SAFETY DATA SHEET



Epoxy Repair NG Comp A

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

1.1 Product identifier

Product name : Epoxy Repair NG Comp A

Product code : 33102
Product description : Putty.
Product type : Liquid.
Other means of : Not available.

identification

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

Use in coatings - Consumer use: Apply this product only as specified on the label. Use in coatings - Professional use

1.3 Details of the supplier of the safety data sheet

Jotun Ibérica S.A.
Poligon Industrial
Santa Rita
Calle Estàtica, no 3
08755 - Castellbisbal Barcelona

Tel: +34 93 771 18 00 Fax: +34 93 771 18 01 SDSJotun@jotun.com

1.4 Emergency telephone number

Jotun Paints Europe Ltd., Spain: Tel. +34 93 77 11 800

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]

Skin Irrit. 2, H315 Eye Irrit. 2, H319 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





Signal word : Warning.

Date of issue/Date of revision : 04.06.2019 Date of previous issue : No previous validation Version : 1 1/14

SECTION 2: Hazards identification

Hazard statements: H319 - Causes serious eye irritation.

H315 - Causes skin irritation.

H317 - May cause an allergic skin reaction.

H411 - Toxic to aquatic life with long lasting effects.

Precautionary statements

General: P102 - Keep out of reach of children.

Prevention: P280 - Wear protective gloves. Wear eye or face protection.

P273 - Avoid release to the environment.

Response : P391 - Collect spillage.

P333 + P313 - If skin irritation or rash occurs: Get medical attention.

P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes.

Remove contact lenses, if present and easy to do. Continue rinsing.

Storage : Not applicable.

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

national and international regulations.

Hazardous ingredients: Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and

phenol

2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane

Supplemental label

elements

: Contains epoxy constituents. May produce an allergic reaction.

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 fastenings

: Not applicable.

Tactile warning of danger : Not applicable.

2.3 Other hazards

Other hazards which do not result in classification

: None known.

The mixture may be a skin sensitiser. It may also be a skin irritant and repeated contact may increase this effect.

SECTION 3: Composition/information on ingredients

3.2 Mixtures : Mixture

| Product/ingredient name | Identifiers | Weight % | Regulation (EC) No. 1272/2008 [CLP] | Туре |
|--------------------------------------|--|-----------|---|------|
| epoxy-formaldehyde resin (MW<700) | REACH #: 01-2119454392-40 EC: 500-006-8 CAS: 9003-36-5 | ≥25 - ≤50 | Skin Irrit. 2, H315 Skin Sens. 1A, H317 Aquatic Chronic 2, H411 | [1] |
| epoxy resin (MW ≤ 700) | REACH #: 01-2119456619-26 EC: 216-823-5 CAS: 1675-54-3 Index: 603-073-00-2 | ≤10 | Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1B, H317 Aquatic Chronic 2, H411 | [1] |
| benzyl alcohol | REACH #: 01-2119492630-38 EC: 202-859-9 CAS: 100-51-6 | ≤3 | Acute Tox. 4, H302 Acute Tox. 4, H332 Eye Irrit. 2, H319 | [1] |

Date of issue/Date of revision : 04.06.2019 Date of previous issue : No previous validation Version : 1 2/14

| 3 | , , , |
|------------------------------------|--|
| Epoxy Repair NG Comp A | |
| SECTION 3: Composition/information | on ingredients |
| | See Section 16 for the full text of the H statements declared above. |

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

Type

- [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 | Remove contact lenses, irrigate copiously with clean, fresh water, holding the eyelids apart for at least 10 minutes and seek immediate medical advice. |
| 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. 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. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and, in extreme cases, loss of consciousness.

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.

If splashed in the eyes, the liquid may cause irritation and reversible damage.

Ingestion may cause nausea, diarrhea and vomiting.

This takes into account, where known, delayed and immediate effects and also chronic effects of components from short-term and long-term exposure by oral, inhalation and dermal routes of exposure and eye contact.

Based on the properties of the epoxy constituent(s) and considering toxicological data on similar mixtures, this mixture may be a skin sensitiser and an irritant. It contains low molecular weight epoxy constituents which are irritating to eyes, mucous membrane and skin. Repeated skin contact may lead to irritation and to sensitisation, possibly with cross-sensitisation to other epoxies. Skin contact with the mixture and exposure to spray mist and vapour should be avoided.

Contains Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol, 2,2'-[

Date of issue/Date of revision: 04.06.2019Date of previous issue: No previous validationVersion: 1

SECTION 4: First aid measures

(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane. May produce an allergic reaction.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician

: Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

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.

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.

Date of issue/Date of revision : 04.06.2019 Date of previous issue : No previous validation Version : 1 4/14

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.

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

No exposure limit value known.

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

Date of issue/Date of revision : 04.06.2019 Date of previous issue : No previous validation Version : 1 5/14

SECTION 8: Exposure controls/personal protection

| Product/ingredient name | Exposure | Value | Population | Effects |
|-------------------------------------|-------------------------|------------------------|------------|-----------|
| 2,2'-[(1-methylethylidene)bis(4, | Short term Dermal | 8.33 mg/ | Workers | Systemic |
| 1-phenyleneoxymethylene)]bisoxirane | | kg bw/day | | |
| | Short term | 12.25 mg/ | Workers | Systemic |
| | Inhalation | m³ | | |
| | Long term Dermal | 8.33 mg/ | Workers | Systemic |
| | | kg bw/day | | |
| | Long term | 12.25 mg/ | Workers | Systemic |
| | Inhalation | m³ | | |
| | Short term Dermal | 3.571 mg/ | Consumers | Systemic |
| | | kg bw/day | | |
| | Short term Oral | 0.75 mg/ | Consumers | Systemic |
| | Langutawa Dawa al | kg bw/day | C | Customaio |
| | Long term Dermal | 3.571 mg/ | Consumers | Systemic |
| | Long term Oral | kg bw/day 0.75 mg/ | Consumers | Systemic |
| | Long term Oral | kg bw/day | Consumers | Systemic |
| benzyl alcohol | Short term | 450 mg/m ³ | Workers | Systemic |
| Sonzyi dioonor | Inhalation | 100 mg/m | Workers | Cycloniio |
| | Long term | 90 mg/m³ | Workers | Systemic |
| | Inhalation | J | | - , |
| | Short term Dermal | 47 mg/kg | Workers | Systemic |
| | | bw/day | | , |
| | Long term Dermal | 9.5 mg/kg | Workers | Systemic |
| | | bw/day | | |
| | Short term Dermal | 28.5 mg/ | Consumers | Systemic |
| | | kg bw/day | | |
| | Short term Oral | 25 mg/kg | Consumers | Systemic |
| | | bw/day | | |
| | Long term Dermal | 5.7 mg/kg | Consumers | Systemic |
| | | bw/day | | |
| | Long term Oral | 5 mg/kg | Consumers | Systemic |
| | Long torm | bw/day | Canaumara | Cuatamia |
| | Long term Inhalation | 8.11 mg/m ³ | Consumers | Systemic |
| | Short term | 40.55 mg/ | Consumers | Systemic |
| | Inhalation | m ³ | Consumers | Systerric |
| | IIIIIaiaiiUII | 111 | | |

PNECs

| Product/ingredient name | Compartment Detail | Value | Method Detail |
|---|---------------------------|-----------------|---------------|
| 2,2'-[(1-methylethylidene)bis(4, 1-phenyleneoxymethylene)]bisoxirane | Fresh water | 0.006 mg/l | - |
| , , , , , | Marine | 0.0006 mg/l | - |
| | Sewage Treatment Plant | 10 mg/l | - |
| | Fresh water sediment | 0.996 mg/l | - |
| | Marine water sediment | 0.0996 mg/l | - |
| | Soil | 0.196 mg/l | - |
| oenzyl alcohol | Fresh water | 1 mg/l | - |
| • | Marine | 0.1 mg/l | - |
| | Sewage Treatment Plant | 39 mg/l | - |
| | Fresh water sediment | 5.27 mg/kg dwt | - |
| | Marine water sediment | 0.527 mg/kg dwt | - |
| | Soil | 0.456 mg/kg dwt | - |

8.2 Exposure controls

Date of issue/Date of revision : 04.06.2019 Date of previous issue : No previous validation Version : 1 6/14

SECTION 8: Exposure controls/personal protection

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 Skin protection Gloves

: Use safety eyewear designed to protect against splash of liquids.

: 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, polyvinyl alcohol (PVA), nitrile rubber

Recommended, gloves(breakthrough time) > 8 hours: 4H, neoprene, butyl rubber, fluor rubber, Viton®, PE

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.

Use appropriate respiratory protection if there is a risk of exceeding any exposure limits.(as filter A)

Environmental exposure controls

: Do not allow to enter drains or watercourses.

Date of issue/Date of revision : 04.06.2019 Date of previous issue : No previous validation Version : 1 7/14

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

Physical state : Liquid. [Paste.]

Colour White.

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

Initial boiling point and

boiling range

270.57°C (519°F)

Flash point : Closed cup: 130°C

Evaporation rate : 0.007 (benzyl alcohol) compared with butyl acetate

Flammability (solid, gas) Not applicable. Upper/lower flammability or : 1.3 - 13%

explosive limits

Vapour pressure

: Lowest known value: 205.3°C (401.5°F) (benzyl alcohol). Weighted average:

: Highest known value: 0.08 kPa (0.6 mm Hg) (at 20°C) (epoxy-formaldehyde resin (MW<700)). Weighted average: 0.06 kPa (0.45 mm Hg) (at 20°C)

: Highest known value: 11.7 (Air = 1) (epoxy resin (MW ≤ 700)). Weighted Vapour density

average: 10.17 (Air = 1)

1.55 a/cm3 **Density**

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

Partition coefficient: n-octanol/ : Not available.

water

: Lowest known value: 436°C (816.8°F) (benzyl alcohol). **Auto-ignition temperature**

Decomposition temperature

Viscosity : 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.

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.

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

Date of issue/Date of revision : 04.06.2019 Version : 1 8/14 Date of previous issue : No previous validation

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. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and, in extreme cases, loss of consciousness.

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.

If splashed in the eyes, the liquid may cause irritation and reversible damage.

Ingestion may cause nausea, diarrhea and vomiting.

This takes into account, where known, delayed and immediate effects and also chronic effects of components from short-term and long-term exposure by oral, inhalation and dermal routes of exposure and eye contact.

Based on the properties of the epoxy constituent(s) and considering toxicological data on similar mixtures, this mixture may be a skin sensitiser and an irritant. It contains low molecular weight epoxy constituents which are irritating to eyes, mucous membrane and skin. Repeated skin contact may lead to irritation and to sensitisation, possibly with cross-sensitisation to other epoxies. Skin contact with the mixture and exposure to spray mist and vapour should be avoided.

Contains Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol, 2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane. May produce an allergic reaction.

Acute toxicity

| Product/ingredient name | Result | Species | Dose | Exposure |
|--------------------------------------|-------------|---------|------------|----------|
| 2,2'-[(1-methylethylidene)bis (4, | LD50 Dermal | Rabbit | 20 g/kg | - |
| 1-phenyleneoxymethylene)] bisoxirane | | | | |
| benzyl alcohol | LD50 Oral | Rat | 1230 mg/kg | - |

Conclusion/Summary: Not available.

Acute toxicity estimates

| Route | ATE value |
|-------|-----------------------------|
| | 55949.2 mg/kg 500.4 mg/l |

Irritation/Corrosion

| Product/ingredient name | Result | Species | Score | Exposure | Observation |
|---|------------------------|---------|-------|------------------|-------------|
| 2,2'-[(1-methylethylidene)bis (4, | Eyes - Severe irritant | Rabbit | - | 24 hours 2 mg | - |
| 1-phenyleneoxymethylene)] bisoxirane | Skin - Mild irritant | Rabbit | - | 500 mg | - |

Conclusion/Summary

: Not available.

Sensitisation

Conclusion/Summary

: Not available.

Mutagenicity

Conclusion/Summary

: Not available.

Carcinogenicity

Conclusion/Summary

: Not available.

Reproductive toxicity

Conclusion/Summary

: Not available.

Teratogenicity

Date of issue/Date of revision : 04.06.2019 Date of previous issue : No previous validation Version : 1 9/14

SECTION 11: Toxicological information

Conclusion/Summary: Not available.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Other information : Not available.

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 |
|--|--|------------------------------------|---------------------|
| Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol | Acute EC50 2 mg/l | Daphnia | 24 hours |
| | Acute LC50 2 mg/l | Fish | 96 hours |
| 2,2'-[(1-methylethylidene)bis (4, | Acute EC50 1.4 mg/l | Daphnia | 48 hours |
| 1-phenyleneoxymethylene)] bisoxirane | | | |
| | Acute LC50 3.1 mg/l Chronic NOEC 0.3 mg/l | Fish - pimephales promelas Fish | 96 hours 21 days |

Conclusion/Summary

12.2 Persistence and degradability

Conclusion/Summary: Not available.

| Product/ingredient name | Aquatic half-life | Photolysis | Biodegradability |
|---|-------------------|------------|------------------|
| Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane | - | - | Not readily |
| and phenol 2,2'-[(1-methylethylidene)bis (4, | - | - | Not readily |
| 1-phenyleneoxymethylene)] bisoxirane | | | |
| benzyl alcohol | - | - | Readily |

12.3 Bioaccumulative potential

Date of issue/Date of revision : 04.06.2019 Date of previous issue : No previous validation Version : 1 10/14

[:] Water polluting material. May be harmful to the environment if released in large quantities. This material is toxic to aquatic life with long lasting effects.

SECTION 12: Ecological information

| Product/ingredient name | LogPow | BCF | Potential |
|--|--------------|------|-----------|
| Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol | 2.7 | - | low |
| 2,2'-[(1-methylethylidene)bis (4, 1-phenyleneoxymethylene)] bisoxirane | 2.64 to 3.78 | 31 | low |
| benzyl alcohol | 0.87 | <100 | low |

12.4 Mobility in soil

Soil/water partition coefficient (Koc)

: Not available.

Mobility : Not available.

12.5 Results of PBT and vPvB assessment

PBT : Not applicable.

vPvB : Not applicable.

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)

: 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.

| Type of packaging | | European waste catalogue (EWC) |
|-----------------------|-----------|---|
| CEPE Paint Guidelines | 15 01 10* | packaging containing residues of or contaminated by |
| | | hazardous substances |

Date of issue/Date of revision : 04.06.2019 Date of previous issue : No previous validation Version : 1 11/14

SECTION 13: Disposal considerations

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. 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 | UN3082 | UN3082 | UN3082 | UN3082 |
| 14.2 UN proper shipping name | Environmentally hazardous substance, liquid, n.o.s. (epoxy- formaldehyde resin (MW<700)) | Environmentally hazardous substance, liquid, n.o.s. (epoxy- formaldehyde resin (MW<700)) | Environmentally hazardous substance, liquid, n.o.s. (epoxyformaldehyde resin (MW<700)). Marine pollutant (epoxyformaldehyde resin (MW<700)) | Environmentally hazardous substance, liquid, n.o.s. (epoxy- formaldehyde resin (MW<700)) |
| 14.3 Transport hazard class(es) | 9 | 9 | 9 | 9 |
| 14.4 Packing group | III | III | III | III |
| 14.5 Environmental hazards | Yes. | Yes. | Yes. | Yes. |

Additional information

ADR/RID

: Tunnel restriction code: (-) Hazard identification number: 90 Special provisions: 375

ADN

This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8.

IMDG

This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8.

Emergency schedules F-A, S-F

IATA

This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 5.0.2.4.1, 5.0.2.6.1. 1 and 5.0.2.8.

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 Annex II of Marpol and the IBC Code : Not applicable.

Date of issue/Date of revision : 04.06.2019 Date of previous issue Version :1 12/14 : No previous validation

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

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

Other EU regulations

Mixture

: Not available.

Europe inventory : Not determined.

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.

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol (Annexes A, B, C, E)

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.

Date of issue/Date of revision: 04.06.2019Date of previous issue: No previous validationVersion: 1

SECTION 16: Other information

Abbreviations and acronyms

: ATE = Acute Toxicity Estimate

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 | |
|-------------------------|--------------------|--|
| Skin Irrit. 2, H315 | Calculation method | |
| Eye Irrit. 2, H319 | Calculation method | |
| Skin Sens. 1, H317 | Calculation method | |
| Aquatic Chronic 2, H411 | Calculation method | |

Full text of abbreviated H statements

| H302 | Harmful if swallowed. |
|------|--|
| H315 | Causes skin irritation. |
| H317 | May cause an allergic skin reaction. |
| H319 | Causes serious eye irritation. |
| H332 | Harmful if inhaled. |
| H411 | Toxic to aquatic life with long lasting effects. |

Full text of classifications [CLP/GHS]

| Acute Tox. 4, H302 | ACUTE TOXICITY (oral) - Category 4 |
|-------------------------|---|
| Acute Tox. 4, H332 | ACUTE TOXICITY (inhalation) - Category 4 |
| Aquatic Chronic 2, H411 | LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 2 |
| Eye Irrit. 2, H319 | SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2 |
| Skin Irrit. 2, H315 | SKIN CORROSION/IRRITATION - Category 2 |
| Skin Sens. 1, H317 | SKIN SENSITISATION - Category 1 |
| Skin Sens. 1A, H317 | SKIN SENSITISATION - Category 1A |
| Skin Sens. 1B, H317 | SKIN SENSITISATION - Category 1B |

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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.

Date of issue/Date of revision : 04.06.2019 14/14 Date of previous issue : No previous validation Version: 1