



## Safety Data Sheet according to Regulation (EC) No1907/2006

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LOCTITE 3525 UNLB 25ML SYRINGE

SDS No. : 153626  
V009.0

Revision: 20.01.2014  
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### SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1. Product identifier

LOCTITE 3525 UNLB 25ML SYRINGE

#### Contains:

2-Hydroxyethyl methacrylate  
Hydroxypropyl methacrylate  
Acrylic acid  
Diphenyl-2,4,6-trimethylbenzoyl phosphine oxide

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

Intended use:  
Ultraviolet adhesive

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

Henkel Limited  
2 Bishop Square Business Park  
AL109EY Herfordshire Hatfield

Great Britain

Phone: +44 1606 593933  
Fax-no.: +44 1606 863762

ua-productsafety.uk@uk.henkel.com

#### 1.4. Emergency telephone number

24 Hours Emergency Tel: +44 (0)1442 278497

### SECTION 2: Hazards identification

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

##### Classification (CLP):

|  |            |
|--|------------|
| Skin irritation  | Category 2 |
| H315 Causes skin irritation.   |            |
| Serious eye damage   | Category 1 |
| H318 Causes serious eye damage.  |            |
| Skin sensitizer  | Category 1 |
| H317 May cause an allergic skin reaction.  |            |
| Toxic to reproduction  | Category 2 |
| H361f Suspected of damaging fertility.   |            |
| Specific target organ toxicity - single exposure                                     | Category 3 |
| H335 May cause respiratory irritation.<br>Target organ: Respiratory tract irritation |            |
| Chronic hazards to the aquatic environment   | Category 2 |
| H411 Toxic to aquatic life with long lasting effects.                                |            |

**Classification (DPD):**

Sensitizing

R43 May cause sensitisation by skin contact.

Xi - Irritant

R36/37/38 Irritating to eyes, respiratory system and skin.

N - Dangerous for the environment

R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

**2.2. Label elements**

**Label elements (CLP):**

**Hazard pictogram:**



**Signal word:**

Danger

**Hazard statement:**

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H335 May cause respiratory irritation.

H318 Causes serious eye damage.

H361f Suspected of damaging fertility.

H411 Toxic to aquatic life with long lasting effects.

**Precautionary statement:**

P261 Avoid breathing vapors.

**Prevention**

P273 Avoid release to the environment.

P280 Wear protective gloves/eye protection.

**Precautionary statement:**

P302+P352 IF ON SKIN: Wash with plenty of soap and water.

**Response**

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

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

**Label elements (DPD):**

Xi - Irritant



N - Dangerous for the environment



**Risk phrases:**

R36/37/38 Irritating to eyes, respiratory system and skin.

R43 May cause sensitisation by skin contact.

R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

**Safety phrases:**

S23 Do not breathe vapour.

S24/25 Avoid contact with skin and eyes.

S36/37 Wear suitable protective clothing and gloves.

S51 Use only in well-ventilated areas.

S61 Avoid release to the environment. Refer to special instructions/Safety data sheets.

**Additional labeling:**

For consumer use only: S2 Keep out of the reach of children.

S46 If swallowed, seek medical advice immediately and show this container or label.

**Contains:**

2-Hydroxyethyl methacrylate,

Hydroxypropyl methacrylate,

Diphenyl-2,4,6-trimethylbenzoyl phosphine oxide

**2.3. Other hazards**

None if used properly.

**SECTION 3: Composition/information on ingredients**

**General chemical description:**

UV curing acrylic adhesive

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

| Hazardous components<br>CAS-No.                                  | EC Number<br>REACH-Reg No.    | content        | Classification  |
|--|-------------------------------|----------------|---|
| 2-Hydroxyethyl methacrylate<br>868-77-9                          | 212-782-2<br>01-2119490169-29 | >= 10- < 20 %  | Skin irritation 2<br>H315<br>Skin sensitizer 1<br>H317<br>Serious eye irritation 2<br>H319  |
| Isobornyl methacrylate<br>7534-94-3                              | 231-403-1                     | >= 10- < 20 %  | Specific target organ toxicity - single<br>exposure 3<br>H335<br>Skin irritation 2<br>H315<br>Serious eye irritation 2<br>H319<br>Chronic hazards to the aquatic environment 2<br>H411  |
| Isobornyl acrylate<br>5888-33-5                                  | 227-561-6                     | >= 2,5- < 10 % | Serious eye irritation 2<br>H319<br>Skin irritation 2<br>H315<br>Chronic hazards to the aquatic environment 2<br>H411<br>Specific target organ toxicity - single<br>exposure 3<br>H335  |
| Hydroxypropyl methacrylate<br>27813-02-1                         | 248-666-3<br>01-2119490226-37 | >= 1- < 10 %   | Skin sensitizer 1; Dermal<br>H317<br>Serious eye irritation 2<br>H319   |
| Acrylic acid<br>79-10-7  | 201-177-9<br>01-2119452449-31 | >= 3- < 5 %    | Flammable liquids 3<br>H226<br>Acute toxicity 4; Oral<br>H302<br>Acute toxicity 4; Dermal<br>H312<br>Skin corrosion 1A<br>H314<br>Acute toxicity 4; Inhalation<br>H332<br>Specific target organ toxicity - single<br>exposure 3<br>H335<br>Acute hazards to the aquatic environment 1<br>H400<br>Chronic hazards to the aquatic environment 1<br>H410 |
| Diphenyl-2,4,6-trimethylbenzoyl phosphine<br>oxide<br>75980-60-8 | 278-355-8<br>01-2119972295-29 | >= 3- < 5 %    | Toxic to reproduction 2<br>H361f<br>Chronic hazards to the aquatic environment 2<br>H411<br>Skin sensitizer 1B<br>H317  |
| [3-(2,3-<br>Epoxypropoxy)propyl]trimethoxysilane<br>2530-83-8    | 219-784-2<br>01-2119513212-58 | < 5 %          | Serious eye damage/eye irritation 1<br>H318<br>Chronic hazards to the aquatic environment 3<br>H412   |
| Methacrylic acid<br>79-41-4                                      | 201-204-4<br>01-2119463884-26 | >= 0,1- < 1 %  | Acute toxicity 4; Oral<br>H302<br>Acute toxicity 3; Dermal<br>H311<br>Acute toxicity 4; Inhalation<br>H332<br>Skin corrosion/irritation 1A<br>H314  |

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.

**Declaration of ingredients according to DPD (EC) No 1999/45:**

| Hazardous components<br>CAS-No.                                  | EC Number<br>REACH-Reg No.    | content         | Classification  |
|--|-------------------------------|-----------------|---|
| 2-Hydroxyethyl methacrylate<br>868-77-9                          | 212-782-2<br>01-2119490169-29 | >= 10 - < 20 %  | Xi - Irritant; R36/38<br>R43  |
| Isobornyl methacrylate<br>7534-94-3                              | 231-403-1                     | >= 10 - < 20 %  | N - Dangerous for the environment; R51/53<br>Xi - Irritant; R36/37/38   |
| Isobornyl acrylate<br>5888-33-5                                  | 227-561-6                     | >= 2,5 - < 10 % | Xi - Irritant; R36/37/38<br>N - Dangerous for the environment; R51/53   |
| Hydroxypropyl methacrylate<br>27813-02-1                         | 248-666-3<br>01-2119490226-37 | >= 1 - < 10 %   | Xi - Irritant; R36, R43   |
| Acrylic acid<br>79-10-7  | 201-177-9<br>01-2119452449-31 | >= 3 - < 5 %    | R10<br>C - Corrosive; R35<br>N - Dangerous for the environment; R50<br>Xn - Harmful; R20/21/22                                |
| Diphenyl-2,4,6-trimethylbenzoyl<br>phosphine oxide<br>75980-60-8 | 278-355-8<br>01-2119972295-29 | >= 3 - < 5 %    | N - Dangerous for the environment; R51/53<br>Toxic for reproduction - category 3.; Xn - Harmful;<br>R62<br>Xi - Irritant; R43 |
| [3-(2,3-<br>Epoxypropoxy)propyl]trimethoxysilane<br>2530-83-8    | 219-784-2<br>01-2119513212-58 | < 5 %           | Xi - Irritant; R41  |

For full text of the R-Phrases indicated by codes 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.  
Consideration should be given to the possible effects of a faulty UV source (Stray radiation, ozone).

**Skin contact:**

Rinse with running water and soap.  
Seek medical advice.

**Eye contact:**

Rinse immediately with plenty of running water (for 10 minutes). Seek medical attention if necessary.

**Ingestion:**

Rinse out mouth, drink 1-2 glasses of water, do not induce vomiting.  
Seek medical advice.

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

EYE: Irritation, conjunctivitis.

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

SKIN: Rash, Urticaria.

SKIN: Redness, inflammation.

### 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

**Extinguishing media which must not be used for safety reasons:**

None known

**5.2. Special hazards arising from the substance or mixture**

In case of fire, keep containers cool with water spray.

Oxides of carbon, oxides of nitrogen, irritating organic vapors.

**5.3. Advice for firefighters**

Wear self-contained breathing apparatus and full protective clothing, such as turn-out gear.

**SECTION 6: Accidental release measures**

**6.1. Personal precautions, protective equipment and emergency procedures**

Avoid skin and eye contact.

**6.2. Environmental precautions**

Do not let product enter drains.

**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.

**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.

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

**Hygiene measures:**

Good industrial hygiene practices should be observed.

Wash hands before work breaks and after finishing work.

Do not eat, drink or smoke while working.

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

Store in original containers at 8-21°C (46.4-69.8°F) and do not return residual materials to containers as contamination may reduce the shelf life of the bulk product.

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

Ultraviolet adhesive

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

| Ingredient                  | ppm | mg/m <sup>3</sup> | Type                                 | Category | Remarks  |
|-----------------------------|-----|-------------------|--------------------------------------|----------|----------|
| METHACRYLIC ACID<br>79-41-4 | 40  | 143               | Short Term Exposure<br>Limit (STEL): |          | EH40 WEL |
| METHACRYLIC ACID<br>79-41-4 | 20  | 72                | Time Weighted Average<br>(TWA):      |          | EH40 WEL |

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

| Name on list  | Environmental Compartment          | Exposure period | Value |     |       |                  | Remarks |
|---|------------------------------------|-----------------|-------|-----|-------|------------------|---------|
|   |                                    |                 | mg/l  | ppm | mg/kg | others           |         |
| 2-Hydroxyethyl methacrylate<br>868-77-9                             | aqua<br>(freshwater)               |                 |       |     |       | 0,482 mg/L       |         |
| 2-Hydroxyethyl methacrylate<br>868-77-9                             | aqua (marine<br>water)             |                 |       |     |       | 0,482 mg/L       |         |
| 2-Hydroxyethyl methacrylate<br>868-77-9                             | STP                                |                 |       |     |       | 10 mg/L          |         |
| 2-Hydroxyethyl methacrylate<br>868-77-9                             | aqua<br>(intermittent<br>releases) |                 |       |     |       | 1 mg/L           |         |
| 2-Hydroxyethyl methacrylate<br>868-77-9                             | sediment<br>(freshwater)           |                 |       |     |       | 3,79 mg/kg       |         |
| 2-Hydroxyethyl methacrylate<br>868-77-9                             | sediment<br>(marine water)         |                 |       |     |       | 3,79 mg/kg       |         |
| 2-Hydroxyethyl methacrylate<br>868-77-9                             | soil                               |                 |       |     |       | 0,476<br>mg/kg   |         |
| 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 | 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   |         |
| Acrylic acid<br>79-10-7   | aqua<br>(freshwater)               |                 |       |     |       | 0,003 mg/L       |         |
| Acrylic acid<br>79-10-7   | aqua (marine<br>water)             |                 |       |     |       | 0,0003 mg/L      |         |
| Acrylic acid<br>79-10-7   | aqua<br>(intermittent<br>releases) |                 |       |     |       | 0,0013 mg/L      |         |
| Acrylic acid<br>79-10-7   | STP                                |                 |       |     |       | 0,9 mg/L         |         |
| Acrylic acid<br>79-10-7   | sediment<br>(freshwater)           |                 |       |     |       | 0,0236<br>mg/kg  |         |
| Acrylic acid<br>79-10-7   | sediment<br>(marine water)         |                 |       |     |       | 0,00236<br>mg/kg |         |
| Acrylic acid<br>79-10-7   | soil                               |                 |       |     |       | 1 mg/kg          |         |
| Acrylic acid<br>79-10-7   | oral                               |                 |       |     |       | 0,0023<br>mg/kg  |         |
| Diphenyl(2,4,6-trimethylbenzoyl)phosphine<br>oxide<br>75980-60-8    | aqua<br>(freshwater)               |                 |       |     |       | 0,00353 mg/L     |         |
| Diphenyl(2,4,6-trimethylbenzoyl)phosphine<br>oxide<br>75980-60-8    | aqua (marine<br>water)             |                 |       |     |       | 0,000353<br>mg/L |         |
| Diphenyl(2,4,6-trimethylbenzoyl)phosphine<br>oxide<br>75980-60-8    | aqua<br>(intermittent<br>releases) |                 |       |     |       | 0,0353 mg/L      |         |
| Diphenyl(2,4,6-trimethylbenzoyl)phosphine<br>oxide<br>75980-60-8    | sediment<br>(freshwater)           |                 |       |     |       | 0,29 mg/kg       |         |
| Diphenyl(2,4,6-trimethylbenzoyl)phosphine<br>oxide<br>75980-60-8    | sediment<br>(marine water)         |                 |       |     |       | 0,029<br>mg/kg   |         |
| Diphenyl(2,4,6-trimethylbenzoyl)phosphine<br>oxide<br>75980-60-8    | soil                               |                 |       |     |       | 0,0557           |         |



| oxide<br>75980-60-8                                       |                                    |  |  |  | mg/kg |            |  |
|---|------------------------------------|--|--|--|-------|------------|--|
| [3-(2,3-Epoxypropoxy)propyl]trimethoxysilane<br>2530-83-8 | aqua<br>(freshwater)               |  |  |  |       | 1 mg/L     |  |
| [3-(2,3-Epoxypropoxy)propyl]trimethoxysilane<br>2530-83-8 | aqua (marine<br>water)             |  |  |  |       | 0,1 mg/L   |  |
| [3-(2,3-Epoxypropoxy)propyl]trimethoxysilane<br>2530-83-8 | aqua<br>(intermittent<br>releases) |  |  |  |       | 1 mg/L     |  |
| [3-(2,3-Epoxypropoxy)propyl]trimethoxysilane<br>2530-83-8 | soil                               |  |  |  |       | 0,13 mg/kg |  |
| [3-(2,3-Epoxypropoxy)propyl]trimethoxysilane<br>2530-83-8 | STP                                |  |  |  |       | 10 mg/L    |  |

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

| Name on list  | Application Area   | Route of Exposure | Health Effect                                | Exposure Time | Value                  | Remarks |
|---|--------------------|-------------------|--|---------------|------------------------|---------|
| 2-Hydroxyethyl methacrylate<br>868-77-9                         | worker             | Dermal            | Long term exposure - systemic effects        |               | 1,3 mg/kg bw/day       |         |
| 2-Hydroxyethyl methacrylate<br>868-77-9                         | worker             | inhalation        | Long term exposure - systemic effects        |               | 4,9 mg/m <sup>3</sup>  |         |
| 2-Hydroxyethyl methacrylate<br>868-77-9                         | general population | Dermal            | Long term exposure - systemic effects        |               | 0,83 mg/kg bw/day      |         |
| 2-Hydroxyethyl methacrylate<br>868-77-9                         | general population | inhalation        | Long term exposure - systemic effects        |               | 2,9 mg/m <sup>3</sup>  |         |
| 2-Hydroxyethyl methacrylate<br>868-77-9                         | general population | oral              | Long term exposure - systemic effects        |               | 0,83 mg/kg bw/day      |         |
| Methacrylic acid, monoester with propane-1,2-diol<br>27813-02-1 | worker             | Dermal            | Long term exposure - systemic effects        |               | 4,2 mg/kg bw/day       |         |
| Methacrylic acid, monoester with propane-1,2-diol<br>27813-02-1 | worker             | inhalation        | Long term exposure - systemic effects        |               | 14,7 mg/m <sup>3</sup> |         |
| Methacrylic acid, monoester with propane-1,2-diol<br>27813-02-1 | general population | Dermal            | Long term exposure - systemic effects        |               | 2,5 mg/kg bw/day       |         |
| 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>  |         |
| Methacrylic acid, monoester with propane-1,2-diol<br>27813-02-1 | general population | oral              | Long term exposure - systemic effects        |               | 2,5 mg/kg bw/day       |         |
| Acrylic acid<br>79-10-7   | worker             | inhalation        | Long term exposure - local effects           |               | 30 mg/m <sup>3</sup>   |         |
| Acrylic acid<br>79-10-7   | worker             | inhalation        | Acute/short term exposure - local effects    |               | 30 mg/m <sup>3</sup>   |         |
| Acrylic acid<br>79-10-7   | worker             | Dermal            | Acute/short term exposure - local effects    |               | 1 mg/cm <sup>2</sup>   |         |
| Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide<br>75980-60-8   | worker             | inhalation        | Long term exposure - systemic effects        |               | 3,5 mg/m <sup>3</sup>  |         |
| Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide<br>75980-60-8   | worker             | Dermal            | Long term exposure - systemic effects        |               | 1 mg/kg                |         |
| Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide<br>75980-60-8   | worker             |                   | Long term exposure - systemic effects        |               |                        |         |
| [3-(2,3-Epoxypropoxy)propyl]trimethoxysilane<br>2530-83-8       | worker             | Dermal            | Acute/short term exposure - systemic effects |               | 21 mg/kg bw/day        |         |
| [3-(2,3-Epoxypropoxy)propyl]trimethoxysilane<br>2530-83-8       | worker             | inhalation        | Acute/short term exposure - systemic effects |               | 147 mg/m <sup>3</sup>  |         |
| [3-(2,3-Epoxypropoxy)propyl]trimethoxysilane<br>2530-83-8       | worker             | Dermal            | Long term exposure - systemic effects        |               | 21 mg/kg bw/day        |         |
| [3-(2,3-Epoxypropoxy)propyl]trimethoxysilane<br>2530-83-8       | worker             | inhalation        | Long term exposure - systemic effects        |               | 147 mg/m <sup>3</sup>  |         |

**Biological Exposure Indices:**

None

**8.2. Exposure controls:**

## Engineering controls:

UV lamp should be designed, installed and operated in such a way as to eliminate exposure of the skin and eyes to stray radiation

## Respiratory protection:

Suitable breathing mask when there is inadequate ventilation.

Suitable respiratory protection:

Filter type: A

## 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:

Wear protective glasses.

## Skin protection:

Wear suitable protective clothing.

**SECTION 9: Physical and chemical properties****9.1. Information on basic physical and chemical properties**

|  |                                    |
|--|------------------------------------|
| Appearance                             | liquid                             |
|  | Clear                              |
| Odor                                   | Sharp                              |
| Odour threshold                        | No data available / Not applicable |
| pH                                     | No data available / Not applicable |
| Initial boiling point                  | > 140 °C (> 284 °F)                |
| Flash point                            | 71,1 °C (159,98 °F)                |
| Decomposition temperature              | No data available / Not applicable |
| Vapour pressure                        | < 13,33 mbar                       |
| Density                                | 1,113 g/cm <sup>3</sup>            |
| ( )                                    |                                    |
| Bulk density                           | 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 |
| Solubility (qualitative)               | Slight                             |
| (Solvent: Water)                       |                                    |
| Solidification temperature             | No data available / Not applicable |
| Melting point                          | No data available / Not applicable |
| Flammability                           | No data available / Not applicable |
| Auto-ignition temperature              | No data available / Not applicable |
| Explosive limits                       | No data available / Not applicable |
| Partition coefficient: n-octanol/water | No data available / Not applicable |
| Evaporation rate                       | No data available / Not applicable |
| Vapor density                          | 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

Reaction with strong acids.  
Reacts with strong oxidants.

### 10.2. Chemical stability

Stable under recommended storage conditions.

### 10.3. Possibility of hazardous reactions

See section reactivity

### 10.4. Conditions to avoid

Stable

### 10.5. Incompatible materials

See section reactivity

### 10.6. Hazardous decomposition products

Oxides of carbon.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

#### General toxicological information:

The mixture is classified based on the available hazard information for the ingredients as defined in the classification criteria for mixtures for each hazard class or differentiation in Annex I to Regulation 1272/2008/EC. Relevant available health/ecological information for the substances listed under Section 3 is provided in the following.

#### Oral toxicity:

May cause irritation to the digestive tract.

#### Inhalative toxicity:

May cause respiratory irritation.

#### Skin irritation:

Causes skin irritation.

#### Eye irritation:

Causes serious eye damage.

#### Sensitizing:

May cause an allergic skin reaction.

**Reproductive toxicity:**

Suspected of damaging fertility.

**Acute oral toxicity:**

| Hazardous components CAS-No.                                  | Value type | Value               | Route of application | Exposure time | Species | Method                                   |
|---|------------|---------------------|----------------------|---------------|---------|--|
| Isobornyl acrylate<br>5888-33-5                               | LD50       | 2.300 - 4.000 mg/kg | oral                 |               | rat     |  |
| Diphenyl-2,4,6-trimethylbenzoyl phosphine oxide<br>75980-60-8 | LD50       | > 5.000 mg/kg       | oral                 |               | rat     |  |
| [3-(2,3-Epoxypropoxy)propyl]tri methoxysilane<br>2530-83-8    | LD50       |                     | oral                 |               | rat     | OECD Guideline 401 (Acute Oral Toxicity) |
| Methacrylic acid<br>79-41-4                                   | LD50       | 1.320 mg/kg         | oral                 |               | rat     | OECD Guideline 401 (Acute Oral Toxicity) |

**Acute inhalative toxicity:**

| Hazardous components CAS-No.                               | Value type | Value      | Route of application | Exposure time | Species | Method   |
|--|------------|------------|----------------------|---------------|---------|--|
| [3-(2,3-Epoxypropoxy)propyl]tri methoxysilane<br>2530-83-8 | LC50       | > 5,3 mg/l | inhalation           |               | rat     | OECD Guideline 403 (Acute Inhalation Toxicity) |
| Methacrylic acid<br>79-41-4                                | LC50       | 4,7 mg/l   | inhalation           | 4 h           | rat     | OECD Guideline 403 (Acute Inhalation Toxicity) |

**Acute dermal toxicity:**

| Hazardous components CAS-No.                               | Value type                    | Value             | Route of application | Exposure time | Species | Method                                     |
|--|-------------------------------|-------------------|----------------------|---------------|---------|--|
| Isobornyl acrylate<br>5888-33-5                            | LD50                          | > 5.000 mg/kg     | dermal               |               | rabbit  |  |
| [3-(2,3-Epoxypropoxy)propyl]tri methoxysilane<br>2530-83-8 | LD50                          |                   | dermal               |               | rabbit  | OECD Guideline 402 (Acute Dermal Toxicity) |
| Methacrylic acid<br>79-41-4                                | Acute toxicity estimate (ATE) | 500 mg/kg         | dermal               |               |         | Expert judgement                           |
| Methacrylic acid<br>79-41-4                                | LD50                          | 500 - 1.000 mg/kg |                      |               | rabbit  |  |

**Skin corrosion/irritation:**

| Hazardous components CAS-No.                               | Result                  | Exposure time | Species | Method   |
|--|-------------------------|---------------|---------|--|
| Isobornyl acrylate<br>5888-33-5                            | irritating              |               | rabbit  | OECD Guideline 404 (Acute Dermal Irritation / Corrosion) |
| [3-(2,3-Epoxypropoxy)propyl]tri methoxysilane<br>2530-83-8 | not irritating          | 24 h          | rabbit  | OECD Guideline 404 (Acute Dermal Irritation / Corrosion) |
| Methacrylic acid<br>79-41-4                                | Category 1A (corrosive) | 4 h           | rabbit  | OECD Guideline 404 (Acute Dermal Irritation / Corrosion) |
| Methacrylic acid<br>79-41-4                                | Category 1A (corrosive) | 4 h           | rabbit  | OECD Guideline 404 (Acute Dermal Irritation / Corrosion) |

**Serious eye damage/irritation:**

| Hazardous components CAS-No.                               | Result            | Exposure time | Species | Method  |
|--|-------------------|---------------|---------|---|
| [3-(2,3-Epoxypropoxy)propyl]tri methoxysilane<br>2530-83-8 | highly irritating |               | rabbit  | OECD Guideline 405 (Acute Eye Irritation / Corrosion) |

**Respiratory or skin sensitization:**

| Hazardous components CAS-No.                               | Result          | Test type    | Species    | Method                                  |
|--|-----------------|--------------|------------|---|
| [3-(2,3-Epoxypropoxy)propyl]tri methoxysilane<br>2530-83-8 | not sensitising | Buehler test | guinea pig | OECD Guideline 406 (Skin Sensitisation) |
| Methacrylic acid<br>79-41-4                                | not sensitising | Buehler test | guinea pig | OECD Guideline 406 (Skin Sensitisation) |

**Germ cell mutagenicity:**

| Hazardous components CAS-No.                               | Result                                    | Type of study / Route of administration          | Metabolic activation / Exposure time | Species | Method   |
|--|---|--|--------------------------------------|---------|--|
| 2-Hydroxyethyl methacrylate<br>868-77-9                    | negative                                  | bacterial reverse mutation assay (e.g Ames test) | with and without                     |         | OECD Guideline 471 (Bacterial Reverse Mutation Assay)              |
|  | positive                                  | in vitro mammalian chromosome aberration test    | with and without                     |         | OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test) |
| Acrylic acid<br>79-10-7                                    | negative                                  | bacterial reverse mutation assay (e.g Ames test) | with and without                     |         |  |
| [3-(2,3-Epoxypropoxy)propyl]tri methoxysilane<br>2530-83-8 | A Mutagenic potential cannot be excluded. | mammalian cell gene mutation assay               | with and without                     |         | OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)    |
| [3-(2,3-Epoxypropoxy)propyl]tri methoxysilane<br>2530-83-8 | A Mutagenic potential cannot be excluded. |  |                                      | mouse   | OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test)       |

**Repeated dose toxicity**

| Hazardous components CAS-No.                               | Result            | Route of application | Exposure time / Frequency of treatment | Species | Method   |
|--|-------------------|----------------------|--|---------|--|
| [3-(2,3-Epoxypropoxy)propyl]tri methoxysilane<br>2530-83-8 | NOAEL=500 mg/kg   | oral:<br>unspecified | 28 d                                   | rat     | OECD Guideline 407 (Repeated Dose 28-Day Oral Toxicity in Rodents) |
| [3-(2,3-Epoxypropoxy)propyl]tri methoxysilane<br>2530-83-8 | NOAEL=0,225 mg/kg | inhalation           | 14 d                                   | rat     | OECD Guideline 412 (Repeated Dose Inhalation Toxicity: 28/14-Day)  |

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

The mixture is classified based on the available hazard information for the ingredients as defined in the classification criteria for mixtures for each hazard class or differentiation in Annex I to Regulation 1272/2008/EC. Relevant available health/ecological information for the substances listed under Section 3 is provided in the following.

**12.1. Toxicity****Ecotoxicity:**

Toxic to aquatic life with long lasting effects.  
Do not empty into drains / surface water / ground water.

| Hazardous components<br>CAS-No.                                      | Value<br>type | Value         | Acute<br>Toxicity<br>Study | Exposure<br>time | Species  | Method   |
|--|---------------|---------------|----------------------------|------------------|--|--|
| 2-Hydroxyethyl methacrylate<br>868-77-9                              | LC50          | 227 mg/l      | Fish                       | 96 h             | Pimephales promelas  | OECD Guideline<br>203 (Fish, Acute<br>Toxicity Test)                   |
| 2-Hydroxyethyl methacrylate<br>868-77-9                              | EC50          | 380 mg/l      | Daphnia                    | 48 h             | Daphnia magna  | OECD Guideline<br>202 (Daphnia sp.<br>Acute<br>Immobilisation<br>Test) |
| 2-Hydroxyethyl methacrylate<br>868-77-9                              | EC50          | 345 mg/l      | Algae                      | 72 h             | Selenastrum capricornutum<br>(new name: Pseudokirchnerella<br>subcapitata) | OECD Guideline<br>201 (Alga, Growth<br>Inhibition Test)                |
|  | NOEC          | 160 mg/l      | Algae                      | 72 h             | Selenastrum capricornutum<br>(new name: Pseudokirchnerella<br>subcapitata) | OECD Guideline<br>201 (Alga, Growth<br>Inhibition Test)                |
| 2-Hydroxyethyl methacrylate<br>868-77-9                              | NOEC          | 24,1 mg/l     | chronic<br>Daphnia         | 21 d             | Daphnia magna  | OECD 211<br>(Daphnia magna,<br>Reproduction Test)                      |
| Isobornyl methacrylate<br>7534-94-3                                  | LC50          | 1,79 mg/l     | Fish                       | 96 h             |  | OECD Guideline<br>203 (Fish, Acute<br>Toxicity Test)                   |
| Isobornyl methacrylate<br>7534-94-3                                  | EC50          | 1,1 mg/l      | Daphnia                    | 48 h             | Daphnia magna  | OECD Guideline<br>202 (Daphnia sp.<br>Acute<br>Immobilisation<br>Test) |
| Isobornyl methacrylate<br>7534-94-3                                  | EC50          | 2,66 mg/l     | Algae                      | 96 h             | Pseudokirchnerella subcapitata   | OECD Guideline<br>201 (Alga, Growth<br>Inhibition Test)                |
| Isobornyl acrylate<br>5888-33-5                                      | EC50          | 1 mg/l        | Daphnia                    | 48 h             | Daphnia magna  | OECD Guideline<br>202 (Daphnia sp.<br>Acute<br>Immobilisation<br>Test) |
| Isobornyl acrylate<br>5888-33-5                                      | IC50          | 4,2 mg/l      | Algae                      | 72 h             | Pseudokirchnerella subcapitata   | OECD Guideline<br>201 (Alga, Growth<br>Inhibition Test)                |
|  | NOEC          | 1,87 mg/l     | Algae                      | 72 h             | Pseudokirchnerella subcapitata   | OECD Guideline<br>201 (Alga, Growth<br>Inhibition Test)                |
| Hydroxypropyl methacrylate<br>27813-02-1                             | LC50          | 493 mg/l      | Fish                       | 48 h             | Leuciscus idus melanotus   |  |
| Acrylic acid<br>79-10-7  | LC50          | 27 mg/l       | Fish                       | 96 h             | Salmo gairdneri (new name:<br>Oncorhynchus mykiss)                         | OECD Guideline<br>203 (Fish, Acute<br>Toxicity Test)                   |
| Acrylic acid<br>79-10-7  | EC50          | 47 mg/l       | Daphnia                    | 48 h             | Daphnia magna  | OECD Guideline<br>202 (Daphnia sp.<br>Acute<br>Immobilisation<br>Test) |
| Acrylic acid<br>79-10-7  | EC50          | 0,13 mg/l     | Algae                      | 72 h             | Scenedesmus subspicatus (new<br>name: Desmodesmus<br>subspicatus)          | OECD Guideline<br>201 (Alga, Growth<br>Inhibition Test)                |
|  | NOEC          | 0,008 mg/l    | Algae                      | 72 h             | Scenedesmus subspicatus (new<br>name: Desmodesmus<br>subspicatus)          | OECD Guideline<br>201 (Alga, Growth<br>Inhibition Test)                |
| Acrylic acid<br>79-10-7  | NOEC          | 19 mg/l       | chronic<br>Daphnia         | 21 d             | Daphnia magna  | OECD 211<br>(Daphnia magna,<br>Reproduction Test)                      |
| Diphenyl-2,4,6-<br>trimethylbenzoyl phosphine<br>oxide<br>75980-60-8 | LC50          | 1 - 10 mg/l   | Fish                       | 48 h             | Oryzias latipes  | OECD Guideline<br>203 (Fish, Acute<br>Toxicity Test)                   |
| Diphenyl-2,4,6-<br>trimethylbenzoyl phosphine<br>oxide<br>75980-60-8 | EC50          | 10 - 100 mg/l | Daphnia                    | 48 h             | Daphnia magna  | OECD Guideline<br>202 (Daphnia sp.<br>Acute<br>Immobilisation<br>Test) |
| Diphenyl-2,4,6-<br>trimethylbenzoyl phosphine<br>oxide<br>75980-60-8 | EC50          | 10 - 100 mg/l | Algae                      | 72 h             |  | OECD Guideline<br>201 (Alga, Growth<br>Inhibition Test)                |
| [3-(2,3-<br>Epoxypropoxy)propyl]trimeth<br>oxysilane<br>2530-83-8    | LC50          | 55 mg/l       | Fish                       | 96 h             | Cyprinus carpio  | OECD Guideline<br>203 (Fish, Acute<br>Toxicity Test)                   |

|   |      |                |                 |      |   |  |
|---|------|----------------|-----------------|------|---|--|
| [3-(2,3-Epoxypropoxy)propyl]trimethoxysilane<br>2530-83-8 | EC50 | 473 mg/l       | Daphnia         | 48 h | Daphnia magna   | OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test) |
| [3-(2,3-Epoxypropoxy)propyl]trimethoxysilane<br>2530-83-8 | NOEC | 53 mg/l        | Algae           | 72 h | Scenedesmus subspicatus (new name: Desmodesmus subspicatus) | OECD Guideline 201 (Alga, Growth Inhibition Test)          |
| [3-(2,3-Epoxypropoxy)propyl]trimethoxysilane<br>2530-83-8 | EC50 | 255 mg/l       | Algae           | 72 h | Scenedesmus subspicatus (new name: Desmodesmus subspicatus) | OECD Guideline 201 (Alga, Growth Inhibition Test)          |
| [3-(2,3-Epoxypropoxy)propyl]trimethoxysilane<br>2530-83-8 | NOEC | 100 mg/l       | chronic Daphnia | 21 d | Daphnia magna   | OECD 211 (Daphnia magna, Reproduction Test)                |
| Methacrylic acid<br>79-41-4                               | LC50 | 100 - 180 mg/l | Fish            | 96 h | Brachydanio rerio (new name: Danio rerio)                   | OECD Guideline 203 (Fish, Acute Toxicity Test)             |
| Methacrylic acid<br>79-41-4                               | EC50 | > 130 mg/l     | Daphnia         | 48 h | Daphnia magna   | OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test) |
| Methacrylic acid<br>79-41-4                               | EC10 | 8,2 mg/l       | Algae           |      |   | OECD Guideline 201 (Alga, Growth Inhibition Test)          |
| Methacrylic acid<br>79-41-4                               | EC50 | > 8,2 mg/l     | Algae           |      |   | OECD Guideline 201 (Alga, Growth Inhibition Test)          |

## 12.2. Persistence and degradability

### Persistence and Biodegradability:

The product is not biodegradable.

| Hazardous components<br>CAS-No.                               | Result                | Route of application | Degradability | Method   |
|---|-----------------------|----------------------|---------------|--|
| 2-Hydroxyethyl methacrylate<br>868-77-9                       | readily biodegradable | aerobic              | 92 - 100 %    | OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I))          |
| Isobornyl methacrylate<br>7534-94-3                           |                       |                      | 26,8 %        | OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)              |
| Isobornyl acrylate<br>5888-33-5                               |                       | no data              | 72,9 %        | OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)              |
| Hydroxypropyl methacrylate<br>27813-02-1                      | readily biodegradable | aerobic              | 94,2 %        | OECD Guideline 301 E (Ready biodegradability: Modified OECD Screening Test)    |
| Acrylic acid<br>79-10-7                                       | readily biodegradable | aerobic              | 81 %          | OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)              |
| Diphenyl-2,4,6-trimethylbenzoyl phosphine oxide<br>75980-60-8 |                       |                      | < 20 %        | OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)    |
| [3-(2,3-Epoxypropoxy)propyl]trimethoxysilane<br>2530-83-8     |                       | aerobic              | 37 %          | OECD Guideline 301 A (new version) (Ready Biodegradability: DOC Die Away Test) |
| Methacrylic acid<br>79-41-4                                   | readily biodegradable | aerobic              | 86 %          | OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)              |

## 12.3. Bioaccumulative potential / 12.4. Mobility in soil

### Mobility:

Cured adhesives are immobile.

### Bioaccumulative potential:

No data available.

| Hazardous components<br>CAS-No. | LogKow | Bioconcentration factor (BCF) | Exposure time | Species | Temperature | Method |
|---------------------------------|--------|-------------------------------|---------------|---------|-------------|--------|
|---------------------------------|--------|-------------------------------|---------------|---------|-------------|--------|



|  |      |  |  |  |       |   |
|--|------|--|--|--|-------|---|
| Isobornyl methacrylate<br>7534-94-3      | 5,09 |  |  |  |       | OECD Guideline 117<br>(Partition Coefficient (n-octanol / water), HPLC Method)        |
| Isobornyl acrylate<br>5888-33-5          | 4,21 |  |  |  |       | OECD Guideline 107<br>(Partition Coefficient (n-octanol / water), Shake Flask Method) |
| Hydroxypropyl methacrylate<br>27813-02-1 | 0,97 |  |  |  |       |   |
| Acrylic acid<br>79-10-7                  | 0,46 |  |  |  | 25 °C | OECD Guideline 107<br>(Partition Coefficient (n-octanol / water), Shake Flask Method) |
| Methacrylic acid<br>79-41-4              | 0,93 |  |  |  |       |   |

### 12.5. Results of PBT and vPvB assessment

| Hazardous components<br>CAS-No.                               | PBT/vPvB  |
|---|---|
| 2-Hydroxyethyl methacrylate<br>868-77-9                       | 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. |
| Acrylic acid<br>79-10-7                                       | Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria. |
| Diphenyl-2,4,6-trimethylbenzoyl phosphine oxide<br>75980-60-8 | Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria. |
| [3-(2,3-Epoxypropoxy)propyl]trimethoxysilane<br>2530-83-8     | 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. |

### 12.6. Other adverse effects

No data available.

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Product disposal:

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.

Disposal must be made according to official regulations.

Waste code

08 04 09 waste adhesives and sealants containing organic solvents and other dangerous substances

**SECTION 14: Transport information****14.1. UN number**

|      |      |
|------|------|
| ADR  | 3082 |
| RID  | 3082 |
| ADNR | 3082 |
| IMDG | 3082 |
| IATA | 3082 |

**14.2. UN proper shipping name**

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

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

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

**14.4. Packaging group**

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

**14.5. Environmental hazards**

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

**14.6. Special precautions for user**

|      |                                   |
|------|-----------------------------------|
| ADR  | not applicable<br>Tunnelcode: (E) |
| RID  | not applicable                    |
| ADNR | not applicable                    |
| IMDG | not applicable                    |
| IATA | not applicable                    |

**14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**

not applicable

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

VOC content &lt; 5,00 %

(1999/13/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:

R10 Flammable.  
R20/21/22 Harmful by inhalation, in contact with skin and if swallowed.  
R35 Causes severe burns.  
R36 Irritating to eyes.  
R36/37/38 Irritating to eyes, respiratory system and skin.  
R36/38 Irritating to eyes and skin.  
R41 Risk of serious damage to eyes.  
R43 May cause sensitisation by skin contact.  
R50 Very toxic to aquatic organisms.  
R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.  
R62 Possible risk of impaired fertility.  
H226 Flammable liquid and vapor.  
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.  
H332 Harmful if inhaled.  
H335 May cause respiratory irritation.  
H361f Suspected of damaging fertility.  
H400 Very toxic to aquatic life.  
H410 Very toxic to aquatic life with long lasting effects.  
H411 Toxic to aquatic life with long lasting effects.  
H412 Harmful to aquatic life with long lasting effects.

#### Further information:

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.