Loctite 5205

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

- **1.1. Product identifier** Loctite 5205
- **1.2. Relevant identified uses of the substance or mixture and uses advised against** Intended use: Anaerobic
- 1.3. Details of the supplier of the safety data sheet

Henkel AG & Co. KGaA Henkelstr. 67 40589 Düsseldorf

Germany

Phone: +49 211 797 0

ua-productsafety.de@henkel.com For Safety Data Sheet updates please visit our website https://mysds.henkel.com/index.html#/appSelection or www.henkeladhesives.com.

1.4. Emergency telephone number

The Henkel information service also provides an around-the-clock telephone service on phone no.+49-(0)211-797-3350 for exceptional cases.

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

| Classification (CLP): | |
|--|------------|
| Skin irritation | Category 2 |
| H315 Causes skin irritation. | |
| Skin sensitizer | Category 1 |
| H317 May cause an allergic skin reaction. | |
| Serious eye irritation | Category 2 |
| H319 Causes serious eye irritation. | |
| Specific target organ toxicity - single exposure | Category 3 |
| H335 May cause respiratory irritation. | |
| Target organ: respiratory tract irritation | |

2.2. Label elements

Label elements (CLP):

| Hazard pictogram: | |
|--|--|
| Contains | Hexanedioic acid, polymer with 2,4-diisocyanato-1-methylbenzene and 2,2'- oxybis[ethanol], 2-hydroxyethyl methacrylate-blocked |
| | 2,2'-Ethylenedioxydiethyl dimethacrylate Hydroxypropyl methacrylate Cumene hydroperoxide 2-Hydroxyethyl methacrylate Acetic acid, 2-phenylhydrazide methyl methacrylate |
| Signal word: | Warning |
| Hazard statement: | H315 Causes skin irritation.H317 May cause an allergic skin reaction.H319 Causes serious eye irritation.H335 May cause respiratory irritation. |
| 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. P280 Wear protective gloves. |
| Precautionary statement: Response | P302+P352 IF ON SKIN: Wash with plenty of soap and water. 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.

Following substances are present in a concentration >= 0,1% and fulfill the criteria for PBT/vPvB, or were identified as endocrine disruptor (ED):

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

SECTION 3: Composition/information on ingredients

3.2. Mixtures

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

| Hazardous components CAS-No. EC Number REACH-Reg No. | Concentration | Classification | Specific Conc. Limits, M- factors and ATEs | Add. Information |
|---|---------------|---|--|---------------------|
| Hexanedioic acid, polymer with 2,4-diisocyanato-1- methylbenzene and 2,2'- oxybis[ethanol], 2-hydroxyethyl methacrylate-blocked 1078712-60-3 | 50- 100 % | Skin Irrit. 2, H315 Skin Sens. 1, H317 Eye Irrit. 2, H319 | | |
| 2,2'-Ethylenedioxydiethyl dimethacrylate 109-16-0 203-652-6 01-2119969287-21 | 10- 20 % | Skin Sens. 1B, H317 | dermal:ATE = > 5.000 mg/kg inhalation:ATE = 28,17 mg/l;dust/mist | |
| Hydroxypropyl methacrylate 27813-02-1 248-666-3 01-2119490226-37 | 1-< 5% | Skin Sens. 1, H317 Eye Irrit. 2, H319 | | |
| Cumene hydroperoxide 80-15-9 201-254-7 01-2119475796-19 | 0,25-< 2,5 % | STOT RE 2, H373 Skin Corr. 1B, H314 Acute Tox. 2, Inhalation, H330 Aquatic Chronic 2, H411 Acute Tox. 4, Oral, H302 Acute Tox. 4, Dermal, H312 Org. Perox. E, H242 STOT SE 3, H335 | Skin Irrit. 2; H315; C 3 - < 10 % Eye Dam. 1; H318; C 3 - < 10 % Eye Irrit. 2; H319; C 1 - < 3 % Skin Corr. 1B; H314; C >= 10 % STOT SE 3; H335; C >= 1 % ===== dermal:ATE = 1.100 mg/kg | |
| 2-Hydroxyethyl methacrylate 868-77-9 212-782-2 01-2119490169-29 | 0,1-< 1 % | Skin Irrit. 2, H315 Skin Sens. 1, H317 Eye Irrit. 2, H319 | | |
| Acetic acid, 2-phenylhydrazide 114-83-0 204-055-3 | 0,1-< 1 % | Acute Tox. 3, Oral, H301 Skin Irrit. 2, H315 Skin Sens. 1, H317 Eye Irrit. 2, H319 STOT SE 3, Inhalation, H335 Carc. 2, H351 | | |
| methyl methacrylate 80-62-6 201-297-1 01-2119452498-28 | 0,1-< 1 % | Flam. Liq. 2, H225 STOT SE 3, H335 Skin Irrit. 2, H315 Skin Sens. 1, H317 | STOT SE 3; H335; C >= 10 % | EU OEL |
| 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 Eye Dam. 1, H318 STOT SE 3, H335 | STOT SE 3; H335; C >= 1 % dermal:ATE = 500 mg/kg inhalation:ATE = 3,61 mg/l; | |

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.

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

SKIN: Redness, inflammation.

EYE: Irritation, conjunctivitis.

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:

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 sealed original container. Ensure good ventilation/extraction. Refer to Technical Data Sheet

7.3. Specific end use(s) Anaerobic

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational Exposure Limits

Valid for

Germany

| Ingredient [Regulated substance] | ppm | mg/m ³ | Value type | Short term exposure limit category / Remarks | Regulatory list |
|---|-----|-------------------|--|--|-----------------|
| Silane, dichlorodimethyl-, reaction products with silica 68611-44-9 | | 4 | Exposure limit(s): | If the AGW and BGW values are complied with, there should be no risk of reproductive damage (see Number 2.7). | TRGS 900 |
| Silane, dichlorodimethyl-, reaction products with silica 68611-44-9 | | | Short Term Exposure Classification: | Category II: substances with a resorptive effect. | TRGS 900 |
| Silane, dichlorodimethyl-, reaction products with silica 68611-44-9 | | 1,25 | Exposure limit(s): | If the AGW and BGW values are complied with, there should be no risk of reproductive damage (see Number 2.7). | TRGS 900 |
| Silane, dichlorodimethyl-, reaction products with silica 68611-44-9 | | 10 | Exposure limit(s): | 2 If the AGW and BGW values are complied with, there should be no risk of reproductive damage (see Number 2.7). | TRGS 900 |
| Methyl methacrylate 80-62-6 | 50 | 210 | Exposure limit(s): | 2 If the AGW and BGW values are complied with, there should be no risk of reproductive damage (see Number 2.7). | TRGS 900 |
| Methyl methacrylate 80-62-6 | | | Short Term Exposure Classification: | Category I: substances for which the localized effect has an assigned OEL or for substances with a sensitizing effect in respiratory passages. | TRGS 900 |
| Methyl methacrylate 80-62-6 [METHYL METHACRYLATE] | 100 | | Short Term Exposure Limit (STEL): | Indicative | ECTLV |
| Methyl methacrylate 80-62-6 [METHYL METHACRYLATE] | 50 | | Time Weighted Average (TWA): | Indicative | ECTLV |
| Methacrylic acid 79-41-4 | 50 | 180 | Exposure limit(s): | 2 If the AGW and BGW values are complied with, there should be no risk of reproductive damage (see Number 2.7). | TRGS 900 |
| Methacrylic acid 79-41-4 | | | Short Term Exposure Classification: | Category I: substances for which the localized effect has an assigned OEL or for substances with a sensitizing effect in respiratory passages. | TRGS 900 |

Predicted No-Effect Concentration (PNEC):

| Name on list | Environmental | | Value | | | | Remarks |
|---|------------------------------------|--------|-----------------|-----|-----------------|--------|-------------------------------------|
| | Compartment | period | mg/l | ppm | mg/kg | others | |
| 2,2'-Ethylenedioxydiethyl dimethacrylate | aqua | | 0,164 mg/l | ppm | ing/ Kg | outers | |
| 109-16-0 | (freshwater) | | - | | | | |
| 2,2'-Ethylenedioxydiethyl dimethacrylate 109-16-0 | aqua (marine water) | | 0,0164 mg/l | | | | |
| 2,2'-Ethylenedioxydiethyl dimethacrylate | sewage | | 10 mg/l | | | | |
| 109-16-0 | treatment plant (STP) | | 6 | | | | |
| 2,2'-Ethylenedioxydiethyl dimethacrylate 109-16-0 | aqua (intermittent releases) | | 0,164 mg/l | | | | |
| 2,2'-Ethylenedioxydiethyl dimethacrylate 109-16-0 | sediment (freshwater) | | | | 1,85 mg/kg | | |
| 2,2'-Ethylenedioxydiethyl dimethacrylate 109-16-0 | sediment (marine water) | | | | 0,185 mg/kg | | |
| 2,2'-Ethylenedioxydiethyl dimethacrylate | Soil | | | | 0,274 | | |
| 109-16-0 | A : | | | | mg/kg | | 1 1:1 .: |
| 2,2'-Ethylenedioxydiethyl dimethacrylate 109-16-0 | Air | | | | | | no hazard identified |
| 2,2'-Ethylenedioxydiethyl dimethacrylate 109-16-0 | Predator | | | | | | no potential for bioaccumulation |
| Methacrylic acid, monoester with propane- 1,2-diol 27813-02-1 | aqua (freshwater) | | 0,904 mg/l | | | | |
| Methacrylic acid, monoester with propane- | aqua (marine | | 0,904 mg/l | | | | |
| 1,2-diol 27813-02-1 | water) | | | | | | |
| Methacrylic acid, monoester with propane- | sewage | | 10 mg/l | | | | |
| 1,2-diol 27813-02-1 | treatment plant (STP) | | | | | | |
| Methacrylic acid, monoester with propane- | aqua | | 0,972 mg/l | | | | |
| 1,2-diol | (intermittent | | -, 8 | | | | |
| 27813-02-1 Methacrylic acid, monoester with propane- | releases) sediment | | | | 6.28 mg/kg | | |
| 1,2-diol 27813-02-1 | (freshwater) | | | | 6,28 mg/kg | | |
| Methacrylic acid, monoester with propane- | sediment | | | | 6,28 mg/kg | | |
| 1,2-diol 27813-02-1 | (marine water) | | | | | | |
| Methacrylic acid, monoester with propane- 1,2-diol | Soil | | | | 0,727 mg/kg | | |
| 27813-02-1 Methacrylic acid, monoester with propane- | Marine water - | | 0,972 mg/l | | | | |
| 1,2-diol 27813-02-1 | intermittent | | 0,972 mg/i | | | | |
| Methacrylic acid, monoester with propane- 1,2-diol | Air | | | | | | no hazard identified |
| 27813-02-1 Methacrylic acid, monoester with propane- | Predator | | | | | | no potential for |
| 1,2-diol 27813-02-1 | 11000001 | | | | | | bioaccumulation |
| .alpha.,.alphaDimethylbenzyl hydroperoxide | aqua (freshwater) | | 0,0031 mg/l | | | | |
| 80-15-9 .alpha.,.alphaDimethylbenzyl | aqua | | 0,031 mg/l | | | | |
| hydroperoxide 80-15-9 | (intermittent releases) | | 0,001 mg1 | | | | |
| .alpha.,.alphaDimethylbenzyl hydroperoxide 80-15-9 | aqua (marine water) | | 0,00031 mg/l | | | | |
| .alpha.,.alphaDimethylbenzyl | sewage | | 0,35 mg/l | | | | |
| hydroperoxide 80-15-9 | treatment plant (STP) | | | | | | |
| .alpha.,.alphaDimethylbenzyl hydroperoxide 80-15-9 | sediment (freshwater) | | | | 0,023 mg/kg | | |
| .alpha.,.alphaDimethylbenzyl hydroperoxide | sediment (marine water) | | | | 0,0023 mg/kg | | |
| 80-15-9 | 、 | | | | | | |
| .alpha.,.alphaDimethylbenzyl hydroperoxide | Soil | | | | 0,0029 mg/kg | | |

| 80-15-9 | | 1 1 | | |
|---|------------------------------------|------------|----------------|----------------------------------|
| 2-Hydroxyethyl methacrylate 868-77-9 | aqua (freshwater) | 0,482 mg/l | | |
| 2-Hydroxyethyl methacrylate 868-77-9 | aqua (marine water) | 0,482 mg/l | | |
| 2-Hydroxyethyl methacrylate 868-77-9 | sewage treatment plant (STP) | 10 mg/l | | |
| 2-Hydroxyethyl methacrylate 868-77-9 | aqua (intermittent releases) | 1 mg/l | | |
| 2-Hydroxyethyl methacrylate 868-77-9 | sediment (freshwater) | | 3,79 mg/kg | |
| 2-Hydroxyethyl methacrylate 868-77-9 | sediment (marine water) | | 3,79 mg/kg | |
| 2-Hydroxyethyl methacrylate 868-77-9 | Soil | | 0,476 mg/kg | |
| 2-Hydroxyethyl methacrylate 868-77-9 | Predator | | | no potential for bioaccumulation |
| 2-Hydroxyethyl methacrylate 868-77-9 | Marine water - intermittent | 1 mg/l | | |
| methyl methacrylate 80-62-6 | aqua (freshwater) | 0,94 mg/l | | |
| methyl methacrylate 80-62-6 | aqua (marine water) | 0,94 mg/l | | |
| methyl methacrylate 80-62-6 | aqua (intermittent releases) | 0,94 mg/l | | |
| methyl methacrylate 80-62-6 | sewage treatment plant (STP) | 10 mg/l | | |
| methyl methacrylate 80-62-6 | sediment (freshwater) | | 5,74 mg/kg | |
| methyl methacrylate 80-62-6 | Soil | | 1,47 mg/kg | |
| methacrylic acid 79-41-4 | aqua (freshwater) | 0,82 mg/l | | |
| methacrylic acid 79-41-4 | aqua (marine water) | 0,82 mg/l | | |
| methacrylic acid 79-41-4 | sewage treatment plant (STP) | 10 mg/l | | |
| methacrylic acid 79-41-4 | aqua (intermittent releases) | 0,82 mg/l | | |
| methacrylic acid 79-41-4 | Soil | | 1,2 mg/kg | |

Derived No-Effect Level (DNEL):

| Name on list | Application Area | Route of Exposure | Health Effect | Exposure Time | Value | Remarks |
|---|---------------------|----------------------|---|------------------|-------------|-------------------------------------|
| 2,2'-Ethylenedioxydiethyl dimethacrylate 109-16-0 | Workers | inhalation | Long term exposure - systemic effects | | 48,5 mg/m3 | no hazard identified |
| 2,2'-Ethylenedioxydiethyl dimethacrylate 109-16-0 | Workers | dermal | Long term exposure - systemic effects | | 13,9 mg/kg | no hazard identified |
| 2,2'-Ethylenedioxydiethyl dimethacrylate 109-16-0 | General population | inhalation | Long term exposure - systemic effects | | 14,5 mg/m3 | no hazard identified |
| 2,2'-Ethylenedioxydiethyl dimethacrylate 109-16-0 | General population | dermal | Long term exposure - systemic effects | | 8,33 mg/kg | no hazard identified |
| 2,2'-Ethylenedioxydiethyl dimethacrylate 109-16-0 | General population | oral | Long term exposure - systemic effects | | 8,33 mg/kg | no hazard identified |
| Methacrylic acid, monoester with propane- 1,2-diol 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 27813-02-1 | Workers | Inhalation | Long term exposure - systemic effects | | 14,7 mg/m3 | no hazard identified |
| Methacrylic acid, monoester with propane- 1,2-diol 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 27813-02-1 | General population | Inhalation | Long term exposure - systemic effects | | 8,8 mg/m3 | no hazard identified |
| Methacrylic acid, monoester with propane- 1,2-diol 27813-02-1 | General population | oral | Long term exposure - systemic effects | | 2,5 mg/kg | no hazard identified |
| .alpha.,.alphaDimethylbenzyl hydroperoxide 80-15-9 | Workers | inhalation | Long term exposure - systemic effects | | 6 mg/m3 | |
| 2-Hydroxyethyl methacrylate 868-77-9 | Workers | dermal | Long term exposure - systemic effects | | 1,3 mg/kg | no potential for bioaccumulation |
| 2-Hydroxyethyl methacrylate 868-77-9 | Workers | Inhalation | Long term exposure - systemic effects | | 4,9 mg/m3 | no potential for bioaccumulation |
| 2-Hydroxyethyl methacrylate 868-77-9 | General population | dermal | Long term exposure - systemic effects | | 0,83 mg/kg | no potential for bioaccumulation |
| 2-Hydroxyethyl methacrylate 868-77-9 | General population | Inhalation | Long term exposure - systemic effects | | 2,9 mg/m3 | no potential for bioaccumulation |
| 2-Hydroxyethyl methacrylate 868-77-9 | General population | oral | Long term exposure - systemic effects | | 0,83 mg/kg | no potential for bioaccumulation |
| methyl methacrylate 80-62-6 | Workers | dermal | Acute/short term exposure - local effects | | 1,5 mg/cm2 | |
| methyl methacrylate 80-62-6 | Workers | dermal | Long term exposure - systemic effects | | 13,67 mg/kg | |
| methyl methacrylate 80-62-6 | Workers | Inhalation | Long term exposure - systemic effects | | 208 mg/m3 | |
| methyl methacrylate 80-62-6 | Workers | dermal | Long term exposure - local effects | | 1,5 mg/cm2 | |
| methyl methacrylate 80-62-6 | Workers | Inhalation | Long term exposure - local effects | | 208 mg/m3 | |
| methyl methacrylate 80-62-6 | General population | dermal | Acute/short term exposure - local effects | | 1,5 mg/cm2 | |
| methyl methacrylate 80-62-6 | General population | dermal | Long term exposure - systemic effects | | 8,2 mg/kg | |
| methyl methacrylate 80-62-6 | General population | Inhalation | Long term exposure - | | 74,3 mg/m3 | |

| | | | systemic effects | | |
|--------------------------------|-----------------------|------------|---|------------|--|
| methyl methacrylate 80-62-6 | General population | dermal | Long term exposure - local effects | 1,5 mg/cm2 | |
| methyl methacrylate 80-62-6 | General population | Inhalation | Long term exposure - local effects | 104 mg/m3 | |
| methacrylic acid 79-41-4 | Workers | Inhalation | Long term exposure - local effects | 88 mg/m3 | |
| methacrylic acid 79-41-4 | Workers | Inhalation | Long term exposure - systemic effects | 29,6 mg/m3 | |
| methacrylic acid 79-41-4 | Workers | dermal | Long term exposure - systemic effects | 4,25 mg/kg | |
| methacrylic acid 79-41-4 | General population | Inhalation | Long term exposure - local effects | 6,55 mg/m3 | |
| methacrylic acid 79-41-4 | General population | Inhalation | Long term exposure - systemic effects | 6,3 mg/m3 | |
| methacrylic acid 79-41-4 | General population | dermal | 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 Physical state liquid Delivery form gel Colour red Odor mild, sweet Melting point Not applicable, Product is a liquid < -30 °C (< -22 °F) Solidification temperature $> 100 \ ^{\circ}C \ (> 212 \ ^{\circ}F)$ Initial boiling point Flammability The product is not flammable. Explosive limits Not applicable, The product is not flammable. > 93 °C (> 199.4 °F); Tagliabue closed cup Flash point Auto-ignition temperature Not applicable, The product is not flammable. Decomposition temperature Not applicable, Substance/mixture is not self-reactive, no organic peroxide and does not decompose under foreseen conditions of use pН Not applicable, Product is non-soluble (in water). Viscosity (kinematic) > 20,5 mm2/s(40 °C (104 °F);) Solubility (qualitative) Not miscible or difficult to mix (20 °C (68 °F); Solvent: Water) Partition coefficient: n-octanol/water Not applicable Mixture Vapour pressure < 5 mm hg(25 °C (77 °F)) Vapour pressure < 1 hPa(20 °C (68 °F)) Density 1,1 g/cm3 None (23 °C (73.4 °F)) Relative vapour density: > 1 (20 °C) Particle characteristics Not applicable Product is a liquid

9.2. Other information

Other information not applicable for this product

SECTION 10: Stability and reactivity

10.1. Reactivity Reacts with strong oxidants. 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

1.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute oral toxicity:

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

| Hazardous substances CAS-No. | Value | Value | Species | Method |
|---|-------|---------------|---------|--|
| 2,2'-Ethylenedioxydiethyl dimethacrylate 109-16-0 | LD50 | 10.837 mg/kg | rat | not specified |
| Hydroxypropyl methacrylate 27813-02-1 | LD50 | > 2.000 mg/kg | rat | OECD Guideline 401 (Acute Oral Toxicity) |
| Cumene hydroperoxide 80-15-9 | LD50 | 382 mg/kg | rat | other guideline: |
| 2-Hydroxyethyl methacrylate 868-77-9 | LD50 | 5.564 mg/kg | rat | FDA Guideline |
| Acetic acid, 2- phenylhydrazide 114-83-0 | LD50 | 270 mg/kg | rat | not specified |
| methyl methacrylate 80-62-6 | LD50 | 9.400 mg/kg | rat | not specified |
| methacrylic acid 79-41-4 | LD50 | 1.320 mg/kg | rat | equivalent or similar to OECD Guideline 401 (Acute Oral Toxicity) |

Acute dermal toxicity:

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

| Hazardous substances | Value | Value | Species | Method |
|---------------------------|----------|---------------|---------|---------------------------|
| CAS-No. | type | 5 000 1 | | |
| 2,2'-Ethylenedioxydiethyl | Acute | > 5.000 mg/kg | | Expert judgement |
| dimethacrylate | toxicity | | | |
| 109-16-0 | estimate | | | |
| | (ATE) | | | |
| Hydroxypropyl | LD50 | > 5.000 mg/kg | rabbit | not specified |
| methacrylate | | | | |
| 27813-02-1 | | | | |
| Cumene hydroperoxide | Acute | 1.100 mg/kg | | Expert judgement |
| 80-15-9 | toxicity | | | |
| | estimate | | | |
| | (ATE) | | | |
| 2-Hydroxyethyl | LD50 | > 5.000 mg/kg | rabbit | not specified |
| methacrylate | | | | * |
| 868-77-9 | | | | |
| methyl methacrylate | LD50 | > 5.000 mg/kg | rabbit | not specified |
| 80-62-6 | | 0.0 | | 1 |
| methacrylic acid | LD50 | 500 - 1.000 | rabbit | Dermal Toxicity Screening |
| 79-41-4 | | mg/kg | | |
| methacrylic acid | Acute | 500 mg/kg | | Expert judgement |
| 79-41-4 | toxicity | _ | | |
| | estimate | | | |
| | (ATE) | | | |

Acute inhalative toxicity:

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

| Hazardous substances | Value | Value | Test atmosphere | Exposure | Species | Method |
|---------------------------|----------|------------|-----------------|----------|---------|---------------------------|
| CAS-No. | type | | | time | | |
| 2,2'-Ethylenedioxydiethyl | Acute | 28,17 mg/l | dust/mist | | | Expert judgement |
| dimethacrylate | toxicity | | | | | |
| 109-16-0 | estimate | | | | | |
| | (ATE) | | | | | |
| Cumene hydroperoxide | LC50 | 1,370 mg/l | vapour | 4 h | rat | not specified |
| 80-15-9 | | _ | - | | | _ |
| methyl methacrylate | LC50 | 29,8 mg/l | vapour | 4 h | rat | not specified |
| 80-62-6 | | - | - | | | _ |
| methacrylic acid | LC50 | > 3,6 mg/l | dust/mist | 4 h | rat | OECD Guideline 403 (Acute |
| 79-41-4 | | | | | | Inhalation Toxicity) |
| methacrylic acid | Acute | 3,61 mg/l | | | | Expert judgement |
| 79-41-4 | toxicity | - | | | | |
| | estimate | | | | | |
| | (ATE) | | | | | |

Skin corrosion/irritation:

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

| Hazardous substances CAS-No. | Result | Exposure time | Species | Method |
|---|------------------------|------------------|---------|--|
| 2,2'-Ethylenedioxydiethyl dimethacrylate 109-16-0 | not irritating | 24 h | rabbit | Draize Test |
| Hydroxypropyl methacrylate 27813-02-1 | not irritating | 24 h | rabbit | Draize Test |
| Cumene hydroperoxide 80-15-9 | corrosive | | rabbit | Draize Test |
| 2-Hydroxyethyl methacrylate 868-77-9 | slightly irritating | 24 h | rabbit | Draize Test |
| methacrylic acid 79-41-4 | corrosive | 3 min | rabbit | OECD Guideline 404 (Acute Dermal Irritation / Corrosion) |

Serious eye damage/irritation:

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

| Hazardous substances CAS-No. | Result | Exposure time | Species | Method |
|---|--|------------------|---------|---|
| 2,2'-Ethylenedioxydiethyl dimethacrylate 109-16-0 | not irritating | | rabbit | OECD Guideline 405 (Acute Eye Irritation / Corrosion) |
| Hydroxypropyl methacrylate 27813-02-1 | Category 2B (mildly irritating to eyes) | | rabbit | Draize Test |
| 2-Hydroxyethyl methacrylate 868-77-9 | Category 2B (mildly irritating to eyes) | | rabbit | Draize Test |
| methacrylic acid 79-41-4 | corrosive | | rabbit | Draize Test |

Respiratory or skin sensitization:

| Hazardous substances CAS-No. | Result | Test type | Species | Method |
|---|-----------------|---------------------------------------|------------|--|
| 2,2'-Ethylenedioxydiethyl dimethacrylate 109-16-0 | sensitising | Mouse local lymphnode assay (LLNA) | mouse | OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay) |
| Hydroxypropyl methacrylate 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 27813-02-1 | sensitising | Guinea pig maximisation test | guinea pig | not specified |
| 2-Hydroxyethyl methacrylate 868-77-9 | not sensitising | Buehler test | guinea pig | Buehler test |
| 2-Hydroxyethyl methacrylate 868-77-9 | sensitising | Guinea pig maximisation test | guinea pig | Magnusson and Kligman Method |
| methyl methacrylate 80-62-6 | sensitising | Mouse local lymphnode assay (LLNA) | mouse | OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay) |
| methacrylic acid 79-41-4 | not sensitising | Buehler test | guinea pig | equivalent or similar to OECD Guideline 406 (Skin Sensitisation) |

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

Germ cell mutagenicity:

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

| Hazardous substances | Result | Type of study / | Metabolic | Species | Method |
|--|----------|---------------------------------------|-----------------------------------|----------------------------|---|
| CAS-No. | | Route of | activation / | | |
| 2,2'-Ethylenedioxydiethyl | negative | administration mammalian cell | Exposure time with and without | | OECD Guideline 476 (In vitro |
| dimethacrylate 109-16-0 | negative | gene mutation assay | with and without | | Mammalian Cell Gene Mutation Test) |
| 2,2'-Ethylenedioxydiethyl | negative | bacterial reverse | with and without | | OECD Guideline 471 |
| dimethacrylate | | mutation assay (e.g | | | (Bacterial Reverse Mutation |
| 109-16-0 | | Ames test) | | | Assay) |
| 2,2'-Ethylenedioxydiethyl | negative | in vitro mammalian | with and without | | OECD Guideline 487 (In vitro |
| dimethacrylate 109-16-0 | | cell micronucleus test | | | Mammalian Cell Micronucleus Test) |
| Hydroxypropyl | negative | bacterial reverse | with and without | | OECD Guideline 471 |
| methacrylate 27813-02-1 | | mutation assay (e.g Ames test) | | | (Bacterial Reverse Mutation Assay) |
| Hydroxypropyl | positive | in vitro mammalian | with and without | | Chromosome Aberration Test |
| methacrylate 27813-02-1 | | chromosome aberration test | | | |
| Hydroxypropyl | negative | mammalian cell | with and without | | OECD Guideline 476 (In vitro |
| methacrylate | C | gene mutation assay | | | Mammalian Cell Gene |
| 27813-02-1 | | | | | Mutation Test) |
| Cumene hydroperoxide | positive | bacterial reverse | without | | OECD Guideline 471 |
| 80-15-9 | | mutation assay (e.g | | | (Bacterial Reverse Mutation |
| 2-Hydroxyethyl | negative | Ames test) bacterial reverse | with and without | | Assay) OECD Guideline 471 |
| methacrylate | negative | mutation assay (e.g | with and without | | (Bacterial Reverse Mutation |
| 868-77-9 | | Ames test) | | | Assay) |
| 2-Hydroxyethyl | positive | in vitro mammalian | with and without | | OECD Guideline 473 (In vitro |
| methacrylate | | chromosome | | | Mammalian Chromosome |
| 868-77-9 | | aberration test | · | | Aberration Test) |
| 2-Hydroxyethyl methacrylate | negative | mammalian cell gene mutation assay | with and without | | OECD Guideline 476 (In vitro Mammalian Cell Gene |
| 868-77-9 | | gene mutation assay | | | Mutation Test) |
| methyl methacrylate | negative | bacterial reverse | with and without | | not specified |
| 80-62-6 | | mutation assay (e.g Ames test) | | | |
| methacrylic acid | negative | bacterial reverse | with and without | | equivalent or similar to OECD |
| 79-41-4 | | mutation assay (e.g Ames test) | | | Guideline 471 (Bacterial Reverse Mutation Assay) |
| Hydroxypropyl | negative | oral: gavage | | mouse | OECD Guideline 474 |
| methacrylate | nogunito | oran gavage | | mouse | (Mammalian Erythrocyte |
| 27813-02-1 | | | | | Micronucleus Test) |
| Hydroxypropyl | negative | oral: gavage | | Drosophila | not specified |
| methacrylate 27813-02-1 | | | | melanogaster | |
| Cumene hydroperoxide 80-15-9 | negative | dermal | | mouse | not specified |
| 2-Hydroxyethyl | negative | oral: gavage | | rat | OECD Guideline 474 |
| methacrylate 868-77-9 | | | | | (Mammalian Erythrocyte Micronucleus Test) |
| 2-Hydroxyethyl methacrylate 868-77-9 | negative | oral: gavage | | Drosophila melanogaster | not specified |
| methacrylic acid | negative | inhalation | | mouse | equivalent or similar to OECD |
| 79-41-4 | | | | | Guideline 478 (Genetic |
| | | | | | Toxicology: Rodent Dominant Lethal Test) |
| methacrylic acid | negative | oral: gavage | | mouse | equivalent or similar to OECD |
| | 1 | 1 | 1 | 1 | Guideline 474 (Mammalian |
| 79-41-4 | | | | | Erythrocyte Micronucleus |

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 27813-02-1 | not carcinogenic | inhalation | 2 y 6 h/d, 5 d/w | rat | male | equivalent or similar OECD Guideline 451 (Carcinogenicity Studies) |
| 2-Hydroxyethyl methacrylate 868-77-9 | not carcinogenic | inhalation | 2 y 6 h/d, 5 d/w | rat | female | equivalent or similar OECD Guideline 451 (Carcinogenicity Studies) |
| 2-Hydroxyethyl methacrylate 868-77-9 | not carcinogenic | inhalation | 2 y 6 h/d, 5 d/w | rat | male | equivalent or similar OECD Guideline 451 (Carcinogenicity Studies) |
| methacrylic acid 79-41-4 | not carcinogenic | inhalation | 2 y | mouse | male/female | OECD Guideline 451 (Carcinogenicity Studies) |

Reproductive toxicity:

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

| Hazardous substances CAS-No. | Result / Value | Test type | Route of application | Species | Method |
|---|--|-----------------------------|----------------------|---------|---|
| 2,2'-Ethylenedioxydiethyl dimethacrylate 109-16-0 | NOAEL P 1.000 mg/kg NOAEL F1 1.000 mg/kg | | oral: gavage | rat | OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test) |
| Hydroxypropyl methacrylate 27813-02-1 | NOAEL P 300 mg/kg 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 27813-02-1 | NOAEL P 400 mg/kg NOAEL F1 400 mg/kg | two- generation study | oral: gavage | rat | OECD Guideline 416 (Two- Generation Reproduction Toxicity Study) |
| 2-Hydroxyethyl methacrylate 868-77-9 | NOAEL P >= 1.000 mg/kg NOAEL F1 >= 1.000 mg/kg | screening | oral: gavage | rat | equivalent or similar to OECD Guideline 422 (Combined Repeated Dose Toxicity Study) |
| methacrylic acid 79-41-4 | NOAEL P 50 mg/kg NOAEL F1 400 mg/kg NOAEL F2 400 mg/kg | Two generation study | oral: gavage | rat | OECD Guideline 416 (Two- Generation Reproduction Toxicity Study) |

STOT-single exposure:

May cause respiratory irritation.

No substance data available.

STOT-repeated exposure::

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

| Hazardous substances CAS-No. | Result / Value | Route of application | Exposure time / Frequency of treatment | Species | Method |
|---|-------------------|------------------------|--|---------|---|
| 2,2'-Ethylenedioxydiethyl dimethacrylate 109-16-0 | NOAEL 1.000 mg/kg | oral: gavage | daily | rat | OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test) |
| Hydroxypropyl methacrylate 27813-02-1 | NOAEL 300 mg/kg | oral: gavage | 49 d daily | rat | OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test) |
| Hydroxypropyl methacrylate 27813-02-1 | NOAEL 0,352 mg/l | inhalation | 90 d 6 h/d, 5 d/w | rat | OECD Guideline 413 (Subchronic Inhalation Toxicity: 90-Day) |
| Cumene hydroperoxide 80-15-9 | | inhalation: aerosol | 6 h/d 5 d/w | rat | not specified |
| 2-Hydroxyethyl methacrylate 868-77-9 | NOAEL 100 mg/kg | oral: gavage | 49 d daily | rat | OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test) |
| 2-Hydroxyethyl methacrylate 868-77-9 | NOAEL 0,352 mg/l | inhalation | 90 d 6 h/d, 5 d/w | rat | OECD Guideline 413 (Subchronic Inhalation Toxicity: 90-Day) |
| methyl methacrylate 80-62-6 | LOAEL 2000 ppm | inhalation | 14 weeks 6 hrs/day, 5 days/wk | mouse | Dose Range Finding Study |
| methyl methacrylate 80-62-6 | NOAEL 1000 ppm | inhalation | 14 weeks 6 hrs/day, 5 days/wk | mouse | Dose Range Finding Study |
| methacrylic acid 79-41-4 | | inhalation | 90 d 6 h/d, 5 d/w | rat | OECD Guideline 413 (Subchronic Inhalation Toxicity: 90-Day) |

Aspiration hazard:

No data available.

11.2 Information on other hazards

not applicable

SECTION 12: Ecological information

General ecological information:

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

12.1. Toxicity

Toxicity (Fish):

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

| Hazardous substances CAS-No. | Value type | Value | Exposure time | Species | Method |
|---|---------------|------------|---------------|--|---|
| 2,2'-Ethylenedioxydiethyl dimethacrylate 109-16-0 | LC50 | 16,4 mg/l | 96 h | Danio rerio | 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) |
| 2-Hydroxyethyl methacrylate 868-77-9 | LC50 | > 100 mg/l | 96 h | Oryzias latipes | OECD Guideline 203 (Fish, Acute Toxicity Test) |
| methyl methacrylate 80-62-6 | LC50 | 350 mg/l | 96 h | Leuciscus idus | OECD Guideline 203 (Fish, Acute Toxicity Test) |
| 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) |

Toxicity (Daphnia):

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

| Hazardous substances | Value | Value | Exposure time | Species | Method |
|-----------------------------|-------|------------|---------------|---------------|-----------------------------|
| CAS-No. | type | | - | - | |
| Hydroxypropyl methacrylate | EC50 | > 143 mg/l | 48 h | Daphnia magna | OECD Guideline 202 |
| 27813-02-1 | | | | | (Daphnia sp. Acute |
| | | | | | Immobilisation Test) |
| Cumene hydroperoxide | EC50 | 18,84 mg/l | 48 h | Daphnia magna | OECD Guideline 202 |
| 80-15-9 | | | | | (Daphnia sp. Acute |
| | | | | | Immobilisation Test) |
| 2-Hydroxyethyl methacrylate | EC50 | 380 mg/l | 48 h | Daphnia magna | OECD Guideline 202 |
| 868-77-9 | | | | | (Daphnia sp. Acute |
| | | | | | Immobilisation Test) |
| methyl methacrylate | EC50 | 69 mg/l | 48 h | Daphnia magna | EPA OTS 797.1300 |
| 80-62-6 | | | | | (Aquatic Invertebrate Acute |
| | | | | | Toxicity Test, Freshwater |
| | | | | | Daphnids) |
| methacrylic acid | EC50 | > 130 mg/l | 48 h | Daphnia magna | EPA OTS 797.1300 |
| 79-41-4 | | | | | (Aquatic Invertebrate Acute |
| | | | | | Toxicity Test, Freshwater |
| | | | | | Daphnids) |

Chronic toxicity to aquatic invertebrates

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

| Hazardous substances | Value | Value | Exposure time | Species | Method |
|---|-------|-----------|---------------|---------------|--|
| CAS-No. | type | | | | |
| 2,2'-Ethylenedioxydiethyl dimethacrylate 109-16-0 | NOEC | 32 mg/l | 21 d | 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) |
| 2-Hydroxyethyl methacrylate 868-77-9 | NOEC | 24,1 mg/l | 21 d | Daphnia magna | OECD 211 (Daphnia magna, Reproduction Test) |
| methyl methacrylate 80-62-6 | NOEC | 37 mg/l | 21 d | Daphnia magna | OECD 211 (Daphnia magna, Reproduction Test) |

Toxicity (Algae):

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

| Hazardous substances | Value | Value | Exposure time | Species | Method |
|---|-------|-------------|---------------|---|--|
| CAS-No. | type | | - | - | |
| 2,2'-Ethylenedioxydiethyl dimethacrylate 109-16-0 | EC50 | > 100 mg/l | 72 h | Pseudokirchneriella subcapitata | OECD Guideline 201 (Alga, Growth Inhibition Test) |
| 2,2'-Ethylenedioxydiethyl dimethacrylate 109-16-0 | NOEC | 18,6 mg/l | 72 h | Pseudokirchneriella subcapitata | OECD Guideline 201 (Alga, Growth Inhibition Test) |
| Hydroxypropyl methacrylate 27813-02-1 | EC50 | > 97,2 mg/l | 72 h | Pseudokirchneriella subcapitata | OECD Guideline 201 (Alga, Growth Inhibition Test) |
| Hydroxypropyl methacrylate 27813-02-1 | NOEC | > 97,2 mg/l | 72 h | Pseudokirchneriella subcapitata | OECD Guideline 201 (Alga, Growth Inhibition Test) |
| Cumene hydroperoxide 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 80-15-9 | NOEC | 1 mg/l | 72 h | Desmodesmus subspicatus (reported as Scenedesmus subspicatus) | OECD Guideline 201 (Alga, Growth Inhibition Test) |
| 2-Hydroxyethyl methacrylate 868-77-9 | EC50 | 836 mg/l | 72 h | Selenastrum capricornutum (new name: Pseudokirchneriella subcapitata) | OECD Guideline 201 (Alga, Growth Inhibition Test) |
| 2-Hydroxyethyl methacrylate 868-77-9 | NOEC | 400 mg/l | 72 h | Selenastrum capricornutum (new name: Pseudokirchneriella subcapitata) | OECD Guideline 201 (Alga, Growth Inhibition Test) |
| methyl methacrylate 80-62-6 | EC50 | 170 mg/l | 96 h | Selenastrum capricornutum (new name: Pseudokirchneriella subcapitata) | OECD Guideline 201 (Alga, Growth Inhibition Test) |
| methyl methacrylate 80-62-6 | NOEC | 100 mg/1 | 96 h | Selenastrum capricornutum (new name: Pseudokirchneriella subcapitata) | OECD Guideline 201 (Alga, Growth Inhibition Test) |
| methacrylic acid 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 79-41-4 | EC50 | 45 mg/l | 72 h | Selenastrum capricornutum (new name: 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 | Value | Value | Exposure time | Species | Method |
|---|-------|------------------|---------------|----------------------------|---|
| CAS-No. | type | | | | |
| Hydroxypropyl methacrylate 27813-02-1 | EC10 | 1.140 mg/l | 16 h | | not specified |
| Cumene hydroperoxide 80-15-9 | EC10 | 70 mg/l | 30 min | not specified | not specified |
| 2-Hydroxyethyl methacrylate 868-77-9 | EC0 | > 3.000 mg/l | 16 h | Pseudomonas fluorescens | other guideline: |
| methyl methacrylate 80-62-6 | EC20 | > 150 - 200 mg/l | 30 min | activated sludge, domestic | ISO 8192 (Test for Inhibition of Oxygen Consumption by Activated Sludge) |
| methacrylic acid 79-41-4 | EC10 | 100 mg/l | 17 h | | not specified |

12.2. Persistence and degradability

| Hazardous substances CAS-No. | Result | Test type | Degradability | Exposure time | Method |
|---|----------------------------|-----------|---------------|------------------|---|
| 2,2'-Ethylenedioxydiethyl dimethacrylate 109-16-0 | readily biodegradable | aerobic | 85 % | 28 d | OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test) |
| Hydroxypropyl methacrylate 27813-02-1 | readily biodegradable | aerobic | 94,2 % | 28 d | OECD Guideline 301 E (Ready biodegradability: Modified OECD Screening Test) |
| Cumene hydroperoxide 80-15-9 | not readily biodegradable. | aerobic | 3 % | 28 d | OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test) |
| 2-Hydroxyethyl methacrylate 868-77-9 | readily biodegradable | aerobic | 92 - 100 % | 14 d | OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I)) |
| methyl methacrylate 80-62-6 | readily biodegradable | aerobic | 94 % | 14 d | OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I)) |
| methacrylic acid 79-41-4 | inherently biodegradable | aerobic | 100 % | 14 d | OECD Guideline 302 B (Inherent biodegradability: Zahn- Wellens/EMPA Test) |
| methacrylic acid 79-41-4 | readily biodegradable | aerobic | 86 % | 28 d | OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test) |

12.3. Bioaccumulative potential

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

12.4. Mobility in soil

| Hazardous substances | LogPow | Temperature | Method |
|--|--------|-------------|---|
| CAS-No. 2,2'-Ethylenedioxydiethyl dimethacrylate 109-16-0 | 2,3 | | OECD Guideline 117 (Partition Coefficient (n-octanol / water), HPLC Method) |
| Hydroxypropyl methacrylate 27813-02-1 | 0,97 | 20 °C | not specified |
| Cumene hydroperoxide 80-15-9 | 1,6 | 25 °C | OECD Guideline 117 (Partition Coefficient (n-octanol / water), HPLC Method) |
| 2-Hydroxyethyl methacrylate 868-77-9 | 0,42 | 25 °C | OECD Guideline 107 (Partition Coefficient (n-octanol / water), Shake Flask Method) |
| Acetic acid, 2- phenylhydrazide 114-83-0 | 0,74 | | not specified |
| methyl methacrylate 80-62-6 | 1,38 | 20 °C | other guideline: |
| 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 substances | PBT / vPvB |
|--|--|
| CAS-No. | |
| 2,2'-Ethylenedioxydiethyl dimethacrylate | Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very |
| 109-16-0 | Bioaccumulative (vPvB) criteria. |
| Hydroxypropyl methacrylate | Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very |
| 27813-02-1 | Bioaccumulative (vPvB) criteria. |
| Cumene hydroperoxide | Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very |
| 80-15-9 | Bioaccumulative (vPvB) criteria. |
| 2-Hydroxyethyl methacrylate | Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very |
| 868-77-9 | Bioaccumulative (vPvB) criteria. |
| methyl methacrylate | Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very |
| 80-62-6 | Bioaccumulative (vPvB) criteria. |
| methacrylic acid | Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very |
| 79-41-4 | Bioaccumulative (vPvB) criteria. |

12.6. Endocrine disrupting properties

not applicable

12.7. Other adverse effects

No data available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product disposal: Do not empty into drains / surface water / ground water. Dispose of in accordance with local and national regulations.

Disposal of uncleaned packages:

After use, tubes, cartons and bottles containing residual product should be disposed of as chemically contaminated waste in an authorised legal land fill site or incinerated.

Waste code

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

The valid EWC waste code numbers are source-related. The manufacturer is therefore unable to specify EWC waste codes for the articles or products used in the various sectors. The EWC codes listed are intended as a recommendation for users. We will be happy to advise you.

SECTION 14: Transport information

| 14.1. | UN number | | | | |
|--------|---|------------------------------------|--|--|--|
| | 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. | Environmen | tal hazards | | | |
| 1 1101 | Environmental hazards | | | | |
| | ADR | not applicable | | | |
| | RID | not applicable | | | |
| | ADN | not applicable | | | |
| | IMDG | not applicable | | | |
| | IATA | not applicable | | | |
| 14.6. | Special preca | ecial precautions for user | | | |
| | ADR | not applicable | | | |
| | RID | not applicable | | | |
| | ADN | not applicable | | | |
| | IMDG | not applicable | | | |
| | IATA | not applicable | | | |
| 14.7. | Maritime transport in bulk according to IMO instruments | | | | |
| | not applicable | | | | |
| | | | | | |
| | | SECTION 15: Regulatory information | | | |
| | | | | | |

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixtureOzone Depleting Substance (ODS) (Regulation (EC) No 1005/2009):Not applicablePrior Informed Consent (PIC) (Regulation (EU) No 649/2012):Not applicablePersistent organic pollutants (Regulation (EU) 2019/1021):Not applicableVOC content<3 %</td>

VOC content (2010/75/EC) Page 22 of 24

15.2. Chemical safety assessment

A chemical safety assessment has not been carried out.

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National regulations/information (Germany):

WGK:

WGK 3: highly hazardous to water (Ordinance on facilities for handling substances that are hazardous to water (AwSV)) Classification according to AwSV, Annex 1 (5.2)

Storage class according to TRGS 510:

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:
 - H225 Highly flammable liquid and vapor.
 - 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.
 - 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.

| ED: | Substance identified as having endocrine disrupting properties |
|-------------|--|
| EU OEL: | Substance with a Union workplace exposure limit |
| EU EXPLD 1: | Substance listed in Annex I, Reg (EC) No. 2019/1148 |
| EU EXPLD 2 | Substance listed in Annex II, Reg (EC) No. 2019/1148 |
| SVHC: | Substance of very high concern (REACH Candidate List) |
| PBT: | Substance fulfilling persistent, bioaccumulative and toxic criteria |
| PBT/vPvB: | Substance fulfilling persistent, bioaccumulative and toxic plus very persistent and very |
| | bioaccumulative criteria |
| vPvB: | Substance fulfilling very persistent and very bioaccumulative criteria |

Further information:

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