

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

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LOCTITE ABLESTIK 2332-17

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

1.1. Product identifier

LOCTITE ABLESTIK 2332-17

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

Intended use: 1-c- epoxide adhesive

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 irritation | Category 2 |
| H315 Causes skin irritation. | |
| Serious eye damage | Category 1 |
| H318 Causes serious eye damage. | |
| Skin sensitizer | Category 1 |
| H317 May cause an allergic skin reaction. | |
| Germ cell mutagenicity | Category 2 |
| H341 Suspected of causing genetic defects. | |
| Carcinogenicity | Category 2 |
| H351 Suspected of causing cancer. | |
| Toxic to reproduction | Category 1B |
| H360F May damage fertility. | |
| Acute hazards to the aquatic environment | Category 1 |
| H400 Very toxic to aquatic life. | |
| Chronic hazards to the aquatic environment | Category 1 |
| H410 Very toxic to aquatic life with long lasting effects. | |

2.2. Label elements

Label elements (CLP):

| Hazard pictogram: | |
|--|--|
| Contains | reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight≤700) |
| | Amide polymer diuron |
| | Trimethylolpropane triglycidyl ether |
| | Bisphenol-F epichlorhydrin resin; MW<700 |
| Signal word: | Danger |
| Hazard statement: | H315 Causes skin irritation. H317 May cause an allergic skin reaction. H318 Causes serious eye damage. H341 Suspected of causing genetic defects. H351 Suspected of causing cancer. H360F May damage fertility. H410 Very toxic to aquatic life with long lasting effects. |
| Supplemental information | Restricted to professional users. |
| Precautionary statement: Prevention | P201 Obtain special instructions before use.P273 Avoid release to the environment.P280 Wear protective gloves/protective clothing/eye protection/face protection. |
| Precautionary statement: Response | P302+P352 IF ON SKIN: Wash with plenty of soap and water. P333+P313 If skin irritation or rash occurs: Get medical advice/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. P308+P313 IF exposed or concerned: Get medical advice/attention. |

2.3. Other hazards

None if used properly.

Following substances are present in a concentration \geq 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 |
|---|---------------|--|---|---------------------|
| reaction product: bisphenol-A- (epichlorhydrin); epoxy resin (number average molecular weight≤700) 25068-38-6 | 50- 100 % | 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 % | |
| Amide polymer 68318-44-5 | 20- 40 % | Skin Irrit. 2, H315 Skin Sens. 1, H317 Eye Irrit. 2, H319 | | |
| diuron 330-54-1 206-354-4 01-2119517622-45 | 5-< 10 % | Aquatic Chronic 1, H410 Aquatic Acute 1, H400 STOT RE 2, H373 Acute Tox. 4, Oral, H302 Carc. 2, H351 | M acute = 10 M chronic = 10 ===== oral:ATE = 1.000 mg/kg inhalation:ATE = 5,051 mg/l;dust/mist | |
| Trimethylolpropane triglycidyl ether 30499-70-8 | 5-< 10 % | Skin Irrit. 2, H315 Eye Dam. 1, H318 Skin Sens. 1, H317 Repr. 1B, H360F Aquatic Chronic 2, H411 Muta. 2, H341 | | |
| Bisphenol-F epichlorhydrin resin; MW<700 9003-36-5 01-2119454392-40 | 1-< 3 % | Skin Irrit. 2, Dermal, H315 Skin Sens. 1, H317 Aquatic Chronic 2, H411 | | |

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

After eye contact: Corrosive, may cause permanent damage to eyes (impairment of vision).

SKIN: Redness, inflammation.

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

Dispose of contaminated material as waste according to Section 13. 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.

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:

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

7.2. Conditions for safe storage, including any incompatibilities

Ensure good ventilation/extraction.

Keep container tightly sealed. Refer to Technical Data Sheet

7.3. Specific end use(s) 1-c- epoxide adhesive

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational Exposure Limits

Valid for

Great Britain

| Ingredient [Regulated substance] | ррт | mg/m ³ | | Short term exposure limit category / Remarks | Regulatory list |
|----------------------------------|-----|-------------------|-----------------------|--|-----------------|
| Diuron | | 10 | Time Weighted Average | | EH40 WEL |
| 330-54-1 | | | (TWA): | | |
| [DIURON (ISO)] | | | | | |

Occupational Exposure Limits

Valid for

Ireland

| Ingredient [Regulated substance] | ррт | mg/m ³ | ~ 1 | Short term exposure limit category / Remarks | Regulatory list |
|----------------------------------|-----|-------------------|-----------------------|--|-----------------|
| Diuron | | 10 | Time Weighted Average | | IR_OEL |
| 330-54-1 | | | (TWA): | | |
| [DIURON (ISO)] | | | | | |

Predicted No-Effect Concentration (PNEC):

| Name on list | Environmental Compartment | Exposure period | Value | | | | Remarks |
|--|------------------------------------|--------------------|-----------------------|--|-------------------|--|-------------------------------------|
| | | P | mg/l ppm mg/kg others | | | | ers |
| diuron 330-54-1 | sewage treatment plant (STP) | | 58 mg/l | | | | |
| diuron 330-54-1 | aqua (freshwater) | | 0,00032 mg/l | | | | |
| diuron 330-54-1 | sediment (freshwater) | | | | 0,05172 mg/kg | | |
| diuron 330-54-1 | Soil | | | | 0,012 mg/kg | | |
| diuron 330-54-1 | aqua (marine water) | | 0,000032 mg/l | | | | |
| diuron 330-54-1 | sediment (marine water) | | | | 0,005172 mg/kg | | |
| Reaction product: bisphenol-F- (epichlorhydrin); epoxy resin (number average molecular weight \leq 700) (old) 9003-36-5 | aqua (freshwater) | | 0,003 mg/l | | | | |
| Reaction product: bisphenol-F- (epichlorhydrin); epoxy resin (number average molecular weight \leq 700) (old) 9003-36-5 | aqua (marine water) | | 0,0003 mg/l | | | | |
| Reaction product: bisphenol-F- (epichlorhydrin); epoxy resin (number average molecular weight \leq 700) (old) 9003-36-5 | sewage treatment plant (STP) | | 10 mg/l | | | | |
| Reaction product: bisphenol-F- (epichlorhydrin); epoxy resin (number average molecular weight \leq 700) (old) 9003-36-5 | sediment (freshwater) | | | | 0,294 mg/kg | | |
| Reaction product: bisphenol-F- (epichlorhydrin); epoxy resin (number average molecular weight \leq 700) (old) 9003-36-5 | sediment (marine water) | | | | 0,0294 mg/kg | | |
| Reaction product: bisphenol-F- (epichlorhydrin); epoxy resin (number average molecular weight \leq 700) (old) 9003-36-5 | Soil | | | | 0,237 mg/kg | | |
| Reaction product: bisphenol-F- (epichlorhydrin); epoxy resin (number average molecular weight \leq 700) (old) 9003-36-5 | aqua (intermittent releases) | | 0,0254 mg/l | | | | |
| Reaction product: bisphenol-F- (epichlorhydrin); epoxy resin (number average molecular weight \leq 700) (old) 9003-36-5 | Air | | | | | | no hazard identified |
| Reaction product: bisphenol-F- (epichlorhydrin); epoxy resin (number average molecular weight \leq 700) (old) 9003-36-5 | Predator | | | | | | no potential for bioaccumulation |

Derived No-Effect Level (DNEL):

| Name on list | Application Area | Route of Exposure | Health Effect | Exposure Time | Value | Remarks |
|--|-----------------------|----------------------|---|------------------|---------------|----------------------|
| diuron 330-54-1 | Workers | inhalation | Long term exposure - systemic effects | | 0,17 mg/m3 | |
| diuron 330-54-1 | Workers | dermal | Long term exposure - systemic effects | | 5,79 mg/kg | |
| Reaction product: bisphenol-F- (epichlorhydrin); epoxy resin (number average molecular weight \leq 700) (old) 9003-36-5 | Workers | Inhalation | Long term exposure - systemic effects | | 29,39 mg/m3 | no hazard identified |
| Reaction product: bisphenol-F- (epichlorhydrin); epoxy resin (number average molecular weight \leq 700) (old) 9003-36-5 | Workers | dermal | Long term exposure - systemic effects | | 104,15 mg/kg | no hazard identified |
| Reaction product: bisphenol-F- (epichlorhydrin); epoxy resin (number average molecular weight \leq 700) (old) 9003-36-5 | Workers | dermal | Acute/short term exposure - local effects | | 0,0083 mg/cm2 | no hazard identified |
| Reaction product: bisphenol-F- (epichlorhydrin); epoxy resin (number average molecular weight \leq 700) (old) 9003-36-5 | General population | Inhalation | Long term exposure - systemic effects | | 8,7 mg/m3 | no hazard identified |
| Reaction product: bisphenol-F- (epichlorhydrin); epoxy resin (number average molecular weight \leq 700) (old) 9003-36-5 | General population | dermal | Long term exposure - systemic effects | | 62,5 mg/kg | no hazard identified |
| Reaction product: bisphenol-F- (epichlorhydrin); epoxy resin (number average molecular weight ≤ 700) (old) 9003-36-5 | General population | oral | Long term exposure - systemic effects | | 6,25 mg/kg | no hazard identified |

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 | Currently under determination |
| Colour | black |
| Odor | Slight |
| Melting point | Not applicable, Product is a liquid |
| Initial boiling point | Polymerization. |
| Flammability | Currently under determination |
| Explosive limits | Currently under determination |
| Flash point | > 200 °C (> 392 °F) |
| Auto-ignition temperature | Currently under determination |
| Decomposition temperature | Not applicable, Substance/mixture is not self-reactive, no organic peroxide and does not decompose under foreseen conditions of use |
| pН | Not available., Product is non-soluble (in water). |
| Viscosity (kinematic) | Currently under determination |
| Solubility (qualitative) | Insoluble |
| (Solvent: Water) | |
| Partition coefficient: n-octanol/water | Not applicable |
| | Mixture |
| Vapour pressure | Not applicable |
| Density | 1,0952 g/cm3 no method |
| () | |
| Relative vapour density: | Currently under determination |
| 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

See seenon 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 CAS-No. | Value type | Value | Species | Method |
|--|--|------------------------|---------|--|
| reaction product: bisphenol-A- (epichlorhydrin); epoxy resin (number average molecular weight≤700) 25068-38-6 | LD50 | > 2.000 mg/kg | rat | OECD Guideline 420 (Acute Oral Toxicity) |
| diuron 330-54-1 | LD50 | 1.000 - 1.017 mg/kg | rat | not specified |
| diuron 330-54-1 | Acute toxicity estimate (ATE) | 1.000 mg/kg | | Expert judgement |
| Trimethylolpropane triglycidyl ether 30499-70-8 | LD50 | 3.398 mg/kg | rat | equivalent or similar to OECD Guideline 401 (Acute Oral Toxicity) |
| Bisphenol-F epichlorhydrin resin; MW<700 9003-36-5 | LD50 | > 5.000 mg/kg | rat | equivalent or similar to OECD Guideline 401 (Acute Oral Toxicity) |

Acute dermal toxicity:

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

| Hazardous substances CAS-No. | Value type | Value | Species | Method |
|--|---------------|---------------|---------|--|
| 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) |
| diuron 330-54-1 | LD50 | > 5.000 mg/kg | rat | OECD Guideline 402 (Acute Dermal Toxicity) |
| Trimethylolpropane triglycidyl ether 30499-70-8 | LD50 | > 3.170 mg/kg | rat | equivalent or similar to OECD Guideline 402 (Acute Dermal Toxicity) |
| Bisphenol-F epichlorhydrin resin; MW<700 9003-36-5 | LD50 | > 2.000 mg/kg | rat | equivalent or similar to OECD Guideline 402 (Acute Dermal Toxicity) |

Acute inhalative toxicity:

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

| Hazardous substances CAS-No. | Value type | Value | Test atmosphere | Exposure time | Species | Method |
|---------------------------------|--|-------------|-----------------|------------------|---------|---|
| diuron 330-54-1 | LC50 | > 5,05 mg/l | dust/mist | 4 h | rat | OECD Guideline 403 (Acute Inhalation Toxicity) |
| diuron 330-54-1 | Acute toxicity estimate (ATE) | 5,051 mg/l | dust/mist | | | Expert judgement |

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 |
|--|----------------|------------------|--|--|
| reaction product: bisphenol-A- (epichlorhydrin); epoxy resin (number average molecular weight≤700) 25068-38-6 | not irritating | 4 h | rabbit | not specified |
| diuron 330-54-1 | not irritating | 4 h | rabbit | OECD Guideline 404 (Acute Dermal Irritation / Corrosion) |
| Trimethylolpropane triglycidyl ether 30499-70-8 | not corrosive | | Human, EpiDermTM SIT (EPI-200), Reconstructed Human Epidermis (RHE) | OECD Guideline 431 (In Vitro Skin Corrosion: Reconstructed Human Epidermis (RHE) Test Method) |
| Bisphenol-F epichlorhydrin resin; MW<700 9003-36-5 | irritating | 4 h | rabbit | equivalent or similar to OECD Guideline 404 (Acute Dermal Irritation / Corrosion) |

Serious eye damage/irritation:

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

| Hazardous substances | Result | Exposure | Species | Method |
|--|----------------|----------|---------|--|
| CAS-No. | | time | | |
| 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) |
| diuron 330-54-1 | not irritating | | rabbit | OECD Guideline 405 (Acute Eye Irritation / Corrosion) |
| Trimethylolpropane triglycidyl ether 30499-70-8 | corrosive | | rabbit | other guideline: |
| Bisphenol-F epichlorhydrin resin; MW<700 9003-36-5 | not irritating | | rabbit | equivalent or similar to 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 CAS-No. | Result | Test type | Species | Method |
|--|-----------------|---------------------------------------|------------|--|
| reaction product: bisphenol-A- (epichlorhydrin); epoxy resin (number average molecular weight≤700) 25068-38-6 | sensitising | Mouse local lymphnode assay (LLNA) | mouse | OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay) |
| diuron 330-54-1 | not sensitising | Guinea pig maximisation test | guinea pig | OECD Guideline 406 (Skin Sensitisation) |
| Bisphenol-F epichlorhydrin resin; MW<700 9003-36-5 | sensitising | Mouse local lymphnode assay (LLNA) | mouse | OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay) |

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 |
|--|----------|--|--|---------|---|
| 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) |
| diuron 330-54-1 | negative | bacterial reverse mutation assay (e.g Ames test) | with and without | | OECD Guideline 471 (Bacterial Reverse Mutation Assay) |
| diuron 330-54-1 | negative | mammalian cell gene mutation assay | with and without | | OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test) |
| diuron 330-54-1 | | in vitro mammalian chromosome aberration test | with and without | | OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test) |
| Trimethylolpropane triglycidyl ether 30499-70-8 | positive | mammalian cell gene mutation assay | with and without | | OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test) |
| Trimethylolpropane triglycidyl ether 30499-70-8 | positive | in vitro mammalian chromosome aberration test | with and without | | OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test) |
| Trimethylolpropane triglycidyl ether 30499-70-8 | positive | bacterial reverse mutation assay (e.g Ames test) | with and without | | OECD Guideline 471 (Bacterial Reverse Mutation Assay) |
| Bisphenol-F epichlorhydrin resin; MW<700 9003-36-5 | positive | 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 | oral: gavage | | mouse | not specified |
| Trimethylolpropane triglycidyl ether 30499-70-8 | positive | oral: gavage | | rat | OECD Guideline 489 (In Vivo Mammalian Alkaline Comet Assay) |
| Bisphenol-F epichlorhydrin resin; MW<700 9003-36-5 | negative | oral: gavage | | mouse | OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test) |
| Bisphenol-F epichlorhydrin resin; MW<700 9003-36-5 | negative | oral: gavage | | rat | OECD Guideline 486 (Unscheduled DNA Synthesis (UDS) Test with Mammalian Liver Cells in vivo) |

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 |
|--|---|-----------------------------|----------------------|---------|---|
| 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) |
| Trimethylolpropane triglycidyl ether 30499-70-8 | NOAEL P 100 mg/kg | screening | oral: gavage | rat | OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test) |
| Bisphenol-F epichlorhydrin resin; MW<700 9003-36-5 | NOAEL P > 750 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 |
|--|-----------------|----------------------|--|---------|--|
| 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) |
| Trimethylolpropane triglycidyl ether 30499-70-8 | NOAEL 270 mg/kg | oral: gavage | 90 d daily | rat | OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents) |
| Bisphenol-F epichlorhydrin resin; MW<700 9003-36-5 | NOAEL 250 mg/kg | oral: gavage | 13 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 | | | | |
| reaction product: bisphenol-A- (epichlorhydrin); epoxy resin (number average molecular weight≤700) 25068-38-6 | LC50 | 1,75 mg/l | 96 h | Oncorhynchus mykiss | OECD Guideline 203 (Fish, Acute Toxicity Test) |
| diuron 330-54-1 | NOEC | 4,2 mg/l | 7 d | Pimephales promelas | OECD Guideline 204 (Fish, Prolonged Toxicity Test: 14-day Study) |
| diuron 330-54-1 | LC50 | 6,6 mg/l | 96 h | Leuciscus idus melanotus | OECD Guideline 203 (Fish, Acute Toxicity Test) |
| Trimethylolpropane triglycidyl ether 30499-70-8 | LC50 | 75 mg/l | 96 h | Cyprinus carpio | OECD Guideline 203 (Fish, Acute Toxicity Test) |
| Bisphenol-F epichlorhydrin resin; MW<700 9003-36-5 | LC50 | 5,7 mg/l | 96 h | Leuciscus idus | OECD Guideline 203 (Fish, Acute Toxicity Test) |

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 | | _ | | |
| reaction product: bisphenol-A- (epichlorhydrin); epoxy resin (number average molecular weight≤700) 25068-38-6 | EC50 | 1,7 mg/l | 48 h | Daphnia magna | OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test) |
| diuron 330-54-1 | EC50 | 1,4 mg/l | 48 h | Daphnia magna | OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test) |
| Trimethylolpropane triglycidyl ether 30499-70-8 | EC50 | 3,7 mg/l | 48 h | Daphnia magna | OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test) |
| Bisphenol-F epichlorhydrin resin; MW<700 9003-36-5 | EC50 | 2,55 mg/l | 48 h | Daphnia magna | OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test) |

Chronic toxicity to aquatic invertebrates

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

| Hazardous substances CAS-No. | Value type | Value | Exposure time | Species | Method |
|--|---------------|----------|---------------|---------|--|
| | | 0,3 mg/l | 21 d | 1 0 | OECD 211 (Daphnia magna, Reproduction Test) |
| Bisphenol-F epichlorhydrin resin; MW<700 9003-36-5 | NOEC | 0,3 mg/l | 21 d | | 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 CAS-No. | Value type | Value | Exposure time | Species | Method |
|---|---------------|-------------|---------------|---|--|
| 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) |
| diuron 330-54-1 | NOEC | 0,0032 mg/l | 96 h | Scenedesmus subspicatus (new name: Desmodesmus subspicatus) | OECD Guideline 201 (Alga, Growth Inhibition Test) |
| diuron 330-54-1 | EC50 | 0,022 mg/l | 96 h | Scenedesmus subspicatus (new name: Desmodesmus subspicatus) | OECD Guideline 201 (Alga, Growth Inhibition Test) |
| Trimethylolpropane triglycidyl ether 30499-70-8 | EC50 | 9 mg/l | 72 h | Pseudokirchneriella subcapitata | OECD Guideline 201 (Alga, Growth Inhibition Test) |
| Trimethylolpropane triglycidyl ether 30499-70-8 | NOEC | 2,5 mg/l | 72 h | Pseudokirchneriella subcapitata | OECD Guideline 201 (Alga, Growth Inhibition Test) |
| Bisphenol-F epichlorhydrin resin; MW<700 9003-36-5 | EC50 | 1,8 mg/l | 72 h | Pseudokirchneriella subcapitata | 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 | | | | |
| 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: |
| diuron 330-54-1 | EC 50 | > 10.000 mg/l | | | OECD Guideline 209 (Activated Sludge, Respiration Inhibition Test) |
| Bisphenol-F epichlorhydrin resin; MW<700 9003-36-5 | 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 |
|---|---------------------------------|-----------|---------------|------------------|---|
| 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) |
| diuron 330-54-1 | | aerobic | 0 % | 28 d | OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test) |
| Trimethylolpropane triglycidyl ether 30499-70-8 | not readily biodegradable. | aerobic | 8 % | 28 d | OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test) |
| Trimethylolpropane triglycidyl ether 30499-70-8 | not inherently biodegradable | aerobic | 25 % | 28 d | OECD Guideline 302 B (Inherent biodegradability: Zahn- Wellens/EMPA Test) |
| Bisphenol-F epichlorhydrin resin; MW<700 9003-36-5 | not readily biodegradable. | aerobic | 0 % | 28 d | OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test) |

12.3. Bioaccumulative potential

No data available.

12.4. Mobility in soil

| Hazardous substances CAS-No. | LogPow | Temperature | 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) |
| diuron 330-54-1 | 2,84 | 20 °C | OECD Guideline 107 (Partition Coefficient (n-octanol / water), Shake Flask Method) |
| Trimethylolpropane triglycidyl ether 30499-70-8 | < 3 | | OECD Guideline 117 (Partition Coefficient (n-octanol / water), HPLC Method) |
| Bisphenol-F epichlorhydrin resin; MW<700 9003-36-5 | 2,7 - 3,6 | | OECD Guideline 117 (Partition Coefficient (n-octanol / water), HPLC Method) |

12.5. Results of PBT and vPvB assessment

| Hazardous substances | PBT / vPvB |
|---|--|
| CAS-No. | |
| 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 | |
| diuron | Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very |
| 330-54-1 | Bioaccumulative (vPvB) criteria. |
| Bisphenol-F epichlorhydrin resin; MW<700 | Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very |
| 9003-36-5 | Bioaccumulative (vPvB) criteria. |

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 | 3532 |
|------|------|
| RID | 3532 |
| ADN | 3532 |
| IMDG | 3532 |
| IATA | 3532 |

14.2. UN proper shipping name

| ADR | POLYMERIZING SUBSTANCE, LIQUID, STABILIZED, N.O.S. (Epoxy |
|------|---|
| | resin,Dicyandiamide) |
| RID | POLYMERIZING SUBSTANCE, LIQUID, STABILIZED, N.O.S. (Epoxy |
| | resin,Dicyandiamide) |
| ADN | POLYMERIZING SUBSTANCE, LIQUID, STABILIZED, N.O.S. (Epoxy |
| | resin,Dicyandiamide) |
| IMDG | POLYMERIZING SUBSTANCE, LIQUID, STABILIZED, N.O.S. (Epoxy |
| | resin,Dicyandiamide) |
| IATA | Polymerizing substance, liquid, stabilized, n.o.s. (Epoxy resin, Dicyandiamide) |

14.3. Transport hazard class(es)

| ADR | 4.1 |
|------|-----|
| RID | 4.1 |
| ADN | 4.1 |
| IMDG | 4.1 |
| IATA | 4.1 |

14.4. Packing group

| ADR | III |
|------|-----|
| RID | III |
| ADN | III |
| IMDG | III |
| IATA | III |

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 | Up to 500 g max per inner/primary package when shipped as originally packaged only |
|------|--|
| | Tunnelcode: (D) |
| RID | Up to 500 g max per inner/primary package when shipped as originally packaged only |
| ADN | Up to 500 g max per inner/primary package when shipped as originally packaged only |
| IMDG | Up to 500 g max per inner/primary package when shipped as originally packaged only |
| IATA | Up to 500 g max per inner/primary package when shipped as originally packaged only |

14.7. Maritime transport in bulk according to IMO instruments

not applicable

SECTION 15: Regulatory information

Not applicable

Not applicable

Not applicable

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

< 3 %

Ozone Depleting Substance (ODS) (Regulation (EC) No 1005/2009): Prior Informed Consent (PIC) (Regulation (EU) No 649/2012):

Persistent organic pollutants (Regulation (EU) 2019/1021):

VOC content (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:

H302 Harmful if swallowed.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H318 Causes serious eye damage.

H319 Causes serious eye irritation.

H341 Suspected of causing genetic defects.

H351 Suspected of causing cancer.

H360F May damage fertility.

H373 May cause damage to organs through prolonged or repeated exposure.

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

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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