



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

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LOCTITE 660

SDS No. : 164196  
V009.0

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Replaces version from: 17.07.2018

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

#### 1.1. Product identifier

LOCTITE 660

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

Intended use:  
Anaerobic 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  
Fax-no.: +44 (1442) 278071

ua-productsafety.uk@henkel.com

For Safety Data Sheet updates please visit our website <https://mysds.henkel.com/index.html#/appSelection> 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):

|  |            |
|--|------------|
| Serious eye irritation                                       | Category 2 |
| H319 Causes serious eye irritation.                          |            |
| Skin sensitizer  | Category 1 |
| H317 May cause an allergic skin reaction.                    |            |
| Specific target organ toxicity - single exposure             | Category 3 |
| H335 May cause respiratory irritation.                       |            |
| Target organ: respiratory tract irritation                   |            |
| Chronic hazards to the aquatic environment                   | Category 4 |
| H413 May cause long lasting harmful effects to aquatic life. |            |

#### 2.2. Label elements

##### Label elements (CLP):

**Hazard pictogram:****Contains**

Hydroxypropyl methacrylate

Cumene hydroperoxide  
maleic acid

Acetic acid, 2-phenylhydrazide

**Signal word:****Warning****Hazard statement:**

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

H335 May cause respiratory irritation.

H413 May cause long lasting harmful effects to aquatic life.

**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:  
Prevention**

P261 Avoid breathing vapors.

P273 Avoid release to the environment.

P280 Wear protective gloves.

**Precautionary statement:  
Response**

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

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

**2.3. Other hazards**

None if used properly.

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

**SECTION 3: Composition/information on ingredients****3.2. Mixtures****General chemical description:**

Anaerobic Sealant

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

| Hazardous components<br>CAS-No.                             | EC Number<br>REACH-Reg No.    | content       | Classification  |
|---|-------------------------------|---------------|---|
| Ethoxylated bisphenol A dimethacrylate esters<br>41637-38-1 | 609-946-4<br>01-2119980659-17 | 25- 50 %      | Aquatic Chronic 4<br>H413   |
| Hydroxypropyl methacrylate<br>27813-02-1                    | 248-666-3<br>01-2119490226-37 | 25- 50 %      | Skin Sens. 1<br>H317<br>Eye Irrit. 2<br>H319  |
| Cumene hydroperoxide<br>80-15-9                             | 201-254-7<br>01-2119475796-19 | 0,25- < 2,5 % | STOT RE 2<br>H373<br>Skin Corr. 1B<br>H314<br>Acute Tox. 2; Inhalation<br>H330<br>Aquatic Chronic 2<br>H411<br>Acute Tox. 4; Oral<br>H302<br>Acute Tox. 4; Dermal<br>H312<br>Org. Perox. E<br>H242<br>STOT SE 3<br>H335 |
| maleic acid<br>110-16-7                                     | 203-742-5<br>01-2119488705-25 | 0,1- < 1 %    | Acute Tox. 4; Oral<br>H302<br>Eye Irrit. 2<br>H319<br>STOT SE 3<br>H335<br>Skin Irrit. 2<br>H315<br>Skin Sens. 1<br>H317<br>Acute Tox. 4; Dermal<br>H312  |
| methacrylic acid<br>79-41-4                                 | 201-204-4<br>01-2119463884-26 | 0,1- < 1 %    | Acute Tox. 4; Oral<br>H302<br>Acute Tox. 3; Dermal<br>H311<br>Acute Tox. 4; Inhalation<br>H332<br>Skin Corr. 1A<br>H314<br>Eye Dam. 1<br>H318<br>STOT SE 3<br>H335  |
| N,N-Diethyl-p-toluidine<br>613-48-9                         | 210-345-0                     | 0,1- < 1 %    | Acute Tox. 3; Oral<br>H301<br>Acute Tox. 3; Dermal<br>H311<br>Acute Tox. 3; Inhalation<br>H331<br>STOT RE 2<br>H373<br>Aquatic Chronic 3<br>H412  |
| Acetic acid, 2-phenylhydrazide<br>114-83-0                  | 204-055-3                     | 0,1- < 1 %    | Acute Tox. 3; Oral<br>H301<br>Skin Irrit. 2<br>H315<br>Skin Sens. 1<br>H317<br>Eye Irrit. 2<br>H319<br>STOT SE 3; Inhalation<br>H335<br>Carc. 2<br>H351   |
| Titanium dioxide<br>13463-67-7                              | 236-675-5<br>01-2119489379-17 | 0,1- < 1 %    | Carc. 2; Inhalation<br>H351   |
| N,N-dimethyl-o-toluidine                                    | 210-199-8                     | 0,1- < 1 %    | Acute Tox. 3; Inhalation  |

|          |  |  |  |
|----------|--|--|--|
| 609-72-3 |  |  | H331<br>Acute Tox. 3; Dermal<br>H311<br>Acute Tox. 3; Oral<br>H301<br>STOT RE 2<br>H373<br>Aquatic Chronic 3<br>H412 |
|----------|--|--|--|

**For full text of the H - statements and other abbreviations see section 16 "Other information".  
 Substances without classification may have community workplace exposure limits available.**

**SECTION 4: First aid measures**

**4.1. Description of first aid measures**

**Inhalation:**

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

**Skin contact:**

Rinse with running water and soap.  
 Obtain medical attention if irritation persists.

**Eye contact:**

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

**Ingestion:**

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

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

SKIN: Rash, Urticaria.

EYE: Irritation, conjunctivitis.

RESPIRATORY: Irritation, coughing, shortness of breath, chest tightness.

**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.

**6.2. Environmental precautions**

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

**6.3. Methods and material for containment and cleaning up**

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

**6.4. Reference to other sections**

See advice in section 8

**SECTION 7: Handling and storage****7.1. Precautions for safe handling**

Avoid skin and eye contact.  
See advice in section 8

Hygiene measures:

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

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

Refer to Technical Data Sheet

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

Anaerobic 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 |
|--|-----|-------------------|-----------------------------------|--|-----------------|
| 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        |
| 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        |
| Titanium dioxide<br>13463-67-7<br>[TITANIUM DIOXIDE, RESPIRABLE]       |     | 4                 | Time Weighted Average (TWA):      |  | EH40 WEL        |
| Titanium dioxide<br>13463-67-7<br>[TITANIUM DIOXIDE, TOTAL INHALABLE]  |     | 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 |
|---|-----|-------------------|-----------------------------------|--|-----------------|
| 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>[DUST NON-SPECIFIC] |     | 10                | Time Weighted Average (TWA):      |  | IR_OEL          |
| Silicon dioxide<br>112945-52-5<br>[DUST 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          |
| Titanium dioxide<br>13463-67-7<br>[TITANIUM DIOXIDE]  |     | 10                | Time Weighted Average (TWA):      |  | IR_OEL          |
| Titanium dioxide<br>13463-67-7<br>[TITANIUM DIOXIDE]  |     | 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 |                                     |
| Bisphenol A, 2-EO dimethacrylate<br>41637-38-1                      | aqua<br>(freshwater)               |                    |                 |     |                 |        | no hazard identified                |
| Bisphenol A, 2-EO dimethacrylate<br>41637-38-1                      | aqua (marine<br>water)             |                    |                 |     |                 |        | no hazard identified                |
| Bisphenol A, 2-EO dimethacrylate<br>41637-38-1                      | sewage<br>treatment plant<br>(STP) |                    |                 |     |                 |        | no hazard identified                |
| Bisphenol A, 2-EO dimethacrylate<br>41637-38-1                      | sediment<br>(freshwater)           |                    |                 |     |                 |        |                                     |
| Bisphenol A, 2-EO dimethacrylate<br>41637-38-1                      | sediment<br>(marine water)         |                    |                 |     |                 |        |                                     |
| Bisphenol A, 2-EO dimethacrylate<br>41637-38-1                      | Air                                |                    |                 |     |                 |        | no hazard identified                |
| Bisphenol A, 2-EO dimethacrylate<br>41637-38-1                      | soil                               |                    |                 |     |                 |        |                                     |
| Bisphenol A, 2-EO dimethacrylate<br>41637-38-1                      | Predator                           |                    |                 |     |                 |        |                                     |
| Methacrylic acid, monoester with propane-<br>1,2-diol<br>27813-02-1 | aqua<br>(freshwater)               |                    | 0,904 mg/l      |     |                 |        |                                     |
| Methacrylic acid, monoester with propane-<br>1,2-diol<br>27813-02-1 | aqua (marine<br>water)             |                    | 0,904 mg/l      |     |                 |        |                                     |
| Methacrylic acid, monoester with propane-<br>1,2-diol<br>27813-02-1 | sewage<br>treatment plant<br>(STP) |                    | 10 mg/l         |     |                 |        |                                     |
| Methacrylic acid, monoester with propane-<br>1,2-diol<br>27813-02-1 | aqua<br>(intermittent<br>releases) |                    | 0,972 mg/l      |     |                 |        |                                     |
| Methacrylic acid, monoester with propane-<br>1,2-diol<br>27813-02-1 | sediment<br>(freshwater)           |                    |                 |     | 6,28 mg/kg      |        |                                     |
| Methacrylic acid, monoester with propane-<br>1,2-diol<br>27813-02-1 | sediment<br>(marine water)         |                    |                 |     | 6,28 mg/kg      |        |                                     |
| Methacrylic acid, monoester with propane-<br>1,2-diol<br>27813-02-1 | Soil                               |                    |                 |     | 0,727<br>mg/kg  |        |                                     |
| Methacrylic acid, monoester with propane-<br>1,2-diol<br>27813-02-1 | Marine water -<br>intermittent     |                    | 0,972 mg/l      |     |                 |        |                                     |
| Methacrylic acid, monoester with propane-<br>1,2-diol<br>27813-02-1 | Air                                |                    |                 |     |                 |        | no hazard identified                |
| Methacrylic acid, monoester with propane-<br>1,2-diol<br>27813-02-1 | 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 (marine<br>water)             |                    | 0,00031<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          | Sewage<br>treatment plant          |                    | 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 |        |                                     |
| Maleic acid<br>110-16-7   | aqua<br>(freshwater)               |                    | 0,1 mg/l        |     |                 |        |                                     |

|                                |                                    |  |                |  |                 |  |                      |
|--------------------------------|------------------------------------|--|----------------|--|-----------------|--|----------------------|
| Maleic acid<br>110-16-7        | aqua<br>(intermittent<br>releases) |  | 0,4281<br>mg/l |  |                 |  |                      |
| Maleic acid<br>110-16-7        | sediment<br>(freshwater)           |  |                |  | 0,334<br>mg/kg  |  |                      |
| Maleic acid<br>110-16-7        | sewage<br>treatment plant<br>(STP) |  | 44,6 mg/l      |  |                 |  |                      |
| Maleic acid<br>110-16-7        | aqua (marine<br>water)             |  | 0,01 mg/l      |  |                 |  |                      |
| Maleic acid<br>110-16-7        | sediment<br>(marine water)         |  |                |  | 0,0334<br>mg/kg |  |                      |
| Maleic acid<br>110-16-7        | Soil                               |  |                |  | 0,0415<br>mg/kg |  |                      |
| methacrylic acid<br>79-41-4    | aqua<br>(freshwater)               |  | 0,82 mg/l      |  |                 |  |                      |
| methacrylic acid<br>79-41-4    | aqua (marine<br>water)             |  | 0,82 mg/l      |  |                 |  |                      |
| methacrylic acid<br>79-41-4    | sewage<br>treatment plant<br>(STP) |  | 10 mg/l        |  |                 |  |                      |
| methacrylic acid<br>79-41-4    | aqua<br>(intermittent<br>releases) |  | 0,82 mg/l      |  |                 |  |                      |
| methacrylic acid<br>79-41-4    | Soil                               |  |                |  | 1,2 mg/kg       |  |                      |
| Titanium dioxide<br>13463-67-7 | aqua<br>(freshwater)               |  |                |  |                 |  | no hazard identified |
| Titanium dioxide<br>13463-67-7 | aqua (marine<br>water)             |  |                |  |                 |  | no hazard identified |
| Titanium dioxide<br>13463-67-7 | sewage<br>treatment plant<br>(STP) |  |                |  |                 |  | no hazard identified |
| Titanium dioxide<br>13463-67-7 | sediment<br>(freshwater)           |  |                |  |                 |  | no hazard identified |
| Titanium dioxide<br>13463-67-7 | sediment<br>(marine water)         |  |                |  |                 |  | no hazard identified |
| Titanium dioxide<br>13463-67-7 | Soil                               |  |                |  |                 |  | no hazard identified |
| Titanium dioxide<br>13463-67-7 | Aquatic<br>(intermit.<br>releases) |  |                |  |                 |  | no hazard identified |
| Titanium dioxide<br>13463-67-7 | Predator                           |  |                |  |                 |  | no hazard identified |



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

| Name on list  | Application Area   | Route of Exposure | Health Effect                                | Exposure Time | Value                   | Remarks              |
|---|--------------------|-------------------|--|---------------|-------------------------|----------------------|
| Bisphenol A, 2-EO dimethacrylate<br>41637-38-1                  | Workers            | inhalation        | Long term exposure - systemic effects        |               | 3,52 mg/m <sup>3</sup>  | no hazard identified |
| Bisphenol A, 2-EO dimethacrylate<br>41637-38-1                  | Workers            | dermal            | Long term exposure - systemic effects        |               | 2 mg/kg                 | no hazard identified |
| Bisphenol A, 2-EO dimethacrylate<br>41637-38-1                  | General population | inhalation        | Long term exposure - systemic effects        |               | 0,87 mg/m <sup>3</sup>  | no hazard identified |
| Bisphenol A, 2-EO dimethacrylate<br>41637-38-1                  | General population | dermal            | Long term exposure - systemic effects        |               | 1 mg/kg                 | no hazard identified |
| Bisphenol A, 2-EO dimethacrylate<br>41637-38-1                  | General population | oral              | Long term exposure - systemic effects        |               | 0,5 mg/kg               | no hazard identified |
| Methacrylic acid, monoester with propane-1,2-diol<br>27813-02-1 | Workers            | dermal            | Long term exposure - systemic effects        |               | 4,2 mg/kg               | no hazard identified |
| Methacrylic acid, monoester with propane-1,2-diol<br>27813-02-1 | Workers            | Inhalation        | Long term exposure - systemic effects        |               | 14,7 mg/m <sup>3</sup>  | no hazard identified |
| Methacrylic acid, monoester with propane-1,2-diol<br>27813-02-1 | General population | dermal            | Long term exposure - systemic effects        |               | 2,5 mg/kg               | no hazard identified |
| Methacrylic acid, monoester with propane-1,2-diol<br>27813-02-1 | General population | Inhalation        | Long term exposure - systemic effects        |               | 8,8 mg/m <sup>3</sup>   | no hazard identified |
| Methacrylic acid, monoester with propane-1,2-diol<br>27813-02-1 | General population | oral              | Long term exposure - systemic effects        |               | 2,5 mg/kg               | no hazard identified |
| .alpha.,.alpha.-Dimethylbenzyl hydroperoxide<br>80-15-9         | Workers            | inhalation        | Long term exposure - systemic effects        |               | 6 mg/m <sup>3</sup>     |                      |
| Maleic acid<br>110-16-7   | Workers            | dermal            | Acute/short term exposure - local effects    |               | 0,55 mg/cm <sup>2</sup> |                      |
| Maleic acid<br>110-16-7   | Workers            | dermal            | Long term exposure - local effects           |               | 0,04 mg/cm <sup>2</sup> |                      |
| Maleic acid<br>110-16-7   | Workers            | dermal            | Acute/short term exposure - systemic effects |               | 58 mg/kg                |                      |
| Maleic acid<br>110-16-7   | Workers            | dermal            | Long term exposure - systemic effects        |               | 3,3 mg/kg               |                      |
| Maleic acid<br>110-16-7   | Workers            | inhalation        | Acute/short term exposure - local effects    |               | 3 mg/m <sup>3</sup>     |                      |
| Maleic acid<br>110-16-7   | Workers            | inhalation        | Long term exposure - systemic effects        |               | 3 mg/m <sup>3</sup>     |                      |
| Maleic acid<br>110-16-7   | Workers            | inhalation        | Long term exposure - local effects           |               | 3 mg/m <sup>3</sup>     |                      |
| Maleic acid<br>110-16-7   | Workers            | inhalation        | Acute/short term exposure - systemic effects |               | 3 mg/m <sup>3</sup>     |                      |
| methacrylic acid<br>79-41-4                                     | Workers            | Inhalation        | Long term exposure - local effects           |               | 88 mg/m <sup>3</sup>    |                      |
| methacrylic acid<br>79-41-4                                     | Workers            | Inhalation        | Long term exposure - systemic effects        |               | 29,6 mg/m <sup>3</sup>  |                      |
| methacrylic acid<br>79-41-4                                     | Workers            | dermal            | Long term exposure - systemic effects        |               | 4,25 mg/kg              |                      |
| methacrylic acid<br>79-41-4                                     | General population | Inhalation        | Long term exposure - local effects           |               | 6,55 mg/m <sup>3</sup>  |                      |
| methacrylic acid<br>79-41-4                                     | General population | Inhalation        | Long term exposure -                         |               | 6,3 mg/m <sup>3</sup>   |                      |

|                             |                    |        |   |  |            |  |
|-----------------------------|--------------------|--------|---|--|------------|--|
| methacrylic acid<br>79-41-4 | General population | dermal | systemic effects<br>Long term exposure - systemic effects |  | 2,55 mg/kg |  |
|-----------------------------|--------------------|--------|---|--|------------|--|

**Biological Exposure Indices:**

None

**8.2. Exposure controls:**

Engineering controls:

Ensure good ventilation/extraction.

Respiratory protection:

Ensure adequate ventilation.

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

Filter type: A (EN 14387)

Hand protection:

Chemical-resistant protective gloves (EN 374).

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

nitrile rubber (NBR; >= 0.4 mm thickness)

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

nitrile rubber (NBR; >= 0.4 mm thickness)

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

Eye protection:

Safety glasses with sideshields or chemical safety goggles should be worn if there is a risk of splashing.

Protective eye equipment should conform to EN166.

Skin protection:

Wear suitable protective clothing.

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

Advices to personal protection equipment:

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

**SECTION 9: Physical and chemical properties**

**9.1. Information on basic physical and chemical properties**

|                            |  |
|----------------------------|--|
| Appearance                 | paste                                      |
|                            | grey                                       |
| Odor                       | characteristic                             |
| Odour threshold            | No data available / Not applicable         |
| pH                         | No data available / Not applicable         |
| Melting point              | No data available / Not applicable         |
| Solidification temperature | No data available / Not applicable         |
| Initial boiling point      | > 149 °C (> 300.2 °F)                      |
| Flash point                | > 93 °C (> 199.4 °F); Tagliabue closed cup |
| Evaporation rate           | No data available / Not applicable         |
| Flammability               | No data available / Not applicable         |
| Explosive limits           | No data available / Not applicable         |

|  |                                    |
|--|------------------------------------|
| Vapour pressure<br>(26 °C (78.8 °F))         | < 7 mbar                           |
| Vapour pressure<br>(50 °C (122 °F))          | < 300 mbar                         |
| Relative vapour density:                     | No data available / Not applicable |
| Density<br>( $\rho$ )                        | 1,098 g/cm <sup>3</sup>            |
| Bulk density                                 | No data available / Not applicable |
| Solubility                                   | No data available / Not applicable |
| Solubility (qualitative)<br>(Solvent: Water) | Slight                             |
| Partition coefficient: n-octanol/water       | No data available / Not applicable |
| Auto-ignition temperature                    | No data available / Not applicable |
| Decomposition temperature                    | No data available / Not applicable |
| Viscosity                                    | No data available / Not applicable |
| Viscosity (kinematic)                        | No data available / Not applicable |
| Explosive properties                         | No data available / Not applicable |
| Oxidising properties                         | No data available / Not applicable |

## 9.2. Other information

No data available / Not applicable

## 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 toxicological effects

#### Acute oral toxicity:

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

| Hazardous substances<br>CAS-No.                             | Value<br>type | Value         | Species | Method  |
|---|---------------|---------------|---------|---|
| Ethoxylated bisphenol A dimethacrylate esters<br>41637-38-1 | LD50          | > 2.000 mg/kg | rat     | OECD Guideline 423 (Acute Oral toxicity)                          |
| Hydroxypropyl methacrylate<br>27813-02-1                    | LD50          | > 2.000 mg/kg | rat     | OECD Guideline 401 (Acute Oral Toxicity)                          |
| 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   |
| methacrylic acid<br>79-41-4                                 | LD50          | 1.320 mg/kg   | rat     | equivalent or similar to OECD Guideline 401 (Acute Oral Toxicity) |
| Acetic acid, 2-phenylhydrazide<br>114-83-0                  | LD50          | 270 mg/kg     | rat     | not specified   |
| Titanium dioxide<br>13463-67-7                              | LD50          | > 5.000 mg/kg | rat     | OECD Guideline 425 (Acute Oral Toxicity: Up-and-Down Procedure)   |

#### Acute dermal toxicity:

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

| Hazardous substances<br>CAS-No.                             | Value<br>type                 | Value             | Species | Method                                     |
|---|-------------------------------|-------------------|---------|--|
| Ethoxylated bisphenol A dimethacrylate esters<br>41637-38-1 | LD50                          | > 2.000 mg/kg     | rat     | OECD Guideline 402 (Acute Dermal Toxicity) |
| Hydroxypropyl methacrylate<br>27813-02-1                    | LD50                          | > 5.000 mg/kg     | rabbit  | not specified                              |
| Cumene hydroperoxide<br>80-15-9                             | Acute toxicity estimate (ATE) | 1.100 mg/kg       |         | Expert judgement                           |
| maleic acid<br>110-16-7                                     | LD50                          | 1.560 mg/kg       | rabbit  | not specified                              |
| 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                           |
| Titanium dioxide<br>13463-67-7                              | LD50                          | >= 10.000 mg/kg   | hamster | not specified                              |

**Acute inhalative toxicity:**

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

| Hazardous substances<br>CAS-No. | Value<br>type                          | Value       | Test atmosphere | Exposure<br>time | Species | Method  |
|---------------------------------|--|-------------|-----------------|------------------|---------|---|
| Cumene hydroperoxide<br>80-15-9 | LC50                                   | 1,370 mg/l  | vapour          | 4 h              | rat     | not specified                                     |
| methacrylic acid<br>79-41-4     | LC50                                   | > 3,6 mg/l  | dust/mist       | 4 h              | rat     | OECD Guideline 403 (Acute<br>Inhalation Toxicity) |
| methacrylic acid<br>79-41-4     | Acute<br>toxicity<br>estimate<br>(ATE) | 3,61 mg/l   |                 |                  |         | Expert judgement                                  |
| Titanium dioxide<br>13463-67-7  | LC50                                   | > 6,82 mg/l | dust            | 4 h              | rat     | not specified                                     |

**Skin corrosion/irritation:**

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

| Hazardous substances<br>CAS-No.                                | Result         | Exposure<br>time | Species  | Method  |
|--|----------------|------------------|--|---|
| Ethoxylated bisphenol A<br>dimethacrylate esters<br>41637-38-1 | not irritating | 15 min           | Human,<br>EpiSkin™<br>(SM),<br>Reconstructed<br>Human<br>Epidermis (RHE) | OECD Guideline 439 (In Vitro Skin Irritation:<br>Reconstructed Human Epidermis (RHE) Test Method) |
| Hydroxypropyl<br>methacrylate<br>27813-02-1                    | not irritating | 24 h             | rabbit   | Draize Test   |
| Cumene hydroperoxide<br>80-15-9                                | corrosive      |                  | rabbit   | Draize Test   |
| maleic acid<br>110-16-7  | irritating     | 24 h             | human  | Patch Test  |
| methacrylic acid<br>79-41-4                                    | corrosive      | 3 min            | rabbit   | OECD Guideline 404 (Acute Dermal Irritation / Corrosion)  |
| Titanium dioxide<br>13463-67-7                                 | not irritating | 4 h              | rabbit   | equivalent or similar to OECD Guideline 404 (Acute<br>Dermal Irritation / Corrosion)              |

**Serious eye damage/irritation:**

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

| Hazardous substances<br>CAS-No.                                | Result   | Exposure<br>time | Species                          | Method  |
|--|--|------------------|----------------------------------|---|
| Ethoxylated bisphenol A<br>dimethacrylate esters<br>41637-38-1 | not irritating                                   |                  | Bovine, cornea,<br>in vitro test | OECD Guideline 437 (BCOP)                             |
| Hydroxypropyl<br>methacrylate<br>27813-02-1                    | Category 2B<br>(mildly<br>irritating to<br>eyes) |                  | rabbit                           | Draize Test   |
| maleic acid<br>110-16-7  | highly<br>irritating                             |                  | rabbit                           | OECD Guideline 405 (Acute Eye Irritation / Corrosion) |
| methacrylic acid<br>79-41-4                                    | corrosive  |                  | rabbit                           | Draize Test   |
| Titanium dioxide<br>13463-67-7                                 | not irritating                                   |                  | rabbit                           | OECD Guideline 405 (Acute Eye Irritation / Corrosion) |

**Respiratory or skin sensitization:**

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

| Hazardous substances CAS-No.                                | Result          | Test type                          | Species    | Method   |
|---|-----------------|------------------------------------|------------|--|
| Ethoxylated bisphenol A dimethacrylate esters<br>41637-38-1 | not sensitising | Mouse local lymphnode assay (LLNA) | mouse      | OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay)                          |
| Hydroxypropyl methacrylate<br>27813-02-1                    | not sensitising | Mouse local lymphnode assay (LLNA) | mouse      | equivalent or similar to OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay) |
| Hydroxypropyl methacrylate<br>27813-02-1                    | sensitising     | Guinea pig maximisation test       | guinea pig | not specified  |
| maleic acid<br>110-16-7                                     | sensitising     | Mouse local lymphnode assay (LLNA) | mouse      | OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay)                          |
| maleic acid<br>110-16-7                                     | sensitising     | Mouse local lymphnode assay (LLNA) | guinea pig | OECD Guideline 406 (Skin Sensitisation)  |
| methacrylic acid<br>79-41-4                                 | not sensitising | Buehler test                       | guinea pig | equivalent or similar to OECD Guideline 406 (Skin Sensitisation)                         |
| Titanium dioxide<br>13463-67-7                              | not sensitising | Mouse local lymphnode assay (LLNA) | mouse      | equivalent or similar to OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay) |

**Germ cell mutagenicity:**

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

| Hazardous substances CAS-No.                                | Result   | Type of study/ Route of administration           | Metabolic activation/ Exposure time | Species | Method   |
|---|----------|--|-------------------------------------|---------|--|
| Ethoxylated bisphenol A dimethacrylate esters<br>41637-38-1 | negative | bacterial reverse mutation assay (e.g Ames test) | with and without                    |         | OECD Guideline 471 (Bacterial Reverse Mutation Assay)                          |
| Ethoxylated bisphenol A dimethacrylate esters<br>41637-38-1 | negative | mammalian cell gene mutation assay               | with and without                    |         | OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)                |
| Ethoxylated bisphenol A dimethacrylate esters<br>41637-38-1 | negative | in vitro mammalian cell micronucleus test        | with and without                    |         | OECD Guideline 487 (In vitro Mammalian Cell Micronucleus Test)                 |
| Hydroxypropyl methacrylate<br>27813-02-1                    | negative | bacterial reverse mutation assay (e.g Ames test) | with and without                    |         | OECD Guideline 471 (Bacterial Reverse Mutation Assay)                          |
| Hydroxypropyl methacrylate<br>27813-02-1                    | positive | in vitro mammalian chromosome aberration test    | with and without                    |         | Chromosome Aberration Test   |
| Hydroxypropyl methacrylate<br>27813-02-1                    | negative | mammalian cell gene mutation assay               | with and without                    |         | OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)                |
| Cumene hydroperoxide<br>80-15-9                             | positive | bacterial reverse mutation assay (e.g Ames test) | without                             |         | OECD Guideline 471 (Bacterial Reverse Mutation Assay)                          |
| maleic acid<br>110-16-7                                     | negative | bacterial reverse mutation assay (e.g Ames test) | no data                             |         | Ames Test  |
| maleic acid<br>110-16-7                                     | negative | mammalian cell gene mutation assay               | with and without                    |         | OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)                |
| methacrylic acid<br>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) |
| Titanium dioxide<br>13463-67-7                              | negative | bacterial reverse mutation assay (e.g Ames test) | with and without                    |         | OECD Guideline 471 (Bacterial Reverse Mutation Assay)                          |
| Titanium dioxide<br>13463-67-7                              | negative | in vitro mammalian chromosome aberration test    | with and without                    |         | OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test)             |
| Titanium dioxide<br>13463-67-7                              | negative | mammalian cell gene mutation assay               | with and without                    |         | OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)                |

**Carcinogenicity**

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

| Hazardous components CAS-No.             | Result           | Route of application | Exposure time / Frequency of treatment | Species | Sex         | Method   |
|--|------------------|----------------------|--|---------|-------------|--|
| Hydroxypropyl methacrylate<br>27813-02-1 | not carcinogenic | inhalation           | 2 y<br>6 h/d, 5 d/w                    | rat     | male        | equivalent or similar OECD Guideline 451 (Carcinogenicity Studies)       |
| maleic acid<br>110-16-7                  | not carcinogenic | oral: feed           | 2 y<br>daily                           | rat     | male/female | OECD Guideline 451 (Carcinogenicity Studies)                             |
| methacrylic acid<br>79-41-4              | not carcinogenic | inhalation           | 2 y                                    | mouse   | male/female | OECD Guideline 451 (Carcinogenicity Studies)                             |
| Titanium dioxide<br>13463-67-7           | not carcinogenic | inhalation           | 24 m<br>6 h/d; 5 d/w                   | rat     | male/female | OECD Guideline 453 (Combined Chronic Toxicity / Carcinogenicity Studies) |

**Reproductive toxicity:**

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

| Hazardous substances CAS-No.                                | Result / Value   | Test type            | Route of application | Species | Method   |
|---|--|----------------------|----------------------|---------|--|
| Ethoxylated bisphenol A dimethacrylate esters<br>41637-38-1 | NOAEL P 1.000 mg/kg<br>NOAEL F1 1.000 mg/kg                  | screening            | oral: gavage         | rat     | OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test) |
| Hydroxypropyl methacrylate<br>27813-02-1                    | NOAEL P 300 mg/kg<br>NOAEL F1 1.000 mg/kg                    | screening            | oral: gavage         | rat     | OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test) |
| Hydroxypropyl methacrylate<br>27813-02-1                    | NOAEL P 400 mg/kg<br>NOAEL F1 400 mg/kg                      | two-generation study | oral: gavage         | rat     | OECD Guideline 416 (Two-Generation Reproduction Toxicity Study)  |
| maleic acid<br>110-16-7                                     | NOAEL F1 150 mg/kg<br>NOAEL F2 55 mg/kg                      | Two generation study | oral: gavage         | rat     | OECD Guideline 416 (Two-Generation Reproduction Toxicity Study)  |
| methacrylic acid<br>79-41-4                                 | NOAEL P 50 mg/kg<br>NOAEL F1 400 mg/kg<br>NOAEL F2 400 mg/kg | Two generation study | oral: gavage         | rat     | OECD Guideline 416 (Two-Generation Reproduction Toxicity Study)  |
| Titanium dioxide<br>13463-67-7                              | NOAEL P > 1.000 mg/kg<br>NOAEL F1 > 1.000 mg/kg              |                      | oral: gavage         | rat     | OECD Guideline 421 (Reproduction / Developmental Toxicity Screening Test)  |

**STOT-single exposure:**

No data available.

**STOT-repeated exposure::**

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

| Hazardous substances<br>CAS-No.                                | Result / Value    | Route of<br>application | Exposure time /<br>Frequency of<br>treatment | Species | Method  |
|--|-------------------|-------------------------|--|---------|---|
| Ethoxylated bisphenol A<br>dimethacrylate esters<br>41637-38-1 | NOAEL 1.000 mg/kg | oral: gavage            | 13 weeks<br>daily                            | rat     | OECD Guideline 408<br>(Repeated Dose 90-Day<br>Oral Toxicity in Rodents)  |
| Hydroxypropyl<br>methacrylate<br>27813-02-1                    | NOAEL 300 mg/kg   | oral: gavage            | 49 d<br>daily                                | rat     | OECD Guideline 422<br>(Combined Repeated<br>Dose Toxicity Study with<br>the Reproduction /<br>Developmental Toxicity<br>Screening Test) |
| Hydroxypropyl<br>methacrylate<br>27813-02-1                    | NOAEL 0,352 mg/l  | inhalation              | 90 d<br>6 h/d, 5 d/w                         | rat     | OECD Guideline 413<br>(Subchronic Inhalation<br>Toxicity: 90-Day)   |
| 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 >= 40 mg/kg | oral: feed              | 90 d<br>daily                                | rat     | OECD Guideline 408<br>(Repeated Dose 90-Day<br>Oral Toxicity in Rodents)  |
| methacrylic acid<br>79-41-4                                    |                   | inhalation              | 90 d<br>6 h/d, 5 d/w                         | rat     | OECD Guideline 413<br>(Subchronic Inhalation<br>Toxicity: 90-Day)   |
| Titanium dioxide<br>13463-67-7                                 | NOAEL 1.000 mg/kg | oral: gavage            | 90 d<br>daily                                | rat     | OECD Guideline 408<br>(Repeated Dose 90-Day<br>Oral Toxicity in Rodents)  |

**Aspiration hazard:**

No data available.



## SECTION 12: Ecological information

### General ecological information:

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

### 12.1. Toxicity

#### Toxicity (Fish):

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

| Hazardous substances CAS-No.                             | Value type | Value                       | Exposure time | Species   | Method   |
|--|------------|-----------------------------|---------------|---|--|
| Ethoxylated bisphenol A dimethacrylate esters 41637-38-1 | LL50       | Toxicity > Water solubility | 96 h          | Oncorhynchus mykiss                             | OECD Guideline 203 (Fish, Acute Toxicity Test) |
| Hydroxypropyl methacrylate 27813-02-1                    | LC50       | 493 mg/l                    | 48 h          | Leuciscus idus melanotus                        | DIN 38412-15                                   |
| Cumene hydroperoxide 80-15-9                             | LC50       | 3,9 mg/l                    | 96 h          | Oncorhynchus mykiss                             | OECD Guideline 203 (Fish, Acute Toxicity Test) |
| maleic acid 110-16-7                                     | LC50       | > 245 mg/l                  | 48 h          | Leuciscus idus                                  | DIN 38412-15                                   |
| methacrylic acid 79-41-4                                 | LC50       | 85 mg/l                     | 96 h          | Salmo gairdneri (new name: Oncorhynchus mykiss) | EPA OTS 797.1400 (Fish Acute Toxicity Test)    |
| Titanium dioxide 13463-67-7                              | LC50       | Toxicity > Water solubility | 48 h          | Leuciscus idus                                  | OECD Guideline 203 (Fish, Acute Toxicity Test) |
| N,N-dimethyl-o-toluidine 609-72-3                        | LC 50      | 46 mg/l                     | 96 h          | Fat head minnow (Pimephales promelas)           |  |

#### Toxicity (Daphnia):

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

| Hazardous substances CAS-No.                             | Value type | Value                       | Exposure time | Species       | Method   |
|--|------------|-----------------------------|---------------|---------------|--|
| Ethoxylated bisphenol A dimethacrylate esters 41637-38-1 | EL50       | Toxicity > Water solubility | 48 h          | Daphnia magna | OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)                       |
| Hydroxypropyl methacrylate 27813-02-1                    | EC50       | > 143 mg/l                  | 48 h          | Daphnia magna | OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)                       |
| Cumene hydroperoxide 80-15-9                             | EC50       | 18,84 mg/l                  | 48 h          | Daphnia magna | OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)                       |
| maleic acid 110-16-7                                     | EC50       | 42,81 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) |
| Titanium dioxide 13463-67-7                              | EC50       | Toxicity > Water solubility | 48 h          | Daphnia magna | OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)                       |

#### Chronic toxicity to aquatic invertebrates

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

| Hazardous substances CAS-No.                             | Value type | Value                       | Exposure time | Species       | Method                                      |
|--|------------|-----------------------------|---------------|---------------|---|
| Ethoxylated bisphenol A dimethacrylate esters 41637-38-1 | NOEC       | Toxicity > Water solubility | 48 day        | Daphnia magna | OECD 211 (Daphnia magna, Reproduction Test) |
| Hydroxypropyl methacrylate 27813-02-1                    | NOEC       | 45,2 mg/l                   | 21 d          | Daphnia magna | OECD 211 (Daphnia magna, Reproduction Test) |
| maleic acid 110-16-7                                     | NOEC       | 10 mg/l                     | 21 d          | Daphnia magna | other guideline:                            |

#### Toxicity (Algae):

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

| Hazardous substances<br>CAS-No.                             | Value<br>type | Value                       | Exposure time | Species   | Method  |
|---|---------------|-----------------------------|---------------|---|---|
| Ethoxylated bisphenol A dimethacrylate esters<br>41637-38-1 | EL50          | Toxicity > Water solubility | 72 h          | Pseudokirchneriella subcapitata                                       | OECD Guideline 201 (Alga, Growth Inhibition Test) |
| Ethoxylated bisphenol A dimethacrylate esters<br>41637-38-1 | EL10          | Toxicity > Water solubility | 72 h          | Pseudokirchneriella subcapitata                                       | OECD Guideline 201 (Alga, Growth Inhibition Test) |
| Hydroxypropyl methacrylate<br>27813-02-1                    | EC50          | > 97,2 mg/l                 | 72 h          | Pseudokirchneriella subcapitata                                       | OECD Guideline 201 (Alga, Growth Inhibition Test) |
| Hydroxypropyl methacrylate<br>27813-02-1                    | NOEC          | > 97,2 mg/l                 | 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) |
| maleic acid<br>110-16-7                                     | EC50          | 74,35 mg/l                  | 72 h          | Pseudokirchneriella subcapitata                                       | OECD Guideline 201 (Alga, Growth Inhibition Test) |
| maleic acid<br>110-16-7                                     | EC10          | 11,8 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) |
| Titanium dioxide<br>13463-67-7                              | EC50          | Toxicity > Water solubility | 72 h          | Pseudokirchneriella subcapitata                                       | OECD Guideline 201 (Alga, Growth Inhibition Test) |

#### Toxicity to microorganisms

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

| Hazardous substances<br>CAS-No.                             | Value<br>type | Value                       | Exposure time | Species   | Method   |
|---|---------------|-----------------------------|---------------|---|--|
| Ethoxylated bisphenol A dimethacrylate esters<br>41637-38-1 | EC50          | Toxicity > Water solubility | 3 h           | activated sludge of a predominantly domestic sewage | OECD Guideline 209 (Activated Sludge, Respiration Inhibition Test) |
| Hydroxypropyl methacrylate<br>27813-02-1                    | EC10          | 1.140 mg/l                  | 16 h          |   | not specified  |
| Cumene hydroperoxide<br>80-15-9                             | EC10          | 70 mg/l                     | 30 min        |   | not specified  |
| maleic acid<br>110-16-7                                     | EC10          | 44,6 mg/l                   | 18 h          | Pseudomonas putida                                  | DIN 38412, part 8 (Pseudomonas Zellvermehrungshemm-Test)           |
| methacrylic acid<br>79-41-4                                 | EC10          | 100 mg/l                    | 17 h          |   | not specified  |
| Titanium dioxide<br>13463-67-7                              | EC0           | Toxicity > Water solubility | 24 h          | Pseudomonas fluorescens                             | DIN 38412, part 8 (Pseudomonas Zellvermehrungshemm-Test)           |

#### 12.2. Persistence and degradability

| Hazardous substances<br>CAS-No.                             | Result                     | Test type | Degradability | Exposure time | Method  |
|---|----------------------------|-----------|---------------|---------------|---|
| Ethoxylated bisphenol A dimethacrylate esters<br>41637-38-1 | not readily biodegradable. | aerobic   | 24 %          | 28 d          | OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)           |
| Hydroxypropyl methacrylate<br>27813-02-1                    | readily biodegradable      | aerobic   | 94,2 %        | 28 d          | OECD Guideline 301 E (Ready biodegradability: Modified OECD Screening Test) |
| Cumene hydroperoxide<br>80-15-9                             | not readily biodegradable. | aerobic   | 3 %           | 28 d          | OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test)           |
| maleic acid<br>110-16-7                                     | readily biodegradable      | aerobic   | 97,08 %       | 28 d          | OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test)           |
| methacrylic acid<br>79-41-4                                 | inherently biodegradable   | aerobic   | 100 %         | 14 d          | OECD Guideline 302 B (Inherent biodegradability: Zahn-Wellens/EMPA Test)    |
| methacrylic acid<br>79-41-4                                 | readily biodegradable      | aerobic   | 86 %          | 28 d          | OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)           |

### 12.3. Bioaccumulative potential

| 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

| Hazardous substances<br>CAS-No.                             | LogPow     | Temperature | Method   |
|---|------------|-------------|--|
| Ethoxylated bisphenol A dimethacrylate esters<br>41637-38-1 | 5,3 - 5,62 |             | OECD Guideline 117 (Partition Coefficient (n-octanol / water), HPLC Method)        |
| Hydroxypropyl methacrylate<br>27813-02-1                    | 0,97       | 20 °C       | not specified  |
| 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) |
| methacrylic acid<br>79-41-4                                 | 0,93       | 22 °C       | OECD Guideline 107 (Partition Coefficient (n-octanol / water), Shake Flask Method) |
| Acetic acid, 2-phenylhydrazide<br>114-83-0                  | 0,74       |             | not specified  |

### 12.5. Results of PBT and vPvB assessment

| Hazardous substances<br>CAS-No.                             | PBT/ vPvB   |
|---|---|
| Ethoxylated bisphenol A dimethacrylate esters<br>41637-38-1 | Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.           |
| Hydroxypropyl methacrylate<br>27813-02-1                    | 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.           |
| methacrylic acid<br>79-41-4                                 | Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.           |
| Titanium dioxide<br>13463-67-7                              | According to Annex XIII of regulation (EC) 1907/2006 a PBT and vPvB assessment shall not be conducted for inorganic substances. |

### 12.6. 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

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

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

**14.7. Transport in bulk according to Annex II of Marpol and the IBC Code**

not applicable

**SECTION 15: Regulatory information****15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

|   |                |
|---|----------------|
| Ozone Depleting Substance (ODS) (Regulation (EC) No 1005/2009): | Not applicable |
| Prior Informed Consent (PIC) (Regulation (EU) No 649/2012):     | Not applicable |
| Persistent organic pollutants (Regulation (EU) 2019/1021):      | Not applicable |
| VOC content<br>(2010/75/EC)                                     | < 3,00 %       |

**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.
- H411 Toxic to aquatic life with long lasting effects.
- H412 Harmful to aquatic life with long lasting effects.
- H413 May cause long lasting harmful effects to aquatic life.

**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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