

# SAFETY DATA SHEET

According to regulation (EC) n° 1907/2006 Annex II

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

### 1.1 Product identifier

Product name: LIPLA UV RTR YELLOW INK

Product No.: 000001015904

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

Identified uses: Printing ink

Uses advised against: Reserved for industrial and professional use.

### 1.3 Company/undertaking identification

CMYK Engineering  
419 Hindry Ave, Suite F, Inglewood  
CA 90301

Ph: (424) 750-9509

Transport Emergency

Non-transportation

Call CHEMTREC : +1 800 4249300  
International : +1 703 5273887

Health Emergency Phone : +1 303 6235716

## 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 damage                                  | Category 1  | H318: Causes serious eye damage.                                         |
| Skin sensitizer                                     | Category 1  | H317: May cause an allergic skin reaction.                               |
| Toxic to reproduction                               | Category 1B | H360Df: May damage the unborn child.<br>Suspected of damaging fertility. |
| Specific Target Organ Toxicity -<br>Single Exposure | Category 3  | H335: May cause respiratory irritation.                                  |

Specific Target Organ Toxicity -  
Repeated Exposure

Category 2<sup>1</sup>.

H373: May cause damage to organs through prolonged or repeated exposure.

#### Target Organs

1. Liver, Respiratory system

#### Environmental Hazards

Chronic hazards to the aquatic  
environment

Category 2

H411: Toxic to aquatic life with long lasting effects.

## 2.2 Label Elements

#### Contains:

exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-ylacrylaat  
Oxybis(methyl-2,1-ethanediyl) diacrylate  
N-vinyl caprolactam  
Isodecyl acrylate  
Phosphine oxide, diphenyl(2,4,6-trimethylbenzoyl)-  
Phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide



#### Signal Word:

Danger

#### Hazard Statement(s):

H315: Causes skin irritation.  
H318: Causes serious eye damage.  
H317: May cause an allergic skin reaction.  
H360Df: May damage the unborn child. Suspected of damaging fertility.  
H335: May cause respiratory irritation.  
H373: May cause 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.  
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P310: Immediately call a POISON CENTER/doctor.

## 2.3 Other hazards

Not fulfilling PBT (persistent/bioaccumulative/toxic) criteria Not fulfilling vPvB (very persistent/very bioaccumulative) criteria

## SECTION 3: Composition/information on ingredients

### 3.2 Mixtures

#### General information:

No data available.

| Chemical name                                                       | Concentration | CAS-No.     | EC No.    | REACH Registration No. | M-Factor:          | Notes |
|---------------------------------------------------------------------|---------------|-------------|-----------|------------------------|--------------------|-------|
| exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-ylacrylate                  | 10 - <20%     | 5888-33-5   | 227-561-6 | 01-2119957862-25-XXXX; | No data available. |       |
| Phenoxyethylacrylate                                                | 10 - <20%     | 48145-04-6  | 256-360-6 | 01-2119980532-35-XXXX; | No data available. |       |
| Tetrahydrofurfuryl acrylate                                         | 10 - <16,591% | 2399-48-6   | 219-268-7 | 01-2120738396-46-XXXX; | No data available. |       |
| Oxybis(methyl-2,1-ethanediyl)diacrylate                             | 10 - <20%     | 57472-68-1  | 260-754-3 | 01-2119484629-21-XXXX; | No data available. |       |
| N-vinyl caprolactam                                                 | 5 - <10%      | 2235-00-9   | 218-787-6 | 01-2119977109-27-XXXX; | No data available. |       |
| 2-Propenoic acid, 1-6-hexanediyl ester, polymer with 2-aminoethanol | 5 - <10%      | 67906-98-3  |           | No data available.     | No data available. |       |
| Isodecyl acrylate                                                   | 5 - <10%      | 1330-61-6   | 215-542-5 | 01-2119964031-47-XXXX; | No data available. |       |
| Phosphine oxide, diphenyl(2,4,6-trimethylbenzoyl)-                  | 1 - <3%       | 75980-60-8  | 278-355-8 | 01-2119972295-29-XXXX; | No data available. |       |
| Nickel, 5,5'-azobis-2,4,6(1H,3H,5H)-pyrimidinetrione complexes      | 1 - <5%       | 68511-62-6  | 270-944-8 | No data available.     | No data available. | #     |
| Phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide                  | 1 - <5%       | 162881-26-7 |           | No data available.     | No data available. |       |
| Ethoxylated phenyl acrylate                                         | 1 - <2,5%     | 56641-05-5  |           | No data available.     | No data available. |       |
| 2-Isopropyl-9H-thioxanthen-9-one                                    | 1 - <5%       | 5495-84-1   | 226-827-9 | No data available.     | No data available. |       |
| 2-phenoxyethanol                                                    | 1 - <5%       | 122-99-6    | 204-589-7 | 01-2119488943-21-XXXX; | No data available. | #     |
| Hexamethylene diacrylate                                            | 0,1 - <1%     | 13048-33-4  | 235-921-9 | 01-2119484737-         | No data available. |       |

|                            |              |          |           |                        |                    |   |
|----------------------------|--------------|----------|-----------|------------------------|--------------------|---|
|                            |              |          |           | 22-XXXX;               |                    |   |
| Tetrahydrofurfuryl alcohol | 0,1 - <0,3%  | 97-99-4  | 202-625-6 | 01-2119968921-26-XXXX; | No data available. |   |
| caprolactam                | 0,01 - <1%   | 105-60-2 | 203-313-2 | 01-2119457029-36-XXXX; | No data available. | # |
| Hydroquinone               | 0,01 - <0,1% | 123-31-9 | 204-617-8 | 01-2119524016-51-0002; | 10                 | # |

\* 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).

### Classification

| Chemical name                                                       | Classification                                                                                                             | Notes              |
|---------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------|--------------------|
| exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-ylacrylaat                  | Skin Irrit.: 2: H315 Eye Irrit.: 2: H319 STOT SE: 3: H335 Skin Sens.: 1B: H317 Aquatic Chronic: 2: H411                    | Note A             |
| Phenoxyethylacrylate                                                | Skin Sens.: 1A: H317 Repr.: 2: H361d Aquatic Chronic: 2: H411                                                              | No data available. |
| Tetrahydrofurfuryl acrylate                                         | Acute Tox.: 4: H302 Skin Corr.: 1C: H314 Skin Sens.: 1B: H317 Eye Dam.: 1: H318 Repr.: 1B: H360Df Aquatic Chronic: 2: H411 | No data available. |
| Oxybis(methyl-2,1-ethanediyl) diacrylate                            | Skin Sens.: 1: H317 Eye Dam.: 1: H318 Skin Irrit.: 2: H315                                                                 | No data available. |
| N-vinyl caprolactam                                                 | Acute Tox.: 4: H302 Eye Irrit.: 2A: H319 Skin Sens.: 1B: H317 STOT RE: 1: H372 Acute Tox.: 4: H312                         | No data available. |
| 2-Propenoic acid, 1-6-hexanediyl ester, polymer with 2-aminoethanol | Skin Irrit.: 2: H315 Eye Irrit.: 2: H319                                                                                   | No data available. |
| Isodecyl acrylate                                                   | Skin Irrit.: 2: H315 Eye Irrit.: 2: H319 STOT SE: 3: H335 Skin Sens.: 1B: H317 Aquatic Chronic: 2: H411                    | Note A             |
| Phosphine oxide, diphenyl(2,4,6-trimethylbenzoyl)-                  | Repr.: 2: H361f Skin Sens.: 1: H317 Aquatic Chronic: 2: H411                                                               | No data available. |
| Nickel, 5,5'-azobis-2,4,6(1H,3H,5H)-pyrimidinetrione complexes      | Not classified                                                                                                             | No data available. |
| Phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide                  | Skin Sens.: 1: H317 Aquatic Chronic: 4: H413                                                                               | No data available. |
| Ethoxylated phenyl acrylate                                         | Skin Sens.: 1: H317 Aquatic Chronic: 2: H411                                                                               | No data available. |
| 2-Isopropyl-9H-thioxanthen-9-one                                    | STOT RE: 2: H373                                                                                                           | No data available. |
| 2-phenoxyethanol                                                    | Eye Irrit.: 2: H319 Acute Tox.: 4: H302                                                                                    | No data available. |
| Hexamethylene diacrylate                                            | Skin Irrit.: 2: H315 Eye Irrit.: 2: H319 Skin Sens.: 1: H317                                                               | No data available. |
| Tetrahydrofurfuryl alcohol                                          | Repr.: 1B: H360Df Eye Irrit.: 2: H319                                                                                      | No data available. |
| caprolactam                                                         | Acute Tox.: 4: H302 Skin Irrit.: 2: H315 Acute Tox.: 4: H332 Eye Irrit.: 2: H319 STOT SE: 3: H335                          | No data available. |
| Hydroquinone                                                        | Carc.: 2: H351 Muta.: 2: H341 Acute Tox.: 4: H302 Eye Dam.: 1: H336                                                        | No data available. |

|  |                                                                             |            |
|--|-----------------------------------------------------------------------------|------------|
|  | 1: H318 Skin Sens.: 1: H317 Aquatic Acute: 1: H400 Aquatic Chronic: 1: H410 | available. |
|--|-----------------------------------------------------------------------------|------------|

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

CLP: Regulation No. 1272/2008.

## SECTION 4: First aid measures

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

### 4.1 Description of first aid measures

**Inhalation:** Move to fresh air.

**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. Call a physician or poison control center immediately.

**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.

### 5.1 Extinguishing media

**Suitable extinguishing media:** Extinguish with foam, carbon dioxide, dry powder or water fog.

**Unsuitable extinguishing media:** Do not use water jet as an extinguisher, as this will spread the fire.

**5.2 Special hazards arising from the substance or mixture:** During fire, gases hazardous to health may be formed.

### 5.3 Advice for firefighters

**Special fire fighting procedures:** No data available.

**Special protective equipment for fire-fighters:** Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

## SECTION 6: Accidental release measures

- 6.1 Personal precautions, protective equipment and emergency procedures:** 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.
- 6.1.1 For non-emergency personnel:** Use personal protective equipment.
- 6.1.2 For emergency responders:** Warn everybody of potential hazards and evacuate if necessary. Use personal protective equipment.
- 6.2 Environmental Precautions:** Avoid release to the environment. Prevent further leakage or spillage if safe to do so. Do not contaminate water sources or sewer.
- 6.3 Methods and material for containment and cleaning up:** Absorb spill with vermiculite or other inert material, then place in a container for chemical waste. Dike far ahead of larger spill for later recovery and disposal.
- 6.4 Reference to other sections:** See Section 8 of the SDS for Personal Protective Equipment. For waste disposal, see section 13 of the SDS.

## SECTION 7: Handling and storage:

- 7.1 Precautions for safe handling:** Do not get in eyes. Wash hands thoroughly after handling. 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. Avoid contact with eyes, skin, and clothing.
- 7.2 Conditions for safe storage, including any incompatibilities:** Store locked up.
- 7.3 Specific end use(s):** Reserved for industrial and professional use.

## SECTION 8: Exposure controls/personal protection

### 8.1 Control Parameters Occupational Exposure Limits

| Chemical name                                                                                | Type     | Exposure Limit Values        | Source                                                                                                                    |
|----------------------------------------------------------------------------------------------|----------|------------------------------|---------------------------------------------------------------------------------------------------------------------------|
| Nickel, 5,5'-azobis-2,4,6(1H,3H,5H)-pyrimidinetrione complexes - Inhalable droplets. - as Ni | TRK STEL | 0,2 mg/m <sup>3</sup>        | Austria. TRK List, OEL Ordinance (GwV), BGBl. II, no. 184/2001 (12 2011)                                                  |
|                                                                                              | TRK      | 0,05 mg/m <sup>3</sup>       | Austria. TRK List, OEL Ordinance (GwV), BGBl. II, no. 184/2001 (12 2011)                                                  |
| 2-phenoxyethanol                                                                             | MAK CEIL | 20 ppm 110 mg/m <sup>3</sup> | Austria. MAK List, OEL Ordinance (GwV), BGBl. II, no. 184/2001 (12 2011)                                                  |
|                                                                                              | MAK      | 20 ppm 110 mg/m <sup>3</sup> | Austria. MAK List, OEL Ordinance (GwV), BGBl. II, no. 184/2001 (12 2011)                                                  |
| caprolactam - Vapor and dust                                                                 | TWA      | 10 mg/m <sup>3</sup>         | EU. Indicative Exposure Limit Values in Directives 91/322/EEC, 2000/39/EC, 2006/15/EC, 2009/161/EU, 2017/164/EU (12 2009) |
|                                                                                              | STEL     | 40 mg/m <sup>3</sup>         | EU. Indicative Exposure Limit Values in Directives 91/322/EEC, 2000/39/EC, 2006/15/EC, 2009/161/EU, 2017/164/EU (12 2009) |
| caprolactam - Inhalable fraction                                                             | MAK STEL | 40 mg/m <sup>3</sup>         | Austria. MAK List, OEL Ordinance (GwV), BGBl. II, no. 184/2001 (12 2011)                                                  |
|                                                                                              | MAK      | 5 mg/m <sup>3</sup>          | Austria. MAK List, OEL Ordinance (GwV), BGBl. II, no. 184/2001 (12 2011)                                                  |

|                                    |          |                      |                                                                                                             |
|------------------------------------|----------|----------------------|-------------------------------------------------------------------------------------------------------------|
| caprolactam                        | STEL     | 40 mg/m <sup>3</sup> | EU. Scientific Committee on Occupational Exposure Limit Values (SCOELs), European Commission - SCOEL (2014) |
|                                    | TWA      | 10 mg/m <sup>3</sup> | EU. Scientific Committee on Occupational Exposure Limit Values (SCOELs), European Commission - SCOEL (2014) |
| Hydroquinone - Inhalable fraction. | MAK CEIL | 4 mg/m <sup>3</sup>  | Austria. MAK List, OEL Ordinance (GwV), BGBl. II, no. 184/2001 (12 2011)                                    |
|                                    | MAK      | 2 mg/m <sup>3</sup>  | Austria. MAK List, OEL Ordinance (GwV), BGBl. II, no. 184/2001 (12 2011)                                    |

## Biological Limit Values

| Chemical Identity                                                        | Exposure Limit Values | Source           |
|--------------------------------------------------------------------------|-----------------------|------------------|
| Nickel, 5,5'-azobis-2,4,6(1H,3H,5H)-pyrimidinetrione complexes (as Ni: ) | 7 µg/l (Urine)        | AT VGU (02 2014) |

## DNEL-Values

| Critical component                                 | Type               | Route of Exposure | Health Warnings                              | Remarks                              |
|----------------------------------------------------|--------------------|-------------------|----------------------------------------------|--------------------------------------|
| exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-ylacrylate | General population | Eyes              | Local effect;                                | No hazard identified                 |
|                                                    | Workers            |                   | Local effect;                                | No hazard identified                 |
|                                                    |                    | Dermal            | Systemic, long-term; 1,39 mg/kg bw/day       | Repeated dose toxicity               |
|                                                    | General population |                   | Systemic, long-term; 0,83 mg/kg bw/day       | Repeated dose toxicity               |
| Phenoxyethylacrylate                               |                    | Oral              | Systemic, long-term; 0,83 mg/kg bw/day       | Repeated dose toxicity               |
|                                                    | Workers            | Inhalation        | Local, long-term; 77 mg/m <sup>3</sup>       | Repeated dose toxicity               |
|                                                    |                    |                   | Systemic, long-term; 10 mg/m <sup>3</sup>    | Repeated dose toxicity               |
|                                                    |                    | Eyes              | Local effect;                                | No hazard identified                 |
| Oxybis(methyl-2,1-ethanediyl) diacrylate           | General population |                   | Local effect;                                | No hazard identified                 |
|                                                    | Workers            | Dermal            | Systemic, long-term; 1,5 mg/kg bw/day        | Repeated dose toxicity               |
|                                                    |                    | Inhalation        | Systemic, long-term; 24,48 mg/m <sup>3</sup> | Repeated dose toxicity               |
|                                                    | General population |                   | Systemic, long-term; 7,24 mg/m <sup>3</sup>  | Repeated dose toxicity               |
| N-vinyl caprolactam                                | Workers            | Eyes              | Local effect;                                | No data available                    |
|                                                    | General population |                   | Local effect;                                | No data available                    |
|                                                    |                    | Dermal            | Systemic, long-term; 1,66 mg/kg bw/day       | Repeated dose toxicity               |
|                                                    |                    | Oral              | Systemic, long-term; 2,08 mg/kg bw/day       | Repeated dose toxicity               |
| Isodecyl acrylate                                  | Workers            | Dermal            | Systemic, long-term; 2,77 mg/kg bw/day       | Repeated dose toxicity               |
|                                                    | General population | Eyes              | Local effect;                                | Medium hazard (no threshold derived) |
|                                                    | Workers            |                   | Local effect;                                | Low hazard (no threshold derived)    |
|                                                    |                    | Dermal            | Local, long-term; 370 µg/cm <sup>2</sup>     | Skin sensitization                   |
| Phosphine oxide, diphenyl(2,4,6-trimethylbenzoyl)- |                    | Inhalation        | Local, long-term; 37,5 mg/m <sup>3</sup>     | Irritating to respiratory system.    |
|                                                    |                    | Eyes              | Local effect;                                | No hazard identified                 |
|                                                    | General population |                   | Local effect;                                | No hazard identified                 |
|                                                    | Workers            | Inhalation        | Systemic, long-term; 3,5 mg/m <sup>3</sup>   | Repeated dose toxicity               |
|                                                    |                    | Eyes              | Local effect;                                | No hazard identified                 |
|                                                    | General population |                   | Local effect;                                | No data available                    |

|                                                    |                    |            |                                         |                                   |
|----------------------------------------------------|--------------------|------------|-----------------------------------------|-----------------------------------|
|                                                    | Workers            | Dermal     | Systemic, long-term; 1 mg/kg bw/day     | Repeated dose toxicity            |
| Phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide |                    | Inhalation | Systemic, long-term; 7,84 mg/m3         | Repeated dose toxicity            |
|                                                    | General population |            | Systemic, long-term; 3,92 mg/m3         | Repeated dose toxicity            |
|                                                    |                    |            | Systemic, short-term; 1,93 mg/m3        |                                   |
|                                                    |                    |            | Systemic, short-term; 3,92 mg/m3        | Repeated dose toxicity            |
|                                                    |                    |            | Systemic, long-term; 1,93 mg/m3         | Repeated dose toxicity            |
|                                                    |                    | Dermal     | Systemic, short-term; 1,67 mg/kg bw/day |                                   |
|                                                    |                    | Inhalation | Systemic, long-term; 2,9 mg/m3          | Repeated dose toxicity            |
|                                                    | Workers            | Eyes       | Local effect;                           | Low hazard (no threshold derived) |
|                                                    | General population | Dermal     | Systemic, short-term; 1,67 mg/kg bw/day | Repeated dose toxicity            |
|                                                    |                    | Inhalation | Systemic, short-term; 3,92 mg/m3        | Repeated dose toxicity            |
|                                                    | Workers            |            | Systemic, long-term; 16,46 mg/m3        | Repeated dose toxicity            |
|                                                    |                    |            | Systemic, long-term; 11,75 mg/m3        | Repeated dose toxicity            |
|                                                    | General population | Eyes       | Local effect;                           | Low hazard (no threshold derived) |
|                                                    | Workers            | Dermal     | Systemic, long-term; 4,67 mg/kg bw/day  | Repeated dose toxicity            |
|                                                    | General population | Inhalation | Systemic, short-term; 2,92 mg/m3        |                                   |
|                                                    | Workers            | Eyes       | Local effect;                           | No hazard identified              |
|                                                    | General population |            | Local effect;                           | No hazard identified              |
|                                                    | Workers            | Inhalation | Systemic, long-term; 7,84 mg/m3         | Repeated dose toxicity            |
|                                                    | General population | Oral       | Systemic, long-term; 1,67 mg/kg bw/day  | Repeated dose toxicity            |
|                                                    | Workers            | Inhalation | Systemic, short-term; 7,84 mg/m3        | Repeated dose toxicity            |
|                                                    | General population |            | Systemic, long-term; 2,92 mg/m3         | Repeated dose toxicity            |
|                                                    |                    | Oral       | Systemic, short-term; 1,67 mg/kg bw/day | Repeated dose toxicity            |
|                                                    |                    | Inhalation | Systemic, long-term; 5,2 mg/m3          | Repeated dose toxicity            |
|                                                    |                    | Oral       | Systemic, short-term; 1,67 mg/kg bw/day |                                   |
|                                                    | Workers            | Dermal     | Systemic, long-term; 3,33 mg/kg bw/day  | Repeated dose toxicity            |
|                                                    |                    |            | Systemic, long-term; 3 mg/kg bw/day     | Repeated dose toxicity            |
|                                                    | General population |            | Systemic, short-term; 1,67 mg/kg bw/day | Repeated dose toxicity            |
|                                                    | Workers            | Inhalation | Systemic, short-term; 16,46 mg/m3       | Repeated dose toxicity            |
|                                                    | General population | Oral       | Systemic, long-term; 1,5 mg/kg bw/day   | Repeated dose toxicity            |
|                                                    |                    | Dermal     | Systemic, long-term; 1,67 mg/kg bw/day  | Repeated dose toxicity            |
|                                                    |                    |            | Systemic, long-term; 1,5 mg/kg bw/day   | Repeated dose toxicity            |
|                                                    | Workers            | Inhalation | Systemic, short-term; 7,84 mg/m3        |                                   |
|                                                    |                    |            | Systemic, long-term; 21 mg/m3           | Repeated dose toxicity            |
| 2-phenoxyethanol                                   |                    |            | Systemic, long-term; 8,07 mg/m3         | Repeated dose toxicity            |
|                                                    | General population |            | Systemic, long-term; 2,41 mg/m3         | Repeated dose toxicity            |

|                            |                    |            |                                              |                                      |
|----------------------------|--------------------|------------|----------------------------------------------|--------------------------------------|
|                            | Workers            |            | Local, short-term; 8,07 mg/m <sup>3</sup>    | Repeated dose toxicity               |
|                            | General population |            | Local, short-term; 2,41 mg/m <sup>3</sup>    | Repeated dose toxicity               |
|                            | Workers            | Eyes       | Local effect;                                | No data available                    |
|                            | General population |            | Local effect;                                | No data available                    |
|                            | Workers            | Dermal     | Systemic, long-term; 20,83 mg/kg bw/day      | Repeated dose toxicity               |
|                            | General population | Oral       | Systemic, long-term; 9,23 mg/kg bw/day       | Repeated dose toxicity               |
|                            |                    | Dermal     | Systemic, long-term; 10,42 mg/kg bw/day      | Repeated dose toxicity               |
|                            |                    | Oral       | Systemic, short-term; 9,23 mg/kg bw/day      | Repeated dose toxicity               |
| Hexamethylene diacrylate   | Workers            | Eyes       | Local effect;                                | Low hazard (no threshold derived)    |
|                            | General population |            | Local effect;                                | Low hazard (no threshold derived)    |
| Tetrahydrofurfuryl alcohol |                    | Oral       | Systemic, short-term; 0,175 mg/kg bw/day     | Repeated dose toxicity               |
|                            | Workers            | Inhalation | Systemic, long-term; 1,4 mg/m <sup>3</sup>   | Repeated dose toxicity               |
|                            | General population | Dermal     | Systemic, short-term; 0,175 mg/kg bw/day     | Repeated dose toxicity               |
|                            | Workers            | Inhalation | Systemic, short-term; 1,4 mg/m <sup>3</sup>  | Repeated dose toxicity               |
|                            | General population |            | Systemic, long-term; 0,25 mg/m <sup>3</sup>  | Repeated dose toxicity               |
|                            | Workers            | Dermal     | Systemic, long-term; 0,35 mg/kg bw/day       | Repeated dose toxicity               |
|                            | General population | Oral       | Systemic, long-term; 0,175 mg/kg bw/day      | Repeated dose toxicity               |
|                            |                    | Inhalation | Systemic, short-term; 0,25 mg/m <sup>3</sup> | Repeated dose toxicity               |
|                            |                    | Dermal     | Systemic, long-term; 0,175 mg/kg bw/day      | Repeated dose toxicity               |
|                            | Workers            | Eyes       | Local effect;                                | Low hazard (no threshold derived)    |
|                            | General population |            | Local effect;                                | Low hazard (no threshold derived)    |
| caprolactam                |                    | Inhalation | Systemic, short-term; 2,5 mg/m <sup>3</sup>  | Irritating to respiratory system.    |
|                            | Workers            | Eyes       | Local effect;                                | No data available                    |
|                            | General population | Oral       | Systemic, long-term; 8,55 mg/kg bw/day       | Repeated dose toxicity               |
|                            |                    | Eyes       | Local effect;                                | No data available                    |
|                            |                    | Inhalation | Systemic, short-term; 5 mg/m <sup>3</sup>    | Irritating to respiratory system.    |
|                            | Workers            |            | Systemic, short-term; 5 mg/m <sup>3</sup>    | Irritating to respiratory system.    |
|                            |                    |            | Systemic, short-term; 10 mg/m <sup>3</sup>   | Irritating to respiratory system.    |
| Hydroquinone               | General population | Eyes       | Local effect;                                | Medium hazard (no threshold derived) |
|                            |                    | Oral       | Systemic, long-term; 0,6 mg/kg bw/day        | Carcinogenicity                      |
|                            | Workers            | Eyes       | Local effect;                                | Medium hazard (no threshold derived) |

#### PNEC-Values

| Critical component                                 | Environmental compartment | PNEC-Values |
|----------------------------------------------------|---------------------------|-------------|
| exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-ylacrylate | freshwater sediment       | 0,145 mg/kg |
|                                                    | Marine sediments          | 0,015 mg/kg |
|                                                    | soil                      | 0,029 mg/kg |
|                                                    | Aquatic (marine water)    | 0 mg/l      |
|                                                    | Sewage treatment plant    | 2 mg/l      |
| Oxybis(methyl-2,1-ethanediyl) diacrylate           | Aquatic (freshwater)      | 0,001 mg/l  |
|                                                    | freshwater sediment       | 0,009 mg/kg |

|                                                    |                              |              |
|----------------------------------------------------|------------------------------|--------------|
|                                                    | Aquatic (marine water)       | 0 mg/l       |
|                                                    | soil                         | 0,001 mg/kg  |
|                                                    | Aquatic (freshwater)         | 0,003 mg/l   |
|                                                    | Sewage treatment plant       | 100 mg/l     |
| Isodecyl acrylate                                  | soil                         | 0,18 mg/kg   |
|                                                    | Aquatic (intermit. releases) | 13 µg/l      |
|                                                    | freshwater sediment          | 0,904 mg/kg  |
|                                                    | Marine sediments             | 0,09 mg/kg   |
|                                                    | Aquatic (freshwater)         | 1,3 µg/l     |
|                                                    | Aquatic (marine water)       | 0,13 µg/l    |
|                                                    | Sewage treatment plant       | 2,3 mg/l     |
| Phosphine oxide, diphenyl(2,4,6-trimethylbenzoyl)- | freshwater sediment          | 0,29 mg/kg   |
|                                                    | Fresh water                  | 0,00353 mg/l |
|                                                    | Aquatic (marine water)       | 0 mg/l       |
|                                                    | Marine water                 | 0,00353 mg/l |
|                                                    | soil                         | 0,056 mg/kg  |
|                                                    | Intermittent release         | 0,0353 mg/l  |
|                                                    | Aquatic (freshwater)         | 0,004 mg/l   |
|                                                    | Sediment-fresh water         | 0,29 mg/kg   |
|                                                    | Marine sediments             | 0,029 mg/kg  |
|                                                    | Soil                         | 0,0557 mg/kg |
| Phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide | Aquatic (freshwater)         | 0,8 µg/l     |
|                                                    | Aquatic (marine water)       | 1 µg/l       |
|                                                    | freshwater sediment          | 0,712 mg/kg  |
|                                                    | Aquatic (freshwater)         | 1 µg/l       |
|                                                    | soil                         | 20 mg/kg     |
|                                                    | Aquatic (intermit. releases) | 1 µg/l       |
|                                                    | Aquatic (freshwater)         | 1 µg/l       |
|                                                    | Aquatic (intermit. releases) | 0,8 µg/l     |
|                                                    | Aquatic (marine water)       | 0,8 µg/l     |
|                                                    |                              | 1 µg/l       |
|                                                    | Marine sediments             | 0,712 mg/kg  |
|                                                    | Aquatic (freshwater)         | 0,8 µg/l     |
|                                                    | Sewage treatment plant       | 1 mg/l       |
| 2-phenoxyethanol                                   | soil                         | 1,26 mg/kg   |
|                                                    | Sewage treatment plant       | 24,8 mg/l    |
|                                                    | freshwater sediment          | 7,237 mg/kg  |
|                                                    | Marine sediments             | 0,724 mg/kg  |
|                                                    | Aquatic (freshwater)         | 0,943 mg/l   |
|                                                    | Aquatic (marine water)       | 0,094 mg/l   |
| Hexamethylene diacrylate                           |                              | 0 mg/l       |
|                                                    | freshwater sediment          | 0,024 mg/kg  |
|                                                    | Aquatic (freshwater)         | 0,002 mg/l   |
|                                                    | soil                         | 0,004 mg/kg  |
|                                                    | Marine sediments             | 0,002 mg/kg  |
|                                                    | Sewage treatment plant       | 2,7 mg/l     |
| Tetrahydrofurfuryl alcohol                         | Marine sediments             | 0,86 mg/kg   |
|                                                    | Aquatic (marine water)       | 0,19 mg/l    |
|                                                    | Aquatic (freshwater)         | 1,9 mg/l     |
|                                                    | Sewage treatment plant       | 10 mg/l      |
|                                                    | freshwater sediment          | 8,6 mg/kg    |
|                                                    | soil                         | 0,6 mg/kg    |
| caprolactam                                        | Aquatic (marine water)       | 0,2 mg/l     |
|                                                    | Aquatic (freshwater)         | 2 mg/l       |
|                                                    | freshwater sediment          | 18,7 mg/kg   |
|                                                    | soil                         | 2,55 mg/kg   |

## 8.2 Exposure controls

**Appropriate Engineering Controls:**

Provide adequate ventilation.

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

|                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|--------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>General information:</b>    | 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. Follow training instructions when handling this material.                                  |
| <b>Eye/face protection:</b>    | Safety goggles. EN 166.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Skin protection</b>         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Hand Protection:</b>        | 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. |
| <b>Other:</b>                  | Safety clothes : long sleeved clothing EN13688                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Respiratory Protection:</b> | In case of inadequate ventilation use suitable respirator (EN14387). Seek advice from local supervisor.                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Hygiene measures:</b>       | Do not get in eyes. Observe good industrial hygiene practices. 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. Wash hands before breaks and immediately after handling the product. Contaminated work clothing should not be allowed out of the workplace.                                                                                                                                                        |
| <b>Environmental Controls:</b> | Do not empty into drains.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

#### Appearance

|                                        |                    |
|----------------------------------------|--------------------|
| <b>Physical state:</b>                 | liquid             |
| <b>Form:</b>                           | liquid             |
| <b>Color:</b>                          | Yellow             |
| <b>Odor:</b>                           | Sweetish           |
| <b>Odor Threshold:</b>                 | No data available. |
| <b>pH:</b>                             | No data available. |
| <b>Freezing point:</b>                 | No data available. |
| <b>Boiling Point:</b>                  | No data available. |
| <b>Flash Point:</b>                    | No data available. |
| <b>Evaporation Rate:</b>               | No data available. |
| <b>Flammability (solid, gas):</b>      | No data available. |
| <b>Flammability Limit - Upper (%):</b> | No data available. |
| <b>Flammability Limit - Lower (%):</b> | No data available. |
| <b>Vapor pressure:</b>                 | No data available. |
| <b>Vapor density (air=1):</b>          | No data available. |
| <b>Density:</b>                        | No data available. |
| <b>Relative density:</b>               | 1,0586             |
| <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> | No data available. |
| <b>Autoignition Temperature:</b>                | No data available. |
| <b>Decomposition Temperature:</b>               | No data available. |
| <b>Viscosity:</b>                               | No data available. |
| <b>Explosive properties:</b>                    | No data available. |
| <b>Oxidizing properties:</b>                    | No data available. |

## 9.2 Other information

|                     |                                               |
|---------------------|-----------------------------------------------|
| <b>VOC Content:</b> | EC Directive 1999/13: 0 g/l ~0 % (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

### 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 damage.                                                                                                                 |
| <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: 3.067,03 mg/kg                                         |
| <b>Specified substance(s):</b>                     |                                                                |
| exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-ylacrylate | LD 50 (Rat): 4.350 mg/kg Experimental result, Key study        |
| Phenoxyethylacrylate                               | LD 50 (Rat): 5.000 mg/kg Experimental result, Key study        |
| Tetrahydrofurfuryl acrylate                        | No data available.                                             |
| Oxybis(methyl-2,1-ethanediyl) diacrylate           | LD 50 (Rat): 4.626 mg/kg Experimental result, Supporting study |
| N-vinyl caprolactam                                | LD 50 (Rat): 1.732 mg/kg Experimental result, Key study        |

|                                                                                                                  |                                                           |
|------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------|
| 2-Propenoic acid ,1-6-hexanediyl ester, polymer with 2-aminoethanol                                              | No data available.                                        |
| Isodecyl acrylate                                                                                                | No data available.                                        |
| Phosphine oxide, diphenyl(2,4,6-trimethylbenzoyl)-Nickel, 5,5'-azobis-2,4,6(1H,3H,5H)-pyrimidinetrione complexes | LD 50 (Rat): > 5.000 mg/kg Experimental result, Key study |
| Phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide                                                               | No data available.                                        |
| Ethoxylated phenyl acrylate                                                                                      | No data available.                                        |
| 2-Isopropyl-9H-thioxanthen-9-one                                                                                 | LD 50 (Rat): 1.850 mg/kg Experimental result, Key study   |
| 2-phenoxyethanol                                                                                                 | LD 50 (Rat): > 2.000 mg/kg Experimental result, Key study |
| Hexamethylene diacrylate                                                                                         | LD 50 (Rat): > 5.000 mg/kg Experimental result, Key study |
| Tetrahydrofurfuryl alcohol                                                                                       | LD 50 (Rat): > 2.000 mg/kg Experimental result, Key study |
| caprolactam                                                                                                      | No data available.                                        |
| Hydroquinone                                                                                                     | LD 50 (Rat): 367,3 mg/kg Experimental result, Key study   |

#### Dermal

|                                                                                                                  |                                                              |
|------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|
| <b>Product:</b>                                                                                                  | ATEmix 17.345,52 mg/kg                                       |
| <b>Specified substance(s):</b>                                                                                   |                                                              |
| exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-ylacrylate                                                               | LD 50 (Rabbit): > 3.000 mg/kg Experimental result, Key study |
| Phenoxyethylacrylate                                                                                             | No data available.                                           |
| Tetrahydrofurfuryl acrylate                                                                                      | No data available.                                           |
| Oxybis(methyl-2,1-ethanediyl) diacrylate                                                                         | LD 50 (Rabbit): > 2.000 mg/kg Experimental result, Key study |
| N-vinyl caprolactam                                                                                              | LD 50 (Rabbit): 1.700 mg/kg Experimental result, Key study   |
| 2-Propenoic acid ,1-6-hexanediyl ester, polymer with 2-aminoethanol                                              | No data available.                                           |
| Isodecyl acrylate                                                                                                | No data available.                                           |
| Phosphine oxide, diphenyl(2,4,6-trimethylbenzoyl)-Nickel, 5,5'-azobis-2,4,6(1H,3H,5H)-pyrimidinetrione complexes | No data available.                                           |
| Phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide                                                               | LD 50 (Rat): > 2.000 mg/kg                                   |
| Ethoxylated phenyl acrylate                                                                                      | No data available.                                           |
| 2-Isopropyl-9H-thioxanthen-9-one                                                                                 | No data available.                                           |

|                            |                                                                             |
|----------------------------|-----------------------------------------------------------------------------|
| 2-phenoxyethanol           | LD 50 (Rabbit): > 2.214 mg/kg Experimental result, Weight of Evidence study |
| Hexamethylene diacrylate   | LD 50 (Rabbit): 3.650 mg/kg Experimental result, Key study                  |
| Tetrahydrofurfuryl alcohol | No data available.                                                          |
| caprolactam                | No data available.                                                          |
| Hydroquinone               | LD 50 (Rabbit): > 2.000 mg/kg Experimental result, Key study                |

## Inhalation

### Product:

Not classified for acute toxicity based on available data.

### Specified substance(s):

|                                                                     |                                                                                                                         |
|---------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|
| exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-ylacrylate                  | No data available.                                                                                                      |
| Phenoxyethylacrylate                                                | No data available.                                                                                                      |
| Tetrahydrofurfuryl acrylate                                         | No data available.                                                                                                      |
| Oxybis(methyl-2,1-ethanediyl) diacrylate                            | No data available.                                                                                                      |
| N-vinyl caprolactam                                                 | No data available.                                                                                                      |
| 2-Propenoic acid, 1-6-hexanediyl ester, polymer with 2-aminoethanol | 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 |
| Phosphine oxide, diphenyl(2,4,6-trimethylbenzoyl)-                  | No data available.                                                                                                      |
| Nickel, 5,5'-azobis-2,4,6(1H,3H,5H)-pyrimidinetrione complexes      | No data available.                                                                                                      |
| Phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide                  | No data available.                                                                                                      |
| Ethoxylated phenyl acrylate                                         | No data available.                                                                                                      |
| 2-Isopropyl-9H-thioxanthen-9-one                                    | No data available.                                                                                                      |
| 2-phenoxyethanol                                                    | LC 50 (Rat, 6 h) > 1.000 mg/m <sup>3</sup> Aerosol, Experimental result, Key study                                      |
| Hexamethylene diacrylate                                            | LC 0 (Rat, 7 h) 0,41 mg/l Vapor, Experimental result, Key study                                                         |
| Tetrahydrofurfuryl alcohol                                          | No data available.                                                                                                      |
| caprolactam                                                         | LC 50 (Rat, 2 h) 0,3 mg/l                                                                                               |
| Hydroquinone                                                        | No data available.                                                                                                      |

## Repeated dose toxicity

### Product:

No data available.

### Specified substance(s):

|                                                    |                                                       |
|----------------------------------------------------|-------------------------------------------------------|
| exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-ylacrylate | LOAEL (Rat(Female, Male), Inhalation): 0,753 mg/l     |
|                                                    | NOAEL (rat(male/female)): 100 mg/kg                   |
|                                                    | NOAEL (Rat(Female, Male), Oral, 28 - 53 d): 100 mg/kg |
|                                                    | NOAEL (Rat(Female, Male), Inhalation): 0,075 mg/l     |
|                                                    | NOAEL (Rat(Female, Male), Inhalation): 0,226 mg/l     |

|                                                                     |                                                                  |
|---------------------------------------------------------------------|------------------------------------------------------------------|
| Phenoxyethylacrylate                                                | NOAEL (Rat(Female, Male), Oral, 2 Weeks): 500 mg/kg              |
| Tetrahydrofurfuryl acrylate                                         | No data available.                                               |
| Oxybis(methyl-2,1-ethanediyl) diacrylate                            | NOAEL (Rat(Female, Male), Oral, 28 - 52 d): 250 mg/kg            |
| N-vinyl caprolactam                                                 | NOAEL (Rat(Female, Male), Inhalation): 0,058 mg/l                |
| 2-Propenoic acid ,1-6-hexanediyl ester, polymer with 2-aminoethanol | No data available.                                               |
| Isodecyl acrylate                                                   | NOAEL (Rat(Female, Male), Inhalation): 0,075 mg/l                |
| Phosphine oxide, diphenyl(2,4,6-trimethylbenzoyl)-                  | LOAEL (Rat(Female, Male), Oral, 28 d): 250 mg/kg                 |
|                                                                     | NOAEL (Rat(Female, Male), Oral, 28 d): 50 mg/kg                  |
|                                                                     | LOAEL (Rat(Female, Male), Oral, 64 - 91 d): 300 mg/kg            |
|                                                                     | NOAEL (Rat(Female, Male), Oral, 64 - 91 d): 100 mg/kg            |
|                                                                     | No data available.                                               |
| Nickel, 5,5'-azobis-2,4,6(1H,3H,5H)-pyrimidinetrione complexes      |                                                                  |
| Phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide                  | NOAEL (Rat(Female, Male), Oral): 300 mg/kg                       |
| Ethoxylated phenyl acrylate                                         | No data available.                                               |
| 2-Isopropyl-9H-thioxanthen-9-one                                    | No data available.                                               |
| 2-phenoxyethanol                                                    | LOAEL (Rat(Female, Male), Oral, 13 Weeks): 400 mg/kg             |
|                                                                     | NOAEL (Rat(Female, Male), Oral, 13 Weeks): 80 mg/kg              |
|                                                                     | NOAEL (Rat(Female, Male), Oral, 28 - 52 d): 250 mg/kg            |
| Hexamethylene diacrylate                                            |                                                                  |
| Tetrahydrofurfuryl alcohol caprolactam                              | No data available.                                               |
|                                                                     | NOAEL (Rat(Female, Male), Inhalation, 13 - 17 Weeks): 0,066 mg/l |
|                                                                     | NOAEL (Rat(Female, Male), Inhalation, 13 - 17 Weeks): 0,245 mg/l |
| Hydroquinone                                                        | No data available.                                               |

#### Skin Corrosion/Irritation:

##### Product:

The health hazard evaluation is based on the toxicological properties of a similar material.

##### Specified substance(s):

|                                                                     |                                                               |
|---------------------------------------------------------------------|---------------------------------------------------------------|
| exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-ylacrylate                  | No data available.                                            |
| Phenoxyethylacrylate                                                | No data available.                                            |
| Tetrahydrofurfuryl acrylate                                         | No data available.                                            |
| Oxybis(methyl-2,1-ethanediyl) diacrylate                            | No data available.                                            |
| N-vinyl caprolactam                                                 | in vivo (Rabbit): Not irritant Experimental result, Key study |
| 2-Propenoic acid ,1-6-hexanediyl ester, polymer with 2-aminoethanol | No data available.                                            |
| Isodecyl acrylate                                                   | No data available.                                            |
| Phosphine oxide, diphenyl(2,4,6-trimethylbenzoyl)-                  | in vivo (Rabbit): Not irritant Experimental result, Key study |
| Nickel, 5,5'-azobis-2,4,6(1H,3H,5H)-pyrimidinetrione complexes      | No data available.                                            |

|                                                    |                                                                              |
|----------------------------------------------------|------------------------------------------------------------------------------|
| Phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide | No data available.                                                           |
| Ethoxylated phenyl acrylate                        | No data available.                                                           |
| 2-Isopropyl-9H-thioxanthen-9-one                   | No data available.                                                           |
| 2-phenoxyethanol                                   | in vivo (Rabbit): Not irritant Experimental result, Key study                |
| Hexamethylene diacrylate                           | in vivo (Rabbit): Category 2 Experimental result, Key study                  |
| Tetrahydrofurfuryl alcohol                         | in vivo (Rabbit): Not irritant Experimental result, Key study                |
| caprolactam                                        | Irritating                                                                   |
| Hydroquinone                                       | in vivo (Rabbit): Not irritant Experimental result, Weight of Evidence study |

### Serious Eye Damage/Eye Irritation:

|                                                                     |                                                    |
|---------------------------------------------------------------------|----------------------------------------------------|
| <b>Product:</b>                                                     | No data available.                                 |
| <b>Specified substance(s):</b>                                      |                                                    |
| exo-1,7,7-trimethylbicyclo[2.2.1]h                                  | No data available.                                 |
| ept-2-ylacrylaa                                                     |                                                    |
| Phenoxyethylacrylate                                                | No data available.                                 |
| Tetrahydrofurfuryl acrylate                                         | No data available.                                 |
| Oxybis(methyl-2,1-ethanediyl) diacrylate                            | in vivo (Rabbit, 24 - 72 hrs): Category 1 OECD GHS |
| N-vinyl caprolactam                                                 | No data available.                                 |
| 2-Propenoic acid ,1-6-hexanediyl ester, polymer with 2-aminoethanol | No data available.                                 |
| Isodecyl acrylate                                                   | Mildly Irritating                                  |
| Phosphine oxide, diphenyl(2,4,6-trimethylbenzoyl)-                  | No data available.                                 |
| Nickel, 5,5'-azobis-2,4,6(1H,3H,5H)-pyrimidinetrione complexes      | No data available.                                 |
| Phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide                  | in vivo (Rabbit, 24 - 72 hrs): Not Classified EU   |
| Ethoxylated phenyl acrylate                                         | No data available.                                 |
| 2-Isopropyl-9H-thioxanthen-9-one                                    | No data available.                                 |
| 2-phenoxyethanol                                                    | in vivo (Rabbit, 24 - 72 hrs): Irritating EU       |
| Hexamethylene diacrylate                                            | Irritating                                         |
| Tetrahydrofurfuryl alcohol                                          | Severely Irritating                                |
| caprolactam                                                         | Irritating                                         |
| Hydroquinone                                                        | Irritating                                         |

### Respiratory or Skin Sensitization:

|                 |                    |
|-----------------|--------------------|
| <b>Product:</b> | No data available. |
|-----------------|--------------------|

### Specified substance(s):

|                                                                     |                                                            |
|---------------------------------------------------------------------|------------------------------------------------------------|
| exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-ylacrylate                  | No data available.                                         |
| Phenoxyethylacrylate                                                | No data available.                                         |
| Tetrahydrofurfuryl acrylate                                         | No data available.                                         |
| Oxybis(methyl-2,1-ethanediyl) diacrylate                            | No data available.                                         |
| N-vinyl caprolactam                                                 | No data available.                                         |
| 2-Propenoic acid ,1-6-hexanediyl ester, polymer with 2-aminoethanol | No data available.                                         |
| Isodecyl acrylate                                                   | No data available.                                         |
| Phosphine oxide, diphenyl(2,4,6-trimethylbenzoyl)-                  | No data available.                                         |
| Nickel, 5,5'-azobis-2,4,6(1H,3H,5H)-pyrimidinetrione complexes      | No data available.                                         |
| Phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide                  | No data available.                                         |
| Ethoxylated phenyl acrylate                                         | No data available.                                         |
| 2-Isopropyl-9H-thioxanthen-9-one                                    | No data available.                                         |
| 2-phenoxyethanol                                                    | Skin sensitization:, in vivo (Guinea pig): Non sensitising |
| Hexamethylene diacrylate                                            | Skin sensitization:, in vivo (Guinea pig): Sensitising     |
| Tetrahydrofurfuryl alcohol                                          | No data available.                                         |
| caprolactam                                                         | Skin sensitization:, in vivo (Guinea pig): Non sensitising |
| Hydroquinone                                                        | Skin sensitization:, in vivo (Guinea pig): Sensitising     |

## Germ Cell Mutagenicity

### In vitro

**Product:** No data available.

### Specified substance(s):

|                                                                     |                    |
|---------------------------------------------------------------------|--------------------|
| exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-ylacrylate                  | No data available. |
| Phenoxyethylacrylate                                                | No data available. |
| Tetrahydrofurfuryl acrylate                                         | No data available. |
| Oxybis(methyl-2,1-ethanediyl) diacrylate                            | No data available. |
| N-vinyl caprolactam                                                 | No data available. |
| 2-Propenoic acid ,1-6-hexanediyl ester, polymer with 2-aminoethanol | No data available. |
| Isodecyl acrylate                                                   | No data available. |
| Phosphine oxide, diphenyl(2,4,6-trimethylbenzoyl)-                  | No data available. |

|                                                                |                    |
|----------------------------------------------------------------|--------------------|
| Nickel, 5,5'-azobis-2,4,6(1H,3H,5H)-pyrimidinetrione complexes | No data available. |
| Phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide             | No data available. |
| Ethoxylated phenyl acrylate                                    | No data available. |
| 2-Isopropyl-9H-thioxanthen-9-one                               | No data available. |
| 2-phenoxyethanol                                               | No data available. |
| Hexamethylene diacrylate                                       | No data available. |
| Tetrahydrofurfuryl alcohol                                     | No data available. |
| caprolactam                                                    | No data available. |
| Hydroquinone                                                   | No data available. |

#### In vivo

**Product:** No data available.

#### Specified substance(s):

|                                                                     |                    |
|---------------------------------------------------------------------|--------------------|
| exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-ylacrylate                  | No data available. |
| Phenoxyethylacrylate                                                | No data available. |
| Tetrahydrofurfuryl acrylate                                         | No data available. |
| Oxybis(methyl-2,1-ethanediyl) diacrylate                            | No data available. |
| N-vinyl caprolactam                                                 | No data available. |
| 2-Propenoic acid, 1-6-hexanediyl ester, polymer with 2-aminoethanol | No data available. |
| Isodecyl acrylate                                                   | No data available. |
| Phosphine oxide, diphenyl(2,4,6-trimethylbenzoyl)-                  | No data available. |
| Nickel, 5,5'-azobis-2,4,6(1H,3H,5H)-pyrimidinetrione complexes      | No data available. |
| Phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide                  | No data available. |
| Ethoxylated phenyl acrylate                                         | No data available. |
| 2-Isopropyl-9H-thioxanthen-9-one                                    | No data available. |
| 2-phenoxyethanol                                                    | No data available. |
| Hexamethylene diacrylate                                            | No data available. |
| Tetrahydrofurfuryl alcohol                                          | No data available. |
| caprolactam                                                         | No data available. |
| Hydroquinone                                                        | No data available. |

#### Carcinogenicity

**Product:** Not classified The yellow pigment in this product is embedded in a matrix which minimizes the likelihood of exposure to the pigment.

#### Specified substance(s):

|                                                                     |                    |
|---------------------------------------------------------------------|--------------------|
| exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-ylacrylate                  | No data available. |
| Phenoxyethylacrylate                                                | No data available. |
| Tetrahydrofurfuryl acrylate                                         | No data available. |
| Oxybis(methyl-2,1-ethanediyl) diacrylate                            | No data available. |
| N-vinyl caprolactam                                                 | No data available. |
| 2-Propenoic acid, 1-6-hexanediyl ester, polymer with 2-aminoethanol | No data available. |
| Isodecyl acrylate                                                   | No data available. |
| Phosphine oxide, diphenyl(2,4,6-trimethylbenzoyl)-                  | No data available. |
| Nickel, 5,5'-azobis-2,4,6(1H,3H,5H)-pyrimidinetrione complexes      | No data available. |
| Phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide                  | No data available. |
| Ethoxylated phenyl acrylate                                         | No data available. |
| 2-Isopropyl-9H-thioxanthen-9-one                                    | No data available. |
| 2-phenoxyethanol                                                    | No data available. |
| Hexamethylene diacrylate                                            | No data available. |
| Tetrahydrofurfuryl alcohol                                          | No data available. |
| caprolactam                                                         | No data available. |
| Hydroquinone                                                        | No data available. |

## Reproductive toxicity

**Product:** May damage fertility or the unborn child.

### Specified substance(s):

|                                                                     |                    |
|---------------------------------------------------------------------|--------------------|
| exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-ylacrylate                  | No data available. |
| Phenoxyethylacrylate                                                | No data available. |
| Tetrahydrofurfuryl acrylate                                         | No data available. |
| Oxybis(methyl-2,1-ethanediyl) diacrylate                            | No data available. |
| N-vinyl caprolactam                                                 | No data available. |
| 2-Propenoic acid, 1-6-hexanediyl ester, polymer with 2-aminoethanol | No data available. |
| Isodecyl acrylate                                                   | No data available. |
| Phosphine oxide, diphenyl(2,4,6-trimethylbenzoyl)-                  | No data available. |
| Nickel, 5,5'-azobis-2,4,6(1H,3H,5H)-pyrimidinetrione complexes      | No data available. |
| Phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide                  | No data available. |

|                                  |                    |
|----------------------------------|--------------------|
| Ethoxylated phenyl acrylate      | No data available. |
| 2-Isopropyl-9H-thioxanthen-9-one | No data available. |
| 2-phenoxyethanol                 | No data available. |
| Hexamethylene diacrylate         | No data available. |
| Tetrahydrofurfuryl alcohol       | No data available. |
| caprolactam                      | No data available. |
| Hydroquinone                     | No data available. |

### Specific Target Organ Toxicity - Single Exposure

**Product:** No data available.

#### Specified substance(s):

|                                                                     |                    |
|---------------------------------------------------------------------|--------------------|
| exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-ylacrylate                  | No data available. |
| Phenoxyethylacrylate                                                | No data available. |
| Tetrahydrofurfuryl acrylate                                         | No data available. |
| Oxybis(methyl-2,1-ethanediyl) diacrylate                            | No data available. |
| N-vinyl caprolactam                                                 | No data available. |
| 2-Propenoic acid, 1-6-hexanediyl ester, polymer with 2-aminoethanol | No data available. |
| Isodecyl acrylate                                                   | No data available. |
| Phosphine oxide, diphenyl(2,4,6-trimethylbenzoyl)-                  | No data available. |
| Nickel, 5,5'-azobis-2,4,6(1H,3H,5H)-pyrimidinetrione complexes      | No data available. |
| Phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide                  | No data available. |
| Ethoxylated phenyl acrylate                                         | No data available. |
| 2-Isopropyl-9H-thioxanthen-9-one                                    | No data available. |
| 2-phenoxyethanol                                                    | No data available. |
| Hexamethylene diacrylate                                            | No data available. |
| Tetrahydrofurfuryl alcohol                                          | No data available. |
| caprolactam                                                         | No data available. |
| Hydroquinone                                                        | No data available. |

### Specific Target Organ Toxicity - Repeated Exposure

**Product:** No data available.

#### Specified substance(s):

|                                                    |                    |
|----------------------------------------------------|--------------------|
| exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-ylacrylate | No data available. |
| Phenoxyethylacrylate                               | No data available. |
| Tetrahydrofurfuryl acrylate                        | No data available. |
| Oxybis(methyl-2,1-ethanediyl) diacrylate           | No data available. |
| N-vinyl caprolactam                                | No data available. |

|                                                                     |                    |
|---------------------------------------------------------------------|--------------------|
| 2-Propenoic acid ,1-6-hexanediyl ester, polymer with 2-aminoethanol | No data available. |
| Isodecyl acrylate                                                   | No data available. |
| Phosphine oxide, diphenyl(2,4,6-trimethylbenzoyl)-                  | No data available. |
| Nickel, 5,5'-azobis-2,4,6(1H,3H,5H)-pyrimidinetrione complexes      | No data available. |
| Phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide                  | No data available. |
| Ethoxylated phenyl acrylate                                         | No data available. |
| 2-Isopropyl-9H-thioxanthen-9-one                                    | No data available. |
| 2-phenoxyethanol                                                    | No data available. |
| Hexamethylene diacrylate                                            | No data available. |
| Tetrahydrofurfuryl alcohol caprolactam                              | No data available. |
| Hydroquinone                                                        | No data available. |

#### Target Organs

Specific Target Organ Toxicity - Repeated Exposure: Liver, Respiratory system

#### Aspiration Hazard

**Product:** No data available.

#### Specified substance(s):

|                                                                     |                    |
|---------------------------------------------------------------------|--------------------|
| exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-ylacrylate                  | No data available. |
| Phenoxyethylacrylate                                                | No data available. |
| Tetrahydrofurfuryl acrylate                                         | No data available. |
| Oxybis(methyl-2,1-ethanediyl) diacrylate                            | No data available. |
| N-vinyl caprolactam                                                 | No data available. |
| 2-Propenoic acid ,1-6-hexanediyl ester, polymer with 2-aminoethanol | No data available. |
| Isodecyl acrylate                                                   | No data available. |
| Phosphine oxide, diphenyl(2,4,6-trimethylbenzoyl)-                  | No data available. |
| Nickel, 5,5'-azobis-2,4,6(1H,3H,5H)-pyrimidinetrione complexes      | No data available. |
| Phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide                  | No data available. |
| Ethoxylated phenyl acrylate                                         | No data available. |
| 2-Isopropyl-9H-thioxanthen-9-one                                    | No data available. |
| 2-phenoxyethanol                                                    | No data available. |
| Hexamethylene diacrylate                                            | No data available. |
| Tetrahydrofurfuryl alcohol                                          | No data available. |

caprolactam  
Hydroquinone

No data available.  
No data available.

## SECTION 12: Ecological information

### General information:

Contains a substance which causes risk of hazardous effects to the environment.

### 12.1 Toxicity

#### Acute toxicity

#### Fish

**Product:** No data available.

#### Specified substance(s)

|                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                        |
|------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-ylacrylate                                                               | LC 50 (Danio rerio, 96 h): 0,704 mg/l (semi-static) Experimental result, Key study                                                                                                                                                                                                                                                                                                                     |
| Phenoxyethylacrylate                                                                                             | No data available.                                                                                                                                                                                                                                                                                                                                                                                     |
| Tetrahydrofurfuryl acrylate                                                                                      | No data available.                                                                                                                                                                                                                                                                                                                                                                                     |
| Oxybis(methyl-2,1-ethanediyl) diacrylate                                                                         | NOAEL (Leuciscus idus, 96 h): 1 mg/l (Static) Experimental result, Key study<br>LC 50 (Leuciscus idus, 96 h): 2,2 mg/l (Static)                                                                                                                                                                                                                                                                        |
| N-vinyl caprolactam                                                                                              | LC 50 (Danio rerio, 96 h): 318 mg/l (Static) Experimental result, Key study<br>NOAEL (Danio rerio, 96 h): 208 mg/l (Static) Experimental result, Key study<br>LC 0 (Danio rerio, 96 h): 208 mg/l (Static) Experimental result, Key study<br>NOAEL (Danio rerio, 96 h): 215 mg/l (Static) Experimental result, Key study<br>LC 50 (Danio rerio, 96 h): 307 mg/l (Static) Experimental result, Key study |
| 2-Propenoic acid ,1-6-hexanediyl ester, polymer with 2-aminoethanol                                              | No data available.                                                                                                                                                                                                                                                                                                                                                                                     |
| Isodecyl acrylate                                                                                                | No data available.                                                                                                                                                                                                                                                                                                                                                                                     |
| Phosphine oxide, diphenyl(2,4,6-trimethylbenzoyl)-Nickel, 5,5'-azobis-2,4,6(1H,3H,5H)-pyrimidinetrione complexes | LC 50 (Oryzias latipes, 48 h): +/- 6,53 mg/l (semi-static) Experimental result, Key study                                                                                                                                                                                                                                                                                                              |
| Phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide                                                               | No data available.                                                                                                                                                                                                                                                                                                                                                                                     |
| Ethoxylated phenyl acrylate                                                                                      | No data available.                                                                                                                                                                                                                                                                                                                                                                                     |
| 2-Isopropyl-9H-thioxanthen-9-one                                                                                 | No data available.                                                                                                                                                                                                                                                                                                                                                                                     |
| 2-phenoxyethanol                                                                                                 | LC 50 (Pimephales promelas, 96 h): 344 mg/l (flow-through) Experimental result, Key study                                                                                                                                                                                                                                                                                                              |
| Hexamethylene diacrylate                                                                                         | LC 50 (Leuciscus idus, 96 h): 4,6 - 10 mg/l (Static) Experimental result, Key study                                                                                                                                                                                                                                                                                                                    |
| Tetrahydrofurfuryl alcohol                                                                                       | LC 50 (Oryzias latipes, 96 h): > 101 mg/l (semi-static) Experimental result, Key study                                                                                                                                                                                                                                                                                                                 |
| caprolactam                                                                                                      | LC 50 (Oryzias latipes, 96 h): > 100 mg/l (semi-static) Experimental result, Key study                                                                                                                                                                                                                                                                                                                 |
| Hydroquinone                                                                                                     | LC 50 (Oncorhynchus mykiss, 96 h): 0,638 mg/l (flow-through) Experimental result, Key study                                                                                                                                                                                                                                                                                                            |

#### Aquatic Invertebrates

**Product:** No data available.

### Specified substance(s)

|                                                                     |                                                                                       |
|---------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-ylacrylate                  | No data available.                                                                    |
| Phenoxyethylacrylate                                                | EC 50 (Daphnia magna, 48 h): 1,21 mg/l (Static) Experimental result, Key study        |
| Tetrahydrofurfuryl acrylate                                         | No data available.                                                                    |
| Oxybis(methyl-2,1-ethanediyl) diacrylate                            | No data available.                                                                    |
| N-vinyl caprolactam                                                 | EC 50 (Daphnia magna, 48 h): > 100 mg/l (Static) Experimental result, Key study       |
| 2-Propenoic acid, 1-6-hexanediyl ester, polymer with 2-aminoethanol | No data available.                                                                    |
| Isodecyl acrylate                                                   | No data available.                                                                    |
| Phosphine oxide, diphenyl(2,4,6-trimethylbenzoyl)-                  | EC 50 (Daphnia magna, 48 h): 3,53 mg/l (Static) Experimental result, Key study        |
| Nickel, 5,5'-azobis-2,4,6(1H,3H,5H)-pyrimidinetrione complexes      | No data available.                                                                    |
| Phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide                  | EC 50 (48 h): > 1,175 mg/l experimental result                                        |
| Ethoxylated phenyl acrylate                                         | No data available.                                                                    |
| 2-Isopropyl-9H-thioxanthen-9-one                                    | No data available.                                                                    |
| 2-phenoxyethanol                                                    | EC 50 (Daphnia magna, 48 h): 460 mg/l (Static) Experimental result, Not specified     |
| Hexamethylene diacrylate                                            | EC 50 (Daphnia magna, 48 h): 2,6 mg/l (Static) Experimental result, Key study         |
| Tetrahydrofurfuryl alcohol                                          | EC 50 (Daphnia magna, 48 h): > 91,7 mg/l (semi-static) Experimental result, Key study |
| caprolactam                                                         | EC 50 (Daphnia magna, 48 h): 0,08 mg/l (Static) Experimental result, Key study        |
| Hydroquinone                                                        | EC 50 (Daphnia magna, 48 h): 0,134 mg/l (semi-static) Experimental result, Key study  |

### Toxicity to Aquatic Plants

**Product:** No data available.

### Specified substance(s)

|                                                                     |                    |
|---------------------------------------------------------------------|--------------------|
| exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-ylacrylate                  | No data available. |
| Phenoxyethylacrylate                                                | No data available. |
| Tetrahydrofurfuryl acrylate                                         | No data available. |
| Oxybis(methyl-2,1-ethanediyl) diacrylate                            | No data available. |
| N-vinyl caprolactam                                                 | No data available. |
| 2-Propenoic acid, 1-6-hexanediyl ester, polymer with 2-aminoethanol | No data available. |
| Isodecyl acrylate                                                   | No data available. |
| Phosphine oxide, diphenyl(2,4,6-trimethylbenzoyl)-                  | No data available. |

|                                                                |                    |
|----------------------------------------------------------------|--------------------|
| Nickel, 5,5'-azobis-2,4,6(1H,3H,5H)-pyrimidinetrione complexes | No data available. |
| Phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide             | No data available. |
| Ethoxylated phenyl acrylate                                    | No data available. |
| 2-Isopropyl-9H-thioxanthen-9-one                               | No data available. |
| 2-phenoxyethanol                                               | No data available. |
| Hexamethylene diacrylate                                       | No data available. |
| Tetrahydrofurfuryl alcohol                                     | No data available. |
| caprolactam                                                    | No data available. |
| Hydroquinone                                                   | No data available. |

## Chronic Toxicity

### Fish

|                 |                    |
|-----------------|--------------------|
| <b>Product:</b> | No data available. |
|-----------------|--------------------|

### Specified substance(s)

|                                                                     |                                                                                                  |
|---------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|
| exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-ylacrylate                  | No data available.                                                                               |
| Phenoxyethylacrylate                                                | No data available.                                                                               |
| Tetrahydrofurfuryl acrylate                                         | No data available.                                                                               |
| Oxybis(methyl-2,1-ethanediyl) diacrylate                            | No data available.                                                                               |
| N-vinyl caprolactam                                                 | No data available.                                                                               |
| 2-Propenoic acid, 1-6-hexanediyl ester, polymer with 2-aminoethanol | No data available.                                                                               |
| Isodecyl acrylate                                                   | No data available.                                                                               |
| Phosphine oxide, diphenyl(2,4,6-trimethylbenzoyl)-                  | No data available.                                                                               |
| Nickel, 5,5'-azobis-2,4,6(1H,3H,5H)-pyrimidinetrione complexes      | No data available.                                                                               |
| Phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide                  | No data available.                                                                               |
| Ethoxylated phenyl acrylate                                         | No data available.                                                                               |
| 2-Isopropyl-9H-thioxanthen-9-one                                    | No data available.                                                                               |
| 2-phenoxyethanol                                                    | LC 50 (Danio rerio, 6 d): 461,5 - 521,6 mg/l (semi-static) Experimental result, Supporting study |
| Hexamethylene diacrylate                                            | No data available.                                                                               |
| Tetrahydrofurfuryl alcohol                                          | No data available.                                                                               |
| caprolactam                                                         | No data available.                                                                               |
| Hydroquinone                                                        | No data available.                                                                               |

### Aquatic Invertebrates

|                 |                    |
|-----------------|--------------------|
| <b>Product:</b> | No data available. |
|-----------------|--------------------|

### Specified substance(s)

|                                                                                                                  |                    |
|------------------------------------------------------------------------------------------------------------------|--------------------|
| exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-ylacrylate                                                               | No data available. |
| Phenoxyethylacrylate                                                                                             | No data available. |
| Tetrahydrofurfuryl acrylate                                                                                      | No data available. |
| Oxybis(methyl-2,1-ethanediyl) diacrylate                                                                         | No data available. |
| N-vinyl caprolactam                                                                                              | No data available. |
| 2-Propenoic acid, 1-6-hexanediyl ester, polymer with 2-aminoethanol                                              | No data available. |
| Isodecyl acrylate                                                                                                | No data available. |
| Phosphine oxide, diphenyl(2,4,6-trimethylbenzoyl)-Nickel, 5,5'-azobis-2,4,6(1H,3H,5H)-pyrimidinetrione complexes | No data available. |
| Phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide                                                               | No data available. |
| Ethoxylated phenyl acrylate                                                                                      | No data available. |
| 2-Isopropyl-9H-thioxanthen-9-one                                                                                 | No data available. |
| 2-phenoxyethanol                                                                                                 | No data available. |
| Hexamethylene diacrylate                                                                                         | No data available. |
| Tetrahydrofurfuryl alcohol                                                                                       | No data available. |
| caprolactam                                                                                                      | No data available. |
| Hydroquinone                                                                                                     | No data available. |

### Toxicity to Aquatic Plants

|                 |                    |
|-----------------|--------------------|
| <b>Product:</b> | No data available. |
|-----------------|--------------------|

### Specified substance(s)

|                                                                                                                  |                    |
|------------------------------------------------------------------------------------------------------------------|--------------------|
| exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-ylacrylate                                                               | No data available. |
| Phenoxyethylacrylate                                                                                             | No data available. |
| Tetrahydrofurfuryl acrylate                                                                                      | No data available. |
| Oxybis(methyl-2,1-ethanediyl) diacrylate                                                                         | No data available. |
| N-vinyl caprolactam                                                                                              | No data available. |
| 2-Propenoic acid, 1-6-hexanediyl ester, polymer with 2-aminoethanol                                              | No data available. |
| Isodecyl acrylate                                                                                                | No data available. |
| Phosphine oxide, diphenyl(2,4,6-trimethylbenzoyl)-Nickel, 5,5'-azobis-2,4,6(1H,3H,5H)-pyrimidinetrione complexes | No data available. |
| Phenyl bis(2,4,6-                                                                                                | No data available. |

|                                   |                    |
|-----------------------------------|--------------------|
| trimethylbenzoyl)-phosphine oxide |                    |
| Ethoxylated phenyl acrylate       | No data available. |
| 2-Isopropyl-9H-thioxanthen-9-one  | No data available. |
| 2-phenoxyethanol                  | No data available. |
| Hexamethylene diacrylate          | No data available. |
| Tetrahydrofurfuryl alcohol        | No data available. |
| caprolactam                       | No data available. |
| Hydroquinone                      | No data available. |

## 12.2 Persistence and Degradability

### Biodegradation

**Product:** No data available.

### Specified substance(s)

|                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                         |
|------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-ylacrylate                                                               | > 0 % Detected in water. Experimental result, Key study<br>3,9 % Detected in water. Experimental result, Key study<br>34,6 % Detected in water. Experimental result, Key study<br>26 % Detected in water. Experimental result, Key study<br>57 % Detected in water. Experimental result, Key study<br>(28 d): 22,3 % Detected in water. Experimental result, Key study                                  |
| Phenoxyethylacrylate                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                         |
| Tetrahydrofurfuryl acrylate                                                                                      | No data available.                                                                                                                                                                                                                                                                                                                                                                                      |
| Oxybis(methyl-2,1-ethanediyl) diacrylate                                                                         | (28 d): 90 - 100 % Detected in water. Experimental result, Key study                                                                                                                                                                                                                                                                                                                                    |
| N-vinyl caprolactam                                                                                              | (28 d): 30 - 40 % Detected in water. Experimental result, Key study                                                                                                                                                                                                                                                                                                                                     |
| 2-Propenoic acid ,1-6-hexanediyl ester, polymer with 2-aminoethanol                                              | No data available.                                                                                                                                                                                                                                                                                                                                                                                      |
| Isodecyl acrylate                                                                                                | (15 d): 70 - 80 % Detected in water. Read-across from supporting substance (structural analogue or surrogate), Key study<br>(28 d): > 0 - 10 % Detected in water. Experimental result, Key study                                                                                                                                                                                                        |
| Phosphine oxide, diphenyl(2,4,6-trimethylbenzoyl)-Nickel, 5,5'-azobis-2,4,6(1H,3H,5H)-pyrimidinetrione complexes | No data available.                                                                                                                                                                                                                                                                                                                                                                                      |
| Phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide                                                               | No data available.                                                                                                                                                                                                                                                                                                                                                                                      |
| Ethoxylated phenyl acrylate                                                                                      | No data available.                                                                                                                                                                                                                                                                                                                                                                                      |
| 2-Isopropyl-9H-thioxanthen-9-one                                                                                 | No data available.                                                                                                                                                                                                                                                                                                                                                                                      |
| 2-phenoxyethanol                                                                                                 | > 70 % Detected in water. Experimental result, Supporting study<br>75 % Detected in water. Experimental result, Key study<br>(20 d): 21,33 % Detected in water. Experimental result, Supporting study<br>60 % Detected in water. Experimental result, Key study<br>61 % Detected in water. Experimental result, Supporting study<br>(28 d): 60 - 70 % Detected in water. Experimental result, Key study |
| Hexamethylene diacrylate                                                                                         | (28 d): 92 % Detected in water. Experimental result, Key study                                                                                                                                                                                                                                                                                                                                          |
| Tetrahydrofurfuryl alcohol                                                                                       | (60 d): 0 % Detected in water. Experimental result, Supporting study<br>(28 d): 5 % Detected in water. Experimental result, Key study                                                                                                                                                                                                                                                                   |
| caprolactam                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                         |

Hydroquinone (14 d): 86 % Detected in water. Experimental result, Supporting study  
 >= 99,9 % Sediment Experimental result, Key study  
 (14 d): 70 % Detected in water. Experimental result, Supporting study  
 100 % Detected in water. Experimental result, Supporting study  
 (5 d): 97,5 % Detected in water. Experimental result, Key study

**BOD/COD Ratio  
Product**

No data available.

**Specified substance(s)**

exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-ylacrylate No data available.  
 Phenoxyethylacrylate No data available.  
 Tetrahydrofurfuryl acrylate No data available.  
 Oxybis(methyl-2,1-ethanediyl) diacrylate No data available.  
 N-vinyl caprolactam No data available.  
 2-Propenoic acid ,1-6-hexanediyl ester, polymer with 2-aminoethanol No data available.  
 Isodecyl acrylate No data available.  
 Phosphine oxide, diphenyl(2,4,6-trimethylbenzoyl)-Nickel, 5,5'-azobis-2,4,6(1H,3H,5H)-pyrimidinetrione complexes No data available.  
 Phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide No data available.  
 Ethoxylated phenyl acrylate No data available.  
 2-Isopropyl-9H-thioxanthen-9-one No data available.  
 2-phenoxyethanol No data available.  
 Hexamethylene diacrylate No data available.  
 Tetrahydrofurfuryl alcohol No data available.  
 caprolactam No data available.  
 Hydroquinone No data available.

**12.3 Bioaccumulative potential  
Product**

No data available.

**Specified substance(s)**

exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-ylacrylate Danio rerio, Bioconcentration Factor (BCF): 37 Aquatic sediment Read-across from supporting substance (structural analogue or surrogate), Weight of Evidence study  
 Phenoxyethylacrylate No data available.  
 Tetrahydrofurfuryl acrylate No data available.  
 Oxybis(methyl-2,1-ethanediyl) diacrylate No data available.  
 N-vinyl caprolactam No data available.  
 2-Propenoic acid ,1-6-hexanediyl ester, polymer with 2-aminoethanol No data available.  
 Isodecyl acrylate No data available.

|                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|----------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Phosphine oxide, diphenyl(2,4,6-trimethylbenzoyl)-             | Cyprinus carpio, Bioconcentration Factor (BCF): 22 - 32 Aquatic sediment Experimental result, Key study<br>Cyprinus carpio, Bioconcentration Factor (BCF): 18 - 22 Aquatic sediment Experimental result, Key study<br>Cyprinus carpio, Bioconcentration Factor (BCF): 53 - 72 Aquatic sediment Experimental result, Key study<br>Cyprinus carpio, Bioconcentration Factor (BCF): 23 - 40 Aquatic sediment Experimental result, Key study<br>Cyprinus carpio, Bioconcentration Factor (BCF): 47 - 55 Aquatic sediment Experimental result, Key study |
| Nickel, 5,5'-azobis-2,4,6(1H,3H,5H)-pyrimidinetrione complexes | No data available.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide             | No data available.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Ethoxylated phenyl acrylate                                    | No data available.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 2-Isopropyl-9H-thioxanthen-9-one                               | No data available.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 2-phenoxyethanol                                               | Bioconcentration Factor (BCF): 4,5 Aquatic sediment Estimated by calculation, Not specified<br>Bioconcentration Factor (BCF): 0,35 Aquatic sediment Estimated by calculation, Key study                                                                                                                                                                                                                                                                                                                                                             |
| Hexamethylene diacrylate                                       | No data available.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Tetrahydrofurfuryl alcohol                                     | No data available.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| caprolactam                                                    | No data available.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Hydroquinone                                                   | No data available.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |

#### 12.4 Mobility in soil

|                |                    |
|----------------|--------------------|
| <b>Product</b> | No data available. |
|----------------|--------------------|

#### Known or predicted distribution to environmental compartments

##### Specified substance(s)

|                                                                     |                    |
|---------------------------------------------------------------------|--------------------|
| exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-ylacrylate                  | No data available. |
| Phenoxyethylacrylate                                                | No data available. |
| Tetrahydrofurfuryl acrylate                                         | No data available. |
| Oxybis(methyl-2,1-ethanediyl) diacrylate                            | No data available. |
| N-vinyl caprolactam                                                 | No data available. |
| 2-Propenoic acid ,1-6-hexanediyl ester, polymer with 2-aminoethanol | No data available. |
| Isodecyl acrylate                                                   | No data available. |
| Phosphine oxide, diphenyl(2,4,6-trimethylbenzoyl)-                  | No data available. |
| Nickel, 5,5'-azobis-2,4,6(1H,3H,5H)-pyrimidinetrione complexes      | No data available. |
| Phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide                  | No data available. |
| Ethoxylated phenyl acrylate                                         | No data available. |
| 2-Isopropyl-9H-thioxanthen-9-one                                    | No data available. |
| 2-phenoxyethanol                                                    | No data available. |

|                            |                    |
|----------------------------|--------------------|
| Hexamethylene diacrylate   | No data available. |
| Tetrahydrofurfuryl alcohol | No data available. |
| caprolactam                | No data available. |
| Hydroquinone               | No data available. |

## 12.5 Results of PBT and vPvB assessment

|                |                                                                                                                                    |
|----------------|------------------------------------------------------------------------------------------------------------------------------------|
| <b>Product</b> | Not fulfilling PBT (persistent/bioaccumulative/toxic) criteria Not fulfilling vPvB (very persistent/very bioaccumulative) criteria |
|----------------|------------------------------------------------------------------------------------------------------------------------------------|

### Specified substance(s)

|                                                                     |                    |
|---------------------------------------------------------------------|--------------------|
| exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-ylacrylate                  | No data available. |
| Phenoxyethylacrylate                                                | No data available. |
| Tetrahydrofurfuryl acrylate                                         | No data available. |
| Oxybis(methyl-2,1-ethanediyl) diacrylate                            | No data available. |
| N-vinyl caprolactam                                                 | No data available. |
| 2-Propenoic acid ,1-6-hexanediyl ester, polymer with 2-aminoethanol | No data available. |
| Isodecyl acrylate                                                   | No data available. |
| Phosphine oxide, diphenyl(2,4,6-trimethylbenzoyl)-                  | No data available. |
| Nickel, 5,5'-azobis-2,4,6(1H,3H,5H)-pyrimidinetrione complexes      | No data available. |
| Phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide                  | No data available. |
| Ethoxylated phenyl acrylate                                         | No data available. |
| 2-Isopropyl-9H-thioxanthen-9-one                                    | No data available. |
| 2-phenoxyethanol                                                    | No data available. |
| Hexamethylene diacrylate                                            | No data available. |
| Tetrahydrofurfuryl alcohol                                          | No data available. |
| caprolactam                                                         | No data available. |
| Hydroquinone                                                        | No data available. |

|                                    |                                                  |
|------------------------------------|--------------------------------------------------|
| <b>12.6 Other adverse effects:</b> | Toxic to aquatic life with long lasting effects. |
|------------------------------------|--------------------------------------------------|

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

|                             |                                                                                                                                                                                                                                                              |
|-----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>General information:</b> | 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. |
| <b>Disposal methods:</b>    | Discharge, treatment, or disposal may be subject to national, state, or local laws.                                                                                                                                                                          |
| <b>Packaging:</b>           | Since emptied containers retain product residue, follow label warnings even after container is emptied.                                                                                                                                                      |

## SECTION 14: Transport information

## ADR

|                                    |                                                               |
|------------------------------------|---------------------------------------------------------------|
| 14.1 UN 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                                         |

## RID

|                                    |                                                               |
|------------------------------------|---------------------------------------------------------------|
| 14.1 UN 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:                    | 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                                                           |
| Limited quantity                   | 5,00L                                                         |
| Excepted quantity                  | E1                                                            |
| 14.5 Environmental Hazards:        | Environmentally Hazardous                                     |
| 14.6 Special precautions for user: | CODE 2.10.2.7                                                 |

## IATA

|                                    |                                                               |
|------------------------------------|---------------------------------------------------------------|
| 14.1 UN 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                                                           |
| Limited quantity                   | No data available.                                            |
| Excepted quantity                  | E1                                                            |
| 14.5 Environmental Hazards:        | Yes                                                           |
| 14.6 Special precautions for user: | SPECIAL PROVISION A197                                        |

Other information

Passenger and cargo aircraft: Allowed.

Cargo aircraft only: Allowed.

**14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code:** not applicable.

## SECTION 15: Regulatory information

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

### EU Regulations

**Regulation (EC) No. 2037/2000 Substances that deplete the ozone layer:** none

**Regulation (EC) No. 850/2004 on persistent organic pollutants:** none

**Regulation (EC) No. 689/2008 Import and export of dangerous chemicals:** none

**Regulation (EC) No. 1907/2006, REACH Annex XIV Substances subject to authorisation, as amended:** none

**Regulation (EC) No. 1907/2006 Annex XVII Substances subject to restriction on marketing and use:**

The packaging shall be visibly, legibly and indelibly marked as follows:  
Restricted to professional users.

| Chemical name                                                  | CAS-No.    | Concentration |
|----------------------------------------------------------------|------------|---------------|
| Nickel, 5,5'-azobis-2,4,6(1H,3H,5H)-pyrimidinetrione complexes | 68511-62-6 | 1,0 - 10%     |
| Tetrahydrofurfuryl alcohol                                     | 97-99-4    | 0,1 - 1,0%    |
| Heptane                                                        | 142-82-5   | - <0,1%       |

**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 |
|----------------------------|----------|---------------|
| Tetrahydrofurfuryl alcohol | 97-99-4  | 0,1 - 1,0%    |
| Hydroquinone               | 123-31-9 | 0 - <0,1%     |

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

E2. Hazardous to the aquatic environment 200 t 500 t

**EU. Regulation No. 166/2006 PRTR (Pollutant Release and Transfer Registry), Annex II: Pollutants:**

| Chemical name                                                  | CAS-No.    | Concentration |
|----------------------------------------------------------------|------------|---------------|
| Nickel, 5,5'-azobis-2,4,6(1H,3H,5H)-pyrimidinetrione complexes | 68511-62-6 | 1,0 - 10%     |

**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-ylacrylaat | 5888-33-5 | 10 - 20%      |
| Isodecyl acrylate                                  | 1330-61-6 | 1,0 - 10%     |

|                                                    |             |            |
|----------------------------------------------------|-------------|------------|
| Phosphine oxide, diphenyl(2,4,6-trimethylbenzoyl)- | 75980-60-8  | 1,0 - 10%  |
| Phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide | 162881-26-7 | 1,0 - 10%  |
| 2-phenoxyethanol                                   | 122-99-6    | 1,0 - 10%  |
| Hexamethylene diacrylate                           | 13048-33-4  | 0,1 - 1,0% |
| Tetrahydrofurfuryl alcohol                         | 97-99-4     | 0,1 - 1,0% |
| caprolactam                                        | 105-60-2    | 0,1 - 1,0% |
| Heptane                                            | 142-82-5    | 0 - <0,1%  |
| Hydroquinone                                       | 123-31-9    | 0 - <0,1%  |
| Phenol, 4-methoxy-                                 | 150-76-5    | 0 - <0,1%  |

## 15.2 Chemical safety assessment:

No Chemical Safety Assessment has been carried out.

## SECTION 16: Other information

**Revision Information:** Not relevant.

### References

PBT PBT: persistent, bioaccumulative and toxic substance.  
vPvB vPvB: very persistent and very bioaccumulative substance.

**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 damage, Category 1                                       | Calculation method       |
| Skin sensitizer, Category 1                                          | Calculation method       |
| Toxic to reproduction, Category 1B                                   | Calculation method       |
| Specific Target Organ Toxicity - Single Exposure, Category 3         | Calculation method       |
| Specific Target Organ Toxicity - Repeated Exposure, Category 2       | Calculation method       |
| Chronic hazards to the aquatic environment, Category 2               | Calculation method       |

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

H227 Combustible liquid.  
H302 Harmful if swallowed.  
H312 Harmful in contact with skin.  
H314 Causes severe skin burns and eye damage.  
H315 Causes skin irritation.  
H317 May cause an allergic skin reaction.  
H318 Causes serious eye damage.  
H319 Causes serious eye irritation.  
H332 Harmful if inhaled.  
H335 May cause respiratory irritation.  
H341 Suspected of causing genetic defects.  
H351 Suspected of causing cancer.  
H360 May damage fertility or the unborn child.  
H360Df May damage the unborn child. Suspected of

|       |                                                                    |
|-------|--------------------------------------------------------------------|
| H361d | damaging fertility.                                                |
| H361f | Suspected of damaging the unborn child.                            |
| H372  | Suspected of damaging fertility.                                   |
|       | Causes damage to organs through prolonged or repeated exposure.    |
| 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.                   |
| H413  | May cause long lasting harmful effects to aquatic life.            |

**Training information:**

Follow training instructions when handling this material.

**Issue Date:**

11.04.2019

**SDS No.:**

**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.