



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

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LOCTITE 577 ACC50ML EGFD

SDS No. : 541371

V016.1

Revision: 24.04.2025

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

#### 1.1. Product identifier

LOCTITE 577 ACC50ML EGFD

UFI: YV45-MX91-P201-PJR3

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

Intended use:

Adhesive

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

Henkel Ltd

Adhesives

Wood Lane End

HP2 4RQ Hemel Hempstead

Great Britain

Phone: +44 (1442) 278000

SDSinfo.Adhesive@henkel.com

For Safety Data Sheet updates please visit our website [www.mysds.henkel.com](http://www.mysds.henkel.com) or [www.henkel-adhesives.com](http://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

2,2'-Ethylenedioxydiethyl dimethacrylate

Acetic acid, 2-phenylhydrazide  
maleic acid

Reaction mass of N,N'-ethane-1,2-diylbis(12-hydroxyoctadecan-1-amide),  
Octadecanamide, 12-hydroxy-N-[2-[(1-oxooctadecyl)amino]ethyl]

**Signal word:** Warning

**Hazard statement:** H317 May cause an allergic skin reaction.  
H412 Harmful to aquatic life with long lasting effects.

**Precautionary statement:** "\*\*\*\*" \*\*\*For consumer use only: P101 If medical advice is needed, have product container or label at hand. P102 Keep out of reach of children. P501 Dispose of contents/container in accordance with national regulation.\*\*\*

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

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

### 2.3. Other hazards

None if used properly.

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

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

## SECTION 3: Composition/information on ingredients

### 3.2. Mixtures

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

| <b>Hazardous components<br/>CAS-No.<br/>EC Number<br/>REACH-Reg. No.</b>                                                                                                         | <b>Concentration</b>                        | <b>Classification</b>                                                                                                                                                                                   | <b>Specific Conc. Limits, M-<br/>factors and ATEs</b>                                                                                                                                                      | <b>Add.<br/>Information</b> |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|
| Tetramethylene dimethacrylate<br>2082-81-7<br>218-218-1<br>01-2119967415-30                                                                                                      | 10- < 20 %                                  | Skin Sens. 1B, H317                                                                                                                                                                                     |                                                                                                                                                                                                            |                             |
| 2,2'-Ethyleneedioxydiethyl<br>dimethacrylate<br>109-16-0<br>203-652-6<br>01-2119969287-21                                                                                        | 5- < 10 %                                   | Skin Sens. 1B, H317                                                                                                                                                                                     | dermal:ATE = > 5.000 mg/kg<br>inhalation:ATE = 28,17<br>mg/l;dust/mist                                                                                                                                     |                             |
| 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                                                                                                                                                                               |                             |
| 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 |                             |
| maleic acid<br>110-16-7<br>203-742-5<br>01-2119488705-25                                                                                                                         | 0,1- < 1 %                                  | Acute Tox. 4, Oral, H302<br>Eye Irrit. 2, H319<br>STOT SE 3, H335<br>Skin Irrit. 2, H315<br>Skin Sens. 1, H317<br>Acute Tox. 4, Dermal, H312                                                            | Skin Sens. 1; H317; C >= 0,1 %                                                                                                                                                                             |                             |
| Reaction mass of N,N'-ethane-<br>1,2-diylbis(12-<br>hydroxyoctadecan-1-amide),<br>Octadecanamide, 12-hydroxy-N-<br>[2-[(1-oxooctadecyl)amino]ethyl]<br>-----<br>01-2119978265-26 | 0,1- < 1 %                                  | Skin Sens. 1, H317                                                                                                                                                                                      |                                                                                                                                                                                                            |                             |
| Menadione<br>58-27-5<br>200-372-6<br>01-2120773243-56                                                                                                                            | 0,0025- < 0,025 %<br>(25 ppm- < 250<br>ppm) | Acute Tox. 4, Oral, H302<br>Eye Irrit. 2, H319<br>Skin Irrit. 2, H315<br>STOT SE 3, H335<br>Skin Sens. 1, H317<br>Aquatic Acute 1, H400<br>Aquatic Chronic 1, H410                                      | M acute = 10<br>M chronic = 10                                                                                                                                                                             |                             |

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, consult doctor if complaint persists.

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**  
Prolonged or repeated contact may cause eye irritation.

SKIN: Rash, Urticaria.

**4.3. Indication of any immediate medical attention and special treatment needed**  
See section: Description of first aid measures

## SECTION 5: Firefighting measures

**5.1. Extinguishing media**  
**Suitable extinguishing media:**  
carbon dioxide, foam, powder, water spray jet, fine water spray

**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 (CO<sub>2</sub>) and nitrogen oxides (NO<sub>x</sub>) can be released.

**5.3. Advice for firefighters**  
Wear self-contained breathing apparatus.  
Wear protective equipment.

**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**  
Ensure adequate ventilation.  
Avoid contact with skin and eyes.  
Wear protective equipment.

**6.2. Environmental precautions**  
Do not empty into drains / surface water / ground water.

**6.3. Methods and material for containment and cleaning up**  
For small spills wipe up with paper towel and place in container for disposal.  
For large spills absorb onto inert absorbent material and place in sealed container for disposal.  
Dispose of contaminated material as waste according to Section 13.

**6.4. Reference to other sections**  
See advice in section 8

## SECTION 7: Handling and storage

**7.1. Precautions for safe handling**

Use only in well-ventilated areas.

Avoid skin and eye contact.

See advice in section 8

Prolonged or repeated skin contact should be avoided to minimise any risk of sensitisation.

Hygiene measures:

Wash hands before work breaks and after finishing work.

Do not eat, drink or smoke while working.

Good industrial hygiene practices should be observed.

**7.2. Conditions for safe storage, including any incompatibilities**

Ensure good ventilation/extraction.

Store in a cool, dry place.

Refer to Technical Data Sheet.

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

Adhesive

**SECTION 8: Exposure controls/personal protection****8.1. Control parameters****Occupational Exposure Limits**Valid for  
Great Britain

| Ingredient [Regulated substance]                                       | ppm | mg/m <sup>3</sup> | Value type                   | Short term exposure limit category / Remarks | Regulatory list |
|------------------------------------------------------------------------|-----|-------------------|------------------------------|----------------------------------------------|-----------------|
| 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        |
| 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        |

**Occupational Exposure Limits**Valid for  
Ireland

| Ingredient [Regulated substance]                         | ppm | mg/m <sup>3</sup> | Value type                   | Short term exposure limit category / Remarks | Regulatory list |
|----------------------------------------------------------|-----|-------------------|------------------------------|----------------------------------------------|-----------------|
| 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          |
| 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          |

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

| Name on list                                               | Environmental<br>Compartment       | Exposure<br>period | Value           |     |                 |        | Remarks                             |
|------------------------------------------------------------|------------------------------------|--------------------|-----------------|-----|-----------------|--------|-------------------------------------|
|                                                            |                                    |                    | mg/l            | ppm | mg/kg           | others |                                     |
| Tetramethylene dimethacrylate<br>2082-81-7                 | aqua<br>(freshwater)               |                    | 0,043 mg/l      |     |                 |        |                                     |
| Tetramethylene dimethacrylate<br>2082-81-7                 | aqua (marine<br>water)             |                    | 0,004 mg/l      |     |                 |        |                                     |
| Tetramethylene dimethacrylate<br>2082-81-7                 | aqua<br>(intermittent<br>releases) |                    | 0,098 mg/l      |     |                 |        |                                     |
| Tetramethylene dimethacrylate<br>2082-81-7                 | sewage<br>treatment plant<br>(STP) |                    | 2 mg/l          |     |                 |        |                                     |
| Tetramethylene dimethacrylate<br>2082-81-7                 | sediment<br>(freshwater)           |                    |                 |     | 3,12 mg/kg      |        |                                     |
| Tetramethylene dimethacrylate<br>2082-81-7                 | sediment<br>(marine water)         |                    |                 |     | 0,312<br>mg/kg  |        |                                     |
| Tetramethylene dimethacrylate<br>2082-81-7                 | Soil                               |                    |                 |     | 0,573<br>mg/kg  |        |                                     |
| 2,2'-Ethylenedioxydiethyl dimethacrylate<br>109-16-0       | aqua<br>(freshwater)               |                    | 0,164 mg/l      |     |                 |        |                                     |
| 2,2'-Ethylenedioxydiethyl dimethacrylate<br>109-16-0       | aqua (marine<br>water)             |                    | 0,0164<br>mg/l  |     |                 |        |                                     |
| 2,2'-Ethylenedioxydiethyl dimethacrylate<br>109-16-0       | sewage<br>treatment plant<br>(STP) |                    | 10 mg/l         |     |                 |        |                                     |
| 2,2'-Ethylenedioxydiethyl dimethacrylate<br>109-16-0       | aqua<br>(intermittent<br>releases) |                    | 0,164 mg/l      |     |                 |        |                                     |
| 2,2'-Ethylenedioxydiethyl dimethacrylate<br>109-16-0       | sediment<br>(freshwater)           |                    |                 |     | 1,85 mg/kg      |        |                                     |
| 2,2'-Ethylenedioxydiethyl dimethacrylate<br>109-16-0       | sediment<br>(marine water)         |                    |                 |     | 0,185<br>mg/kg  |        |                                     |
| 2,2'-Ethylenedioxydiethyl dimethacrylate<br>109-16-0       | Soil                               |                    |                 |     | 0,274<br>mg/kg  |        |                                     |
| 2,2'-Ethylenedioxydiethyl dimethacrylate<br>109-16-0       | Air                                |                    |                 |     |                 |        | no hazard identified                |
| 2,2'-Ethylenedioxydiethyl dimethacrylate<br>109-16-0       | Predator                           |                    |                 |     |                 |        | no potential for<br>bioaccumulation |
| .alpha.,.alpha.-Dimethylbenzyl<br>hydroperoxide<br>80-15-9 | aqua<br>(freshwater)               |                    | 0,0031<br>mg/l  |     |                 |        |                                     |
| .alpha.,.alpha.-Dimethylbenzyl<br>hydroperoxide<br>80-15-9 | aqua<br>(intermittent<br>releases) |                    | 0,031 mg/l      |     |                 |        |                                     |
| .alpha.,.alpha.-Dimethylbenzyl<br>hydroperoxide<br>80-15-9 | aqua (marine<br>water)             |                    | 0,00031<br>mg/l |     |                 |        |                                     |
| .alpha.,.alpha.-Dimethylbenzyl<br>hydroperoxide<br>80-15-9 | sewage<br>treatment plant<br>(STP) |                    | 0,35 mg/l       |     |                 |        |                                     |
| .alpha.,.alpha.-Dimethylbenzyl<br>hydroperoxide<br>80-15-9 | sediment<br>(freshwater)           |                    |                 |     | 0,023<br>mg/kg  |        |                                     |
| .alpha.,.alpha.-Dimethylbenzyl<br>hydroperoxide<br>80-15-9 | sediment<br>(marine water)         |                    |                 |     | 0,0023<br>mg/kg |        |                                     |
| .alpha.,.alpha.-Dimethylbenzyl<br>hydroperoxide<br>80-15-9 | Soil                               |                    |                 |     | 0,0029<br>mg/kg |        |                                     |

**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'-Ethylenedioxydiethyl dimethacrylate<br>109-16-0          | Workers            | inhalation        | Long term exposure - systemic effects        |               | 48,5 mg/m3  | no hazard identified |
| 2,2'-Ethylenedioxydiethyl dimethacrylate<br>109-16-0          | Workers            | dermal            | Long term exposure - systemic effects        |               | 13,9 mg/kg  | no hazard identified |
| 2,2'-Ethylenedioxydiethyl dimethacrylate<br>109-16-0          | General population | inhalation        | Long term exposure - systemic effects        |               | 14,5 mg/m3  | no hazard identified |
| 2,2'-Ethylenedioxydiethyl dimethacrylate<br>109-16-0          | General population | dermal            | Long term exposure - systemic effects        |               | 8,33 mg/kg  | no hazard identified |
| 2,2'-Ethylenedioxydiethyl dimethacrylate<br>109-16-0          | General population | oral              | Long term exposure - systemic effects        |               | 8,33 mg/kg  | no hazard identified |
| .alpha.,.alpha.-Dimethylbenzyl hydroperoxide<br>80-15-9       | Workers            | inhalation        | Long term exposure - systemic effects        |               | 6 mg/m3     |                      |
| Maleic acid<br>110-16-7                                       | Workers            | dermal            | Acute/short term exposure - local effects    |               |             |                      |
| Maleic acid<br>110-16-7                                       | Workers            | dermal            | Long term exposure - local effects           |               |             |                      |
| Maleic acid<br>110-16-7                                       | Workers            | dermal            | Acute/short term exposure - systemic effects |               |             |                      |
| Maleic acid<br>110-16-7                                       | Workers            | dermal            | Long term exposure - systemic effects        |               |             |                      |
| Maleic acid<br>110-16-7                                       | Workers            | inhalation        | Acute/short term exposure - local effects    |               |             |                      |
| Maleic acid<br>110-16-7                                       | Workers            | inhalation        | Long term exposure - systemic effects        |               | 0,987 mg/m3 |                      |
| Maleic acid<br>110-16-7                                       | Workers            | inhalation        | Long term exposure - local effects           |               |             |                      |
| 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)          | General population | inhalation        | Long term exposure -                         |               | 8,69 mg/m3  |                      |

|                                                                        |                    |            |                                                                  |  |            |  |
|------------------------------------------------------------------------|--------------------|------------|------------------------------------------------------------------|--|------------|--|
| -----<br>N,N'-Ethane-1,2-diylbis(12-hydroxyoctadecan-1-amide)<br>----- | General population | inhalation | systemic effects<br>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    |  |

**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;  $\geq$  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;  $\geq$  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 | liquid        |
| Colour        | Yellow        |
| Odor          | mild, Acrylic |

|                                                                                                                                 |                                                                                                                                     |
|---------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|
| Physical state                                                                                                                  | liquid                                                                                                                              |
| Melting point                                                                                                                   | Not applicable, Product is a liquid                                                                                                 |
| Solidification temperature                                                                                                      | < -30 °C (< -22 °F)                                                                                                                 |
| Initial boiling point                                                                                                           | > 150 °C (> 302 °F)no method / method unknown                                                                                       |
| Flammability                                                                                                                    | The product is not flammable.                                                                                                       |
| Explosive limits                                                                                                                | Not applicable, The product is not flammable.                                                                                       |
| Flash point                                                                                                                     | > 100 °C (> 212 °F); no method / method unknown                                                                                     |
| Auto-ignition temperature                                                                                                       | Not applicable, The product is not flammable.                                                                                       |
| Decomposition temperature                                                                                                       | Not applicable, Substance/mixture is not self-reactive, no organic peroxide and does not decompose under foreseen conditions of use |
| pH                                                                                                                              | Not applicable, Product is non-polar/aprotic.                                                                                       |
| Viscosity (kinematic)<br>(40 °C (104 °F); )                                                                                     | > 20,5 mm <sup>2</sup> /s                                                                                                           |
| Viscosity, dynamic<br>(Brookfield; Instrument: RVT; 25 °C (77 °F);<br>speed of rotation: 2,5 min <sup>-1</sup> ; Spindle No: 6) | 70.000,00 - 130.000,00 mPa.s LCT STM 10; Viscosity Brookfield                                                                       |
| Solubility (qualitative)<br>(20 °C (68 °F); Solvent: Water)                                                                     | Slight                                                                                                                              |
| Partition coefficient: n-octanol/water                                                                                          | Not applicable                                                                                                                      |
| Vapour pressure<br>(50 °C (122 °F))                                                                                             | Mixture                                                                                                                             |
| Vapour pressure<br>(20 °C (68 °F))                                                                                              | < 300 mbar;no method / method unknown                                                                                               |
| Density<br>(20 °C (68 °F))                                                                                                      | < 0,13 mbar                                                                                                                         |
| Relative vapour density:<br>(20 °C)                                                                                             | 1,15 - 1,2 g/cm <sup>3</sup> no method / method unknown                                                                             |
| Particle characteristics                                                                                                        | > 1                                                                                                                                 |
|                                                                                                                                 | 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.  
Strong bases.  
Acids.  
Reducing agents.

### 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  
Rapid polymerisation may generate excessive heat and pressure.  
nitrogen oxides

**SECTION 11: Toxicological information****11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008****Acute oral toxicity:**

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

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

| Hazardous substances<br>CAS-No.                                                                                                                                  | Value<br>type | Value         | Species | Method                                                            |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|---------------|---------|-------------------------------------------------------------------|
| Tetramethylene<br>dimethacrylate<br>2082-81-7                                                                                                                    | LD50          | 10.066 mg/kg  | rat     | equivalent or similar to OECD Guideline 401 (Acute Oral Toxicity) |
| 2,2'-Ethylenedioxydiethyl<br>dimethacrylate<br>109-16-0                                                                                                          | LD50          | 10.837 mg/kg  | rat     | not specified                                                     |
| Acetic acid, 2-<br>phenylhydrazide<br>114-83-0                                                                                                                   | LD50          | 310 mg/kg     | rat     | OECD Guideline 425 (Acute Oral Toxicity: Up-and-Down Procedure)   |
| Cumene hydroperoxide<br>80-15-9                                                                                                                                  | LD50          | 382 mg/kg     | rat     | other guideline:                                                  |
| maleic acid<br>110-16-7                                                                                                                                          | LD50          | 708 mg/kg     | rat     | not specified                                                     |
| Reaction mass of N,N'-<br>ethane-1,2-diylbis(12-<br>hydroxyoctadecan-1-<br>amide), Octadecanamide,<br>12-hydroxy-N-[2-[(1-<br>oxooctadecyl)amino]ethyl<br>]----- | LD50          | > 2.000 mg/kg | rat     | OECD Guideline 423 (Acute Oral toxicity)                          |
| Menadione<br>58-27-5                                                                                                                                             | LD50          | 500 mg/kg     | rat     | not specified                                                     |

**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<br>type                          | Value         | Species | Method           |
|---------------------------------------------------------|----------------------------------------|---------------|---------|------------------|
| Tetramethylene<br>dimethacrylate<br>2082-81-7           | LD50                                   | > 3.000 mg/kg | rabbit  | not specified    |
| 2,2'-Ethylenedioxydiethyl<br>dimethacrylate<br>109-16-0 | Acute<br>toxicity<br>estimate<br>(ATE) | > 5.000 mg/kg |         | Expert judgement |
| Cumene hydroperoxide<br>80-15-9                         | Acute<br>toxicity<br>estimate<br>(ATE) | 1.100 mg/kg   |         | Expert judgement |
| maleic acid<br>110-16-7                                 | LD50                                   | 1.560 mg/kg   | rabbit  | not specified    |

**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<br>type                          | Value       | Test atmosphere | Exposure<br>time | Species | Method                                                                               |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|-------------|-----------------|------------------|---------|--------------------------------------------------------------------------------------|
| 2,2'-Ethylenedioxydiethyl<br>dimethacrylate<br>109-16-0                                                                                                          | Acute<br>toxicity<br>estimate<br>(ATE) | 28,17 mg/l  | dust/mist       |                  |         | Expert judgement                                                                     |
| Cumene hydroperoxide<br>80-15-9                                                                                                                                  | LC50                                   | 1,370 mg/l  | vapour          | 4 h              | rat     | not specified                                                                        |
| Reaction mass of N,N'-<br>ethane-1,2-diylbis(12-<br>hydroxyoctadecan-1-<br>amide), Octadecanamide,<br>12-hydroxy-N-[2-[(1-<br>oxooctadecyl)amino]ethyl<br>]----- | LC50                                   | > 5,05 mg/l | dust/mist       | 4 h              | rat     | OECD Guideline 436 (Acute<br>Inhalation Toxicity: Acute<br>Toxic Class (ATC) Method) |

**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<br>time | Species                                                                            | Method                                                                                            |
|---------------------------------------------------------|----------------------------|------------------|------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|
| Tetramethylene<br>dimethacrylate<br>2082-81-7           | not irritating             | 24 h             | rabbit                                                                             | FDA Guideline                                                                                     |
| 2,2'-Ethylenedioxydiethyl<br>dimethacrylate<br>109-16-0 | not irritating             | 24 h             | rabbit                                                                             | Draize Test                                                                                       |
| Acetic acid, 2-<br>phenylhydrazide<br>114-83-0          | not corrosive              |                  | Human,<br>EpiSkinTM<br>(SM),<br>Reconstructed<br>Human<br>Epidermis (RHE)          | OECD Guideline 431 (In Vitro Skin Corrosion:<br>Reconstructed Human Epidermis (RHE) Test Method)  |
| Acetic acid, 2-<br>phenylhydrazide<br>114-83-0          | not irritating             |                  | Human,<br>EpiSkinTM<br>(SM),<br>Reconstructed<br>Human<br>Epidermis (RHE)          | OECD Guideline 439 (In Vitro Skin Irritation:<br>Reconstructed Human Epidermis (RHE) Test Method) |
| Cumene hydroperoxide<br>80-15-9                         | corrosive                  |                  | rabbit                                                                             | Draize Test                                                                                       |
| maleic acid<br>110-16-7                                 | irritating                 | 24 h             | human                                                                              | Patch Test                                                                                        |
| Menadione<br>58-27-5                                    | not corrosive              |                  | Human,<br>EpiDermTM SIT<br>(EPI-200),<br>Reconstructed<br>Human<br>Epidermis (RHE) | OECD Guideline 431 (In Vitro Skin Corrosion:<br>Reconstructed Human Epidermis (RHE) Test Method)  |
| Menadione<br>58-27-5                                    | irritating or<br>corrosive |                  | Human,<br>EpiSkinTM<br>(SM),<br>Reconstructed<br>Human<br>Epidermis (RHE)          | OECD Guideline 439 (In Vitro Skin Irritation:<br>Reconstructed Human Epidermis (RHE) Test Method) |

**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<br>time | Species                                                                        | Method                                                                             |
|---------------------------------------------------------|------------------------------|------------------|--------------------------------------------------------------------------------|------------------------------------------------------------------------------------|
| Tetramethylene<br>dimethacrylate<br>2082-81-7           | not irritating               |                  | rabbit                                                                         | equivalent or similar to OECD Guideline 405 (Acute Eye Irritation / Corrosion)     |
| 2,2'-Ethylenedioxydiethyl<br>dimethacrylate<br>109-16-0 | not irritating               |                  | rabbit                                                                         | OECD Guideline 405 (Acute Eye Irritation / Corrosion)                              |
| Acetic acid, 2-<br>phenylhydrazide<br>114-83-0          | not irritating               |                  | Chicken, eye,<br>isolated                                                      | OECD Guideline 438 (Isolated Chicken Eye Test Method)                              |
| maleic acid<br>110-16-7                                 | highly<br>irritating         |                  | rabbit                                                                         | OECD Guideline 405 (Acute Eye Irritation / Corrosion)                              |
| Menadione<br>58-27-5                                    | no prediction<br>can be made |                  | Bovine, cornea,<br>in vitro test                                               | OECD Guideline 437 (BCOP)                                                          |
| Menadione<br>58-27-5                                    | no prediction<br>can be made |                  | Reconstructed<br>three<br>dimensional<br>human cornea<br>model<br>(EpiOcular™) | OECD Guideline 492 (Reconstructed Human Cornea-like Epithelium (RhCE) Test Method) |

**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<br>dimethacrylate<br>2082-81-7                                                                                                                    | sensitising | Mouse local lymphnode<br>assay (LLNA)     | mouse                                      | OECD Guideline 429 (Skin Sensitisation:<br>Local Lymph Node Assay) |
| 2,2'-Ethylenedioxydiethyl<br>dimethacrylate<br>109-16-0                                                                                                          | sensitising | Mouse local lymphnode<br>assay (LLNA)     | mouse                                      | OECD Guideline 429 (Skin Sensitisation:<br>Local Lymph Node Assay) |
| Acetic acid, 2-<br>phenylhydrazide<br>114-83-0                                                                                                                   | positive    | Direct peptide reactivity<br>assay (DPRA) | cysteine and<br>lysine, in<br>chemico test | OECD Guideline 442C (Direct Peptide<br>Reactivity Assay (DPRA))    |
| Acetic acid, 2-<br>phenylhydrazide<br>114-83-0                                                                                                                   | positive    | Activation of keratinocytes               | human<br>keratinocytes,<br>in vitro test   | OECD Guideline 442D (ARE-Nrf2<br>Luciferase Test Method)           |
| Acetic acid, 2-<br>phenylhydrazide<br>114-83-0                                                                                                                   | positive    | activation of dendritic cells             | human<br>monocytes, in<br>vitro test       | OECD Guideline 442E (H-CLAT:<br>Human Cell Line Activation Test)   |
| maleic acid<br>110-16-7                                                                                                                                          | sensitising | Mouse local lymphnode<br>assay (LLNA)     | mouse                                      | OECD Guideline 429 (Skin Sensitisation:<br>Local Lymph Node Assay) |
| maleic acid<br>110-16-7                                                                                                                                          | sensitising | Mouse local lymphnode<br>assay (LLNA)     | guinea pig                                 | OECD Guideline 406 (Skin Sensitisation)                            |
| Reaction mass of N,N'-<br>ethane-1,2-diylbis(12-<br>hydroxyoctadecan-1-<br>amide), Octadecanamide,<br>12-hydroxy-N-[2-[(1-<br>oxooctadecyl)amino]ethyl<br>]----- | sensitising | Guinea pig maximisation<br>test           | guinea pig                                 | OECD Guideline 406 (Skin Sensitisation)                            |
| Menadione<br>58-27-5                                                                                                                                             | sensitising | Guinea pig maximisation<br>test           | 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<br>CAS-No.                         | Result                                         | Type of study /<br>Route of<br>administration          | Metabolic<br>activation /<br>Exposure time | Species | Method                                                                   |
|---------------------------------------------------------|------------------------------------------------|--------------------------------------------------------|--------------------------------------------|---------|--------------------------------------------------------------------------|
| Tetramethylene<br>dimethacrylate<br>2082-81-7           | negative                                       | bacterial reverse<br>mutation assay (e.g<br>Ames test) | with and without                           |         | OECD Guideline 471<br>(Bacterial Reverse Mutation<br>Assay)              |
| Tetramethylene<br>dimethacrylate<br>2082-81-7           | negative                                       | in vitro mammalian<br>chromosome<br>aberration test    | with and without                           |         | OECD Guideline 473 (In vitro<br>Mammalian Chromosome<br>Aberration Test) |
| Tetramethylene<br>dimethacrylate<br>2082-81-7           | positive<br>without<br>metabolic<br>activation | in vitro mammalian<br>chromosome<br>aberration test    | with and without                           |         | OECD Guideline 473 (In vitro<br>Mammalian Chromosome<br>Aberration Test) |
| Tetramethylene<br>dimethacrylate<br>2082-81-7           | negative                                       | in vitro mammalian<br>chromosome<br>aberration test    | with and without                           |         | OECD Guideline 476 (In vitro<br>Mammalian Cell Gene<br>Mutation Test)    |
| 2,2'-Ethylenedioxydiethyl<br>dimethacrylate<br>109-16-0 | negative                                       | mammalian cell<br>gene mutation assay                  | with and without                           |         | OECD Guideline 476 (In vitro<br>Mammalian Cell Gene<br>Mutation Test)    |
| 2,2'-Ethylenedioxydiethyl<br>dimethacrylate<br>109-16-0 | negative                                       | bacterial reverse<br>mutation assay (e.g<br>Ames test) | with and without                           |         | OECD Guideline 471<br>(Bacterial Reverse Mutation<br>Assay)              |
| 2,2'-Ethylenedioxydiethyl<br>dimethacrylate<br>109-16-0 | negative                                       | in vitro mammalian<br>cell micronucleus<br>test        | with and without                           |         | OECD Guideline 487 (In vitro<br>Mammalian Cell<br>Micronucleus Test)     |
| Acetic acid, 2-<br>phenylhydrazide<br>114-83-0          | positive                                       | bacterial reverse<br>mutation assay (e.g<br>Ames test) | with and without                           |         | OECD Guideline 471<br>(Bacterial Reverse Mutation<br>Assay)              |
| Acetic acid, 2-<br>phenylhydrazide<br>114-83-0          | negative                                       | in vitro mammalian<br>cell micronucleus<br>test        | with and without                           |         | OECD Guideline 487 (In vitro<br>Mammalian Cell<br>Micronucleus Test)     |
| Cumene hydroperoxide<br>80-15-9                         | positive                                       | bacterial reverse<br>mutation assay (e.g<br>Ames test) | without                                    |         | OECD Guideline 471<br>(Bacterial Reverse Mutation<br>Assay)              |
| maleic acid<br>110-16-7                                 | negative                                       | bacterial reverse<br>mutation assay (e.g<br>Ames test) | no data                                    |         | Ames Test                                                                |
| maleic acid<br>110-16-7                                 | negative                                       | mammalian cell<br>gene mutation assay                  | with and without                           |         | OECD Guideline 476 (In vitro<br>Mammalian Cell Gene<br>Mutation Test)    |
| Menadione<br>58-27-5                                    | negative                                       | bacterial reverse<br>mutation assay (e.g<br>Ames test) | with and without                           |         | OECD Guideline 471<br>(Bacterial Reverse Mutation<br>Assay)              |
| Tetramethylene<br>dimethacrylate<br>2082-81-7           | negative                                       | oral: gavage                                           |                                            | mouse   | OECD Guideline 474<br>(Mammalian Erythrocyte<br>Micronucleus Test)       |
| Cumene hydroperoxide<br>80-15-9                         | negative                                       | dermal                                                 |                                            | mouse   | not specified                                                            |

**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<br>CAS-No.                | Result           | Route of<br>application | Exposure<br>time /<br>Frequency<br>of treatment | Species | Sex         | Method                                             |
|------------------------------------------------|------------------|-------------------------|-------------------------------------------------|---------|-------------|----------------------------------------------------|
| Acetic acid, 2-<br>phenylhydrazide<br>114-83-0 | carcinogenic     | oral: drinking<br>water | continuous                                      | mouse   | male/female | not specified                                      |
| maleic acid<br>110-16-7                        | not carcinogenic | oral: feed              | 2 y<br>daily                                    | rat     | male/female | OECD Guideline 451<br>(Carcinogenicity<br>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<br>application | Species | Method                                                                                                                                  |
|---------------------------------------------------------|---------------------------------------------|----------------------------|-------------------------|---------|-----------------------------------------------------------------------------------------------------------------------------------------|
| 2,2'-Ethylenedioxydiethyl<br>dimethacrylate<br>109-16-0 | NOAEL P 1.000 mg/kg<br>NOAEL F1 1.000 mg/kg |                            | oral: gavage            | rat     | OECD Guideline 422<br>(Combined Repeated Dose<br>Toxicity Study with the<br>Reproduction /<br>Developmental Toxicity<br>Screening Test) |
| maleic acid<br>110-16-7                                 | NOAEL F1 150 mg/kg<br>NOAEL F2 55 mg/kg     | Two<br>generation<br>study | oral: gavage            | rat     | OECD Guideline 416 (Two-<br>Generation Reproduction<br>Toxicity Study)                                                                  |

**STOT-single exposure:**

No data available.

**STOT-repeated exposure:**

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

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

| Hazardous substances<br>CAS-No.                         | Result / Value        | Route of<br>application | Exposure time /<br>Frequency of<br>treatment | Species | Method                                                                                                                                  |
|---------------------------------------------------------|-----------------------|-------------------------|----------------------------------------------|---------|-----------------------------------------------------------------------------------------------------------------------------------------|
| 2,2'-Ethylenedioxydiethyl<br>dimethacrylate<br>109-16-0 | NOAEL 1.000 mg/kg     | oral: gavage            | daily                                        | rat     | OECD Guideline 422<br>(Combined Repeated<br>Dose Toxicity Study with<br>the Reproduction /<br>Developmental Toxicity<br>Screening Test) |
| Cumene hydroperoxide<br>80-15-9                         |                       | inhalation:<br>aerosol  | 6 h/d<br>5 d/w                               | rat     | not specified                                                                                                                           |
| maleic acid<br>110-16-7                                 | NOAEL $\geq$ 40 mg/kg | oral: feed              | 90 d<br>daily                                | rat     | OECD Guideline 408<br>(Repeated Dose 90-Day<br>Oral Toxicity in Rodents)                                                                |

**Aspiration hazard:**

No data available.

**11.2 Information on other hazards**

not applicable

**SECTION 12: Ecological information****General ecological information:**

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

**12.1. Toxicity****Toxicity (Fish):**

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

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

| Hazardous substances<br>CAS-No.                                                                                                                                  | Value<br>type | Value                          | Exposure time | Species             | Method                                                      |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|--------------------------------|---------------|---------------------|-------------------------------------------------------------|
| Tetramethylene<br>dimethacrylate<br>2082-81-7                                                                                                                    | LC50          | 32,5 mg/l                      | 48 h          |                     | DIN 38412-15                                                |
| 2,2'-Ethylenedioxydiethyl<br>dimethacrylate<br>109-16-0                                                                                                          | LC50          | 16,4 mg/l                      | 96 h          | Danio rerio         | OECD Guideline 203 (Fish,<br>Acute Toxicity Test)           |
| Cumene hydroperoxide<br>80-15-9                                                                                                                                  | LC50          | 3,9 mg/l                       | 96 h          | Oncorhynchus mykiss | OECD Guideline 203 (Fish,<br>Acute Toxicity Test)           |
| maleic acid<br>110-16-7                                                                                                                                          | LC50          | > 245 mg/l                     | 48 h          | Leuciscus idus      | DIN 38412-15                                                |
| Reaction mass of N,N'-<br>ethane-1,2-diylbis(12-<br>hydroxyoctadecan-1-amide),<br>Octadecanamide, 12-hydroxy-<br>N-[2-[(1-<br>oxooctadecyl)amino]ethyl]<br>----- | LL50          | Toxicity > Water<br>solubility | 96 h          | Oncorhynchus mykiss | OECD Guideline 203 (Fish,<br>Acute Toxicity Test)           |
| Reaction mass of N,N'-<br>ethane-1,2-diylbis(12-<br>hydroxyoctadecan-1-amide),<br>Octadecanamide, 12-hydroxy-<br>N-[2-[(1-<br>oxooctadecyl)amino]ethyl]<br>----- | NOELR         | Toxicity > Water<br>solubility | 32 d          | Pimephales promelas | OECD Guideline 210 (fish<br>early lite stage 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<br>type | Value                          | Exposure time | Species       | Method                                                           |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|--------------------------------|---------------|---------------|------------------------------------------------------------------|
| Acetic acid, 2-<br>phenylhydrazide<br>114-83-0                                                                                                                   | EC50          | 1,1 mg/l                       | 48 h          | Daphnia magna | OECD Guideline 202<br>(Daphnia sp. Acute<br>Immobilisation Test) |
| Cumene hydroperoxide<br>80-15-9                                                                                                                                  | EC50          | 18,84 mg/l                     | 48 h          | Daphnia magna | OECD Guideline 202<br>(Daphnia sp. Acute<br>Immobilisation Test) |
| maleic acid<br>110-16-7                                                                                                                                          | EC50          | 42,81 mg/l                     | 48 h          | Daphnia magna | OECD Guideline 202<br>(Daphnia sp. Acute<br>Immobilisation Test) |
| Reaction mass of N,N'-<br>ethane-1,2-diylbis(12-<br>hydroxyoctadecan-1-amide),<br>Octadecanamide, 12-hydroxy-<br>N-[2-[(1-<br>oxooctadecyl)amino]ethyl]<br>----- | EL50          | Toxicity > Water<br>solubility | 48 h          | Daphnia magna | OECD Guideline 202<br>(Daphnia sp. Acute<br>Immobilisation Test) |
| Menadione<br>58-27-5                                                                                                                                             | EC50          | 0,31 mg/l                      | 48 h          | Daphnia magna | OECD Guideline 202<br>(Daphnia sp. Acute<br>Immobilisation Test) |

**Chronic toxicity (aquatic invertebrates):**

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

| Hazardous substances<br>CAS-No.                                                                                                                                  | Value<br>type | Value                          | Exposure time | Species       | Method                                         |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|--------------------------------|---------------|---------------|------------------------------------------------|
| Tetramethylene<br>dimethacrylate<br>2082-81-7                                                                                                                    | NOEC          | 5,09 mg/l                      | 21 d          | Daphnia magna | OECD 211 (Daphnia<br>magna, Reproduction Test) |
| 2,2'-Ethylenedioxydiethyl<br>dimethacrylate<br>109-16-0                                                                                                          | NOEC          | 32 mg/l                        | 21 d          | Daphnia magna | OECD 211 (Daphnia<br>magna, Reproduction Test) |
| maleic acid<br>110-16-7                                                                                                                                          | NOEC          | 10 mg/l                        | 21 d          | Daphnia magna | other guideline:                               |
| Reaction mass of N,N'-<br>ethane-1,2-diylbis(12-<br>hydroxyoctadecan-1-amide),<br>Octadecanamide, 12-hydroxy-<br>N-[2-[(1-<br>oxooctadecyl)amino]ethyl]<br>----- | NOEC          | Toxicity > Water<br>solubility | 21 d          | Daphnia magna | OECD 211 (Daphnia<br>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<br>type | Value                          | Exposure time | Species                                                             | Method                                               |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|--------------------------------|---------------|---------------------------------------------------------------------|------------------------------------------------------|
| Tetramethylene<br>dimethacrylate<br>2082-81-7                                                                                                                    | EC50          | 9,79 mg/l                      | 72 h          | Desmodesmus subspicatus                                             | OECD Guideline 201 (Alga,<br>Growth Inhibition Test) |
| Tetramethylene<br>dimethacrylate<br>2082-81-7                                                                                                                    | NOEC          | 2,11 mg/l                      | 72 h          | Desmodesmus subspicatus                                             | OECD Guideline 201 (Alga,<br>Growth Inhibition Test) |
| 2,2'-Ethylenedioxydiethyl<br>dimethacrylate<br>109-16-0                                                                                                          | EC50          | > 100 mg/l                     | 72 h          | Pseudokirchneriella subcapitata                                     | OECD Guideline 201 (Alga,<br>Growth Inhibition Test) |
| 2,2'-Ethylenedioxydiethyl<br>dimethacrylate<br>109-16-0                                                                                                          | NOEC          | 18,6 mg/l                      | 72 h          | Pseudokirchneriella subcapitata                                     | OECD Guideline 201 (Alga,<br>Growth Inhibition Test) |
| Acetic acid, 2-<br>phenylhydrazide<br>114-83-0                                                                                                                   | EC50          | 0,258 mg/l                     | 72 h          | Pseudokirchneriella subcapitata                                     | OECD Guideline 201 (Alga,<br>Growth Inhibition Test) |
| Acetic acid, 2-<br>phenylhydrazide<br>114-83-0                                                                                                                   | NOEC          | 0,012 mg/l                     | 72 h          | Pseudokirchneriella subcapitata                                     | OECD Guideline 201 (Alga,<br>Growth Inhibition Test) |
| Cumene hydroperoxide<br>80-15-9                                                                                                                                  | EC50          | 3,1 mg/l                       | 72 h          | Desmodesmus subspicatus<br>(reported as Scenedesmus<br>subspicatus) | OECD Guideline 201 (Alga,<br>Growth Inhibition Test) |
| Cumene hydroperoxide<br>80-15-9                                                                                                                                  | NOEC          | 1 mg/l                         | 72 h          | Desmodesmus subspicatus<br>(reported as Scenedesmus<br>subspicatus) | OECD Guideline 201 (Alga,<br>Growth Inhibition Test) |
| maleic acid<br>110-16-7                                                                                                                                          | EC50          | 74,35 mg/l                     | 72 h          | Pseudokirchneriella subcapitata                                     | OECD Guideline 201 (Alga,<br>Growth Inhibition Test) |
| maleic acid<br>110-16-7                                                                                                                                          | EC10          | 11,8 mg/l                      | 72 h          | Pseudokirchneriella subcapitata                                     | OECD Guideline 201 (Alga,<br>Growth Inhibition Test) |
| Reaction mass of N,N'-<br>ethane-1,2-diylbis(12-<br>hydroxyoctadecan-1-amide),<br>Octadecanamide, 12-hydroxy-<br>N-[2-[(1-<br>oxooctadecyl)amino]ethyl]<br>----- | EC50          | Toxicity > Water<br>solubility | 72 h          | Pseudokirchneriella subcapitata                                     | OECD Guideline 201 (Alga,<br>Growth Inhibition Test) |
| Reaction mass of N,N'-<br>ethane-1,2-diylbis(12-<br>hydroxyoctadecan-1-amide),<br>Octadecanamide, 12-hydroxy-<br>N-[2-[(1-<br>oxooctadecyl)amino]ethyl]<br>----- | EC10          | Toxicity > Water<br>solubility | 72 h          | Pseudokirchneriella subcapitata                                     | OECD Guideline 201 (Alga,<br>Growth Inhibition Test) |
| Menadione<br>58-27-5                                                                                                                                             | EC50          | 0,064 mg/l                     | 72 h          | Desmodesmus subspicatus                                             | OECD Guideline 201 (Alga,<br>Growth Inhibition Test) |
| Menadione<br>58-27-5                                                                                                                                             | NOEC          | 0,009 mg/l                     | 72 h          | Desmodesmus subspicatus                                             | OECD Guideline 201 (Alga,<br>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<br>type | Value     | Exposure time | Species                    | Method                                                             |
|-----------------------------------------------|---------------|-----------|---------------|----------------------------|--------------------------------------------------------------------|
| Tetramethylene<br>dimethacrylate<br>2082-81-7 | NOEC          | 20 mg/l   | 28 d          | activated sludge, domestic | not specified                                                      |
| Cumene hydroperoxide<br>80-15-9               | EC10          | 70 mg/l   | 30 min        | not specified              | not specified                                                      |
| maleic acid<br>110-16-7                       | EC10          | 44,6 mg/l | 18 h          | Pseudomonas putida         | DIN 38412, part 8<br>(Pseudomonas<br>Zellvermehrungshemm-<br>Test) |

**12.2. Persistence and degradability**

The product is not biodegradable.

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

| Hazardous substances<br>CAS-No.                                                                                                                                  | Result                          | Test type | Degradability | Exposure<br>time | Method                                                                                               |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|-----------|---------------|------------------|------------------------------------------------------------------------------------------------------|
| Tetramethylene<br>dimethacrylate<br>2082-81-7                                                                                                                    | readily biodegradable           | aerobic   | 84 %          | 28 d             | OECD Guideline 310 (Ready<br>Biodegradability CO <sub>2</sub> in Sealed<br>Vessels (Headspace Test)) |
| 2,2'-Ethylenedioxydiethyl<br>dimethacrylate<br>109-16-0                                                                                                          | readily biodegradable           | aerobic   | 85 %          | 28 d             | OECD Guideline 301 B (Ready<br>Biodegradability: CO <sub>2</sub> Evolution<br>Test)                  |
| Acetic acid, 2-<br>phenylhydrazide<br>114-83-0                                                                                                                   | not readily biodegradable.      | aerobic   | 39 %          | 28 d             | OECD Guideline 301 D (Ready<br>Biodegradability: Closed Bottle<br>Test)                              |
| Cumene hydroperoxide<br>80-15-9                                                                                                                                  | not readily biodegradable.      | aerobic   | 3 %           | 28 d             | OECD Guideline 301 B (Ready<br>Biodegradability: CO <sub>2</sub> Evolution<br>Test)                  |
| maleic acid<br>110-16-7                                                                                                                                          | readily biodegradable           | aerobic   | 97,08 %       | 28 d             | OECD Guideline 301 B (Ready<br>Biodegradability: CO <sub>2</sub> Evolution<br>Test)                  |
| Reaction mass of N,N'-<br>ethane-1,2-diylbis(12-<br>hydroxyoctadecan-1-amide),<br>Octadecanamide, 12-hydroxy-<br>N-[2-[(1-<br>oxooctadecyl)amino]ethyl]<br>----- | not readily biodegradable.      | aerobic   | 22 %          | 28 d             | OECD Guideline 301 D (Ready<br>Biodegradability: Closed Bottle<br>Test)                              |
| Reaction mass of N,N'-<br>ethane-1,2-diylbis(12-<br>hydroxyoctadecan-1-amide),<br>Octadecanamide, 12-hydroxy-<br>N-[2-[(1-<br>oxooctadecyl)amino]ethyl]<br>----- | not inherently<br>biodegradable | aerobic   | 37 %          | 60 d             | OECD Guideline 301 D (Ready<br>Biodegradability: Closed Bottle<br>Test)                              |
| Menadione<br>58-27-5                                                                                                                                             | not inherently<br>biodegradable | aerobic   | 0,000000 %    | 28 d             | OECD Guideline 302 C (Inherent<br>Biodegradability: Modified MITI<br>Test (II))                      |

**12.3. Bioaccumulative potential**

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

| Hazardous substances<br>CAS-No. | Bioconcentratio<br>n factor (BCF) | Exposure time | Temperature | Species     | Method                                                              |
|---------------------------------|-----------------------------------|---------------|-------------|-------------|---------------------------------------------------------------------|
| Cumene hydroperoxide<br>80-15-9 | 9,1                               |               |             | calculation | OECD Guideline 305<br>(Bioconcentration: Flow-through<br>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'-Ethylenedioxydiethyl dimethacrylate<br>109-16-0                                                                                          | 2,3    |             | OECD Guideline 117 (Partition Coefficient (n-octanol / water), HPLC Method)        |
| Acetic acid, 2-phenylhydrazide<br>114-83-0                                                                                                    | 0,74   |             | QSAR (Quantitative Structure Activity Relationship)                                |
| Cumene hydroperoxide<br>80-15-9                                                                                                               | 1,6    | 25 °C       | OECD Guideline 117 (Partition Coefficient (n-octanol / water), HPLC Method)        |
| maleic acid<br>110-16-7                                                                                                                       | -1,3   | 20 °C       | OECD Guideline 107 (Partition Coefficient (n-octanol / water), Shake Flask 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)        |
| Menadione<br>58-27-5                                                                                                                          | 2,43   | 30 °C       | OECD Guideline 117 (Partition Coefficient (n-octanol / water), HPLC Method)        |

#### 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'-Ethylenedioxydiethyl dimethacrylate<br>109-16-0                                                                                          | 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. |
| Cumene hydroperoxide<br>80-15-9                                                                                                               | Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria. |
| maleic acid<br>110-16-7                                                                                                                       | 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. |
| Menadione<br>58-27-5                                                                                                                          | 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 < 3 %  
(2010/75/EC)

**15.2. Chemical safety assessment**

A chemical safety assessment has not been carried out.

## SECTION 16: Other information

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

H242 Heating may cause a fire.  
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.  
H319 Causes serious eye irritation.  
H330 Fatal 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.

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