

# SAFETY DATA SHEET

According to Regulation (EC) No. 1907/2006 (REACH) Article 31, Annex II as amended

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

### 1.1 Product identifier

**Product name:** INKU-US-1000-MG**UFI:** KQ72-4009-R00V-YAF6

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

**Identified uses:** Printing ink**Uses advised against:** For industrial use only

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

Roland DG EMEA NV  
Bell-Telephonelaan 2G  
B-2440 Geel  
Belgien  
Telefon-Nr.+32 14575911  
EMAIL: deu-demand-planning@rolanddg.com

#### National Supplier

ROLAND DG (UK) Ltd.  
Griffin House, Windmill  
Road Clevedon, North Somerset  
BS21 6UJ  
Phone: +44 1275 335540  
EMAIL: deu-demand-planning@rolanddg.com

### 1.4 Emergency telephone number:

+35318092566 (National Poisons Information Centre Ireland), 999 and 112 is the national emergency response service in the UK

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

The product has been classified according to the legislation in force.

#### Classification according to Regulation (EC) No 1272/2008 as amended.

##### Health Hazards

|   |   |   |
|---|---|---|
| Skin irritation                                       | Category 2                                      | H315: Causes skin irritation.   |
| Serious eye irritation                                | Category 2                                      | H319: Causes serious eye irritation.  |
| Skin sensitizer                                       | Category 1                                      | H317: May cause an allergic skin reaction.  |
| Toxic to reproduction                                 | Category 2                                      | H361fd: Suspected of damaging fertility.<br>Suspected of damaging the unborn child. |
| Specific Target Organ Toxicity -<br>Single Exposure   | Category 3                                      | H335: May cause respiratory irritation.   |
| Specific Target Organ Toxicity -<br>Repeated Exposure | Category 1<br>(Liver,<br>Respiratory<br>system) | H372: Causes damage to organs through<br>prolonged or repeated exposure.            |

##### Environmental Hazards

|   |            |   |
|---|------------|---|
| Chronic hazards to the aquatic<br>environment | Category 2 | H411: Toxic to aquatic life with long lasting<br>effects. |
|---|------------|---|

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## 2.2 Label Elements

**Contains:** 2-Phenoxyethyl acrylate  
Exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate  
1-Vinylhexahydro-2H-azepin-2-one  
Isodecyl acrylate  
3-methyl-1,5-pentanediy diacrylate  
Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide  
2-phenoxyethyl prop-2-enoate



**Signal Word:** Danger

**Hazard Statement(s):** H315: Causes skin irritation.  
H319: Causes serious eye irritation.  
H317: May cause an allergic skin reaction.  
H361fd: Suspected of damaging fertility. Suspected of damaging the unborn child.  
H335: May cause respiratory irritation.  
H372: Causes damage to organs through prolonged or repeated exposure.  
H411: Toxic to aquatic life with long lasting effects.

### Precautionary Statements

**Prevention:** P201: Obtain special instructions before use.  
P260: Do not breathe dust/fume/gas/mist/vapors/spray.  
P273: Avoid release to the environment.  
P280: Wear protective gloves/protective clothing/eye protection/face protection.

**Response:** P333+P313: If skin irritation or rash occurs: Get medical advice/attention.  
P337+P313: If eye irritation persists: Get medical advice/attention.

## 2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

### Endocrine Disruption-Toxicity

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

### Endocrine Disruption-Ecotoxicity

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

## SECTION 3: Composition/information on ingredients

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## 3.2 Mixtures

| Chemical name  | Concentration | CAS-No.    | EC No.    | REACH Registration No. | M-Factor:          | Notes |
|--|---------------|------------|-----------|------------------------|--------------------|-------|
| 2-Phenoxyethyl acrylate  | 25 - <50%     | 48145-04-6 | 256-360-6 | 01-2119980532-35-XXXX; | No data available. |       |
| Exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate                  | 10 - <25%     | 5888-33-5  | 227-561-6 | 01-2119957862-25-XXXX; | No data available. |       |
| 1-Vinylhexahydro-2H-azepin-2-one                                     | 10 - <20%     | 2235-00-9  | 218-787-6 | 01-2119977109-27-XXXX; | No data available. |       |
| Isodecyl acrylate  | 5 - <10%      | 1330-61-6  | 215-542-5 | 01-2119964031-47-XXXX; | No data available. |       |
| 3-methyl-1,5-pentanediyldiacrylate                                   | 5 - <10%      | 64194-22-5 | 264-727-7 | No data available.     | No data available. |       |
| Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide                      | 5 - <10%      | 75980-60-8 | 278-355-8 | 01-2119972295-29-XXXX; | No data available. |       |
| 2-phenoxyethyl prop-2-enoate   | 2.5 - <5%     | 56641-05-5 | 500-133-9 | No data available.     | No data available. |       |
| 2-Propenoic acid, 1-6-hexanediyldiester, polymer with 2-aminoethanol | 1 - <5%       | 67906-98-3 |           | No data available.     | No data available. |       |
| 2-phenoxyethanol   | 1 - <3%       | 122-99-6   | 204-589-7 | 01-2119488943-21-XXXX; | No data available. |       |
| Oxybis(methyl-2,1-ethanediyldiacrylate                               | 0.1 - <1%     | 57472-68-1 | 260-754-3 | 01-2119484629-21-XXXX; | No data available. |       |
| hexamethylene diacrylate   | 0.1 - <1%     | 13048-33-4 | 235-921-9 | 01-2119484737-22-XXXX; | No data available. |       |

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|                            |              |          |           |                        |  |   |
|----------------------------|--------------|----------|-----------|------------------------|--|---|
| 2,6-di-tert-Butyl-p-cresol | 0.1 - <0.25% | 128-37-0 | 204-881-4 | 01-2119555270-46-0000; | Aquatic Toxicity (Acute): 1; Aquatic Toxicity (Chronic): 1 | # |
|----------------------------|--------------|----------|-----------|------------------------|--|---|

\* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

# This substance has workplace exposure limit(s).

## This substance is listed as SVHC.

## Classification

| Chemical name  | Classification   | Notes              |
|--|--|--------------------|
| 2-Phenoxyethyl acrylate  | Classification: Skin Sens.: 1A: H317; Repr.: 2: H361d; Aquatic Chronic: 2: H411;   | No data available. |
| Exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate                | Classification: Eye Irrit.: 2: H319; Skin Irrit.: 2: H315; STOT SE: 3: H335; Skin Irrit.: 2: H315; Eye Irrit.: 2: H319; STOT SE: 3: H335; Skin Sens.: 1B: H317; Aquatic Acute: 1: H400; Aquatic Chronic: 2: H411; Aquatic Chronic: 2: H411;<br><br>Specific concentration limit: Specific target organ toxicity - single exposure Category 3, >= 10 %; Specific target organ toxicity - single exposure Category 3, >= 10 %; | Note A<br>Note A   |
| 1-Vinylhexahydro-2H-azepin-2-one                                   | Classification: Acute Tox.: 4: H302; Eye Irrit.: 2A: H319; Skin Sens.: 1B: H317; STOT RE: 1: H372; Acute Tox.: 4: H312;<br><br>Acute toxicity, oral: LD 50: 1,732 mg/kg<br>Acute toxicity, dermal: LD 50: 1,700 mg/kg  | No data available. |
| Isodecyl acrylate  | Classification: STOT SE: 3: H335; Skin Irrit.: 2: H315; Eye Irrit.: 2: H319; Skin Irrit.: 2: H315; Eye Irrit.: 2: H319; STOT SE: 3: H335; Skin Sens.: 1B: H317; Aquatic Chronic: 2: H411; Aquatic Chronic: 2: H411;<br><br>Specific concentration limit: Specific target organ toxicity - single exposure Category 3, >= 10 %; Specific target organ toxicity - single exposure Category 3, >= 10 %;                         | Note A<br>Note A   |
| 3-methyl-1,5-pentanedyl diacrylate                                 | Classification: Skin Irrit.: 2: H315; Eye Irrit.: 2: H319; STOT SE: 3: H335; Skin Irrit.: 2: H315; Eye Irrit.: 2: H319; Skin Sens.: 1: H317; Aquatic Chronic: 2: H411; Aquatic Chronic: 3: H412;<br><br>Specific concentration limit: Specific target organ toxicity - single exposure Category 3, >= 10 %;  | Note A<br>Note A   |
| Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide                    | Classification: Repr.: 2: H361f; Repr.: 2: H361f; Skin Sens.: 1B: H317; Aquatic Chronic: 2: H411;  | No data available. |
| 2-phenoxyethyl prop-2-enoate                                       | Classification: Skin Sens.: 1: H317; Aquatic Chronic: 2: H411;   | No data available. |
| 2-Propenoic acid, 1-6-hexanedyl ester, polymer with 2-aminoethanol | Classification: Skin Irrit.: 2: H315; Eye Irrit.: 2: H319;   | No data available. |

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|  |  |                    |
|--|--|--------------------|
| 2-phenoxyethanol                         | Classification: Eye Dam.: 1: H318; Acute Tox.: 4: H302; Acute Tox.: 4: H302; Eye Irrit.: 2: H319; STOT SE: 3: H335;<br><br>Acute toxicity, oral: LD 50: 4,070 mg/kg<br>Acute toxicity, inhalation: LC 50: > 1,000 mg/m <sup>3</sup><br>Acute toxicity, dermal: LD 50: > 2,214 mg/kg  | No data available. |
| Oxybis(methyl-2,1-ethanediyl) diacrylate | Classification: Skin Sens.: 1: H317; Eye Dam.: 1: H318; Skin Irrit.: 2: H315;  | No data available. |
| hexamethylene diacrylate                 | Classification: Skin Irrit.: 2: H315; Eye Irrit.: 2: H319; Skin Sens.: 1: H317; Skin Sens.: 1: H317; Skin Irrit.: 2: H315; Eye Irrit.: 2: H319; Aquatic Acute: 1: H400; Aquatic Chronic: 2: H411;<br><br>Specific concentration limit: Specific target organ toxicity - single exposure Category 3, >= 10 %; Specific target organ toxicity - single exposure Category 3, >= 10 %; | Note D             |
| 2,6-di-tert-Butyl-p-cresol               | Classification: Aquatic Acute: 1: H400; Aquatic Chronic: 1: H410;  | No data available. |

CLP: Regulation No. 1272/2008.

The full text for all H-statements is displayed in section 16.

## SECTION 4: First aid measures

**General:** Get medical attention if symptoms occur.

### 4.1 Description of first aid measures

**Inhalation:** In case of inhalation of spray mist: Move person into fresh air and keep at rest.**Skin Contact:** Get medical attention. Destroy or thoroughly clean contaminated shoes. Immediately remove contaminated clothing and shoes and wash skin with soap and plenty of water. If skin irritation or an allergic skin reaction develops, get medical attention.**Eye contact:** Immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. Get medical attention.**Ingestion:** Call a POISON CENTER/doctor if you feel unwell. Rinse mouth.**Personal Protection for First-aid Responders:** CAUTION! First aid personnel must be aware of own risk during rescue! See Section 8 of the SDS for Personal Protective Equipment.**4.2 Most important symptoms and effects, both acute and delayed:** See section 11 of the SDS for additional information on health hazards.

### 4.3 Indication of any immediate medical attention and special treatment needed

**Hazards:** See section 11 of the SDS for additional information on health hazards.**Treatment:** Treat symptomatically.

## SECTION 5: Firefighting measures

**General Fire Hazards:** No unusual fire or explosion hazards noted.

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|   |   |
|---|---|
| <b>5.1 Extinguishing media</b>                                    |   |
| <b>Suitable extinguishing media:</b>                              | Extinguish with foam, carbon dioxide, dry powder or water fog.                                |
| <b>Unsuitable extinguishing media:</b>                            | Do not use water jet as an extinguisher, as this will spread the fire.                        |
| <b>5.2 Special hazards arising from the substance or mixture:</b> | During fire, gases hazardous to health may be formed.   |
| <b>5.3 Advice for firefighters</b>                                |   |
| <b>Special fire fighting procedures:</b>                          | No data available.  |
| <b>Special protective equipment for fire-fighters:</b>            | Self-contained breathing apparatus and full protective clothing must be worn in case of fire. |

## SECTION 6: Accidental release measures

|   |   |
|---|---|
| <b>6.1 Personal precautions, protective equipment and emergency procedures:</b> | See Section 8 of the SDS for Personal Protective Equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep unauthorized personnel away.   |
| <b>6.1.1 For non-emergency personnel:</b>                                       | Use personal protective equipment.  |
| <b>6.1.2 For emergency responders:</b>  | Warn everybody of potential hazards and evacuate if necessary. Use personal protective equipment.   |
| <b>6.2 Environmental Precautions:</b>   | Avoid release to the environment. Prevent entry into waterways, sewer, basements or confined areas. Contact local authorities in case of spillage to drain/aquatic environment. Do not contaminate water sources or sewer.  |
| <b>6.3 Methods and material for containment and cleaning up:</b>                | Prevent further leakage or spillage if safe to do so. Stop the flow of material, if this is without risk. Small Spillages: Absorb spill with vermiculite or other inert material, then place in a container for chemical waste. Containers with collected spillage must be properly labelled with correct contents and hazard symbol. Clean surface thoroughly to remove residual contamination. Large Spillages: Dike far ahead of larger spill for later recovery and disposal. |
| <b>6.4 Reference to other sections:</b>   | See Section 8 of the SDS for Personal Protective Equipment. For waste disposal, see section 13 of the SDS.  |

## SECTION 7: Handling and storage:

|  |  |
|--|--|
| <b>7.1 Precautions for safe handling:</b>                                | Do not handle until all safety precautions have been read and understood. Obtain special instructions before use. Use personal protective equipment as required. Avoid contact with skin. Wash hands thoroughly after handling. Avoid contact with eyes, skin, and clothing. |
| <b>7.2 Conditions for safe storage, including any incompatibilities:</b> | Store locked up. Store in tightly closed original container in a dry, cool and well-ventilated place. Store away from incompatible materials.  |

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7.3 Specific end use(s): For industrial use only

## SECTION 8: Exposure controls/personal protection

### 8.1 Control Parameters

#### Occupational Exposure Limits

| Chemical name              | Type | Exposure Limit Values | Source  |
|----------------------------|------|-----------------------|---|
| 2,6-di-tert-Butyl-p-cresol | TWA  | 10 mg/m3              | UK. EH40 Workplace Exposure Limits (WELs), as amended (12 2011) |

#### Biological Limit Values

None of the components have assigned exposure limits.

#### DNEL-Values

| Critical component                                  | Type               | Route of Exposure | Health Warnings                  | Remarks                              |
|---|--------------------|-------------------|----------------------------------|--------------------------------------|
| 2-Phenoxyethyl acrylate                             | Workers            | Inhalation        | Local, long-term; 77 mg/m3       | Repeated dose toxicity               |
|   | Workers            | Inhalation        | Systemic, long-term; 12 mg/m3    | Repeated dose toxicity               |
|   | Workers            | Eyes              | Local effect;                    | No hazard identified                 |
|   | General population | Eyes              | Local effect;                    | No hazard identified                 |
| Exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate | Workers            | Dermal            | Systemic, long-term; 3.5 mg/kg   | Repeated dose toxicity               |
|   | General population | Eyes              | Local effect;                    | No hazard identified                 |
|   | Workers            | Eyes              | Local effect;                    | No hazard identified                 |
|   | General population | Oral              | Systemic, long-term; 0.83 mg/kg  | Repeated dose toxicity               |
|   | Workers            | Dermal            | Systemic, long-term; 1.39 mg/kg  | Repeated dose toxicity               |
|   | Workers            | Inhalation        | Systemic, long-term; 4.9 mg/m3   | Repeated dose toxicity               |
|   | General population | Inhalation        | Systemic, long-term; 1.45 mg/m3  | Repeated dose toxicity               |
| 1-Vinylhexahydro-2H-azepin-2-one                    | General population | Dermal            | Systemic, long-term; 0.83 mg/kg  | Repeated dose toxicity               |
|   | General population | Eyes              | Local effect;                    | Medium hazard (no threshold derived) |
|   | Workers            | Eyes              | Local effect;                    | Low hazard (no threshold derived)    |
| Isodecyl acrylate                                   | General population | Eyes              | Local effect;                    | No hazard identified                 |
|   | Workers            | Eyes              | Local effect;                    | No hazard identified                 |
|   | Workers            | Inhalation        | Local, long-term; 37.5 mg/m3     | irritation respiratory tract         |
| 3-methyl-1,5-pentenediyl diacrylate                 | General population | Inhalation        | Systemic, long-term; 2.6 mg/m3   | Repeated dose toxicity               |
|   | Workers            | Eyes              | Local effect;                    | Medium hazard (no threshold derived) |
|   | Workers            | Inhalation        | Systemic, long-term; 14.81 mg/m3 | Repeated dose toxicity               |
|   | General population | Eyes              | Local effect;                    | Medium hazard (no threshold derived) |
|   | General population | Dermal            | Systemic, long-term; 15 mg/kg    | Repeated dose toxicity               |
|   | General population | Oral              | Systemic, long-term; 1.5 mg/kg   | Repeated dose toxicity               |
| Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide     | Workers            | Dermal            | Systemic, long-term; 42 mg/kg    | Repeated dose toxicity               |
|   | Workers            | Dermal            | Systemic, long-term; 0.233 mg/kg | Repeated dose toxicity               |
|   | Workers            | Inhalation        | Systemic, long-term; 0.822 mg/m3 | Repeated dose toxicity               |
|   | General population | Eyes              | Local effect;                    | No hazard identified                 |

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|   |                    |            |                                     |                                      |
|---|--------------------|------------|-------------------------------------|--------------------------------------|
|   | General population | Dermal     | Systemic, long-term;<br>83.3 µg/kg  | Repeated dose toxicity               |
|   | General population | Oral       | Systemic, long-term;<br>83.3 µg/kg  | Repeated dose toxicity               |
|   | General population | Inhalation | Systemic, long-term;<br>0.145 mg/m3 | Repeated dose toxicity               |
|   | Workers            | Eyes       | Local effect;                       | No hazard identified                 |
| 2-phenoxyethyl prop-2-enoate                | General population | Eyes       | Local effect;                       | No hazard identified                 |
|   | Workers            | Eyes       | Local effect;                       | No hazard identified                 |
|   | Workers            | Inhalation | Local, long-term; 97<br>mg/m3       | Repeated dose toxicity               |
|   | Workers            | Inhalation | Systemic, long-term; 12<br>mg/m3    | Repeated dose toxicity               |
|   | Workers            | Dermal     | Systemic, long-term; 3.5<br>mg/kg   | Repeated dose toxicity               |
| 2-phenoxyethanol                            | General population | Inhalation | Systemic, long-term;<br>2.41 mg/m3  | Repeated dose toxicity               |
|   | General population | Oral       | Systemic, short-term;<br>9.23 mg/kg | Repeated dose toxicity               |
|   | General population | Dermal     | Systemic, long-term;<br>10.42 mg/kg | Repeated dose toxicity               |
|   | Workers            | Inhalation | Systemic, long-term; 5.7<br>mg/m3   |                                      |
|   | General population | Oral       | Systemic, long-term;<br>9.23 mg/kg  | Repeated dose toxicity               |
|   | Workers            | Dermal     | Systemic, long-term;<br>20.83 mg/kg | Repeated dose toxicity               |
|   | General population | Inhalation | Local, long-term; 2.41<br>mg/m3     | Repeated dose toxicity               |
|   | Workers            | Inhalation | Local, long-term; 5.7<br>mg/m3      |                                      |
|   | Workers            | Eyes       | Local effect;                       | Low hazard (no threshold<br>derived) |
|   | General population | Eyes       | Local effect;                       | Low hazard (no threshold<br>derived) |
| Oxybis(methyl-2,1-ethanediyl)<br>diacrylate | Workers            | Inhalation | Systemic, long-term;<br>24.48 mg/m3 | Repeated dose toxicity               |
|   | General population | Inhalation | Systemic, long-term;<br>7.24 mg/m3  | Repeated dose toxicity               |
|   | Workers            | Dermal     | Systemic, long-term;<br>2.77 mg/kg  | Repeated dose toxicity               |
|   | General population | Oral       | Systemic, long-term;<br>2.08 mg/kg  | Repeated dose toxicity               |
|   | General population | Dermal     | Systemic, long-term;<br>1.66 mg/kg  | Repeated dose toxicity               |
| hexamethylene diacrylate                    | General population | Eyes       | Local effect;                       | Low hazard (no threshold<br>derived) |
|   | General population | Inhalation | Systemic, long-term; 7.2<br>mg/m3   | Repeated dose toxicity               |
|   | Workers            | Inhalation | Systemic, long-term;<br>24.5 mg/m3  | Repeated dose toxicity               |
|   | Workers            | Eyes       | Local effect;                       | Low hazard (no threshold<br>derived) |
|   | General population | Dermal     | Systemic, long-term;<br>1.66 mg/kg  | Repeated dose toxicity               |
|   | Workers            | Dermal     | Systemic, long-term;<br>2.77 mg/kg  | Repeated dose toxicity               |
|   | General population | Oral       | Systemic, long-term; 2.1<br>mg/kg   | Repeated dose toxicity               |
| 2,6-di-tert-Butyl-p-cresol                  | Workers            | Eyes       | Local effect;                       | No hazard identified                 |
|   | General population | Inhalation | Systemic, long-term;<br>0.86 mg/m3  | Repeated dose toxicity               |
|   | Workers            | Inhalation | Systemic, long-term; 3.5<br>mg/m3   | Repeated dose toxicity               |
|   | General population | Eyes       | Local effect;                       | No hazard identified                 |
|   | Workers            | Dermal     | Systemic, long-term; 0.5<br>mg/kg   | Repeated dose toxicity               |
|   | General population | Dermal     | Systemic, long-term;<br>0.25 mg/kg  | Repeated dose toxicity               |



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## PNEC-Values

| Critical component                                  | Environmental compartment | PNEC-Values  | Remarks |
|---|---------------------------|--------------|---------|
| 2-Phenoxyethyl acrylate                             | Sewage treatment plant    | 1.77 mg/l    |         |
|   | Aquatic (marine water)    | 0.2 µg/l     |         |
|   | Aquatic (freshwater)      | 2 µg/l       |         |
|   | Marine sediments          | 0.002 mg/kg  |         |
|   | freshwater sediment       | 0.02 mg/kg   |         |
| Exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate | soil                      | 0.029 mg/kg  |         |
|   | Aquatic (marine water)    | 0 mg/l       |         |
|   | Marine sediments          | 0.015 mg/kg  |         |
|   | Aquatic (freshwater)      | 0.001 mg/l   |         |
|   | Sewage treatment plant    | 2 mg/l       |         |
|   | freshwater sediment       | 0.145 mg/kg  |         |
| Isodecyl acrylate                                   | Aquatic (freshwater)      | 84.9 µg/l    |         |
|   | Sewage treatment plant    | 34 mg/l      |         |
|   | soil                      | 0.064 mg/kg  |         |
|   | Marine sediments          | 5.904 mg/kg  |         |
|   | freshwater sediment       | 59.039 mg/kg |         |
| 3-methyl-1,5-pentanediy diacrylate                  | Aquatic (marine water)    | 8.49 µg/l    |         |
|   | Aquatic (freshwater)      | 0.001 mg/l   |         |
|   | Sewage treatment plant    | 10 mg/l      |         |
|   | freshwater sediment       | 0.138 mg/kg  |         |
|   | Marine sediments          | 0.014 mg/kg  |         |
| Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide     | soil                      | 22.2 µg/kg   |         |
|   | Fresh water               | 0.00353 mg/l |         |
|   | Marine sediments          | 11.5 µg/kg   |         |
|   | Marine water              | 0.00353 mg/l |         |
|   | Aquatic (freshwater)      | 1.4 µg/l     |         |
|   | Intermittent release      | 0.0353 mg/l  |         |
|   | Aquatic (marine water)    | 0.14 µg/l    |         |
|   | Sediment-fresh water      | 0.29 mg/kg   |         |
|   | freshwater sediment       | 0.115 mg/kg  |         |
|   | Soil                      | 0.0557 mg/kg |         |
| 2-phenoxyethyl prop-2-enoate                        | Aquatic (freshwater)      | 2 µg/l       |         |
|   | soil                      | 0.009 mg/kg  |         |
|   | Aquatic (marine water)    | 0.2 µg/l     |         |
|   | freshwater sediment       | 0.053 mg/kg  |         |
|   | Sewage treatment plant    | 1.77 mg/l    |         |
| 2-phenoxyethanol                                    | Marine sediments          | 0.005 mg/kg  |         |
|   | Aquatic (marine water)    | 0.094 mg/l   |         |
|   | Sewage treatment plant    | 36 mg/l      |         |
|   | freshwater sediment       | 7.237 mg/kg  |         |
|   | Marine sediments          | 0.724 mg/kg  |         |
|   | Aquatic (freshwater)      | 0.943 mg/l   |         |
| Oxybis(methyl-2,1-ethanediy) diacrylate             | soil                      | 1.31 mg/kg   |         |
|   | Aquatic (freshwater)      | 0.003 mg/l   |         |
|   | Aquatic (marine water)    | 0 mg/l       |         |
|   | soil                      | 0.001 mg/kg  |         |
|   | Sewage treatment plant    | 100 mg/l     |         |
| hexamethylene diacrylate                            | freshwater sediment       | 0.009 mg/kg  |         |
|   | soil                      | 0.094 mg/kg  |         |
|   | Marine sediments          | 0.049 mg/kg  |         |
|   | Aquatic (marine water)    | 0.001 mg/l   |         |
|   | Sewage treatment plant    | 2.7 mg/l     |         |
|   | freshwater sediment       | 0.493 mg/kg  |         |
| 2,6-di-tert-Butyl-p-cresol                          | Aquatic (freshwater)      | 0.007 mg/l   |         |
|   | Predator                  | 8.33 mg/kg   | Oral    |
|   | freshwater sediment       | 99.6 µg/kg   |         |
|   | soil                      | 47.69 µg/kg  |         |
|   | Aquatic (freshwater)      | 0.199 µg/l   |         |
|   | Sewage treatment plant    | 0.17 mg/l    |         |

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|  |                        |            |  |
|--|------------------------|------------|--|
|  | Aquatic (marine water) | 0.02 µg/l  |  |
|  | Marine sediments       | 9.96 µg/kg |  |

## 8.2 Exposure controls

### Appropriate Engineering Controls:

Provide easy access to water supply and eye wash facilities. Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

### Individual protection measures, such as personal protective equipment

#### General information:

Follow training instructions when handling this material. Use personal protective equipment as required. Personal protection equipment should be chosen according to the CEN standards and in discussion with the supplier of the personal protective equipment.

#### Eye/face protection:

Safety goggles. EN 166.

#### Hand Protection:

Protective gloves should be used if there is a risk of direct contact or splash.(EN374), Chemical resistant gloves required for prolonged or repeated contact., Butyl rubber (EN374), Glove thickness: > 0.35 mm, Break-through time: > 240 min, Risk of splashes:, Nitrile rubber., Nitrile gloves are recommended, but be aware that the liquid may penetrate the gloves. Frequent change is advisable., The most suitable glove must be chosen in consultation with the gloves supplier, who can inform about the breakthrough time of the glove material.

#### Skin and Body Protection:

Safety clothes : long sleeved clothing EN13688

#### Respiratory Protection:

In case of inadequate ventilation use suitable respirator (EN14387). Seek advice from local supervisor.

#### Hygiene measures:

Do not handle until all safety precautions have been read and understood. Obtain special instructions before use. Wash contaminated clothing before reuse. Avoid contact with skin. Observe good industrial hygiene practices. Wash hands before breaks and immediately after handling the product. Contaminated work clothing should not be allowed out of the workplace.

#### Environmental Controls:

Do not empty into drains.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

#### Appearance

**Physical state:** liquid

**Form:** liquid

**Color:** purple

**Odor:** Sweetish

**Odor Threshold:** No data available.

**Freezing point:** No data available.

**Boiling Point:** No data available.

**Flammability:** not applicable

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**Upper/lower limit on flammability or explosive limits**

|   |                    |
|---|--------------------|
| <b>Explosive limit - upper:</b>                 | not applicable     |
| <b>Explosive limit - lower:</b>                 | not applicable     |
| <b>Flash Point:</b>                             | No data available. |
| <b>Self Ignition Temperature:</b>               | No data available. |
| <b>Decomposition Temperature:</b>               | No data available. |
| <b>pH:</b>                                      | not applicable     |
| <b>Viscosity</b>                                |                    |
| <b>Dynamic viscosity:</b>                       | not applicable     |
| <b>Kinematic viscosity:</b>                     | Not determined.    |
| <b>Flow Time:</b>                               | not applicable     |
| <b>Solubility(ies)</b>                          |                    |
| <b>Solubility in Water:</b>                     | No data available. |
| <b>Solubility (other):</b>                      | No data available. |
| <b>Partition coefficient (n-octanol/water):</b> | not applicable     |
| <b>Vapor pressure:</b>                          | No data available. |
| <b>Relative density:</b>                        | 1.0439             |
| <b>Density:</b>                                 | not applicable     |
| <b>Bulk density:</b>                            | not applicable     |
| <b>Relative vapor density:</b>                  | No data available. |
| <b>Particle characteristics</b>                 |                    |
| <b>Particle Size</b>                            | not applicable     |
| <b>Distribution:</b>                            |                    |
| <b>Specific surface area:</b>                   | not applicable     |
| <b>Surface charge/Zeta potential:</b>           | not applicable     |
| <b>Assessment:</b>                              | not applicable     |
| <b>Shape:</b>                                   | not applicable     |
| <b>Crystallinity:</b>                           | not applicable     |
| <b>Surface treatment:</b>                       | not applicable     |

**9.2 Other information**

**VOC Content:** EC Directive 1999/13: 14.92 g/l ~1.49 % (calculated)

**SECTION 10: Stability and reactivity**

|   |  |
|---|--|
| <b>10.1 Reactivity:</b>                         | Material is stable under normal conditions.              |
| <b>10.2 Chemical Stability:</b>                 | Material is stable under normal conditions.              |
| <b>10.3 Possibility of hazardous reactions:</b> | Not known.   |
| <b>10.4 Conditions to avoid:</b>                | Avoid heat or contamination.                             |
| <b>10.5 Incompatible Materials:</b>             | None known.  |
| <b>10.6 Hazardous Decomposition Products:</b>   | By heating and fire, harmful vapors/gases may be formed. |

**SECTION 11: Toxicological information**

# SAFETY DATA SHEET

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## Information on likely routes of exposure

|                      |  |
|----------------------|--|
| <b>Inhalation:</b>   | Inhalation is the primary route of exposure. In high concentrations, vapors, fumes or mists may irritate nose, throat and mucus membranes. |
| <b>Skin Contact:</b> | Causes skin irritation. May cause an allergic skin reaction.   |
| <b>Eye contact:</b>  | Causes serious eye irritation.   |
| <b>Ingestion:</b>    | May be ingested by accident. Ingestion may cause irritation and malaise.   |

## 11.1 Information on toxicological effects

### Acute toxicity

#### Oral

|  |   |
|--|---|
| <b>Product:</b>  | ATEmix: 11,959.38 mg/kg   |
| <b>Components:</b>   |   |
| 2-Phenoxyethyl acrylate  | LD 50 (Rat): 5,000 mg/kg Experimental result, Key study   |
| Exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate                  | LD 50 (Rat): 4,350 mg/kg Experimental result, Key study   |
| 1-Vinylhexahydro-2H-azepin-2-one                                     | LD 50 (Rat): 1,732 mg/kg Experimental result, Key study   |
| Isodecyl acrylate  | No data available.  |
| 3-methyl-1,5-pentanediyldiacrylate                                   | No data available.  |
| Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide                      | LD 50 (Rat): > 5,000 mg/kg Experimental result, Key study   |
| 2-phenoxyethyl prop-2-enoate   | No data available.  |
| 2-Propenoic acid, 1-6-hexanediyldiester, polymer with 2-aminoethanol | No data available.  |
| 2-phenoxyethanol   | LD 50 (Rat): 4,070 mg/kg Experimental result, Key study<br>LD 50 (Rat): 2,740 mg/kg Experimental result, Key study<br>LD 50 (Rat): 1,840 mg/kg Experimental result, Key study |
| Oxybis(methyl-2,1-ethanediyldiacrylate                               | LD 50 (Rat): 3,530 mg/kg Experimental result, Key study<br>LD 50 (Rat): 2,810 mg/kg Experimental result, Key study<br>LD 50 (Rat): 4,270 mg/kg Experimental result, Key study |
| hexamethylene diacrylate   | LD 50 (Rat): > 5,000 mg/kg Experimental result, Key study   |
| 2,6-di-tert-Butyl-p-cresol   | LD 50 (Rat): > 6,000 mg/kg Experimental result, Key study   |

#### Dermal

|   |  |
|---|--|
| <b>Product:</b>                                     | ATEmix 12,998.53 mg/kg                                       |
| <b>Components:</b>                                  |  |
| 2-Phenoxyethyl acrylate                             | No data available.   |
| Exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate | LD 50 (Rabbit): > 3,000 mg/kg Experimental result, Key study |

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|  |   |
|--|---|
| 1-Vinylhexahydro-2H-azepin-2-one                                   | LD 50 (Rabbit): 1,700 mg/kg Experimental result, Key study                  |
| Isodecyl acrylate  | No data available.  |
| 3-methyl-1,5-pentanediy diacrylate                                 | No data available.  |
| Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide                    | LD 50 (Rat): > 2,000 mg/kg Experimental result, Key study                   |
| 2-phenoxyethyl prop-2-enoate                                       | No data available.  |
| 2-Propenoic acid ,1-6-hexanediy ester, polymer with 2-aminoethanol | No data available.  |
| 2-phenoxyethanol   | LD 50 (Rabbit): > 2,214 mg/kg Experimental result, Weight of Evidence study |
| Oxybis(methyl-2,1-ethanediyl) diacrylate                           | LD 50 (Rabbit): > 2,000 mg/kg Experimental result, Key study                |
| hexamethylene diacrylate   | LD 50 (Rabbit): 3,650 mg/kg Experimental result, Key study                  |
| 2,6-di-tert-Butyl-p-cresol   | LD 50 (Rat): > 2,000 mg/kg Experimental result, Key study                   |

## Inhalation

### Product:

Not classified for acute toxicity based on available data.

### Components:

|  |  |
|--|--|
| 2-Phenoxyethyl acrylate  | No data available.   |
| Exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate                | No data available.   |
| 1-Vinylhexahydro-2H-azepin-2-one                                   | No data available.   |
| Isodecyl acrylate  | LC 50 (Rat, 8 h)> 1.19 mg/l Vapor, Read-across from supporting substance (structural analogue or surrogate), Key study |
| 3-methyl-1,5-pentanediy diacrylate                                 | No data available.   |
| Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide                    | No data available.   |
| 2-phenoxyethyl prop-2-enoate                                       | No data available.   |
| 2-Propenoic acid ,1-6-hexanediy ester, polymer with 2-aminoethanol | No data available.   |
| 2-phenoxyethanol   | LC 50 (Rat, 6 h)> 1,000 mg/m <sup>3</sup> Aerosol, Experimental result, Key study                                      |
| Oxybis(methyl-2,1-ethanediyl) diacrylate                           | LC 0 (Rat, 7 h)0.41 mg/l Vapor, Read-across from supporting substance (structural analogue or surrogate), Key study    |
| hexamethylene diacrylate   | LC 0 (Rat, 7 h)0.41 mg/l Vapor, Experimental result, Key study   |
| 2,6-di-tert-Butyl-p-cresol   | RD 50 (Mouse, 30 min)60 ppm Vapor, Experimental result, Supporting study   |

# SAFETY DATA SHEET

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## Repeated dose toxicity

|  |  |
|--|--|
| <b>Product:</b>  | No data available.   |
| <b>Components:</b>   |  |
| 2-Phenoxyethyl acrylate  | NOAEL (Rat(Female, Male), Oral, 43 - 53 d): 300 mg/kg  |
| Exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate                  | NOAEL (Rat(Female, Male), Oral, 28 - 53 d): 100 mg/kg  |
| 1-Vinylhexahydro-2H-azepin-2-one                                     | NOAEL (Rat(Female, Male), Inhalation): 0.058 mg/l  |
| Isodecyl acrylate  | NOAEL (Rat(Female, Male), Inhalation): 0.075 mg/l<br>NOAEL (Rat(Female, Male), Inhalation): 0.226 mg/l |
| 3-methyl-1,5-pentanediyldiacrylate                                   | No data available.   |
| Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide                      | NOAEL (Rat(Female, Male), Oral, 64 - 91 d): 100 mg/kg  |
| 2-phenoxyethyl prop-2-enoate   | No data available.   |
| 2-Propenoic acid, 1-6-hexanediyldiester, polymer with 2-aminoethanol | No data available.   |
| 2-phenoxyethanol   | No data available.   |
| Oxybis(methyl-2,1-ethanediyldiacrylate                               | NOAEL (Rat(Female, Male), Oral, 28 - 52 d): 250 mg/kg  |
| hexamethylene diacrylate   | No data available.   |
| 2,6-di-tert-Butyl-p-cresol   | NOAEL (Rat(Male), Oral, 76 - 110 Weeks): 70 mg/kg  |

## Skin Corrosion/Irritation:

|  |  |
|--|--|
| <b>Product:</b>  | Causes skin irritation.                                  |
| <b>Components:</b>   |  |
| 2-Phenoxyethyl acrylate  | Not irritant Experimental result, Supporting study       |
| Exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate                  | No data available.                                       |
| 1-Vinylhexahydro-2H-azepin-2-one                                     | in vivo Not irritant Experimental result, Key study      |
| Isodecyl acrylate  | No data available.                                       |
| 3-methyl-1,5-pentanediyldiacrylate                                   | No data available.                                       |
| Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide                      | in vivo Not irritant Experimental result, Key study      |
| 2-phenoxyethyl prop-2-enoate   | No data available.                                       |
| 2-Propenoic acid, 1-6-hexanediyldiester, polymer with 2-aminoethanol | No data available.                                       |
| 2-phenoxyethanol   | in vivo Not irritant Experimental result, Key study      |
| Oxybis(methyl-2,1-ethanediyldiacrylate                               | in vivo Category 2 Experimental result, Supporting study |
| hexamethylene diacrylate   | in vivo Category 2 Experimental result, Key study        |
| 2,6-di-tert-Butyl-p-cresol   | in vivo Not irritant Experimental result, Key study      |

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## Serious Eye Damage/Eye Irritation:

|  |                                |
|--|--------------------------------|
| <b>Product:</b>  | Causes serious eye irritation. |
| <b>Components:</b>   |                                |
| 2-Phenoxyethyl acrylate  | No data available.             |
| Exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate                | No data available.             |
| 1-Vinylhexahydro-2H-azepin-2-one                                   | No data available.             |
| Isodecyl acrylate  | Mildly Irritating              |
| 3-methyl-1,5-pentanediy diacrylate                                 | No data available.             |
| Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide                    | No data available.             |
| 2-phenoxyethyl prop-2-enoate                                       | No data available.             |
| 2-Propenoic acid, 1-6-hexanediy ester, polymer with 2-aminoethanol | No data available.             |
| 2-phenoxyethanol   | No data available.             |
| Oxybis(methyl-2,1-ethanediy) diacrylate                            | in vivo Category 1 OECD GHS    |
| hexamethylene diacrylate   | Irritating                     |
| 2,6-di-tert-Butyl-p-cresol   | in vivo Not irritating EU      |

## Respiratory or Skin Sensitization:

|  |  |
|--|--|
| <b>Product:</b>  | May cause an allergic skin reaction.                       |
| <b>Components:</b>   |  |
| 2-Phenoxyethyl acrylate  | No data available.   |
| Exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate                | No data available.   |
| 1-Vinylhexahydro-2H-azepin-2-one                                   | No data available.   |
| Isodecyl acrylate  | No data available.   |
| 3-methyl-1,5-pentanediy diacrylate                                 | No data available.   |
| Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide                    | No data available.   |
| 2-phenoxyethyl prop-2-enoate                                       | No data available.   |
| 2-Propenoic acid, 1-6-hexanediy ester, polymer with 2-aminoethanol | No data available.   |
| 2-phenoxyethanol   | Skin sensitization:, in vivo (Guinea pig): Non sensitising |

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|  |  |
|--|--|
| Oxybis(methyl-2,1-ethanediyl) diacrylate | No data available.   |
| hexamethylene diacrylate                 | Skin sensitization:, in vivo (Guinea pig): Sensitising     |
| 2,6-di-tert-Butyl-p-cresol               | Skin sensitization:, in vivo (Guinea pig): Non sensitising |

## Germ Cell Mutagenicity

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

### In vitro

#### Components:

|   |                    |
|---|--------------------|
| 2-Phenoxyethyl acrylate   | No data available. |
| Exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate                 | No data available. |
| 1-Vinylhexahydro-2H-azepin-2-one                                    | No data available. |
| Isodecyl acrylate   | No data available. |
| 3-methyl-1,5-pentanediyl diacrylate                                 | No data available. |
| Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide                     | No data available. |
| 2-phenoxyethyl prop-2-enoate  | No data available. |
| 2-Propenoic acid ,1-6-hexanediyl ester, polymer with 2-aminoethanol | No data available. |
| 2-phenoxyethanol  | No data available. |
| Oxybis(methyl-2,1-ethanediyl) diacrylate                            | No data available. |
| hexamethylene diacrylate  | No data available. |
| 2,6-di-tert-Butyl-p-cresol  | No data available. |

### In vivo

#### Components:

|   |                    |
|---|--------------------|
| 2-Phenoxyethyl acrylate   | No data available. |
| Exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate                 | No data available. |
| 1-Vinylhexahydro-2H-azepin-2-one                                    | No data available. |
| Isodecyl acrylate   | No data available. |
| 3-methyl-1,5-pentanediyl diacrylate                                 | No data available. |
| Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide                     | No data available. |
| 2-phenoxyethyl prop-2-enoate  | No data available. |
| 2-Propenoic acid ,1-6-hexanediyl ester, polymer with 2-aminoethanol | No data available. |
| 2-phenoxyethanol  | No data available. |
| Oxybis(methyl-2,1-ethanediyl) diacrylate                            | No data available. |



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hexamethylene diacrylate No data available.  
2,6-di-tert-Butyl-p-cresol No data available.

## Carcinogenicity

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

### Components:

2-Phenoxyethyl acrylate No data available.  
Exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate No data available.  
1-Vinylhexahydro-2H-azepin-2-one No data available.  
Isodecyl acrylate No data available.  
3-methyl-1,5-pentanediyldiacrylate No data available.  
Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide No data available.  
2-phenoxyethyl prop-2-enoate No data available.  
2-Propenoic acid, 1-6-hexanediyldiacrylate ester, polymer with 2-aminoethanol No data available.  
2-phenoxyethanol No data available.  
Oxybis(methyl-2,1-ethanediyldiacrylate) No data available.  
hexamethylene diacrylate No data available.  
2,6-di-tert-Butyl-p-cresol No data available.

## Reproductive toxicity

**Product:** Suspected of damaging fertility. Suspected of damaging the unborn child.

### Components:

2-Phenoxyethyl acrylate No data available.  
Exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate No data available.  
1-Vinylhexahydro-2H-azepin-2-one No data available.  
Isodecyl acrylate No data available.  
3-methyl-1,5-pentanediyldiacrylate No data available.  
Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide No data available.  
2-phenoxyethyl prop-2-enoate No data available.  
2-Propenoic acid, 1-6-hexanediyldiacrylate ester, polymer with 2-aminoethanol No data available.  
2-phenoxyethanol No data available.  
Oxybis(methyl-2,1-ethanediyldiacrylate) No data available.  
hexamethylene diacrylate No data available.  
2,6-di-tert-Butyl-p-cresol No data available.

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## Specific Target Organ Toxicity - Single Exposure

**Product:** May cause respiratory irritation.**Components:**

|   |                    |
|---|--------------------|
| 2-Phenoxyethyl acrylate   | No data available. |
| Exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate                           | No data available. |
| 1-Vinylhexahydro-2H-azepin-2-one  | No data available. |
| Isodecyl acrylate   | No data available. |
| 3-methyl-1,5-pentanediyldiacrylate  | No data available. |
| Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide                               | No data available. |
| 2-phenoxyethyl prop-2-enoate  | No data available. |
| 2-Propenoic acid, 1-6-hexanediyldiacrylate ester, polymer with 2-aminoethanol | No data available. |
| 2-phenoxyethanol  | No data available. |
| Oxybis(methyl-2,1-ethanediyldiacrylate)                                       | No data available. |
| hexamethylene diacrylate  | No data available. |
| 2,6-di-tert-Butyl-p-cresol  | No data available. |

## Specific Target Organ Toxicity - Repeated Exposure

**Product:** Causes damage to organs through prolonged or repeated exposure.**Components:**

|   |                    |
|---|--------------------|
| 2-Phenoxyethyl acrylate   | No data available. |
| Exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate                           | No data available. |
| 1-Vinylhexahydro-2H-azepin-2-one  | No data available. |
| Isodecyl acrylate   | No data available. |
| 3-methyl-1,5-pentanediyldiacrylate  | No data available. |
| Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide                               | No data available. |
| 2-phenoxyethyl prop-2-enoate  | No data available. |
| 2-Propenoic acid, 1-6-hexanediyldiacrylate ester, polymer with 2-aminoethanol | No data available. |
| 2-phenoxyethanol  | No data available. |
| Oxybis(methyl-2,1-ethanediyldiacrylate)                                       | No data available. |
| hexamethylene diacrylate  | No data available. |
| 2,6-di-tert-Butyl-p-cresol  | No data available. |

**Target Organs:** Liver, Respiratory system

## Aspiration Hazard

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

# SAFETY DATA SHEET

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**Components:**

|  |                    |
|--|--------------------|
| 2-Phenoxyethyl acrylate  | No data available. |
| Exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate                  | No data available. |
| 1-Vinylhexahydro-2H-azepin-2-one                                     | No data available. |
| Isodecyl acrylate  | No data available. |
| 3-methyl-1,5-pentanediyldiacrylate                                   | No data available. |
| Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide                      | No data available. |
| 2-phenoxyethyl prop-2-enoate   | No data available. |
| 2-Propenoic acid, 1-6-hexanediyldiester, polymer with 2-aminoethanol | No data available. |
| 2-phenoxyethanol   | No data available. |
| Oxybis(methyl-2,1-ethanediyldiacrylate                               | No data available. |
| hexamethylene diacrylate   | No data available. |
| 2,6-di-tert-Butyl-p-cresol   | No data available. |

## 11.2 Information on health hazards

**Endocrine Disruption****Product:**

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.;

**Components:**

|  |                    |
|--|--------------------|
| 2-Phenoxyethyl acrylate  | No data available. |
| Exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate                  | No data available. |
| 1-Vinylhexahydro-2H-azepin-2-one                                     | No data available. |
| Isodecyl acrylate  | No data available. |
| 3-methyl-1,5-pentanediyldiacrylate                                   | No data available. |
| Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide                      | No data available. |
| 2-phenoxyethyl prop-2-enoate   | No data available. |
| 2-Propenoic acid, 1-6-hexanediyldiester, polymer with 2-aminoethanol | No data available. |
| 2-phenoxyethanol   | No data available. |
| Oxybis(methyl-2,1-ethanediyldiacrylate                               | No data available. |
| hexamethylene diacrylate   | No data available. |
| 2,6-di-tert-Butyl-p-cresol   | No data available. |

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## SECTION 12: Ecological information

**General information:** Contains a substance which causes risk of hazardous effects to the environment.

### 12.1 Toxicity

#### Acute toxicity

#### Remarks:

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

#### Fish

**Product:** No data available.

#### Components

|   |  |
|---|--|
| 2-Phenoxyethyl acrylate   | No data available.   |
| Exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate                           | LC50 (Pisces (fish), 96 h): 0.704 mg/l (OECD Test Guideline 203)   |
| 1-Vinylhexahydro-2H-azepin-2-one  | LC 50 (Danio rerio, 96 h): 318 mg/l (Static) Experimental result, Key study<br>NOAEL (Danio rerio, 96 h): 215 mg/l (Static) Experimental result, Key study |
| Isodecyl acrylate   | No data available.   |
| 3-methyl-1,5-pentanediyldiacrylate  | No data available.   |
| Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide                               | No data available.   |
| 2-phenoxyethyl prop-2-enoate  | No data available.   |
| 2-Propenoic acid, 1-6-hexanediyldiacrylate ester, polymer with 2-aminoethanol | No data available.   |
| 2-phenoxyethanol  | LC 50 (Pimephales promelas, 96 h): 344 mg/l (flow-through) Experimental result, Key study  |
| Oxybis(methyl-2,1-ethanediyldiacrylate)                                       | LC 50 (Leuciscus idus, 96 h): 2.2 - 4.64 mg/l (Static) Experimental result, Key study  |
| hexamethylene diacrylate  | No data available.   |
| 2,6-di-tert-Butyl-p-cresol  | LC 50 (96 h): 0.199 mg/l QSAR QSAR, Key study  |

#### Aquatic Invertebrates

**Product:** No data available.

#### Components

|   |   |
|---|---|
| 2-Phenoxyethyl acrylate                             | EC 50 (Daphnia magna, 48 h): 1.21 mg/l (Static) Experimental result, Key study  |
| Exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate | No data available.  |
| 1-Vinylhexahydro-2H-azepin-2-one                    | EC 50 (Daphnia magna, 48 h): > 100 mg/l (Static) Experimental result, Key study |
| Isodecyl acrylate                                   | No data available.  |
| 3-methyl-1,5-pentanediyldiacrylate                  | No data available.  |
| Diphenyl(2,4,6-                                     | EC 50 (Daphnia magna, 48 h): 3.53 mg/l (Static) Experimental result, Key        |

# SAFETY DATA SHEET

According to Regulation (EC) No. 1907/2006 (REACH) Article 31, Annex II as amended

|   |  |
|---|--|
| trimethylbenzoyl)phosphine oxide                                    | study  |
| 2-phenoxyethyl prop-2-enoate  | No data available.   |
| 2-Propenoic acid ,1-6-hexanediyl ester, polymer with 2-aminoethanol | No data available.   |
| 2-phenoxyethanol  | LC 50 (Daphnia magna, 48 h): 488 mg/l (Static) Experimental result, Supporting study |
| Oxybis(methyl-2,1-ethanediyl) diacrylate                            | EC 50 (Daphnia magna, 48 h): 22.3 mg/l (Static) Experimental result, Key study       |
| hexamethylene diacrylate  | No data available.   |
| 2,6-di-tert-Butyl-p-cresol  | EC 50 (Daphnia magna, 48 h): 0.48 mg/l (Static) Experimental result, Key study       |

## Toxicity to Aquatic Plants

**Product:** No data available.

### Components

|   |                    |
|---|--------------------|
| 2-Phenoxyethyl acrylate   | No data available. |
| Exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate                 | No data available. |
| 1-Vinylhexahydro-2H-azepin-2-one                                    | No data available. |
| Isodecyl acrylate   | No data available. |
| 3-methyl-1,5-pentanediyl diacrylate                                 | No data available. |
| Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide                     | No data available. |
| 2-phenoxyethyl prop-2-enoate  | No data available. |
| 2-Propenoic acid ,1-6-hexanediyl ester, polymer with 2-aminoethanol | No data available. |
| 2-phenoxyethanol  | No data available. |
| Oxybis(methyl-2,1-ethanediyl) diacrylate                            | No data available. |
| hexamethylene diacrylate  | No data available. |
| 2,6-di-tert-Butyl-p-cresol  | No data available. |

## Toxicity to microorganisms

**Product:** No data available.

### Components

|   |   |
|---|---|
| 2-Phenoxyethyl acrylate                             | No data available.  |
| Exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate | No data available.  |
| 1-Vinylhexahydro-2H-azepin-2-one                    | No data available.  |
| Isodecyl acrylate                                   | EC50 (Pseudomonas putida (bacteria), 0.5 h): > 10,000 mg/l (QSAR) |
| 3-methyl-1,5-pentanediyl diacrylate                 | No data available   |
| Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide     | No data available.  |

# SAFETY DATA SHEET

According to Regulation (EC) No. 1907/2006 (REACH) Article 31, Annex II as amended

|   |  |
|---|--|
| 2-phenoxyethyl prop-2-enoate  | No data available.   |
| 2-Propenoic acid ,1-6-hexanediyl ester, polymer with 2-aminoethanol | No data available.   |
| 2-phenoxyethanol  | EC50 (waste sludge, 17 h): > 880 mg/l (OECD-Guideline No.209; 88/302/EEC C.11) |
| Oxybis(methyl-2,1-ethanediyl) diacrylate                            | No data available.   |
| hexamethylene diacrylate  | EC50 (0.5 h): ca. 270 mg/l (OECD-Guideline No.209; 88/302/EEC C.11)            |
| 2,6-di-tert-Butyl-p-cresol  | No data available.   |

## Chronic Toxicity

### Remarks:

Toxic to aquatic life with long lasting effects.

### Fish

**Product:** No data available.

### Components

|   |  |
|---|--|
| 2-Phenoxyethyl acrylate   | No data available.   |
| Exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate                 | No data available.   |
| 1-Vinylhexahydro-2H-azepin-2-one                                    | No data available.   |
| Isodecyl acrylate   | No data available.   |
| 3-methyl-1,5-pentanediyl diacrylate                                 | No data available.   |
| Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide                     | No data available.   |
| 2-phenoxyethyl prop-2-enoate  | No data available.   |
| 2-Propenoic acid ,1-6-hexanediyl ester, polymer with 2-aminoethanol | No data available.   |
| 2-phenoxyethanol  | NOAEL (Pimephales promelas, 34 d): 23 mg/l (flow-through) Experimental result, Key study |
| Oxybis(methyl-2,1-ethanediyl) diacrylate                            | No data available.   |
| hexamethylene diacrylate  | No data available.   |
| 2,6-di-tert-Butyl-p-cresol  | No data available.   |

### Aquatic Invertebrates

**Product:** No data available.

### Components

|   |                    |
|---|--------------------|
| 2-Phenoxyethyl acrylate                             | No data available. |
| Exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate | No data available. |
| 1-Vinylhexahydro-2H-azepin-2-one                    | No data available. |
| Isodecyl acrylate                                   | No data available. |
| 3-methyl-1,5-pentanediyl                            | No data available. |

# SAFETY DATA SHEET

According to Regulation (EC) No. 1907/2006 (REACH) Article 31, Annex II as amended

|   |                    |
|---|--------------------|
| diacrylate  |                    |
| Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide                     | No data available. |
| 2-phenoxyethyl prop-2-enoate  | No data available. |
| 2-Propenoic acid, 1-6-hexanediyl ester, polymer with 2-aminoethanol | No data available. |
| 2-phenoxyethanol  | No data available. |
| Oxybis(methyl-2,1-ethanediyl) diacrylate                            | No data available. |
| hexamethylene diacrylate  | No data available. |
| 2,6-di-tert-Butyl-p-cresol  | No data available. |

## Toxicity to Aquatic Plants

**Product:** No data available.

## Components

|   |                    |
|---|--------------------|
| 2-Phenoxyethyl acrylate   | No data available. |
| Exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate                 | No data available. |
| 1-Vinylhexahydro-2H-azepin-2-one                                    | No data available. |
| Isodecyl acrylate   | No data available. |
| 3-methyl-1,5-pentanediyl diacrylate                                 | No data available. |
| Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide                     | No data available. |
| 2-phenoxyethyl prop-2-enoate  | No data available. |
| 2-Propenoic acid, 1-6-hexanediyl ester, polymer with 2-aminoethanol | No data available. |
| 2-phenoxyethanol  | No data available. |
| Oxybis(methyl-2,1-ethanediyl) diacrylate                            | No data available. |
| hexamethylene diacrylate  | No data available. |
| 2,6-di-tert-Butyl-p-cresol  | No data available. |

## 12.2 Persistence and Degradability

### Biodegradation

**Product:** No data available.

### Components

|   |  |
|---|--|
| 2-Phenoxyethyl acrylate                             | (28 d): 22.3 % Detected in water. Experimental result, Key study   |
| Exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate | 57 % Detected in water. Experimental result, Key study   |
| 1-Vinylhexahydro-2H-azepin-2-one                    | (28 d): 30 - 40 % Detected in water. Experimental result, Key study  |
| Isodecyl acrylate                                   | (15 d): 70 - 80 % Detected in water. Read-across from supporting substance (structural analogue or surrogate), Key study |

# SAFETY DATA SHEET

According to Regulation (EC) No. 1907/2006 (REACH) Article 31, Annex II as amended

|   |  |
|---|--|
| 3-methyl-1,5-pentanediy<br>diacrylate                                     | No data available.   |
| Diphenyl(2,4,6-<br>trimethylbenzoyl)phosphi<br>ne oxide                   | (28 d): > 0 - 10 % Detected in water. Experimental result, Key study |
| 2-phenoxyethyl prop-2-<br>enoate  | No data available.   |
| 2-Propenoic acid ,1-6-<br>hexanediy ester, polymer<br>with 2-aminoethanol | No data available.   |
| 2-phenoxyethanol  | 90 % Detected in water. Experimental result, Key study               |
| Oxybis(methyl-2,1-<br>ethanediy) diacrylate                               | (28 d): 90 - 100 % Detected in water. Experimental result, Key study |
| hexamethylene diacrylate  | (28 d): 60 - 70 % Detected in water. Experimental result, Key study  |
| 2,6-di-tert-Butyl-p-cresol  | (28 d): 4.5 % Detected in water. Experimental result, Key study      |

## BOD/COD Ratio

**Product** No data available.

## Components

|   |                    |
|---|--------------------|
| 2-Phenoxyethyl acrylate   | No data available. |
| Exo-1,7,7-<br>trimethylbicyclo[2.2.1]hep<br>t-2-yl acrylate               | No data available. |
| 1-Vinylhexahydro-2H-<br>azepin-2-one                                      | No data available. |
| Isodecyl acrylate   | No data available. |
| 3-methyl-1,5-pentanediy<br>diacrylate                                     | No data available. |
| Diphenyl(2,4,6-<br>trimethylbenzoyl)phosphi<br>ne oxide                   | No data available. |
| 2-phenoxyethyl prop-2-<br>enoate  | No data available. |
| 2-Propenoic acid ,1-6-<br>hexanediy ester, polymer<br>with 2-aminoethanol | No data available. |
| 2-phenoxyethanol  | No data available. |
| Oxybis(methyl-2,1-<br>ethanediy) diacrylate                               | No data available. |
| hexamethylene diacrylate  | No data available. |
| 2,6-di-tert-Butyl-p-cresol  | No data available. |

## 12.3 Bioaccumulative potential

**Product:** No data available.

## Components

|   |   |
|---|---|
| 2-Phenoxyethyl acrylate                                     | No data available.  |
| Exo-1,7,7-<br>trimethylbicyclo[2.2.1]hep<br>t-2-yl acrylate | Danio rerio, Bioconcentration Factor (BCF): 37 Aquatic sediment Read-<br>across from supporting substance (structural analogue or surrogate),<br>Weight of Evidence study |
| 1-Vinylhexahydro-2H-<br>azepin-2-one                        | No data available.  |
| Isodecyl acrylate   | No data available.  |
| 3-methyl-1,5-pentanediy<br>diacrylate                       | No data available.  |



# SAFETY DATA SHEET

According to Regulation (EC) No. 1907/2006 (REACH) Article 31, Annex II as amended

|   |  |
|---|--|
| Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide                     | Cyprinus carpio, Bioconcentration Factor (BCF): 53 - 72 Aquatic sediment Experimental result, Key study  |
| 2-phenoxyethyl prop-2-enoate  | No data available.   |
| 2-Propenoic acid, 1-6-hexanediyl ester, polymer with 2-aminoethanol | No data available.   |
| 2-phenoxyethanol  | Bioconcentration Factor (BCF): 0.35 Aquatic sediment Estimated by calculation, Key study                 |
| Oxybis(methyl-2,1-ethanediyl) diacrylate                            | No data available.   |
| hexamethylene diacrylate  | No data available.   |
| 2,6-di-tert-Butyl-p-cresol  | Bioconcentration Factor (BCF): 598.4 Aquatic sediment Estimated by calculation, Weight of Evidence study |

## 12.4 Mobility in soil

**Product:** No data available.**Components**

|   |                    |
|---|--------------------|
| 2-Phenoxyethyl acrylate   | No data available. |
| Exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate                 | No data available. |
| 1-Vinylhexahydro-2H-azepin-2-one                                    | No data available. |
| Isodecyl acrylate   | No data available. |
| 3-methyl-1,5-pentanediyl diacrylate                                 | No data available. |
| Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide                     | No data available. |
| 2-phenoxyethyl prop-2-enoate  | No data available. |
| 2-Propenoic acid, 1-6-hexanediyl ester, polymer with 2-aminoethanol | No data available. |
| 2-phenoxyethanol  | No data available. |
| Oxybis(methyl-2,1-ethanediyl) diacrylate                            | No data available. |
| hexamethylene diacrylate  | No data available. |
| 2,6-di-tert-Butyl-p-cresol  | No data available. |

## 12.5 Results of PBT and vPvB assessment

**Product:** This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.**Components**

|   |                    |
|---|--------------------|
| 2-Phenoxyethyl acrylate                             | No data available. |
| Exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate | No data available. |
| 1-Vinylhexahydro-2H-azepin-2-one                    | No data available. |

# SAFETY DATA SHEET

According to Regulation (EC) No. 1907/2006 (REACH) Article 31, Annex II as amended

|  |                    |
|--|--------------------|
| Isodecyl acrylate  | No data available. |
| 3-methyl-1,5-pentanediyldiacrylate                                   | No data available. |
| Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide                      | No data available. |
| 2-phenoxyethyl prop-2-enoate   | No data available. |
| 2-Propenoic acid, 1,6-hexanediyldiester, polymer with 2-aminoethanol | No data available. |
| 2-phenoxyethanol   | No data available. |
| Oxybis(methyl-2,1-ethanediyldiacrylate)                              | No data available. |
| hexamethylene diacrylate   | No data available. |
| 2,6-di-tert-Butyl-p-cresol   | No data available. |

## 12.6 Endocrine disrupting properties

**Product:** The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

### Components:

|  |                    |
|--|--------------------|
| 2-Phenoxyethyl acrylate  | No data available. |
| Exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate                  | No data available. |
| 1-Vinylhexahydro-2H-azepin-2-one                                     | No data available. |
| Isodecyl acrylate  | No data available. |
| 3-methyl-1,5-pentanediyldiacrylate                                   | No data available. |
| Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide                      | No data available. |
| 2-phenoxyethyl prop-2-enoate   | No data available. |
| 2-Propenoic acid, 1,6-hexanediyldiester, polymer with 2-aminoethanol | No data available. |
| 2-phenoxyethanol   | No data available. |
| Oxybis(methyl-2,1-ethanediyldiacrylate)                              | No data available. |
| hexamethylene diacrylate   | No data available. |
| 2,6-di-tert-Butyl-p-cresol   | No data available. |

**12.7 Other adverse effects:** Toxic to aquatic life with long lasting effects.

## SECTION 13: Disposal considerations

# SAFETY DATA SHEET

According to Regulation (EC) No. 1907/2006 (REACH) Article 31, Annex II as amended

## 13.1 Waste treatment methods

- General information:** Disposal considerations (including disposal of contaminated containers or packaging) Dispose of waste at an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.
- Disposal methods:** Discharge, treatment, or disposal may be subject to national, state, or local laws.
- Since emptied containers retain product residue, follow label warnings even after container is emptied.
- Contaminated Packaging:** Dispose in accordance with all applicable regulations.

## SECTION 14: Transport information

### ADR

- 14.1 UN number or ID number: UN 3082
- 14.2 UN Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.(Acrylate)
- 14.3 Transport Hazard Class(es)
- Class: 9
- Label(s): 9
- Hazard No. (ADR): 90
- Tunnel restriction code: (-)
- 14.4 Packing Group: III
- Limited quantity 5.00L
- Excepted quantity E1
- 14.5 Environmental Hazards: Yes
- 14.6 Special precautions for user: SPECIAL PROVISION 375 (<= 5kg/<= 5L)

### RID

- 14.1 UN number or ID number: UN 3082
- 14.2 UN Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.(Acrylate)
- 14.3 Transport Hazard Class(es)
- Class: 9
- Label(s): 9
- 14.4 Packing Group: III
- 14.5 Environmental Hazards: Yes
- 14.6 Special precautions for user: -

### IMDG

- 14.1 UN number or ID number: UN 3082
- 14.2 UN Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.(Acrylate)
- 14.3 Transport Hazard Class(es)
- Class: 9
- Label(s): 9
- EmS No.: F-A, S-F
- 14.4 Packing Group: III

# SAFETY DATA SHEET

According to Regulation (EC) No. 1907/2006 (REACH) Article 31, Annex II as amended

|                                    |  |
|------------------------------------|--|
| Limited quantity                   | 5.00L                                      |
| Excepted quantity                  | E1   |
| 14.5 Environmental Hazards:        | Environmentally Hazardous                  |
| 14.6 Special precautions for user: | CODE 2.10.2.7 if packaging <= 5L or <= 5kg |

## IATA

|                                    |   |
|------------------------------------|---|
| 14.1 UN number or ID number:       | UN 3082   |
| 14.2 Proper Shipping Name:         | Environmentally hazardous substance, liquid, n.o.s.(Acrylate) |
| 14.3 Transport Hazard Class(es):   |   |
| Class:                             | 9   |
| Label(s):                          | 9MI   |
| 14.4 Packing Group:                | III   |
| Excepted quantity                  | E1  |
| 14.5 Environmental Hazards:        | Yes   |
| 14.6 Special precautions for user: | SPECIAL PROVISION A197 if packaging <= 5L or <= 5kg           |

### Other information

Passenger and cargo aircraft: Allowed.

Cargo aircraft only: Allowed.

**14.7 Maritime transport in bulk according to IMO instruments:** not applicable

## SECTION 15: Regulatory information

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

### EU Regulations

**EU. REACH Candidate List of Substances of Very High Concern for Authorization (SVHC):** none**EU. REACH Annex XIV, Substances Subject to Authorization:** none**Regulation (EC) No. 1907/2006 Annex XVII Substances subject to restriction on marketing and use:**

| Chemical name                                   | CAS-No.    | Concentration |
|---|------------|---------------|
| Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide | 75980-60-8 | 1.0 - 10%     |
| PIGMENT RED 122                                 | 980-26-7   | 1.0 - 10%     |
| 2-phenoxyethanol                                | 122-99-6   | 1.0 - 10%     |
| caprolactam                                     | 105-60-2   | 0.1 - 1.0%    |
| hexamethylene diacrylate                        | 13048-33-4 | 0.1 - 1.0%    |
| Mequinol  | 150-76-5   | - <0.1%       |

**Regulation 1005/2009/EC on substances that deplete the ozone layer, Annex I, Controlled Substances:** none**Regulation 1005/2009/EC on substances that deplete the ozone layer, Annex II, New Substances:** none**EU. Regulation 2019/1021/EU on persistent organic pollutants (POPs) (recast), as amended:** none**EU. Directive 2010/75/EU on Industrial Emissions (IPPC), Annex II, L 334/17:**

# SAFETY DATA SHEET

According to Regulation (EC) No. 1907/2006 (REACH) Article 31, Annex II as amended

| Chemical name                                   | CAS-No.    |
|---|------------|
| Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide | 75980-60-8 |

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 1 as amended: none

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 2 as amended: none

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 3 as amended: none

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex V as amended: none

Directive 2004/37/EC on the protection of workers from the risks related to exposure to carcinogens and mutagens at work.: none

Directive 92/85/EEC: on the safety and health of pregnant workers and workers who have recently given birth or are breast feeding.:

| Chemical name                                   | CAS-No.    | Concentration |
|---|------------|---------------|
| Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide | 75980-60-8 | 1.0 - 10%     |

EU. Directive 2012/18/EU (SEVESO III) on major accident hazards involving dangerous substances, Annex I:

| Classification                           | Lower-tier Requirements | Upper-tier Requirements |
|--|-------------------------|-------------------------|
| E2. Hazardous to the aquatic environment | 200 t                   | 500 t                   |

EU. Regulation No. 166/2006 PRTR (Pollutant Release and Transfer Registry), Annex II: Pollutants: none

Directive 98/24/EC on the protection of workers from the risks related to chemical agents at work:

| Chemical name                                       | CAS-No.    | Concentration |
|---|------------|---------------|
| Exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate | 5888-33-5  | 20 - 30%      |
| Isodecyl acrylate                                   | 1330-61-6  | 1.0 - 10%     |
| 3-methyl-1,5-pentanediy diacrylate                  | 64194-22-5 | 1.0 - 10%     |
| Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide     | 75980-60-8 | 1.0 - 10%     |
| 2-phenoxyethanol                                    | 122-99-6   | 1.0 - 10%     |
| caprolactam   | 105-60-2   | 0.1 - 1.0%    |
| hexamethylene diacrylate                            | 13048-33-4 | 0.1 - 1.0%    |
| Mequinol  | 150-76-5   | 0 - <0.1%     |

## 15.2 Chemical safety assessment:

Chemical Safety Assessment has been carried out.

## SECTION 16: Other information

# SAFETY DATA SHEET

According to Regulation (EC) No. 1907/2006 (REACH) Article 31, Annex II as amended

**Abbreviations and acronyms:**

|          |   |
|----------|---|
| ADR      | Accord européen relatif au transport international des marchandises Dangereuses par Route   |
| ADNR     | Accord européen relatif au transport international des marchandises Dangereuses par la Rhin |
| AGW      | Arbeitsplatzgrenswerte (DE)   |
| ATEmix   | Acute toxicity estimate of the mixture  |
| CLP      | Classification, Labelling and Packaging of substances and mixtures                          |
| CMR      | carcinogenicity, mutagenicity and toxicity for reproduction                                 |
| DNEL     | Derived No Effect Level   |
| EC0      | Effective Concentration 0%  |
| EC5      | Effective Concentration 5%  |
| EC10     | Effective Concentration 10%   |
| EC50     | Median Effective Concentration  |
| EC100    | Effective Concentration 100%  |
| EH40 WEL | Workplace Exposure Limit (GB)   |
| IATA     | International Air Transport Association   |
| ICAO     | International Civil Aviation Organization   |
| IC50     | inhibitory concentration 50%  |
| IMDG     | International Maritime Dangerous Goods  |
| IMO      | International Maritime Organization   |
| IUCLID   | International Uniform Chemical Information Database   |
| LC50     | Lethal Concentration 50%  |
| LC100    | Lethal Concentration 100%   |
| LOAEL    | Lowest Observed Adverse Effect Level  |
| LDL0     | Lethal Dose (minimum found to be lethal)  |
| LD50     | Lethal Dose 50%   |
| MAC      | Maximaal Aanvaardbare Concentratie (NL)   |
| MAK      | Maximale Arbeitsplatz-Konzentration   |
| NOAEL    | No Observed Adverse Effect Level  |
| NOEL     | No Observed Effect Level  |
| NOEC     | No Observed Effect Concentration  |
| OEL      | Occupational Exposure Limit   |
| PBT      | Persistent, Bioaccumulative and Toxic substance   |
| PNEC     | Predicted No Effect Concentration   |
| REACH    | Registration, Evaluation, Authorisation and Restriction of Chemicals                        |
| RID      | Regulations concerning the International Transport of Dangerous Goods by Rail               |
| STEL     | Short Term Exposure Limit   |
| TLV      | Threshold Limit Value   |
| TRGS900  | Arbeitsplatzgrenswerte (DE)   |
| TWA      | Time Weighted Average   |
| VOC      | Volatile Organic Compound   |
| vPvB     | very Persistent and very Bioaccumulative substance  |

**Notes:**

|   |        |   |
|---|--------|---|
| Exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate | Note A | Without prejudice to Article 17(2), the name of the substance must appear on the label in the form of one of the designations given in Part 3. In Part 3, use is sometimes made of a general description such as '...compounds' or '...salts'. In this case, the supplier is required to state on the label the correct name, due account being taken to Paragraph 1.1.1.4. |
|   | Note A | Without prejudice to Article 17(2), the name of the substance must appear on the label in the form of one of the designations given in Part 3. In Part 3, use is sometimes made of a general description such as  |

# SAFETY DATA SHEET

According to Regulation (EC) No. 1907/2006 (REACH) Article 31, Annex II as amended

|                                    |        |  |
|------------------------------------|--------|--|
|                                    |        | '...compounds' or '...salts'. In this case, the supplier is required to state on the label the correct name, due account being taken to Paragraph 1.1.1.4.   |
| Isodecyl acrylate                  | Note A | Without prejudice to Article 17(2), the name of the substance must appear on the label in the form of one of the designations given in Part 3. In Part 3, use is sometimes made of a general description such as '...compounds' or '...salts'. In this case, the supplier is required to state on the label the correct name, due account being taken to Paragraph 1.1.1.4.                                    |
|                                    | Note A | Without prejudice to Article 17(2), the name of the substance must appear on the label in the form of one of the designations given in Part 3. In Part 3, use is sometimes made of a general description such as '...compounds' or '...salts'. In this case, the supplier is required to state on the label the correct name, due account being taken to Paragraph 1.1.1.4.                                    |
| 3-methyl-1,5-pentanediy diacrylate | Note A | Without prejudice to Article 17(2), the name of the substance must appear on the label in the form of one of the designations given in Part 3. In Part 3, use is sometimes made of a general description such as '...compounds' or '...salts'. In this case, the supplier is required to state on the label the correct name, due account being taken to Paragraph 1.1.1.4.                                    |
|                                    | Note A | Without prejudice to Article 17(2), the name of the substance must appear on the label in the form of one of the designations given in Part 3. In Part 3, use is sometimes made of a general description such as '...compounds' or '...salts'. In this case, the supplier is required to state on the label the correct name, due account being taken to Paragraph 1.1.1.4.                                    |
| hexamethylene diacrylate           | Note D | Certain substances which are susceptible to spontaneous polymerisation or decomposition are generally placed on the market in a stabilised form. It is in this form that they are listed in Part 3. However, such substances are sometimes placed on the market in a non-stabilised form. In this case, the supplier must state on the label the name of the substance followed by the words 'non-stabilised'. |

**Key literature references and sources for data:** Safety Data Sheet from the supplier.  
ECHA

**Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]**

| Classification according to Regulation (EC) No 1272/2008 as amended. | Classification procedure |
|--|--------------------------|
| Skin irritation, Category 2  | Calculation method       |
| Serious eye irritation, Category 2                                   | Calculation method       |
| Skin sensitizer, Category 1  | Calculation method       |
| Toxic to reproduction, Category 2                                    | Calculation method       |
| Specific Target Organ Toxicity - Single Exposure, Category 3         | Calculation method       |

# SAFETY DATA SHEET

According to Regulation (EC) No. 1907/2006 (REACH) Article 31, Annex II as amended

|  |                    |
|--|--------------------|
| Specific Target Organ Toxicity - Repeated Exposure, Category 1 | Calculation method |
| Chronic hazards to the aquatic environment, Category 2         | Calculation method |

## Wording of the H-statements in section 2 and 3

|        |  |
|--------|--|
| H302   | Harmful if swallowed.  |
| H312   | Harmful in contact with skin.  |
| H315   | Causes skin irritation.  |
| H317   | May cause an allergic skin reaction.                                     |
| H318   | Causes serious eye damage.   |
| H319   | Causes serious eye irritation.   |
| H335   | May cause respiratory irritation.  |
| H361d  | Suspected of damaging the unborn child.                                  |
| H361f  | Suspected of damaging fertility.   |
| H361fd | Suspected of damaging fertility. Suspected of damaging the unborn child. |
| H372   | Causes 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.                       |

### Training information:

Follow training instructions when handling this material.

### Disclaimer:

This information is provided without warranty. The information is believed to be correct. This information should be used to make an independent determination of the methods to safeguard workers and the environment.