

Jotamastic 87 Wintergrade Comp B

Section 1. Identification **Product identifier**

- **Product code** : 1549 **Product type** : Liquid. **Product description** Other means of identification
- : Jotamastic 87 Wintergrade Comp B
 - : Hardener.
 - : Not available.

Recommended use of the chemical and restrictions on use

Identified uses Use in coatings - Industrial use Use in coatings - Professional use

| Supplier's details | : EL MOHANDES JOTUN S.A.E. INDUSTRIAL AREA - ISMAILIA P.O. BOX NO. 203 ISMAILIA - EGYPT FAX NO. : 002064481030 TELF NO: 002064481032 SDSJotun@jotun.com |
|---------------------|---|
| Emergency telephone | : Jotun AS, Norway |
| number | +47 33 45 70 00 |

Section 2. Hazard identification

| Classification of the substance or mixture | : FLAMMABLE LIQUIDS - Category 3 ACUTE TOXICITY (oral) - Category 5 ACUTE TOXICITY (dermal) - Category 5 SKIN CORROSION/IRRITATION - Category 2 SERIOUS EYE DAMAGE/EYE IRRITATION - Category 1 SKIN SENSITISATION - Category 1 |
|--|---|
| | SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE (Respiratory tract irritation) - Category 3 LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 2 |
| <u>GHS label elements</u> Hazard pictograms | |
| Signal word | : Danger. |

Section 2. Hazard identification

| Hazard statements | H226 - Flammable liquid and vapour. H303 + H313 - May be harmful if swallowed or in contact with skin. H315 - Causes skin irritation. |
|--------------------------|---|
| | H317 - May cause an allergic skin reaction. |
| | H318 - Causes serious eye damage. |
| | H335 - May cause respiratory irritation. |
| | H411 - Toxic to aquatic life with long lasting effects. |
| Precautionary statements | |
| General | : Not applicable. |
| Prevention | P280 - Wear protective gloves. Wear eye or face protection. P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P273 - Avoid release to the environment. P261 - Avoid breathing vapour. |
| Response | P391 - Collect spillage. 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 + P312, P352 - IF ON SKIN: Call a POISON CENTER or doctor if you feel unwell. Wash with plenty of water. P333 + P313 - If skin irritation or rash occurs: Get medical advice or attention. P305 + P351 + P338, P310 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor. |
| Storage | : P403 + P233 - Store in a well-ventilated place. Keep container tightly closed. |
| Disposal | : P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations. |

Other hazards which do not : None known.

result in classification

Section 3. Composition/information on ingredients

| Substance/mixture | 1 | Mixture |
|-------------------|---|----------------|
| Other means of | 1 | Not available. |
| identification | | |

| Ingredient name | % | CAS number |
|--|-----------|------------|
| Phenol, polymer with formaldehyde, glycidyl ether, polymers with [(methylphenoxy)methyl]oxirane and triethylenetetramine | ≥50 - ≤75 | 99377-78-3 |
| xylene | ≥10 - ≤25 | 1330-20-7 |
| butan-1-ol | ≥10 - <20 | 71-36-3 |
| ethylbenzene | <10 | 100-41-4 |
| 2,4,6-tris(dimethylaminomethyl)phenol | ≤2.4 | 90-72-2 |

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

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

Section 4. First aid measures

| Description of necessary first aid measures | | |
|---|---|--|
| Eye contact | : Get medical attention immediately. Call a poison center or physician. Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician. | |
| Inhalation | : Get medical attention immediately. Call a poison center or physician. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. 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 | : Get medical attention immediately. Call a poison center or physician. Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse. | |
| Ingestion | : Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Chemical burns must be treated promptly by a physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. | |

Most important symptoms/effects, acute and delayed Potential acute health effects Eye contact : Causes serious eye damage. Inhalation : May cause respiratory irritation.

Skin contact : May be harmful in contact with skin. Causes skin irritation. May cause an allergic skin reaction. Ingestion : May be harmful if swallowed. Over-exposure signs/symptoms Eye contact : Adverse symptoms may include the following: pain watering redness Inhalation : Adverse symptoms may include the following: respiratory tract irritation coughing **Skin contact** Adverse symptoms may include the following: 2 pain or irritation redness blistering may occur Ingestion : Adverse symptoms may include the following: stomach pains

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

Section 4. First aid measures

| 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, CO ₂ , 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 toxic 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 |
| 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

| For non-emergency personnel | : | No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Do not breathe vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment. |
|--------------------------------|---|---|
| For emergency responders | : | If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel". |
| 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. Collect spillage. |

Methods and material for containment and cleaning up

Section 6. Accidental release measures

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

See Technical Data Sheet / packaging for further information.

Section 8. Exposure controls/personal protection

| Control parameters Occupational exposure limits | |
|---|--|
| None. <u>Biological exposure indices</u> 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. |

5/13

 Date of issue/Date of revision
 : 05.06.2023
 Date of previous issue
 : No previous validation
 Version
 : 1

Section 8. Exposure controls/personal protection

| - - | |
|------------------------------------|---|
| 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. |
| Individual protection meas | <u>ures</u> |
| Hygiene measures | : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location. |
| Eye/face protection | : Safety eyewear complying to ISO 16321-1:2022 should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles and/or face shield. If inhalation hazards exist, a full-face respirator may be required instead. |
| Skin protection | |
| Hand protection | There is no one glove material or combination of materials that will give unlimited resistance to any individual or combination of chemicals. The breakthrough time must be greater than the end use time of the product. The instructions and information provided by the glove manufacturer on use, storage, maintenance and replacement must be followed. Gloves should be replaced regularly and if there is any sign of damage to the glove material. Always ensure that gloves are free from defects and that they are stored and used correctly. The performance or effectiveness of the glove may be reduced by physical/chemical damage and poor maintenance. Barrier creams may help to protect the exposed areas of the skin but should not be applied once exposure has occurred. Wear suitable gloves tested to ISO 374-1:2016. Recommended, gloves(breakthrough time) > 8 hours: 4H/Silver Shield® (> 0.07 mm), Teflon (> 0.35 mm), polyvinyl alcohol (PVA) (> 0.3 mm), nitrile rubber (> 0.4 mm) |
| | May be used, gloves(breakthrough time) 4 - 8 hours: Viton® (> 0.7 mm), PVC (> 0.5 mm), neoprene (> 0.35 mm), butyl rubber (> 0.4 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 charcoalfilter. |

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

| Odour threshold : Not applicable. pH : Not applicable. Melting point/freezing point : Not applicable. Boiling point : Lowest known value: 119°C (246.2°F) (butan-1-ol). Weighted average: 131.86°C (269.3°F) Flash point : Closed cup: 30°C (86°F) Evaporation rate : Highest known value: 0.84 (ethylbenzene) Weighted average: 0.7compared with butyl acetate Flammability : Not applicable. Lower and upper explosion timit/flammability limit : 0.8 - 11.3% Vapour pressure : Highest known value: 1.2 kPa (9.3 mm Hg) (at 20°C) (ethylbenzene). Weighted average: 0.93 kPa (6.98 mm Hg) (at 20°C) Vapour density : Highest known value: 3.7 (Air = 1) (xylene). Weighted average: 3.42 (Air = 1) Density : 1.02 g/cm³ Solubility(ies) : Media Result cold water Not soluble Not soluble Not soluble Partition coefficient: n-octanol/water : Not available. octanol/water : Lowest known value: 355°C (671°F) (butan-1-ol). Decomposition temperature : Lowest known value: 355°C (671°F) (butan-1-ol). Decomposition temperature : Not available. Viscosity : Kinematic (40°C (104°F)): >20.5 mm²/s (>2 | <u>rippourunoo</u> | | | | |
|--|--|---|---|--|--|
| Odour : Characteristic. Odour threshold : Not applicable. PH : Not applicable. Melting point/freezing point : Not applicable. Boiling point : Lowest known value: 119°C (246.2°F) (butan-1-ol). Weighted average: 131.86°C (269.3°F) Flash point : Closed cup: 30°C (86°F) Evaporation rate : Highest known value: 0.84 (ethylbenzene) Weighted average: 0.7compared with butly acetate Flammability : Not applicable. Lower and upper explosion : 0.8 - 11.3% Umper explosion : 0.8 - 11.3% Vapour pressure : Highest known value: 1.2 kPa (9.3 mm Hg) (at 20°C) (ethylbenzene). Weighted average: 0.93 kPa (6.98 mm Hg) (at 20°C) Vapour density : Highest known value: 3.7 (Air = 1) (xylene). Weighted average: 3.42 (Air = 1) Density : 1.02 g/cm ³ Solubility(ies) : Media Result cold water Not soluble Not available. . octanol/water : Not available. Octanol/water : Lowest known value: 355°C (671°F) (butan-1-ol). Decomposition temperature : Lowest known value: 355°C (671°F) (butan-1-ol). Decomposition temperature : Lowest known value: | Physical state | : | Liquid. | | |
| Odour threshold : Not applicable. PH : Not applicable. Melting point/freezing point : Not applicable. Boiling point : Lowest known value: 119°C (246.2°F) (butan-1-ol). Weighted average: 131.86°C (269.3°F) Flash point : Closed cup: 30°C (86°F) Evaporation rate : Highest known value: 0.84 (ethylbenzene) Weighted average: 0.7compared with butyl acetate Flammability : Not applicable. Lower and upper explosion : 0.8 - 11.3% Iimit/flammability limit : Not applicable. Vapour pressure : Highest known value: 1.2 kPa (9.3 mm Hg) (at 20°C) (ethylbenzene). Weighted average: 0.93 kPa (6.98 mm Hg) (at 20°C) Vapour density : Highest known value: 3.7 (Air = 1) (xylene). Weighted average: 3.42 (Air = 1) Density : 1.02 g/cm³ Solubility(ies) : Media Result cold water Not soluble Not soluble Not soluble Partition coefficient: n-octanol/water : Not available. octanol/water : Lowest known value: 355°C (671°F) (butan-1-ol). Decomposition temperature : Lowest known value: 355°C (571°F) (butan-1-ol). Decomposition temperature : Not available. V | Colour | : | Clear. | | |
| pH : Not applicable. Melting point/freezing point : Not applicable. Boiling point : Lowest known value: 119°C (246.2°F) (butan-1-ol). Weighted average: 131.86°C (269.3°F) Flash point : Closed cup: 30°C (86°F) Evaporation rate : Highest known value: 0.84 (ethylbenzene) Weighted average: 0.7compared with butyl acetate Flammability : Not applicable. Lower and upper explosion limit/flammability limit : 0.8 - 11.3% Vapour pressure : Highest known value: 1.2 kPa (9.3 mm Hg) (at 20°C) (ethylbenzene). Weighted average: 0.93 kPa (6.98 mm Hg) (at 20°C) Vapour density : Highest known value: 3.7 (Air = 1) (xylene). Weighted average: 3.42 (Air = 1) Density : 1.02 g/cm³ Solubility(ies) : Media Result cold water Not soluble Not soluble Not soluble Partition coefficient: n-octanol/water : Not available. coctanol/water : Lowest known value: 355°C (671°F) (butan-1-ol). Decomposition temperature : Lowest known value: 355°C (671°F) (butan-1-ol). Decomposition temperature : Not available. viscosity : Kinematic (40°C (104°F)): >20.5 mm²/s (>20.5 cSt) Particle characteristics <td< th=""><th>Odour</th><th>:</th><th colspan="3">Characteristic.</th></td<> | Odour | : | Characteristic. | | |
| Melting point/freezing point : Not applicable. Boiling point : Lowest known value: 119°C (246.2°F) (butan-1-ol). Weighted average: 131.86°C (269.3°F) Flash point : Closed cup: 30°C (86°F) Evaporation rate : Highest known value: 0.84 (ethylbenzene) Weighted average: 0.7compared with butyl acetate Flammability : Not applicable. Lower and upper explosion : 0.8 - 11.3% limit/flammability limit : 0.8 - 11.3% Vapour pressure : Highest known value: 1.2 kPa (9.3 mm Hg) (at 20°C) (ethylbenzene). Weighted average: 0.93 kPa (6.98 mm Hg) (at 20°C) Vapour density : Highest known value: 3.7 (Air = 1) (xylene). Weighted average: 3.42 (Air = 1) Density : 1.02 g/cm³ Solubility(ies) : Media Result cold water Not soluble hot soluble Not soluble Partition coefficient: n- : Not available. octanol/water : Lowest known value: 355°C (671°F) (butan-1-ol). Decomposition temperature : Lowest known value: 355°C (671°F) (butan-1-ol). Decomposition temperature : Lowest known value: 355°C (671°F) (butan-1-ol). Decomposition temperature : Lowest known value: 355°C (671°F) (butan-1-ol). Decomposition | Odour threshold | : | Not applicable. | | |
| Boiling point : Lowest known value: 119°C (246.2°F) (butan-1-ol). Weighted average: 131.86°C (269.3°F) Flash point : Closed cup: 30°C (86°F) Evaporation rate : Highest known value: 0.84 (ethylbenzene) Weighted average: 0.7compared with butyl acetate Flammability : Not applicable. Lower and upper explosion : 0.8 - 11.3% Imit/flammability limit : Highest known value: 1.2 kPa (9.3 mm Hg) (at 20°C) (ethylbenzene). Weighted average: 0.93 kPa (6.98 mm Hg) (at 20°C) Vapour pressure : Highest known value: 3.7 (Air = 1) (xylene). Weighted average: 3.42 (Air = 1) Density : 1.02 g/cm³ Solubility(ies) : Media Result cold water Not soluble Not available. : octanol/water : Not available. Auto-ignition temperature : Lowest known value: 355°C (671°F) (butan-1-ol). Decomposition temperature : Not available. Viscosity : Kinematic (40°C (104°F)): >20.5 mm²/s (>20.5 cSt) Particle characteristics : | рН | : | Not applicable. | | |
| (269.3°F) Flash point : Closed cup: 30°C (86°F) Evaporation rate : Highest known value: 0.84 (ethylbenzene) Weighted average: 0.7compared with butyl acetate Flammability : Not applicable. Lower and upper explosion : 0.8 - 11.3% limit/flammability limit : U.8 - 11.3% Vapour pressure : Highest known value: 1.2 kPa (9.3 mm Hg) (at 20°C) (ethylbenzene). Weighted average: 0.93 kPa (6.98 mm Hg) (at 20°C) Vapour density : Highest known value: 3.7 (Air = 1) (xylene). Weighted average: 3.42 (Air = 1) Density : 1.02 g/cm³ Solubility(ies) : Media Result cold water Not soluble Not available. Not soluble Partition coefficient: n- : Not available. octanol/water : Lowest known value: 355°C (671°F) (butan-1-ol). Decomposition temperature : Not available. Viscosity : Kinematic (40°C (104°F)): >20.5 mm²/s (>20.5 cSt) Particle characteristics : | Melting point/freezing point | : | Not applicable. | | |
| Evaporation rate : Highest known value: 0.84 (ethylbenzene) Weighted average: 0.7compared with butyl acetate Flammability : Not applicable. Lower and upper explosion limit/flammability limit : 0.8 - 11.3% Vapour pressure : Highest known value: 1.2 kPa (9.3 mm Hg) (at 20°C) (ethylbenzene). Weighted average: 0.93 kPa (6.98 mm Hg) (at 20°C) Vapour density : Highest known value: 3.7 (Air = 1) (xylene). Weighted average: 3.42 (Air = 1) Density : 1.02 g/cm³ Solubility(ies) : Media Result cold water Not soluble Not soluble Not soluble Partition coefficient: n-octanol/water : Not available. octanol/water : Lowest known value: 355°C (671°F) (butan-1-ol). Decomposition temperature : Lowest known value: 355°C (671°F) (butan-1-ol). Decomposition temperature : Kinematic (40°C (104°F)): >20.5 mm²/s (>20.5 cSt) Particle characteristics : Kinematic (40°C (104°F)): >20.5 mm²/s (>20.5 cSt) | Boiling point | : | | | |
| butyl acetate Flammability : Not applicable. Lower and upper explosion : 0.8 - 11.3% limit/flammability limit : Wighted average: 0.93 kPa (6.98 mm Hg) (at 20°C) (ethylbenzene). Weighted average: 0.93 kPa (6.98 mm Hg) (at 20°C) Vapour density : Highest known value: 3.7 (Air = 1) (xylene). Weighted average: 3.42 (Air = 1) Density : 1.02 g/cm³ Solubility(ies) : Media Result cold water Not soluble hot water Not soluble Not soluble Not soluble Partition coefficient: n- : Not available. octanol/water : Lowest known value: 355°C (671°F) (butan-1-ol). Decomposition temperature : Lowest known value: 355°C (671°F) (butan-1-ol). Decomposition temperature : Not available. Viscosity : Kinematic (40°C (104°F)): >20.5 mm²/s (>20.5 cSt) Particle characteristics : | Flash point | : | Closed cup: 30°C (86°F) | | |
| Lower and upper explosion : 0.8 - 11.3% limit/flammability limit Vapour pressure : Highest known value: 1.2 kPa (9.3 mm Hg) (at 20°C) (ethylbenzene). Weighted average: 0.93 kPa (6.98 mm Hg) (at 20°C) Vapour density : Highest known value: 3.7 (Air = 1) (xylene). Weighted average: 3.42 (Air = 1) Density : 1.02 g/cm³ Solubility(ies) : Media Result cold water Not soluble Not soluble Not soluble Partition coefficient: n-octanol/water : Not available. Auto-ignition temperature : Lowest known value: 355°C (671°F) (butan-1-ol). Decomposition temperature : Not available. Viscosity : Kinematic (40°C (104°F)): >20.5 mm²/s (>20.5 cSt) Particle characteristics : Kinematic (40°C (104°F)): >20.5 mm²/s (>20.5 cSt) | Evaporation rate | 1 | | | |
| Ilimit/flammability limit Vapour pressure : Highest known value: 1.2 kPa (9.3 mm Hg) (at 20°C) (ethylbenzene). Weighted average: 0.93 kPa (6.98 mm Hg) (at 20°C) Vapour density : Highest known value: 3.7 (Air = 1) (xylene). Weighted average: 3.42 (Air = 1) Density : 1.02 g/cm³ Solubility(ies) : Media Result cold water Not soluble Not soluble Not soluble Partition coefficient: n-octanol/water : Not available. Auto-ignition temperature : Lowest known value: 355°C (671°F) (butan-1-ol). Decomposition temperature : Not available. Viscosity : Kinematic (40°C (104°F)): >20.5 mm²/s (>20.5 cSt) Particle characteristics : Soluble | Flammability | : | Not applicable. | | |
| average: 0.93 kPa (6.98 mm Hg) (at 20°C) Vapour density : Highest known value: 3.7 (Air = 1) (xylene). Weighted average: 3.42 (Air = 1) Density : 1.02 g/cm³ Solubility(ies) : Media Result cold water Not soluble Not soluble Not soluble Partition coefficient: n- : Not available. octanol/water : Lowest known value: 355°C (671°F) (butan-1-ol). Decomposition temperature : Not available. Viscosity : Kinematic (40°C (104°F)): >20.5 mm²/s (>20.5 cSt) Particle characteristics : Kinematic (40°C (104°F)): >20.5 mm²/s (>20.5 cSt) | Lower and upper explosion limit/flammability limit | 1 | 0.8 - 11.3% | | |
| Density : 1.02 g/cm³ Solubility(ies) : Media Result cold water Not soluble hot water Not soluble Partition coefficient: n- octanol/water : Not available. Auto-ignition temperature : Lowest known value: 355°C (671°F) (butan-1-ol). Decomposition temperature : Not available. Viscosity : Kinematic (40°C (104°F)): >20.5 mm²/s (>20.5 cSt) Particle characteristics : State in the s | Vapour pressure | : | | | |
| Solubility(ies) : Media Result cold water Not soluble hot water Not soluble Partition coefficient: n- : Not available. octanol/water : Auto-ignition temperature : Lowest known value: 355°C (671°F) (butan-1-ol). Decomposition temperature : Not available. Viscosity : Kinematic (40°C (104°F)): >20.5 mm²/s (>20.5 cSt) Particle characteristics : | Vapour density | : | Highest known value: 3.7 (Air = 1) (xylene). Weighted average: 3.42 (Air = 1) | | |
| Media Result cold water Not soluble hot water Not soluble Partition coefficient: n- : Not available. octanol/water Auto-ignition temperature Auto-ignition temperature : Lowest known value: 355°C (671°F) (butan-1-ol). Decomposition temperature : Not available. Viscosity : Kinematic (40°C (104°F)): >20.5 mm²/s (>20.5 cSt) Particle characteristics | Density | : | 1.02 g/cm ³ | | |
| cold water hot water Not soluble Not soluble Partition coefficient: n- octanol/water : Not available. Auto-ignition temperature Decomposition temperature : Not available. : Lowest known value: 355°C (671°F) (butan-1-ol). Decomposition temperature : Not available. : Not available. Viscosity Particle characteristics : Kinematic (40°C (104°F)): >20.5 mm²/s (>20.5 cSt) | Solubility(ies) | : | | | |
| hot water Not soluble Partition coefficient: n- octanol/water : Not available. Auto-ignition temperature : Lowest known value: 355°C (671°F) (butan-1-ol). Decomposition temperature : Not available. Viscosity : Kinematic (40°C (104°F)): >20.5 mm²/s (>20.5 cSt) Particle characteristics | Media | | Result | | |
| octanol/waterAuto-ignition temperature: Lowest known value: 355°C (671°F) (butan-1-ol).Decomposition temperature: Not available.Viscosity: Kinematic (40°C (104°F)): >20.5 mm²/s (>20.5 cSt)Particle characteristics | | | | | |
| Decomposition temperature: Not available.Viscosity: Kinematic (40°C (104°F)): >20.5 mm²/s (>20.5 cSt)Particle characteristics | Partition coefficient: n- octanol/water | : | Not available. | | |
| Viscosity: Kinematic (40°C (104°F)): >20.5 mm²/s (>20.5 cSt)Particle characteristics | Auto-ignition temperature | : | Lowest known value: 355°C (671°F) (butan-1-ol). | | |
| Particle characteristics | Decomposition temperature | : | : Not available. | | |
| | Viscosity | : | ⊱ Kinematic (40°C (104°F)): >20.5 mm²/s (>20.5 cSt) | | |
| Median particle size : Not applicable. | Particle characteristics | | | | |
| | Median particle size | : | Not applicable. | | |

Section 10. Stability and reactivity

| Reactivity | No specific test data related to reactivity available for this product or its ingredie | ents. |
|------------------------------------|---|-------|
| Chemical stability | Stable under recommended storage and handling conditions (see Section 7). | |
| Possibility of hazardous reactions | Under normal conditions of storage and use, hazardous reactions will not occu | ır. |
| Conditions to avoid | When exposed to high temperatures may produce hazardous decomposition products. | |
| Incompatible materials | Keep away from the following materials to prevent strong exothermic reactions oxidising agents, strong alkalis, strong acids. | 5: |
| Hazardous decomposition products | Decomposition products may include the following materials: carbon monoxide carbon dioxide, smoke, oxides of nitrogen. | Э, |
| | | |

Section 11. Toxicological information

Information on toxicological effects

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 | - |
| butan-1-ol | LD50 Oral | Rat | 790 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 | - |
| 2,4,6-tris | LD50 Oral | Rat | 1673 mg/kg | - |
| (dimethylaminomethyl) phenol | | | | |

Irritation/Corrosion

| Product/ingredient name | Result | Species | Score | Exposure | Observation |
|---|--|------------------------------------|--------|--|-------------|
| Phenol, polymer with formaldehyde, glycidyl ether, polymers with [(methylphenoxy)methyl] oxirane and triethylenetetramine | Eyes - Mild irritant | Mammal - species unspecified | - | - | - |
| | Skin - Mild irritant | Mammal - species unspecified | - | - | - |
| xylene | Eyes - Mild irritant Skin - Mild irritant | Rabbit Rat | - - | 87 milligrams 8 hours 60 microliters | - |
| 2,4,6-tris (dimethylaminomethyl) phenol | Eyes - Severe irritant | Rabbit | - | 24 hours 50 µg | - |
| | Skin - Severe irritant | Rat | - | 0.25 ml | - |

Sensitisation

| Product/ingredient name | Route of exposure | Species | Result |
|---|-------------------|---------------------------------|-------------|
| Phenol, polymer with formaldehyde, glycidyl ether, polymers with [(methylphenoxy)methyl] oxirane and triethylenetetramine | skin | Mammal - species unspecified | Sensitising |

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 |
|-------------------------|------------|-------------------|---------------------------------|
| xylene | Category 3 | - | Respiratory tract irritation |
| butan-1-ol | Category 3 | - | Respiratory tract irritation |
| | Category 3 | | Narcotic effects |

Specific target organ toxicity (repeated exposure)

| Product/ingredient name | | 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 | |

Information on likely routes : Not available. of exposure Potential acute health effects

| Eye contact | : Causes serious eye damage. |
|--------------|---|
| Inhalation | : May cause respiratory irritation. |
| Skin contact | : May be harmful in contact with skin. Causes skin irritation. May cause an allergic skin reaction. |
| Ingestion | : May be harmful if swallowed. |

Symptoms related to the physical, chemical and toxicological characteristics

| Eye contact | : Adverse symptoms may include the following: pain watering redness |
|--------------|--|
| Inhalation | : Adverse symptoms may include the following: respiratory tract irritation coughing |
| Skin contact | : Adverse symptoms may include the following: pain or irritation redness blistering may occur |
| Ingestion | : Adverse symptoms may include the following: stomach pains |

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

| <u>Short term exposure</u> | |
|------------------------------|------------------|
| 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 eff | <u>ects</u> |
| Not available. | |

Section 11. Toxicological information

| 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. |

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) |
|---------------------------------------|------------------|-------------------|--------------------------------|-----------------------------------|--|
| N/A | 4854.9 | 4888.9 | N/A | 64.7 | N/A |
| xylene | N/A | 1100 | N/A | 20 | N/A |
| butan-1-ol | 500 | N/A | N/A | N/A | N/A |
| ethylbenzene | N/A | N/A | N/A | 17.8 | N/A |
| 2,4,6-tris(dimethylaminomethyl)phenol | 1673 | N/A | N/A | N/A | N/A |

Section 12. Ecological information

Toxicity

| Product/ingredient name | Result | Species | Exposure |
|---|---|---|--|
| Phenol, polymer with formaldehyde, glycidyl ether, polymers with [(methylphenoxy)methyl] oxirane and triethylenetetramine | Acute LC50 9 mg/l | Fish | 96 hours |
| xylene | Acute LC50 8500 µg/l Marine water | Crustaceans - Palaemonetes | 48 hours |
| ethylbenzene | Acute LC50 13400 μg/l Fresh water Acute EC50 7700 μg/l Marine water Acute EC50 2.93 mg/l Acute LC50 4.2 mg/l | Fish - Pimephales promelas Algae - Skeletonema costatum Daphnia Fish | 96 hours 96 hours 48 hours 96 hours |

Persistence and degradability

| Product/ingredient name | Aquatic half-life | Photolysis | Biodegradability |
|-------------------------|-------------------|------------|--------------------|
| xylene ethylbenzene | - | | Readily Readily |

Bioaccumulative potential

| Product/ingredient name | LogPow | BCF | Potential |
|-----------------------------|--------|-------------|-----------|
| xylene | 3.12 | 8.1 to 25.9 | low |
| butan-1-ol | 1 | - | low |
| ethylbenzene | 3.6 | - | low |
| 2,4,6-tris | 0.219 | - | low |
| (dimethylaminomethyl)phenol | | | |

Mobility in soil

Soil/water partition coefficient (Koc)

: Not available.

Section 12. Ecological information

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 | UN1866 | UN1866 | UN1866 |
| UN proper shipping name | Resin solution | Resin solution. Marine pollutant (Phenol, polymer with formaldehyde, glycidyl ether, polymers with [(methylphenoxy)methyl] oxirane and triethylenetetramine) | Resin solution |
| Transport hazard class(es) | 3 | | 3 |
| Packing group | III | Ш | Ш |
| Environmental hazards | Yes. The environmentally hazardous substance mark is not required. | Yes. | Yes. The environmentally hazardous substance mark is not required. |
| Additional informat | tion | | |
| IMDG | : The marine pollutar Emergency sched | nt mark is not required when trans <u>ules</u> F-E, <u>S-E</u> | sported in sizes of ≤5 L or ≤5 kg. |
| ΙΑΤΑ | : The environmentally hazardous substance mark may appear if required by other transportation regulations. | | |
| ADR/RID | : | | |
| Special precautions | for user : Transport within u | user's premises: always transpo | t 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 : Not available. to IMO instruments

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.

Section 16. Other information

| <u>History</u> | |
|--------------------------------|--|
| Date of printing | : 05.06.2023 |
| Date of issue/Date of revision | : 05.06.2023 |
| Date of previous issue | : No previous validation |
| Version | : 1 |
| 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 = Internediate 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 |

Procedure used to derive the classification

| Classification | Justification |
|--|-----------------------|
| FLAMMABLE LIQUIDS - Category 3 | On basis of test data |
| ACUTE TOXICITY (oral) - Category 5 | Calculation method |
| ACUTE TOXICITY (dermal) - Category 5 | Calculation method |
| SKIN CORROSION/IRRITATION - Category 2 | Calculation method |
| SERIOUS EYE DAMAGE/EYE IRRITATION - Category 1 | Calculation method |
| SKIN SENSITISATION - Category 1 | Calculation method |
| SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE (Respiratory tract irritation) - Category 3 | Calculation method |
| LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 2 | Calculation method |

References

: Not available.

✓ 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

Section 16. Other information

needs and specific application practices.

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