



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

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Loctite 3943 Light Cure 25ml EN

SDS No. : 176642
V005.2

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Replaces version from: 12.02.2013

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

1.1. Product identifier

Loctite 3943 Light Cure 25ml EN

Contains:

Isobornyl acrylate
2-Hydroxyethyl methacrylate
Acrylic acid
Hydroxypropyl methacrylate
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 Ltd
Wood Lane End
HP2 4RQ Hemel Hempstead

Great Britain

Phone: +44 1442 278000
Fax-no.: +44 1442 278071

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. | |
| Specific target organ toxicity - single exposure | Category 3 |
| H335 May cause respiratory irritation. Target organ: respiratory tract irritation | |
| Acute hazards to the aquatic environment | Category 1 |
| H400 Very toxic to aquatic life. | |
| Chronic hazards to the aquatic environment | Category 1 |
| H410 Very toxic to aquatic life with long lasting effects. | |

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. H318 Causes serious eye damage. H335 May cause respiratory irritation. H410 Very toxic to aquatic life with long lasting effects. | |
| Precautionary statement: | P261 Avoid breathing vapours. | |
| Prevention | P273 Avoid release to the environment. P280 Wear protective gloves/eye protection. | |
| Precautionary statement: | P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. | |
| Response | P302+P352 IF ON SKIN: Wash with plenty of water. P333+P313 If skin irritation or rash occurs: Get medical advice/attention. | |

2.3. Other hazards

Care should be taken during the cure of these products by UV radiation to avoid exposure of the skin and especially of the eyes to direct or reflected UV radiation as long term effects could be harmful.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

General chemical description:

UV curing acrylic adhesive

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

| Hazardous components CAS-No. | EC Number REACH-Reg No. | content | Classification |
|--|------------------------------------|----------------|--|
| Isobornyl acrylate 5888-33-5 | 227-561-6 | 25- 50 % | Skin Irrit. 2 H315 Eye Irrit. 2 H319 STOT SE 3 H335 Skin Sens. 1B H317 Aquatic Acute 1 H400 Aquatic Chronic 1 H410 |
| 2-Hydroxyethyl methacrylate 868-77-9 | 212-782-2 01-2119490169-29 | 10- 20 % | Skin Irrit. 2 H315 Skin Sens. 1 H317 Eye Irrit. 2 H319 |
| Isobornyl methacrylate 7534-94-3 | 231-403-1 | 5- < 10 % | STOT SE 3 H335 Skin Irrit. 2 H315 Eye Irrit. 2 H319 Aquatic Chronic 2 H411 |
| Acrylic acid 79-10-7 | 201-177-9 01-2119452449-31 | 1- < 5 % | Flam. Liq. 3 H226 Acute Tox. 4; Oral H302 Acute Tox. 4; Dermal H312 Skin Corr. 1A H314 Acute Tox. 4; Inhalation H332 STOT SE 3 H335 Aquatic Acute 1 H400 Aquatic Chronic 2 H411 |
| Hydroxypropyl methacrylate 27813-02-1 | 248-666-3 01-2119490226-37 | 1- < 5 % | Skin Sens. 1 H317 Eye Irrit. 2 H319 |
| [3-(2,3- Epoxypropoxy)propyl]trimethoxysilane 2530-83-8 | 219-784-2 01-2119513212-58 | 1- < 3 % | Eye Dam. 1 H318 Aquatic Chronic 3 H412 |
| Diphenyl-2,4,6-trimethylbenzoyl phosphine oxide 75980-60-8 | 278-355-8 01-2119972295-29 | 1- < 5 % | Repr. 2 H361f Aquatic Chronic 2 H411 Skin Sens. 1B H317 |
| Methacrylic acid 79-41-4 | 201-204-4 01-2119463884-26 | 0,1- < 1 % | Acute Tox. 4; Oral H302 Acute Tox. 3; Dermal H311 Acute Tox. 4; Inhalation H332 Skin Corr. 1A 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.**

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.

SKIN: Redness, inflammation.

SKIN: Rash, Urticaria.

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:

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.
Sulphur oxides

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 [Regulated substance] | ppm | mg/m ³ | Value type | Short term exposure limit category / Remarks | Regulatory list |
|---|-----|-------------------|-----------------------------------|--|-----------------|
| Methacrylic acid 79-41-4 [METHACRYLIC ACID] | 40 | 143 | Short Term Exposure Limit (STEL): | | EH40 WEL |
| Methacrylic acid 79-41-4 [METHACRYLIC ACID] | 20 | 72 | Time Weighted Average (TWA): | | EH40 WEL |

Occupational Exposure Limits

Valid for
Ireland

| Ingredient [Regulated substance] | ppm | mg/m ³ | Value type | Short term exposure limit category / Remarks | Regulatory list |
|---|-----|-------------------|-----------------------------------|--|-----------------|
| Acrylic acid 79-10-7 [ACRYLIC ACID] | 2 | 6 | Time Weighted Average (TWA): | | IR_OEL |
| Methacrylic acid 79-41-4 [METHACRYLIC ACID] | 20 | 70 | Time Weighted Average (TWA): | | IR_OEL |
| Methacrylic acid 79-41-4 [METHACRYLIC ACID] | 40 | 140 | Short Term Exposure Limit (STEL): | | IR_OEL |

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:

Use only in well-ventilated areas.

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:

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 | Not determined |
| Initial boiling point | > 149,0 °C (> 300.2 °F) |
| Flash point | 80 °C (176 °F); Pensky Martens closed cup |
| Decomposition temperature | No data available / Not applicable |
| Vapour pressure (24 °C (75.2 °F)) | < 13,3300000 mbar |
| Density (ρ) | 1,271 g/cm ³ |
| 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) (Solvent: Water) | Slight |
| 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

None if used properly.

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.

STOT-single exposure:

May cause respiratory irritation.

Oral toxicity:

May cause irritation to the digestive tract.

Skin irritation:

Causes skin irritation.

Eye irritation:

Causes serious eye damage.

Sensitizing:

May cause an allergic skin reaction.

Acute oral toxicity:

| Hazardous components CAS-No. | Value type | Value | Route of application | Exposure time | Species | Method |
|--|---------------|------------------------|-------------------------|------------------|---------|---|
| Isobornyl acrylate 5888-33-5 | LD50 | 2.300 - 4.000 mg/kg | oral | | rat | BASF Test |
| Acrylic acid 79-10-7 | LD50 | 1.500 mg/kg | oral | | rat | |
| Hydroxypropyl methacrylate 27813-02-1 | LD50 | > 2.000 mg/kg | oral | | rat | OECD Guideline 401 (Acute Oral Toxicity) |
| [3-(2,3- Epoxypropoxy)propyl]tri methoxysilane 2530-83-8 | LD50 | 8.025 mg/kg | oral | | rat | OECD Guideline 401 (Acute Oral Toxicity) |
| Diphenyl-2,4,6- trimethylbenzoyl phosphine oxide 75980-60-8 | LD50 | > 5.000 mg/kg | oral | | rat | |
| Methacrylic acid 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 |
|---|---------------|------------|-------------------------|------------------|---------|---|
| Acrylic acid 79-10-7 | LC50 | > 5,1 mg/l | Vapor. | 4 h | rat | OECD Guideline 403 (Acute Inhalation Toxicity) |
| [3-(2,3- Epoxypropoxy)propyl]tri methoxysilane 2530-83-8 | LC50 | > 5,3 mg/l | Aerosol | | rat | OECD Guideline 403 (Acute Inhalation Toxicity) |
| Methacrylic acid 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 5888-33-5 | LD50 | > 5.000 mg/kg | dermal | | rabbit | BASF Test |
| 2-Hydroxyethyl methacrylate 868-77-9 | LD50 | > 3.000 mg/kg | dermal | | rabbit | |
| Acrylic acid 79-10-7 | LD50 | 640 mg/kg | dermal | | rabbit | |
| Hydroxypropyl methacrylate 27813-02-1 | LD50 | > 5.000 mg/kg | dermal | | rabbit | |
| [3-(2,3- Epoxypropoxy)propyl]tri methoxysilane 2530-83-8 | LD50 | 4.250 mg/kg | dermal | | rabbit | OECD Guideline 402 (Acute Dermal Toxicity) |
| Methacrylic acid 79-41-4 | Acute toxicity estimate (ATE) | 500 mg/kg | dermal | | | Expert judgement |
| Methacrylic acid 79-41-4 | LD50 | 500 - 1.000 mg/kg | | | rabbit | Dermal Toxicity Screening |

Skin corrosion/irritation:

| Hazardous components CAS-No. | Result | Exposure time | Species | Method |
|---|-------------------------|------------------|---------|---|
| Isobornyl acrylate 5888-33-5 | irritating | | rabbit | OECD Guideline 404 (Acute Dermal Irritation / Corrosion) |
| Acrylic acid 79-10-7 | highly corrosive | 3 min | rabbit | OECD Guideline 404 (Acute Dermal Irritation / Corrosion) |
| [3-(2,3- Epoxypropoxy)propyl]tri methoxysilane 2530-83-8 | not irritating | 24 h | rabbit | OECD Guideline 404 (Acute Dermal Irritation / Corrosion) |
| Methacrylic acid 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 |
|---|-------------------|------------------|---------|--|
| Acrylic acid 79-10-7 | corrosive | 21 d | rabbit | BASF Test |
| [3-(2,3-Epoxypropoxy)propyl]tri methoxysilane 2530-83-8 | highly irritating | 20 s | rabbit | OECD Guideline 405 (Acute Eye Irritation / Corrosion) |

Respiratory or skin sensitization:

| Hazardous components CAS-No. | Result | Test type | Species | Method |
|---|-----------------|--|------------|---|
| Isobornyl acrylate 5888-33-5 | sensitising | Mouse local lymphnode assay (LLNA) | mouse | OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay) |
| Acrylic acid 79-10-7 | not sensitising | Skin painting test | guinea pig | |
| [3-(2,3-Epoxypropoxy)propyl]tri methoxysilane 2530-83-8 | not sensitising | Buehler test | guinea pig | OECD Guideline 406 (Skin Sensitisation) |
| Methacrylic acid 79-41-4 | not sensitising | Buehler test | guinea pig | Buehler test |

Germ cell mutagenicity:

| Hazardous components CAS-No. | Result | Type of study / Route of administration | Metabolic activation / Exposure time | Species | Method |
|---|--|--|--|---------|--|
| 2-Hydroxyethyl methacrylate 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 79-10-7 | negative | bacterial reverse mutation assay (e.g Ames test) | with and without | | |
| [3-(2,3-Epoxypropoxy)propyl]tri methoxysilane 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 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 2530-83-8 | NOAEL=500 mg/kg | oral: unspecified | 28 d | rat | OECD Guideline 407 (Repeated Dose 28-Day Oral Toxicity in Rodents) |
| [3-(2,3-Epoxypropoxy)propyl]tri methoxysilane 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:

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

| Hazardous components CAS-No. | Value type | Value | Acute Toxicity Study | Exposure time | Species | Method |
|---|---------------|------------|----------------------------|------------------|--|--|
| Isobornyl acrylate 5888-33-5 | LC50 | 0,704 mg/l | Fish | 96 h | Danio rerio | OECD Guideline 203 (Fish, Acute Toxicity Test) |
| Isobornyl acrylate 5888-33-5 | EC50 | 1 mg/l | Daphnia | 48 h | Daphnia magna | OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test) |
| Isobornyl acrylate 5888-33-5 | EC50 | 1,98 mg/l | Algae | 72 h | Pseudokirchnerella subcapitata | OECD Guideline 201 (Alga, Growth Inhibition Test) |
| | NOEC | 0,405 mg/l | Algae | 72 h | Pseudokirchnerella subcapitata | OECD Guideline 201 (Alga, Growth Inhibition Test) |
| Isobornyl acrylate 5888-33-5 | NOEC | 0,092 mg/l | chronic Daphnia | 21 d | Daphnia magna | OECD 211 (Daphnia magna, Reproduction Test) |
| 2-Hydroxyethyl methacrylate 868-77-9 | LC50 | 227 mg/l | Fish | 96 h | Pimephales promelas | OECD Guideline 203 (Fish, Acute Toxicity Test) |
| 2-Hydroxyethyl methacrylate 868-77-9 | EC50 | 380 mg/l | Daphnia | 48 h | Daphnia magna | OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test) |
| 2-Hydroxyethyl methacrylate 868-77-9 | EC50 | 345 mg/l | Algae | 72 h | Selenastrum capricornutum (new name: Pseudokirchnerella subcapitata) | OECD Guideline 201 (Alga, Growth Inhibition Test) |
| | NOEC | 160 mg/l | Algae | 72 h | Selenastrum capricornutum (new name: Pseudokirchnerella subcapitata) | OECD Guideline 201 (Alga, Growth Inhibition Test) |
| 2-Hydroxyethyl methacrylate 868-77-9 | NOEC | 24,1 mg/l | chronic Daphnia | 21 d | Daphnia magna | OECD 211 (Daphnia magna, Reproduction Test) |
| Isobornyl methacrylate 7534-94-3 | LC50 | 1,79 mg/l | Fish | 96 h | | OECD Guideline 203 (Fish, Acute Toxicity Test) |
| Isobornyl methacrylate 7534-94-3 | EC50 | 1,1 mg/l | Daphnia | 48 h | Daphnia magna | OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test) |
| Isobornyl methacrylate 7534-94-3 | EC50 | 2,66 mg/l | Algae | 96 h | Pseudokirchnerella subcapitata | OECD Guideline 201 (Alga, Growth Inhibition Test) |
| Acrylic acid 79-10-7 | LC50 | 27 mg/l | Fish | 96 h | Salmo gairdneri (new name: Oncorhynchus mykiss) | EPA OTS 797.1400 (Fish Acute Toxicity Test) |
| Acrylic acid 79-10-7 | EC10 | 0,03 mg/l | Algae | 72 h | Scenedesmus subspicatus (new name: Desmodesmus subspicatus) | OECD Guideline 201 (Alga, Growth Inhibition Test) |
| | EC50 | 0,13 mg/l | Algae | 72 h | Scenedesmus subspicatus (new name: Desmodesmus subspicatus) | OECD Guideline 201 (Alga, Growth Inhibition Test) |
| Acrylic acid 79-10-7 | NOEC | 19 mg/l | chronic Daphnia | 21 d | Daphnia magna | EPA OTS 797.1330 (Daphnid Chronic Toxicity Test) |
| Hydroxypropyl methacrylate 27813-02-1 | LC50 | 493 mg/l | Fish | 48 h | Leuciscus idus melanotus | DIN 38412-15 |
| Hydroxypropyl methacrylate 27813-02-1 | EC50 | > 130 mg/l | Daphnia | 48 h | Daphnia magna | OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test) |
| [3-(2,3- Epoxypropoxy)propyl]trimeth oxysilane 2530-83-8 | LC50 | 55 mg/l | Fish | 96 h | Cyprinus carpio | OECD Guideline 203 (Fish, Acute Toxicity Test) |
| [3-(2,3- Epoxypropoxy)propyl]trimeth oxysilane 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 2530-83-8 | NOEC | 53 mg/l | Algae | 72 h | Scenedesmus subspicatus (new name: Desmodesmus subspicatus) | OECD Guideline 201 (Alga, Growth Inhibition Test) |
| | 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 2530-83-8 | NOEC | 100 mg/l | chronic Daphnia | 21 d | Daphnia magna | OECD 211 (Daphnia magna, Reproduction Test) |
| | LC50 | > 1 - 10 mg/l | Fish | 48 h | Oryzias latipes | OECD Guideline 203 (Fish, Acute Toxicity Test) |
| Diphenyl-2,4,6-trimethylbenzoyl phosphine oxide 75980-60-8 | EC50 | > 10 - 100 mg/l | Daphnia | 48 h | Daphnia magna | OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test) |
| Diphenyl-2,4,6-trimethylbenzoyl phosphine oxide 75980-60-8 | EC50 | > 10 - 100 mg/l | Algae | 72 h | | OECD Guideline 201 (Alga, Growth Inhibition Test) |
| Methacrylic acid 79-41-4 | LC50 | 85 mg/l | Fish | 96 h | Salmo gairdneri (new name: Oncorhynchus mykiss) | EPA OTS 797.1400 (Fish Acute Toxicity Test) |
| Methacrylic acid 79-41-4 | EC50 | > 130 mg/l | Daphnia | 48 h | Daphnia magna | EPA OTS 797.1300 (Aquatic Invertebrate Acute Toxicity Test, Freshwater Daphnids) |
| Methacrylic acid 79-41-4 | NOEC | 8,2 mg/l | Algae | 72 h | Selenastrum capricornutum (new name: Pseudokirchnerella subcapitata) | OECD Guideline 201 (Alga, Growth Inhibition Test) |
| | EC50 | 45 mg/l | Algae | 72 h | Selenastrum capricornutum (new name: Pseudokirchnerella subcapitata) | OECD Guideline 201 (Alga, Growth Inhibition Test) |

12.2. Persistence and degradability

| Hazardous components CAS-No. | Result | Route of application | Degradability | Method |
|---------------------------------|--------|----------------------|---------------|--------|
|---------------------------------|--------|----------------------|---------------|--------|

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

| Hazardous components CAS-No. | LogKow | Bioconcentration factor (BCF) | Exposure time | Species | Temperature | Method |
|--|--------|----------------------------------|------------------|---------|-------------|---|
| Isobornyl acrylate 5888-33-5 | 4,52 | | | | | OECD Guideline 117 (Partition Coefficient (n-octanol / water), HPLC Method) |
| Isobornyl methacrylate 7534-94-3 | 5,09 | | | | | OECD Guideline 117 (Partition Coefficient (n-octanol / water), HPLC Method) |
| Acrylic acid 79-10-7 Acrylic acid 79-10-7 | 0,46 | 3,16 | | | 25 °C | OECD Guideline 107 (Partition Coefficient (n-octanol / water), Shake Flask Method) |
| Hydroxypropyl methacrylate 27813-02-1 | 0,97 | | | | | |
| Methacrylic acid 79-41-4 | 0,93 | | | | 22 °C | OECD Guideline 107 (Partition Coefficient (n-octanol / water), Shake Flask Method) |

12.5. Results of PBT and vPvB assessment

| Hazardous components CAS-No. | PBT/vPvB |
|---------------------------------|----------|
| | |

| | |
|--|---|
| 2-Hydroxyethyl methacrylate 868-77-9 | Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria. |
| Acrylic acid 79-10-7 | Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria. |
| Hydroxypropyl methacrylate 27813-02-1 | Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria. |
| [3-(2,3-Epoxypropoxy)propyl]trimethoxysilane 2530-83-8 | Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria. |
| Diphenyl-2,4,6-trimethylbenzoyl phosphine oxide 75980-60-8 | Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria. |
| Methacrylic acid 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 |
| ADN | 3082 |
| IMDG | 3082 |
| IATA | 3082 |

14.2. UN proper shipping name

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

14.3. Transport hazard class(es)

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

14.4. Packaging group

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

14.5. Environmental hazards

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

14.6. Special precautions for user

| | |
|------|-----------------------------------|
| ADR | not applicable Tunnelcode: (E) |
| RID | not applicable |
| ADN | 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 < 3,00 %
(2010/75/EC)

15.2. Chemical safety assessment

A chemical safety assessment has not been carried out.

SECTION 16: Other information

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

- 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.

Relevant changes in this safety data sheet are indicated by vertical lines at the left margin in the body of this document. Corresponding text is displayed in a different color on shadowed fields.