|--|
| n-butyl acetate hydrocarbons, C9, aromatics | Category 3 Category 3 | - - | Narcotic effects Respiratory tract irritation |
| 2-methoxy-1-methylethyl acetate | Category 3 Category 3 | - | Narcotic effects Narcotic effects |

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

| Product/ingredient name | Result |
|-----------------------------|--------------------------------|
| hydrocarbons, C9, aromatics | ASPIRATION HAZARD - Category 1 |

Information on likely routes of exposure : Not available.

Potential acute health effects

- Eye contact** : No known significant effects or critical hazards.
Inhalation : May cause drowsiness or dizziness.
Skin contact : 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** : 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.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Short term exposure

- Potential immediate effects** : Not available.
Potential delayed effects : Not available.

Long term exposure

- Potential immediate effects** : Not available.
Potential delayed effects : Not available.

Potential chronic health effects

Not available.

- General** : Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.
Carcinogenicity : No known significant effects or critical hazards.
Mutagenicity : No known significant effects or critical hazards.
Reproductive toxicity : No known significant effects or critical hazards.

Section 11. Toxicological information

Numerical measures of toxicity

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) |
|---------------------------------|--------------|----------------|--------------------------|-----------------------------|-------------------------------------|
| Hardtop AX Comp A | 39157.8 | 23494.7 | N/A | 234.9 | N/A |
| n-butyl acetate | 13100 | N/A | N/A | N/A | N/A |
| 2-methoxy-1-methylethyl acetate | 8532 | N/A | N/A | N/A | N/A |
| pentane-2,4-dione | 500 | 300 | N/A | 3 | N/A |

Section 12. Ecological information

Toxicity

| Product/ingredient name | Result | Species | Exposure |
|---|-----------------------------------|--|----------|
| hydrocarbons, C9, aromatics | Acute EC50 <10 mg/l | Daphnia | 48 hours |
| | Acute IC50 <10 mg/l | Algae | 72 hours |
| | Acute LC50 <10 mg/l | Fish | 96 hours |
| 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 |
| decanedioic acid, 1,10-bis (1,2,2,6,6-pentamethyl-4-piperidinyl) ester, mixt. with 1-methyl 10-(1,2,2,6,6-pentamethyl-4-piperidinyl) decanedioate | Acute LC50 60100 µg/l Fresh water | Fish - Lepomis macrochirus | 96 hours |
| | Acute EC50 1.68 mg/l | Algae | 96 hours |
| | Acute LC50 0.9 mg/l | Fish | 96 hours |
| | Chronic NOEC 1 mg/l | Daphnia | 21 days |

Persistence and degradability

| Product/ingredient name | Aquatic half-life | Photolysis | Biodegradability |
|-----------------------------|-------------------|------------|------------------|
| hydrocarbons, C9, aromatics | - | - | Not readily |

Bioaccumulative potential

| Product/ingredient name | LogP _{ow} | BCF | Potential |
|---------------------------------|--------------------|------------|-----------|
| n-butyl acetate | 2.3 | - | low |
| hydrocarbons, C9, aromatics | - | 10 to 2500 | high |
| 2-methoxy-1-methylethyl acetate | 1.2 | - | low |
| pentane-2,4-dione | 0.68 | - | low |

Mobility in soil




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

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

Section 13. Disposal considerations

Disposal methods : 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. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. 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

| | UN | IMDG | IATA |
|-----------------------------------|--|--|--|
| UN number | UN1263 | UN1263 | UN1263 |
| UN proper shipping name | Paint | Paint | Paint |
| Transport hazard class(es) | 3  | 3  | 3  |
| Packing group | III | III | III |
| Environmental hazards | No. | No. | No. |

Additional information

ADR/RID : ADR/RID: Viscous substance. Not goods of class 3, ref. 2.2.3.1.5 (only applicable to receptacles < 450 litre capacity).

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

IMDG : **Emergency schedules** F-E, S-E
IMDG: Viscous substance. Transport in accordance with 2.3.2.5 of the IMDG Code (only applicable to receptacles < 450 litre capacity).

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

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.

Transport in bulk according to IMO instruments : Not available.

Section 15. Regulatory information

TCCSCA List of toxic chemicals

Not applicable.

TCCSCA List of concerned chemicals

Not applicable.

OSHA Enforcement Rules Article 28 : This product contains substances "Specially hazardous to health": n-butyl acetate, acetone.

Organic solvent poisoning prevention rule : Type 2

Priority management chemicals, Article 2

Chemical substances possessing physical hazards or health hazards (Article 2.2 (II))

| Ingredient name | Name on list | Concentration |
|---------------------------------|---|---------------|
| n-butyl acetate | butyl acetate | ≥10 - ≤25 |
| 2-methoxy-1-methylethyl acetate | propylene glycol monomethyl ether acetate | ≤3 |
| pentane-2,4-dione | 2,4-pentanedione | ≤3 |
| acetone | acetone | ≤1 |
| methyl methacrylate | methyl methacrylate | ≤0.1 |
| 1-methoxy-2-propanol | propylene glycol monomethyl ether | ≤0.1 |

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.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

Section 16. Other information

Procedure used to derive the classification

| Classification | Justification |
|--|-----------------------|
| FLAMMABLE LIQUIDS - Category 3 | On basis of test data |
| SKIN SENSITISATION - Category 1 | Calculation method |
| SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE (Narcotic effects) - Category 3 | Calculation method |
| AQUATIC TOXICITY (ACUTE) - Category 3 | Calculation method |
| AQUATIC TOXICITY (CHRONIC) - Category 3 | Calculation method |

References : Not available.

Organisation that prepared the SDS : Jotun AS, Norway
+47 33 45 70 00

History

Date of printing : 25.11.2024

Date of previous issue : 26.06.2024

Version : 1.08

Section 16. Other information

Key to abbreviations

- : ATE = Acute Toxicity Estimate
- BCF = Bioconcentration Factor
- GHS = Globally Harmonized System of Classification and Labelling of Chemicals
- IATA = International Air Transport Association
- IBC = Intermediate Bulk Container
- IMDG = International Maritime Dangerous Goods
- LogPow = logarithm of the octanol/water partition coefficient
- MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
- N/A = Not available
- SGG = Segregation Group
- UN = United Nations

✔ Indicates information that has changed from previously issued version.

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.

Users should always consult Jotun for specific guidance on the general suitability of this product for their needs and specific application practices.

If there is any inconsistency between different language issues of this document, the English (United Kingdom) version will prevail.