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



SDS No. : 373940
V002.1

LOCTITE ABLESTIK E 8502-1 known as ECCOBOND E 8502-1 30 G

Revision: 24.10.2022
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## SECTION 1: Identification of the substance/mixture and of the company/undertaking

**1.1. Product identifier**

LOCTITE ABLESTIK E 8502-1 known as ECCOBOND E 8502-1 30 G

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

Intended use:
Epoxy adhesive

**1.3. Details of the supplier of the safety data sheet**

Henkel Ireland
Operations and Research Limited
Tallaght Business Park, Whitestown
24 Dublin

Ireland

Phone: +353 (0353) 1 404 6444

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

**1.4. Emergency telephone number**

00353 14046280

National Poisons Information Centre: Members of Public: +353 (1) 809 2166. (8.00 a.m. to 10.00 p.m. 7 days a week)
Healthcare Professionals: +353 (1) 809 2566 (24-hour service)

## SECTION 2: Hazards identification

**2.1. Classification of the substance or mixture**

**Classification (CLP):**

| | |
|---|---|
| Skin irritation | Category 2 |
| H315 Causes skin irritation. | |
| Serious eye irritation | Category 2 |
| H319 Causes serious eye irritation. | |
| Skin sensitizer | Category 1 |
| H317 May cause an allergic skin reaction. | |
| Specific target organ toxicity - repeated exposure | Category 2 |
| H373 May cause damage to organs through prolonged or repeated exposure. | |
| Chronic hazards to the aquatic environment | Category 2 |
| H411 Toxic to aquatic life with long lasting effects. | |

**2.2. Label elements**

**Label elements (CLP):**

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**Hazard pictogram:**



**Contains**

Siloxanes and Silicones, di-Me, 10-carboxydecyl group-terminated, polymers with bisphenol A diglycidyl ether

Dihydro-3-(tetrapropenyl)furan-2,5-dione

reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight≤700)
10-Undecenoic acid, esters with 4,4'-isopropylidenediphenol

1,4-bis(2,3 epoxypropoxy)butane

Phenol, 4,4′-(1-methylethylidene)bis-, polymer with 2-(chloromethyl)oxirane, N1,N1-diethyl-1,3-propanediamine and 1-piperazineethana

Formaldehyde polymer with phenol

maleic anhydride

**Signal word:** Warning

**Hazard statement:**
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H373 May cause damage to organs through prolonged or repeated exposure.
H411 Toxic to aquatic life with long lasting effects.

**Precautionary statement: Prevention**
P273 Avoid release to the environment.
P280 Wear protective gloves.

**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.
P337+P313 If eye irritation persists: Get medical advice/attention.

### 2.3. Other hazards

None if used properly.
This mixture contains components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB).

**Following substances are present in a concentration >= 0,1% and fulfill the criteria for PBT/vPvB, or were identified as endocrine disruptor (ED):**

| | |
|---|---|
| octamethylcyclotetrasiloxane<br>556-67-2 | PBT/vPvB |

## SECTION 3: Composition/information on ingredients

### 3.2. Mixtures

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

| Hazardous components<br>CAS-No.<br>EC Number<br>REACH-Reg No. | Concentration | Classification | Specific Conc. Limits, M-factors and ATEs | Add. Information |
|---|---|---|---|---|
| Siloxanes and Silicones, di-Me, 10-carboxydecyl group-terminated, polymers with bisphenol A diglycidyl ether<br>217448-17-4 | 20- 40 % | Eye Irrit. 2, H319<br>Skin Irrit. 2, H315<br>Skin Sens. 1, H317 | | |
| Dihydro-3-(tetrapropenyl)furan-2,5-dione<br>26544-38-7<br>247-781-6<br>01-2119979080-37 | 10- 20 % | Skin Sens. 1A, H317<br>Eye Irrit. 2, H319<br>Aquatic Chronic 4, H413<br>STOT RE 2, H373 | | |
| reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight≤700)<br>25068-38-6 | 10- 20 % | Skin Irrit. 2, H315<br>Skin Sens. 1, H317<br>Aquatic Chronic 2, H411<br>Eye Irrit. 2, H319 | Skin Irrit. 2; H315; C >= 5 %<br>Eye Irrit. 2; H319; C >= 5 % | |
| 10-Undecenoic acid, esters with 4,4'-isopropylidenediphenol | 5- < 10 % | Skin Irrit. 2, H315<br>Skin Sens. 1, H317<br>Eye Irrit. 2, H319 | | |
| 1,4-bis(2,3 epoxypropoxy)butane<br>2425-79-8<br>219-371-7<br>01-2119494060-45 | 5- < 10 % | Acute Tox. 4, Oral, H302<br>Acute Tox. 4, Dermal, H312<br>Acute Tox. 4, Inhalation, H332<br>Skin Irrit. 2, H315<br>Skin Sens. 1, H317<br>Eye Irrit. 2, H319<br>Aquatic Chronic 3, H412 | inhalation:ATE = 11,01 mg/l;vapour | |
| Phenol, 4,4′-(1-methylethylidene)bis-, polymer with 2-(chloromethyl)oxirane, N1,N1-diethyl-1,3-propanediamine and 1-piperazineethana<br>68698-70-4<br>500-230-6<br>01-2120778121-59 | 2,5- < 25 % | Aquatic Acute 1, H400<br>Aquatic Chronic 1, H410<br>Acute Tox. 4, Oral, H302<br>Skin Irrit. 2, H315<br>Eye Irrit. 2, H319<br>Skin Sens. 1, H317 | M acute = 1<br>M chronic = 1<br>=====<br>oral:ATE = 500 mg/kg | |
| Formaldehyde polymer with phenol<br>9003-35-4<br>500-005-2<br>01-2120735197-51 | 1- < 5 % | Eye Irrit. 2, H319<br>Skin Sens. 1, H317 | dermal:ATE = 2.500 mg/kg | |
| octamethylcyclotetrasiloxane<br>556-67-2<br>209-136-7<br>01-2119529238-36 | 0,1- < 1 % | Aquatic Chronic 1, H410<br>Repr. 2, H361f<br>Flam. Liq. 3, H226 | M chronic = 10 | SVHC<br>PBT/vPvB |
| maleic anhydride<br>108-31-6<br>203-571-6<br>01-2119472428-31 | 0,001- < 0,1 % | STOT RE 1, Inhalation, H372<br>Acute Tox. 4, Oral, H302<br>Skin Sens. 1A, H317<br>Resp. Sens. 1, H334<br>Eye Dam. 1, H318<br>Skin Corr. 1B, H314 | Skin Sens. 1A; H317; C >= 0,001 % | |

**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

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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**
SKIN: Redness, inflammation.

SKIN: Rash, Urticaria.

EYE: Irritation, conjunctivitis.

**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

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**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**

Ensure good ventilation/extraction.

Keep container tightly sealed.
Refer to Technical Data Sheet

**7.3. Specific end use(s)**

Epoxy adhesive

## SECTION 8: Exposure controls/personal protection

**8.1. Control parameters**

**Occupational Exposure Limits**

Valid for
Ireland

| Ingredient [Regulated substance] | ppm | mg/m³ | Value type | Short term exposure limit category / Remarks | Regulatory list |
|---|---|---|---|---|---|
| Maleic anhydride<br>108-31-6<br>[MALEIC ANHYDRIDE] | 0,01 | | Time Weighted Average (TWA): | | IR_OEL |

**Occupational Exposure Limits**

Valid for
Great Britain

| Ingredient [Regulated substance] | ppm | mg/m³ | Value type | Short term exposure limit category / Remarks | Regulatory list |
|---|---|---|---|---|---|
| maleic anhydride<br>108-31-6<br>[MALEIC ANHYDRIDE] | | 1 | Time Weighted Average (TWA): | | EH40 WEL |
| maleic anhydride<br>108-31-6<br>[MALEIC ANHYDRIDE] | | 3 | Short Term Exposure Limit (STEL): | 15 minutes | EH40 WEL |

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**Predicted No-Effect Concentration (PNEC):**

| Name on list | Environmental Compartment | Exposure period | Value | | | | Remarks |
|---|---|---|---|---|---|---|---|
| | | | mg/l | ppm | mg/kg | others | |
| Dihydro-3-(tetrapropenyl)furan-2,5-dione 26544-38-7 | aqua (freshwater) | | 0,02 mg/l | | | | |
| Dihydro-3-(tetrapropenyl)furan-2,5-dione 26544-38-7 | sediment (freshwater) | | | | 1,7 mg/kg | | |
| Dihydro-3-(tetrapropenyl)furan-2,5-dione 26544-38-7 | aqua (marine water) | | 0,002 mg/l | | | | |
| Dihydro-3-(tetrapropenyl)furan-2,5-dione 26544-38-7 | sediment (marine water) | | | | 0,17 mg/kg | | |
| Dihydro-3-(tetrapropenyl)furan-2,5-dione 26544-38-7 | aqua (intermittent releases) | | 0,2 mg/l | | | | |
| Dihydro-3-(tetrapropenyl)furan-2,5-dione 26544-38-7 | Soil | | | | 0,2 mg/kg | | |
| Dihydro-3-(tetrapropenyl)furan-2,5-dione 26544-38-7 | sewage treatment plant (STP) | | 10 mg/l | | | | |
| Dihydro-3-(tetrapropenyl)furan-2,5-dione 26544-38-7 | Air | | | | | | no hazard identified |
| Dihydro-3-(tetrapropenyl)furan-2,5-dione 26544-38-7 | Predator | | | | | | no potential for bioaccumulation |
| 1,4-Bis(2,3-epoxypropoxy)butane 2425-79-8 | aqua (freshwater) | | 0,024 mg/l | | | | |
| 1,4-Bis(2,3-epoxypropoxy)butane 2425-79-8 | oral | | | | 0,028 mg/kg | | |
| 1,4-Bis(2,3-epoxypropoxy)butane 2425-79-8 | sediment (freshwater) | | | | 0,084 mg/kg | | |
| 1,4-Bis(2,3-epoxypropoxy)butane 2425-79-8 | Soil | | | | 0,003 mg/kg | | |
| 1,4-Bis(2,3-epoxypropoxy)butane 2425-79-8 | aqua (marine water) | | 0,002 mg/l | | | | |
| 1,4-Bis(2,3-epoxypropoxy)butane 2425-79-8 | sewage treatment plant (STP) | | 100 mg/l | | | | |
| 1,4-Bis(2,3-epoxypropoxy)butane 2425-79-8 | sediment (marine water) | | | | 0,008 mg/kg | | |
| Formaldehyde polymer with phenol 9003-35-4 | aqua (freshwater) | | 0,172 mg/l | | | | |
| Formaldehyde polymer with phenol 9003-35-4 | sediment (marine water) | | | | 0,0647 mg/kg | | |
| Formaldehyde polymer with phenol 9003-35-4 | Soil | | | | 0,0284 mg/kg | | |
| Formaldehyde polymer with phenol 9003-35-4 | sediment (freshwater) | | | | 0,647 mg/kg | | |
| Formaldehyde polymer with phenol 9003-35-4 | aqua (marine water) | | 0,0172 mg/l | | | | |
| Octamethylcyclotetrasiloxane 556-67-2 | aqua (freshwater) | | 0,0015 mg/l | | | | |
| Octamethylcyclotetrasiloxane 556-67-2 | aqua (marine water) | | 0,00015 mg/l | | | | |
| Octamethylcyclotetrasiloxane 556-67-2 | sewage treatment plant (STP) | | 10 mg/l | | | | |
| Octamethylcyclotetrasiloxane 556-67-2 | sediment (freshwater) | | | | 3 mg/kg | | |
| Octamethylcyclotetrasiloxane 556-67-2 | sediment (marine water) | | | | 0,3 mg/kg | | |
| Octamethylcyclotetrasiloxane 556-67-2 | oral | | | | 41 mg/kg | | |
| Octamethylcyclotetrasiloxane 556-67-2 | Soil | | | | 0,54 mg/kg | | |
| maleic anhydride 108-31-6 | aqua (freshwater) | | 0,038 mg/l | | | | |
| maleic anhydride 108-31-6 | aqua (marine water) | | 0,004 mg/l | | | | |
| maleic anhydride 108-31-6 | Soil | | | | 0,037 mg/kg | | |
| maleic anhydride 108-31-6 | sediment (freshwater) | | | | 0,296 mg/kg | | |
| maleic anhydride | sediment | | | | 0,03 mg/kg | | |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 108-31-6 | (marine water) | | | | | | |
| maleic anhydride 108-31-6 | sewage treatment plant (STP) | | 44,6 mg/l | | | | |
| maleic anhydride 108-31-6 | Freshwater - intermittent | | 0,379 mg/l | | | | |
| maleic anhydride 108-31-6 | Marine water - intermittent | | 0,038 mg/l | | | | |

**Derived No-Effect Level (DNEL):**

| Name on list | Application Area | Route of Exposure | Health Effect | Exposure Time | Value | Remarks |
|---|---|---|---|---|---|---|
| Dihydro-3-(tetrapropenyl)furan-2,5-dione 26544-38-7 | Workers | dermal | Long term exposure - systemic effects | | 0,33 mg/kg | no hazard identified |
| 1,4-Bis(2,3-epoxypropoxy)butane 2425-79-8 | Workers | inhalation | Long term exposure - systemic effects | | 4,7 mg/m3 | |
| 1,4-Bis(2,3-epoxypropoxy)butane 2425-79-8 | Workers | dermal | Long term exposure - systemic effects | | 6,66 mg/kg | |
| 1,4-Bis(2,3-epoxypropoxy)butane 2425-79-8 | General population | inhalation | Long term exposure - systemic effects | | 1,16 mg/m3 | |
| 1,4-Bis(2,3-epoxypropoxy)butane 2425-79-8 | General population | dermal | Long term exposure - systemic effects | | 3,33 mg/kg | |
| 1,4-Bis(2,3-epoxypropoxy)butane 2425-79-8 | General population | oral | Long term exposure - systemic effects | | 0,33 mg/kg | |
| Formaldehyde polymer with phenol 9003-35-4 | Workers | inhalation | Long term exposure - systemic effects | | 98,7 mg/m3 | |
| Formaldehyde polymer with phenol 9003-35-4 | Workers | dermal | Long term exposure - systemic effects | | 28 mg/kg | |
| Formaldehyde polymer with phenol 9003-35-4 | General population | inhalation | Long term exposure - systemic effects | | 14,8 mg/m3 | |
| Formaldehyde polymer with phenol 9003-35-4 | General population | oral | Long term exposure - systemic effects | | 10 mg/kg | |
| Formaldehyde polymer with phenol 9003-35-4 | General population | dermal | Long term exposure - systemic effects | | 10 mg/kg | |
| Octamethylcyclotetrasiloxane 556-67-2 | Workers | inhalation | Long term exposure - systemic effects | | 73 mg/m3 | |
| Octamethylcyclotetrasiloxane 556-67-2 | Workers | inhalation | Long term exposure - local effects | | 73 mg/m3 | |
| Octamethylcyclotetrasiloxane 556-67-2 | General population | inhalation | Long term exposure - systemic effects | | 13 mg/m3 | |
| Octamethylcyclotetrasiloxane 556-67-2 | General population | inhalation | Long term exposure - local effects | | 13 mg/m3 | |
| Octamethylcyclotetrasiloxane 556-67-2 | General population | oral | Long term exposure - systemic effects | | 3,7 mg/kg | |
| maleic anhydride 108-31-6 | Workers | inhalation | Acute/short term exposure - systemic effects | | 0,2 mg/m3 | |
| maleic anhydride 108-31-6 | Workers | inhalation | Acute/short term exposure - local effects | | 0,2 mg/m3 | |
| maleic anhydride 108-31-6 | Workers | inhalation | Long term exposure - systemic effects | | 0,081 mg/m3 | |
| maleic anhydride 108-31-6 | Workers | inhalation | Long term exposure - local effects | | 0,081 mg/m3 | |

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**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 | Off white |
| Odor | mild |
| Melting point | Not applicable, Product is a liquid |
| Initial boiling point | Not available. |
| Flammability | Currently under determination |
| Explosive limits | Currently under determination |
| Flash point | > 90 °C (> 194 °F) |
| Auto-ignition temperature | Currently under determination |
| Decomposition temperature | Currently under determination |
| pH | Currently under determination |
| Viscosity (kinematic) | Currently under determination |
| Solubility (qualitative)<br>(20 °C (68 °F); Solvent: Water) | Insoluble |
| Partition coefficient: n-octanol/water | Not applicable<br>Mixture |

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| | |
|---|---|
| Vapour pressure | Not applicable |
| Density | 1,275 g/cm3 None |
| () | |
| 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

**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.

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## SECTION 11: Toxicological information

**1.1 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<br>CAS-No. | Value type | Value | Species | Method |
|---|---|---|---|---|
| Dihydro-3-(tetrapropenyl)furan-2,5-dione<br>26544-38-7 | LD50 | 2.900 mg/kg | rat | OECD Guideline 423 (Acute Oral toxicity) |
| reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight≤700)<br>25068-38-6 | LD50 | > 2.000 mg/kg | rat | OECD Guideline 420 (Acute Oral Toxicity) |
| 10-Undecenoic acid, esters with 4,4'-isopropylidenediphenol | LD50 | > 2.000 mg/kg | rat | OECD Guideline 420 (Acute Oral Toxicity) |
| 1,4-bis(2,3 epoxypropoxy)butane<br>2425-79-8 | LD50 | 1.118 mg/kg | rat | OECD Guideline 401 (Acute Oral Toxicity) |
| Phenol, 4,4′-(1-methylethylidene)bis-, polymer with 2-(chloromethyl)oxirane, N1,N1-diethyl-1,3-propanediamine and 1-piperazineethana<br>68698-70-4 | LD50 | > 300 - < 1.000 mg/kg | rat | OECD Guideline 423 (Acute Oral toxicity) |
| Phenol, 4,4′-(1-methylethylidene)bis-, polymer with 2-(chloromethyl)oxirane, N1,N1-diethyl-1,3-propanediamine and 1-piperazineethana<br>68698-70-4 | Acute toxicity estimate (ATE) | 500 mg/kg | | Expert judgement |
| Formaldehyde polymer with phenol<br>9003-35-4 | LD50 | > 5.000 mg/kg | rat | not specified |
| octamethylcyclotetrasiloxane<br>556-67-2 | LD50 | > 4.800 mg/kg | rat | equivalent or similar to OECD Guideline 401 (Acute Oral Toxicity) |
| maleic anhydride<br>108-31-6 | LD50 | 1.090 mg/kg | rat | OECD Guideline 401 (Acute Oral Toxicity) |

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**Acute dermal toxicity:**

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

| Hazardous substances<br>CAS-No. | Value type | Value | Species | Method |
|---|---|---|---|---|
| Dihydro-3-(tetrapropenyl)furan-2,5-dione<br>26544-38-7 | LD50 | 6.200 mg/kg | rabbit | OECD Guideline 402 (Acute Dermal Toxicity) |
| reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight≤700)<br>25068-38-6 | LD50 | > 2.000 mg/kg | rat | OECD Guideline 402 (Acute Dermal Toxicity) |
| 10-Undecenoic acid, esters with 4,4'-isopropylidenediphenol | LD50 | > 2.000 mg/kg | rat | OECD Guideline 402 (Acute Dermal Toxicity) |
| 1,4-bis(2,3 epoxypropoxy)butane<br>2425-79-8 | LD50 | 1.130 mg/kg | rabbit | not specified |
| Formaldehyde polymer with phenol<br>9003-35-4 | LD50 | > 2.000 mg/kg | rat | not specified |
| Formaldehyde polymer with phenol<br>9003-35-4 | Acute toxicity estimate (ATE) | 2.500 mg/kg | | Expert judgement |
| octamethylcyclotetrasiloxane<br>556-67-2 | LD50 | > 2.375 mg/kg | rat | equivalent or similar to OECD Guideline 402 (Acute Dermal Toxicity) |
| maleic anhydride<br>108-31-6 | LD50 | 2.620 mg/kg | rabbit | not specified |

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**Acute inhalative toxicity:**

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

| Hazardous substances<br>CAS-No. | Value type | Value | Test atmosphere | Exposure time | Species | Method |
|---|---|---|---|---|---|---|
| Dihydro-3-(tetrapropenyl)furan-2,5-dione<br>26544-38-7 | LC50 | 5,3 mg/l | dust/mist | 4 h | rat | not specified |
| 1,4-bis(2,3 epoxypropoxy)butane<br>2425-79-8 | Acute toxicity estimate (ATE) | 11,01 mg/l | vapour | 4 h | | Expert judgement |
| octamethylcyclotetrasiloxane<br>556-67-2 | LC50 | 36 mg/l | dust/mist | 4 h | rat | OECD Guideline 403 (Acute Inhalation Toxicity) |

**Skin corrosion/irritation:**

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

| Hazardous substances<br>CAS-No. | Result | Exposure time | Species | Method |
|---|---|---|---|---|
| Dihydro-3-(tetrapropenyl)furan-2,5-dione<br>26544-38-7 | not irritating | | rabbit | other guideline: |
| reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight≤700)<br>25068-38-6 | not irritating | 4 h | rabbit | not specified |
| Phenol, 4,4′-(1-methylethylidene)bis-, polymer with 2-(chloromethyl)oxirane, N1,N1-diethyl-1,3-propanediamine and 1-piperazineethana<br>68698-70-4 | | 4 h | rabbit | OECD Guideline 404 (Acute Dermal Irritation / Corrosion) |
| Formaldehyde polymer with phenol<br>9003-35-4 | not irritating | | Human, EpiDermTM SIT (EPI-200), Reconstructed Human Epidermis (RHE) | OECD Guideline 439 (In Vitro Skin Irritation: Reconstructed Human Epidermis (RHE) Test Method) |
| octamethylcyclotetrasiloxane<br>556-67-2 | not irritating | | rabbit | equivalent or similar to OECD Guideline 404 (Acute Dermal Irritation / Corrosion) |
| maleic anhydride<br>108-31-6 | highly irritating | | rabbit | OECD Guideline 404 (Acute Dermal Irritation / Corrosion) |

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**Serious eye damage/irritation:**

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

| Hazardous substances<br>CAS-No. | Result | Exposure time | Species | Method |
|---|---|---|---|---|
| Dihydro-3-(tetrapropenyl)furan-2,5-dione<br>26544-38-7 | irritating | | rabbit | Evaluated according F.H.S.A.= Federal Hazardous Substance Act. |
| reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight≤700)<br>25068-38-6 | not irritating | | rabbit | OECD Guideline 405 (Acute Eye Irritation / Corrosion) |
| 1,4-bis(2,3 epoxypropoxy)butane<br>2425-79-8 | Category 1 (irreversible effects on the eye) | | rabbit | OECD Guideline 405 (Acute Eye Irritation / Corrosion) |
| Phenol, 4,4′-(1-methylethylidene)bis-, polymer with 2-(chloromethyl)oxirane, N1,N1-diethyl-1,3-propanediamine and 1-piperazineethana<br>68698-70-4 | no prediction can be made | | Bovine, cornea, in vitro test | OECD Guideline 437 (BCOP) |
| Formaldehyde polymer with phenol<br>9003-35-4 | irritating | 24 h | rabbit | not specified |
| octamethylcyclotetrasiloxane<br>556-67-2 | not irritating | | rabbit | equivalent or similar to OECD Guideline 405 (Acute Eye Irritation / Corrosion) |
| maleic anhydride<br>108-31-6 | corrosive | | 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<br>CAS-No. | Result | Test type | Species | Method |
|---|---|---|---|---|
| Dihydro-3-(tetrapropenyl)furan-2,5-dione<br>26544-38-7 | sensitising | Guinea pig maximisation test | guinea pig | OECD Guideline 406 (Skin Sensitisation) |
| reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight≤700)<br>25068-38-6 | sensitising | Mouse local lymphnode assay (LLNA) | mouse | OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay) |
| 1,4-bis(2,3 epoxypropoxy)butane<br>2425-79-8 | sensitising | Guinea pig maximisation test | guinea pig | OECD Guideline 406 (Skin Sensitisation) |
| Formaldehyde polymer with phenol<br>9003-35-4 | sensitising | | human | Patch Test |
| octamethylcyclotetrasiloxane<br>556-67-2 | not sensitising | Guinea pig maximisation test | guinea pig | OECD Guideline 406 (Skin Sensitisation) |
| maleic anhydride<br>108-31-6 | sensitising | Guinea pig maximisation test | guinea pig | OECD Guideline 406 (Skin Sensitisation) |

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**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 |
|---|---|---|---|---|---|
| Dihydro-3-(tetrapropenyl)furan-2,5-dione 26544-38-7 | negative | bacterial reverse mutation assay (e.g Ames test) | with and without | | OECD Guideline 471 (Bacterial Reverse Mutation Assay) |
| Dihydro-3-(tetrapropenyl)furan-2,5-dione 26544-38-7 | negative | in vitro mammalian chromosome aberration test | with and without | | OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test) |
| Dihydro-3-(tetrapropenyl)furan-2,5-dione 26544-38-7 | negative | mammalian cell gene mutation assay | with and without | | OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test) |
| 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) |
| 1,4-bis(2,3 epoxypropoxy)butane 2425-79-8 | positive | bacterial reverse mutation assay (e.g Ames test) | with and without | | OECD Guideline 471 (Bacterial Reverse Mutation Assay) |
| 1,4-bis(2,3 epoxypropoxy)butane 2425-79-8 | positive | in vitro mammalian chromosome aberration test | with and without | | OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test) |
| 1,4-bis(2,3 epoxypropoxy)butane 2425-79-8 | positive | mammalian cell gene mutation assay | with and without | | OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test) |
| Phenol, 4,4′-(1-methylethylidene)bis-, polymer with 2-(chloromethyl)oxirane, N1,N1-diethyl-1,3-propanediamine and 1-piperazineethana 68698-70-4 | negative | bacterial reverse mutation assay (e.g Ames test) | with and without | | equivalent or similar to OECD Guideline 471 (Bacterial Reverse Mutation Assay) |
| Formaldehyde polymer with phenol 9003-35-4 | negative | bacterial reverse mutation assay (e.g Ames test) | with and without | | equivalent or similar to OECD Guideline 471 (Bacterial Reverse Mutation Assay) |
| Formaldehyde polymer with phenol 9003-35-4 | negative | in vitro mammalian chromosome aberration test | with and without | | not specified |
| octamethylcyclotetrasiloxane 556-67-2 | negative | bacterial gene mutation assay | with and without | | OECD Guideline 471 (Bacterial Reverse Mutation Assay) |
| octamethylcyclotetrasiloxane 556-67-2 | negative | in vitro mammalian chromosome aberration test | with and without | | equivalent or similar to OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test) |
| octamethylcyclotetrasiloxane 556-67-2 | negative | mammalian cell gene mutation assay | with and without | | equivalent or similar to OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test) |
| maleic anhydride 108-31-6 | 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 | oral: gavage | | mouse | not specified |
| 1,4-bis(2,3 epoxypropoxy)butane 2425-79-8 | negative | oral: gavage | | mouse | OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test) |
| octamethylcyclotetrasiloxane 556-67-2 | negative | inhalation | | rat | equivalent or similar to OECD Guideline 475 (Mammalian Bone Marrow Chromosome Aberration Test) |
| octamethylcyclotetrasilox | negative | oral: gavage | | rat | equivalent or similar to OECD |

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| | | | | | |
|---|---|---|---|---|---|
| ane<br>556-67-2 | | | | | Guideline 478 (Genetic Toxicology: Rodent Dominant Lethal Test) |
| maleic anhydride<br>108-31-6 | negative | inhalation | | rat | OECD Guideline 475 (Mammalian Bone Marrow Chromosome Aberration Test) |

**Carcinogenicity**

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

| **Hazardous components<br>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)<br>25068-38-6 | not carcinogenic | dermal | 2 y<br>daily | mouse | male | OECD Guideline 453 (Combined Chronic Toxicity / Carcinogenicity Studies) |
| reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight≤700)<br>25068-38-6 | not carcinogenic | oral: gavage | 2 y<br>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<br>CAS-No.** | **Result / Value** | **Test type** | **Route of application** | **Species** | **Method** |
|---|---|---|---|---|---|
| Dihydro-3-(tetrapropenyl)furan-2,5-dione<br>26544-38-7 | NOAEL P 50 mg/kg | screening | oral: gavage | rat | OECD Guideline 421 (Reproduction / Developmental Toxicity Screening Test) |
| reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight≤700)<br>25068-38-6 | NOAEL P >= 50 mg/kg<br><br>NOAEL F1 >= 750 mg/kg<br><br>NOAEL F2 >= 750 mg/kg | Two generation study | oral: gavage | rat | OECD Guideline 416 (Two-Generation Reproduction Toxicity Study) |
| octamethylcyclotetrasiloxane<br>556-67-2 | NOAEL P 300 ppm<br><br>NOAEL F1 300 ppm | two-generation study | inhalation | rat | equivalent or similar to OECD Guideline 416 (Two-Generation Reproduction Toxicity Study) |
| maleic anhydride<br>108-31-6 | NOAEL P 55 mg/kg<br><br>NOAEL F1 55 mg/kg | Two generation study | oral: gavage | rat | OECD Guideline 416 (Two-Generation Reproduction Toxicity Study) |

**STOT-single exposure:**

No data available.

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**STOT-repeated exposure::**

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

| Hazardous substances<br>CAS-No. | Result / Value | Route of application | Exposure time / Frequency of treatment | Species | Method |
|---|---|---|---|---|---|
| Dihydro-3-(tetrapropenyl)furan-2,5-dione<br>26544-38-7 | NOAEL 50 mg/kg | oral: gavage | 28 days | rat | EPA Guideline |
| reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight≤700)<br>25068-38-6 | NOAEL 50 mg/kg | oral: gavage | 14 w<br>daily | rat | OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents) |
| 1,4-bis(2,3 epoxypropoxy)butane<br>2425-79-8 | NOAEL 200 mg/kg | oral: gavage | 28 d<br>daily | rat | OECD Guideline 407 (Repeated Dose 28-Day Oral Toxicity in Rodents) |
| Formaldehyde polymer with phenol<br>9003-35-4 | NOAEL 1.000 mg/kg | oral: feed | 2 years<br>daily | rat | not specified |
| octamethylcyclotetrasiloxane<br>556-67-2 | LOAEL 35 ppm | inhalation | 6 h nose only inhalation<br>5 days/week for 13 weeks | rat | OECD Guideline 412 (Repeated Dose Inhalation Toxicity: 28/14-Day) |
| octamethylcyclotetrasiloxane<br>556-67-2 | NOAEL 960 mg/kg | dermal | 3 w<br>5 d/w | rabbit | equivalent or similar to OECD Guideline 410 (Repeated Dose Dermal Toxicity: 21/28-Day Study) |
| maleic anhydride<br>108-31-6 | NOAEL 40 mg/kg | oral: feed | 90 d<br>daily | rat | not specified |

**Aspiration hazard:**

No data available.

**11.2 Information on other hazards**

not applicable

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## 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<br>CAS-No. | Value type | Value | Exposure time | Species | Method |
|---|---|---|---|---|---|
| Dihydro-3-(tetrapropenyl)furan-2,5-dione<br>26544-38-7 | LC50 | Toxicity > Water solubility | 96 h | Oncorhynchus mykiss | OECD Guideline 203 (Fish, Acute Toxicity Test) |
| reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight≤700)<br>25068-38-6 | LC50 | 1,75 mg/l | 96 h | Oncorhynchus mykiss | OECD Guideline 203 (Fish, Acute Toxicity Test) |
| 1,4-bis(2,3 epoxypropoxy)butane<br>2425-79-8 | LC50 | 24 mg/l | 96 h | Brachydanio rerio (new name: Danio rerio) | OECD Guideline 203 (Fish, Acute Toxicity Test) |
| Formaldehyde polymer with phenol<br>9003-35-4 | LC50 | 185 mg/l | 48 h | Oncorhynchus mykiss | other guideline: |
| octamethylcyclotetrasiloxane<br>556-67-2 | NOEC | 0,0044 mg/l | 93 d | Salmo gairdneri (new name: Oncorhynchus mykiss) | EPA OPPTS 797.1600 (Fish Early Life Stage Toxicity Test) |
| octamethylcyclotetrasiloxane<br>556-67-2 | LC50 | Toxicity > Water solubility | 96 h | Oncorhynchus mykiss | EPA OTS 797.1400 (Fish Acute Toxicity Test) |
| maleic anhydride<br>108-31-6 | LC50 | 115 mg/l | | | 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<br>CAS-No. | Value type | Value | Exposure time | Species | Method |
|---|---|---|---|---|---|
| Dihydro-3-(tetrapropenyl)furan-2,5-dione<br>26544-38-7 | EC50 | Toxicity > Water solubility | 48 h | Daphnia magna | OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test) |
| reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight≤700)<br>25068-38-6 | EC50 | 1,7 mg/l | 48 h | Daphnia magna | OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test) |
| 1,4-bis(2,3 epoxypropoxy)butane<br>2425-79-8 | EC50 | 75 mg/l | 24 h | Daphnia magna | OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test) |
| Phenol, 4,4′-(1-methylethylidene)bis-, polymer with 2-(chloromethyl)oxirane, N1,N1-diethyl-1,3-propanediamine and 1-piperazineethana<br>68698-70-4 | EC50 | 11,4 mg/l | 48 h | Daphnia magna | OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test) |
| Formaldehyde polymer with phenol<br>9003-35-4 | EC50 | 172 mg/l | 48 h | Daphnia pulex | OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test) |
| octamethylcyclotetrasiloxane<br>556-67-2 | EC50 | Toxicity > Water solubility | 48 h | Daphnia magna | EPA OTS 797.1300 (Aquatic Invertebrate Acute Toxicity Test, Freshwater Daphnids) |
| maleic anhydride<br>108-31-6 | EC50 | 42,81 mg/l | 48 h | Daphnia magna | OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test) |

**Chronic toxicity to aquatic invertebrates**

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

| Hazardous substances<br>CAS-No. | Value type | Value | Exposure time | Species | Method |
|---|---|---|---|---|---|
| reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight≤700)<br>25068-38-6 | NOEC | 0,3 mg/l | 21 d | Daphnia magna | OECD 211 (Daphnia magna, Reproduction Test) |
| octamethylcyclotetrasiloxane<br>556-67-2 | NOEC | 7.9 µg/l | 21 d | Daphnia magna | EPA OTS 797.1330 (Daphnid Chronic Toxicity Test) |

**Toxicity (Algae):**

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

| Hazardous substances<br>CAS-No. | Value type | Value | Exposure time | Species | Method |
|---|---|---|---|---|---|
| Dihydro-3-(tetrapropenyl)furan-2,5-dione<br>26544-38-7 | EC50 | Toxicity > Water solubility | 96 h | Selenastrum capricornutum (new name: Pseudokirchneriella subcapitata) | OECD Guideline 201 (Alga, Growth Inhibition Test) |
| Dihydro-3-(tetrapropenyl)furan-2,5-dione<br>26544-38-7 | NOEC | Toxicity > Water solubility | 96 h | Selenastrum capricornutum (new name: Pseudokirchneriella subcapitata) | OECD Guideline 201 (Alga, Growth Inhibition Test) |
| reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight≤700)<br>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)<br>25068-38-6 | NOEC | 4,2 mg/l | 72 h | Scenedesmus capricornutum | OECD Guideline 201 (Alga, Growth Inhibition Test) |
| 1,4-bis(2,3 epoxypropoxy)butane<br>2425-79-8 | EC50 | > 160 mg/l | 72 h | Pseudokirchneriella subcapitata | OECD Guideline 201 (Alga, Growth Inhibition Test) |
| 1,4-bis(2,3 epoxypropoxy)butane<br>2425-79-8 | EC10 | 97 mg/l | 72 h | Pseudokirchneriella subcapitata | OECD Guideline 201 (Alga, Growth Inhibition Test) |
| Phenol, 4,4′-(1-methylethylidene)bis-, polymer with 2-(chloromethyl)oxirane, N1,N1-diethyl-1,3-propanediamine and 1-piperazineethana<br>68698-70-4 | EC50 | 0,13 mg/l | 72 h | Raphidocelis subcapitata (new name: Pseudokirchneriella subcapitata) | OECD Guideline 201 (Alga, Growth Inhibition Test) |
| Phenol, 4,4′-(1-methylethylidene)bis-, polymer with 2-(chloromethyl)oxirane, N1,N1-diethyl-1,3-propanediamine and 1-piperazineethana<br>68698-70-4 | EC10 | 0,062 mg/l | 72 h | Raphidocelis subcapitata (new name: Pseudokirchneriella subcapitata) | OECD Guideline 201 (Alga, Growth Inhibition Test) |
| Formaldehyde polymer with phenol<br>9003-35-4 | EC50 | 575 mg/l | 24 h | Desmodesmus subspicatus | other guideline: |
| octamethylcyclotetrasiloxane<br>556-67-2 | EC50 | Toxicity > Water solubility | 96 h | Selenastrum capricornutum (new name: Pseudokirchneriella subcapitata) | EPA OTS 797.1050 (Algal Toxicity, Tiers I and II) |
| octamethylcyclotetrasiloxane<br>556-67-2 | EC10 | 0,022 mg/l | 96 h | Selenastrum capricornutum (new name: Pseudokirchneriella subcapitata) | EPA OTS 797.1050 (Algal Toxicity, Tiers I and II) |
| maleic anhydride<br>108-31-6 | EC50 | 29 mg/l | 72 h | Scenedesmus subspicatus (new name: Desmodesmus subspicatus) | OECD Guideline 201 (Alga, Growth Inhibition Test) |
| maleic anhydride<br>108-31-6 | EC10 | 23 mg/l | 72 h | Scenedesmus subspicatus (new name: Desmodesmus subspicatus) | 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<br>CAS-No. | Value type | Value | Exposure time | Species | Method |
|---|---|---|---|---|---|
| Dihydro-3-(tetrapropenyl)furan-2,5-dione<br>26544-38-7 | EC50 | Toxicity > Water solubility | 3 h | activated sludge, domestic | OECD Guideline 209 (Activated Sludge, Respiration Inhibition Test) |
| reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight≤700)<br>25068-38-6 | IC50 | > 100 mg/l | 3 h | activated sludge, industrial | other guideline: |
| 1,4-bis(2,3 epoxypropoxy)butane<br>2425-79-8 | IC50 | > 100 mg/l | 3 h | activated sludge | OECD Guideline 209 (Activated Sludge, Respiration Inhibition Test) |
| octamethylcyclotetrasiloxane | EC50 | Toxicity > Water | 3 h | activated sludge | ISO 8192 (Test for |

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| | | | | | |
|---|---|---|---|---|---|
| 556-67-2 | | solubility | | | Inhibition of Oxygen Consumption by Activated Sludge) |
| maleic anhydride<br>108-31-6 | EC0 | > 10.000 mg/l | 30 min | | not specified |

### 12.2. Persistence and degradability

| Hazardous substances<br>CAS-No. | Result | Test type | Degradability | Exposure time | Method |
|---|---|---|---|---|---|
| Dihydro-3-(tetrapropenyl)furan-2,5-dione<br>26544-38-7 | not readily biodegradable. | aerobic | 9,9 % | 28 d | OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test) |
| reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight≤700)<br>25068-38-6 | not readily biodegradable. | aerobic | 5 % | 28 d | OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test) |
| 1,4-bis(2,3 epoxypropoxy)butane<br>2425-79-8 | not readily biodegradable. | aerobic | 38 % | 28 d | OECD Guideline 301 E (Ready biodegradability: Modified OECD Screening Test) |
| Phenol, 4,4′-(1-methylethylidene)bis-, polymer with 2-(chloromethyl)oxirane, N1,N1-diethyl-1,3-propanediamine and 1-piperazineethana<br>68698-70-4 | not readily biodegradable. | aerobic | 8,3 % | 28 d | OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test) |
| Formaldehyde polymer with phenol<br>9003-35-4 | readily biodegradable | aerobic | > 60 % | 10 d | ISO DIS 9408 (Ultimate Aerobic BiodegradabilityMethod by Determining the Oxygen Demand in a Closed Respirometer) |
| octamethylcyclotetrasiloxane<br>556-67-2 | not readily biodegradable. | aerobic | 3,7 % | 29 d | OECD Guideline 310 (Ready BiodegradabilityCO2 in Sealed Vessels (Headspace Test) |
| maleic anhydride<br>108-31-6 | readily biodegradable | aerobic | 98 % | 7 d | OECD Guideline 301 E (Ready biodegradability: Modified OECD Screening Test) |

### 12.3. Bioaccumulative potential

| Hazardous substances<br>CAS-No. | Bioconcentration factor (BCF) | Exposure time | Temperature | Species | Method |
|---|---|---|---|---|---|
| octamethylcyclotetrasiloxane<br>556-67-2 | 12.400 | 28 d | | Pimephales promelas | EPA OTS 797.1520 (Fish Bioconcentration Test-Rainbow Trout) |

### 12.4. Mobility in soil

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| Hazardous substances<br>CAS-No. | LogPow | Temperature | Method |
|---|---|---|---|
| Dihydro-3-(tetrapropenyl)furan-2,5-dione<br>26544-38-7 | 4,39 | 22 °C | OECD Guideline 107 (Partition Coefficient (n-octanol / water), Shake Flask Method) |
| reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight≤700)<br>25068-38-6 | 3,242 | 25 °C | EU Method A.8 (Partition Coefficient) |
| 1,4-bis(2,3 epoxypropoxy)butane<br>2425-79-8 | -0,269 | 25 °C | OECD Guideline 117 (Partition Coefficient (n-octanol / water), HPLC Method) |
| Phenol, 4,4′-(1-methylethylidene)bis-, polymer with 2-(chloromethyl)oxirane, N1,N1-diethyl-1,3-propanediamine and 1-piperazineethana<br>68698-70-4 | 4,39 | 25 °C | QSAR (Quantitative Structure Activity Relationship) |
| octamethylcyclotetrasiloxane<br>556-67-2 | 6,98 | 21,7 °C | other guideline: |
| maleic anhydride<br>108-31-6 | 1,62 | | not specified |

### 12.5. Results of PBT and vPvB assessment

| Hazardous substances<br>CAS-No. | PBT / vPvB |
|---|---|
| Dihydro-3-(tetrapropenyl)furan-2,5-dione<br>26544-38-7 | Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria. |
| reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight≤700)<br>25068-38-6 | Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria. |
| 1,4-bis(2,3 epoxypropoxy)butane<br>2425-79-8 | Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria. |
| Phenol, 4,4′-(1-methylethylidene)bis-, polymer with 2-(chloromethyl)oxirane, N1,N1-diethyl-1,3-propanediamine and 1-piperazineethana<br>68698-70-4 | Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria. |
| Formaldehyde polymer with phenol<br>9003-35-4 | Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria. |
| octamethylcyclotetrasiloxane<br>556-67-2 | Fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria. |
| maleic anhydride<br>108-31-6 | Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very 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

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Product disposal:
Dispose of in accordance with local and national regulations.
Do not empty into drains / surface water / ground water.

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 | 3082 |
| RID | 3082 |
| IMDG | 3082 |
| IATA | 3082 |

**14.2. UN proper shipping name**

| | |
|---|---|
| ADR | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Aliphatic amines) |
| RID | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Aliphatic amines) |
| IMDG | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Aliphatic amines) |
| IATA | Environmentally hazardous substance, liquid, n.o.s. (Aliphatic amines) |

**14.3. Transport hazard class(es)**

| | |
|---|---|
| ADR | 9 |
| RID | 9 |
| IMDG | 9 |
| IATA | 9 |

**14.4. Packing group**

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

**14.5. Environmental hazards**

| | |
|---|---|
| ADR | not applicable |
| RID | not applicable |
| ADN | not applicable |
| IMDG | Marine pollutant |
| IATA | not applicable |

**14.6. Special precautions for user**

| | |
|---|---|
| ADR | not applicable |

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| | Tunnelcode: |
|---|---|
| RID | not applicable |
| ADN | not applicable |
| IMDG | not applicable |
| IATA | not applicable |

The transport classifications in this section apply generally to packed and bulk goods alike. For containers with a net volume of no more than 5 L for liquid substances or a net mass of no more than 5 kg for solid substances per individual or inner package, the exemptions SP 375 (ADR), A197 (IATA), 2.10.2.7 (IMDG) may be applied, which can result in a deviation from the transport classification for packed goods.

**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 (2010/75/EC) | < 3 % |

**15.2. Chemical safety assessment**

A chemical safety assessment has not been carried out.

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## 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:

H226 Flammable liquid and vapour.
H302 Harmful if swallowed.
H312 Harmful in contact with skin.
H314 Causes severe skin burns and eye damage.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.
H319 Causes serious eye irritation.
H332 Harmful if inhaled.
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H361f Suspected of damaging fertility.
H372 Causes damage to organs through prolonged or repeated exposure.
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.
H412 Harmful to aquatic life with long lasting effects.
H413 May cause long lasting harmful effects to aquatic life.

| | |
|---|---|
| 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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