SAFETY DATA SHEET



Jotamastic 87 Wintergrade Comp B

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

1.1 Product identifier

Product name : Jotamastic 87 Wintergrade Comp B

Product code : 1549 **Product description** : Hardener. **Product type** : Liquid. Other means of : Not available.

identification

: 8094-90QW-E00N-GMTF

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 North Lincolnshire Norway

DN15 8RR

Tel: +47 33 45 70 00 **England**

Fax: +47 33 45 72 42 Tel: +44 17 24 40 00 00

Fax: +44 17 24 40 01 00 SDSJotun@jotun.no

1.4 Emergency telephone number

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

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition : Mixture

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

Flam. Liq. 3, H226 Skin Irrit. 2, H315 Eye Dam. 1, H318 Skin Sens. 1, H317 STOT SE 3, H335

Aquatic Chronic 2, H411

The product is classified as hazardous according to Regulation (EC) 1272/2008 as amended.

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

2.2 Label elements

Hazard pictograms









Signal word : Danger.

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SECTION 2: Hazards identification

Hazard statements

: H226 - Flammable liquid and vapour.

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 + P352 - IF ON SKIN: 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 Disposal

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

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

national and international regulations.

Hazardous ingredients

: Phenol, polymer with formaldehyde, glycidyl ether, polymers with [(methylphenoxy)

methyl]oxirane and triethylenetetramine

xylene butan-1-ol

2,4,6-tris(dimethylaminomethyl)phenol

Supplemental label

elements

Not applicable.

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

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 not result in classification

: None known.

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SECTION 3: Composition/information on ingredients

3.2 Mixtures : Mixture

| Product/ingredient name | Identifiers | Weight % | Regulation (EC) No. 1272/2008 [CLP] | Туре |
|---|--|-----------|--|---------|
| Phenol, polymer with formaldehyde, glycidyl ether, polymers with [(methylphenoxy) methyl]oxirane and triethylenetetramine | EC: 620-324-1 CAS: 99377-78-3 | ≥50 - ≤75 | Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317 Aquatic Chronic 2, H411 | [1] |
| xylene | REACH #: 01-2119488216-32 EC: 215-535-7 CAS: 1330-20-7 Index: 601-022-00-9 | ≥10 - ≤25 | Flam. Liq. 3, H226 Acute Tox. 4, H312 Acute Tox. 4, H332 Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335 Asp. Tox. 1, H304 Aquatic Chronic 3, H412 | [1] [2] |
| butan-1-ol | REACH #: 01-2119484630-38 EC: 200-751-6 CAS: 71-36-3 Index: 603-004-00-6 | ≥10 - <20 | 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] |
| ethylbenzene | REACH #: 01-2119489370-35 EC: 202-849-4 CAS: 100-41-4 Index: 601-023-00-4 | <10 | Flam. Liq. 2, H225 Acute Tox. 4, H332 STOT RE 2, H373 (hearing organs) Asp. Tox. 1, H304 Aquatic Chronic 3, H412 | [1] [2] |
| 2,4,6-tris(dimethylaminomethyl) phenol | REACH #: 01-2119560597-27 EC: 202-013-9 CAS: 90-72-2 Index: 603-069-00-0 | ≤3 | Skin Corr. 1C, H314 Eye Dam. 1, H318 | [1] |
| | | | 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.

<u>Type</u>

- [1] Substance classified with a health or environmental hazard
- [2] Substance with a workplace exposure limit
- [3] Substance meets the criteria for PBT according to Regulation (EC) No. 1907/2006, Annex XIII
- [4] Substance meets the criteria for vPvB according to Regulation (EC) No. 1907/2006, Annex XIII
- [5] Substance of equivalent concern
- [6] Additional disclosure due to company policy

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

SECTION 4: First aid measures

4.1 Description of first aid measures

General

: In all cases of doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and seek medical advice.

Eye contact

: Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Seek immediate medical attention.

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SECTION 4: First aid measures

Inhalation : Remove to fresh air. Keep person warm and at rest. If not breathing, if breathing is

irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by

trained personnel.

Skin contact: Remove contaminated clothing and shoes. Wash skin thoroughly with soap and

water or use recognised skin cleanser. Do NOT use solvents or thinners.

Ingestion: If swallowed, seek medical advice immediately and show the container or label.

Keep person warm and at rest. Do NOT induce vomiting.

Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training. If it

is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing

thoroughly with water before removing it, or wear gloves.

4.2 Most important symptoms and effects, both acute and delayed

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

Exposure to component solvent vapour concentrations in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and central nervous system. Solvents may cause some of the above effects by absorption through the skin. Repeated or prolonged contact with the mixture may cause removal of natural fat from the skin, resulting in non-allergic contact dermatitis and absorption through the skin. Ingestion may cause nausea, diarrhea and vomiting.

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:

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

: Fire will produce dense black smoke. Exposure to decomposition products may cause a health hazard.

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SECTION 5: Firefighting measures

Hazardous combustion products

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

5.3 Advice for firefighters

Special protective actions for fire-fighters

: Cool closed containers exposed to fire with water. Do not release runoff from fire to drains or watercourses.

Special protective equipment for fire-fighters

: Appropriate breathing apparatus may be required.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

: Exclude sources of ignition and ventilate the area. Avoid breathing vapour or mist. Refer to protective measures listed in sections 7 and 8.

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

: Do not allow to enter drains or watercourses. If the product contaminates lakes, rivers, or sewers, inform the appropriate authorities in accordance with local regulations.

6.3 Methods and material for containment and cleaning up

: 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). Preferably clean with a detergent. Avoid using solvents.

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

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

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

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

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

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

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

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

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

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

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

Comply with the health and safety at work laws.

Do not allow to enter drains or watercourses.

Information on fire and explosion protection

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

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

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SECTION 7: Handling and storage

fallen below the exposure limits.

7.2 Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations.

Notes on joint storage

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

Additional information on storage conditions

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

7.3 Specific end use(s)

Recommendations : Not available.

Industrial sector specific : Not available.

solutions

SECTION 8: Exposure controls/personal protection

The information in this section contains generic advice and guidance. Information is provided based on typical anticipated uses of the product. Additional measures might be required for bulk handling or other uses that could significantly increase worker exposure or environmental releases.

8.1 Control parameters

Occupational exposure limits

| Product/ingredient name | Exposure limit values | |
|-------------------------|--|--|
| xylene | EH40/2005 WELs (United Kingdom (UK), 1/2020). Absorbed | |
| | through skin. | |
| | STEL: 441 mg/m³ 15 minutes. | |
| | STEL: 100 ppm 15 minutes. | |
| | TWA: 220 mg/m³ 8 hours. | |
| | TWA: 50 ppm 8 hours. | |
| butan-1-ol | EH40/2005 WELs (United Kingdom (UK), 1/2020). Absorbed | |
| | through skin. | |
| | STEL: 154 mg/m³ 15 minutes. | |
| | STEL: 50 ppm 15 minutes. | |
| ethylbenzene | EH40/2005 WELs (United Kingdom (UK), 1/2020). Absorbed | |
| • | through skin. | |
| | STEL: 552 mg/m³ 15 minutes. | |
| | STEL: 125 ppm 15 minutes. | |
| | TWA: 100 ppm 8 hours. | |
| | TWA: 441 mg/m³ 8 hours. | |

Recommended monitoring procedures

If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

DNELs/DMELs

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SECTION 8: Exposure controls/personal protection

| Product/ingredient name | Exposure | Value | Population | Effects |
|---------------------------------------|--------------------------|------------------------|-------------|----------|
| xylene | Long term Oral | 1.6 mg/kg | General | Systemic |
| | | bw/day | population | |
| | Long term | 14.8 mg/m ³ | | Systemic |
| | Inhalation | | population | |
| | Long term | 77 mg/m³ | Workers | Systemic |
| | Inhalation | | | |
| | Long term Dermal | 108 mg/kg | General | Systemic |
| | | bw/day | population | |
| | Long term Dermal | 180 mg/kg bw/day | Workers | Systemic |
| | Short term Inhalation | 289 mg/m ³ | Workers | Local |
| | Short term Inhalation | 289 mg/m ³ | Workers | Systemic |
| butan-1-ol | Long term Inhalation | 310 mg/m ³ | Workers | Local |
| | Long term Oral | 3.125 mg/ | General | Systemic |
| | | kg bw/day | population | -, |
| | | | [Consumers] | |
| | Long term | 55 mg/m³ | General | Local |
| | Inhalation | | population | |
| | | | [Consumers] | |
| | Long term Oral | 3.125 mg/ | General | Systemic |
| | | kg bw/day | population | |
| | Long term | 55 mg/m ³ | General | Local |
| | Inhalation | | population | |
| | Long term | 310 mg/m ³ | Workers | Local |
| | Inhalation | | | |
| ethylbenzene | Long term Oral | 1.6 mg/kg | General | Systemic |
| | | bw/day | population | |
| | Long term | 15 mg/m³ | General | Systemic |
| | Inhalation | | population | |
| | Long term | 77 mg/m³ | Workers | Systemic |
| | Inhalation | _ | | |
| | Long term Dermal | 180 mg/kg bw/day | Workers | Systemic |
| | Short term Inhalation | 293 mg/m ³ | Workers | Local |
| | Long term Inhalation | 442 mg/m ³ | Workers | Local |
| | Short term Inhalation | 884 mg/m³ | Workers | Systemic |
| 2,4,6-tris(dimethylaminomethyl)phenol | Long term Dermal | 0.2 mg/kg bw/day | Workers | Systemic |
| | Long term Inhalation | 0.31 mg/m ³ | Workers | Systemic |

PNECs

| Product/ingredient name | Compartment Detail | Value | Method Detail |
|-------------------------|---------------------------|-----------------|---------------|
| xylene | Fresh water | 0.327 mg/l | - |
| | Marine | 0.327 mg/l | - |
| | Sewage Treatment Plant | 6.58 mg/l | - |
| | Fresh water sediment | 12.46 mg/kg dwt | - |
| | Marine water sediment | 12.46 mg/kg dwt | - |
| | Soil | 2.31 mg/kg dwt | - |
| outan-1-ol | Fresh water | 0.082 mg/l | - |
| | Marine | 0.0082 mg/l | - |
| | Sewage Treatment Plant | 2476 mg/l | - |

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SECTION 8: Exposure controls/personal protection

| | 1 | | 1 |
|---------------------------------------|-----------------------|------------------|---|
| | | 0.178 mg/kg dwt | - |
| | Marine water sediment | 0.0178 mg/kg dwt | - |
| | Soil | 0.015 mg/kg dwt | - |
| ethylbenzene | Fresh water | 0.1 mg/l | - |
| | Marine | 0.01 mg/l | - |
| | Sewage Treatment | 9.6 mg/l | - |
| | Plant | | |
| | Fresh water sediment | 13.7 mg/kg dwt | - |
| | Soil | 2.68 mg/kg dwt | - |
| | Secondary Poisoning | 20 mg/kg | - |
| 2,4,6-tris(dimethylaminomethyl)phenol | Fresh water | 0.084 mg/l | - |
| | Marine | 0.0084 mg/l | - |
| | Sewage Treatment | 0.2 mg/l | - |
| | Plant | | |
| | | | |

8.2 Exposure controls

Appropriate engineering controls

Provide adequate ventilation. Where reasonably practicable, this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates and solvent vapours below the OEL, suitable respiratory protection must be worn.

Individual protection measures

Hygiene measures

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

Eye/face protection

: Safety eyewear complying to EN 166 should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles and/ or face shield. If inhalation hazards exist, a full-face respirator may be required instead.

Skin protection Gloves

: There is no one glove material or combination of materials that will give unlimited resistance to any individual or combination of chemicals.

The breakthrough time must be greater than the end use time of the product. The instructions and information provided by the glove manufacturer on use, storage, maintenance and replacement must be followed.

Gloves should be replaced regularly and if there is any sign of damage to the glove material.

Always ensure that gloves are free from defects and that they are stored and used correctly.

The performance or effectiveness of the glove may be reduced by physical/chemical damage and poor maintenance.

Barrier creams may help to protect the exposed areas of the skin but should not be applied once exposure has occurred.

Wear suitable gloves tested to EN374.

Not recommended, gloves(breakthrough time) < 1 hour: PE

Recommended, gloves(breakthrough time) > 8 hours: 4H, Teflon, polyvinyl alcohol (PVA), nitrile rubber

May be used, gloves(breakthrough time) 4 - 8 hours: Viton®, Barricade, CPF 3, Responder, PVC, neoprene, butyl rubber

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.

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SECTION 8: Exposure controls/personal protection

Body protection

: Personnel should wear antistatic clothing made of natural fibres or of hightemperature-resistant synthetic fibres.

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

9.1 Information on basic physical and chemical properties

Appearance

Physical state : Liquid. Colour Clear

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

Initial boiling point and

boiling range

Flash point **Evaporation rate**

Flammability (solid, gas) Upper/lower flammability or

explosive limits

: 0.8 - 11.3%

: Not applicable.

131.86°C (269.3°F)

: Closed cup: 30°C

with butyl acetate

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)

Highest known value: 0.84 (ethylbenzene) Weighted average: 0.7compared

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

Vapour density

: Highest known value: 3.7 (Air = 1) (xylene). Weighted average: 3.42 (Air = 1) : 1.02 g/cm³

Solubility(ies)

: Insoluble in the following materials: cold water and hot water.

Partition coefficient: n-octanol/ : Not available.

water

Density

Auto-ignition temperature

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

Decomposition temperature Viscosity

: Not available. : Kinematic (40°C): >0.205 cm²/s (>20.5 mm²/s)

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

9.2 Other information

No additional information.

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SECTION 10: Stability and reactivity

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

SECTION 11: Toxicological information

11.1 Information on toxicological effects

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

Exposure to component solvent vapour concentrations in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and central nervous system. Solvents may cause some of the above effects by absorption through the skin. Repeated or prolonged contact with the mixture may cause removal of natural fat from the skin, resulting in non-allergic contact dermatitis and absorption through the skin. Ingestion may cause nausea, diarrhea and vomiting.

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 | | | | |

Acute toxicity estimates

| Route | ATE value | |
|--------|---|--|
| Dermal | 5000 mg/kg 4888.89 mg/kg 64.67 mg/l | |

Irritation/Corrosion

| Product/ingredient name | Exposure | Species | Score | Exposure | Observation |
|--|--|------------------------------------|-------|--|-------------|
| Phenol, polymer with formaldehyde, glycidyl ether, polymers with [(methylphenoxy)methyl] oxirane and triethylenetetramine | Skin - Mild irritant | Mammal - species unspecified | - | - | - |
| | Eyes - 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) | Eyes - Severe irritant | Rabbit | - | 24 hours 50 µg | - |

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Conforms to Regulation (EC) No. 453/2010 (REACH), Annex II, as amended by Regulation (EU) No. 2015/830

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| phenol | | | | | |
|--------|------------------------|-----|---|---------|---|
| | 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

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.

Specific target organ toxicity (single exposure)

| 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 | Category | Route of exposure | Target organs |
|-------------------------|------------|-------------------|----------------|
| ethylbenzene | Category 2 | - | hearing organs |

Aspiration hazard

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

Other information : None identified.

SECTION 12: Ecological information

12.1 Toxicity

There are no data available on the mixture itself.

Do not allow to enter drains or watercourses.

The mixture has been assessed following the summation method of the CLP Regulation (EC) No 1272/2008 and is classified for eco-toxicological properties accordingly. See Sections 2 and 3 for details.

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SECTION 12: Ecological information

| 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 pugio | 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 |

This material is toxic to aquatic life with long lasting effects.

12.2 Persistence and degradability

Not available.

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

12.3 Bioaccumulative potential

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

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SECTION 13: Disposal considerations

Hazardous waste

: Yes.

Disposal considerations

Do not allow to enter drains or watercourses.

Dispose of according to all federal, state and local applicable regulations.

If this product is mixed with other wastes, the original waste product code may no longer apply and the appropriate code should be assigned.

For further information, contact your local waste authority.

European waste catalogue (EWC)

The European Waste Catalogue classification of this product, when disposed of as waste, is:

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

Packaging

Methods of disposal

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

Disposal considerations

: Using information provided in this safety data sheet, advice should be obtained from the relevant waste authority on the classification of empty containers. Empty containers must be scrapped or reconditioned.

Dispose of containers contaminated by the product in accordance with local or national legal provisions.

| Result | | European waste catalogue (EWC) |
|-----------------------|-----------|--|
| CEPE Paint 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 | UN1866 | UN1866 | UN1866 | UN1866 |
| 14.2 UN proper shipping name | Resin solution | Resin solution | Resin solution. Marine pollutant (Phenol, polymer with formaldehyde, glycidyl ether, polymers with [(methylphenoxy) methyl]oxirane and triethylenetetramine) | Resin solution |
| 14.3 Transport hazard class(es) | 3 | 3 | 3 | 3 |
| 14.4 Packing group | III | III | III | III |
| 14.5 Environmental hazards | Yes. | Yes. | Yes. | Yes. The environmentally hazardous substance mark is not required. |

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Conforms to Regulation (EC) No. 453/2010 (REACH), Annex II, as amended by Regulation (EU) No. 2015/830

Jotamastic 87 Wintergrade Comp B

SECTION 14: Transport information

Additional information

ADR/RID : The environmentally hazardous substance mark is not required when transported in

sizes of ≤5 L or ≤5 kg.

Hazard identification number 30

Tunnel code (D/E)

ADN The environmentally hazardous substance mark is not required when transported in

sizes of ≤5 L or ≤5 kg.

: The marine pollutant mark is not required when transported in sizes of ≤5 L or ≤5 kg. **IMDG**

Emergency schedules F-E, S-E

: The environmentally hazardous substance mark may appear if required by other **IATA**

transportation regulations.

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 applicable.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture EU Regulation (EC) No. 1907/2006 (REACH)

Annex XIV - List of substances subject to authorisation

Annex XIV

None of the components are listed.

Substances of very high concern

None of the components are listed.

Annex XVII - Restrictions

: Not applicable.

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

Other EU regulations

VOC : The provisions of Directive 2004/42/EC on VOC apply to this product. Refer to the

product label and/or technical data sheet for further information.

VOC for Ready-for-Use

Mixture

: Not applicable.

Europe inventory : At least one component is not listed.

Ozone depleting substances (1005/2009/EU)

Not listed.

Prior Informed Consent (PIC) (649/2012/EU)

Not listed.

Seveso Directive

This product may add to the calculation for determining whether a site is within the scope of the Seveso Directive on major accident hazards.

National regulations

Industrial use

: The information contained in this safety data sheet does not constitute the user's own assessment of workplace risks, as required by other health and safety legislation. The provisions of the national health and safety at work regulations apply to the use of this product at work.

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SECTION 15: Regulatory information

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

15.2 Chemical safety

: Not applicable.

assessment

SECTION 16: Other information

Indicates information that has changed from previously issued version.

Abbreviations and

: ATE = Acute Toxicity Estimate

acronyms

CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No.

1272/2008]

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

EUH statement = CLP-specific Hazard statement PBT = Persistent, Bioaccumulative and Toxic PNEC = Predicted No Effect Concentration RRN = REACH Registration Number

vPvB = Very Persistent and Very Bioaccumulative

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

| Classification | Justification |
|-------------------------|-----------------------|
| Flam. Liq. 3, H226 | On basis of test data |
| Skin Irrit. 2, H315 | Calculation method |
| Eye Dam. 1, H318 | Calculation method |
| Skin Sens. 1, H317 | Calculation method |
| STOT SE 3, H335 | Calculation method |
| Aquatic Chronic 2, H411 | Calculation method |

Full text of abbreviated H statements

| H225 | Highly flammable liquid and vapour. |
|------|--|
| H226 | Flammable liquid and vapour. |
| H302 | Harmful if swallowed. |
| H304 | May be fatal if swallowed and enters airways. |
| H312 | Harmful 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. |
| H319 | Causes serious eye irritation. |
| H332 | Harmful if inhaled. |
| H335 | May cause respiratory irritation. |
| H336 | May cause drowsiness or dizziness. |
| H373 | May cause damage to organs through prolonged or repeated |
| | exposure. |
| H411 | Toxic to aquatic life with long lasting effects. |
| | |

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SECTION 16: Other information

H412 Harmful to aquatic life with long lasting effects.

Full text of classifications [CLP/GHS]

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

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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.

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