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



LOCTITE 248 LOCTITE 248 known as LOCTITE 248 9G BLISTER EN/DE known as LOCTITE 248 9G BLISTER EN/DE

SDS No. : 453681
V014.0
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## SECTION 1: Identification of the substance/mixture and of the company/undertaking

**1.1. Product identifier**

LOCTITE 248 LOCTITE 248 known as LOCTITE 248 9G BLISTER EN/DE known as LOCTITE 248 9G BLISTER EN/DE
UFI: E5X8-0X4A-2201-9VR7

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

Intended use:
Threadlocker

**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 www.mysds.henkel.com 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 sensitizer | Category 1 |
| H317 May cause an allergic skin reaction. | |
| Chronic hazards to the aquatic environment | Category 3 |
| H412 Harmful to aquatic life with long lasting effects. | |

**2.2. Label elements**

**Label elements (CLP):**

**Hazard pictogram:**



**Contains** Tetramethylene dimethacrylate

| | |
|---|---|
| | Reaction mass of N,N'-ethane-1,2-diylbis(12-hydroxyoctadecan-1-amide), Octadecanamide, 12-hydroxy-N-[2-[(1-oxooctadecyl)amino]ethyl] |
| | Acetic acid, 2-phenylhydrazide |
| **Signal word:** | Warning |
| **Hazard statement:** | H317 May cause an allergic skin reaction.<br>H412 Harmful to aquatic life with long lasting effects. |
| **Precautionary statement: Prevention** | P273 Avoid release to the environment.<br>P280 Wear protective gloves. |
| **Precautionary statement: Response** | P333+P313 If skin irritation or rash occurs: Get medical advice/attention. |

**2.3. Other hazards**

None if used properly.

**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 ≥ 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<br>CAS-No.<br>EC Number<br>REACH-Reg. No. | Concentration | Classification | Specific Conc. Limits, M-factors and ATEs | Add. Information |
|---|---|---|---|---|
| Tetramethylene dimethacrylate<br>2082-81-7<br>218-218-1<br>01-2119967415-30 | 10- < 20 % | Skin Sens. 1B, H317 | | |
| 2-[[2,2-bis[[(1-oxoallyl)oxy]methyl]butoxy]methyl]-2-ethyl-1,3-propanediyl diacrylate<br>1393932-71-2<br>01-2119977121-41 | 1- < 5 % | Aquatic Chronic 2, H411<br>Eye Irrit. 2, H319 | | |
| Reaction mass of N,N'-ethane-1,2-diylbis(12-hydroxyoctadecan-1-amide), Octadecanamide, 12-hydroxy-N-[2-[(1-oxooctadecyl)amino]ethyl]<br>-----<br>01-2119978265-26 | 1- < 5 % | Skin Sens. 1, H317 | | |
| Cumene hydroperoxide<br>80-15-9<br>201-254-7<br>01-2119475796-19 | 0,1- < 1 % | STOT RE 2, H373<br>Skin Corr. 1B, H314<br>Acute Tox. 2, Inhalation, H330<br>Aquatic Chronic 2, H411<br>Acute Tox. 4, Oral, H302<br>Acute Tox. 4, Dermal, H312<br>Org. Perox. E, H242<br>STOT SE 3, H335 | Eye Irrit. 2; H319; C 1 - < 3 %<br>Skin Irrit. 2; H315; C 3 - < 10 %<br>Eye Dam. 1; H318; C 3 - < 10 %<br>STOT SE 3; H335; C >= 1 %<br>Skin Corr. 1B; H314; C >= 10 %<br>=====<br>dermal:ATE = 1.100 mg/kg | |
| N,N-Diethyl-p-toluidine<br>613-48-9<br>210-345-0 | 0,1- < 1 % | Acute Tox. 3, Oral, H301<br>Acute Tox. 3, Dermal, H311<br>Acute Tox. 3, Inhalation, H331<br>STOT RE 2, H373<br>Aquatic Chronic 3, H412<br>Skin Irrit. 2, H315 | dermal:ATE = 300 mg/kg<br>oral:ATE = 100 mg/kg<br>inhalation:ATE = 3 mg/l;vapour | |
| Acetic acid, 2-phenylhydrazide<br>114-83-0<br>204-055-3<br>01-2120951382-56 | 0,1- < 1 % | Aquatic Acute 1, H400<br>Aquatic Chronic 1, H410<br>Acute Tox. 4, Oral, H302<br>Skin Sens. 1, H317<br>Carc. 2, H351 | M acute = 1<br>M chronic = 1 | |
| N,N-dimethyl-o-toluidine<br>609-72-3<br>210-199-8 | 0,1- < 1 % | STOT RE 2, H373<br>Acute Tox. 3, Oral, H301<br>Acute Tox. 3, Dermal, H311<br>Acute Tox. 3, Inhalation, H331<br>Aquatic Chronic 3, H412 | dermal:ATE = 300 mg/kg<br>oral:ATE = 100 mg/kg<br>inhalation:ATE = 0,5 mg/l;dust/mist | |
| methacrylic acid<br>79-41-4<br>201-204-4<br>01-2119463884-26 | 0,1- < 1 % | Acute Tox. 4, Oral, H302<br>Acute Tox. 3, Dermal, H311<br>Acute Tox. 4, Inhalation, H332<br>Skin Corr. 1A, H314<br>Eye Dam. 1, H318<br>STOT SE 3, H335 | STOT SE 3; H335; C >= 1 %<br>=====<br>dermal:ATE = 500 mg/kg<br>inhalation:ATE = 3,19 mg/l;dust/mist | |
| 1,4-Naphthalenedione<br>130-15-4<br>204-977-6 | 0,01- < 0,1 % | Acute Tox. 3, Oral, H301<br>Skin Corr. 1C, H314<br>Skin Sens. 1, H317<br>Eye Dam. 1, H318<br>Acute Tox. 1, Inhalation, H330<br>STOT SE 3, H335<br>Aquatic Acute 1, H400<br>Aquatic Chronic 1, H410 | M acute = 10<br>M chronic = 1 | |

**If no ATE values are displayed, please refer to LD/LC50 values in Section 11.**
**For full text of the H - statements and other abbreviations see section 16 "Other information".**

## 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**
SKIN: Rash, Urticaria.

Prolonged or repeated contact may cause eye irritation.

**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.
Keep away from sources of ignition.
Avoid dust formation.

**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.
Scrape up as much material as possible.
Sweep up spilled material. Avoid creating dust.
Store in a partly filled, closed container until 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:
Good industrial hygiene practices should be observed.
Do not eat, drink or smoke while working.
Wash hands before work breaks and after finishing work.

**7.2. Conditions for safe storage, including any incompatibilities**
Ensure good ventilation/extraction.
Refer to Technical Data Sheet.
Keep container tightly sealed.

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

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

**Occupational Exposure Limits**

Valid for
Great Britain

| Ingredient [Regulated substance] | ppm | mg/m³ | Value type | Short term exposure limit category / Remarks | Regulatory list |
|---|---|---|---|---|---|
| Silicon dioxide<br>112945-52-5<br>[SILICA, AMORPHOUS, INHALABLE DUST] | | 6 | Time Weighted Average (TWA): | | EH40 WEL |
| Silicon dioxide<br>112945-52-5<br>[SILICA, AMORPHOUS, RESPIRABLE DUST] | | 2,4 | Time Weighted Average (TWA): | | EH40 WEL |
| Silicon dioxide<br>112945-52-5<br>[Dust, respirable dust] | | 4 | Time Weighted Average (TWA): | | EH40 WEL |
| Silicon dioxide<br>112945-52-5<br>[Dust, inhalable dust] | | 10 | Time Weighted Average (TWA): | | EH40 WEL |
| Ethene, homopolymer<br>9002-88-4<br>[DUST, INHALABLE DUST] | | 10 | Time Weighted Average (TWA): | | EH40 WEL |
| Ethene, homopolymer<br>9002-88-4<br>[DUST, RESPIRABLE DUST] | | 4 | Time Weighted Average (TWA): | | EH40 WEL |
| Methacrylic acid<br>79-41-4<br>[METHACRYLIC ACID] | 20 | 72 | Time Weighted Average (TWA): | | EH40 WEL |
| Methacrylic acid<br>79-41-4<br>[METHACRYLIC ACID] | 40 | 143 | Short Term Exposure Limit (STEL): | 15 minutes | EH40 WEL |

**Occupational Exposure Limits**

Valid for
Ireland

| Ingredient [Regulated substance] | ppm | mg/m³ | Value type | Short term exposure limit category / Remarks | Regulatory list |
|---|---|---|---|---|---|
| Silicon dioxide<br>112945-52-5<br>[SILICA, AMORPHOUS] | | 6 | Time Weighted Average (TWA): | | IR_OEL |
| Silicon dioxide<br>112945-52-5<br>[SILICA, AMORPHOUS] | | 2,4 | Time Weighted Average (TWA): | | IR_OEL |
| Silicon dioxide<br>112945-52-5<br>[DUSTS NON-SPECIFIC] | | 10 | Time Weighted Average (TWA): | | IR_OEL |
| Silicon dioxide<br>112945-52-5<br>[DUSTS NON-SPECIFIC] | | 4 | Time Weighted Average (TWA): | | IR_OEL |
| Ethene, homopolymer<br>9002-88-4<br>[DUSTS NON-SPECIFIC] | | 10 | Time Weighted Average (TWA): | | IR_OEL |
| Ethene, homopolymer<br>9002-88-4<br>[DUSTS NON-SPECIFIC] | | 4 | Time Weighted Average (TWA): | | IR_OEL |
| Methacrylic acid<br>79-41-4<br>[METHACRYLIC ACID] | 20 | 70 | Time Weighted Average (TWA): | | IR_OEL |
| Methacrylic acid<br>79-41-4<br>[METHACRYLIC ACID] | 40 | 140 | Short Term Exposure Limit (STEL): | 15 minutes | IR_OEL |

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

| Name on list | Environmental Compartment | Exposure period | Value | | | | Remarks |
|---|---|---|---|---|---|---|---|
| | | | mg/l | ppm | mg/kg | others | |
| Tetramethylene dimethacrylate 2082-81-7 | aqua (freshwater) | | 0,043 mg/l | | | | |
| Tetramethylene dimethacrylate 2082-81-7 | aqua (marine water) | | 0,004 mg/l | | | | |
| Tetramethylene dimethacrylate 2082-81-7 | aqua (intermittent releases) | | 0,098 mg/l | | | | |
| Tetramethylene dimethacrylate 2082-81-7 | sewage treatment plant (STP) | | 2 mg/l | | | | |
| Tetramethylene dimethacrylate 2082-81-7 | sediment (freshwater) | | | | 3,12 mg/kg | | |
| Tetramethylene dimethacrylate 2082-81-7 | sediment (marine water) | | | | 0,312 mg/kg | | |
| Tetramethylene dimethacrylate 2082-81-7 | Soil | | | | 0,573 mg/kg | | |
| 2-[[2,2-bis[[(1-oxoallyl)oxy]methyl]butoxy]methyl]-2-ethyl-1,3-propanediyl diacrylate 1393932-71-2 | aqua (freshwater) | | 0,0012 mg/l | | | | |
| 2-[[2,2-bis[[(1-oxoallyl)oxy]methyl]butoxy]methyl]-2-ethyl-1,3-propanediyl diacrylate 1393932-71-2 | aqua (intermittent releases) | | 0,012 mg/l | | | | |
| 2-[[2,2-bis[[(1-oxoallyl)oxy]methyl]butoxy]methyl]-2-ethyl-1,3-propanediyl diacrylate 1393932-71-2 | aqua (marine water) | | 0,00012 mg/l | | | | |
| 2-[[2,2-bis[[(1-oxoallyl)oxy]methyl]butoxy]methyl]-2-ethyl-1,3-propanediyl diacrylate 1393932-71-2 | sewage treatment plant (STP) | | 100 mg/l | | | | |
| 2-[[2,2-bis[[(1-oxoallyl)oxy]methyl]butoxy]methyl]-2-ethyl-1,3-propanediyl diacrylate 1393932-71-2 | sediment (freshwater) | | | | 0,048 mg/kg | | |
| 2-[[2,2-bis[[(1-oxoallyl)oxy]methyl]butoxy]methyl]-2-ethyl-1,3-propanediyl diacrylate 1393932-71-2 | sediment (marine water) | | | | 0,005 mg/kg | | |
| 2-[[2,2-bis[[(1-oxoallyl)oxy]methyl]butoxy]methyl]-2-ethyl-1,3-propanediyl diacrylate 1393932-71-2 | Soil | | | | 0,01 mg/kg | | |
| .alpha.,.alpha.-Dimethylbenzyl hydroperoxide 80-15-9 | aqua (freshwater) | | 0,0031 mg/l | | | | |
| .alpha.,.alpha.-Dimethylbenzyl hydroperoxide 80-15-9 | aqua (intermittent releases) | | 0,031 mg/l | | | | |
| .alpha.,.alpha.-Dimethylbenzyl hydroperoxide 80-15-9 | aqua (marine water) | | 0,00031 mg/l | | | | |
| .alpha.,.alpha.-Dimethylbenzyl hydroperoxide 80-15-9 | sewage treatment plant (STP) | | 0,35 mg/l | | | | |
| .alpha.,.alpha.-Dimethylbenzyl hydroperoxide 80-15-9 | sediment (freshwater) | | | | 0,023 mg/kg | | |
| .alpha.,.alpha.-Dimethylbenzyl hydroperoxide 80-15-9 | sediment (marine water) | | | | 0,0023 mg/kg | | |
| .alpha.,.alpha.-Dimethylbenzyl hydroperoxide 80-15-9 | Soil | | | | 0,0029 mg/kg | | |
| methacrylic acid | aqua | | 0,82 mg/l | | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 79-41-4 | (freshwater) | | | | | | |
| methacrylic acid 79-41-4 | Freshwater - intermittent | | 0,45 mg/l | | | | |
| methacrylic acid 79-41-4 | aqua (marine water) | | 0,082 mg/l | | | | |
| methacrylic acid 79-41-4 | sewage treatment plant (STP) | | 100 mg/l | | | | |
| methacrylic acid 79-41-4 | sediment (freshwater) | | | | 3,09 mg/kg | | |
| methacrylic acid 79-41-4 | sediment (marine water) | | | | 0,309 mg/kg | | |
| methacrylic acid 79-41-4 | Soil | | | | 0,137 mg/kg | | |
| methacrylic acid 79-41-4 | Predator | | | | | | no potential for bioaccumulation |

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

| Name on list | Application Area | Route of Exposure | Health Effect | Exposure Time | Value | Remarks |
|---|---|---|---|---|---|---|
| Tetramethylene dimethacrylate<br>2082-81-7 | Workers | dermal | Long term exposure - systemic effects | | 4,2 mg/kg | |
| Tetramethylene dimethacrylate<br>2082-81-7 | Workers | inhalation | Long term exposure - systemic effects | | 14,5 mg/m3 | |
| Tetramethylene dimethacrylate<br>2082-81-7 | General population | inhalation | Long term exposure - systemic effects | | 4,3 mg/m3 | |
| Tetramethylene dimethacrylate<br>2082-81-7 | General population | dermal | Long term exposure - systemic effects | | 2,5 mg/kg | |
| Tetramethylene dimethacrylate<br>2082-81-7 | General population | oral | Long term exposure - systemic effects | | 2,5 mg/kg | |
| 2-[[2,2-bis[[(1-oxoallyl)oxy]methyl]butoxy]methyl]-2-ethyl-1,3-propanediyl diacrylate<br>1393932-71-2 | Workers | Inhalation | Long term exposure - systemic effects | | 16,46 mg/m3 | |
| 2-[[2,2-bis[[(1-oxoallyl)oxy]methyl]butoxy]methyl]-2-ethyl-1,3-propanediyl diacrylate<br>1393932-71-2 | Workers | dermal | Long term exposure - systemic effects | | 4,67 mg/kg | |
| N,N'-Ethane-1,2-diylbis(12-hydroxyoctadecan-1-amide)<br>----- | Workers | inhalation | Long term exposure - systemic effects | | 35,24 mg/m3 | |
| N,N'-Ethane-1,2-diylbis(12-hydroxyoctadecan-1-amide)<br>----- | Workers | inhalation | Acute/short term exposure - systemic effects | | 35,24 mg/m3 | |
| N,N'-Ethane-1,2-diylbis(12-hydroxyoctadecan-1-amide)<br>----- | Workers | inhalation | Long term exposure - local effects | | 3,35 mg/m3 | |
| N,N'-Ethane-1,2-diylbis(12-hydroxyoctadecan-1-amide)<br>----- | Workers | inhalation | Acute/short term exposure - local effects | | 3,35 mg/m3 | |
| N,N'-Ethane-1,2-diylbis(12-hydroxyoctadecan-1-amide)<br>----- | General population | inhalation | Long term exposure - systemic effects | | 8,69 mg/m3 | |
| N,N'-Ethane-1,2-diylbis(12-hydroxyoctadecan-1-amide)<br>----- | General population | inhalation | Acute/short term exposure - systemic effects | | 8,69 mg/m3 | |
| N,N'-Ethane-1,2-diylbis(12-hydroxyoctadecan-1-amide)<br>----- | General population | inhalation | Long term exposure - local effects | | 0,83 mg/m3 | |
| N,N'-Ethane-1,2-diylbis(12-hydroxyoctadecan-1-amide)<br>----- | General population | inhalation | Acute/short term exposure - local effects | | 0,83 mg/m3 | |
| N,N'-Ethane-1,2-diylbis(12-hydroxyoctadecan-1-amide)<br>----- | General population | oral | Long term exposure - systemic effects | | 5 mg/kg | |
| N,N'-Ethane-1,2-diylbis(12-hydroxyoctadecan-1-amide)<br>----- | General population | oral | Acute/short term exposure - systemic effects | | 5 mg/kg | |
| .alpha.,.alpha.-Dimethylbenzyl hydroperoxide<br>80-15-9 | Workers | inhalation | Long term exposure - systemic effects | | 6 mg/m3 | |
| methacrylic acid<br>79-41-4 | Workers | Inhalation | Long term exposure - local effects | | 88 mg/m3 | no potential for bioaccumulation |
| methacrylic acid<br>79-41-4 | Workers | Inhalation | Long term exposure - systemic effects | | 29,6 mg/m3 | no potential for bioaccumulation |
| methacrylic acid<br>79-41-4 | Workers | dermal | Long term exposure - systemic effects | | 4,25 mg/kg | no potential for bioaccumulation |
| methacrylic acid<br>79-41-4 | General population | Inhalation | Long term exposure - local | | 6,55 mg/m3 | no potential for bioaccumulation |

| | | | | | | |
|---|---|---|---|---|---|---|
| | | | effects | | | |
| methacrylic acid<br>79-41-4 | General population | Inhalation | Long term exposure - systemic effects | | 6,3 mg/m3 | no potential for bioaccumulation |
| methacrylic acid<br>79-41-4 | General population | dermal | Long term exposure - systemic effects | | 2,55 mg/kg | no potential for bioaccumulation |

**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
Dust mask, P2 particle filter.

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**

| | |
|---|---|
| Delivery form | solid, paste |
| Colour | Blue |
| Odor | Mild, Acrylic |
| Physical state | solid |
| Melting point | > 80 °C (> 176 °F) |
| Solidification temperature | Not applicable, Product is a solid |
| Initial boiling point | > 150 °C (> 302 °F) |
| Flammability | Not applicable<br>Non flammable product (flash point is greater than 93°C) |
| Explosive limits | Not applicable, Product is a solid |
| Flash point | Not applicable, Product is a solid |

| | |
|---|---|
| Auto-ignition temperature | Not applicable, Product is a solid |
| Decomposition temperature | Not applicable, Substance/mixture is not self-reactive, no organic peroxide and does not decompose under foreseen conditions of use |
| pH | Product is non-polar/aprotic., Not applicable |
| Viscosity (kinematic) | Not applicable, Product is a solid |
| Solubility (qualitative)<br>(20 °C (68 °F); Solvent: Water) | Slight |
| Partition coefficient: n-octanol/water | Not applicable<br>Mixture |
| Vapour pressure<br>(26,7 °C (80.1 °F)) | < 5 mm hg |
| Vapour pressure<br>(20 °C (68 °F)) | < 0,13 mbar |
| Density<br>(25 °C (77 °F)) | 1,1 g/cm3 no method / method unknown |
| Relative vapour density: | Not applicable, Product is a solid |
| Particle characteristics | Not applicable, mixture is a paste. |

**9.2. Other information**

Other information not applicable for this product

## SECTION 10: Stability and reactivity

**10.1. Reactivity**
Reacts with strong oxidants.
Acids.
Reducing agents.
Strong bases.

**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.
Hydrocarbons
nitrogen oxides
Rapid polymerisation may generate excessive heat and pressure.

## 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.

Based on available data, the classification criteria are not met.

| Hazardous substances<br>CAS-No. | Value type | Value | Species | Method |
|---|---|---|---|---|
| Tetramethylene dimethacrylate<br>2082-81-7 | LD50 | 10.066 mg/kg | rat | equivalent or similar to OECD Guideline 401 (Acute Oral Toxicity) |
| 2-[[2,2-bis[[(1-oxoallyl)oxy]methyl]butoxy]methyl]-2-ethyl-1,3-propanediyl diacrylate<br>1393932-71-2 | LD50 | > 5.000 mg/kg | rat | OECD Guideline 401 (Acute Oral Toxicity) |
| Reaction mass of N,N'-ethane-1,2-diylbis(12-hydroxyoctadecan-1-amide), Octadecanamide, 12-hydroxy-N-[2-[(1-oxooctadecyl)amino]ethyl]<br>----- | LD50 | > 2.000 mg/kg | rat | OECD Guideline 423 (Acute Oral toxicity) |
| Cumene hydroperoxide<br>80-15-9 | LD50 | 382 mg/kg | rat | other guideline: |
| N,N-Diethyl-p-toluidine<br>613-48-9 | Acute toxicity estimate (ATE) | 100 mg/kg | | Expert judgement |
| Acetic acid, 2-phenylhydrazide<br>114-83-0 | LD50 | 310 mg/kg | rat | OECD Guideline 425 (Acute Oral Toxicity: Up-and-Down Procedure) |
| N,N-dimethyl-o-toluidine<br>609-72-3 | Acute toxicity estimate (ATE) | 100 mg/kg | | Expert judgement |
| methacrylic acid<br>79-41-4 | LD50 | 1.320 mg/kg | rat | equivalent or similar to OECD Guideline 401 (Acute Oral Toxicity) |
| 1,4-Naphthalenedione<br>130-15-4 | LD50 | 124 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.

Based on available data, the classification criteria are not met.

| Hazardous substances<br>CAS-No. | Value type | Value | Species | Method |
|---|---|---|---|---|
| Tetramethylene dimethacrylate<br>2082-81-7 | LD50 | > 3.000 mg/kg | rabbit | not specified |
| 2-[[2,2-bis[[(1-oxoallyl)oxy]methyl]butoxy]methyl]-2-ethyl-1,3-propanediyl diacrylate<br>1393932-71-2 | LD50 | 3.650 mg/kg | rabbit | OECD Guideline 402 (Acute Dermal Toxicity) |
| Cumene hydroperoxide<br>80-15-9 | Acute toxicity estimate (ATE) | 1.100 mg/kg | | Expert judgement |
| N,N-Diethyl-p-toluidine<br>613-48-9 | Acute toxicity estimate (ATE) | 300 mg/kg | | Expert judgement |
| N,N-dimethyl-o-toluidine<br>609-72-3 | Acute toxicity estimate (ATE) | 300 mg/kg | | Expert judgement |
| methacrylic acid<br>79-41-4 | LD50 | 500 - 1.000 mg/kg | rabbit | Dermal Toxicity Screening |
| methacrylic acid<br>79-41-4 | Acute toxicity estimate (ATE) | 500 mg/kg | | Expert judgement |

**Acute inhalative toxicity:**

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

Based on available data, the classification criteria are not met.

| Hazardous substances<br>CAS-No. | Value type | Value | Test atmosphere | Exposure time | Species | Method |
|---|---|---|---|---|---|---|
| Reaction mass of N,N'-ethane-1,2-diylbis(12-hydroxyoctadecan-1-amide), Octadecanamide, 12-hydroxy-N-[2-[(1-oxooctadecyl)amino]ethyl ]<br>----- | LC50 | > 5,05 mg/l | dust/mist | 4 h | rat | OECD Guideline 436 (Acute Inhalation Toxicity: Acute Toxic Class (ATC) Method) |
| Cumene hydroperoxide<br>80-15-9 | LC50 | 1,370 mg/l | vapour | 4 h | rat | not specified |
| N,N-Diethyl-p-toluidine<br>613-48-9 | Acute toxicity estimate (ATE) | 3 mg/l | vapour | | | Expert judgement |
| N,N-dimethyl-o-toluidine<br>609-72-3 | Acute toxicity estimate (ATE) | 0,5 mg/l | dust/mist | 4 h | | Expert judgement |
| methacrylic acid<br>79-41-4 | LC50 | 3,19 - 6,5 mg/l | dust/mist | 4 h | rat | equivalent or similar to OECD Guideline 403 (Acute Inhalation Toxicity) |
| methacrylic acid<br>79-41-4 | Acute toxicity estimate (ATE) | 3,19 mg/l | dust/mist | | | Expert judgement |
| 1,4-Naphthalenedione<br>130-15-4 | LC50 | 0,046 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.

Based on available data, the classification criteria are not met.

| Hazardous substances<br>CAS-No. | Result | Exposure time | Species | Method |
|---|---|---|---|---|
| Tetramethylene dimethacrylate<br>2082-81-7 | not irritating | 24 h | rabbit | FDA Guideline |
| 2-[[2,2-bis[[(1-oxoallyl)oxy]methyl]butoxy]methyl]-2-ethyl-1,3-propanediyl diacrylate<br>1393932-71-2 | not irritating | | rabbit | EU Method B.4 (Acute Toxicity: Dermal Irritation / Corrosion) |
| Cumene hydroperoxide<br>80-15-9 | corrosive | | rabbit | Draize Test |
| N,N-Diethyl-p-toluidine<br>613-48-9 | irritating | 4 h | rabbit | OECD Guideline 404 (Acute Dermal Irritation / Corrosion) |
| Acetic acid, 2-phenylhydrazide<br>114-83-0 | not corrosive | | Human, EpiSkinTM (SM), Reconstructed Human Epidermis (RHE) | OECD Guideline 431 (In Vitro Skin Corrosion: Reconstructed Human Epidermis (RHE) Test Method) |
| Acetic acid, 2-phenylhydrazide<br>114-83-0 | not irritating | | Human, EpiSkinTM (SM), Reconstructed Human Epidermis (RHE) | OECD Guideline 439 (In Vitro Skin Irritation: Reconstructed Human Epidermis (RHE) Test Method) |

| | | | | |
|---|---|---|---|---|
| methacrylic acid<br>79-41-4 | corrosive | 3 min | rabbit | OECD Guideline 404 (Acute Dermal Irritation / Corrosion) |
| 1,4-Naphthalenedione<br>130-15-4 | Category 1C (corrosive) | | rabbit | 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.

Based on available data, the classification criteria are not met.

| **Hazardous substances<br>CAS-No.** | **Result** | **Exposure time** | **Species** | **Method** |
|---|---|---|---|---|
| Tetramethylene dimethacrylate<br>2082-81-7 | not irritating | | rabbit | equivalent or similar to OECD Guideline 405 (Acute Eye Irritation / Corrosion) |
| 2-[[2,2-bis[[(1-oxoallyl)oxy]methyl]butoxy]methyl]-2-ethyl-1,3-propanediyl diacrylate<br>1393932-71-2 | Category 2B (mildly irritating to eyes) | | rabbit | EU Method B.5 (Acute Toxicity: Eye Irritation / Corrosion) |
| Acetic acid, 2-phenylhydrazide<br>114-83-0 | not irritating | | Chicken, eye, isolated | OECD Guideline 438 (Isolated Chicken Eye Test Method) |
| methacrylic acid<br>79-41-4 | corrosive | | rabbit | Draize Test |

**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** |
|---|---|---|---|---|
| Tetramethylene dimethacrylate<br>2082-81-7 | sensitising | Mouse local lymphnode assay (LLNA) | mouse | OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay) |
| 2-[[2,2-bis[[(1-oxoallyl)oxy]methyl]butoxy]methyl]-2-ethyl-1,3-propanediyl diacrylate<br>1393932-71-2 | not sensitising | Mouse local lymphnode assay (LLNA) | mouse | OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay) |
| Reaction mass of N,N'-ethane-1,2-diylbis(12-hydroxyoctadecan-1-amide), Octadecanamide, 12-hydroxy-N-[2-[(1-oxooctadecyl)amino]ethyl]<br>----- | sensitising | Guinea pig maximisation test | guinea pig | OECD Guideline 406 (Skin Sensitisation) |
| Acetic acid, 2-phenylhydrazide<br>114-83-0 | positive | Direct peptide reactivity assay (DPRA) | cysteine and lysine, in chemico test | OECD Guideline 442C (Direct Peptide Reactivity Assay (DPRA)) |
| Acetic acid, 2-phenylhydrazide<br>114-83-0 | positive | Activation of keratinocytes | human keratinocytes, in vitro test | OECD Guideline 442D (ARE-Nrf2 Luciferase Test Method) |
| Acetic acid, 2-phenylhydrazide<br>114-83-0 | positive | activation of dendritic cells | human monocytes, in vitro test | OECD Guideline 442E (H-CLAT: Human Cell Line Activation Test) |
| methacrylic acid<br>79-41-4 | not sensitising | Buehler test | guinea pig | equivalent or similar to OECD Guideline 406 (Skin Sensitisation) |
| 1,4-Naphthalenedione<br>130-15-4 | sensitising | not specified | guinea pig | not specified |

**Germ cell mutagenicity:**

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

Based on available data, the classification criteria are not met.

| Hazardous substances CAS-No. | Result | Type of study / Route of administration | Metabolic activation / Exposure time | Species | Method |
|---|---|---|---|---|---|
| Tetramethylene dimethacrylate 2082-81-7 | negative | bacterial reverse mutation assay (e.g Ames test) | with and without | | OECD Guideline 471 (Bacterial Reverse Mutation Assay) |
| Tetramethylene dimethacrylate 2082-81-7 | negative | in vitro mammalian chromosome aberration test | with and without | | OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test) |
| Tetramethylene dimethacrylate 2082-81-7 | positive without metabolic activation | in vitro mammalian chromosome aberration test | with and without | | OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test) |
| Tetramethylene dimethacrylate 2082-81-7 | negative | in vitro mammalian chromosome aberration test | with and without | | OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test) |
| 2-[[2,2-bis[[(1-oxoallyl)oxy]methyl]butoxy]methyl]-2-ethyl-1,3-propanediyl diacrylate 1393932-71-2 | negative | mammalian cell gene mutation assay | with and without | | OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test) |
| 2-[[2,2-bis[[(1-oxoallyl)oxy]methyl]butoxy]methyl]-2-ethyl-1,3-propanediyl diacrylate 1393932-71-2 | negative | bacterial reverse mutation assay (e.g Ames test) | with and without | | OECD Guideline 471 (Bacterial Reverse Mutation Assay) |
| 2-[[2,2-bis[[(1-oxoallyl)oxy]methyl]butoxy]methyl]-2-ethyl-1,3-propanediyl diacrylate 1393932-71-2 | positive with metabolic activation | bacterial reverse mutation assay (e.g Ames test) | with and without | | OECD Guideline 471 (Bacterial Reverse Mutation Assay) |
| Cumene hydroperoxide 80-15-9 | positive | bacterial reverse mutation assay (e.g Ames test) | without | | OECD Guideline 471 (Bacterial Reverse Mutation Assay) |
| Acetic acid, 2-phenylhydrazide 114-83-0 | positive | bacterial reverse mutation assay (e.g Ames test) | with and without | | OECD Guideline 471 (Bacterial Reverse Mutation Assay) |
| Acetic acid, 2-phenylhydrazide 114-83-0 | negative | in vitro mammalian cell micronucleus test | with and without | | OECD Guideline 487 (In vitro Mammalian Cell Micronucleus Test) |
| methacrylic acid 79-41-4 | negative | bacterial reverse mutation assay (e.g Ames test) | with and without | | equivalent or similar to OECD Guideline 471 (Bacterial Reverse Mutation Assay) |

**Carcinogenicity**

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

Based on available data, the classification criteria are not met.

| Hazardous components CAS-No. | Result | Route of application | Exposure time / Frequency of treatment | Species | Sex | Method |
|---|---|---|---|---|---|---|
| Acetic acid, 2-phenylhydrazide 114-83-0 | carcinogenic | oral: drinking water | continuous | mouse | male/female | not specified |
| methacrylic acid 79-41-4 | not carcinogenic | inhalation | 2 y | mouse | male/female | OECD Guideline 451 (Carcinogenicity Studies) |

**Reproductive toxicity:**

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

Based on available data, the classification criteria are not met.

| Hazardous substances<br>CAS-No. | Result / Value | Test type | Route of application | Species | Method |
|---|---|---|---|---|---|
| methacrylic acid<br>79-41-4 | NOAEL P 50 mg/kg<br><br>NOAEL F1 400 mg/kg<br><br>NOAEL F2 400 mg/kg | Two generation study | oral: gavage | rat | OECD Guideline 416 (Two-Generation Reproduction Toxicity Study) |

**STOT-single exposure:**

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

Based on available data, the classification criteria are not met.

| Hazardous substances<br>CAS-No. | Assessment | Route of exposure | Target Organs | Remarks |
|---|---|---|---|---|
| methacrylic acid<br>79-41-4 | May cause respiratory irritation. | | | |

**STOT-repeated exposure:**

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

Based on available data, the classification criteria are not met.

| Hazardous substances<br>CAS-No. | Result / Value | Route of application | Exposure time / Frequency of treatment | Species | Method |
|---|---|---|---|---|---|
| 2-[[2,2-bis[[(1-oxoallyl)oxy]methyl]butoxy]methyl]-2-ethyl-1,3-propanediyl diacrylate<br>1393932-71-2 | NOAEL 1.000 mg/kg | oral: gavage | M: 28 d<br>daily | rat | OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test) |
| Cumene hydroperoxide<br>80-15-9 | | inhalation: aerosol | 6 h/d<br>5 d/w | rat | not specified |
| methacrylic acid<br>79-41-4 | | inhalation | 90 d<br>6 h/d, 5 d/w | rat | OECD Guideline 413 (Subchronic Inhalation Toxicity: 90-Day) |

**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.

The table below presents the data of the classified substances present in the mixture.

| Hazardous substances<br>CAS-No. | Value type | Value | Exposure time | Species | Method |
|---|---|---|---|---|---|
| Tetramethylene dimethacrylate<br>2082-81-7 | LC50 | 32,5 mg/l | 48 h | | DIN 38412-15 |
| 2-[[2,2-bis[[(1-oxoallyl)oxy]methyl]butoxy]methyl]-2-ethyl-1,3-propanediyl diacrylate<br>1393932-71-2 | LC50 | 1,2 mg/l | 96 h | Cyprinus carpio | OECD Guideline 203 (Fish, Acute Toxicity Test) |
| Reaction mass of N,N'-ethane-1,2-diylbis(12-hydroxyoctadecan-1-amide), Octadecanamide, 12-hydroxy-N-[2-[(1-oxooctadecyl)amino]ethyl]<br>----- | LL50 | Toxicity > Water solubility | 96 h | Oncorhynchus mykiss | OECD Guideline 203 (Fish, Acute Toxicity Test) |
| Reaction mass of N,N'-ethane-1,2-diylbis(12-hydroxyoctadecan-1-amide), Octadecanamide, 12-hydroxy-N-[2-[(1-oxooctadecyl)amino]ethyl]<br>----- | NOELR | Toxicity > Water solubility | 32 d | Pimephales promelas | OECD Guideline 210 (fish early lite stage toxicity test) |
| Cumene hydroperoxide<br>80-15-9 | LC50 | 3,9 mg/l | 96 h | Oncorhynchus mykiss | OECD Guideline 203 (Fish, Acute Toxicity Test) |
| N,N-Diethyl-p-toluidine<br>613-48-9 | LC50 | 78,62 mg/l | 96 h | Danio rerio | OECD Guideline 203 (Fish, Acute Toxicity Test) |
| N,N-dimethyl-o-toluidine<br>609-72-3 | LC50 | 46 mg/l | 96 h | Pimephales promelas | OECD Guideline 203 (Fish, Acute Toxicity Test) |
| methacrylic acid<br>79-41-4 | LC50 | 85 mg/l | 96 h | Salmo gairdneri (new name: Oncorhynchus mykiss) | EPA OTS 797.1400 (Fish Acute Toxicity Test) |
| methacrylic acid<br>79-41-4 | NOEC | 10 mg/l | 35 d | Danio rerio | OECD Guideline 210 (fish early lite stage toxicity test) |
| 1,4-Naphthalenedione<br>130-15-4 | LC50 | 0,045 mg/l | 96 h | Oryzias latipes | OECD Guideline 203 (Fish, Acute Toxicity Test) |

**Toxicity (aquatic invertebrates):**

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

The table below presents the data of the classified substances present in the mixture.

| Hazardous substances<br>CAS-No. | Value type | Value | Exposure time | Species | Method |
|---|---|---|---|---|---|
| 2-[[2,2-bis[[(1-oxoallyl)oxy]methyl]butoxy]methyl]-2-ethyl-1,3-propanediyl diacrylate<br>1393932-71-2 | EC50 | > 10 - 100 mg/l | 48 h | Daphnia magna | OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test) |
| Reaction mass of N,N'-ethane-1,2-diylbis(12-hydroxyoctadecan-1-amide), Octadecanamide, 12-hydroxy-N-[2-[(1- | EL50 | Toxicity > Water solubility | 48 h | Daphnia magna | OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test) |

| | | | | | |
|---|---|---|---|---|---|
| oxooctadecyl)amino]ethyl] ----- | | | | | |
| Cumene hydroperoxide 80-15-9 | EC50 | 18,84 mg/l | 48 h | Daphnia magna | OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test) |
| N,N-Diethyl-p-toluidine 613-48-9 | EC50 | 10,34 mg/l | 48 h | Daphnia magna | OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test) |
| Acetic acid, 2-phenylhydrazide 114-83-0 | EC50 | 1,1 mg/l | 48 h | Daphnia magna | OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test) |
| methacrylic acid 79-41-4 | EC50 | > 130 mg/l | 48 h | Daphnia magna | EPA OTS 797.1300 (Aquatic Invertebrate Acute Toxicity Test, Freshwater Daphnids) |
| 1,4-Naphthalenedione 130-15-4 | EC50 | 0,026 mg/l | 48 h | Daphnia magna | OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test) |

**Chronic toxicity (aquatic invertebrates):**

The table below presents the data of the classified substances present in the mixture.

| **Hazardous substances CAS-No.** | **Value type** | **Value** | **Exposure time** | **Species** | **Method** |
|---|---|---|---|---|---|
| Tetramethylene dimethacrylate 2082-81-7 | NOEC | 5,09 mg/l | 21 d | Daphnia magna | OECD 211 (Daphnia magna, Reproduction Test) |
| Reaction mass of N,N'-ethane-1,2-diylbis(12-hydroxyoctadecan-1-amide), Octadecanamide, 12-hydroxy-N-[2-[(1-oxooctadecyl)amino]ethyl] ----- | NOEC | Toxicity > Water solubility | 21 d | Daphnia magna | OECD 211 (Daphnia magna, Reproduction Test) |
| methacrylic acid 79-41-4 | NOEC | 53 mg/l | 21 d | Daphnia magna | 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.

The table below presents the data of the classified substances present in the mixture.

| Hazardous substances<br>CAS-No. | Value type | Value | Exposure time | Species | Method |
|---|---|---|---|---|---|
| Tetramethylene dimethacrylate<br>2082-81-7 | EC50 | 9,79 mg/l | 72 h | Desmodesmus subspicatus | OECD Guideline 201 (Alga, Growth Inhibition Test) |
| Tetramethylene dimethacrylate<br>2082-81-7 | NOEC | 2,11 mg/l | 72 h | Desmodesmus subspicatus | OECD Guideline 201 (Alga, Growth Inhibition Test) |
| 2-[[2,2-bis[[(1-oxoallyl)oxy]methyl]butoxy]methyl]-2-ethyl-1,3-propanediyl diacrylate<br>1393932-71-2 | EC50 | > 12 mg/l | 72 h | Pseudokirchneriella subcapitata | OECD Guideline 201 (Alga, Growth Inhibition Test) |
| 2-[[2,2-bis[[(1-oxoallyl)oxy]methyl]butoxy]methyl]-2-ethyl-1,3-propanediyl diacrylate<br>1393932-71-2 | EC10 | 0,51 mg/l | 72 h | Pseudokirchneriella subcapitata | OECD Guideline 201 (Alga, Growth Inhibition Test) |
| Reaction mass of N,N'-ethane-1,2-diylbis(12-hydroxyoctadecan-1-amide), Octadecanamide, 12-hydroxy-N-[2-[(1-oxooctadecyl)amino]ethyl]<br>----- | EC50 | Toxicity > Water solubility | 72 h | Pseudokirchneriella subcapitata | OECD Guideline 201 (Alga, Growth Inhibition Test) |
| Reaction mass of N,N'-ethane-1,2-diylbis(12-hydroxyoctadecan-1-amide), Octadecanamide, 12-hydroxy-N-[2-[(1-oxooctadecyl)amino]ethyl]<br>----- | EC10 | Toxicity > Water solubility | 72 h | Pseudokirchneriella subcapitata | OECD Guideline 201 (Alga, Growth Inhibition Test) |
| Cumene hydroperoxide<br>80-15-9 | EC50 | 3,1 mg/l | 72 h | Desmodesmus subspicatus (reported as Scenedesmus subspicatus) | OECD Guideline 201 (Alga, Growth Inhibition Test) |
| Cumene hydroperoxide<br>80-15-9 | NOEC | 1 mg/l | 72 h | Desmodesmus subspicatus (reported as Scenedesmus subspicatus) | OECD Guideline 201 (Alga, Growth Inhibition Test) |
| N,N-Diethyl-p-toluidine<br>613-48-9 | EC50 | 23,69 mg/l | 72 h | Raphidocelis subcapitata (new name: Pseudokirchneriella subcapitata) | OECD Guideline 201 (Alga, Growth Inhibition Test) |
| Acetic acid, 2-phenylhydrazide<br>114-83-0 | EC50 | 0,258 mg/l | 72 h | Pseudokirchneriella subcapitata | OECD Guideline 201 (Alga, Growth Inhibition Test) |
| Acetic acid, 2-phenylhydrazide<br>114-83-0 | NOEC | 0,012 mg/l | 72 h | Pseudokirchneriella subcapitata | OECD Guideline 201 (Alga, Growth Inhibition Test) |
| methacrylic acid<br>79-41-4 | NOEC | 8,2 mg/l | 72 h | Selenastrum capricornutum (new name: Pseudokirchneriella subcapitata) | OECD Guideline 201 (Alga, Growth Inhibition Test) |
| methacrylic acid<br>79-41-4 | EC50 | 45 mg/l | 72 h | Selenastrum capricornutum (new name: Pseudokirchneriella subcapitata) | OECD Guideline 201 (Alga, Growth Inhibition Test) |
| 1,4-Naphthalenedione<br>130-15-4 | NOEC | 0,07 mg/l | 72 h | Pseudokirchneriella subcapitata | OECD Guideline 201 (Alga, Growth Inhibition Test) |
| 1,4-Naphthalenedione<br>130-15-4 | EC50 | 0,42 mg/l | 72 h | Pseudokirchneriella subcapitata | OECD Guideline 201 (Alga, Growth Inhibition Test) |

**Toxicity (microorganisms):**

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

The table below presents the data of the classified substances present in the mixture.

| Hazardous substances<br>CAS-No. | Value type | Value | Exposure time | Species | Method |
|---|---|---|---|---|---|
| Tetramethylene dimethacrylate | NOEC | 20 mg/l | 28 d | activated sludge, domestic | not specified |

| | | | | | |
|---|---|---|---|---|---|
| 2082-81-7 | | | | | |
| 2-[[2,2-bis[[(1-oxoallyl)oxy]methyl]butoxy]methyl]-2-ethyl-1,3-propanediyl diacrylate 1393932-71-2 | EC50 | > 1.000 mg/l | 3 h | activated sludge of a predominantly domestic sewage | OECD Guideline 209 (Activated Sludge, Respiration Inhibition Test) |
| Cumene hydroperoxide 80-15-9 | EC10 | 70 mg/l | 30 min | not specified | not specified |
| methacrylic acid 79-41-4 | EC10 | 100 mg/l | 17 h | Pseudomonas putida | DIN 38412, part 8 (Pseudomonas Zellvermehrungshemm-Test) |
| 1,4-Naphthalenedione 130-15-4 | EC50 | 5,94 mg/l | 3 h | activated sludge of a predominantly domestic sewage | OECD Guideline 209 (Activated Sludge, Respiration Inhibition Test) |

**12.2. Persistence and degradability**

The table below presents the data of the classified substances present in the mixture.

| **Hazardous substances CAS-No.** | **Result** | **Test type** | **Degradability** | **Exposure time** | **Method** |
|---|---|---|---|---|---|
| Tetramethylene dimethacrylate 2082-81-7 | readily biodegradable | aerobic | 84 % | 28 d | OECD Guideline 310 (Ready BiodegradabilityCO2 in Sealed Vessels (Headspace Test) |
| 2-[[2,2-bis[[(1-oxoallyl)oxy]methyl]butoxy]methyl]-2-ethyl-1,3-propanediyl diacrylate 1393932-71-2 | not readily biodegradable. | aerobic | 14 % | 29 d | OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test) |
| Reaction mass of N,N'-ethane-1,2-diylbis(12-hydroxyoctadecan-1-amide), Octadecanamide, 12-hydroxy-N-[2-[(1-oxooctadecyl)amino]ethyl] ----- | not readily biodegradable. | aerobic | 22 % | 28 d | OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test) |
| Reaction mass of N,N'-ethane-1,2-diylbis(12-hydroxyoctadecan-1-amide), Octadecanamide, 12-hydroxy-N-[2-[(1-oxooctadecyl)amino]ethyl] ----- | not inherently biodegradable | aerobic | 37 % | 60 d | OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test) |
| Cumene hydroperoxide 80-15-9 | not readily biodegradable. | aerobic | 3 % | 28 d | OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test) |
| N,N-Diethyl-p-toluidine 613-48-9 | not readily biodegradable. | not specified | 1 % | 28 day | OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I)) |
| Acetic acid, 2-phenylhydrazide 114-83-0 | not readily biodegradable. | aerobic | 39 % | 28 d | OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test) |
| N,N-dimethyl-o-toluidine 609-72-3 | not readily biodegradable. | aerobic | 1 % | 14 d | other guideline: |
| methacrylic acid 79-41-4 | readily biodegradable | aerobic | 86 % | 28 d | OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test) |
| methacrylic acid 79-41-4 | inherently biodegradable | aerobic | 100 % | 14 d | OECD Guideline 302 B (Inherent biodegradability: Zahn-Wellens/EMPA Test) |
| 1,4-Naphthalenedione 130-15-4 | not readily biodegradable. | aerobic | 0 % | 28 d | OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test) |

**12.3. Bioaccumulative potential**

The table below presents the data of the classified substances present in the mixture.

| Hazardous substances<br>CAS-No. | Bioconcentration factor (BCF) | Exposure time | Temperature | Species | Method |
|---|---|---|---|---|---|
| Cumene hydroperoxide<br>80-15-9 | 9,1 | | | calculation | OECD Guideline 305 (Bioconcentration: Flow-through Fish Test) |

**12.4. Mobility in soil**

The table below presents the data of the classified substances present in the mixture.

| Hazardous substances<br>CAS-No. | LogPow | Temperature | Method |
|---|---|---|---|
| Tetramethylene dimethacrylate<br>2082-81-7 | 3,1 | | OECD Guideline 117 (Partition Coefficient (n-octanol / water), HPLC Method) |
| 2-[[2,2-bis[[(1-oxoallyl)oxy]methyl]butoxy]methyl]-2-ethyl-1,3-propanediyl diacrylate<br>1393932-71-2 | 4,14 | 30 °C | OECD Guideline 117 (Partition Coefficient (n-octanol / water), HPLC Method) |
| Reaction mass of N,N'-ethane-1,2-diylbis(12-hydroxyoctadecan-1-amide), Octadecanamide, 12-hydroxy-N-[2-[(1-oxooctadecyl)amino]ethyl]<br>----- | 5,86 | | OECD Guideline 117 (Partition Coefficient (n-octanol / water), HPLC Method) |
| Cumene hydroperoxide<br>80-15-9 | 1,6 | 25 °C | OECD Guideline 117 (Partition Coefficient (n-octanol / water), HPLC Method) |
| N,N-Diethyl-p-toluidine<br>613-48-9 | 3,7 | | QSAR (Quantitative Structure Activity Relationship) |
| Acetic acid, 2-phenylhydrazide<br>114-83-0 | 0,74 | | QSAR (Quantitative Structure Activity Relationship) |
| methacrylic acid<br>79-41-4 | 0,93 | 22 °C | OECD Guideline 107 (Partition Coefficient (n-octanol / water), Shake Flask Method) |
| 1,4-Naphthalenedione<br>130-15-4 | 1,71 | | not specified |

**12.5. Results of PBT and vPvB assessment**

The table below presents the data of the classified substances present in the mixture.

| Hazardous substances<br>CAS-No. | PBT / vPvB |
|---|---|
| Tetramethylene dimethacrylate<br>2082-81-7 | Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria. |
| 2-[[2,2-bis[[(1-oxoallyl)oxy]methyl]butoxy]methyl]-2-ethyl-1,3-propanediyl diacrylate<br>1393932-71-2 | Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria. |
| Reaction mass of N,N'-ethane-1,2-diylbis(12-hydroxyoctadecan-1-amide), Octadecanamide, 12-hydroxy-N-[2-[(1-oxooctadecyl)amino]ethyl]<br>----- | Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria. |
| Cumene hydroperoxide<br>80-15-9 | Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria. |
| Acetic acid, 2-phenylhydrazide<br>114-83-0 | Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria. |
| methacrylic acid<br>79-41-4 | Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria. |
| 1,4-Naphthalenedione<br>130-15-4 | 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**

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 | Not dangerous goods |
| RID | Not dangerous goods |
| ADN | Not dangerous goods |
| IMDG | Not dangerous goods |
| IATA | Not dangerous goods |

**14.2. UN proper shipping name**

| | |
|---|---|
| ADR | Not dangerous goods |
| RID | Not dangerous goods |
| ADN | Not dangerous goods |
| IMDG | Not dangerous goods |
| IATA | Not dangerous goods |

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

| | |
|---|---|
| ADR | Not dangerous goods |
| RID | Not dangerous goods |
| ADN | Not dangerous goods |
| IMDG | Not dangerous goods |
| IATA | Not dangerous goods |

**14.4. Packing group**

| | |
|---|---|
| ADR | Not dangerous goods |
| RID | Not dangerous goods |
| ADN | Not dangerous goods |
| IMDG | Not dangerous goods |
| IATA | Not dangerous goods |

**14.5. Environmental hazards**

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

| | |
|---|---|
| ADN | not applicable |
| IMDG | not applicable |
| IATA | not applicable |

**14.6. Special precautions for user**

| | |
|---|---|
| ADR | not applicable |
| 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 2024/590): | 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.

## 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:

H242 Heating may cause a fire.
H301 Toxic if swallowed.
H302 Harmful if swallowed.
H311 Toxic in contact with skin.
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.
H330 Fatal if inhaled.
H331 Toxic if inhaled.
H332 Harmful if inhaled.
H335 May cause respiratory irritation.
H351 Suspected of causing cancer.
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.

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