SAFETY DATA SHEET



Jotamastic 90 Standard Comp B

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

1.1 Product identifier

Product name : Jotamastic 90 Standard Comp B

Product code : 16561

Product description : Hardener.

Product type : Liquid.

Other means of : Not available.

identification

: 5UUF-E1DA-D00U-RDPY

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

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

See Annex to the Safety data sheet for additional information in the Exposure Scenario(s).

1.3 Details of the supplier of the safety data sheet

Jotun Paints (Europe) Ltd.

Stather Road

P.O.Box 2021
Flixborough, Scunthorpe

3202 Sandefjord

North Lincolnshire Norway

DN15 8RR

England Tel: + 47 33 45 70 00 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 Acute Tox. 4, H302 Skin Corr. 1B, H314 Eye Dam. 1, H318 Skin Sens. 1, H317 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 :









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SECTION 2: Hazards identification

Signal word

: Danger.

Hazard statements

: H226 - Flammable liquid and vapour.

H302 - Harmful if swallowed.

H314 - Causes severe skin burns and eye damage.

H317 - May cause an allergic skin reaction.

H411 - Toxic to aquatic life with long lasting effects.

Precautionary statements

General

: Not applicable.

Prevention

: P280 - Wear protective gloves, protective clothing and 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.

P270 - Do not eat, drink or smoke when using this product.

Response

P391 - Collect spillage.

P304 + P310 - IF INHALED: Immediately call a POISON CENTER or doctor. P301 + P310, P330, P331 - IF SWALLOWED: Immediately call a POISON

CENTER or doctor. Rinse mouth. Do NOT induce vomiting.

P303 + P361 + P353, P310 - IF ON SKIN (or hair): Take off immediately all

contaminated clothing. Rinse skin with water. Immediately call a POISON CENTER

or doctor.

P363 - Wash contaminated clothing 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

: Not applicable.

Disposal

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

national and international regulations.

Hazardous ingredients

aminepoxyadduct

hydrocarbons, c9-unsatd., polymd.

3-aminomethyl-3,5,5-trimethylcyclohexylamine

Phenol, methylstyrenated Phenol, styrenated

Supplemental label

elements

: Not applicable.

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

: Not applicable.

Special packaging requirements

Containers to be fitted with child-resistant

: Not applicable.

fastenings

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] | Type |
|--|--|-----------|--|---------|
| aminepoxyadduct | CAS: 1075254-00-0 | ≥25 - ≤50 | Acute Tox. 4, H302 Eye Dam. 1, H318 Skin Sens. 1, H317 Aquatic Chronic 2, H411 | [1] |
| benzyl alcohol | REACH #: 01-2119492630-38 EC: 202-859-9 CAS: 100-51-6 | ≥10 - ≤25 | Acute Tox. 4, H302 Acute Tox. 4, H332 Eye Irrit. 2, H319 | [1] |
| hydrocarbons, c9-unsatd., polymd. | REACH #: 01-2119555292-40 EC: 615-276-3 CAS: 71302-83-5 | ≥10 - ≤25 | Skin Sens. 1, H317 Aquatic Chronic 3, H412 | [1] |
| xylene | REACH #: 01-2119488216-32 EC: 215-535-7 CAS: 1330-20-7 Index: 601-022-00-9 | ≥10 - ≤16 | 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] |
| 3-aminomethyl- 3,5,5-trimethylcyclohexylamine | REACH #: 01-2119514687-32 EC: 220-666-8 CAS: 2855-13-2 Index: 612-067-00-9 | ≤10 | Acute Tox. 4, H302 Acute Tox. 4, H312 Skin Corr. 1B, H314 Eye Dam. 1, H318 Skin Sens. 1, H317 Aquatic Chronic 3, H412 | [1] |
| Phenol, methylstyrenated | REACH #: 01-2119555274-38 EC: 270-966-8 CAS: 68512-30-1 | ≤10 | Skin Irrit. 2, H315 Skin Sens. 1, H317 Aquatic Chronic 3, H412 | [1] |
| Phenol, styrenated | REACH #: 02-2119629611-43 EC: 262-975-0 CAS: 61788-44-1 | ≤10 | Skin Irrit. 2, H315 Skin Sens. 1, H317 Aquatic Chronic 2, H411 | [1] |
| ethylbenzene | REACH #: 01-2119489370-35 EC: 202-849-4 CAS: 100-41-4 Index: 601-023-00-4 | ≤5 | 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-methylpentane-1,5-diamine | EC: 239-556-6 CAS: 15520-10-2 | ≤3 | Acute Tox. 4, H302 Acute Tox. 4, H312 Acute Tox. 4, H332 Skin Corr. 1A, H314 Eye Dam. 1, H318 STOT SE 3, H335 | [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>

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SECTION 3: Composition/information on ingredients

- [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.

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 : No specific data.

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.

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SECTION 4: First aid measures

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.

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

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SECTION 7: Handling and storage

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

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

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

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

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

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

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

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

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

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

Comply with the health and safety at work laws.

Do not allow to enter drains or watercourses.

Information on fire and explosion protection

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

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

7.2 Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations.

Notes on joint storage

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

Additional information on storage conditions

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

7.3 Specific end use(s)

Recommendations : Not available.

Industrial sector specific : Not available.

solutions

SECTION 8: Exposure controls/personal protection

The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

8.1 Control parameters

Occupational exposure limits

| 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. |
| 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/m ³ 8 hours. |

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SECTION 8: Exposure controls/personal protection

procedures

Recommended monitoring: 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

| Product/ingredient name | Exposure | Value | Population | Effects |
|-----------------------------------|-------------------|------------------------|-----------------------|-----------|
| benzyl alcohol | Long term Oral | 4 mg/kg bw/day | General population | Systemic |
| | Long term Dermal | 4 mg/kg | General | Systemic |
| | Long term berman | bw/day | population | Oysternic |
| | Long term | 5.4 mg/m ³ | General | Systemic |
| | Inhalation | o. i mg/m | population | Cycloniic |
| | Long term Dermal | 8 mg/kg | Workers | Systemic |
| | | bw/day | | - , |
| | Short term Oral | 20 mg/kg | General | Systemic |
| | | bw/day | population | * |
| | Short term Dermal | 20 mg/kg | General | Systemic |
| | | bw/day | population | |
| | Long term | 22 mg/m ³ | Workers | Systemic |
| | Inhalation | | | |
| | Short term | 27 mg/m³ | General | Systemic |
| | Inhalation | | population | |
| | Short term Dermal | 40 mg/kg bw/day | Workers | Systemic |
| | Short term | 110 mg/m ³ | Workers | Systemic |
| | Inhalation | | | |
| hydrocarbons, c9-unsatd., polymd. | Long term Dermal | 16.4 mg/ kg bw/day | Workers | Systemic |
| | Long term | 57 mg/m ³ | Workers | Systemic |
| | Inhalation | | | |
| | Long term Dermal | 8 mg/kg | General | Systemic |
| | | bw/day | population | |
| | | | [Consumers] | |
| | Long term | 28 mg/m³ | General | Systemic |
| | Inhalation | | population | |
| | | | [Consumers] | |
| | Long term Oral | 4 mg/kg | General | Systemic |
| | | bw/day | population | |
| | l | | [Consumers] | |
| xylene | Long term Oral | 1.6 mg/kg | General | Systemic |
| | | bw/day | population | |
| | Long term | 14.8 mg/m ³ | General | Systemic |
| | Inhalation | 77 / 3 | population | |
| | Long term | 77 mg/m ³ | Workers | Systemic |
| | Inhalation | 100 mg/l/s | Conoral | Cyatamia |
| | Long term Dermal | 108 mg/kg | General | Systemic |
| | Long term Dermal | bw/day 180 mg/kg | population Workers | Systemic |
| | Long term Demial | bw/day | AAOIVEI2 | Systemic |
| | Short term | 289 mg/m ³ | Workers | Local |
| | Inhalation | 209 IIIg/III | MANIVEIS | Lucai |
| | Short term | 289 mg/m³ | Workers | Systemic |
| | Inhalation | 209 mg/m | VVUINCIS | Cysternic |
| <u> </u> | Immaiadon | 1 | | 1 |

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SECTION 8: Exposure controls/personal protection

| - | i o. Exposure controls/p | | | | |
|-------------|--------------------------|------------------|-------------------------------|-----------------------|-----------|
| 3-aminom | | Long term Oral | 0.526 mg/ | General | Systemic |
| 3,5,5-trime | ethylcyclohexylamine | | kg bw/day | population | |
| | | | | [Consumers] | |
| | | Short term | 0.073 mg/ | Workers | Local |
| | | Inhalation | m³ | | |
| | | Long term | 0.073 mg/ | Workers | Local |
| | | Inhalation | m³ | | |
| | | Long term Oral | 0.526 mg/ | General | Systemic |
| | | | kg bw/day | population | |
| Phenol, m | ethylstyrenated | Long term Dermal | 16.4 mg/ | Workers | Systemic |
| | | | kg bw/day | _ | |
| | | Long term | 57 mg/m ³ | General | Systemic |
| | | Inhalation | | population | |
| | | | . " | [Consumers] | |
| | | Long term Dermal | 8 mg/kg | General | Systemic |
| | | | bw/day | population | |
| | | | | [Consumers] | |
| | | Long term | 28 mg/m³ | General | Systemic |
| 1 | | Inhalation | | population | |
| | | Lama tama O | A // | [Consumers] | Cuatawa: |
| | | Long term Oral | 4 mg/kg | General | Systemic |
| | | | bw/day | population | |
| Dhanel | uranata d | Long town O! | 0.20/ | [Consumers] | Cuetorsis |
| Phenol, st | yrenated | Long term Oral | 0.29 mg/ | General | Systemic |
| | | Long torm | kg bw/day | population | Systemia |
| | | Long term | 1.01 mg/m ³ | General | Systemic |
| | | Inhalation | 1.46 mg/ | population General | Systemic |
| | | Long term Dermal | _ | | Systemic |
| | | Long torm Dormal | kg bw/day | population Workers | Systemia |
| | | Long term Dermal | 2.92 mg/ kg bw/day | VVUINCIS | Systemic |
| | | Long term | 4.11 mg/m ³ | Workers | Systemic |
| | | Inhalation | - 1 . 1 1 1119/111 | VVOINGIO | Сузіснію |
| ethylbenze | ene | Long term Oral | 1.6 mg/kg | General | Systemic |
| Caryiocrize | J.1.5 | Long tolli oldi | bw/day | population | - yournio |
| | | Long term | 15 mg/m³ | General | Systemic |
| | | Inhalation | | population | -, |
| | | Long term | 77 mg/m³ | Workers | Systemic |
| | | Inhalation | | | ' |
| | | Long term Dermal | 180 mg/kg | Workers | Systemic |
| | | | bw/day | | * |
| | | Short term | 293 mg/m ³ | Workers | Local |
| | | Inhalation | Ü | | |
| 1 | | Long term | 442 mg/m ³ | Workers | Local |
| | | Inhalation | | | |
| | | Short term | 884 mg/m³ | Workers | Systemic |
| | | Inhalation | | | |
| 2-methylp | entane-1,5-diamine | Long term | 0.125 mg/ | General | Local |
| | | Inhalation | m³ | population | |
| | | Short term | 0.25 mg/m ³ | General | Local |
| | | Inhalation | | population | |
| | | Long term | 0.25 mg/m ³ | Workers | Local |
| | | Inhalation | 0.5 / 0 | 347 1 | |
| | | Short term | 0.5 mg/m ³ | Workers | Local |
| | | Inhalation | 0.75 / | 0 | 0 |
| | | Long term Oral | 0.75 mg/ | General | Systemic |
| | | Lama tama Dama | kg bw/day | population | Cuetamie |
| | | Long term Dermal | 0.75 mg/ | General | Systemic |
| | | Lama tama Dama I | kg bw/day | population | Cuatawa: |
| | | Long term Dermal | 1.5 mg/kg | Workers | Systemic |
| | | | bw/day | | |
| | | | | | |

PNECs

SECTION 8: Exposure controls/personal protection

| Product/ingredient name | Compartment Detail | Value | Method Detail |
|-----------------------------------|------------------------|-----------------|---------------|
| benzyl alcohol | Fresh water | 1 mg/l | - |
| | Marine | 0.1 mg/l | - |
| | Sewage Treatment | 39 mg/l | - |
| | Plant | | |
| | Fresh water sediment | 5.27 mg/kg dwt | - |
| | Marine water sediment | 0.527 mg/kg dwt | - |
| | Soil | 0.456 mg/kg dwt | - |
| hydrocarbons, c9-unsatd., polymd. | Fresh water | 54 µg/l | - |
| | Marine | 5.4 µg/l | - |
| | Sewage Treatment | 2.2 mg/l | _ |
| | Plant | | |
| | Fresh water sediment | 1584 mg/kg dwt | _ |
| | Marine water sediment | 158 mg/kg dwt | _ |
| | Marine water sediment | 158 mg/kg dwt | _ |
| | Soil | 316.7 mg/kg dwt | _ |
| | Secondary Poisoning | 200 mg/kg | |
| xylene | Fresh water | 0.327 mg/l | - |
| Aylerie | 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 | - |
| 3-aminomethyl- | Fresh water | 0.06 mg/l | - |
| 3,5,5-trimethylcyclohexylamine | | | |
| | Marine | 0.006 mg/l | - |
| | Sewage Treatment | 3.18 mg/l | - |
| | Plant | | |
| | Fresh water sediment | 5.784 mg/kg dwt | _ |
| | Marine water sediment | 0.578 mg/kg dwt | _ |
| | Soil | 1.121 mg/kg dwt | _ |
| Phenol, methylstyrenated | Fresh water | 14 µg/l | _ |
| ,y.c.y.ca.c.a | Marine | 1.4 µg/l | _ |
| | Sewage Treatment | 2.4 mg/l | _ |
| | Plant | 2.11119/1 | |
| | Fresh water sediment | 52.9 mg/kg dwt | |
| | Marine water sediment | 5.3 mg/kg dwt | - |
| | Soil | | _ |
| othylhonzono | Fresh water | 10.5 mg/kg dwt | - |
| ethylbenzene | | 0.1 mg/l | - |
| | Marine | 0.01 mg/l | - |
| | Sewage Treatment Plant | 9.6 mg/l | - |
| | Fresh water sediment | 13.7 mg/kg dwt | - |
| | Soil | 2.68 mg/kg dwt | - |
| | Secondary Poisoning | 20 mg/kg | |

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.

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SECTION 8: Exposure controls/personal protection

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.

May be used, gloves(breakthrough time) 4 - 8 hours: PVC, neoprene

Recommended, gloves(breakthrough time) > 8 hours: 4H, Teflon, fluor rubber,

Viton®, polyvinyl alcohol (PVA), nitrile rubber, 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.

Body protection

: Personnel should wear antistatic clothing made of natural fibres or of high-temperature-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 : Colourless.

Odour : Characteristic.

Odour threshold : Not applicable.

pH : Not applicable.

Melting point/freezing point : Not applicable.

Initial boiling point and

boiling range

: Lowest known value: 136.1°C (277°F) (ethylbenzene). Weighted average:

228.19°C (442.7°F)

Flash point : Closed cup: 39°C

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SECTION 9: Physical and chemical properties

: Highest known value: 0.84 (ethylbenzene) Weighted average: 0.37compared **Evaporation rate**

with butyl acetate Not applicable.

Flammability (solid, gas)

Upper/lower flammability or explosive limits

: 0.8 - 13%

: Highest known value: 1.2 kPa (9.3 mm Hg) (at 20°C) (ethylbenzene). Weighted Vapour pressure

average: 0.22 kPa (1.65 mm Hg) (at 20°C)

: Highest known value: 3.7 (Air = 1) (benzyl alcohol). Weighted average: 3.7 Vapour density

(Air = 1)

Density : 1.01 g/cm³

Solubility(ies) : Insoluble in the following materials: cold water and hot water.

Partition coefficient: n-octanol/: Not available.

water

Auto-ignition temperature : Lowest known value: >375°C (>707°F) (hydrocarbons, c9-unsatd., polymd.).

Decomposition temperature : Not available.

Viscosity Kinematic (40°C): >0.205 cm²/s (>20.5 cSt)

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

9.2 Other information

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.

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

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

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.

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

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 nonallergic contact dermatitis and absorption through the skin. Ingestion may cause nausea, diarrhea and vomiting.

Acute toxicity

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SECTION 11: Toxicological information

| Product/ingredient name | Result | Species | Dose | Exposure |
|--------------------------------|------------------------|------------|-------------|----------|
| benzyl alcohol | LD50 Oral | Rat | 1230 mg/kg | - |
| xylene | LC50 Inhalation Vapour | Rat | 20 mg/l | 4 hours |
| | LD50 Oral | Rat | 4300 mg/kg | - |
| | TDLo Dermal | Rabbit | 4300 mg/kg | - |
| 3-aminomethyl- | LD50 Oral | Rat | 1030 mg/kg | - |
| 3,5,5-trimethylcyclohexylamine | | | | |
| Phenol, styrenated | LD50 Dermal | Rabbit | >5010 mg/kg | - |
| | LD50 Oral | Rat | 2500 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-methylpentane- | LD50 Oral | Rat | 1690 mg/kg | - |
| 1,5-diamine | | | | |

Acute toxicity estimates

| Route | ATE value | |
|--------|--|--|
| Dermal | 1122.99 mg/kg 5340.58 mg/kg 43.54 mg/l | |

Irritation/Corrosion

| Product/ingredient name | Exposure | Species | Score | Exposure | Observation |
|---------------------------------|------------------------|------------------------------------|-------|------------------------|-------------|
| aminepoxyadduct | Eyes - Irritant | Mammal - species unspecified | - | - | - |
| benzyl alcohol | Eyes - Mild irritant | Mammal - species unspecified | - | - | - |
| xylene | Eyes - Mild irritant | Rabbit | - | 87 milligrams | - |
| | Skin - Mild irritant | Rat | - | 8 hours 60 microliters | - |
| Phenol, methylstyrenated | Skin - Mild irritant | Mammal - species unspecified | - | - | - |
| Phenol, styrenated | Eyes - Mild irritant | Rabbit | - | 0.1 Mililiters | - |
| | Skin - Mild irritant | Rabbit | - | 0.5 Mililiters | - |
| | Skin - Mild irritant | Mammal - species unspecified | - | - | - |
| 2-methylpentane- 1,5-diamine | Eyes - Severe irritant | Rabbit | - | 0.1 Mililiters | - |
| | Skin - Severe irritant | Rabbit | - | 0.5 Mililiters | - |

Sensitisation

| Product/ingredient name | Route of exposure | Species | Result |
|--|-------------------|------------------------------|-------------|
| aminepoxyadduct | skin | Mammal - species unspecified | Sensitising |
| hydrocarbons, c9-unsatd., polymd. | skin | Mammal - species unspecified | Sensitising |
| 3-aminomethyl- 3,5,5-trimethylcyclohexylamine | skin | Mammal - species unspecified | Sensitising |
| Phenol, methylstyrenated | skin | Mammal - species unspecified | Sensitising |
| Phenol, styrenated | skin | Mammal - species unspecified | Sensitising |

Mutagenicity

No known significant effects or critical hazards.

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SECTION 11: Toxicological information

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 |
| 2-methylpentane-1,5-diamine | Category 3 | _ | Respiratory tract irritation |

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 ethylbenzene | ASPIRATION HAZARD - Category 1 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.

| Product/ingredient name | Result | Species | Exposure |
|--|--|---|----------|
| aminepoxyadduct | Acute EC50 8.1 mg/l | Algae - Pseudokirchneriella subcapitata | 72 hours |
| | Acute EC50 5.7 mg/l | Daphnia - Daphnia magna | 48 hours |
| | Acute LC50 7.9 mg/l | Fish - Oncorhynchus Mykiss | 96 hours |
| xylene | Acute LC50 8500 μg/l Marine water | Crustaceans - Palaemonetes pugio | 48 hours |
| | Acute LC50 13400 µg/l Fresh water | Fish - Pimephales promelas | 96 hours |
| 3-aminomethyl- 3,5,5-trimethylcyclohexylamine | Acute EC50 17.4 to 21.5 mg/l Fresh water | Daphnia - Daphnia magna | 48 hours |
| | Acute IC50 37 mg/l | Algae | 72 hours |
| Phenol, styrenated | Acute EC50 100 mg/l | Algae | 72 hours |
| • | Acute EC50 54 mg/l | Daphnia | 48 hours |
| | Acute LC50 25.8 mg/l | Fish | 96 hours |
| ethylbenzene | Acute EC50 7700 µg/l Marine water | Algae - Skeletonema costatum | 96 hours |
| • | Acute EC50 2.93 mg/l | Daphnia | 48 hours |
| | Acute LC50 4.2 mg/Ĭ | Fish | 96 hours |

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

12.2 Persistence and degradability

| Product/ingredient name | Test | Result | Dose | Inoculum |
|-------------------------|------|-----------------------------|------|----------|
| aminepoxyadduct | - | 0 % - Not readily - 28 days | - | - |

Not available.

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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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SECTION 12: Ecological information

| Product/ingredient name | Aquatic half-life | Photolysis | Biodegradability |
|--------------------------------|-------------------|------------|------------------|
| aminepoxyadduct | - | - | Not readily |
| benzyl alcohol | - | - | Readily |
| xylene | - | - | Readily |
| 3-aminomethyl- | - | - | Not readily |
| 3,5,5-trimethylcyclohexylamine | | | |
| ethylbenzene | - | - | Readily |

12.3 Bioaccumulative potential

| Product/ingredient name | LogPow | BCF | Potential |
|--------------------------------|--------|-------------|-----------|
| benzyl alcohol | 0.87 | <100 | low |
| hydrocarbons, c9-unsatd., | 3.627 | - | low |
| polymd. | | | |
| xylene | 3.12 | 8.1 to 25.9 | low |
| 3-aminomethyl- | 0.99 | - | low |
| 3,5,5-trimethylcyclohexylamine | | | |
| Phenol, methylstyrenated | 3.627 | - | low |
| ethylbenzene | 3.6 | - | 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

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

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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.

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 | UN3469 | UN3469 | UN3469 | UN3469 |
| 14.2 UN proper shipping name | Paint related material, flammable, corrosive | Paint related material, flammable, corrosive | Paint related material, flammable, corrosive. Marine pollutant (aminepoxyadduct) | Paint related material, flammable, corrosive |
| 14.3 Transport hazard class(es) | 3 (8) | 3 (8) | 3 (8) | 3 (8) |
| 14.4 Packing group | III | III | III | III |
| 14.5 Environmental hazards | Yes. | Yes. | Yes. | Yes. The environmentally hazardous substance mark is not required. |

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 38

Tunnel code (D/E)

ADN

: The environmentally hazardous substance mark is not required when transported in sizes of ≤5 L or ≤5 kg.

IMDG

: The marine pollutant mark is not required when transported in sizes of ≤5 L or ≤5 kg. <u>Emergency schedules</u> F-E, S-C

IATA

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

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SECTION 14: Transport information

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.

: Not determined. **Europe inventory**

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.

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.

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SECTION 15: Regulatory information

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

 $\label{eq:clp} \textit{CLP} = \textit{Classification}, \textit{Labelling} \textit{ and Packaging Regulation (EC) No}.$

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 |
| Acute Tox. 4, H302 | Calculation method |
| Skin Corr. 1B, H314 | Calculation method |
| Eye Dam. 1, H318 | Calculation method |
| Skin Sens. 1, H317 | 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. |
| H373 | May cause damage to organs through prolonged or repeated |
| | exposure. |
| H411 | Toxic to aquatic life with long lasting effects. |
| 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 |
| Eye Dam. 1 | SERIOUS EYE DAMAGE/EYE IRRITATION - Category 1 |
| Eye Irrit. 2 | SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2 |
| Flam. Liq. 2 | FLAMMABLE LIQUIDS - Category 2 |
| Flam. Liq. 3 | FLAMMABLE LIQUIDS - Category 3 |
| Skin Corr. 1A | SKIN CORROSION/IRRITATION - Category 1A |
| Skin Corr. 1B | SKIN CORROSION/IRRITATION - Category 1B |
| Skin Irrit. 2 | SKIN CORROSION/IRRITATION - Category 2 |
| Skin Sens. 1 | SKIN SENSITISATION - Category 1 |
| STOT RE 2 | SPECIFIC TARGET ORGAN TOXICITY - REPEATED |

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SECTION 16: Other information

STOT SE 3 EXPOSURE - Category 2
SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE 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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Exposure Scenario: Use in coatings - Industrial use

Sector of Use : Industrial use

Process Category : PROC05 PROC07 PROC08a PROC10

Environmental release category(ies) : ERC4

Covers the use in coatings (paints, inks, adhesives, etc) including exposures during use (including product transfer and preparation, application by brush, spray by hand or similar methods) and equipment cleaning.

Operational conditions and risk management measures

Control of worker exposure

| Frequency and duration of use | : Covers daily exposures up to 8 hours |
|------------------------------------|--|
| General - Operational conditions | : Assumes use at not more than 20°C above ambient temperature. Assumes a good basic standard of occupational hygiene is implemented |
| General - Risk management measures | : Wear chemical-resistant gloves (tested to EN374) in combination with specific activity training. Wear suitable coveralls to prevent exposure to the skin. Use suitable eye protection. See Section 8 for information on appropriate personal protective equipment. |

Type of activity or process Risk management measures

| * * * | |
|---|--|
| Preparation of material for application | : Provide extract ventilation to points where emissions occur. |
| Roller, spreader, flow application | : Provide extract ventilation to points where emissions occur. |
| Spraying - Manual | : Minimise exposure by partial enclosure of the operation or equipment and provide extract ventilation at openings. Wear a respirator conforming to EN140 with type A/P2 filter or better. |

Control of environmental exposure

| Organisational measures to prevent/limit release from site | : Prevent environmental discharge consistent with regulatory requirements. |
|---|---|
| Conditions and measures related to external treatment of waste for disposal | : External treatment and disposal of waste should comply with applicable local and/or national regulations. See Section 13 for additional waste treatment information. |
| Conditions and measures related to external recovery of waste | External recovery and recycling of waste should comply with applicable local and/or national regulations. |

Additional information

The exposure scenario for the mixture is based on the following substances:

REACH#: 01-2119488216-32 REACH#: 01-2119514687-32

REACH#: 01-2119456619-26 (from Comp A)

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Exposure Scenario: Use in coatings -Professional use

Sector of Use

: PROC05 PROC08a PROC10 PROC11 **Process Category**

Environmental release category(ies) : ERC8a ERC8d

Covers the use in coatings (paints, inks, adhesives, etc) including exposures during use (including product transfer and preparation, application by brush, spray by hand or similar methods) and equipment cleaning.

Operational conditions and risk management measures

Control of worker exposure

| Frequency and duration of use | : Covers daily exposures up to 8 hours |
|------------------------------------|--|
| General - Operational conditions | : Assumes use at not more than 20°C above ambient temperature. Assumes a good basic standard of occupational hygiene is implemented |
| General - Risk management measures | : Wear chemical-resistant gloves (tested to EN374) in combination with specific activity training. Wear suitable coveralls to prevent exposure to the skin. Use suitable eye protection. See Section 8 for information on appropriate personal protective equipment. |

| | information on appropriate personal protective equipment. |
|---|--|
| Type of activity or process | Risk management measures |
| Preparation of material for application - Indoor | : Provide extract ventilation to points where emissions occur. Avoid carrying out activities involving exposure for more than 1 hour or Wear a respirator conforming to EN140 with type A/P2 filter or better. |
| Preparation of material for application - Outdoor | : Ensure operation is undertaken outdoors. Wear a respirator conforming to EN140 with type A/P2 filter or better. Avoid carrying out activities involving exposure for more than 1 hour per day. |
| Equipment cleaning and maintenance | : Drain down system prior to equipment break-in or maintenance. Avoid carrying out activities involving exposure for more than 4 hours per day. |
| Roller, spreader, flow application - Indoor | : Provide extract ventilation to points where emissions occur. Wear a respirator conforming to EN140 with type A/P2 filter or better. |
| Roller, spreader, flow application - Outdoor | : Ensure operation is undertaken outdoors. Wear a full-face respirator conforming to EN136 with Type A/P2 filter or better. |
| Spraying - Manual - Indoor | : Minimise exposure by partial enclosure of the operation or equipment and provide extract ventilation at openings. Wear a full-face respirator conforming to EN136 with Type A/P2 filter or better. |
| Spraying - Manual - Outdoor | : Ensure operation is undertaken outdoors. Wear a full-face respirator conforming to EN136 with Type |

Control of environmental exposure

| Organisational measures to prevent/limit release from site | : Prevent environmental discharge consistent with regulatory requirements. |
|---|--|
| Conditions and measures related to external treatment of waste for disposal | : External treatment and disposal of waste should comply with applicable local and/or national regulations. See Section 13 for additional waste treatment information. |
| Conditions and measures related to external recovery of waste | External recovery and recycling of waste should comply with applicable local and/or national regulations. |
| | |

A/P2 filter or better. Avoid carrying out activities involving exposure for more than 4 hours per day.

Additional information

The exposure scenario for the mixture is based on the following substances:

REACH#: 01-2119488216-32 REACH#: 01-2119514687-32

REACH#: 01-2119456619-26 (from Comp A)

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