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



SDS No. : 173107
V006.2

Loctite 2701

Revision: 01.06.2026
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Replaces version from: 28.07.2025

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

### 1.1. Product identifier

Loctite 2701
UFI: D2J5-GX9E-520A-M1G8

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

Intended use:
Anaerobic Adhesive

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

Henkel Ireland
Operations and Research Limited
Tallaght Business Park, Whitestown
24 Dublin

Ireland

Phone: +353 (0353) 1 404 6444

SDSinfo.Adhesive@henkel.com
For Safety Data Sheet updates please visit our website www.mysds.henkel.com or www.henkel-adhesives.com.

### 1.4. Emergency telephone number

00353 14046280

National Poisons Information Centre: Members of Public: +353 (1) 809 2166. (8.00 a.m. to 10.00 p.m. 7 days a week)
Healthcare Professionals: +353 (1) 809 2566 (24-hour service)

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

**Classification (CLP):**

| | |
|---|---|
| Serious eye irritation | Category 2 |
| H319 Causes serious eye irritation. | |
| Skin sensitizer | Category 1 |
| H317 May cause an allergic skin reaction. | |
| Specific target organ toxicity - single exposure | Category 3 |
| H335 May cause respiratory irritation. | |
| Target organ: respiratory tract irritation | |
| Chronic hazards to the aquatic environment | Category 3 |
| H412 Harmful to aquatic life with long lasting effects. | |

### 2.2. Label elements

**Label elements (CLP):**

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**Hazard pictogram:**



| | |
|---|---|
| **Contains** | Hydroxypropyl methacrylate<br><br>2,2'-Ethylenedioxydiethyl dimethacrylate<br><br>Methacryloyloxyethyl succinate<br>Cumene hydroperoxide<br>Acetic acid, 2-phenylhydrazide<br>2-Hydroxyethyl methacrylate<br><br>methyl methacrylate<br><br>Propylene glycol dimethacrylate |
| **Signal word:** | Warning |
| **Hazard statement:** | H317 May cause an allergic skin reaction.<br>H319 Causes serious eye irritation.<br>H335 May cause respiratory irritation.<br>H412 Harmful to aquatic life with long lasting effects. |
| **Precautionary statement:** | "***" ***For consumer use only: P101 If medical advice is needed, have product container or label at hand. P102 Keep out of reach of children. P501 Dispose of contents/container in accordance with national regulation.*** |
| **Precautionary statement: Prevention** | P261 Avoid breathing vapors.<br>P273 Avoid release to the environment.<br>P280 Wear protective gloves. |
| **Precautionary statement: Response** | P333+P313 If skin irritation or rash occurs: Get medical advice/attention.<br>P337+P313 If eye irritation persists: Get medical advice/attention. |

### 2.3. Other hazards

None if used properly.
Non corrosive to eyes according to test method OECD 438 or based on analogy to similar products tested.

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

None

## SECTION 3: Composition/information on ingredients

### 3.2. Mixtures

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

| Hazardous components<br>CAS No.<br>EC No<br>REACH-Reg. No. | Concentration | Classification | Specific Conc. Limits, M-factors and ATEs | Add. Information |
|---|---|---|---|---|
| Hydroxypropyl methacrylate<br>27813-02-1<br>248-666-3<br>01-2119490226-37 | 25- < 50 % | Skin Sens. 1, H317<br>Eye Irrit. 2, H319 | | |
| 2,2'-Ethylenedioxydiethyl dimethacrylate<br>109-16-0<br>203-652-6<br>01-2119969287-21 | 5- < 10 % | Skin Sens. 1B, H317 | dermal:ATE = > 5.000 mg/kg<br>inhalation:ATE = 28,17 mg/l;dust/mist | |
| Methacryloyloxyethyl succinate<br>20882-04-6<br>244-096-4<br>01-2120137902-58 | 1- < 3 % | Skin Sens. 1, H317<br>Eye Dam. 1, H318 | | |
| Cumene hydroperoxide<br>80-15-9<br>201-254-7<br>01-2119475796-19 | 1- < 3 % | STOT RE 2, H373<br>Skin Corr. 1B, H314<br>Acute Tox. 2, H330<br>Aquatic Chronic 2, H411<br>Acute Tox. 4, H302<br>Acute Tox. 4, H312<br>Org. Perox. E, H242<br>STOT SE 3, H335 | Eye Irrit. 2; H319; C 1 - < 3 %<br>Skin Irrit. 2; H315; C 3 - < 10 %<br>Eye Dam. 1; H318; C 3 - < 10 %<br>STOT SE 3; H335; C >= 1 %<br>Skin Corr. 1B; H314; C >= 10 %<br>=====<br>dermal:ATE = 1.100 mg/kg | |
| methacrylic acid<br>79-41-4<br>201-204-4<br>01-2119463884-26 | 0,1- < 1 % | Acute Tox. 4, H302<br>Acute Tox. 3, H311<br>Acute Tox. 4, H332<br>Skin Corr. 1A, H314<br>Eye Dam. 1, H318<br>STOT SE 3, H335 | STOT SE 3; H335; C >= 1 %<br>=====<br>dermal:ATE = 500 mg/kg<br>inhalation:ATE = 3,19 mg/l;dust/mist | |
| Acetic acid, 2-phenylhydrazide<br>114-83-0<br>204-055-3<br>01-2120951382-56 | 0,1- < 1 % | Aquatic Acute 1, H400<br>Aquatic Chronic 1, H410<br>Acute Tox. 4, H302<br>Skin Sens. 1, H317<br>Carc. 2, H351 | M acute = 1<br>M chronic = 1 | |
| 2-Hydroxyethyl methacrylate<br>868-77-9<br>212-782-2<br>01-2119490169-29 | 0,1- < 1 % | Skin Irrit. 2, H315<br>Skin Sens. 1, H317<br>Eye Irrit. 2, H319 | | |
| methyl methacrylate<br>80-62-6<br>201-297-1<br>01-2119452498-28 | 0,1- < 1 % | Flam. Liq. 2, H225<br>Skin Irrit. 2, H315<br>Skin Sens. 1, H317<br>STOT SE 3, H335 | | EU OEL |
| Propylene glycol dimethacrylate<br>7559-82-2 | 0,1- < 1 % | STOT SE 3, H335<br>Skin Sens. 1B, H317<br>Aquatic Chronic 3, H412 | dermal:ATE = > 5.000 mg/kg | |

**If no ATE values are displayed, please refer to LD/LC50 values in Section 11.**
**For full text of the H - statements and other abbreviations see section 16 "Other information".**

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

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

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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.

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

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**7.1. Precautions for safe handling**

Avoid skin and eye contact.
See advice in section 8

Hygiene measures:

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

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

Refer to Technical Data Sheet.

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

Anaerobic Adhesive

## SECTION 8: Exposure controls/personal protection

**8.1. Control parameters**

**Occupational Exposure Limits**

Valid for
Ireland

| Ingredient [Regulated substance] | ppm | mg/m³ | Value type | Short term exposure limit category / Remarks | Regulatory list |
|---|---|---|---|---|---|
| Methacrylic acid<br>79-41-4<br>[METHACRYLIC ACID] | 20 | 70 | Time Weighted Average (TWA): | | IR_OEL |
| Methacrylic acid<br>79-41-4<br>[METHACRYLIC ACID] | 40 | 140 | Short Term Exposure Limit (STEL): | 15 minutes | IR_OEL |
| Methyl methacrylate<br>80-62-6<br>[METHYL METHACRYLATE] | 50 | | Time Weighted Average (TWA): | Indicative OELV | IR_OEL |
| Methyl methacrylate<br>80-62-6<br>[METHYL METHACRYLATE] | 100 | | Short Term Exposure Limit (STEL): | Indicative | ECTLV |
| Methyl methacrylate<br>80-62-6<br>[METHYL METHACRYLATE] | 50 | | Time Weighted Average (TWA): | Indicative | ECTLV |
| Methyl methacrylate<br>80-62-6<br>[METHYL METHACRYLATE] | 100 | | Short Term Exposure Limit (STEL): | 15 minutes<br>Indicative OELV | IR_OEL |

**Occupational Exposure Limits**

Valid for
Great Britain

| Ingredient [Regulated substance] | ppm | mg/m³ | Value type | Short term exposure limit category / Remarks | Regulatory list |
|---|---|---|---|---|---|
| methacrylic acid<br>79-41-4<br>[METHACRYLIC ACID] | 20 | 72 | Time Weighted Average (TWA): | | EH40 WEL |
| methacrylic acid<br>79-41-4<br>[METHACRYLIC ACID] | 40 | 143 | Short Term Exposure Limit (STEL): | 15 minutes | EH40 WEL |
| methyl methacrylate<br>80-62-6<br>[METHYL METHACRYLATE] | 50 | 208 | Time Weighted Average (TWA): | | EH40 WEL |
| methyl methacrylate<br>80-62-6<br>[METHYL METHACRYLATE] | 100 | 416 | Short Term Exposure Limit (STEL): | 15 minutes | EH40 WEL |

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

| Name on list | Environmental Compartment | Exposure period | Value | | | | Remarks |
|---|---|---|---|---|---|---|---|
| | | | mg/l | ppm | mg/kg | others | |
| Methacrylic acid, monoester with propane-1,2-diol 27813-02-1 | aqua (freshwater) | | 0,904 mg/l | | | | |
| Methacrylic acid, monoester with propane-1,2-diol 27813-02-1 | aqua (marine water) | | 0,0904 mg/l | | | | |
| Methacrylic acid, monoester with propane-1,2-diol 27813-02-1 | sewage treatment plant (STP) | | 10 mg/l | | | | |
| Methacrylic acid, monoester with propane-1,2-diol 27813-02-1 | aqua (intermittent releases) | | 0,972 mg/l | | | | |
| Methacrylic acid, monoester with propane-1,2-diol 27813-02-1 | sediment (freshwater) | | | | 4,13 mg/kg | | |
| Methacrylic acid, monoester with propane-1,2-diol 27813-02-1 | sediment (marine water) | | | | 0,413 mg/kg | | |
| Methacrylic acid, monoester with propane-1,2-diol 27813-02-1 | Soil | | | | 0,295 mg/kg | | |
| Methacrylic acid, monoester with propane-1,2-diol 27813-02-1 | Air | | | | | | no hazard identified |
| Methacrylic acid, monoester with propane-1,2-diol 27813-02-1 | Predator | | | | | | no potential for bioaccumulation |
| 2,2'-Ethylenedioxydiethyl dimethacrylate 109-16-0 | aqua (freshwater) | | 0,164 mg/l | | | | |
| 2,2'-Ethylenedioxydiethyl dimethacrylate 109-16-0 | aqua (marine water) | | 0,0164 mg/l | | | | |
| 2,2'-Ethylenedioxydiethyl dimethacrylate 109-16-0 | sewage treatment plant (STP) | | 10 mg/l | | | | |
| 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 109-16-0 | Soil | | | | 0,274 mg/kg | | |
| 2,2'-Ethylenedioxydiethyl dimethacrylate 109-16-0 | Air | | | | | | no hazard identified |
| 2,2'-Ethylenedioxydiethyl dimethacrylate 109-16-0 | Predator | | | | | | no potential for bioaccumulation |
| .alpha.,.alpha.-Dimethylbenzyl hydroperoxide 80-15-9 | aqua (freshwater) | | 0,0031 mg/l | | | | |
| .alpha.,.alpha.-Dimethylbenzyl hydroperoxide 80-15-9 | aqua (intermittent releases) | | 0,031 mg/l | | | | |
| .alpha.,.alpha.-Dimethylbenzyl hydroperoxide 80-15-9 | aqua (marine water) | | 0,00031 mg/l | | | | |
| .alpha.,.alpha.-Dimethylbenzyl hydroperoxide 80-15-9 | sewage treatment plant (STP) | | 0,35 mg/l | | | | |
| .alpha.,.alpha.-Dimethylbenzyl hydroperoxide 80-15-9 | sediment (freshwater) | | | | 0,023 mg/kg | | |
| .alpha.,.alpha.-Dimethylbenzyl hydroperoxide 80-15-9 | sediment (marine water) | | | | 0,0023 mg/kg | | |
| .alpha.,.alpha.-Dimethylbenzyl hydroperoxide | Soil | | | | 0,0029 mg/kg | | |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 80-15-9 | | | | | | | |
| methacrylic acid<br>79-41-4 | aqua (freshwater) | | 0,82 mg/l | | | | |
| methacrylic acid<br>79-41-4 | Freshwater - intermittent | | 0,45 mg/l | | | | |
| methacrylic acid<br>79-41-4 | aqua (marine water) | | 0,082 mg/l | | | | |
| methacrylic acid<br>79-41-4 | sewage treatment plant (STP) | | 100 mg/l | | | | |
| methacrylic acid<br>79-41-4 | sediment (freshwater) | | | | 3,09 mg/kg | | |
| methacrylic acid<br>79-41-4 | sediment (marine water) | | | | 0,309 mg/kg | | |
| methacrylic acid<br>79-41-4 | Soil | | | | 0,137 mg/kg | | |
| methacrylic acid<br>79-41-4 | Predator | | | | | | no potential for bioaccumulation |
| 2-Hydroxyethyl methacrylate<br>868-77-9 | aqua (freshwater) | | 0,482 mg/l | | | | |
| 2-Hydroxyethyl methacrylate<br>868-77-9 | aqua (marine water) | | 0,048 mg/l | | | | |
| 2-Hydroxyethyl methacrylate<br>868-77-9 | sewage treatment plant (STP) | | 10 mg/l | | | | |
| 2-Hydroxyethyl methacrylate<br>868-77-9 | aqua (intermittent releases) | | 1 mg/l | | | | |
| 2-Hydroxyethyl methacrylate<br>868-77-9 | sediment (freshwater) | | | | 1,98 mg/kg | | |
| 2-Hydroxyethyl methacrylate<br>868-77-9 | sediment (marine water) | | | | 0,198 mg/kg | | |
| 2-Hydroxyethyl methacrylate<br>868-77-9 | Soil | | | | 0,113 mg/kg | | |
| 2-Hydroxyethyl methacrylate<br>868-77-9 | Predator | | | | | | no potential for bioaccumulation |
| methyl methacrylate<br>80-62-6 | aqua (freshwater) | | 0,94 mg/l | | | | |
| methyl methacrylate<br>80-62-6 | aqua (marine water) | | 0,94 mg/l | | | | |
| methyl methacrylate<br>80-62-6 | aqua (intermittent releases) | | 0,94 mg/l | | | | |
| methyl methacrylate<br>80-62-6 | sewage treatment plant (STP) | | 10 mg/l | | | | |
| methyl methacrylate<br>80-62-6 | sediment (freshwater) | | | | 5,74 mg/kg | | |
| methyl methacrylate<br>80-62-6 | Soil | | | | 1,47 mg/kg | | |

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

| Name on list | Application Area | Route of Exposure | Health Effect | Exposure Time | Value | Remarks |
|---|---|---|---|---|---|---|
| Methacrylic acid, monoester with propane-1,2-diol<br>27813-02-1 | Workers | dermal | Long term exposure - systemic effects | | 4,2 mg/kg | no hazard identified |
| Methacrylic acid, monoester with propane-1,2-diol<br>27813-02-1 | Workers | Inhalation | Long term exposure - systemic effects | | 14,7 mg/m3 | no hazard identified |
| Methacrylic acid, monoester with propane-1,2-diol<br>27813-02-1 | General population | dermal | Long term exposure - systemic effects | | 2,5 mg/kg | no hazard identified |
| Methacrylic acid, monoester with propane-1,2-diol<br>27813-02-1 | General population | Inhalation | Long term exposure - systemic effects | | 8,8 mg/m3 | no hazard identified |
| Methacrylic acid, monoester with propane-1,2-diol<br>27813-02-1 | General population | oral | Long term exposure - systemic effects | | 2,5 mg/kg | no hazard identified |
| 2,2'-Ethylenedioxydiethyl dimethacrylate<br>109-16-0 | Workers | inhalation | Long term exposure - systemic effects | | 48,5 mg/m3 | no hazard identified |
| 2,2'-Ethylenedioxydiethyl dimethacrylate<br>109-16-0 | Workers | dermal | Long term exposure - systemic effects | | 13,9 mg/kg | no hazard identified |
| 2,2'-Ethylenedioxydiethyl dimethacrylate<br>109-16-0 | General population | inhalation | Long term exposure - systemic effects | | 14,5 mg/m3 | no hazard identified |
| 2,2'-Ethylenedioxydiethyl dimethacrylate<br>109-16-0 | General population | dermal | Long term exposure - systemic effects | | 8,33 mg/kg | no hazard identified |
| 2,2'-Ethylenedioxydiethyl dimethacrylate<br>109-16-0 | General population | oral | Long term exposure - systemic effects | | 8,33 mg/kg | no hazard identified |
| .alpha.,.alpha.-Dimethylbenzyl hydroperoxide<br>80-15-9 | Workers | inhalation | Long term exposure - systemic effects | | 6 mg/m3 | |
| methacrylic acid<br>79-41-4 | Workers | Inhalation | Long term exposure - local effects | | 88 mg/m3 | no potential for bioaccumulation |
| methacrylic acid<br>79-41-4 | Workers | Inhalation | Long term exposure - systemic effects | | 29,6 mg/m3 | no potential for bioaccumulation |
| methacrylic acid<br>79-41-4 | Workers | dermal | Long term exposure - systemic effects | | 4,25 mg/kg | no potential for bioaccumulation |
| methacrylic acid<br>79-41-4 | General population | Inhalation | Long term exposure - local effects | | 6,55 mg/m3 | no potential for bioaccumulation |
| methacrylic acid<br>79-41-4 | General population | Inhalation | Long term exposure - systemic effects | | 6,3 mg/m3 | no potential for bioaccumulation |
| methacrylic acid<br>79-41-4 | General population | dermal | Long term exposure - systemic effects | | 2,55 mg/kg | no potential for bioaccumulation |
| 2-Hydroxyethyl methacrylate<br>868-77-9 | Workers | dermal | Long term exposure - systemic effects | | 1,3 mg/kg | no potential for bioaccumulation |
| 2-Hydroxyethyl methacrylate<br>868-77-9 | Workers | Inhalation | Long term exposure - systemic effects | | 4,9 mg/m3 | no potential for bioaccumulation |
| 2-Hydroxyethyl methacrylate<br>868-77-9 | General population | dermal | Long term exposure - systemic effects | | 0,83 mg/kg | no potential for bioaccumulation |
| 2-Hydroxyethyl methacrylate<br>868-77-9 | General population | Inhalation | Long term exposure - systemic effects | | 2,9 mg/m3 | no potential for bioaccumulation |
| 2-Hydroxyethyl methacrylate<br>868-77-9 | General population | oral | Long term exposure - systemic effects | | 0,83 mg/kg | no potential for bioaccumulation |
| methyl methacrylate<br>80-62-6 | Workers | Inhalation | Long term exposure - | | 348,4 mg/m3 | |

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| | | | | | | |
|---|---|---|---|---|---|---|
| | | | systemic effects | | | |
| methyl methacrylate<br>80-62-6 | Workers | Inhalation | Long term exposure - local effects | | 208 mg/m3 | |
| methyl methacrylate<br>80-62-6 | Workers | inhalation | Acute/short term exposure - local effects | | 416 mg/m3 | |
| methyl methacrylate<br>80-62-6 | Workers | dermal | Long term exposure - systemic effects | | 13,67 mg/kg | |
| methyl methacrylate<br>80-62-6 | Workers | dermal | Long term exposure - local effects | | 1,5 mg/cm2 | |
| methyl methacrylate<br>80-62-6 | Workers | dermal | Acute/short term exposure - local effects | | 1,5 mg/cm2 | |
| methyl methacrylate<br>80-62-6 | General population | Inhalation | Long term exposure - systemic effects | | 74,3 mg/m3 | |
| methyl methacrylate<br>80-62-6 | General population | Inhalation | Long term exposure - local effects | | 104 mg/m3 | |
| methyl methacrylate<br>80-62-6 | General population | inhalation | Acute/short term exposure - local effects | | 208 mg/m3 | |
| methyl methacrylate<br>80-62-6 | General population | dermal | Long term exposure - systemic effects | | 8,2 mg/kg | |
| methyl methacrylate<br>80-62-6 | General population | dermal | Long term exposure - local effects | | 1,5 mg/cm2 | |
| methyl methacrylate<br>80-62-6 | General population | dermal | Acute/short term exposure - local effects | | 1,5 mg/cm2 | |
| methyl methacrylate<br>80-62-6 | General population | oral | Long term exposure - systemic effects | | | |

**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.

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Eye protection:
Safety glasses with sideshields or chemical safety goggles should be worn if there is a risk of splashing.
Protective eye equipment should conform to EN166.

Skin protection:
Wear suitable protective clothing.
Protective clothing should conform to EN 14605 for liquid splashes or to EN 13982 for dusts.

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

## SECTION 9: Physical and chemical properties

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

| | |
|---|---|
| Delivery form | liquid |
| Colour | Green |
| Odor | Mild |
| Physical state | liquid |
| Melting point | Not applicable, Product is a liquid |
| Solidification temperature | < -30 °C (< -22 °F) |
| Initial boiling point | > 150 °C (> 302 °F)no method / method unknown |
| Flammability | Not applicable<br>Non flammable product (flash point is greater than 93°C) |
| Explosive limits | Not applicable, The product is not flammable. |
| Flash point | 100 °C (212 °F); ASTM D3278 Setaflash Closed Cup |
| Auto-ignition temperature | Not applicable, The product is not flammable. |
| Decomposition temperature | Not applicable, Substance/mixture is not self-reactive, no organic peroxide and does not decompose under foreseen conditions of use |
| pH | Product is non-polar/aprotic., Not applicable |
| Viscosity (kinematic)<br>(40 °C (104 °F); ) | > 20,5 mm2/s ;. viscosity kinematic, 40°C |
| Solubility (qualitative)<br>(20 °C (68 °F); Solvent: Water) | practically insoluble |
| Solubility (qualitative)<br>(Solvent: Acetone) | Miscible |
| Partition coefficient: n-octanol/water | Not applicable<br>Mixture |
| Vapour pressure<br>(20 °C (68 °F)) | < 0,13 mbar;no method / method unknown |
| Density<br>(20 °C (68 °F)) | 1,1 g/ml no method / method unknown |
| Relative vapour density:<br>(20 °C) | > 1 |
| Particle characteristics | Not applicable<br>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.

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**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

**General toxicological information:**
Prolonged or repeated contact may cause skin irritation.

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

**Acute oral toxicity:**

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

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

| Hazardous substances<br>CAS-No. | Value type | Value | Species | Method |
|---|---|---|---|---|
| Hydroxypropyl methacrylate<br>27813-02-1 | LD50 | > 2.000 mg/kg | rat | OECD Guideline 401 (Acute Oral Toxicity) |
| 2,2'-Ethylenedioxydiethyl dimethacrylate<br>109-16-0 | LD50 | 10.837 mg/kg | rat | not specified |
| Methacryloyloxyethyl succinate<br>20882-04-6 | LD50 | > 2.000 mg/kg | rat | OECD Guideline 423 (Acute Oral toxicity) |
| Cumene hydroperoxide<br>80-15-9 | LD50 | 382 mg/kg | rat | other guideline: |
| methacrylic acid<br>79-41-4 | LD50 | 1.320 mg/kg | rat | equivalent or similar to OECD Guideline 401 (Acute Oral Toxicity) |
| Acetic acid, 2-phenylhydrazide<br>114-83-0 | LD50 | 310 mg/kg | rat | OECD Guideline 425 (Acute Oral Toxicity: Up-and-Down Procedure) |
| 2-Hydroxyethyl methacrylate<br>868-77-9 | LD50 | 5.564 mg/kg | rat | FDA Guideline |
| methyl methacrylate<br>80-62-6 | LD50 | 9.400 mg/kg | rat | not specified |
| Propylene glycol dimethacrylate<br>7559-82-2 | LD50 | 8.700 mg/kg | rat | FDA Guideline |

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**Acute dermal toxicity:**

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

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

| Hazardous substances<br>CAS-No. | Value type | Value | Species | Method |
|---|---|---|---|---|
| Hydroxypropyl methacrylate<br>27813-02-1 | LD50 | > 5.000 mg/kg | rabbit | not specified |
| 2,2'-Ethylenedioxydiethyl dimethacrylate<br>109-16-0 | Acute toxicity estimate (ATE) | > 5.000 mg/kg | | Expert judgement |
| Cumene hydroperoxide<br>80-15-9 | Acute toxicity estimate (ATE) | 1.100 mg/kg | | Expert judgement |
| methacrylic acid<br>79-41-4 | LD50 | 500 - 1.000 mg/kg | rabbit | Dermal Toxicity Screening |
| methacrylic acid<br>79-41-4 | Acute toxicity estimate (ATE) | 500 mg/kg | | Expert judgement |
| 2-Hydroxyethyl methacrylate<br>868-77-9 | LD50 | > 5.000 mg/kg | rabbit | not specified |
| methyl methacrylate<br>80-62-6 | LD50 | > 5.000 mg/kg | rabbit | equivalent or similar to OECD Guideline 402 (Acute Dermal Toxicity) |
| Propylene glycol dimethacrylate<br>7559-82-2 | LD50 | > 2.000 mg/kg | rat | OECD Guideline 402 (Acute Dermal Toxicity) |
| Propylene glycol dimethacrylate<br>7559-82-2 | Acute toxicity estimate (ATE) | > 5.000 mg/kg | | Expert judgement |

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**Acute inhalative toxicity:**

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

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

| Hazardous substances<br>CAS-No. | Value type | Value | Test atmosphere | Exposure time | Species | Method |
|---|---|---|---|---|---|---|
| 2,2'-Ethylenedioxydiethyl dimethacrylate<br>109-16-0 | Acute toxicity estimate (ATE) | 28,17 mg/l | dust/mist | | | Expert judgement |
| Cumene hydroperoxide<br>80-15-9 | LC50 | 1,370 mg/l | vapour | 4 h | rat | not specified |
| methacrylic acid<br>79-41-4 | LC50 | 3,19 - 6,5 mg/l | dust/mist | 4 h | rat | equivalent or similar to OECD Guideline 403 (Acute Inhalation Toxicity) |
| methacrylic acid<br>79-41-4 | Acute toxicity estimate (ATE) | 3,19 mg/l | dust/mist | | | Expert judgement |
| methyl methacrylate<br>80-62-6 | LC50 | 29,8 mg/l | vapour | 4 h | rat | not specified |

**Skin corrosion/irritation:**

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

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

| Hazardous substances<br>CAS-No. | Result | Exposure time | Species | Method |
|---|---|---|---|---|
| Hydroxypropyl methacrylate<br>27813-02-1 | not irritating | 24 h | rabbit | Draize Test |
| 2,2'-Ethylenedioxydiethyl dimethacrylate<br>109-16-0 | not irritating | 24 h | rabbit | Draize Test |
| Methacryloyloxyethyl succinate<br>20882-04-6 | not irritating | 0,25 h | Human, EPISKIIN™ Reconstituted Human Epidermis model | OECD Guideline 439 (In Vitro Skin Irritation: Reconstructed Human Epidermis (RHE) Test Method) |
| Methacryloyloxyethyl succinate<br>20882-04-6 | not corrosive | 4 h | Human, EPISKIIN™ Reconstituted Human Epidermis model | OECD Guideline 431 (In Vitro Skin Corrosion: Reconstructed Human Epidermis (RHE) Test Method) |
| Cumene hydroperoxide<br>80-15-9 | corrosive | | rabbit | Draize Test |
| methacrylic acid<br>79-41-4 | corrosive | 3 min | rabbit | OECD Guideline 404 (Acute Dermal Irritation / Corrosion) |
| Acetic acid, 2-phenylhydrazide<br>114-83-0 | not corrosive | | Human, EpiSkinTM (SM), Reconstructed Human Epidermis (RHE) | OECD Guideline 431 (In Vitro Skin Corrosion: Reconstructed Human Epidermis (RHE) Test Method) |
| Acetic acid, 2-phenylhydrazide<br>114-83-0 | not irritating | | Human, EpiSkinTM (SM), Reconstructed Human Epidermis (RHE) | OECD Guideline 439 (In Vitro Skin Irritation: Reconstructed Human Epidermis (RHE) Test Method) |
| 2-Hydroxyethyl methacrylate<br>868-77-9 | slightly irritating | 24 h | rabbit | Draize Test |
| Propylene glycol dimethacrylate | not irritating | 24 h | rabbit | FDA Guideline |

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| | | | | |
|---|---|---|---|---|
| 7559-82-2 | | | | |

**Serious eye damage/irritation:**

Non corrosive to eyes according to test method OECD 438 or based on analogy to similar products tested.

| Hazardous substances<br>CAS-No. | Result | Exposure time | Species | Method |
|---|---|---|---|---|
| Hydroxypropyl methacrylate<br>27813-02-1 | Category 2B (mildly irritating to eyes) | | rabbit | Draize Test |
| 2,2'-Ethylenedioxydiethyl dimethacrylate<br>109-16-0 | not irritating | | rabbit | OECD Guideline 405 (Acute Eye Irritation / Corrosion) |
| Methacryloyloxyethyl succinate<br>20882-04-6 | Category I | 10 min | Bovine, cornea, in vitro test | OECD Guideline 437 (BCOP) |
| methacrylic acid<br>79-41-4 | corrosive | | rabbit | Draize Test |
| Acetic acid, 2-phenylhydrazide<br>114-83-0 | not irritating | | Chicken, eye, isolated | OECD Guideline 438 (Isolated Chicken Eye Test Method) |
| 2-Hydroxyethyl methacrylate<br>868-77-9 | Category 2B (mildly irritating to eyes) | | rabbit | Draize Test |
| Propylene glycol dimethacrylate<br>7559-82-2 | not irritating | | rabbit | Draize Test |

**Respiratory or skin sensitization:**

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

| Hazardous substances<br>CAS-No. | Result | Test type | Species | Method |
|---|---|---|---|---|
| Hydroxypropyl methacrylate<br>27813-02-1 | sensitising | | human | not specified |
| Hydroxypropyl methacrylate<br>27813-02-1 | sensitising | Guinea pig maximisation test | guinea pig | not specified |
| 2,2'-Ethylenedioxydiethyl dimethacrylate<br>109-16-0 | sensitising | Mouse local lymphnode assay (LLNA) | mouse | OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay) |
| methacrylic acid<br>79-41-4 | not sensitising | Buehler test | guinea pig | equivalent or similar to OECD Guideline 406 (Skin Sensitisation) |
| Acetic acid, 2-phenylhydrazide<br>114-83-0 | positive | Direct peptide reactivity assay (DPRA) | cysteine and lysine, in chemico test | OECD Guideline 442C (Direct Peptide Reactivity Assay (DPRA)) |
| Acetic acid, 2-phenylhydrazide<br>114-83-0 | positive | Activation of keratinocytes | human keratinocytes, in vitro test | OECD Guideline 442D (ARE-Nrf2 Luciferase Test Method) |
| Acetic acid, 2-phenylhydrazide<br>114-83-0 | positive | activation of dendritic cells | human monocytes, in vitro test | OECD Guideline 442E (H-CLAT: Human Cell Line Activation Test) |
| 2-Hydroxyethyl methacrylate<br>868-77-9 | not sensitising | Buehler test | guinea pig | Buehler test |
| 2-Hydroxyethyl methacrylate<br>868-77-9 | sensitising | Guinea pig maximisation test | guinea pig | Magnusson and Kligman Method |
| methyl methacrylate<br>80-62-6 | sensitising | Mouse local lymphnode assay (LLNA) | mouse | OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay) |
| Propylene glycol dimethacrylate<br>7559-82-2 | sensitising | Mouse local lymphnode assay (LLNA) | mouse | OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay) |

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**Germ cell mutagenicity:**

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

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

| Hazardous substances<br>CAS-No. | Result | Type of study /<br>Route of administration | Metabolic activation /<br>Exposure time | Species | Method |
|---|---|---|---|---|---|
| Hydroxypropyl methacrylate<br>27813-02-1 | negative | bacterial reverse mutation assay (e.g Ames test) | with and without | | OECD Guideline 471 (Bacterial Reverse Mutation Assay) |
| Hydroxypropyl methacrylate<br>27813-02-1 | positive | in vitro mammalian chromosome aberration test | with and without | | Chromosome Aberration Test |
| Hydroxypropyl methacrylate<br>27813-02-1 | negative | mammalian cell gene mutation assay | with and without | | OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test) |
| 2,2'-Ethylenedioxydiethyl dimethacrylate<br>109-16-0 | negative | mammalian cell gene mutation assay | with and without | | OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test) |
| 2,2'-Ethylenedioxydiethyl dimethacrylate<br>109-16-0 | negative | bacterial reverse mutation assay (e.g Ames test) | with and without | | OECD Guideline 471 (Bacterial Reverse Mutation Assay) |
| 2,2'-Ethylenedioxydiethyl dimethacrylate<br>109-16-0 | negative | in vitro mammalian cell micronucleus test | with and without | | OECD Guideline 487 (In vitro Mammalian Cell Micronucleus Test) |
| Methacryloyloxyethyl succinate<br>20882-04-6 | negative | bacterial reverse mutation assay (e.g Ames test) | with and without | | OECD Guideline 471 (Bacterial Reverse Mutation Assay) |
| Cumene hydroperoxide<br>80-15-9 | positive | bacterial reverse mutation assay (e.g Ames test) | without | | OECD Guideline 471 (Bacterial Reverse Mutation Assay) |
| methacrylic acid<br>79-41-4 | negative | bacterial reverse mutation assay (e.g Ames test) | with and without | | equivalent or similar to OECD Guideline 471 (Bacterial Reverse Mutation Assay) |
| Acetic acid, 2-phenylhydrazide<br>114-83-0 | positive | bacterial reverse mutation assay (e.g Ames test) | with and without | | OECD Guideline 471 (Bacterial Reverse Mutation Assay) |
| Acetic acid, 2-phenylhydrazide<br>114-83-0 | negative | in vitro mammalian cell micronucleus test | with and without | | OECD Guideline 487 (In vitro Mammalian Cell Micronucleus Test) |
| 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) |
| 2-Hydroxyethyl methacrylate<br>868-77-9 | positive | in vitro mammalian chromosome aberration test | with and without | | OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test) |
| 2-Hydroxyethyl methacrylate<br>868-77-9 | negative | mammalian cell gene mutation assay | with and without | | OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test) |
| methyl methacrylate<br>80-62-6 | negative | bacterial reverse mutation assay (e.g Ames test) | with and without | | not specified |

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**Carcinogenicity**

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

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

| Hazardous components<br>CAS-No. | Result | Route of application | Exposure time / Frequency of treatment | Species | Sex | Method |
|---|---|---|---|---|---|---|
| Hydroxypropyl methacrylate<br>27813-02-1 | not carcinogenic | inhalation | 2 y<br>6 h/d, 5 d/w | rat | male | equivalent or similar OECD Guideline 451 (Carcinogenicity Studies) |
| methacrylic acid<br>79-41-4 | not carcinogenic | inhalation | 2 y | mouse | male/female | OECD Guideline 451 (Carcinogenicity Studies) |
| Acetic acid, 2-phenylhydrazide<br>114-83-0 | carcinogenic | oral: drinking water | continuous | mouse | male/female | not specified |
| 2-Hydroxyethyl methacrylate<br>868-77-9 | not carcinogenic | inhalation | 2 y<br>6 h/d, 5 d/w | rat | female | equivalent or similar OECD Guideline 451 (Carcinogenicity Studies) |
| 2-Hydroxyethyl methacrylate<br>868-77-9 | not carcinogenic | inhalation | 2 y<br>6 h/d, 5 d/w | rat | male | equivalent or similar OECD Guideline 451 (Carcinogenicity Studies) |

**Reproductive toxicity:**

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

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

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

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**STOT-single exposure:**

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

| Hazardous substances<br>CAS-No. | Assessment | Route of exposure | Target Organs | Remarks |
|---|---|---|---|---|
| Cumene hydroperoxide<br>80-15-9 | May cause respiratory irritation. | | | |
| methacrylic acid<br>79-41-4 | May cause respiratory irritation. | | | |
| methyl methacrylate<br>80-62-6 | May cause respiratory irritation. | | | |
| Propylene glycol dimethacrylate<br>7559-82-2 | May cause respiratory irritation. | | | |

**STOT-repeated exposure:**

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

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

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

**Aspiration hazard:**

No data available.

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**11.2 Information on other hazards**

**11.2.1 Endocrine disrupting properties**

No substance data available.

No data available.

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## SECTION 12: Ecological information

**General ecological information:**
Do not empty into drains / surface water / ground water.

### 12.1. Toxicity

**Toxicity (Fish):**

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

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

| Hazardous substances<br>CAS-No. | Value type | Value | Exposure time | Species | Method |
|---|---|---|---|---|---|
| Hydroxypropyl methacrylate<br>27813-02-1 | LC50 | 493 mg/l | 48 h | Leuciscus idus melanotus | DIN 38412-15 |
| 2,2'-Ethylenedioxydiethyl dimethacrylate<br>109-16-0 | LC50 | 16,4 mg/l | 96 h | Danio rerio | OECD Guideline 203 (Fish, Acute Toxicity Test) |
| Cumene hydroperoxide<br>80-15-9 | LC50 | 3,9 mg/l | 96 h | Oncorhynchus mykiss | OECD Guideline 203 (Fish, Acute Toxicity Test) |
| methacrylic acid<br>79-41-4 | LC50 | 85 mg/l | 96 h | Salmo gairdneri (new name: Oncorhynchus mykiss) | EPA OTS 797.1400 (Fish Acute Toxicity Test) |
| methacrylic acid<br>79-41-4 | NOEC | 10 mg/l | 35 d | Danio rerio | OECD Guideline 210 (fish early life stage toxicity test) |
| 2-Hydroxyethyl methacrylate<br>868-77-9 | LC50 | > 100 mg/l | 96 h | Oryzias latipes | OECD Guideline 203 (Fish, Acute Toxicity Test) |
| methyl methacrylate<br>80-62-6 | LC50 | 350 mg/l | 96 h | Leuciscus idus | OECD Guideline 203 (Fish, Acute Toxicity Test) |
| Propylene glycol dimethacrylate<br>7559-82-2 | LC50 | 15,95 mg/l | 96 h | Danio rerio (reported as Brachydanio rerio) | OECD Guideline 203 (Fish, Acute Toxicity Test) |

**Toxicity (aquatic invertebrates):**

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

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

| Hazardous substances<br>CAS-No. | Value type | Value | Exposure time | Species | Method |
|---|---|---|---|---|---|
| Hydroxypropyl methacrylate<br>27813-02-1 | EC50 | > 143 mg/l | 48 h | Daphnia magna | OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test) |
| Methacryloyloxyethyl succinate<br>20882-04-6 | EC50 | > 515,4 mg/l | 48 h | Daphnia magna | OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test) |
| Cumene hydroperoxide<br>80-15-9 | EC50 | 18,84 mg/l | 48 h | Daphnia magna | OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test) |
| methacrylic acid<br>79-41-4 | EC50 | > 130 mg/l | 48 h | Daphnia magna | EPA OTS 797.1300 (Aquatic Invertebrate Acute Toxicity Test, Freshwater Daphnids) |
| Acetic acid, 2-phenylhydrazide<br>114-83-0 | EC50 | 1,1 mg/l | 48 h | Daphnia magna | OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test) |
| 2-Hydroxyethyl methacrylate<br>868-77-9 | EC50 | 380 mg/l | 48 h | Daphnia magna | OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test) |
| methyl methacrylate<br>80-62-6 | EC50 | 69 mg/l | 48 h | Daphnia magna | EPA OTS 797.1300 (Aquatic Invertebrate Acute Toxicity Test, Freshwater Daphnids) |
| Propylene glycol dimethacrylate<br>7559-82-2 | EC50 | 44,9 mg/l | 48 h | Daphnia magna | OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test) |

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**Chronic toxicity (aquatic invertebrates):**

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

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

| Hazardous substances<br>CAS-No. | Value type | Value | Exposure time | Species | Method |
|---|---|---|---|---|---|
| Hydroxypropyl methacrylate<br>27813-02-1 | NOEC | 45,2 mg/l | 21 d | Daphnia magna | OECD 211 (Daphnia magna, Reproduction Test) |
| 2,2'-Ethylenedioxydiethyl dimethacrylate<br>109-16-0 | NOEC | 32 mg/l | 21 d | Daphnia magna | OECD 211 (Daphnia magna, Reproduction Test) |
| methacrylic acid<br>79-41-4 | NOEC | 53 mg/l | 21 d | Daphnia magna | OECD 211 (Daphnia magna, Reproduction Test) |
| 2-Hydroxyethyl methacrylate<br>868-77-9 | NOEC | 24,1 mg/l | 21 d | Daphnia magna | OECD 211 (Daphnia magna, Reproduction Test) |
| methyl methacrylate<br>80-62-6 | NOEC | 37 mg/l | 21 d | Daphnia magna | OECD 211 (Daphnia magna, Reproduction Test) |
| Propylene glycol dimethacrylate<br>7559-82-2 | NOEC | 5,05 mg/l | 21 d | Daphnia magna | OECD 211 (Daphnia magna, Reproduction Test) |

**Toxicity (Algae):**

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

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

| Hazardous substances<br>CAS-No. | Value type | Value | Exposure time | Species | Method |
|---|---|---|---|---|---|
| Hydroxypropyl methacrylate<br>27813-02-1 | EC50 | > 97,2 mg/l | 72 h | Pseudokirchneriella subcapitata | OECD Guideline 201 (Alga, Growth Inhibition Test) |
| Hydroxypropyl methacrylate<br>27813-02-1 | NOEC | > 97,2 mg/l | 72 h | Pseudokirchneriella subcapitata | OECD Guideline 201 (Alga, Growth Inhibition Test) |
| 2,2'-Ethylenedioxydiethyl dimethacrylate<br>109-16-0 | EC50 | > 100 mg/l | 72 h | Pseudokirchneriella subcapitata | OECD Guideline 201 (Alga, Growth Inhibition Test) |
| 2,2'-Ethylenedioxydiethyl dimethacrylate<br>109-16-0 | NOEC | 18,6 mg/l | 72 h | Pseudokirchneriella subcapitata | OECD Guideline 201 (Alga, Growth Inhibition Test) |
| Methacryloyloxyethyl succinate<br>20882-04-6 | EC50 | > 312 mg/l | 72 h | Pseudokirchneriella subcapitata | OECD Guideline 201 (Alga, Growth Inhibition Test) |
| Methacryloyloxyethyl succinate<br>20882-04-6 | NOEC | 21,1 mg/l | 72 h | Pseudokirchneriella subcapitata | OECD Guideline 201 (Alga, Growth Inhibition Test) |
| Cumene hydroperoxide<br>80-15-9 | EC50 | 3,1 mg/l | 72 h | Desmodesmus subspicatus (reported as Scenedesmus subspicatus) | OECD Guideline 201 (Alga, Growth Inhibition Test) |
| Cumene hydroperoxide<br>80-15-9 | NOEC | 1 mg/l | 72 h | Desmodesmus subspicatus (reported as Scenedesmus subspicatus) | OECD Guideline 201 (Alga, Growth Inhibition Test) |
| methacrylic acid<br>79-41-4 | NOEC | 8,2 mg/l | 72 h | Selenastrum capricornutum (new name: Pseudokirchneriella subcapitata) | OECD Guideline 201 (Alga, Growth Inhibition Test) |
| methacrylic acid<br>79-41-4 | EC50 | 45 mg/l | 72 h | Selenastrum capricornutum (new name: Pseudokirchneriella subcapitata) | OECD Guideline 201 (Alga, Growth Inhibition Test) |
| Acetic acid, 2-phenylhydrazide<br>114-83-0 | EC50 | 0,258 mg/l | 72 h | Pseudokirchneriella subcapitata | OECD Guideline 201 (Alga, Growth Inhibition Test) |
| Acetic acid, 2-phenylhydrazide<br>114-83-0 | NOEC | 0,012 mg/l | 72 h | Pseudokirchneriella subcapitata | OECD Guideline 201 (Alga, Growth Inhibition Test) |
| 2-Hydroxyethyl methacrylate<br>868-77-9 | EC50 | 345 mg/l | 72 h | Selenastrum capricornutum (new name: Pseudokirchneriella subcapitata) | OECD Guideline 201 (Alga, Growth Inhibition Test) |
| 2-Hydroxyethyl methacrylate<br>868-77-9 | NOEC | 160 mg/l | 72 h | Selenastrum capricornutum (new name: Pseudokirchneriella subcapitata) | OECD Guideline 201 (Alga, Growth Inhibition Test) |
| methyl methacrylate<br>80-62-6 | EC50 | 170 mg/l | 96 h | Selenastrum capricornutum (new name: Pseudokirchneriella subcapitata) | OECD Guideline 201 (Alga, Growth Inhibition Test) |
| methyl methacrylate<br>80-62-6 | NOEC | 100 mg/l | 96 h | Selenastrum capricornutum (new name: Pseudokirchneriella subcapitata) | OECD Guideline 201 (Alga, Growth Inhibition Test) |
| Propylene glycol dimethacrylate<br>7559-82-2 | EC50 | 17,3 mg/l | 72 h | Pseudokirchneriella subcapitata (reported as Raphidocelis subcapitata) | OECD Guideline 201 (Alga, Growth Inhibition Test) |
| Propylene glycol dimethacrylate<br>7559-82-2 | EC10 | 6,93 mg/l | 72 h | Pseudokirchneriella subcapitata (reported as Raphidocelis subcapitata) | OECD Guideline 201 (Alga, Growth Inhibition Test) |

**Toxicity (microorganisms):**

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

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

| Hazardous substances<br>CAS-No. | Value type | Value | Exposure time | Species | Method |
|---|---|---|---|---|---|
| Hydroxypropyl methacrylate<br>27813-02-1 | EC10 | 1.140 mg/l | 16 h | | not specified |
| Cumene hydroperoxide<br>80-15-9 | EC10 | 70 mg/l | 30 min | not specified | not specified |
| methacrylic acid<br>79-41-4 | EC10 | 100 mg/l | 17 h | Pseudomonas putida | DIN 38412, part 8 (Pseudomonas |

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| | | | | | |
|---|---|---|---|---|---|
| | | | | | Zellvermehrungshemm-Test) |
| 2-Hydroxyethyl methacrylate<br>868-77-9 | EC0 | > 3.000 mg/l | 16 h | Pseudomonas fluorescens | other guideline: |
| methyl methacrylate<br>80-62-6 | EC20 | > 150 - 200 mg/l | 30 min | activated sludge, domestic | ISO 8192 (Test for Inhibition of Oxygen Consumption by Activated Sludge) |
| Propylene glycol dimethacrylate<br>7559-82-2 | EC50 | 570 mg/l | 3 h | activated sludge of a predominantly domestic sewage | OECD Guideline 209 (Activated Sludge, Respiration Inhibition Test) |

### 12.2. Persistence and degradability

**Biodegradability (Screening Tests):**
The table below presents the data of the classified substances present in the mixture.

| Hazardous substances<br>CAS-No. | Result | Test type | Degradability | Exposure time | Method |
|---|---|---|---|---|---|
| Hydroxypropyl methacrylate<br>27813-02-1 | readily biodegradable | aerobic | 94,2 % | 28 d | OECD Guideline 301 E (Ready biodegradability: Modified OECD Screening Test) |
| 2,2'-Ethylenedioxydiethyl dimethacrylate<br>109-16-0 | readily biodegradable | aerobic | 85 % | 28 d | OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test) |
| Methacryloyloxyethyl succinate<br>20882-04-6 | inherently biodegradable | aerobic | 80 % | 28 d | OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test) |
| Methacryloyloxyethyl succinate<br>20882-04-6 | not readily biodegradable. | aerobic | 80 % | 28 d | OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test) |
| Cumene hydroperoxide<br>80-15-9 | not readily biodegradable. | aerobic | 3 % | 28 d | OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test) |
| methacrylic acid<br>79-41-4 | readily biodegradable | aerobic | 86 % | 28 d | OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test) |
| methacrylic acid<br>79-41-4 | inherently biodegradable | aerobic | 100 % | 14 d | OECD Guideline 302 B (Inherent biodegradability: Zahn-Wellens/EMPA Test) |
| Acetic acid, 2-phenylhydrazide<br>114-83-0 | not readily biodegradable. | aerobic | 39 % | 28 d | OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test) |
| 2-Hydroxyethyl methacrylate<br>868-77-9 | readily biodegradable | aerobic | 92 - 100 % | 14 d | OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I)) |
| methyl methacrylate<br>80-62-6 | readily biodegradable | aerobic | 94 % | 14 d | OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I)) |
| Propylene glycol dimethacrylate<br>7559-82-2 | not readily biodegradable. | aerobic | 69 % | 28 d | OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test) |

No substance data available.

**(Bio)degradability (Simulation Tests):**
No data available.

### 12.3. Bioaccumulative potential

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**Partition Coefficient (octanol/water)**
The table below presents the data of the classified substances present in the mixture.

| Hazardous substances<br>CAS-No. | LogPow | Temperature | Method |
|---|---|---|---|
| Hydroxypropyl methacrylate<br>27813-02-1 | 0,97 | 20 °C | OECD Guideline 107 (Partition Coefficient (n-octanol / water), Shake Flask Method) |
| 2,2'-Ethylenedioxydiethyl dimethacrylate<br>109-16-0 | 2,3 | | OECD Guideline 117 (Partition Coefficient (n-octanol / water), HPLC Method) |
| Methacryloyloxyethyl succinate<br>20882-04-6 | 0,783 | 23 °C | EU Method A.8 (Partition Coefficient) |
| Cumene hydroperoxide<br>80-15-9 | 1,6 | 25 °C | OECD Guideline 117 (Partition Coefficient (n-octanol / water), HPLC Method) |
| methacrylic acid<br>79-41-4 | 0,93 | 22 °C | OECD Guideline 107 (Partition Coefficient (n-octanol / water), Shake Flask Method) |
| Acetic acid, 2-phenylhydrazide<br>114-83-0 | 0,74 | | QSAR (Quantitative Structure Activity Relationship) |
| 2-Hydroxyethyl methacrylate<br>868-77-9 | 0,42 | 25 °C | OECD Guideline 107 (Partition Coefficient (n-octanol / water), Shake Flask Method) |
| methyl methacrylate<br>80-62-6 | 1,38 | 20 °C | other guideline: |
| Propylene glycol dimethacrylate<br>7559-82-2 | 2,63 | | other (calculated) |

**Bioconcentration factor (BCF)**
The table below presents the data of the classified substances present in the mixture.

| Hazardous substances<br>CAS-No. | Bioconcentration factor (BCF) | Exposure time | Temperature | Species | Method |
|---|---|---|---|---|---|
| Cumene hydroperoxide<br>80-15-9 | 9,1 | | | calculation | OECD Guideline 305 (Bioconcentration: Flow-through Fish Test) |
| 2-Hydroxyethyl methacrylate<br>868-77-9 | 3,16 | | | | QSAR (Quantitative Structure Activity Relationship) |

### 12.4. Mobility in soil

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

| Hazardous substances<br>CAS-No. | LogKoc | pH | Method |
|---|---|---|---|
| Hydroxypropyl methacrylate<br>27813-02-1 | 0,985 | | QSAR (Quantitative Structure Activity Relationship) |
| Cumene hydroperoxide<br>80-15-9 | 1,6 | | OECD Guideline 121 (OECD 121: Estimation of the Koc on Soil and on Sewage Sludge using HPLC) |
| 2-Hydroxyethyl methacrylate<br>868-77-9 | 0,164 | | QSAR (Quantitative Structure Activity Relationship) |

### 12.5. Results of PBT / vPvB / PMT / vPvM assessment

**PBT/vPvB**
This mixture does not contain any substances that are assessed to be a PBT or vPvB.
Based on available data, the classification criteria are not met.

**PMT/vPvM**
This mixture does not contain any substances that are assessed to be a PMT or vPvM.
Based on available data, the classification criteria are not met.

### 12.6. Endocrine disrupting properties

No substance data available.

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No data available.

**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.

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## SECTION 14: Transport information

**14.1. UN number or ID number**

| | |
|---|---|
| ADR | Not dangerous goods |
| RID | Not dangerous goods |
| ADN | Not dangerous goods |
| IMDG | Not dangerous goods |
| IATA | Not dangerous goods |

**14.2. UN proper shipping name**

| | |
|---|---|
| ADR | Not dangerous goods |
| RID | Not dangerous goods |
| ADN | Not dangerous goods |
| IMDG | Not dangerous goods |
| IATA | Not dangerous goods |

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

| | |
|---|---|
| ADR | Not dangerous goods |
| RID | Not dangerous goods |
| ADN | Not dangerous goods |
| IMDG | Not dangerous goods |
| IATA | Not dangerous goods |

**14.4. Packing group**

| | |
|---|---|
| ADR | Not dangerous goods |
| RID | Not dangerous goods |
| ADN | Not dangerous goods |
| IMDG | Not dangerous goods |
| IATA | Not dangerous goods |

**14.5. Environmental hazards**

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

**14.6. Special precautions for user**

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

**14.7. Maritime transport in bulk according to IMO instruments**

not applicable

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## SECTION 15: Regulatory information

**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

| | |
|---|---|
| Ozone Depleting Substance (ODS) (Regulation (EC) No 2024/590): | Not applicable |
| Prior Informed Consent (PIC) (Regulation (EU) No 649/2012): | Not applicable |
| Persistent organic pollutants (Regulation (EU) 2019/1021): | Not applicable |

| | |
|---|---|
| VOC content (2010/75/EC) | < 3 % |
| Seveso III (2012/18/EU): | Not applicable |

**15.2. Chemical safety assessment**

A chemical safety assessment has not been carried out.

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## 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 vapour.
H242 Heating may cause a fire.
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.
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.

Abbreviations and acronyms:

ADG(-Code): Australian Dangerous Goods (Code)
ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR : European Agreement concerning the International Carriage of Dangerous Goods by Road
ASTM: American Society for Testing and Materials
ATE: acute toxicity estimate
AS: Australian Standard
AwSV: Ordinance on Installations for the Handling of Substances Hazardous to Water
CAS: Chemical Abstract Service
CLP: Regulation (EC) No 1272/2008
CMR: cancerogenic, mutagenic or reprotoxic
DIN: German Institute for Standardization
ECx: Effective concentration (x% effective level)
ECHA: European Chemicals Agency
EC-Nummer: Substance number in the EU-inventories EINECS/ELINCS
ECTLV: European community threshold limit value
ED:Substance identified as having endocrine disrupting properties
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
EN : European Standard
ENCS: Japanese chemical inventory
EPA: US Environmental Protection Agency
EU: European Union
EU EXPLD1: Substance listed in Annex I, Reg (EC) No. 2019/1148
EU EXPLD2: Substance listed in Annex II, Reg (EC) No. 2019/1148
EWC: European Waste Catalogue
GHS: Globally Harmonised System for Classification and Labelling of Chemicals
GLP: Good Laboratory Practice
HSNO: Hazardous Substances and New Organisms
IARC: International Agency for Research of Cancer
IATA: International Air Transport Association
IBC-Code: International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk
IC50: half maximal inhibitory concentration
ICAO: International Civil Aviation Organization
IMDG-Code: International Maritime Code for Dangerous Goods
IMO: International Maritime Organization
ISO: International Standardization Organisation
LC50: Median lethal concentration
LD50: Median lethal dose
MARPOL: International Convention for the Prevention of Marine Pollution from Ships

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n.o.s.: not otherwise specified
NO(A)EC: No (adverse) effect concentration
NO(A)EL: No (adverse) effect level
NZS: New Zealand Standard
OECD: Organisation for Economic Co-operation and Development
OEL: Occupational Exposure Limit
OPPT: US EPA Office of Pollution Prevention and Toxics
OPPTS: US EPA Office of Prevention, Pesticides and Toxic Substances
PBT: Persistent, bioaccumulative, toxic
PMT: Persistent, mobile and toxic
(Q)SAR: (Quantitative) structure–activity relationship
REACH: Regulation (EC) No. 1907/2006
RID: Regulations concerning the International Transport of Dangerous Goods by Rail
SADT: Self Accelerating Decomposition Temperature
SDS: Safety Data Sheet
STOT: Specific Target Organ Toxicity
STOT SE: Specific Target Organ Toxicity - single exposure
STOT RE: Specific Target Organ Toxicity - repeated exposure
SUSMP: Standard for the Uniform Scheduling of Medicines and Poisons
SVHC: Substance of very high concern (REACH Candidate List)
TRGS: German Technical Rules for hazardous substances
UN: United Nations
VOC: Volatile Organic Compound
814.018 VOC Reg CH: Swiss Ordinance 814.018 on the Incentive Tax on Volatile Organic Compounds
vPvB: Very persistent, very bioaccumulative
vPvM: Very persistent and very mobile
VwVwS: Administrative Regulation on Substances Hazardous to Waters
WGK: Water hazard class

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