

# SAFETY DATA SHEET

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

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

### 1.1 Product identifier

**Product name:** DEGADUR® 420

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

**Identified uses:** binder for floor-coating  
Roller application or brushing  
Hand-mixing with intimate contact and only PPE available  
Wide dispersive indoor use resulting in inclusion into or onto a matrix  
Wide dispersive outdoor use resulting in inclusion into or onto a matrix

**Uses advised against:** Applications where liquid monomer is intended to come into contact with skin or nails.

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

Company Name : Röhm GmbH  
Product Stewardship  
Deutsche-Telekom-Allee 9  
64295 Darmstadt

Telephone : +49 6151 863 7542

E-mail : sds-info@roehm.com

### 1.4 Emergency telephone number:

24-Hour Health Emergency : +49 6241 402 5280 (24h)

## 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.**

#### Physical Hazards

Flammable liquids Category 2 H225: Highly flammable liquid and vapor.

#### Health Hazards

|                                                  |            |                                                          |
|--------------------------------------------------|------------|----------------------------------------------------------|
| Skin irritation                                  | Category 2 | H315: Causes skin irritation.                            |
| Skin sensitizer                                  | Category 1 | H317: May cause an allergic skin reaction.               |
| Specific Target Organ Toxicity - Single Exposure | Category 3 | H335: May cause respiratory irritation.                  |
| <b>Environmental Hazards</b>                     |            |                                                          |
| Chronic hazards to the aquatic environment       | Category 3 | H412: Harmful to aquatic life with long lasting effects. |

## 2.2 Label Elements



### Signal Words:

Danger

### Hazard Statement(s):

H225: Highly flammable liquid and vapor.  
 H315: Causes skin irritation.  
 H317: May cause an allergic skin reaction.  
 H335: May cause respiratory irritation.  
 H412: Harmful to aquatic life with long lasting effects.

### Precautionary Statements

#### Prevention:

P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
 P233: Keep container tightly closed.  
 P261: Avoid breathing dust/fume/gas/mist/vapors/spray.  
 P272: Contaminated work clothing should not be allowed out of the workplace.  
 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.  
 P304+P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
 P312: Call a POISON CENTER or doctor/ physician if you feel unwell.  
 P370 + P378: In case of fire: Use alcohol-resistant foam, carbon dioxide or dry sand to extinguish.

### Hazardous ingredients which must be listed on the label:

methyl methacrylate  
 2-ethylhexyl acrylate  
 triethyleneglycol dimethacrylate  
 2-hydroxyethyl methacrylate

## 2.3 Other hazards

Take precautionary measures against static discharges. The product is normally supplied in a stabilized form. If the permissible storage period and/or storage temperature is exceeded, the product may polymerize with heat evolution.

### PBT/vPvB data

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

### Endocrine disrupting properties-Toxicity

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

### Endocrine disrupting properties-Ecotoxicity

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

## SECTION 3: Composition/information on ingredients

### 3.2 Mixtures

#### General information:

Solution of an acrylic polymer in an acrylic acid ester

| Chemical name                    | Concentration | CAS-No.    | EC No.    | REACH<br>Registration<br>No. | M-Factor:                                                     | Notes |
|----------------------------------|---------------|------------|-----------|------------------------------|---------------------------------------------------------------|-------|
| methyl methacrylate              | >=30 - <50%   | 80-62-6    | 201-297-1 | 01-2119452498-28;            | Aquatic Toxicity (Acute): 1;<br>Aquatic Toxicity (Chronic): 1 | #     |
| 2-ethylhexyl acrylate            | >=25 - <30%   | 103-11-7   | 203-080-7 | 01-2119453158-37;            | Aquatic Toxicity (Acute): 1;<br>Aquatic Toxicity (Chronic): 1 |       |
| triethyleneglycol dimethacrylate | >=1 - <10%    | 109-16-0   | 203-652-6 | 01-2119969287-21;            | Aquatic Toxicity (Acute): 1;<br>Aquatic Toxicity (Chronic): 1 |       |
| 2-hydroxyethyl methacrylate      | >=0,1 - <1%   | 868-77-9   | 212-782-2 | 01-2119490169-29;            | Aquatic Toxicity (Acute): 1;<br>Aquatic Toxicity (Chronic): 1 |       |
| N,N-bis-(2-hydroxypropyl)        | >=0,25 - <1%  | 38668-48-3 | 254-075-1 | 01-2119980937-               | Aquatic Toxicity                                              |       |

|                                            |                   |          |           |                           |                                                                           |  |
|--------------------------------------------|-------------------|----------|-----------|---------------------------|---------------------------------------------------------------------------|--|
| -p-toluidine                               |                   |          |           | 17;                       | (Acute): 1;<br>Aquatic<br>Toxicity<br>(Chronic): 1                        |  |
| (2-hydroxy-4-methoxyphenyl)phenylmethanone | >=0,1 -<br><0,25% | 131-57-7 | 205-031-5 | 01-<br>2119976330-<br>39; | Aquatic<br>Toxicity<br>(Acute): 1;<br>Aquatic<br>Toxicity<br>(Chronic): 1 |  |

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

# This substance has workplace exposure limit(s).

## This substance is listed as SVHC.

## Classification

| Chemical name                    | Classification                                                                                                                                                                                                                                                                                                                                                               | Notes  |
|----------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|
| methyl methacrylate              | <p>Classification: Flam. Liq.: 2: H225; Skin Irrit.: 2: H315; Skin Sens.: 1: H317; STOT SE: 3: H335;</p> <p>Supplemental label information: None known.</p> <p>Specific concentration limit: None known.</p> <p>Acute toxicity, oral: LD 50: &gt; 5.000 mg/kg</p> <p>Acute toxicity, inhalation: LC 50: 29,8 mg/l</p> <p>Acute toxicity, dermal: LD 50: &gt; 5.000 mg/kg</p> | Note D |
| 2-ethylhexyl acrylate            | <p>Classification: Skin Irrit.: 2: H315; Skin Sens.: 1B: H317; STOT SE: 3: H335; Aquatic Chronic: 3: H412;</p> <p>Supplemental label information: None known.</p> <p>Specific concentration limit: None known.</p> <p>Acute toxicity, oral: LD 50: 4.435 mg/kg</p> <p>Acute toxicity, inhalation: None known.</p> <p>Acute toxicity, dermal: LD 50: 7.522 mg/kg</p>          | Note D |
| triethyleneglycol dimethacrylate | <p>Classification: Skin Sens.: 1B: H317;</p> <p>Supplemental label information: None known.</p> <p>Specific concentration limit: None known.</p> <p>Acute toxicity, oral: LD 50: &gt; 5.000 mg/kg</p> <p>Acute toxicity, inhalation: None known.</p> <p>Acute toxicity, dermal: LD 50: &gt; 2.000 mg/kg</p>                                                                  | None.  |
| 2-hydroxyethyl methacrylate      | <p>Classification: Skin Irrit.: 2: H315; Eye Irrit.: 2: H319; Skin Sens.: 1: H317;</p> <p>Supplemental label information: None known.</p>                                                                                                                                                                                                                                    | Note D |

|                                             |                                                                                                                                                                                                                                                                                                                                                   |       |
|---------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|
|                                             | <p>Specific concentration limit: None known.</p> <p>Acute toxicity, oral: LD 50: &gt; 5.000 mg/kg</p> <p>Acute toxicity, inhalation: None known.</p> <p>Acute toxicity, dermal: LD 50: &gt; 5.000 mg/kg</p>                                                                                                                                       |       |
| N,N-bis-(2-hydroxypropyl)-p-toluidine       | <p>Classification: Acute Tox.: 2: H300; Eye Irrit.: 2: H319; Aquatic Chronic: 3: H412;</p> <p>Supplemental label information: None known.</p> <p>Specific concentration limit: None known.</p> <p>Acute toxicity, oral: LD 50: 25 mg/kg</p> <p>Acute toxicity, inhalation: None known.</p> <p>Acute toxicity, dermal: LD 50: &gt; 2.000 mg/kg</p> | None. |
| (2-hydroxy-4-methoxyphenyl)phenyl-methanone | <p>Classification: Aquatic Acute: 1: H400; Aquatic Chronic: 2: H411;</p> <p>Supplemental label information: None known.</p> <p>Specific concentration limit: None known.</p> <p>Acute toxicity, oral: LD 50: &gt; 12.800 mg/kg</p> <p>Acute toxicity, inhalation: None known.</p> <p>Acute toxicity, dermal: LD 50: &gt; 16.000 mg/kg</p>         | None. |

CLP: Regulation No. 1272/2008.

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

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

#### General information:

Take off all contaminated clothing immediately. Medical treatment is necessary if symptoms occur which are obviously caused by skin or eye contact with the product or by inhalation of its vapours.

#### Inhalation:

Move subject to fresh air and keep him calm. If feeling unwell seek medical advice.

#### Skin Contact:

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower]. Wash contaminated clothing before reuse. If skin irritation occurs consult a physician.

#### Eye contact:

Rinse thoroughly with plenty of water, also under the eyelids. In case of complaints get medical advice.

#### Ingestion:

Do not induce vomiting. Call a physician immediately. Never give anything by mouth to an unconscious person.

#### Personal Protection for First-aid Responders:

First Aid responders should pay attention to self-protection and use the recommended protective clothing

**4.2 Most important symptoms and effects, both acute and delayed****Symptoms:**

Excessive or prolonged exposure can cause the following:  
Headache. confusion Irritation Product  
has dermal defatting effect

**Hazards:**

May cause sensitization by skin contact.

**4.3 Indication of immediate medical attention and special treatment needed****Treatment:**

No specific antidote known. Treat symptomatically.

**SECTION 5: Firefighting measures****General Fire Hazards:**

Vapours are heavier than air and can form an explosive mixture with air. Flammable liquid. Vapors can travel to a source of ignition and flash back. Explosive mixtures may occur at temperatures at or above the flashpoint. Remove sources of ignition. Also keep emptied containers away from sources of heat and ignition. Keep out unprotected persons. In case of fire, remove the endangered barrels and bring to a safe place, if this can be done safely. Containers exposed to heat (fire) may build up pressure. Cool by splashing with water. Prevent fire extinguishing water from contaminating surface water or the ground water system. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

**5.1 Extinguishing media****Suitable extinguishing media:**

foam , Carbon dioxide, sprinkler system with water, Dry chemical.

**Unsuitable extinguishing media:**

High volume water jet

**5.2 Special hazards arising from the substance or mixture:**

May be released in case of fire: carbon monoxide, carbon dioxide, organic products of decomposition. Closed container may rupture if strongly heated. Vapours may form explosive mixtures with air. Combustible air-vapour mixtures are heavier than the air and spread along the floor. Ignition from a considerable distance is possible.

**5.3 Advice for firefighters****Special fire-fighting procedures:**

Keep away from sources of ignition - No smoking. Vapors are heavier than air. Flammable liquid. Vapors can travel to a source of ignition and flash back. Explosive mixtures may occur at temperatures at or above the flashpoint. Take action to prevent static discharges. In the event of fire, cool the endangered containers with water. Fire fighting must be carried out from a safe distance. Use explosion-proof equipment.

**Special protective equipment for fire-fighters:**

Wear self-contained breathing apparatus.

## SECTION 6: Accidental release measures

- |                                                                                 |                                                                                                                                                                                                                                                                                                         |
|---------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>6.1 Personal precautions, protective equipment and emergency procedures:</b> | Assure sufficient ventilation. Use personal protective clothing. Use breathing apparatus if exposed to vapours/dust/mist/aerosol. Keep away from open flames, hot surfaces and sources of ignition. Vapours can form explosive mixtures with air. Keep out unprotected persons. Avoid spark generation. |
| <b>6.1.1 For non-emergency personnel:</b>                                       | Remove sources of ignition. Stop leak if you can do so without risk. Assure sufficient ventilation.                                                                                                                                                                                                     |
| <b>6.1.2 For emergency responders:</b>                                          | Use water SPRAY only to cool containers! Do not put water on leaked material.                                                                                                                                                                                                                           |
| <b>6.2 Environmental Precautions:</b>                                           | Prevent product from getting into drains/surface water/groundwater.                                                                                                                                                                                                                                     |
| <b>6.3 Methods and material for containment and cleaning up:</b>                | Larger quantities: Remove mechanically (by pumping). Use explosion-proof equipment! Smaller quantities and/or residues: Contain with absorbent material (e.g. sand, diatomaceous earth, acid absorbent, universal absorbent or sawdust). Dispose of in accordance with regulations.                     |
| <b>6.4 Reference to other sections:</b>                                         | For personal protection see section 8. For disposal considerations see section 13.                                                                                                                                                                                                                      |

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

- |                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|---------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Technical measures:</b>      | Provide good ventilation or extraction.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Local/Total ventilation:</b> | Provide a good standard of general or controlled ventilation (5 to 10 air changes per hour)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Safe handling advice:</b>    | <p>Wash hands before breaks and immediately after handling the product. Safety shower and eye wash fountain should be available. Keep away from sources of ignition - No smoking. Vapors are heavier than air. Flammable liquid. Vapors can travel to a source of ignition and flash back. Explosive mixtures may occur at temperatures at or above the flashpoint.</p> <p>Take action to prevent static discharges. In the event of fire, cool the endangered containers with water. Fire fighting must be carried out from a safe distance. Use explosion-proof equipment. When using do not eat, drink or smoke. Avoid inhalation, ingestion and contact with skin and eyes. Provide sufficient ventilation and exhaust at the workplace. Provide good room ventilation even at ground level (vapours are heavier than air). Keep container tightly closed. Open drum carefully as content may be under pressure. Keep away from heat/sparks/open flames/hot surfaces. No smoking. Provide adequate precautions, such as electrical grounding and bonding, or inert atmospheres. Wash thoroughly after handling. Supervision in place to check that the risk management measures in place are being used correctly and operation conditions followed. Persons susceptible to skin sensitisation problems or asthma,</p> |

allergies, chronic or recurrent respiratory disease should not be employed in any process in which this mixture is being used. Controll staff entry to working area. Training for staff on good practice. Recording of any 'near miss' situations. Regular cleaning of equipment and work area.

**Contact avoidance measures:** see section 8.

## 7.2 Conditions for safe storage, including any incompatibilities

**Safe storage conditions:** Keep away from open flames, hot surfaces and sources of ignition. Keep away from heat. Protect against direct sunlight. Keep containers tightly closed in a cool, well-ventilated place. Fill the container by approximately 90 % only as oxygen (air) is required for stabilisation. With large storage containers make sure the oxygen (air) supply is sufficient to ensure stability. Keep locked up. Keep only in the original container at a temperature not exceeding 30 °C.

**Safe packaging materials:** No data available.

**7.3 Specific end use(s):** Applications; see Section 1.

## SECTION 8: Exposure controls/personal protection

### 8.1 Control Parameters

#### Occupational Exposure Limits

| Chemical name       | Type                  | Form of exposure | Exposure Limit Values | Source                                                                                                                                             |
|---------------------|-----------------------|------------------|-----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|
| methyl methacrylate | STEL<br>15<br>minutes |                  | 100 ppm               | Ireland. OELVs, Schedule 1 (Code of Practice for Chemical Agents Regulations), as amended (2018)                                                   |
|                     | TWA                   |                  | 50 ppm                | Ireland. OELVs, Schedule 1 (Code of Practice for Chemical Agents Regulations), as amended (2016)                                                   |
|                     | TWA                   |                  | 50 ppm                | EU. Indicative Occupational Exposure Limit Values in Directives 91/322/EEC, 2000/39/EC, 2006/15/EC, 2009/161/EU, 2017/164/EU, as amended (02 2017) |
|                     | STEL                  |                  | 100 ppm               | EU. Indicative Occupational Exposure Limit Values in Directives 91/322/EEC, 2000/39/EC, 2006/15/EC, 2009/161/EU, 2017/164/EU, as amended (02 2017) |

Please refer to the latest edition of the appropriate source text and consult an industrial hygienist or similar professional, or local agencies, for further information.

#### Biological Limit Values

No biological exposure limits noted for the ingredient(s).

#### DNEL-Values

Remarks: DNEL-Values

| Critical component  | Type    | Route of Exposure | Health Warnings | Remarks                      |
|---------------------|---------|-------------------|-----------------|------------------------------|
| methyl methacrylate | Workers | Inhalativ         | 208 mg/m3       | Long-term - systemic effects |



|  |           |           |              |                              |
|--|-----------|-----------|--------------|------------------------------|
|  | Workers   | Dermal    | 13,7 mg/kg/d | Long-term - systemic effects |
|  | Workers   | Inhalativ | 416 mg/m3    | Short-term exposure          |
|  | Workers   | Dermal    | 1,500 µg/cm2 | Short-term exposure          |
|  | Consumers | Inhalativ | 74,3 mg/m3   | Long-term - systemic effects |
|  | Consumers | Dermal    | 8,2 mg/kg/d  | Long-term - systemic effects |
|  | Consumers | Oral      | 8,2 mg/kg/d  | Long-term - systemic effects |
|  | Consumers | Inhalativ | 208 mg/m3    | Short-term exposure          |

|                       |         |           |              |                           |
|-----------------------|---------|-----------|--------------|---------------------------|
| 2-ethylhexyl acrylate | Workers | Inhalativ | 37,5 mg/m3   | Long-term - local effects |
|                       | Workers | Dermal    | 0,242 mg/cm2 | Long-term - local effects |

|                                  |         |           |                           |                              |
|----------------------------------|---------|-----------|---------------------------|------------------------------|
| triethyleneglycol dimethacrylate | Workers | Inhalativ | 48,5 mg/m3                | Long-term - systemic effects |
|                                  | Workers | Dermal    | 13,9 mg/kg bodyweight/day | Long-term - systemic effects |

|                             |           |           |              |                              |
|-----------------------------|-----------|-----------|--------------|------------------------------|
| 2-hydroxyethyl methacrylate | Workers   | Inhalativ | 4,9 mg/m3    | Long-term - systemic effects |
|                             | Workers   | Dermal    | 1,39 mg/kg/d | Long-term - systemic effects |
|                             | Consumers | Inhalativ | 1,45 mg/m3   | Long-term - systemic effects |
|                             | Consumers | Dermal    | 0,83 mg/kg/d | Long-term - systemic effects |

## PNEC-Values

Remarks: PNEC-Values

| Critical component  | Environmental compartment    | PNEC-Values           | Remarks |
|---------------------|------------------------------|-----------------------|---------|
| methyl methacrylate | Fresh water                  | 0,94 mg/l             |         |
|                     | freshwater sediment          | 10,2 mg/kg dry weight |         |
|                     | marine water                 | 0,094 mg/l            |         |
|                     | marine water sediment        | 1,02 mg/kg dry weight |         |
|                     | soil                         | 1,48 mg/kg dry weight |         |
|                     | sewage treatment plant (STP) | 10 mg/l               |         |
|                     | Humans via the environment   | 8,2 mg/kg bw/day      |         |

|                       |                              |               |  |
|-----------------------|------------------------------|---------------|--|
| 2-ethylhexyl acrylate | Fresh water                  | 0,002727 mg/l |  |
|                       | marine water                 | 0,000272 mg/l |  |
|                       | freshwater sediment          | 0,126 mg/kg   |  |
|                       | Marine sediments             | 0,126 mg/kg   |  |
|                       | soil                         | 1 mg/kg       |  |
|                       | sewage treatment plant (STP) | 2,3 mg/l      |  |

|                                  |                              |                           |  |
|----------------------------------|------------------------------|---------------------------|--|
| triethyleneglycol dimethacrylate | Fresh water                  | 0,016 mg/l                |  |
|                                  | marine water                 | 0,0016 mg/l               |  |
|                                  | freshwater sediment          | 0,185 mg/kg (dry weight)  |  |
|                                  | Marine sediments             | 0,0185 mg/kg (dry weight) |  |
|                                  | soil                         | 0,027 mg/kg (dry weight)  |  |
|                                  | sewage treatment plant (STP) | 1,7 mg/l                  |  |

|                             |                       |                        |  |
|-----------------------------|-----------------------|------------------------|--|
| 2-hydroxyethyl methacrylate | Fresh water           | 0,482 mg/l             |  |
|                             | freshwater sediment   | 3,79 mg/kg dry weight  |  |
|                             | marine water          | 0,0482 mg/l            |  |
|                             | marine water sediment | 0,379 mg/kg dry weight |  |
|                             | soil                  | 0,476 mg/kg            |  |

|  |                              |                   |  |
|--|------------------------------|-------------------|--|
|  | sewage treatment plant (STP) | 10 mg/l           |  |
|  | Humans via the environment   | 0,83 mg/kg bw/day |  |

|                      |                              |                        |  |
|----------------------|------------------------------|------------------------|--|
| n-butyl methacrylate | sewage treatment plant (STP) | 31,7 mg/l              |  |
|                      | Fresh water                  | 0,0169 mg/l            |  |
|                      | freshwater sediment          | 4,73 mg/kg dry weight  |  |
|                      | marine water                 | 0,00169 mg/l           |  |
|                      | marine water sediment        | 0,473 mg/kg dry weight |  |
|                      | soil                         | 0,935 mg/kg dry weight |  |
|                      | Humans via the environment   | 3 mg/kg bw/day         |  |

## 8.2 Exposure controls

### Appropriate Engineering Controls:

For monitoring procedures refer for instance to "Empfohlene Analysenverfahren für Arbeitsplatzmessungen", Schriftenreihe der Bundesanstalt für Arbeitsschutz and "NIOSH Manual of Analytical Methods", National Institute for Occupational Safety and Health

### Monitoring methods:

Provide good ventilation or extraction.

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

#### Eye/face protection:

Tightly fitting safety goggles

#### Hand Protection:

Material: butyl rubber gloves  
 Break-through time: 60 min  
 Glove thickness: 0,3 mm  
 Guideline: EN 374  
 Additional Information: Gloves should be replaced regularly, especially after extended contact with the product., For each work-place a suitable glove type has to be selected.

#### Skin and Body Protection:

On handling of larger quantities: face mask, chemical-resistant boots and apron

#### Respiratory Protection:

if the limit values like TLV are exceeded, when vapours or aerosols occur Respirator with filter for organic vapour short term: filter appliance, filter A

#### Hygiene measures:

Take off all contaminated clothing immediately. Store work clothing separately. Follow the usual good standards of occupational hygiene. Clean skin thoroughly after work; apply skin cream.

#### Environmental Controls:

see section 6.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

#### Appearance

|                 |        |
|-----------------|--------|
| Physical state: | liquid |
| Form:           | liquid |
| Color:          | Blue   |

|                                                              |                                                             |
|--------------------------------------------------------------|-------------------------------------------------------------|
| <b>Odor:</b>                                                 | ester-like                                                  |
| <b>Odor Threshold:</b>                                       | < 1 ppm (methyl methacrylate)                               |
| <b>Freezing point:</b>                                       | < -22 °F/-30 °C                                             |
| <b>Boiling Point:</b>                                        | 212 °F/100 °C (1.013 hPa) (estimated) (methyl methacrylate) |
| <b>Flammability:</b>                                         | Highly flammable liquid and vapor.                          |
| <b>Upper/lower limit on flammability or explosive limits</b> |                                                             |
| <b>Explosive limit - upper:</b>                              | (estimated) approx. 12,5 %(V) (methyl methacrylate)         |
| <b>Explosive limit - lower:</b>                              | (estimated) approx. 2,1 %(V) (methyl methacrylate)          |
| <b>Flash Point:</b>                                          | 50 °F/10 °C (estimated) (methyl methacrylate)               |
| <b>Auto-ignition temperature:</b>                            | 806 °F/430 °C (estimated) (methyl methacrylate)             |
| <b>Decomposition Temperature:</b>                            | No decomposition if used as directed.                       |
| <b>pH:</b>                                                   | 7                                                           |
| <b>Viscosity</b>                                             |                                                             |
| <b>Dynamic viscosity:</b>                                    | 180 mPa.s (73 °F/23 °C)                                     |
| <b>Kinematic viscosity:</b>                                  | approx. 180 mm <sup>2</sup> /s(calculated)                  |
| <b>Flow Time:</b>                                            | not determined                                              |
| <b>Solubility(ies)</b>                                       |                                                             |
| <b>Solubility in Water:</b>                                  | Insoluble in water                                          |
| <b>Solubility (other):</b>                                   | soluble in ethyl acetate                                    |
| <b>Dissolution Rate:</b>                                     | No data available.                                          |
| <b>Partition coefficient (n-octanol/water):</b>              | 0,7 (estimated) (methyl methacrylate)                       |
| <b>Dispersion Stability:</b>                                 | Not applicable                                              |
| <b>Vapor pressure:</b>                                       | approx. 40 hPa (68 °F/20 °C)                                |
| <b>Relative density:</b>                                     | < 1 estimated                                               |
| <b>Density:</b>                                              | 0,98 g/cm <sup>3</sup> (68 °F/20 °C)                        |
| <b>Bulk density:</b>                                         | No data available.                                          |
| <b>Relative vapor density:</b>                               | > 1 68 °F/20 °C                                             |

## 9.2 Other information

|                                  |                |
|----------------------------------|----------------|
| <b>Autoignition Temperature:</b> | not pyrophoric |
|----------------------------------|----------------|

## SECTION 10: Stability and reactivity

|                                                 |                                                                                                                                                                                                                              |
|-------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>10.1 Reactivity:</b>                         | polymerisation                                                                                                                                                                                                               |
| <b>10.2 Chemical Stability:</b>                 | No decomposition if used as directed.                                                                                                                                                                                        |
| <b>10.3 Possibility of hazardous reactions:</b> | Polymerization with heat evolution may occur in the presence of radical forming substances (e.g. peroxides), reducing substances, and/or heavy metal ions. Vigorous polymerization is possible when heated /exposed to heat. |

- 10.4 **Conditions to avoid:** Avoid high temperatures and sources of ignition. Ultraviolet light. The product is normally supplied in a stabilized form. If the permissible storage period and/or storage temperature is exceeded, the product may polymerize with heat evolution.
- 10.5 **Incompatible Materials:** Peroxides, amines, sulfur compounds, heavy metal ions, alkalis, reducing agents and oxidizing agents.
- 10.6 **Hazardous Decomposition Products:** None when used as directed.

## SECTION 11: Toxicological information

**General information:** Properties of components in summary.

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

- Inhalation:** Relevant route of exposure. Information on effects are given below.
- Skin Contact:** Relevant route of exposure. Information on effects are given below.
- Eye contact:** Relevant route of exposure. Information on effects are given below.
- Ingestion:** If handled correctly, not a relevant route of exposure. Information on effects are given below.

#### Symptoms related to the physical, chemical and toxicological characteristics

- Inhalation:** Headache. Dizziness.
- Skin Contact:** Causes skin irritation. May cause allergic skin reaction.
- Eye contact:** Causes serious eye irritation.
- Ingestion:** If handled correctly, not a relevant route of exposure. Information on effects are given below.

#### Information on likely routes of exposure

##### Acute toxicity (list all possible routes of exposure)

##### Oral

- Product:** ATEmix: > 2.000 mg/kg (Calculation method)
- Components:**
- |                                       |                                         |
|---------------------------------------|-----------------------------------------|
| methyl methacrylate                   | LD 50 (Rat): > 5.000 mg/kg              |
| 2-ethylhexyl acrylate                 | LD 50 (Rat): 4.435 mg/kg                |
| triethyleneglycol dimethacrylate      | LD 50 (Rat): > 5.000 mg/kg              |
| 2-hydroxyethyl methacrylate           | LD 50 (Rat): > 5.000 mg/kg<br>Own study |
| N,N-bis-(2-hydroxypropyl)-p-toluidine | LD 50 (Rat): 25 mg/kg                   |

(2-hydroxy-4-methoxyphenyl)phenyl-methanone  
LD 50 (Rat): > 12.800 mg/kg

## Dermal

**Product:** Acute toxicity estimate: > 5.000 mg/kg (Calculation method)

### Components:

methyl methacrylate LD 50 (Rabbit): > 5.000 mg/kg

2-ethylhexyl acrylate LD 50 (Rabbit): 7.522 mg/kg

triethyleneglycol LD 50 (Mouse): > 2.000 mg/kg

dimethacrylate

2-hydroxyethyl methacrylate LD 50 (Rabbit): > 5.000 mg/kg (analogy)

N,N-bis-(2-hydroxypropyl)-p-toluidine LD 50 (Rat): > 2.000 mg/kg

(2-hydroxy-4-methoxyphenyl)phenyl-methanone LD 50 (Rabbit): > 16.000 mg/kg

## Inhalation

**Product:** ATEmix: < 5.000 mg/l Vapour

### Components:

methyl methacrylate LC 50 (Rat, 4 h): 29,8 mg/l low toxicity after single exposure; Vapour Not toxic after single exposure; Dust and mist, Not applicable

2-ethylhexyl acrylate Not toxic after single exposure; Not classified based on available information., Vapour Not toxic after single exposure; Not classified based on available information., Dust and mist

triethyleneglycol dimethacrylate Not toxic after single exposure; Vapour Not toxic after single exposure; Dust and mist, Not classified for acute toxicity based on available data.

2-hydroxyethyl methacrylate Not toxic after single exposure; Not classified based on available information., Vapour Not toxic after single exposure; Not classified based on available information., Dust and mist

N,N-bis-(2-hydroxypropyl)-p-toluidine Not toxic after single exposure; The substance or mixture has no acute inhalation toxicity, Dust and mist Not toxic after single exposure; The substance or mixture has no acute inhalation toxicity, Vapour

(2-hydroxy-4-methoxyphenyl)phenyl-methanone Not toxic after single exposure; Vapour, Not classified based on available information. Not toxic after single exposure; Dust and mist, Not classified based on available information.

## Repeated dose toxicity

**Product:** No toxicological tests have been conducted with the product itself.

### Components:

methyl methacrylate NOAEL (Rat, Inhalativ, 2 years): 25 ppm Findings: Damage to mucous membranes in the nose at 400 ppm

2-ethylhexyl acrylate NOAEL (Rat, Oral, 2 years): 2000 ppm Findings: no toxic effects

triethyleneglycol dimethacrylate No data available.

2-hydroxyethyl methacrylate NOAEL (Rat, Oral): 1.000 mg/kg

N,N-bis-(2-hydroxypropyl)-p-toluidine NOAEL (Rat, Oral, 7 Weeks): 100 mg/kg

(2-hydroxy-4-methoxyphenyl)phenyl-methanone No data available.

No data available.

## Skin Corrosion/Irritation

|                                             |                                                                                           |
|---------------------------------------------|-------------------------------------------------------------------------------------------|
| <b>Product:</b>                             | May cause skin irritation.                                                                |
| <b>Components:</b>                          |                                                                                           |
| methyl methacrylate                         | (Rabbit): non-irritant , 4 h<br>(Human): Irritating.                                      |
| 2-ethylhexyl acrylate                       | Irritating.                                                                               |
| triethyleneglycol dimethacrylate            | FDA 1959 Draize, occlusive (Rabbit): Not irritating , 24 h                                |
| 2-hydroxyethyl methacrylate                 | non-irritant<br>Category 2; H315<br>EU-CLP as per Regulation (EU) No. 1272/2008, Annex VI |
| N,N-bis-(2-hydroxypropyl)-p-toluidine       | OECD 404 (Rabbit): Not irritating                                                         |
| (2-hydroxy-4-methoxyphenyl)phenyl-methanone | OECD Guide-line 404 (Rabbit):                                                             |

### Serious Eye Damage/Eye Irritation

|                                             |                                                                                          |
|---------------------------------------------|------------------------------------------------------------------------------------------|
| <b>Product:</b>                             | , May irritate eyes.                                                                     |
| <b>Components:</b>                          |                                                                                          |
| methyl methacrylate                         | Not irritating OECD 405, FDA 1959 Draize , Rabbit:                                       |
| 2-ethylhexyl acrylate                       | Not irritating                                                                           |
| triethyleneglycol dimethacrylate            | Not irritating OECD Test Guideline 405 , Rabbit:                                         |
| 2-hydroxyethyl methacrylate                 | Slightly irritating Draize Test , Rabbit: Own study<br>Eye irritant Category 2B (UN-GHS) |
| N,N-bis-(2-hydroxypropyl)-p-toluidine       | Moderately irritating OECD Test Guideline 405 , Rabbit:                                  |
| (2-hydroxy-4-methoxyphenyl)phenyl-methanone | Not irritating OECD Guide-line 405 , Rabbit:                                             |

### Respiratory or Skin Sensitization

|                                             |                                                                                                                                                                                                                                             |
|---------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Product:</b>                             | May cause an allergic skin reaction.                                                                                                                                                                                                        |
| <b>Components:</b>                          |                                                                                                                                                                                                                                             |
| methyl methacrylate                         | Local Lymph Node Assay (LLNA), LLNA (OECD 429) (Mouse): May cause sensitization by skin contact.<br>Cases of sensitisation also observed in humans.<br>Not classified for respiratory sensitization                                         |
| 2-ethylhexyl acrylate                       | Skin sensitizer<br>Not classified for respiratory sensitization                                                                                                                                                                             |
| triethyleneglycol dimethacrylate            | Local Lymph Node Assay (LLNA), OECD 429 (Mouse): Skin sensitizer<br>Not classified for respiratory sensitization                                                                                                                            |
| 2-hydroxyethyl methacrylate                 | Buehler Test (Guinea Pig): Non sensitising<br>Cases of sensitisation also observed in humans.<br>May cause an allergic skin reaction. EU-CLP as per Regulation (EU) No. 1272/2008, Annex VI<br>Not classified for respiratory sensitization |
| N,N-bis-(2-hydroxypropyl)-p-toluidine       | in vivo, OECD 406 (Guinea Pig): Not a skin sensitizer.                                                                                                                                                                                      |
| (2-hydroxy-4-methoxyphenyl)phenyl-methanone | Not classified for respiratory sensitization<br>Maximization Test (GPMT) (Guinea Pig): Not a skin sensitizer.                                                                                                                               |

### Carcinogenicity

|                       |                                                                                                       |
|-----------------------|-------------------------------------------------------------------------------------------------------|
| <b>Product:</b>       | Contains no ingredient listed as a carcinogen (>0.1%).                                                |
| <b>Components:</b>    |                                                                                                       |
| methyl methacrylate   | Not classified Non-carcinogenic in inhalation and feeding studies carried out on rats, mice and dogs. |
| 2-ethylhexyl acrylate | Not classified                                                                                        |

|                                             |                                                                                                                                  |
|---------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|
| triethyleneglycol dimethacrylate            | Not classified                                                                                                                   |
| 2-hydroxyethyl methacrylate                 | Not classified no specific test data available no evidence for hazardous properties (structure-activity-relationships) (analogy) |
| N,N-bis-(2-hydroxypropyl)-p-toluidine       | Not classified                                                                                                                   |
| (2-hydroxy-4-methoxyphenyl)phenyl-methanone | Not classified                                                                                                                   |

## Germ Cell Mutagenicity

Contains no ingredient listed as a mutagen (>0.1%).

## In vitro

|                                             |                                                                                                                                                                                                                                                               |
|---------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Product:</b>                             | No toxicological tests have been conducted with the product itself.;                                                                                                                                                                                          |
| <b>Components:</b>                          |                                                                                                                                                                                                                                                               |
| methyl methacrylate                         | gene mutation (OECD 471): negative<br>gene mutation (OECD 476): negative , Chinese hamster lung fibroblasts (V79)<br>Micronucleus test (OECD 487): negative , human lymphocytes<br>No data available.                                                         |
| 2-ethylhexyl acrylate                       | gene mutation (OECD 471): negative                                                                                                                                                                                                                            |
| triethyleneglycol dimethacrylate            | gene mutation (OECD 476): negative , Chinese hamster lung fibroblasts (V79)<br>Chromosomal aberration (OECD 473): negative CHO-cells                                                                                                                          |
| 2-hydroxyethyl methacrylate                 | gene mutation (OECD 476): negative CHO-cells (analogy)<br>Cytogenetic Test (chromosome aberration) (OECD 473): positive Chinese hamster lung cells<br>gene mutation (OECD 471): negative<br>Based on available data, the classification criteria are not met. |
| N,N-bis-(2-hydroxypropyl)-p-toluidine       | Bacterial reverse mutation assay (OECD TG 471): negative                                                                                                                                                                                                      |
| (2-hydroxy-4-methoxyphenyl)phenyl-methanone | Not classified                                                                                                                                                                                                                                                |

## In vivo

|                                             |                                                                     |
|---------------------------------------------|---------------------------------------------------------------------|
| <b>Product:</b>                             | No toxicological tests have been conducted with the product itself. |
| <b>Components:</b>                          |                                                                     |
| methyl methacrylate                         | gene mutation (Dominant lethal test) Inhalativ (Mouse): negative    |
| 2-ethylhexyl acrylate                       | No data available.                                                  |
| triethyleneglycol dimethacrylate            | Based on available data, the classification criteria are not met.   |
| 2-hydroxyethyl methacrylate                 | Micronucleus test (OECD 474) (Rat, male): negative                  |
| N,N-bis-(2-hydroxypropyl)-p-toluidine       | Ames test: negative                                                 |
| (2-hydroxy-4-methoxyphenyl)phenyl-methanone | Not classified                                                      |

## Reproductive toxicity

|                                  |                                                                                                                         |
|----------------------------------|-------------------------------------------------------------------------------------------------------------------------|
| <b>Product:</b>                  | Contains no ingredient listed as toxic to reproduction (>0.1%).                                                         |
| <b>Components:</b>               |                                                                                                                         |
| methyl methacrylate              | Not classified No indications of toxic effects were observed in reproduction studies in animals. OECD 414 OECD 416 Oral |
| 2-ethylhexyl acrylate            | Not classified                                                                                                          |
| triethyleneglycol dimethacrylate | Not classified Oral: drinking water                                                                                     |

|                                             |                                                                                                  |
|---------------------------------------------|--------------------------------------------------------------------------------------------------|
| 2-hydroxyethyl methacrylate                 | Not classified No indications of toxic effects were observed in reproduction studies in animals. |
| N,N-bis-(2-hydroxypropyl)-p-toluidine       | Not classified                                                                                   |
| (2-hydroxy-4-methoxyphenyl)phenyl-methanone | Animal testing did not show any effects on fertility.                                            |

## Specific Target Organ Toxicity - Single Exposure

**Product:** May cause respiratory irritation.

### Components:

|                                             |                                                                   |
|---------------------------------------------|-------------------------------------------------------------------|
| methyl methacrylate                         | Inhalation - vapor: Category 3 with respiratory tract irritation. |
| 2-ethylhexyl acrylate                       | Inhalation - vapor: Category 3 with respiratory tract irritation. |
| triethyleneglycol dimethacrylate            | Not classified                                                    |
| 2-hydroxyethyl methacrylate                 | Not classified no evidence for hazardous properties               |
| N,N-bis-(2-hydroxypropyl)-p-toluidine       | Not classified                                                    |
| (2-hydroxy-4-methoxyphenyl)phenyl-methanone | Not classified based on available information.                    |

## Specific Target Organ Toxicity - Repeated Exposure

**Product:** No toxicological tests have been conducted with the product itself.

### Components:

|                                             |                                                     |
|---------------------------------------------|-----------------------------------------------------|
| methyl methacrylate                         | Not classified                                      |
| 2-ethylhexyl acrylate                       | Not classified                                      |
| triethyleneglycol dimethacrylate            | Not classified                                      |
| 2-hydroxyethyl methacrylate                 | Not classified no evidence for hazardous properties |
| N,N-bis-(2-hydroxypropyl)-p-toluidine       | Not classified                                      |
| (2-hydroxy-4-methoxyphenyl)phenyl-methanone | Not classified                                      |

## Aspiration Hazard

**Product:** No aspiration toxicity classification

### Components:

|                                             |                |
|---------------------------------------------|----------------|
| methyl methacrylate                         | Not classified |
| 2-ethylhexyl acrylate                       | Not classified |
| triethyleneglycol dimethacrylate            | Not classified |
| 2-hydroxyethyl methacrylate                 | Not classified |
| N,N-bis-(2-hydroxypropyl)-p-toluidine       | Not classified |
| (2-hydroxy-4-methoxyphenyl)phenyl-methanone | Not classified |

## 11.2 Information on other hazards

### Endocrine disrupting properties



|                                             |                                                                                                                                                                                                                                                              |
|---------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Product:</b>                             | The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.; |
| <b>Components:</b>                          |                                                                                                                                                                                                                                                              |
| methyl methacrylate                         | The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.; |
| 2-ethylhexyl acrylate                       | The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.; |
| triethyleneglycol dimethacrylate            | The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.; |
| 2-hydroxyethyl methacrylate                 | The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.; |
| N,N-bis-(2-hydroxypropyl)-p-toluidine       | The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.; |
| (2-hydroxy-4-methoxyphenyl)phenyl-methanone | The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.; |
| <b>Other information</b>                    |                                                                                                                                                                                                                                                              |
| <b>Product:</b>                             | No data is available on the product itself. Avoid contact with the skin and eyes and inhalation of the product vapours.; There are no toxicological data available for the product as such.;                                                                 |

## SECTION 12: Ecological information

### 12.1 Toxicity:

#### Acute hazards to the aquatic environment:

##### Fish

|                                       |                                                                                                         |
|---------------------------------------|---------------------------------------------------------------------------------------------------------|
| <b>Product:</b>                       | Properties of components in summary.                                                                    |
| <b>Components:</b>                    |                                                                                                         |
| methyl methacrylate                   | LC 50 (96 h): > 100 mg/l Expert judgement                                                               |
| 2-ethylhexyl acrylate                 | LC 50 (Salmo gairdneri, 96 h): 4,6 mg/l<br>LC 50 (Oncorhynchus mykiss (rainbow trout), 96 h): 1,81 mg/l |
| triethyleneglycol dimethacrylate      | LC 50 (Danio rerio (zebra fish), 96 h): 16,4 mg/l                                                       |
| 2-hydroxyethyl methacrylate           | LC 50 (Oryzias latipes (Orange-red killifish), 96 h): > 100 mg/l                                        |
| N,N-bis-(2-hydroxypropyl)-p-toluidine | LC 50 (Danio rerio (zebra fish), 96 h): 17 mg/l                                                         |

(2-hydroxy-4-methoxyphenyl)phenyl-methanone

LC 50 (Leuciscus idus (Golden orfe), 96 h): 100 - 220 mg/l The reported toxic effects relate to the nominal concentration.  
 LC 50 (Medaka, high-eyes (Oryzias latipes), 96 h): 3,8 mg/l

## Aquatic Invertebrates

### Product:

Properties of components in summary.

### Components:

methyl methacrylate  
 2-ethylhexyl acrylate  
 triethyleneglycol dimethacrylate  
 2-hydroxyethyl methacrylate  
 N,N-bis-(2-hydroxypropyl)-p-toluidine  
 (2-hydroxy-4-methoxyphenyl)phenyl-methanone

EC 50 (Daphnia magna (Water flea), 48 h): 69 mg/l  
 EC 50 (Daphnia magna (Water flea), 48 h): 1,3 mg/l  
 No data available.  
  
 EC 50 (Daphnia magna (Water flea), 48 h): 380 mg/l  
  
 EC 50 (Daphnia magna (Water flea), 48 h): 28,8 mg/l  
  
 EC50 (Daphnia magna (Water flea), 24 h): 12,9 mg/l The product has low solubility in the test medium. An aqueous dispersion was tested. The reported toxic effects relate to the nominal concentration.  
 EC 50 (Daphnia magna (Water flea), 48 h): 1,87 mg/l

## Toxicity to Aquatic Plants

### Product:

No data available.

### Components:

methyl methacrylate  
  
 2-ethylhexyl acrylate  
  
 triethyleneglycol dimethacrylate  
 2-hydroxyethyl methacrylate  
 N,N-bis-(2-hydroxypropyl)-p-toluidine  
 (2-hydroxy-4-methoxyphenyl)phenyl-methanone

EC 50 (Selenastrum capricornutum (green algae), 72 h): > 100 mg/l (OECD 201)  
 EC 50 (Desmodesmus subspicatus (green algae), 72 h): 1,71 mg/l (OECD TG 201)  
 EC 50 (Pseudokirchneriella subcapitata (green algae), 72 h): > 100 mg/l (OECD TG 201)  
 EC 50 (Selenastrum capricornutum (green algae), 72 h): 836 mg/l (OECD Test Guideline 201)  
 EC 50 (Desmodesmus subspicatus (green algae), 72 h): 245 mg/l (OECD TG 201)  
 EC 50 (Desmodesmus subspicatus (green algae), 72 h): 1,4 mg/l The product has low solubility in the test medium. An aqueous dispersion was tested. The reported toxic effects relate to the nominal concentration.  
 EC 50 (Pseudokirchneriella subcapitata (green algae), 72 h): 0,67 mg/l (OECD TG 201)

## Toxicity to microorganisms

### Product:

No data available.

### Components:

methyl methacrylate  
  
 2-ethylhexyl acrylate  
 triethyleneglycol dimethacrylate  
 2-hydroxyethyl methacrylate  
 N,N-bis-(2-hydroxypropyl)-p-toluidine  
 (2-hydroxy-4-methoxyphenyl)phenyl-methanone

EC3 (Pseudomonas putida, 16 h): 100 mg/l (cell proliferation inhibition test, Bringmann-Kühn)  
 No data available.  
 No data available.  
  
 EC 50 (Pseudomonas fluorescens, 16 h): > 3.000 mg/l (DEV L8) Own study  
 EC10 (30 min): > 1.995 mg/l (OECD Test Guideline 209)  
  
 EC 50 (Activated sludge, 3 h): > 100 mg/l (Directive 87/302/EEC, part C, p. 118)

## Chronic hazards to the aquatic environment:

## Fish

|                                             |                                                       |
|---------------------------------------------|-------------------------------------------------------|
| <b>Product:</b>                             | No data available.                                    |
| <b>Components:</b>                          |                                                       |
| methyl methacrylate                         | NOEC (Danio rerio (zebra fish)): 9,4 mg/l (OECD 210)  |
| 2-ethylhexyl acrylate                       | NOEC (Salmo salar (Atlantic salmon), 21 d): 0,78 mg/l |
| triethyleneglycol dimethacrylate            | No data available.                                    |
| 2-hydroxyethyl methacrylate                 | Trial not required for scientific reasons.            |
| N,N-bis-(2-hydroxypropyl)-p-toluidine       | No data available.                                    |
| (2-hydroxy-4-methoxyphenyl)phenyl-methanone | No data available.                                    |

## Aquatic Invertebrates

|                                             |                                                                            |
|---------------------------------------------|----------------------------------------------------------------------------|
| <b>Product:</b>                             | No data available.                                                         |
| <b>Components:</b>                          |                                                                            |
| methyl methacrylate                         | NOEC (Daphnia magna (Water flea), 21 d): 37 mg/l (OECD 202 part 2)         |
| 2-ethylhexyl acrylate                       | NOEC (Daphnia magna (Water flea), 21 d): 0,19 mg/l (US-EPA-method)         |
|                                             | EC 50 (Daphnia magna (Water flea), 21 d): 0,5 mg/l (US-EPA-method)         |
| triethyleneglycol dimethacrylate            | NOEC (Daphnia magna (Water flea), 21 d): 32 mg/l (OECD Test Guideline 211) |
| 2-hydroxyethyl methacrylate                 | NOEC (Daphnia magna (Water flea), 21 d): 24,1 mg/l (OECD 202 part 2)       |
| N,N-bis-(2-hydroxypropyl)-p-toluidine       | No data available.                                                         |
| (2-hydroxy-4-methoxyphenyl)phenyl-methanone | No data available.                                                         |

## Toxicity to Aquatic Plants

|                                             |                                                                                          |
|---------------------------------------------|------------------------------------------------------------------------------------------|
| <b>Product:</b>                             | No data available.                                                                       |
| <b>Components:</b>                          |                                                                                          |
| methyl methacrylate                         | NOEC (Selenastrum capricornutum (green algae), 72 h): > 110 mg/l (OECD 201)              |
| 2-ethylhexyl acrylate                       | NOEC (Desmodesmus subspicatus): 0,45 mg/l                                                |
| triethyleneglycol dimethacrylate            | NOEC (Pseudokirchneriella subcapitata (green algae), 72 h): 18,6 mg/l (OECD TG 201)      |
| 2-hydroxyethyl methacrylate                 | NOEC (Selenastrum capricornutum (green algae), 72 h): 400 mg/l (OECD Test Guideline 201) |
| N,N-bis-(2-hydroxypropyl)-p-toluidine       | No data available.                                                                       |
| (2-hydroxy-4-methoxyphenyl)phenyl-methanone | NOEC (Pseudokirchneriella subcapitata (green algae), 72 h): 0,18 mg/l (OECD TG 201)      |

## Toxicity to microorganisms

|                                  |                                                                                               |
|----------------------------------|-----------------------------------------------------------------------------------------------|
| <b>Product:</b>                  | No data available.                                                                            |
| <b>Components:</b>               |                                                                                               |
| methyl methacrylate              | EC3 (Pseudomonas putida, 16 h): 100 mg/l (cell proliferation inhibition test, Bringmann-Kühn) |
| 2-ethylhexyl acrylate            | No data available.                                                                            |
| triethyleneglycol dimethacrylate | No data available.                                                                            |
| 2-hydroxyethyl                   | EC 50 (Pseudomonas fluorescens, 16 h): > 3.000 mg/l (DEV L8) Own                              |

|                                             |                                                                                  |
|---------------------------------------------|----------------------------------------------------------------------------------|
| methacrylate                                | study                                                                            |
| N,N-bis-(2-hydroxypropyl)-p-toluidine       | EC10 (30 min): > 1.995 mg/l (OECD Test Guideline 209)                            |
| (2-hydroxy-4-methoxyphenyl)phenyl-methanone | EC 50 (Activated sludge, 3 h): > 100 mg/l (Directive 87/302/EEC, part C, p. 118) |

## 12.2 Persistence and Degradability

### Biodegradation

|                                             |                                                                              |
|---------------------------------------------|------------------------------------------------------------------------------|
| <b>Product:</b>                             | (monomer constituent), The product is biodegradable.                         |
| <b>Components:</b>                          |                                                                              |
| methyl methacrylate                         | 94 % (14 d, OECD 301 C), easily biodegradable                                |
| 2-ethylhexyl acrylate                       | 70 - 80 % (15 d), Readily biodegradable                                      |
| triethyleneglycol dimethacrylate            | 85 % (28 d), Readily biodegradable                                           |
| 2-hydroxyethyl methacrylate                 | 84 % (28 d, OECD Test Guideline 301D) Own study, Readily biodegradable       |
| N,N-bis-(2-hydroxypropyl)-p-toluidine       | 39 % (28 d, OECD TG 301 B), Inherently biodegradable                         |
| (2-hydroxy-4-methoxyphenyl)phenyl-methanone | 60 - 70 % (28 d, OECD TG 301 F / ISO 9408), aerobic, Not readily degradable. |

### BOD/COD Ratio

|                                             |                    |
|---------------------------------------------|--------------------|
| <b>Product:</b>                             | No data available. |
| <b>Components:</b>                          |                    |
| methyl methacrylate                         | No data available. |
| 2-ethylhexyl acrylate                       | No data available. |
| triethyleneglycol dimethacrylate            | No data available. |
| 2-hydroxyethyl methacrylate                 | No data available. |
| N,N-bis-(2-hydroxypropyl)-p-toluidine       | No data available. |
| (2-hydroxy-4-methoxyphenyl)phenyl-methanone | No data available. |

## 12.3 Bioaccumulative potential

### Bioconcentration Factor (BCF)

|                                       |                                                                                                                   |
|---------------------------------------|-------------------------------------------------------------------------------------------------------------------|
| <b>Product:</b>                       | no evidence for hazardous properties                                                                              |
| <b>Components:</b>                    |                                                                                                                   |
| methyl methacrylate                   | Accumulation in organisms is not expected due to the coefficient of distribution of n-octanol in water (log Pow). |
| 2-ethylhexyl acrylate                 | Bioconcentration Factor (BCF): 282,4                                                                              |
| triethyleneglycol dimethacrylate      | Accumulation in organisms is not expected due to the coefficient of distribution of n-octanol in water (log Pow). |
| 2-hydroxyethyl methacrylate           | Accumulation in organisms is not expected due to the coefficient of distribution of n-octanol in water (log Pow). |
| N,N-bis-(2-hydroxypropyl)-p-toluidine | No data available.                                                                                                |

(2-hydroxy-4-methoxyphenyl)phenyl-methanone

Cyprinus carpio (Carp), Bioconcentration Factor (BCF): 33 - 156  
Accumulation in aquatic organisms is expected. Accumulation in terrestrial organisms is expected.

## Partition Coefficient n-octanol / water (log Kow)

|                                             |                                                |
|---------------------------------------------|------------------------------------------------|
| <b>Product:</b>                             | Log Kow: 0,7 (estimated) (methyl methacrylate) |
| <b>Components:</b>                          |                                                |
| methyl methacrylate                         | Log Kow: 1,38 20 °C (Measured)                 |
| 2-ethylhexyl acrylate                       | Log Kow: 4,64 25 °C                            |
| triethyleneglycol dimethacrylate            | Log Kow: 2,3 20 °C (OECD Test Guideline 117)   |
| 2-hydroxyethyl methacrylate                 | Log Kow: 0,42 25 °C (OECD Test Guideline 107)  |
| N,N-bis-(2-hydroxypropyl)-p-toluidine       | Log Kow: 2,1 (OECD Test Guideline 107)         |
| (2-hydroxy-4-methoxyphenyl)phenyl-methanone | Log Kow: 3,52 25 °C                            |

## 12.4 Mobility in soil:

|                                             |                                                                                                                                                                                                                                                                                        |
|---------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Product</b>                              | no specific test data available                                                                                                                                                                                                                                                        |
| <b>Components:</b>                          |                                                                                                                                                                                                                                                                                        |
| methyl methacrylate                         | Binding to the solid soil phase, sediment or clarification sludge is not expected. The substance evaporates gradually into the atmosphere from the surface of the water. If the substance does get into the environment, it tends to remain in the compartment it was discharged into. |
| 2-ethylhexyl acrylate                       | No data available.                                                                                                                                                                                                                                                                     |
| triethyleneglycol dimethacrylate            | No data available.                                                                                                                                                                                                                                                                     |
| 2-hydroxyethyl methacrylate                 | Very sparingly volatile from the aqueous phase. Binding to the solid soil phase, sediment or clarification sludge is not expected.                                                                                                                                                     |
| N,N-bis-(2-hydroxypropyl)-p-toluidine       | No data available.                                                                                                                                                                                                                                                                     |
| (2-hydroxy-4-methoxyphenyl)phenyl-methanone | No data available.                                                                                                                                                                                                                                                                     |

## 12.5 Results of PBT and vPvB assessment:

|                                             |                                                                                                                                                                                                    |
|---------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Product</b>                              | This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher. |
| <b>Components:</b>                          |                                                                                                                                                                                                    |
| methyl methacrylate                         | Non-classified vPvB substance<br>Non-classified PBT substance                                                                                                                                      |
| 2-ethylhexyl acrylate                       | Non-classified vPvB substance<br>Non-classified PBT substance                                                                                                                                      |
| triethyleneglycol dimethacrylate            | Non-classified vPvB substance<br>Non-classified PBT substance                                                                                                                                      |
| 2-hydroxyethyl methacrylate                 | Non-classified vPvB substance<br>Non-classified PBT substance                                                                                                                                      |
| N,N-bis-(2-hydroxypropyl)-p-toluidine       | Non-classified vPvB substance<br>Non-classified PBT substance                                                                                                                                      |
| (2-hydroxy-4-methoxyphenyl)phenyl-methanone | Non-classified vPvB substance<br>Non-classified PBT substance                                                                                                                                      |

## 12.6 Endocrine disrupting properties:

|                                             |                                                                                                                                                                                                                                                             |
|---------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Product:</b>                             | The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher. |
| <b>Components:</b>                          |                                                                                                                                                                                                                                                             |
| methyl methacrylate                         | The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher. |
| 2-ethylhexyl acrylate                       | The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher. |
| triethyleneglycol dimethacrylate            | The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher. |
| 2-hydroxyethyl methacrylate                 | The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher. |
| N,N-bis-(2-hydroxypropyl)-p-toluidine       | The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher. |
| (2-hydroxy-4-methoxyphenyl)phenyl-methanone | The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher. |

## 12.7 Other adverse effects:

### Other hazards

|                 |                                                                                  |
|-----------------|----------------------------------------------------------------------------------|
| <b>Product:</b> | Prevent substance from entering soil, natural bodies of water and sewer systems. |
|-----------------|----------------------------------------------------------------------------------|

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

|                                |                                                                                                                                                                                                                                         |
|--------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>General information:</b>    | This material and/or its container must be disposed of as hazardous waste.                                                                                                                                                              |
| <b>Disposal methods:</b>       | Waste is hazardous. It must be disposed of in accordance with the regulations after consultation of the competent local authorities and the disposal company in a suitable and licensed facility.                                       |
| <b>Contaminated Packaging:</b> | Contaminated packaging should ideally be emptied; it can then be recycled after having been decontaminated. Packaging that cannot be cleaned should be disposed of professionally. Uncontaminated packaging may be taken for recycling. |

**SECTION 14: Transport information****14.1 UN number**

**ADR** : UN 1866

**RID** : UN 1866

**IMDG** : UN 1866

**IATA** : UN 1866

**14.2 UN proper shipping name**

**ADR** : RESIN SOLUTION, STABILIZED

**RID** : RESIN SOLUTION, STABILIZED

**IMDG** : RESIN SOLUTION, STABILIZED

**IATA** : Resin solution, stabilized

**14.3 Transport hazard class(es)**

**ADR** : 3

**RID** : 3

**IMDG** : 3

**IATA** : 3

**14.4 Packing group****ADR**

Packing group : II

Classification Code : F1

Hazard Identification  
Number : 33

Labels : 3

Remarks : observe §35 GGVSEB, Special Provision 640D

**RID**

Packing group : II

Classification Code : F1  
Hazard Identification : 33  
Number  
Labels : 3  
Remarks : Special Provision 640D

**IMDG**

Packing group : II  
Labels : 3  
EmS Code : F-E, S-E

**IATA (Cargo aircraft only)**

Packing instruction (cargo aircraft) : 364  
Packing instruction (LQ) : Y341  
Packing group : II  
Labels : 3

**IATA (Passenger and cargo aircraft)**

Packing instruction (passenger aircraft) : 353  
Packing instruction (LQ) : Y341  
Packing group : II  
Labels : 3

**14.5 Environmental hazards****ADR**

Environmentally hazardous : no

**RID**

Environmentally hazardous : no

**IMDG**

Marine pollutant : no



#### 14.6 Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

#### 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable for product as supplied.

### SECTION 15: Regulatory information

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

##### EU Regulations

**Regulation 1005/2009/EC on substances that deplete the ozone layer, Annex I, Controlled Substances:** None present or none present in regulated quantities.

**EU. REACH Annex XIV, Substances Subject to Authorization:** None present or none present in regulated quantities.

**EU. Regulation 2019/1021/EU on persistent organic pollutants (POPs) (recast), as amended:** None present or none present in regulated quantities.

**EU. Directive 2010/75/EU on Industrial Emissions (IPPC), Annex II, L 334/17:** None present or none present in regulated quantities.

**Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 1 as amended:** None present or none present in regulated quantities.

**Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 2 as amended:** None present or none present in regulated quantities.

**Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 3 as amended:** None present or none present in regulated quantities.

**Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex V as amended:** None present or none present in regulated quantities.

**EU. REACH Candidate List of Substances of Very High Concern for Authorization (SVHC):** None present or none present in regulated quantities.

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

| Chemical name       | CAS-No. |
|---------------------|---------|
| methyl methacrylate | 80-62-6 |

**Directive 2004/37/EC on the protection of workers from the risks related to exposure to carcinogens and mutagens at work.:** None present or none present in regulated quantities.

**Directive 92/85/EEC: on the safety and health of pregnant workers and workers who have recently given birth or are breast feeding.:** None present or none present in regulated quantities.

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

| Classification         | Lower-tier Requirements | Upper-tier Requirements |
|------------------------|-------------------------|-------------------------|
| P5c. Flammable liquids | 5.000 t                 | 50.000 t                |

ATTENTION: Classification into hazard category P5c is a minimum classification. Only the operator may estimate if the product is covered by hazard category P5a or P5c. For P5a and P5b different qualifying quantities are valid.

**EU. Regulation No. 166/2006 PRTR (Pollutant Release and Transfer Registry), Annex II: Pollutants:**  
 None present or none present in regulated quantities.

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

| Chemical name               | CAS-No.  | Concentration |
|-----------------------------|----------|---------------|
| methyl methacrylate         | 80-62-6  | 30 - <50%     |
| 2-ethylhexyl acrylate       | 103-11-7 | 25 - 30%      |
| 2-hydroxyethyl methacrylate | 868-77-9 | 0,1 - 1,0%    |

**15.2 Chemical safety assessment:** No Chemical Safety Assessment has been carried out.

#### Inventory Status:

##### Registration, Evaluation and Authorisation of Chemicals (REACH):

Compliant with REACH. All components have been registered, pre-registered or are exempt from REACH.

##### US TSCA Inventory:

On or in compliance with the inventory

##### Canada DSL Inventory List:

On or in compliance with the inventory

##### Canada NDSL Inventory:

Not on Inventory.

##### Australia AICS:

On or in compliance with the inventory

##### Japan (ENCS) List:

On or in compliance with the inventory

##### Korea Existing Chemicals Inv. (KECI):

On or in compliance with the inventory

##### Philippines PICCS:

On or in compliance with the inventory

##### New Zealand Inventory of Chemicals:

On or in compliance with the inventory

##### New Zealand Inventory of Chemicals:

HSR002662, Surface Coatings and Colorants (Flammable) Group Standard 2006

#### International regulations

##### Montreal protocol

Not applicable

##### Stockholm convention

Not applicable

##### Rotterdam convention

Not applicable

**Kyoto protocol**  
 Not applicable

## SECTION 16: Other information

### Abbreviations and acronyms:

|                |                                                                                                                                          |
|----------------|------------------------------------------------------------------------------------------------------------------------------------------|
| ECTLV:         | EU. Indicative Occupational Exposure Limit Values in Directives 91/322/EEC, 2000/39/EC, 2006/15/EC, 2009/161/EU, 2017/164/EU, as amended |
| IR_OEL:        | Ireland. OELVs, Schedule 1 (Code of Practice for Chemical Agents Regulations), as amended                                                |
| ECTLV / STEL:  | Short Term Exposure Limit (STEL):                                                                                                        |
| ECTLV / TWA:   | Time Weighted Average (TWA):                                                                                                             |
| IR_OEL / STEL: | Short Term Exposure Limit (STEL):                                                                                                        |
| IR_OEL / TWA:  | Time Weighted Average (TWA):                                                                                                             |

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - Agreement concerning the International Carriage of Dangerous Goods by Road; AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; EIGA - European Industrial Gases Association; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - substance of very high concern; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

### Notes:

|                      |        |                                                                                                                                                                                                                                                                                                                                                                                                                |
|----------------------|--------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| methyle methacrylate | Note D | Certain substances which are susceptible to spontaneous polymerisation or decomposition are generally placed on the market in a stabilised form. It is in this form that they are listed in Part 3. However, such substances are sometimes placed on the market in a non-stabilised form. In this case, the supplier must state on the label the name of the substance followed by the words 'non-stabilised'. |
|----------------------|--------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

|                             |        |                                                                                                                                                                                                                                                                                                                                                                                                                |
|-----------------------------|--------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2-ethylhexyl acrylate       | Note D | Certain substances which are susceptible to spontaneous polymerisation or decomposition are generally placed on the market in a stabilised form. It is in this form that they are listed in Part 3. However, such substances are sometimes placed on the market in a non-stabilised form. In this case, the supplier must state on the label the name of the substance followed by the words 'non-stabilised'. |
| 2-hydroxyethyl methacrylate | Note D | Certain substances which are susceptible to spontaneous polymerisation or decomposition are generally placed on the market in a stabilised form. It is in this form that they are listed in Part 3. However, such substances are sometimes placed on the market in a non-stabilised form. In this case, the supplier must state on the label the name of the substance followed by the words 'non-stabilised'. |

**Key literature references and sources for data:** No data available.

**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 |
|----------------------------------------------------------------------|--------------------------|
| Flammable liquids, Category 2                                        | On basis of test data    |
| Skin irritation, Category 2                                          | Calculation method       |
| Skin sensitizer, Category 1                                          | On basis of test data    |
| Specific Target Organ Toxicity - Single Exposure, Category 3         | Calculation method       |
| Chronic hazards to the aquatic environment, Category 3               | On basis of test data    |

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

|      |                                                    |
|------|----------------------------------------------------|
| H225 | Highly flammable liquid and vapor.                 |
| H300 | Fatal if swallowed.                                |
| H315 | Causes skin irritation.                            |
| H317 | May cause an allergic skin reaction.               |
| H319 | Causes serious eye irritation.                     |
| H335 | May cause respiratory irritation.                  |
| H400 | Very toxic to aquatic life.                        |
| H411 | Toxic to aquatic life with long lasting effects.   |
| H412 | Harmful to aquatic life with long lasting effects. |
| H225 | Highly flammable liquid and vapor.                 |
| H300 | Fatal if swallowed.                                |
| H315 | Causes skin irritation.                            |
| H317 | May cause an allergic skin reaction.               |
| H319 | Causes serious eye irritation.                     |
| H335 | May cause respiratory irritation.                  |
| H400 | Very toxic to aquatic life.                        |
| H411 | Toxic to aquatic life with long lasting effects.   |
| H412 | Harmful to aquatic life with long lasting effects. |

**Training information:** No data available.

**Other information:** The product is normally supplied in a stabilized form. If the permissible

storage period and/or storage temperature is exceeded, the product may polymerize with heat evolution.

**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.