SAFETY DATA SHEET



Jotamastic 90 Wintergrade Comp B

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

1.1 Product identifier

Product name : Jotamastic 90 Wintergrade Comp B

Product code : 16840

Product description : Hardener.

Product type : Liquid.

Other means of : Not available.

identification

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

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

1.3 Details of the supplier of the safety data sheet

Jotun A/S Jotun Paints (Europe) Ltd.

P.O.Box 2021 Stather Road

3202 Sandefjord Flixborough, Scunthorpe Norway North Lincolnshire

Tel: + 47 33 45 70 00 DN15 8RR Fax: +47 33 45 72 42 England

E-mail: SDSJotun@jotun.no

Tel: +44 17 24 40 00 00 Fax: +44 17 24 40 01 00

1.4 Emergency telephone number

National advisory body/Poison Centre

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

Supplier

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

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition : Mixture

Classification according to UK CLP/GHS

Flam. Liq. 3, H226 Skin Irrit. 2, H315 Eye Dam. 1, H318 STOT SE 3, H335 STOT SE 3, H336

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

See Section 16 for the full text of the H statements declared above.

See Section 11 for more detailed information on health effects and symptoms.

2.2 Label elements

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SECTION 2: Hazards identification

Hazard pictograms







Signal word : Danger.

Hazard statements : H226 - Flammable liquid and vapour.

H315 - Causes skin irritation.

H318 - Causes serious eye damage. H335 - May cause respiratory irritation. H336 - May cause drowsiness or dizziness.

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.

P261 - Avoid breathing vapour.

: P304 + P312 - IF INHALED: Call a POISON CENTER or doctor if you feel unwell. Response

P362 + P364 - Take off contaminated clothing and wash it before reuse.

: EUH208 - Contains ethylenediamine. May produce an allergic reaction.

P302 + P352 - IF ON SKIN: Wash with plenty of water.

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.

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

: P501 - Dispose of contents and container in accordance with all local, regional, **Disposal**

national and international regulations.

Supplemental label

elements

: Not applicable.

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

articles

Special packaging requirements

Containers to be fitted with child-resistant

fastenings

: Not applicable.

Tactile warning of danger : Not applicable.

2.3 Other hazards

Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII

: This mixture does not contain any substances that are assessed to be a PBT or a

vPvB.

Other hazards which do

: None known.

not result in classification

SECTION 3: Composition/information on ingredients

3.2 Mixtures : Mixture

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SECTION 3: Composition/information on ingredients

| Product/ingredient name | Identifiers | % | Classification | Type |
|-------------------------|--|-----------|--|---------|
| o utan-1-ol | REACH #: 01-2119484630-38 EC: 200-751-6 CAS: 71-36-3 Index: 603-004-00-6 | ≥10 - <25 | Flam. Liq. 3, H226 Acute Tox. 4, H302 Skin Irrit. 2, H315 Eye Dam. 1, H318 STOT SE 3, H335 STOT SE 3, H336 | [1] [2] |
| ethylenediamine | REACH #: 01-2119480383-37 EC: 203-468-6 CAS: 107-15-3 | <1 | Flam. Liq. 3, H226 Acute Tox. 4, H302 Acute Tox. 3, H311 Acute Tox. 4, H332 Skin Corr. 1B, H314 Eye Dam. 1, H318 Resp. Sens. 1B, H334 Skin Sens. 1B, H317 Aquatic Chronic 3, H412 | [1] [3] |
| | | | See Section 16 for the full text of the H statements declared above. | |

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

Type

- Substance classified with a health or environmental hazard
- [2] Substance with a workplace exposure limit
- [3] 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

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. Flush contaminated skin with plenty of 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. Wash clothing before reuse. Clean shoes thoroughly before reuse.

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SECTION 4: First aid measures

Ingestion

Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Chemical burns must be treated promptly by a physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Protection of first-aiders

: No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

4.2 Most important symptoms and effects, both acute and delayed

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

nausea or vomiting

headache

drowsiness/fatigue dizziness/vertigo unconsciousness

Skin contact: Adverse symptoms may include the following:

pain or irritation

redness

blistering may occur

Ingestion : Adverse symptoms may include the following:

stomach pains

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician

: 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.

See toxicological information (Section 11)

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

: Recommended: alcohol-resistant foam, CO₂, powders, water spray.

Unsuitable extinguishing

media

: Do not use water jet.

5.2 Special hazards arising from the substance or mixture

Hazards from the substance or mixture

: Flammable liquid and vapour. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion.

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SECTION 5: Firefighting measures

Hazardous combustion products

: Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides

5.3 Advice for firefighters

Special protective actions for fire-fighters

: Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

Special protective equipment for fire-fighters

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Do not breathe vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders:

If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

6.2 Environmental precautions

: Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

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 noncombustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilt product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

6.4 Reference to other sections

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

SECTION 7: Handling and storage

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

7.1 Precautions for safe handling

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SECTION 7: Handling and storage

Protective measures

: Put on appropriate personal protective equipment (see Section 8). Do not get in eyes or on skin or clothing. Do not breathe vapour or mist. Do not ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.

Advice on general occupational hygiene

Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

7.2 Conditions for safe storage, including any incompatibilities

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

Seveso Directive - Reporting thresholds

Danger criteria

| | Notification and MAPP threshold | Safety report threshold |
|-----|---------------------------------|-------------------------|
| P5c | 5000 tonne | 50000 tonne |

See Technical Data Sheet / packaging for further information.

7.3 Specific end use(s)

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

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits

| Product/ingredient name | Exposure limit values |
|-------------------------|--|
| | EH40/2005 WELs (United Kingdom (UK), 1/2020). Absorbed |
| | through skin. STEL: 154 mg/m³ 15 minutes. STEL: 50 ppm 15 minutes. |

Biological exposure indices

No exposure indices known.

procedures

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

DNELs/DMELs

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SECTION 8: Exposure controls/personal protection

| Product/ingredient name | Type | Exposure | Value | Population | Effects |
|--------------------------|------|------------------|------------------------|------------|----------|
| <mark>b</mark> utan-1-ol | DNEL | Long term Oral | 1.5625 mg/ | General | Systemic |
| | | | kg bw/day | population | |
| | DNEL | Long term Dermal | 3.125 mg/ | General | Systemic |
| | | | kg bw/day | population | |
| | DNEL | Long term | 55.357 mg/ | General | Systemic |
| | | Inhalation | m³ | population | |
| | DNEL | Long term | 155 mg/m ³ | General | Local |
| | | Inhalation | | population | |
| | DNEL | Long term | 310 mg/m ³ | Workers | Local |
| | | Inhalation | | | |
| ethylenediamine | DNEL | Long term Oral | 0.11 mg/ | General | Systemic |
| | | | kg bw/day | population | |
| | DNEL | Long term | 6.25 mg/m ³ | | Systemic |
| | | Inhalation | | population | |
| | DNEL | Long term | 25 mg/m³ | Workers | Systemic |
| | | Inhalation | | | |

PNECs

| Product/ingredient name | Compartment Detail | Value | Method Detail |
|-------------------------|-------------------------------------|---|---------------|
| butan-1-ol | Marine Sewage Treatment Plant | 0.082 mg/l 0.0082 mg/l 2476 mg/l 0.178 mg/kg dwt | |
| | | 0.0178 mg/kg dwt 0.015 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. 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.

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SECTION 8: Exposure controls/personal protection

Gloves

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

Recommended, gloves(breakthrough time) > 8 hours: neoprene (> 0.35 mm), nitrile rubber (> 0.75 mm) May be used, gloves(breakthrough time) 4 - 8 hours: butyl rubber (> 0.4 mm), Viton® (> 0.7 mm), 4H/Silver Shield® (> 0.07 mm), Teflon (> 0.35 mm), polyvinyl alcohol (PVA) (> 0.3 mm) Not recommended, gloves(breakthrough time) < 1 hour: PVC (> 0.5 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

: 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.

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.

Environmental exposure

controls

: Do not allow to enter drains or watercourses.

SECTION 9: Physical and chemical properties

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

9.1 Information on basic physical and chemical properties

Appearance

Physical state : Liquid. Colour : Clear

Odour : Characteristic. **Odour threshold** Not applicable. Melting point/freezing point : Not applicable.

Initial boiling point and

boiling range

: Lowest known value: 119°C (246.2°F) (butan-1-ol).

Flammability Upper/lower flammability or

explosive limits

: Not applicable. : 1.4 - 11.3%

: Closed cup: 35°C (95°F)

Flash point

: Lowest known value: 355°C (671°F) (butan-1-ol). **Auto-ignition temperature**

Decomposition temperature Not available. pH Not applicable.

Kinematic (40°C): >20.5 mm²/s **Viscosity**

Solubility(ies)

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

Partition coefficient: n-octanol/: Not available.

water

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SECTION 9: Physical and chemical properties

: Highest known value: <1 kPa (<7.5 mm Hg) (at 20°C) (butan-1-ol). Vapour pressure

Evaporation rate : 0.44 (butan-1-ol) compared with butyl acetate

1 g/cm³ **Density**

Vapour density : Highest known value: 2.6 (Air = 1) (butan-1-ol).

Explosive properties : Not available. : Not available. **Oxidising properties**

Particle characteristics

Median particle size : Not applicable.

9.2 Other information

hazardous reactions

No additional information.

SECTION 10: Stability and reactivity

10.1 Reactivity : No specific test data related to reactivity available for this product or its ingredients.

10.2 Chemical stability Stable under recommended storage and handling conditions (see Section 7).

10.3 Possibility of : Under normal conditions of storage and use, hazardous reactions will not occur.

10.4 Conditions to avoid : When exposed to high temperatures may produce hazardous decomposition products.

10.5 Incompatible materials Keep away from the following materials to prevent strong exothermic reactions:

oxidising agents, strong alkalis, strong acids.

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

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

| Product/ingredient name | Result | Species | Dose | Exposure |
|-------------------------|------------------------|---------|------------|----------|
| b utan-1-ol | LD50 Oral | Rat | 790 mg/kg | - |
| ethylenediamine | LC50 Inhalation Vapour | Rat | 7 mg/l | 4 hours |
| | LD50 Dermal | Rabbit | 730 uL/kg | - |
| | LD50 Oral | Rat | 1200 mg/kg | - |

Acute toxicity estimates

| Product/ingredient name | Oral (mg/ kg) | Dermal (mg/kg) | Inhalation (gases) (ppm) | Inhalation (vapours) (mg/l) | Inhalation (dusts and mists) (mg/l) |
|-------------------------|------------------|-------------------|--------------------------------|-----------------------------------|--|
| | 2500 | 33333.3 | N/A | N/A | N/A |
| butan-1-ol | 500 | N/A | N/A | N/A | N/A |
| ethylenediamine | 500 | 300 | N/A | 11 | N/A |

Irritation/Corrosion

| Product/ingredient name | Result | Species | Score | Exposure | Observation |
|-------------------------|--|----------------------------|-------------|---|-------------|
| e thylenediamine | Eyes - Severe irritant | Rabbit | - | 24 hours 750 | - |
| | Eyes - Severe irritant Skin - Moderate irritant Skin - Severe irritant | Rabbit Rabbit Rabbit | - - - | ug 750 ug 450 mg 24 hours 10 mg | - - - |

Sensitisation

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SECTION 11: Toxicological information

| Product/ingredient name | Route of exposure | Species | Result |
|-------------------------|-------------------|------------------------------|-------------|
| e thylenediamine | skin | Mammal - species unspecified | Sensitising |

Mutagenicity

No known significant effects or critical hazards.

Carcinogenicity

No known significant effects or critical hazards.

Reproductive toxicity

Developmental effects : No known significant effects or critical hazards.Fertility effects : No known significant effects or critical hazards.

Teratogenicity

No known significant effects or critical hazards.

Specific target organ toxicity (single exposure)

| Product/ingredient name | Category | Route of exposure | Target organs |
|-------------------------|------------|-------------------|------------------------------|
| butan-1-ol | Category 3 | | Respiratory tract irritation |
| | Category 3 | | Narcotic effects |

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Potential acute health effects

Eye contact : Causes serious eye damage.

Inhalation : May cause drowsiness or dizziness. May cause respiratory irritation.

Skin contact : Causes skin irritation.

Ingestion : No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : Adverse symptoms may include the following:

pain watering redness

Inhalation : Adverse symptoms may include the following:

respiratory tract irritation

coughing

nausea or vomiting

headache

drowsiness/fatigue dizziness/vertigo unconsciousness

Skin contact: Adverse symptoms may include the following:

pain or irritation

redness

blistering may occur

Ingestion : Adverse symptoms may include the following:

stomach pains

General : No known significant effects or critical hazards.

Other information : None identified.

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SECTION 12: Ecological information

12.1 Toxicity

There are no data available on the mixture itself.

Do not allow to enter drains or watercourses.

The mixture has been assessed following the summation method of the CLP Regulation (EC) No 1272/2008 and is not classified as hazardous to the environment, but contains substance(s) hazardous to the environment. See section 3 for details.

| Product/ingredient name | Result | Species | Exposure |
|-------------------------|------------------------------------|--|----------|
| e thylenediamine | Acute EC50 100000 μg/l Fresh water | Algae - Green algae - Chlorella pyrenoidosa | 96 hours |
| | Acute LC50 115.7 mg/l Fresh water | Fish - Fathead minnow - Pimephales promelas | 96 hours |
| | Chronic NOEC 160 μg/l Fresh water | Daphnia - Water flea - Daphnia magna | 21 days |

Conclusion/Summary

: No known significant effects or critical hazards.

12.2 Persistence and degradability

Conclusion/Summary: Not available.

12.3 Bioaccumulative potential

| Product/ingredient name | LogPow | BCF | Potential |
|--------------------------|--------|-----|-----------|
| <mark>b</mark> utan-1-ol | 1 | - | low |
| ethylenediamine | -7.02 | - | low |

12.4 Mobility in soil

Soil/water partition coefficient (Koc)

: Not available.

Mobility

: Not available.

12.5 Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

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

SECTION 13: Disposal considerations

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

13.1 Waste treatment methods

Product

Methods of disposal

The generation of waste should be avoided or minimised wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.

Hazardous waste

Waste catalogue

Yes.

| Waste code | Waste designation |
|------------|---|
| 08 01 11* | Waste paint and varnish containing organic solvents or other dangerous substances |

Packaging

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SECTION 13: Disposal considerations

Methods of disposal

The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

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

Special precautions

: This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapour from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport information

| | ADR/RID | ADN | IMDG | IATA |
|----------------------------------|---------|--------|--------|--------|
| 14.1 UN number | UN1263 | UN1263 | UN1263 | UN1263 |
| 14.2 UN proper shipping name | Paint | Paint | Paint | Paint |
| 14.3 Transport hazard class(es) | 3 | 3 | 3 | 3 |
| 14.4 Packing group | III | III | III | III |
| 14.5 Environmental hazards | No. | No. | No. | No. |

Additional information

ADR/RID

: Hazard identification number 30

Tunnel code (D/E)

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

IMDG

: Emergency schedules F-E, S-E

MDG: Viscous substance. Transport in accordance with 2.3.2.5 of the IMDG Code (only applicable to receptacles < 450 litre capacity).

user

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

14.7 Transport in bulk according to IMO instruments

: Not available.

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SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture UK (GB)/REACH

Annex XIV - List of substances subject to authorisation

Annex XIV

None of the components are listed.

Substances of very high concern

| Intrinsic property | Ingredient name | | Reference number | Date of revision |
|--|-----------------|-------------|--------------------|------------------|
| Substance of equivalent concern for human health | ethylenediamine | Recommended | D(2021) 4569-DC | 12.04.2023 |

Ozone depleting substances

Not listed.

Prior Informed Consent (PIC)

Not listed.

Persistent Organic Pollutants

Not listed.

Annex XVII - Restrictions : Not applicable.

on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles

Seveso Directive

This product is controlled under the Seveso Directive.

Danger criteria

| C | at | е | a | 0 | r۱ | 1 |
|---|----|---|---|---|----|---|
| | | | | | | |

P5c

EU regulations

Industrial emissions : Not listed

(integrated pollution prevention and control) -

Air

Industrial emissions : Not listed

(integrated pollution prevention and control) -

Water

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

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SECTION 15: Regulatory information

Not listed.

15.2 Chemical safety assessment

: This product contains substances for which Chemical Safety Assessments are still required

SECTION 16: Other information

Indicates information that has changed from previously issued version.

Abbreviations and acronyms

: ATE = Acute Toxicity Estimate

GB CLP = UK CLP (EC No 1272/2008) on the Classification, Labelling and

Packaging of Substances and Mixtures as amended by (EU Exit) Regulations 2019

No. 720 and amendments

DMEL = Derived Minimal Effect Level DNEL = Derived No Effect Level

EUH statement = GB CLP-specific Hazard statement

N/A = Not available

PBT = Persistent, Bioaccumulative and Toxic PNEC = Predicted No Effect Concentration RRN = REACH Registration Number

SGG = Segregation Group

vPvB = Very Persistent and Very Bioaccumulative

Procedure used to derive the classification

| Classification | Justification |
|---------------------|-----------------------|
| Flam. Liq. 3, H226 | On basis of test data |
| Skin Irrit. 2, H315 | Calculation method |
| Eye Dam. 1, H318 | Calculation method |
| STOT SE 3, H335 | Calculation method |
| STOT SE 3, H336 | Calculation method |

Full text of abbreviated H statements

| ⊮ 226 | Flammable liquid and vapour. |
|--------------|--|
| H302 | Harmful if swallowed. |
| H311 | Toxic in contact with skin. |
| H314 | Causes severe skin burns and eye damage. |
| H315 | Causes skin irritation. |
| H317 | May cause an allergic skin reaction. |
| H318 | Causes serious eye damage. |
| H332 | Harmful if inhaled. |
| H334 | May cause allergy or asthma symptoms or breathing difficulties if inhaled. |
| H335 | May cause respiratory irritation. |
| H336 | May cause drowsiness or dizziness. |
| H412 | Harmful to aquatic life with long lasting effects. |

Full text of classifications

| Acute Tox. 3 | ACUTE TOXICITY - Category 3 |
|-------------------|---|
| Acute Tox. 4 | ACUTE TOXICITY - Category 4 |
| Aquatic Chronic 3 | LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 3 |
| Eye Dam. 1 | SERIOUS EYE DAMAGE/EYE IRRITATION - Category 1 |
| Flam. Liq. 3 | FLAMMABLE LIQUIDS - Category 3 |
| Resp. Sens. 1B | RESPIRATORY SENSITISATION - Category 1B |
| Skin Corr. 1B | SKIN CORROSION/IRRITATION - Category 1B |
| Skin Irrit. 2 | SKIN CORROSION/IRRITATION - Category 2 |
| Skin Sens. 1B | SKIN SENSITISATION - Category 1B |
| STOT SE 3 | SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE - Category 3 |
| | |

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Notice to reader

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Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by UK REACH Regulation SI 2019/758

Jotamastic 90 Wintergrade Comp B

SECTION 16: Other information

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.

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