chanhvinh.com

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



SDS No. : 450729
V006.0
Revision: 22.05.2026
printing date: 23.05.2026
Replaces version from: 27.01.2026

LOCTITE 680 250G

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

### 1.1. Product identifier

LOCTITE 680 250G
UFI: D3X5-AXX0-120K-7U29

### 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):**

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

### 2.2. Label elements

**Label elements (CLP):**

chanhvinh.com



**Hazard pictogram:**



**Contains**

3,3,5 Trimethylcyclohexyl methacrylate

2-Hydroxyethyl methacrylate

Acrylic acid

Hydroxypropyl methacrylate
2,2'-Ethylenedioxydiethyl dimethacrylate

Acetic acid, 2-phenylhydrazide
maleic acid

2-Propenoic acid, 2-methyl-, 2-(2-hydroxyethoxy)ethyl ester

**Signal word:**

Danger

**Hazard statement:**

H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.
H335 May cause respiratory irritation.
H411 Toxic to aquatic life with long lasting effects.

**Precautionary statement: Prevention**

P273 Avoid release to the environment.
P261 Avoid breathing vapors.
P280 Wear protective gloves/eye protection.

**Precautionary statement: Response**

P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
P302+P352 IF ON SKIN: Wash with plenty of soap and water.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

### 2.3. Other hazards

None if used properly.

**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

chanhvinh.com



**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 |
|---|---|---|---|---|
| 3,3,5 Trimethylcyclohexyl methacrylate<br>7779-31-9<br>231-927-0<br>01-2120748527-45 | 10- < 20 % | Aquatic Chronic 2, H411<br>Skin Sens. 1B, H317<br>STOT SE 3, H335<br>Skin Irrit. 2, H315<br>Eye Irrit. 2, H319 | STOT SE 3; H335; C >= 10 % | |
| 2-Hydroxyethyl methacrylate<br>868-77-9<br>212-782-2<br>01-2119490169-29 | 10- < 20 % | Skin Irrit. 2, H315<br>Skin Sens. 1, H317<br>Eye Irrit. 2, H319 | | |
| Acrylic acid<br>79-10-7<br>201-177-9<br>01-2119452449-31 | 1- < 5 % | Acute Tox. 4, H312<br>Skin Corr. 1A, H314<br>Flam. Liq. 3, H226<br>Acute Tox. 4, H302<br>Acute Tox. 4, H332<br>Aquatic Acute 1, H400<br>Aquatic Chronic 2, H411<br>STOT SE 3, H335<br>Eye Dam. 1, H318 | STOT SE 3; H335; C >= 1 %<br>=====<br>M acute = 1<br>=====<br>dermal:ATE = 1.100 mg/kg<br>inhalation:ATE = 11 mg/l;vapour | EU OEL |
| Hydroxypropyl methacrylate<br>27813-02-1<br>248-666-3<br>01-2119490226-37 | 1- < 5 % | 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 | 0,1- < 1 % | Skin Sens. 1B, H317 | dermal:ATE = > 5.000 mg/kg<br>inhalation:ATE = 28,17 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 | |
| Cumene hydroperoxide<br>80-15-9<br>201-254-7<br>01-2119475796-19 | 0,1- < 1 % | 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 | |
| maleic acid<br>110-16-7<br>203-742-5<br>01-2119431592-43<br>01-2119488705-25 | 0,1- < 1 % | Acute Tox. 4, H302<br>Eye Irrit. 2, H319<br>STOT SE 3, H335<br>Skin Irrit. 2, H315<br>Skin Sens. 1, H317<br>Acute Tox. 4, H312 | Skin Sens. 1; H317; C >= 0,1 % | |
| 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 | |
| 2-Propenoic acid, 2-methyl-, 2-(2-hydroxyethoxy)ethyl ester<br>2351-43-1 | 0,1- < 1 % | Eye Irrit. 2, H319<br>Skin Sens. 1, H317 | | |

chanhvinh.com



**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.

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.

After eye contact: Corrosive, may cause permanent damage to eyes (impairment of vision).

### 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.

chanhvinh.com



**6.2. Environmental precautions**
Do not empty into drains / surface water / ground water.

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

**6.4. Reference to other sections**
See advice in section 8

## SECTION 7: Handling and storage

**7.1. Precautions for safe handling**
Avoid skin and eye contact.
See advice in section 8

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

**7.2. Conditions for safe storage, including any incompatibilities**
Ensure good ventilation/extraction.
Refer to Technical Data Sheet.
Keep container tightly sealed.

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

chanhvinh.com



## 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 |
|---|---|---|---|---|---|
| Acrylic acid<br>79-10-7<br>[ACRYLIC ACID (PROP-2-ENOIC ACID)] | 10 | 29 | Time Weighted Average (TWA): | Indicative | ECTLV |
| Acrylic acid<br>79-10-7<br>[ACRYLIC ACID (PROP-2-ENOIC ACID)] | 20 | 59 | Short Term Exposure Limit (STEL): | Indicative | ECTLV |
| Acrylic acid<br>79-10-7<br>[ACRYLIC ACID] | 10 | 29 | Time Weighted Average (TWA): | Indicative OELV | IR_OEL |
| Acrylic acid<br>79-10-7<br>[Acrylic acid] | 20 | 59 | Short Term Exposure Limit (STEL): | 1 minute<br>Indicative OELV | IR_OEL |
| Methacrylic acid<br>79-41-4<br>[METHACRYLIC ACID] | 20 | 70 | Time Weighted Average (TWA): | | IR_OEL |
| Methacrylic acid<br>79-41-4<br>[METHACRYLIC ACID] | 40 | 140 | Short Term Exposure Limit (STEL): | 15 minutes | IR_OEL |

**Occupational Exposure Limits**

Valid for
Great Britain

| Ingredient [Regulated substance] | ppm | mg/m³ | Value type | Short term exposure limit category / Remarks | Regulatory list |
|---|---|---|---|---|---|
| Acrylic acid<br>79-10-7<br>[ACRYLIC ACID] | 10 | 29 | Time Weighted Average (TWA): | | EH40 WEL |
| Acrylic acid<br>79-10-7<br>[Acrylic acid] | 20 | 59 | Short Term Exposure Limit (STEL): | 1 minute | EH40 WEL |
| methacrylic acid<br>79-41-4<br>[METHACRYLIC ACID] | 20 | 72 | Time Weighted Average (TWA): | | EH40 WEL |
| methacrylic acid<br>79-41-4<br>[METHACRYLIC ACID] | 40 | 143 | Short Term Exposure Limit (STEL): | 15 minutes | EH40 WEL |

chanhvinh.com



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

| Name on list | Environmental Compartment | Exposure period | Value | | | | Remarks |
|---|---|---|---|---|---|---|---|
| | | | mg/l | ppm | mg/kg | others | |
| 3,3,5 Trimethylcyclohexyl methacrylate 7779-31-9 | aqua (freshwater) | | 0,0019 mg/l | | | | |
| 3,3,5 Trimethylcyclohexyl methacrylate 7779-31-9 | aqua (marine water) | | 0,00019 mg/l | | | | |
| 3,3,5 Trimethylcyclohexyl methacrylate 7779-31-9 | aqua (intermittent releases) | | 0,019 mg/l | | | | |
| 3,3,5 Trimethylcyclohexyl methacrylate 7779-31-9 | sewage treatment plant (STP) | | 100 mg/l | | | | |
| 3,3,5 Trimethylcyclohexyl methacrylate 7779-31-9 | sediment (freshwater) | | | | 0,141 mg/kg | | |
| 3,3,5 Trimethylcyclohexyl methacrylate 7779-31-9 | sediment (marine water) | | | | 0,014 mg/kg | | |
| 3,3,5 Trimethylcyclohexyl methacrylate 7779-31-9 | Soil | | | | 0,027 mg/kg | | |
| 2-Hydroxyethyl methacrylate 868-77-9 | aqua (freshwater) | | 0,482 mg/l | | | | |
| 2-Hydroxyethyl methacrylate 868-77-9 | aqua (marine water) | | 0,048 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) | | | | 1,98 mg/kg | | |
| 2-Hydroxyethyl methacrylate 868-77-9 | sediment (marine water) | | | | 0,198 mg/kg | | |
| 2-Hydroxyethyl methacrylate 868-77-9 | Soil | | | | 0,113 mg/kg | | |
| 2-Hydroxyethyl methacrylate 868-77-9 | Predator | | | | | | no potential for bioaccumulation |
| Acrylic acid 79-10-7 | aqua (freshwater) | | 0,003 mg/l | | | | |
| Acrylic acid 79-10-7 | aqua (marine water) | | 0,0003 mg/l | | | | |
| Acrylic acid 79-10-7 | sewage treatment plant (STP) | | 0,9 mg/l | | | | |
| Acrylic acid 79-10-7 | sediment (freshwater) | | | | 0,0236 mg/kg | | |
| Acrylic acid 79-10-7 | sediment (marine water) | | | | 0,00236 mg/kg | | |
| Acrylic acid 79-10-7 | Soil | | | | 1 mg/kg | | |
| Acrylic acid 79-10-7 | oral | | | | 0,03 g/kg | | |
| Acrylic acid 79-10-7 | Air | | | | | | no hazard identified |
| 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 | | |

chanhvinh.com



| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Methacrylic acid, monoester with propane-1,2-diol<br>27813-02-1 | sediment (marine water) | | | | 0,413 mg/kg | | |
| Methacrylic acid, monoester with propane-1,2-diol<br>27813-02-1 | Soil | | | | 0,295 mg/kg | | |
| Methacrylic acid, monoester with propane-1,2-diol<br>27813-02-1 | Air | | | | | | no hazard identified |
| Methacrylic acid, monoester with propane-1,2-diol<br>27813-02-1 | Predator | | | | | | no potential for bioaccumulation |
| 2,2'-Ethylenedioxydiethyl dimethacrylate<br>109-16-0 | aqua (freshwater) | | 0,164 mg/l | | | | |
| 2,2'-Ethylenedioxydiethyl dimethacrylate<br>109-16-0 | aqua (marine water) | | 0,0164 mg/l | | | | |
| 2,2'-Ethylenedioxydiethyl dimethacrylate<br>109-16-0 | sewage treatment plant (STP) | | 10 mg/l | | | | |
| 2,2'-Ethylenedioxydiethyl dimethacrylate<br>109-16-0 | aqua (intermittent releases) | | 0,164 mg/l | | | | |
| 2,2'-Ethylenedioxydiethyl dimethacrylate<br>109-16-0 | sediment (freshwater) | | | | 1,85 mg/kg | | |
| 2,2'-Ethylenedioxydiethyl dimethacrylate<br>109-16-0 | sediment (marine water) | | | | 0,185 mg/kg | | |
| 2,2'-Ethylenedioxydiethyl dimethacrylate<br>109-16-0 | Soil | | | | 0,274 mg/kg | | |
| 2,2'-Ethylenedioxydiethyl dimethacrylate<br>109-16-0 | Air | | | | | | no hazard identified |
| 2,2'-Ethylenedioxydiethyl dimethacrylate<br>109-16-0 | Predator | | | | | | no potential for bioaccumulation |
| .alpha.,.alpha.-Dimethylbenzyl hydroperoxide<br>80-15-9 | aqua (freshwater) | | 0,0031 mg/l | | | | |
| .alpha.,.alpha.-Dimethylbenzyl hydroperoxide<br>80-15-9 | aqua (intermittent releases) | | 0,031 mg/l | | | | |
| .alpha.,.alpha.-Dimethylbenzyl hydroperoxide<br>80-15-9 | aqua (marine water) | | 0,00031 mg/l | | | | |
| .alpha.,.alpha.-Dimethylbenzyl hydroperoxide<br>80-15-9 | sewage treatment plant (STP) | | 0,35 mg/l | | | | |
| .alpha.,.alpha.-Dimethylbenzyl hydroperoxide<br>80-15-9 | sediment (freshwater) | | | | 0,023 mg/kg | | |
| .alpha.,.alpha.-Dimethylbenzyl hydroperoxide<br>80-15-9 | sediment (marine water) | | | | 0,0023 mg/kg | | |
| .alpha.,.alpha.-Dimethylbenzyl hydroperoxide<br>80-15-9 | Soil | | | | 0,0029 mg/kg | | |
| 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 |

chanhvinh.com



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

| Name on list | Application Area | Route of Exposure | Health Effect | Exposure Time | Value | Remarks |
|---|---|---|---|---|---|---|
| 3,3,5 Trimethylcyclohexyl methacrylate 7779-31-9 | Workers | inhalation | Long term exposure - systemic effects | | 16,45 mg/m3 | |
| 3,3,5 Trimethylcyclohexyl methacrylate 7779-31-9 | Workers | dermal | Long term exposure - systemic effects | | 46,7 mg/kg | |
| 3,3,5 Trimethylcyclohexyl methacrylate 7779-31-9 | General population | inhalation | Long term exposure - systemic effects | | 2,9 mg/m3 | |
| 3,3,5 Trimethylcyclohexyl methacrylate 7779-31-9 | General population | dermal | Long term exposure - systemic effects | | 1,67 mg/kg | |
| 3,3,5 Trimethylcyclohexyl methacrylate 7779-31-9 | General population | oral | Long term exposure - systemic effects | | 1,67 mg/kg | |
| 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 |
| Acrylic acid 79-10-7 | Workers | inhalation | Long term exposure - local effects | | 30 mg/m3 | no hazard identified |
| Acrylic acid 79-10-7 | Workers | inhalation | Acute/short term exposure - local effects | | 30 mg/m3 | no hazard identified |
| Acrylic acid 79-10-7 | Workers | dermal | Acute/short term exposure - local effects | | 1 mg/cm2 | no hazard identified |
| Acrylic acid 79-10-7 | General population | dermal | Acute/short term exposure - local effects | | 1 mg/cm2 | no hazard identified |
| Acrylic acid 79-10-7 | General population | inhalation | Acute/short term exposure - local effects | | 3,6 mg/m3 | no hazard identified |
| Acrylic acid 79-10-7 | General population | inhalation | Long term exposure - local effects | | 3,6 mg/m3 | 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 |
| 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 - | | 13,9 mg/kg | no hazard identified |

chanhvinh.com



| | | | | | | |
|---|---|---|---|---|---|---|
| | | | systemic effects | | | |
| 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 | |
| Maleic acid<br>110-16-7 | Workers | dermal | Acute/short term exposure - local effects | | | |
| Maleic acid<br>110-16-7 | Workers | dermal | Long term exposure - local effects | | | |
| Maleic acid<br>110-16-7 | Workers | dermal | Acute/short term exposure - systemic effects | | | |
| Maleic acid<br>110-16-7 | Workers | dermal | Long term exposure - systemic effects | | | |
| Maleic acid<br>110-16-7 | Workers | inhalation | Acute/short term exposure - local effects | | | |
| Maleic acid<br>110-16-7 | Workers | inhalation | Long term exposure - systemic effects | | 0,987 mg/m3 | |
| Maleic acid<br>110-16-7 | Workers | inhalation | Long term exposure - local effects | | | |
| 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 |

**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)

chanhvinh.com



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

| | |
|---|---|
| Delivery form | liquid |
| Colour | Green |
| Odor | Acrylic |
| Physical state | liquid |
| Melting point | Not applicable, Product is a liquid |
| Solidification temperature | < -30 °C (< -22 °F) |
| Initial boiling point | > 150 °C (> 302 °F) |
| Flammability | The product is not flammable. |
| Explosive limits | Not applicable, The product is not flammable. |
| Flash point | > 100 °C (> 212 °F) |
| 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, dynamic<br>() | 450 - 550 mPa.s no method / method unknown |
| Solubility (qualitative)<br>(20 °C (68 °F); Solvent: Water) | Slight |
| Partition coefficient: n-octanol/water | Not applicable<br>Mixture |
| Vapour pressure<br>(20 °C (68 °F)) | < 0,13 mbar |
| Density<br>(20 °C (68 °F)) | 1,1 g/cm3 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

chanhvinh.com



## 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.

chanhvinh.com



## SECTION 11: Toxicological information

### 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 |
|---|---|---|---|---|
| 3,3,5 Trimethylcyclohexyl methacrylate<br>7779-31-9 | LD0 | > 5.000 mg/kg | rat | OECD Guideline 401 (Acute Oral Toxicity) |
| 3,3,5 Trimethylcyclohexyl methacrylate<br>7779-31-9 | LD50 | > 5.000 mg/kg | rat | OECD Guideline 401 (Acute Oral Toxicity) |
| 2-Hydroxyethyl methacrylate<br>868-77-9 | LD50 | 5.564 mg/kg | rat | FDA Guideline |
| Acrylic acid<br>79-10-7 | LD50 | 1.500 mg/kg | rat | equivalent or similar to OECD Guideline 401 (Acute Oral Toxicity) |
| 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 |
| Acetic acid, 2-phenylhydrazide<br>114-83-0 | LD50 | 310 mg/kg | rat | OECD Guideline 425 (Acute Oral Toxicity: Up-and-Down Procedure) |
| Cumene hydroperoxide<br>80-15-9 | LD50 | 382 mg/kg | rat | other guideline: |
| maleic acid<br>110-16-7 | LD50 | 708 mg/kg | rat | not specified |
| methacrylic acid<br>79-41-4 | LD50 | 1.320 mg/kg | rat | equivalent or similar to OECD Guideline 401 (Acute Oral Toxicity) |
| 2-Propenoic acid, 2-methyl-, 2-(2-hydroxyethoxy)ethyl ester<br>2351-43-1 | LD50 | 5.564 mg/kg | rat | FDA Guideline |

chanhvinh.com



**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 |
|---|---|---|---|---|
| 3,3,5 Trimethylcyclohexyl methacrylate<br>7779-31-9 | LD0 | > 2.000 mg/kg | rat | OECD Guideline 402 (Acute Dermal Toxicity) |
| 3,3,5 Trimethylcyclohexyl methacrylate<br>7779-31-9 | LD50 | > 2.000 mg/kg | rat | OECD Guideline 402 (Acute Dermal Toxicity) |
| 2-Hydroxyethyl methacrylate<br>868-77-9 | LD50 | > 5.000 mg/kg | rabbit | not specified |
| Acrylic acid<br>79-10-7 | Acute toxicity estimate (ATE) | 1.100 mg/kg | | Expert judgement |
| 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 |
| maleic acid<br>110-16-7 | LD50 | 1.560 mg/kg | rabbit | not specified |
| methacrylic acid<br>79-41-4 | LD50 | 500 - 1.000 mg/kg | rabbit | Dermal Toxicity Screening |
| methacrylic acid<br>79-41-4 | Acute toxicity estimate (ATE) | 500 mg/kg | | Expert judgement |
| 2-Propenoic acid, 2-methyl-, 2-(2-hydroxyethoxy)ethyl ester<br>2351-43-1 | LD50 | > 5.000 mg/kg | rabbit | not specified |

chanhvinh.com



**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 |
|---|---|---|---|---|---|---|
| Acrylic acid<br>79-10-7 | LC0 | 5,1 mg/l | vapour | 4 h | rat | equivalent or similar to OECD Guideline 403 (Acute Inhalation Toxicity) |
| Acrylic acid<br>79-10-7 | Acute toxicity estimate (ATE) | 11 mg/l | vapour | | | Expert judgement |
| 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 |

**Skin corrosion/irritation:**

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

| Hazardous substances<br>CAS-No. | Result | Exposure time | Species | Method |
|---|---|---|---|---|
| 2-Hydroxyethyl methacrylate<br>868-77-9 | slightly irritating | 24 h | rabbit | Draize Test |
| Acrylic acid<br>79-10-7 | Sub-Category 1A (corrosive) | 3 min | rabbit | OECD Guideline 404 (Acute Dermal Irritation / Corrosion) |
| 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 |
| 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) |
| Cumene hydroperoxide<br>80-15-9 | corrosive | | rabbit | Draize Test |
| maleic acid<br>110-16-7 | irritating | 24 h | human | Patch Test |
| methacrylic acid<br>79-41-4 | corrosive | 3 min | rabbit | OECD Guideline 404 (Acute Dermal Irritation / Corrosion) |
| 2-Propenoic acid, 2-methyl-, 2-(2-hydroxyethoxy)ethyl ester<br>2351-43-1 | not irritating | 24 h | rabbit | Draize Test |

chanhvinh.com



**Serious eye damage/irritation:**

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

| Hazardous substances<br>CAS-No. | Result | Exposure time | Species | Method |
|---|---|---|---|---|
| 2-Hydroxyethyl methacrylate<br>868-77-9 | Category 2B (mildly irritating to eyes) | | rabbit | Draize Test |
| Acrylic acid<br>79-10-7 | Category 1 (irreversible effects on the eye) | | rabbit | BASF Test |
| 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) |
| Acetic acid, 2-phenylhydrazide<br>114-83-0 | not irritating | | Chicken, eye, isolated | OECD Guideline 438 (Isolated Chicken Eye Test Method) |
| maleic acid<br>110-16-7 | highly irritating | | rabbit | OECD Guideline 405 (Acute Eye Irritation / Corrosion) |
| methacrylic acid<br>79-41-4 | corrosive | | rabbit | Draize Test |
| 2-Propenoic acid, 2-methyl-, 2-(2-hydroxyethoxy)ethyl ester<br>2351-43-1 | irritating | | rabbit | Draize Test |

chanhvinh.com



**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 |
|---|---|---|---|---|
| 3,3,5 Trimethylcyclohexyl methacrylate<br>7779-31-9 | sensitising | Mouse local lymphnode assay (LLNA) | mouse | OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay) |
| 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 |
| Acrylic acid<br>79-10-7 | not sensitising | Freund's complete adjuvant test | guinea pig | Klecak Method |
| Acrylic acid<br>79-10-7 | not sensitising | Split adjuvant test | guinea pig | Maguire 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) |
| 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) |
| maleic acid<br>110-16-7 | sensitising | Mouse local lymphnode assay (LLNA) | mouse | OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay) |
| maleic acid<br>110-16-7 | sensitising | Guinea pig maximisation test | guinea pig | OECD Guideline 406 (Skin Sensitisation) |
| methacrylic acid<br>79-41-4 | not sensitising | Buehler test | guinea pig | equivalent or similar to OECD Guideline 406 (Skin Sensitisation) |

chanhvinh.com



**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 |
|---|---|---|---|---|---|
| 3,3,5 Trimethylcyclohexyl methacrylate<br>7779-31-9 | 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 | 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) |
| Acrylic acid<br>79-10-7 | negative | bacterial reverse mutation assay (e.g Ames test) | with and without | | equivalent or similar to OECD Guideline 471 (Bacterial Reverse Mutation Assay) |
| Acrylic acid<br>79-10-7 | negative | mammalian cell gene mutation assay | with and without | | equivalent or similar to OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test) |
| Acrylic acid<br>79-10-7 | negative | DNA damage and repair assay, unscheduled DNA synthesis in mammalian cells in vitro | without | | equivalent or similar to OECD Guideline 482 (Genetic Toxicology: DNA Damage and Repair, Unscheduled DNA Synthesis in Mammalian Cells |
| 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) |
| 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) |
| Cumene hydroperoxide<br>80-15-9 | positive | bacterial reverse mutation assay (e.g Ames test) | without | | OECD Guideline 471 (Bacterial Reverse Mutation Assay) |
| maleic acid<br>110-16-7 | negative | bacterial reverse mutation assay (e.g Ames test) | no data | | Ames Test |
| maleic acid<br>110-16-7 | negative | mammalian cell gene mutation assay | with and without | | OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test) |
| methacrylic acid<br>79-41-4 | negative | bacterial reverse mutation assay (e.g Ames test) | with and without | | equivalent or similar to OECD Guideline 471 (Bacterial Reverse Mutation Assay) |

chanhvinh.com



**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 |
|---|---|---|---|---|---|---|
| 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) |
| Acrylic acid<br>79-10-7 | not carcinogenic | oral: drinking water | 26 - 28 m<br>continuously | rat | male/female | OECD Guideline 451 (Carcinogenicity Studies) |
| Acrylic acid<br>79-10-7 | not carcinogenic | dermal | 21 m<br>3 times/w | mouse | male/female | not specified |
| 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) |
| Acetic acid, 2-phenylhydrazide<br>114-83-0 | carcinogenic | oral: drinking water | continuous | mouse | male/female | not specified |
| maleic acid<br>110-16-7 | not carcinogenic | oral: feed | 2 y<br>daily | rat | male/female | OECD Guideline 451 (Carcinogenicity Studies) |
| methacrylic acid<br>79-41-4 | not carcinogenic | inhalation | 2 y | mouse | male/female | OECD Guideline 451 (Carcinogenicity Studies) |

chanhvinh.com



**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 |
|---|---|---|---|---|---|
| 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) |
| Acrylic acid<br>79-10-7 | NOAEL P 83 mg/kg<br><br>NOAEL F1 250 mg/kg | one-generation study | oral: drinking water | rat | equivalent or similar to OECD Guideline 415 (One-Generation Reproduction Toxicity Study) |
| Acrylic acid<br>79-10-7 | NOAEL P 240 mg/kg<br><br>NOAEL F1 53 mg/kg<br><br>NOAEL F2 53 mg/kg | two-generation study | oral: drinking water | rat | OECD Guideline 416 (Two-Generation Reproduction Toxicity Study) |
| 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) |
| maleic acid<br>110-16-7 | NOAEL F1 150 mg/kg<br><br>NOAEL F2 55 mg/kg | Two generation study | oral: gavage | rat | OECD Guideline 416 (Two-Generation Reproduction Toxicity Study) |
| methacrylic acid<br>79-41-4 | NOAEL P 50 mg/kg<br><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) |

**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 |
|---|---|---|---|---|
| 3,3,5 Trimethylcyclohexyl methacrylate<br>7779-31-9 | May cause respiratory irritation. | | | |
| Acrylic acid<br>79-10-7 | May cause respiratory irritation. | | | |
| Cumene hydroperoxide<br>80-15-9 | May cause respiratory irritation. | | | |
| maleic acid<br>110-16-7 | May cause respiratory irritation. | | | |
| methacrylic acid<br>79-41-4 | May cause respiratory irritation. | | | |

chanhvinh.com



**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 |
|---|---|---|---|---|---|
| 3,3,5 Trimethylcyclohexyl methacrylate<br>7779-31-9 | NOAEL 1.000 mg/kg | oral: gavage | 28 d<br>daily | rat | OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test) |
| 2-Hydroxyethyl methacrylate<br>868-77-9 | NOAEL 100 mg/kg | oral: gavage | 49 d<br>daily | 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<br>6 h/d, 5 d/w | rat | OECD Guideline 413 (Subchronic Inhalation Toxicity: 90-Day) |
| Acrylic acid<br>79-10-7 | NOAEL 40 mg/kg | oral: drinking water | 12 m<br>daily | rat | equivalent or similar to OECD Guideline 452 (Chronic Toxicity Studies) |
| Acrylic acid<br>79-10-7 | NOAEL 0,015 mg/l | inhalation: vapour | 90 d<br>6 h/d, 5 d/w | mouse | equivalent or similar to OECD Guideline 413 (Subchronic Inhalation Toxicity: 90-Day) |
| Hydroxypropyl methacrylate<br>27813-02-1 | NOAEL 300 mg/kg | oral: gavage | 49 d<br>daily | 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<br>6 h/d, 5 d/w | rat | OECD Guideline 413 (Subchronic Inhalation Toxicity: 90-Day) |
| 2,2'-Ethylenedioxydiethyl dimethacrylate<br>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) |
| Cumene hydroperoxide<br>80-15-9 | | inhalation: aerosol | 6 h/d<br>5 d/w | rat | not specified |
| maleic acid<br>110-16-7 | NOAEL >= 40 mg/kg | oral: feed | 90 d<br>daily | rat | OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents) |
| 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) |

**Aspiration hazard:**

No data available.

**11.2 Information on other hazards**

**11.2.1 Endocrine disrupting properties**

No substance data available.

chanhvinh.com



No data available.

chanhvinh.com

chanhvinh.com



## 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 |
|---|---|---|---|---|---|
| 3,3,5 Trimethylcyclohexyl methacrylate<br>7779-31-9 | LC50 | 1,9 mg/l | 96 h | Brachydanio rerio (new name: Danio rerio) | OECD Guideline 203 (Fish, Acute Toxicity Test) |
| 2-Hydroxyethyl methacrylate<br>868-77-9 | LC50 | > 100 mg/l | 96 h | Oryzias latipes | OECD Guideline 203 (Fish, Acute Toxicity Test) |
| Acrylic acid<br>79-10-7 | LC50 | 27 mg/l | 96 h | Salmo gairdneri (new name: Oncorhynchus mykiss) | EPA OTS 797.1400 (Fish Acute Toxicity Test) |
| Acrylic acid<br>79-10-7 | NOEC | >= 10,1 mg/l | 45 d | Oryzias latipes | OECD Guideline 210 (fish early life stage toxicity test) |
| 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) |
| maleic acid<br>110-16-7 | LC50 | > 245 mg/l | 48 h | Leuciscus idus | DIN 38412-15 |
| 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-Propenoic acid, 2-methyl-, 2-(2-hydroxyethoxy)ethyl ester<br>2351-43-1 | LC50 | > 100 mg/l | 96 h | Oryzias latipes | 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 |
|---|---|---|---|---|---|
| 3,3,5 Trimethylcyclohexyl methacrylate<br>7779-31-9 | EC50 | 14,43 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) |
| Acrylic acid<br>79-10-7 | EC50 | 95 mg/l | 48 h | Daphnia magna | EPA OTS 797.1300 (Aquatic Invertebrate Acute Toxicity Test, Freshwater Daphnids) |
| Hydroxypropyl methacrylate<br>27813-02-1 | EC50 | > 143 mg/l | 48 h | Daphnia magna | OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test) |
| 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) |
| Cumene hydroperoxide<br>80-15-9 | EC50 | 18,84 mg/l | 48 h | Daphnia magna | OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test) |

chanhvinh.com



| | | | | | |
|---|---|---|---|---|---|
| maleic acid<br>110-16-7 | EC50 | 42,81 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) |
| 2-Propenoic acid, 2-methyl-, 2-(2-hydroxyethoxy)ethyl ester<br>2351-43-1 | EC50 | 380 mg/l | 48 h | Daphnia magna | OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test) |

**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** |
|---|---|---|---|---|---|
| 2-Hydroxyethyl methacrylate<br>868-77-9 | NOEC | 24,1 mg/l | 21 d | Daphnia magna | OECD 211 (Daphnia magna, Reproduction Test) |
| Acrylic acid<br>79-10-7 | NOEC | 19 mg/l | 21 d | Daphnia magna | EPA OTS 797.1330 (Daphnid Chronic Toxicity Test) |
| 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) |
| maleic acid<br>110-16-7 | NOEC | 10 mg/l | 21 d | Daphnia magna | other guideline: |
| methacrylic acid<br>79-41-4 | NOEC | 53 mg/l | 21 d | Daphnia magna | OECD 211 (Daphnia magna, Reproduction Test) |
| 2-Propenoic acid, 2-methyl-, 2-(2-hydroxyethoxy)ethyl ester<br>2351-43-1 | NOEC | 24,1 mg/l | 21 d | Daphnia magna | OECD 211 (Daphnia magna, Reproduction Test) |

**Toxicity (Algae):**

chanhvinh.com



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 |
|---|---|---|---|---|---|
| 3,3,5 Trimethylcyclohexyl methacrylate<br>7779-31-9 | EC10 | 0,43 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) |
| Acrylic acid<br>79-10-7 | EC10 | 0,03 mg/l | 72 h | Scenedesmus subspicatus (new name: Desmodesmus subspicatus) | EU Method C.3 (Algal Inhibition test) |
| Acrylic acid<br>79-10-7 | EC50 | 0,13 mg/l | 72 h | Scenedesmus subspicatus (new name: Desmodesmus subspicatus) | EU Method C.3 (Algal Inhibition test) |
| Hydroxypropyl methacrylate<br>27813-02-1 | EC50 | > 97,2 mg/l | 72 h | Pseudokirchneriella subcapitata | OECD Guideline 201 (Alga, Growth Inhibition Test) |
| Hydroxypropyl methacrylate<br>27813-02-1 | NOEC | > 97,2 mg/l | 72 h | Pseudokirchneriella subcapitata | OECD Guideline 201 (Alga, Growth Inhibition Test) |
| 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) |
| 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) |
| Cumene hydroperoxide<br>80-15-9 | EC50 | 3,1 mg/l | 72 h | Desmodesmus subspicatus (reported as Scenedesmus subspicatus) | OECD Guideline 201 (Alga, Growth Inhibition Test) |
| Cumene hydroperoxide<br>80-15-9 | NOEC | 1 mg/l | 72 h | Desmodesmus subspicatus (reported as Scenedesmus subspicatus) | OECD Guideline 201 (Alga, Growth Inhibition Test) |
| maleic acid<br>110-16-7 | EC50 | 74,35 mg/l | 72 h | Pseudokirchneriella subcapitata | OECD Guideline 201 (Alga, Growth Inhibition Test) |
| maleic acid<br>110-16-7 | EC10 | 11,8 mg/l | 72 h | Pseudokirchneriella subcapitata | OECD Guideline 201 (Alga, Growth Inhibition Test) |
| methacrylic acid<br>79-41-4 | NOEC | 8,2 mg/l | 72 h | Selenastrum capricornutum (new name: Pseudokirchneriella subcapitata) | OECD Guideline 201 (Alga, Growth Inhibition Test) |
| methacrylic acid<br>79-41-4 | EC50 | 45 mg/l | 72 h | Selenastrum capricornutum (new name: Pseudokirchneriella subcapitata) | OECD Guideline 201 (Alga, Growth Inhibition Test) |
| 2-Propenoic acid, 2-methyl-, 2-(2-hydroxyethoxy)ethyl ester<br>2351-43-1 | EC50 | 836 mg/l | 72 h | Selenastrum capricornutum (new name: Pseudokirchneriella subcapitata) | OECD Guideline 201 (Alga, Growth Inhibition Test) |
| 2-Propenoic acid, 2-methyl-, 2-(2-hydroxyethoxy)ethyl ester<br>2351-43-1 | NOEC | 400 mg/l | 72 h | Selenastrum capricornutum (new name: Pseudokirchneriella 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 |
|---|---|---|---|---|---|
| 2-Hydroxyethyl methacrylate<br>868-77-9 | EC0 | > 3.000 mg/l | 16 h | Pseudomonas fluorescens | other guideline: |
| Acrylic acid | EC20 | 900 mg/l | 30 min | activated sludge, domestic | ISO 8192 (Test for |

chanhvinh.com



| | | | | | |
|---|---|---|---|---|---|
| 79-10-7 | | | | | Inhibition of Oxygen Consumption by Activated Sludge) |
| 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 |
| maleic acid<br>110-16-7 | EC10 | 44,6 mg/l | 18 h | Pseudomonas putida | DIN 38412, part 8 (Pseudomonas Zellvermehrungshemm-Test) |
| methacrylic acid<br>79-41-4 | EC10 | 100 mg/l | 17 h | Pseudomonas putida | DIN 38412, part 8 (Pseudomonas Zellvermehrungshemm-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 |
|---|---|---|---|---|---|
| 3,3,5 Trimethylcyclohexyl methacrylate<br>7779-31-9 | not readily biodegradable. | aerobic | 16,8 % | 28 d | OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry 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)) |
| Acrylic acid<br>79-10-7 | inherently biodegradable | aerobic | 100 % | 28 d | OECD Guideline 302 B (Inherent biodegradability: Zahn-Wellens/EMPA Test) |
| Acrylic acid<br>79-10-7 | readily biodegradable | aerobic | 81 % | 28 d | OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test) |
| Hydroxypropyl methacrylate<br>27813-02-1 | readily biodegradable | aerobic | 94,2 % | 28 d | OECD Guideline 301 E (Ready biodegradability: Modified OECD Screening Test) |
| 2,2'-Ethylenedioxydiethyl dimethacrylate<br>109-16-0 | readily biodegradable | aerobic | 85 % | 28 d | OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution 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) |
| Cumene hydroperoxide<br>80-15-9 | not readily biodegradable. | aerobic | 3 % | 28 d | OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test) |
| maleic acid<br>110-16-7 | readily biodegradable | aerobic | 97,08 % | 28 d | OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test) |
| methacrylic acid<br>79-41-4 | 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) |
| 2-Propenoic acid, 2-methyl-, 2-(2-hydroxyethoxy)ethyl ester<br>2351-43-1 | readily biodegradable | aerobic | 92 - 100 % | 14 d | OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I)) |

No substance data available.

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

chanhvinh.com



### 12.3. Bioaccumulative potential

**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 |
|---|---|---|---|
| 3,3,5 Trimethylcyclohexyl methacrylate<br>7779-31-9 | 5,25 | 20 °C | OECD Guideline 117 (Partition Coefficient (n-octanol / water), HPLC Method) |
| 2-Hydroxyethyl methacrylate<br>868-77-9 | 0,42 | 25 °C | OECD Guideline 107 (Partition Coefficient (n-octanol / water), Shake Flask Method) |
| Acrylic acid<br>79-10-7 | 0,46 | 25 °C | OECD Guideline 107 (Partition Coefficient (n-octanol / water), Shake Flask 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) |
| Acetic acid, 2-phenylhydrazide<br>114-83-0 | 0,74 | | QSAR (Quantitative Structure Activity Relationship) |
| Cumene hydroperoxide<br>80-15-9 | 1,6 | 25 °C | OECD Guideline 117 (Partition Coefficient (n-octanol / water), HPLC Method) |
| maleic acid<br>110-16-7 | -1,3 | 20 °C | OECD Guideline 107 (Partition Coefficient (n-octanol / water), Shake Flask Method) |
| methacrylic acid<br>79-41-4 | 0,93 | 22 °C | OECD Guideline 107 (Partition Coefficient (n-octanol / water), Shake Flask Method) |
| 2-Propenoic acid, 2-methyl-, 2-(2-hydroxyethoxy)ethyl ester<br>2351-43-1 | 0,03 | 25 °C | QSAR (Quantitative Structure Activity Relationship) |

**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 |
|---|---|---|---|---|---|
| 2-Hydroxyethyl methacrylate<br>868-77-9 | 3,16 | | | | QSAR (Quantitative Structure Activity Relationship) |
| Acrylic acid<br>79-10-7 | 3,16 | | | | QSAR (Quantitative Structure Activity Relationship) |
| Cumene hydroperoxide<br>80-15-9 | 9,1 | | | calculation | OECD Guideline 305 (Bioconcentration: Flow-through Fish Test) |

chanhvinh.com



### 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 |
|---|---|---|---|
| 3,3,5 Trimethylcyclohexyl methacrylate<br>7779-31-9 | 3,19 | | QSAR (Quantitative Structure Activity Relationship) |
| 2-Hydroxyethyl methacrylate<br>868-77-9 | 0,164 | | QSAR (Quantitative Structure Activity Relationship) |
| 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) |

### 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.

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.

chanhvinh.com



## SECTION 14: Transport information

**14.1. UN number or ID number**

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

**14.2. UN proper shipping name**

| | |
|---|---|
| ADR | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (3,3,5-Trimethylcyclohexyl methacrylate,1-Acetyl-2-phenylhydrazine) |
| RID | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (3,3,5-Trimethylcyclohexyl methacrylate,1-Acetyl-2-phenylhydrazine) |
| IMDG | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (3,3,5-Trimethylcyclohexyl methacrylate,1-Acetyl-2-phenylhydrazine) |
| IATA | Environmentally hazardous substance, liquid, n.o.s. (3,3,5-Trimethylcyclohexyl methacrylate,1-Acetyl-2-phenylhydrazine) |

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

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

**14.4. Packing group**

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

**14.5. Environmental hazards**

| | |
|---|---|
| ADR | Environmentally Hazardous |
| RID | Environmentally Hazardous |
| ADN | Environmentally Hazardous |
| IMDG | Marine Pollutant |
| IATA | Environmentally Hazardous |

**14.6. Special precautions for user**

| | |
|---|---|
| ADR | not applicable<br>Tunnelcode: |
| RID | not applicable |
| ADN | not applicable |
| IMDG | not applicable |
| IATA | not applicable |

The transport classifications in this section apply generally to packed and bulk goods alike. For containers with a net volume of no more than 5 L for liquid substances or a net mass of no more than 5 kg for solid substances per individual or inner package, the exemptions SP 375 (ADR), A197 (IATA), 2.10.2.7 (IMDG), NZ 4.3(10) may be applied, which can result in a deviation from the transport classification for packed goods.

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

not applicable

chanhvinh.com



## 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) | < 5 % |
| Seveso III (2012/18/EU): | E2, Hazardous to the Aquatic Environment in Category Chronic 2 |

**15.2. Chemical safety assessment**

A chemical safety assessment has not been carried out.

chanhvinh.com



## SECTION 16: Other information

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

H226 Flammable liquid and 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.

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
n.o.s.: not otherwise specified

chanhvinh.com



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

**Further information:**

This Safety Data Sheet has been produced for sales from Henkel to parties purchasing from Henkel, is based on Regulation (EC) No 1907/2006 and provides information in accordance with applicable regulations of the European Union only. In that respect, no statement, warranty or representation of any kind is given as to compliance with any statutory laws or regulations of any other jurisdiction or territory other than the European Union. When exporting to territories other than the European Union, please consult with the respective Safety Data Sheet of the concerned territory to ensure compliance or liaise with Henkel´s Product Safety and Regulatory Affairs Department (SDSinfo.Adhesive@henkel.com) prior to export to other territories than the European Union.

This information is based on our current level of knowledge and relates to the product in the state in which it is delivered. It is intended to describe our products from the point of view of safety requirements and is not intended to guarantee any particular properties.

Dear Customer,
Henkel is committed to creating a sustainable future by promoting opportunities along the entire value chain. If you would like to contribute by switching from a paper to the electronic version of SDS, please contact the local Customer Service representative. We recommend to use a non-personal email address (e.g. SDS@your_company.com).

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