

LOCTITE EA 9483 B

Safety Data Sheet according to (EC) No 1907/2006 as amended

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SDS No.: 152806 V006.2

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

1.1. Product identifier

LOCTITE EA 9483 B

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

Intended use:

Epoxy Hardener

1.3. Details of the supplier of the safety data sheet

Henkel Ltd

Adhesives

Wood Lane End

HP2 4RQ Hemel Hempstead

Great Britain

Phone: +44 (1442) 278000

SDSinfo.Adhesive@henkel.com

For Safety Data Sheet updates please visit our website https://mysds.henkel.com/index.html#/appSelection or www.henkel-adhesives.com.

1.4. Emergency telephone number

24 Hours Emergency Tel: +44 (0)1442 278497

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (CLP):

Skin corrosion Category 1B

H314 Causes severe skin burns and eye damage.

Serious eye damage Category 1

H318 Causes serious eye damage.

Skin sensitizer Category 1

H317 May cause an allergic skin reaction.

Chronic hazards to the aquatic environment Category 2

H411 Toxic to aquatic life with long lasting effects.

2.2. Label elements

Label elements (CLP):

Hazard pictogram:



Contains 3,3'-Oxybis(ethyleneoxy)bis(propylamine)

reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular

weight≤700)

Signal word: Danger

Hazard statement: 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 statement: P280 Wear protective gloves/protective clothing/eye protection/face protection.

Prevention P273 Avoid release to the environment.

Precautionary statement: P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing.

Rinse skin with water [or shower].

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

contact lenses, if present and easy to do. Continue rinsing. P310 Immediately call a POISON CENTER or doctor.

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

2.3. Other hazards

Response

None if used properly.

Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.

Following substances are present in a concentration ≥ the concentration limit for depiction in Section 3 and fulfill the criteria for PBT/vPvB, or were identified as endocrine disruptor (ED):

This mixture does not contain any substances in a concentration \geq the concentration limit for depiction in Section 3 that are assessed to be a PBT, vPvB or ED.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Declaration of the ingredients according to CLP (EC) No 1272/2008:

| Hazardous components CAS-No. EC Number REACH-Reg No. | Concentration | Classification | Specific Conc. Limits, M- factors and ATEs | Add. Information |
|---|---------------|--|---|---------------------|
| 3,3'- Oxybis(ethyleneoxy)bis(propyla mine) 4246-51-9 224-207-2 01-2119963377-26 | 50- 100 % | Skin Corr. 1B, H314 Eye Dam. 1, H318 Skin Sens. 1, H317 | dermal:ATE = 2.500 mg/kg | |
| reaction product: bisphenol-A- (epichlorhydrin); epoxy resin (number average molecular weight≤700) 25068-38-6 | 20- 40 % | Skin Irrit. 2, H315 Skin Sens. 1, H317 Aquatic Chronic 2, H411 Eye Irrit. 2, H319 | Skin Irrit. 2; H315; C >= 5 % Eye Irrit. 2; H319; C >= 5 % | |

For full text of the H - statements and other abbreviations see section 16 "Other information".

Substances without classification may have community workplace exposure limits available.

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation:

Move to fresh air. If symptoms persist, seek medical advice.

Skin contact:

Rinse with running water and soap.

Obtain medical attention if irritation persists.

Eye contact:

Rinse immediately with plenty of running water (for 10 minutes), seek medical attention from a specialist.

Ingestion:

Rinse mouth, drink 1-2 glasses of water, do not induce vomiting, consult a doctor.

4.2. Most important symptoms and effects, both acute and delayed

Causes burns.

SKIN: Rash, Urticaria.

4.3. Indication of any immediate medical attention and special treatment needed

See section: Description of first aid measures

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:

water, carbon dioxide, foam, powder

Extinguishing media which must not be used for safety reasons:

High pressure waterjet

5.2. Special hazards arising from the substance or mixture

In the event of a fire, carbon monoxide (CO), carbon dioxide (CO2) and nitrogen oxides (NOx) can be released.

5.3. Advice for firefighters

Wear self-contained breathing apparatus and full protective clothing, such as turn-out gear.

Additional information:

In case of fire, keep containers cool with water spray.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Avoid contact with skin and eyes.

Wear protective equipment.

Ensure adequate ventilation.

6.2. Environmental precautions

Do not empty into drains / surface water / ground water.

6.3. Methods and material for containment and cleaning up

For small spills wipe up with paper towel and place in container for disposal.

For large spills absorb onto inert absorbent material and place in sealed container for disposal.

Dispose of contaminated material as waste according to Section 13.

6.4. Reference to other sections

See advice in section 8

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Avoid skin and eye contact. See advice in section 8

Hygiene measures:

Good industrial hygiene practices should be observed. Wash hands before work breaks and after finishing work. Do not eat, drink or smoke while working.

7.2. Conditions for safe storage, including any incompatibilities

Store in sealed original container. Store in a cool, well-ventilated place. Refer to Technical Data Sheet

7.3. Specific end use(s)

Epoxy Hardener

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational Exposure Limits

Valid for

Great Britain

None

Occupational Exposure Limits

Valid for

Ireland

None

Predicted No-Effect Concentration (PNEC):

| Name on list | Environmental Compartment | Exposure period | Value | Value | | | Remarks |
|--|------------------------------------|-----------------|------------|-------|----------------|--------|---------|
| | Compartment | periou | mg/l | ppm | mg/kg | others | |
| 3,3'-Oxybis(ethyleneoxy)bis(propylamine) 4246-51-9 | aqua (freshwater) | | 0,22 mg/l | | | | |
| 3,3'-Oxybis(ethyleneoxy)bis(propylamine) 4246-51-9 | aqua (marine water) | | 0,022 mg/l | | | | |
| 3,3'-Oxybis(ethyleneoxy)bis(propylamine) 4246-51-9 | aqua (intermittent releases) | | 2,2 mg/l | | | | |
| 3,3'-Oxybis(ethyleneoxy)bis(propylamine) 4246-51-9 | sewage treatment plant (STP) | | 125 mg/l | | | | |
| 3,3'-Oxybis(ethyleneoxy)bis(propylamine) 4246-51-9 | sediment (freshwater) | | | | 1,1 mg/kg | | |
| 3,3'-Oxybis(ethyleneoxy)bis(propylamine) 4246-51-9 | sediment (marine water) | | | | 0,11 mg/kg | | |
| 3,3'-Oxybis(ethyleneoxy)bis(propylamine) 4246-51-9 | Soil | | | | 0,091 mg/kg | | |

Derived No-Effect Level (DNEL):

| Name on list | Application Area | Route of Exposure | Health Effect | Exposure Time | Value | Remarks |
|---|-----------------------|----------------------|--|------------------|-----------|---------|
| 3,3'-Oxybis(ethyleneoxy)bis(propylamine) 4246-51-9 | Workers | inhalation | Long term exposure - systemic effects | | 59 mg/m3 | |
| 3,3'-Oxybis(ethyleneoxy)bis(propylamine) 4246-51-9 | Workers | inhalation | Acute/short term exposure - systemic effects | | 176 mg/m3 | |
| 3,3'-Oxybis(ethyleneoxy)bis(propylamine) 4246-51-9 | Workers | inhalation | Long term exposure - local effects | | 13 mg/m3 | |
| 3,3'-Oxybis(ethyleneoxy)bis(propylamine) 4246-51-9 | Workers | dermal | Long term exposure - systemic effects | | 8,3 mg/kg | |
| 3,3'-Oxybis(ethyleneoxy)bis(propylamine) 4246-51-9 | General population | inhalation | Long term exposure - systemic effects | | 17 mg/m3 | |
| 3,3'-Oxybis(ethyleneoxy)bis(propylamine) 4246-51-9 | General population | inhalation | Acute/short term exposure - systemic effects | | 52 mg/m3 | |
| 3,3'-Oxybis(ethyleneoxy)bis(propylamine) 4246-51-9 | General population | inhalation | Long term exposure - local effects | | 0,5 mg/m3 | |
| 3,3'-Oxybis(ethyleneoxy)bis(propylamine) 4246-51-9 | General population | inhalation | Acute/short term exposure - local effects | | 6,5 mg/m3 | |
| 3,3'-Oxybis(ethyleneoxy)bis(propylamine) 4246-51-9 | General population | dermal | Long term exposure - systemic effects | | 5 mg/kg | |
| 3,3'-Oxybis(ethyleneoxy)bis(propylamine) 4246-51-9 | General population | oral | Long term exposure - systemic effects | | 5 mg/kg | |

Biological Exposure Indices:

None

8.2. Exposure controls:

Engineering controls:

Ensure good ventilation/extraction.

Respiratory protection:

Ensure adequate ventilation.

An approved mask or respirator fitted with an organic vapour cartridge should be worn if the product is used in a poorly ventilated area

Filter type: A (EN 14387)

Hand protection:

Chemical-resistant protective gloves (EN 374).

Suitable materials for short-term contact or splashes (recommended: at least protection index 2, corresponding to > 30 minutes permeation time as per EN 374):

nitrile rubber (NBR; >= 0.4 mm thickness)

Suitable materials for longer, direct contact (recommended: protection index 6, corresponding to > 480 minutes permeation time as per EN 374):

nitrile rubber (NBR; >= 0.4 mm thickness)

This information is based on literature references and on information provided by glove manufacturers, or is derived by analogy with similar substances. Please note that in practice the working life of chemical-resistant protective gloves may be considerably shorter than the permeation time determined in accordance with EN 374 as a result of the many influencing factors (e.g. temperature). If signs of wear and tear are noticed then the gloves should be replaced.

Eye protection:

Safety glasses with sideshields or chemical safety goggles should be worn if there is a risk of splashing. Protective eye equipment should conform to EN166.

Skin protection:

Wear suitable protective clothing.

Protective clothing should conform to EN 14605 for liquid splashes or to EN 13982 for dusts.

Advices to personal protection equipment:

The information provided on personal protective equipment is for guidance purposes only. A full risk assessment should be conducted prior to using this product to determine the appropriate personal protective equipment to suit local conditions. Personal protective equipment should conform to the relevant EN standard.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state liquid
Delivery form liquid
Colour colourless
Odor amine-like

Melting point Not applicable, Product is a liquid

Solidification temperature < 5 °C (< 41 °F)

Initial boiling point > 180 °C (> 356 °F)no method Flammability The product is not flammable.

Explosive limits Not applicable, The product is not flammable.

Flash point $> 100 \,^{\circ}\text{C} \, (> 212 \,^{\circ}\text{F})$

Auto-ignition temperature Not applicable, The product is not flammable.

Decomposition temperature Not applicable, Substance/mixture is not self-reactive, no

organic peroxide and does not decompose under foreseen

conditions of use

pH Not applicable, Product is non-soluble (in water).

> 20,5 mm2/s

Viscosity (kinematic) (40 °C (104 °F);)

Solubility (qualitative) Insoluble

(20 °C (68 °F); Solvent: Water)

Partition coefficient: n-octanol/water Not applicable

Mixture

Vapour pressure < 700 mbar;no method

(50 °C (122 °F))

Vapour pressure < 700 mbar

(20 °C (68 °F))

Density 1,11 g/cm3 None

(25 °C (77 °F))

Relative vapour density: > 1

(20 °C)

Particle characteristics Not applicable
Product is a liquid

9.2. Other information

Other information not applicable for this product

SECTION 10: Stability and reactivity

10.1. Reactivity

Reacts with strong oxidants. Reaction with strong acids.

10.2. Chemical stability

Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

See section reactivity

10.4. Conditions to avoid

Stable under normal conditions of storage and use.

10.5. Incompatible materials

See section reactivity.

10.6. Hazardous decomposition products

carbon oxides.

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute oral toxicity:

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

| Hazardous substances | Value | Value | Species | Method |
|--------------------------|-------|---------------|---------|--|
| CAS-No. | type | | | |
| 3,3'- | LD50 | 3.160 mg/kg | rat | OECD Guideline 401 (Acute Oral Toxicity) |
| Oxybis(ethyleneoxy)bis(p | | | | _ |
| ropylamine) | | | | |
| 4246-51-9 | | | | |
| reaction product: | LD50 | > 2.000 mg/kg | rat | OECD Guideline 420 (Acute Oral Toxicity) |
| bisphenol-A- | | | | |
| (epichlorhydrin); epoxy | | | | |
| resin (number average | | | | |
| molecular weight≤700) | | | | |
| 25068-38-6 | | | | |

Acute dermal toxicity:

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

| Hazardous substances | Value | Value | Species | Method |
|--|--|---------------|---------|---|
| CAS-No. | type | | | |
| 3,3'- Oxybis(ethyleneoxy)bis(p ropylamine) 4246-51-9 | Acute toxicity estimate (ATE) | 2.500 mg/kg | | Expert judgement |
| 3,3'- Oxybis(ethyleneoxy)bis(p ropylamine) 4246-51-9 | LD50 | > 2.150 mg/kg | rat | equivalent or similar to OECD Guideline 402 (Acute Dermal Toxicity) |
| reaction product: bisphenol-A- (epichlorhydrin); epoxy resin (number average molecular weight≤700) 25068-38-6 | LD50 | > 2.000 mg/kg | rat | OECD Guideline 402 (Acute Dermal Toxicity) |

Acute inhalative toxicity:

No data available.

Skin corrosion/irritation:

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

| Hazardous substances CAS-No. | Result | Exposure time | Species | Method |
|--|----------------|---------------|---------|--|
| 3,3'- Oxybis(ethyleneoxy)bis(p ropylamine) 4246-51-9 | corrosive | | rabbit | OECD Guideline 404 (Acute Dermal Irritation / Corrosion) |
| reaction product: bisphenol-A- (epichlorhydrin); epoxy resin (number average molecular weight≤700) 25068-38-6 | not irritating | 4 h | rabbit | not specified |

Serious eye damage/irritation:

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

| Hazardous substances CAS-No. | Result | Exposure time | Species | Method |
|--|----------------|---------------|---------|---|
| reaction product: bisphenol-A- (epichlorhydrin); epoxy resin (number average molecular weight≤700) 25068-38-6 | not irritating | | rabbit | OECD Guideline 405 (Acute Eye Irritation / Corrosion) |

Respiratory or skin sensitization:

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

| Hazardous substances | Result | Test type | Species | Method |
|-------------------------|-------------|-----------------------|---------|---|
| CAS-No. | | | | |
| reaction product: | sensitising | Mouse local lymphnode | mouse | OECD Guideline 429 (Skin Sensitisation: |
| bisphenol-A- | | assay (LLNA) | | Local Lymph Node Assay) |
| (epichlorhydrin); epoxy | | | | |
| resin (number average | | | | |
| molecular weight≤700) | | | | |
| 25068-38-6 | | | | |

Germ cell mutagenicity:

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

| Hazardous substances CAS-No. | Result | Type of study / Route of administration | Metabolic activation / Exposure time | Species | Method |
|--|----------|--|--|---------|---|
| 3,3'- Oxybis(ethyleneoxy)bis(p ropylamine) 4246-51-9 | negative | in vitro mammalian cell micronucleus test | with and without | | OECD Guideline 487 (In vitro Mammalian Cell Micronucleus Test) |
| 3,3'- Oxybis(ethyleneoxy)bis(p ropylamine) 4246-51-9 | negative | mammalian cell gene mutation assay | with and without | | OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test) |
| 3,3'- Oxybis(ethyleneoxy)bis(p ropylamine) 4246-51-9 | negative | bacterial reverse mutation assay (e.g Ames test) | with and without | | OECD Guideline 471 (Bacterial Reverse Mutation Assay) |
| reaction product: bisphenol-A- (epichlorhydrin); epoxy resin (number average molecular weight≤700) 25068-38-6 | negative | bacterial reverse mutation assay (e.g Ames test) | with and without | | OECD Guideline 472 (Genetic Toxicology: Escherichia coli, Reverse Mutation Assay) |
| reaction product: bisphenol-A- (epichlorhydrin); epoxy resin (number average molecular weight≤700) 25068-38-6 | negative | oral: gavage | | mouse | not specified |

Carcinogenicity

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

| Hazardous components CAS-No. | Result | Route of application | Exposure time / Frequency of treatment | Species | Sex | Method |
|--|------------------|----------------------|---|---------|-------------|--|
| reaction product: bisphenol-A- (epichlorhydrin); epoxy resin (number average molecular weight≤700) 25068-38-6 | not carcinogenic | dermal | 2 y daily | mouse | male | OECD Guideline 453 (Combined Chronic Toxicity / Carcinogenicity Studies) |
| reaction product: bisphenol-A- (epichlorhydrin); epoxy resin (number average molecular weight≤700) 25068-38-6 | not carcinogenic | oral: gavage | 2 y daily | rat | male/female | OECD Guideline 453 (Combined Chronic Toxicity / Carcinogenicity Studies) |

Reproductive toxicity:

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

| Hazardous substances CAS-No. | Result / Value | Test type | Route of application | Species | Method |
|--|---|----------------------------|----------------------|---------|---|
| 3,3'- Oxybis(ethyleneoxy)bis(p ropylamine) 4246-51-9 | NOAEL P 600 mg/kg | screening | oral: gavage | rat | OECD Combined Repeated Dose and Reproductive / Developmental Toxicity Screening Test (Precursor Protocol of GL 422) |
| reaction product: bisphenol-A- (epichlorhydrin); epoxy resin (number average molecular weight≤700) 25068-38-6 | NOAEL P >= 50 mg/kg NOAEL F1 >= 750 mg/kg NOAEL F2 >= 750 mg/kg | Two generation study | oral: gavage | rat | OECD Guideline 416 (Two- Generation Reproduction Toxicity Study) |

STOT-single exposure:

No data available.

STOT-repeated exposure:

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

| Hazardous substances CAS-No. | Result / Value | Route of application | Exposure time / Frequency of treatment | Species | Method |
|--|-------------------|----------------------|--|---------|---|
| 3,3'- Oxybis(ethyleneoxy)bis(p ropylamine) 4246-51-9 | NOAEL < 100 mg/kg | oral: gavage | 59 days daily | rat | OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test) |
| reaction product: bisphenol-A- (epichlorhydrin); epoxy resin (number average molecular weight≤700) 25068-38-6 | NOAEL 50 mg/kg | oral: gavage | 14 w daily | rat | OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents) |

Aspiration hazard:

No data available.

11.2 Information on other hazards

not applicable

SECTION 12: Ecological information

General ecological information:

Do not empty into drains / surface water / ground water.

12.1. Toxicity

Toxicity (Fish):

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

| Hazardous substances | Value | Value | Exposure time | Species | Method |
|--------------------------------|-------|------------------|---------------|---------------------|---------------------------|
| CAS-No. | type | | | | |
| 3,3'- | LC50 | > 215 - 464 mg/l | 96 h | Leuciscus idus | DIN 38412-15 |
| Oxybis(ethyleneoxy)bis(propy | | | | | |
| lamine) | | | | | |
| 4246-51-9 | | | | | |
| reaction product: bisphenol-A- | LC50 | 1,75 mg/l | 96 h | Oncorhynchus mykiss | OECD Guideline 203 (Fish, |
| (epichlorhydrin); epoxy resin | | | | | Acute Toxicity Test) |
| (number average molecular | | | | | |
| weight≤700) | | | | | |
| 25068-38-6 | | | | | |

Toxicity (Daphnia):

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

| Hazardous substances | Value | Value | Exposure time | Species | Method |
|---|-------|----------|---------------|---------------|--|
| CAS-No. | type | | | | |
| 3,3'- Oxybis(ethyleneoxy)bis(propy | EC50 | 218 mg/l | 48 h | Daphnia magna | EU Method C.2 (Acute Toxicity for Daphnia) |
| lamine) 4246-51-9 | | | | | |
| reaction product: bisphenol-A- (epichlorhydrin); epoxy resin (number average molecular weight≤700) | EC50 | 1,7 mg/l | 48 h | Daphnia magna | OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test) |
| 25068-38-6 | | | | | |

Chronic toxicity to aquatic invertebrates

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

| Hazardous substances | Value | Value | Exposure time | Species | Method |
|---|-------|----------|---------------|---------|--|
| CAS-No. | type | | | | |
| reaction product: bisphenol-A- (epichlorhydrin); epoxy resin (number average molecular weight≤700) 25068-38-6 | NOEC | 0,3 mg/l | 21 d | 1 0 | OECD 211 (Daphnia magna, Reproduction Test) |

Toxicity (Algae):

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

| Hazardous substances | Value | Value | Exposure time | Species | Method |
|---|-------|-----------|---------------|---|--|
| CAS-No. | type | | _ | | |
| 3,3'- Oxybis(ethyleneoxy)bis(propy lamine) 4246-51-9 | EC50 | 666 mg/l | 72 h | Scenedesmus subspicatus (new name: Desmodesmus subspicatus) | DIN 38412-09 |
| 3,3'- Oxybis(ethyleneoxy)bis(propy lamine) 4246-51-9 | NOEC | 15,6 mg/l | 72 h | Scenedesmus subspicatus (new name: Desmodesmus subspicatus) | DIN 38412-09 |
| reaction product: bisphenol-A- (epichlorhydrin); epoxy resin (number average molecular weight≤700) 25068-38-6 | EC50 | > 11 mg/l | 72 h | Scenedesmus capricornutum | OECD Guideline 201 (Alga, Growth Inhibition Test) |
| reaction product: bisphenol-A- (epichlorhydrin); epoxy resin (number average molecular weight≤700) 25068-38-6 | NOEC | 4,2 mg/l | 72 h | Scenedesmus capricornutum | OECD Guideline 201 (Alga, Growth Inhibition Test) |

Toxicity to microorganisms

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

| Hazardous substances | Value | Value | Exposure time | Species | Method |
|---|-------|------------|---------------|------------------------------|--|
| CAS-No. | type | | | | |
| 3,3'- Oxybis(ethyleneoxy)bis(propy lamine) 4246-51-9 | EC10 | 152,5 mg/l | 17 h | Pseudomonas putida | DIN 38412, part 8 (Pseudomonas Zellvermehrungshemm- Test) |
| reaction product: bisphenol-A- (epichlorhydrin); epoxy resin (number average molecular weight≤700) 25068-38-6 | IC50 | > 100 mg/l | 3 h | activated sludge, industrial | other guideline: |

12.2. Persistence and degradability

| Hazardous substances CAS-No. | Result | Test type | Degradability | Exposure time | Method |
|---|---------------------------------|-----------|---------------|------------------|---|
| 3,3'- Oxybis(ethyleneoxy)bis(propy lamine) 4246-51-9 | not inherently biodegradable | aerobic | < 20 % | 28 d | OECD Guideline 302 B (Inherent biodegradability: Zahn- Wellens/EMPA Test) |
| 3,3'- Oxybis(ethyleneoxy)bis(propy lamine) 4246-51-9 | not readily biodegradable. | aerobic | 0 % | 60 d | OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test) |
| reaction product: bisphenol-A- (epichlorhydrin); epoxy resin (number average molecular weight≤700) 25068-38-6 | not readily biodegradable. | aerobic | 5 % | 28 d | OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test) |

12.3. Bioaccumulative potential

No data available.

12.4. Mobility in soil

| Hazardous substances CAS-No. | LogPow | Temperature | Method |
|---|--------|-------------|--|
| 3,3'- Oxybis(ethyleneoxy)bis(propy lamine) 4246-51-9 | -1,25 | 25 °C | OECD Guideline 107 (Partition Coefficient (n-octanol / water), Shake Flask Method) |
| reaction product: bisphenol-A- (epichlorhydrin); epoxy resin (number average molecular weight≤700) 25068-38-6 | 3,242 | 25 °C | EU Method A.8 (Partition Coefficient) |

12.5. Results of PBT and vPvB assessment

| Hazardous substances | PBT / vPvB |
|---|--|
| CAS-No. | |
| 3,3'-Oxybis(ethyleneoxy)bis(propylamine) | Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very |
| 4246-51-9 | Bioaccumulative (vPvB) criteria. |
| reaction product: bisphenol-A-(epichlorhydrin); | Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very |
| epoxy resin (number average molecular | Bioaccumulative (vPvB) criteria. |
| weight≤700) | |
| 25068-38-6 | |

12.6. Endocrine disrupting properties

not applicable

12.7. Other adverse effects

No data available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product disposal:

Do not empty into drains / surface water / ground water.

Dispose of in accordance with local and national regulations.

Disposal of uncleaned packages:

After use, tubes, cartons and bottles containing residual product should be disposed of as chemically contaminated waste in an authorised legal land fill site or incinerated.

Waste code

08 04 09* waste adhesives and sealants containing organic solvents and other dangerous substances

The valid EWC waste code numbers are source-related. The manufacturer is therefore unable to specify EWC waste codes for the articles or products used in the various sectors. The EWC codes listed are intended as a recommendation for users. We will be happy to advise you.

SECTION 14: Transport information

14.1. UN number or ID number

| ADR | 2735 |
|------|------|
| RID | 2735 |
| ADN | 2735 |
| IMDG | 2735 |
| IATA | 2735 |

14.2. UN proper shipping name

ADR AMINES, LIQUID, CORROSIVE, N.O.S. (3,3'-(OXYBIS(2,1-ETHANE-

DILOXY))BIS-1-PROPANAMINE)

RID AMINES, LIQUID, CORROSIVE, N.O.S. (3,3'-(OXYBIS(2,1-ETHANE-

DILOXY))BIS-1-PROPANAMINE)

ADN AMINES, LIQUID, CORROSIVE, N.O.S. (3,3'-(OXYBIS(2,1-ETHANE-

DILOXY))BIS-1-PROPANAMINE)

IMDG AMINES, LIQUID, CORROSIVE, N.O.S. (3,3'-(OXYBIS(2,1-ETHANE-

DILOXY))BIS-1-PROPANAMINE,Epoxy resin)

IATA Amines, liquid, corrosive, n.o.s. (3,3'-(OXYBIS(2,1-ETHANE-DILOXY))BIS-1-

PROPANAMINE)

14.3. Transport hazard class(es)

| ADR | 8 |
|------|---|
| RID | 8 |
| ADN | 8 |
| IMDG | 8 |
| IATA | 8 |

14.4. Packing group

| ADR | II |
|------|----|
| RID | II |
| ADN | II |
| IMDG | II |
| IATA | II |

14.5. Environmental hazards

| ADR | Environmentally Hazardous |
|-----|---------------------------|
| RID | Environmentally Hazardous |
| ADN | Environmentally Hazardous |

IMDG Marine pollutant IATA not applicable

14.6. Special precautions for user

| ADR | not applicable |
|------|-----------------|
| | Tunnelcode: (E) |
| RID | not applicable |
| ADN | not applicable |
| IMDG | not applicable |
| IATA | not applicable |

14.7. Maritime 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

Ozone Depleting Substance (ODS) (Regulation (EC) No 1005/2009): Not applicable Prior Informed Consent (PIC) (Regulation (EU) No 649/2012): Not applicable Persistent organic pollutants (Regulation (EU) 2019/1021): Not applicable

VOC content < 3,00 %

(2010/75/EC)

15.2. Chemical safety assessment

A chemical safety assessment has not been carried out.

SECTION 16: Other information

The labelling of the product is indicated in Section 2. The full text of all abbreviations indicated by codes in this safety data sheet are as follows:

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.

H411 Toxic to aquatic life with long lasting effects.

ED: Substance identified as having endocrine disrupting properties

EU OEL:

Substance with a Union workplace exposure limit

EU EXPLD 1:

Substance listed in Annex I, Reg (EC) No. 2019/1148

EU EXPLD 2

Substance listed in Annex II, Reg (EC) No. 2019/1148

SVHC:

Substance of very high concern (REACH Candidate List)

PBT:

Substance fulfilling persistent, bioaccumulative and toxic criteria

PBT/vPvB: Substance fulfilling persistent, bioaccumulative and toxic plus very persistent and very

bioaccumulative criteria

vPvB: Substance fulfilling very persistent and very bioaccumulative criteria

Further information:

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This information is based on our current level of knowledge and relates to the product in the state in which it is delivered. It is intended to describe our products from the point of view of safety requirements and is not intended to guarantee any particular properties.

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