



# Safety data sheet

## 1. Substance/preparation and company identification

Trade name:

BKF Laminierharz 80:20

Application of the substance/ the preparation:

Laminating resin for orthopedic technology

BEIL

Kunststoffproduktions- und Handelsgesellschaft mbH

Lehmkuhlenweg 25

D- 31224 Peine

Telefon: +49 (0)5171/70 99-0

Telefax: +49 (0)5171/7099-29

E-Mail: [service@beil-peine.de](mailto:service@beil-peine.de)

Information in case of emergency:

Giftzentrale Göttingen

Tel.: +49 (0)551/19240

## 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 (Respiratory system)

Category 3

H335: May cause respiratory irritation.

### 2.2. Label elements

Contains:

methyl methacrylate  
triethyleneglycol dimethacrylate  
ethylene di(S-thioacetate)  
n-butyl acrylate

Signal word

**Danger**

GHS pictogram



hazard statement

H225 - Highly flammable liquid and vapour.

H315 - Causes skin irritation.

H317 - May cause an allergic skin reaction.

H335 - May cause respiratory irritation.

Precautionary Statement (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/ vapours /spray.

P262 - Do not get in eyes, on skin, or on clothing.

P280 - Wear protective gloves / eye protection/ face protection.

Precautionary Statement (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.

### 2.3. Other hazards

Polymerization with heat evolution may occur in the presence of radical forming substances (e.g. peroxides), reducing substances, and/or heavy metal ions. Take precautionary measures against static discharges.

### Results of PBT and vPvB assessment

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.

## 3. Composition/Information on Ingredients

### 3.2. Mixtures

#### General information:

Solution of an acrylic polymer in plasticizer-containing methacrylic acid esters

| Chemical Name                         | CAS-No.<br>EC-No.<br>REACH-No.              | Concentration | M-Factor          | Notes |
|---------------------------------------|---------------------------------------------|---------------|-------------------|-------|
| methyl methacrylate                   | 80-62-6<br>201-297-1<br>01-2119452498-28    | 50-< 100%     | No data available | #     |
| triethyleneglycol dimethacrylate      | 109-16 -0<br>203-652-6<br>01-2119969287-21  | 1.0 % - < 5 % | No data available |       |
| ethylene di (S- thioacetate)          | 123-81 -9<br>204-653-4<br>01-2120775150-61  | 0.1 % - < 1 % | No data available |       |
| n-butyl acrylate                      | 141-32 -2<br>205-480-7<br>01-2119453155-43  | 0.1 % - < 1 % | No data available | #     |
| N,N-bis-(2-hydroxypropyl)-p-toluidine | 38668-48-3<br>254-075-1<br>01-2119980937-17 | 0.1 - < 1 %   | No data available |       |

\* 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

|                     |                                                                                                                                                | Notes  |
|---------------------|------------------------------------------------------------------------------------------------------------------------------------------------|--------|
| Methyl methacrylate | Classification: Flam. Liq.: 2: H225; Skin Irrit.: 2: H315; Skin Sens.: 1B: H317; STOT SE: 3: H335; Supplemental label information: None known. | Note D |



|                                       |                                                                                                                                                                                                                                                                                                                                                                                                                |                   |
|---------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|
|                                       | Specific concentration limit: Specific target organ toxicity - single exposure Category 3, >= 10 %;<br>Acute toxicity, oral: LD 50: > 5,000 mg/kg<br>Acute toxicity, inhalation: LC 50: 29.8 mg/l<br>Acute toxicity, dermal: LD 50: > 5,000 mg/kg                                                                                                                                                              |                   |
| triethyleneglycol dimethacrylate      | Classification: Skin Sens.: 1B: H317;<br>Supplemental label information: None known.<br>Specific concentration limit: None known.<br>Acute toxicity, oral: LD 50: > 5,000 mg/kg<br>Acute toxicity, inhalation: None known. Acute toxicity, dermal: LD 50: > 2,000 mg/kg                                                                                                                                        | No data available |
| ethylene di(S-thioacetate)            | Classification: Acute Tox.: 4: H302;<br>Acute Tox.: 4: H332; Acute Tox.: 4: H332;<br>Eye Irrit.: 2: H319; Skin Sens.: 1A: H317;<br>STOT SE: 3: H335;<br>Supplemental label information: None known.<br>Specific concentration limit: None known.<br>Acute toxicity, oral: LD 50: 303 mg/kg<br>Acute toxicity, inhalation: LC 50: 1.5 mg/l<br>Acute toxicity, dermal: LD 50: > 2,000 mg/kg                      | No data available |
| n-butyl acrylate                      | Classification: Flam. Liq.: 3: H226; Acute Tox.: 4: H332; Skin Irrit.: 2: H315; Eye Irrit.: 2: H319; Skin Sens.: 1B: H317; STOT SE: 3: H335; Aquatic Chronic: 3: H412;<br>Supplemental label information: None known.<br>Specific concentration limit: None known.<br>Acute toxicity, oral: LD 50: 3,150 mg/kg<br>Acute toxicity, inhalation: LC 50: 10.3 mg/l<br>Acute toxicity, dermal: LD 50: > 2,000 mg/kg | Note D            |
| N,N-bis-(2-hydroxypropyl)-p-toluidine | Acute Tox.: 2: H300; Eye Irrit.: 2: H319; Aquatic Chronic: 3: H412;<br>Supplemental label information: None known. Specific concentration limit: None known. Acute toxicity, oral: LD 50: 25 mg/kg<br>Acute toxicity, inhalation: None known. Acute toxicity, dermal: LD 50: > 2,000 mg/kg                                                                                                                     | No data available |

CLP: Regulation No. 1272/2008.

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

#### 4. First-aid measures

##### General:

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. Take off all contaminated clothing immediately.

##### 4.1. Description of first aid measures

Inhalation

Move subject to fresh air and keep him calm. See a physician.

Skin contact

Wash off immediately with soap and water. If skin irritation occurs consult a physician.

Eye contact

Flush eyes thoroughly with a large amount of water and consult a physician.

Ingestion

Do not induce vomiting. Consult a physician immediately.

##### 4.2. Most important symptoms and effects, both acute and delayed

Skin sensitizer, Skin irritation, Excessive or prolonged exposure can cause the following: Headache, confusion

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

Hazards:

No data available

Treatment:

No

#### 5. Fire-fighting measures



|                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>5.1. Extinguishing media</b><br>Suitable extinguishing media<br>Unsuitable extinguishing media<br><b>5.2. Special hazards arising from the substance or mixture</b>                                                                                                                                                                                                              | foam, dry chemical, carbon dioxide<br>high volume water jet<br><br>May be released in case of fire: carbon monoxide, carbon dioxide, organic products of decomposition.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>5.3. Advice for firefighters</b><br>Special firefighting procedures:                                                                                                                                                                                                                                                                                                             | Keep away from sources of ignition - No smoking. Take action to prevent static discharges. In the event of fire, cool the endangered containers with water. When heated above the flash point and/or during spraying (atomizing), ignitable mixtures may form in air. Use explosion-proof equipment.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Special protective equipment for fire-fighters:</b>                                                                                                                                                                                                                                                                                                                              | Wear self-contained breathing apparatus.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>6. Accidental release measures</b><br><b>6.1. Personal precautions, protective equipment and emergency procedures</b><br><br><b>6.1.1 For non-emergency personnel:</b><br><b>6.1.2 For emergency responders:</b><br><b>6.2. Environmental precautions</b><br><br><b>6.3. Methods and material for containment and cleaning up</b><br><br><b>6.4. Reference to other sections</b> | Assure sufficient ventilation. Keep away sources of ignition. Use personal protective clothing. Use breathing apparatus if exposed to vapours/dust/mist/aerosol.<br>No data available.<br>No data available.<br>Prevent product from getting into drains/surface water/groundwater.<br><br>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.<br>For personal protection see section 8.<br>For disposal considerations see section 13.                                                                                                                                                                                  |
| <b>7. Handling and storage</b><br><b>7.1. Precautions for safe handling</b><br><br><b>7.2. Conditions for safe storage, including any incompatibilities</b><br><br><b>7.3. Specific end use(s)</b>                                                                                                                                                                                  | Do not breathe vapors. Avoid contact with skin and eyes. Keep away from sources of ignition - No smoking. Take action to prevent static discharges. In the event of fire, cool the endangered containers with water. When heated above the flash point and/or during spraying (atomizing), ignitable mixtures may form in air. Use explosion-proof equipment. Provide good room ventilation even at ground level (vapours are heavier than air). Keep container tightly closed.<br><br>Keep away from direct sunlight. Keep only in the original container at a temperature not exceeding 35 °C. Protect from the action of light. 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.<br>No data available. |
| <b>8. Exposure Controls/ Personal Protection</b><br><b>8.1. Control parameters</b>                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |



### Occupational Exposure Limits

| Chemical name       | Type            | Exposure Limit Values         | Source                                                                                                                    |
|---------------------|-----------------|-------------------------------|---------------------------------------------------------------------------------------------------------------------------|
| Methyl methacrylate | TWA             | 50 ppm 208 mg/m <sup>3</sup>  | UK. EH40 Workplace Exposure Limits (WELs) (12 2011)                                                                       |
|                     | STEL            | 100 ppm 416 mg/m <sup>3</sup> | UK. EH40 Workplace Exposure Limits (WELs) (12 2011)                                                                       |
|                     | TWA             | 50 ppm                        | EU. Indicative Exposure Limit Values in Directives 91/322/EEC, 2000/39/EC, 2006/15/EC, 2009/161/EU, 2017/164/EU (02 2017) |
|                     | STEL            | 100 ppm                       | EU. Indicative Exposure Limit Values in Directives 91/322/EEC, 2000/39/EC, 2006/15/EC, 2009/161/EU, 2017/164/EU (02 2017) |
|                     | STEL 15 minutes | 100 ppm 416 mg/m <sup>3</sup> | UK. EH40 Workplace Exposure Limits (WELs), as amended (01 2020)                                                           |
| n-butyl acrylate    | TWA             | 1 ppm 5 mg/m <sup>3</sup>     | UK. EH40 Workplace Exposure Limits (WELs) (12 2011)                                                                       |
|                     | STEL            | 10 ppm 53 mg/m <sup>3</sup>   | UK. EH40 Workplace Exposure Limits (WELs) (12 2011)                                                                       |
|                     | TWA             | 2 ppm 11 mg/m <sup>3</sup>    | EU. Indicative Exposure Limit Values in Directives 91/322/EEC, 2000/39/EC, 2006/15/EC, 2009/161/EU, 2017/164/EU (12 2009) |
|                     | STEL 15 minutes | 5 ppm 26 mg/m <sup>3</sup>    | UK. EH40 Workplace Exposure Limits (WELs), as amended (01 2020)                                                           |

### Exposure guidelines

| Chemical name       | Type                                         | Source                                                                                                                                   |
|---------------------|----------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|
| Methyl methacrylate | Time Weighted Average (TWA): Indicative      | 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 |
|                     | Short Term Exposure Limit (STEL): Indicative | 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 |
| n-butyl acrylate    | Time Weighted Average (TWA): Indicative      | 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 |
|                     | Short Term Exposure Limit (STEL): Indicative | 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 |

### 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            | Inhalation        | Local, long-term; 208 mg/m <sup>3</sup>  | Repeated dose toxicity |
|                     | General population | Inhalation        | Local, long-term; 104 mg/m <sup>3</sup>  | Repeated dose toxicity |
|                     | Workers            | Dermal            | Local, long-term; 1.5 mg/cm <sup>2</sup> | Skin sensitization     |
|                     | General population | Dermal            | Local, long-term; 1.5 mg/cm <sup>2</sup> | Skin sensitization     |



|  |                    |            |                                                |                        |
|--|--------------------|------------|------------------------------------------------|------------------------|
|  | Workers            | Dermal     | Systemic, long-term;<br>13.67 mg/kg bw/day     | Repeated dose toxicity |
|  | General population | Dermal     | Systemic, long-term;<br>8.2 mg/kg bw/day       | Repeated dose toxicity |
|  | Workers            | Inhalation | Systemic, long-term;<br>208 mg/m <sup>3</sup>  | Repeated dose toxicity |
|  | General population | Dermal     | Local, short-term; 1.5 mg/cm <sup>2</sup>      | Skin sensitization     |
|  | General population | Inhalation | Systemic, long-term;<br>74.3 mg/m <sup>3</sup> | Repeated dose toxicity |
|  | Workers            | Dermal     | Local, short-term; 1.5 mg/cm <sup>2</sup>      | Skin sensitization     |

|                          |                    |            |                                                |                        |
|--------------------------|--------------------|------------|------------------------------------------------|------------------------|
| Tributyl-O-acetylcitrate | Workers            | Inhalation | Systemic, long-term;<br>7.05 mg/m <sup>3</sup> | Repeated dose toxicity |
|                          | General population | Dermal     | Systemic, long-term;<br>1 mg/kg bw/day         | Repeated dose toxicity |
|                          | Workers            | Dermal     | Systemic, long-term;<br>2 mg/kg bw/day         | Repeated dose toxicity |
|                          | General population | Inhalation | Systemic, long-term;<br>1.74 mg/m <sup>3</sup> | Repeated dose toxicity |
|                          | General population | Oral       | Systemic, long-term;<br>0.5 mg/kg bw/day       | Repeated dose toxicity |
|                          | Workers            | Inhalation | Systemic, long-term;<br>7.04 mg/m <sup>3</sup> | Repeated dose toxicity |
|                          | General population | Eyes       | Local effects;                                 | No hazard identified   |
|                          | Workers            | Eyes       | Local effects;                                 | No hazard identified   |
|                          | General population | Oral       | Systemic, long-term;<br>1 mg/kg bw/day         | Repeated dose toxicity |

|                                  |                    |            |                                                |                        |
|----------------------------------|--------------------|------------|------------------------------------------------|------------------------|
| triethyleneglycol dimethacrylate | Workers            | Dermal     | Systemic, long-term;<br>13.9 mg/kg             | Repeated dose toxicity |
|                                  | General population | Inhalation | Systemic, long-term;<br>14.5 mg/m <sup>3</sup> | Repeated dose toxicity |
|                                  | General population | Oral       | Systemic, long-term;<br>8.33 mg/kg             | Repeated dose toxicity |
|                                  | General population | Dermal     | Systemic, long-term;<br>8.33 mg/kg             | Repeated dose toxicity |
|                                  | Workers            | Inhalation | Systemic, long-term;<br>48.5 mg/m <sup>3</sup> | Repeated dose toxicity |
|                                  | General population | Eyes       | Local effects;                                 | No hazard identified   |
|                                  | Workers            | Eyes       | Local effects;                                 | No hazard identified   |

|                            |                    |            |                                                 |                                       |
|----------------------------|--------------------|------------|-------------------------------------------------|---------------------------------------|
| ethylene di(S-thioacetate) | Workers            | Dermal     | Systemic, long-term;<br>0.14 mg/kg bw/day       | Repeated dose toxicity                |
|                            | Workers            | Eyes       | Local effects;                                  | Medium hazard (no threshold derived). |
|                            | General population | Dermal     | Systemic, long-term;<br>0.05 mg/kg bw/day       | Repeated dose toxicity                |
|                            | General population | Oral       | Systemic, long-term;<br>0.05 mg/kg bw/day       | Repeated dose toxicity                |
|                            | General population | Eyes       | Local effects;                                  | Low hazard (no threshold derived).    |
|                            | Workers            | Inhalation | Systemic, long-term;<br>0.49 mg/m <sup>3</sup>  | Repeated dose toxicity                |
|                            | General population | Inhalation | Systemic, long-term;<br>0.074 mg/m <sup>3</sup> | Repeated dose toxicity                |

|                  |         |            |                                        |                              |
|------------------|---------|------------|----------------------------------------|------------------------------|
| n-butyl acrylate | Workers | Inhalation | Local, long-term; 11 mg/m <sup>3</sup> | irritation respiratory tract |
|------------------|---------|------------|----------------------------------------|------------------------------|



|  |                    |      |                |                                       |
|--|--------------------|------|----------------|---------------------------------------|
|  | General population | Eyes | Local effects; | No hazard identified                  |
|  | Workers            | Eyes | Local effects; | Medium hazard (no threshold derived). |

#### PNEC-Values

Remarks: PNEC-Values

| Critical component  | Enviromental compartment | PNEC-Values | Remarks |
|---------------------|--------------------------|-------------|---------|
| Methyl methacrylate | marine water             | 0,94 mg/l   |         |
|                     | freshwater sediment      | 5,74 mg/kg  |         |
|                     | Sewage treatment plant   | 10 mg/l     |         |
|                     | Soil                     | 1,47 mg/kg  |         |
|                     | freshwater               | 0,94 mg/l   |         |

|                        |                        |            |      |
|------------------------|------------------------|------------|------|
| Tributyl-O-acetylitate | Predator               | 1050 mg/kg | Oral |
|                        | Soil                   | 8,29 mg/kg |      |
|                        | Marine water sediment  | 4,15 mg/kg |      |
|                        | Freshwater sediment    | 41,5 mg/kg |      |
|                        | Sewage treatment plant | 100 mg/l   |      |
|                        | Marine water           | 0,022 mg/l |      |
|                        | freshwater             | 0,002 mg/l |      |
|                        |                        | 4.6 µg/l   |      |
|                        | Marine water           | 0,46 µg/l  |      |
|                        | Sewage treatment plant | 2,2 µg/l   |      |

|                                  |                        |             |  |
|----------------------------------|------------------------|-------------|--|
| triethyleneglycol dimethacrylate | freshwater             | 0,016 mg/l  |  |
|                                  | Marine water           | 0,002 mg/l  |  |
|                                  | Freshwater sediment    | 0,185 mg/kg |  |
|                                  | Marine water sediment  | 0,018 mg/kg |  |
|                                  | Soil                   | 0,027 mg/kg |  |
|                                  | Sewage treatment plant | 1,7 mg/l    |  |

|                            |            |          |  |
|----------------------------|------------|----------|--|
| ethylene di(S-thioacetate) | freshwater | 4.8 µg/l |  |
|----------------------------|------------|----------|--|

|                  |                        |             |  |
|------------------|------------------------|-------------|--|
| n-butyl acrylate | Freshwater sediment    | 0,034 mg/kg |  |
|                  | Marine water           | 0 mg/l      |  |
|                  | Soil                   | 1 mg/kg     |  |
|                  | Freshwater             | 0,003 mg/l  |  |
|                  | Sewage treatment plant | 3,5 mg/l    |  |
|                  | Marine water sediment  | 0,003 mg/kg |  |

#### 8.2. Exposure controls

**Appropriate Engineering Controls:** For monitoring procedures refer for instance to "Empfohlene Analysenverfahren für Arbeitsplatz-messungen", Schriftenreihe der Bundesanstalt für Arbeitsschutz and "NIOSH Manual of Analytical Methods", National Institute for Occupational Safety and Health

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

##### Eye/face protection:

tightly fitting goggles

##### Hand Protection:

Material: butyl rubber gloves

Break-through time: 60 min

Glove thickness: 0.7 mm

Guideline: EN 374

Additional Information: Gloves should be replaced regularly, especially after extended contact with the product., For each workplace a suitable glove type has to be selected.

##### Skin and Body Protection:

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



|                                |                                                                                                                                                                                                       |
|--------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Respiratory Protection:</b> | Breathing apparatus in case of high concentrations short term:<br>filter appliance, filter A                                                                                                          |
| <b>Hygiene measures:</b>       | Store work clothing separately. Take off all contaminated<br>clothing immediately. Follow the usual good standards of<br>occupational hygiene. Clean skin thoroughly after work; apply<br>skin cream. |
| <b>Environmental Controls:</b> | No data available.                                                                                                                                                                                    |

## 9. Physical and chemical properties

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

#### Appearance

|                                         |                                           |
|-----------------------------------------|-------------------------------------------|
| Physical state                          | liquid                                    |
| Form                                    | liquid                                    |
| Colour                                  | colourless                                |
| Odour                                   | ester-like                                |
| Odor Threshold:                         | No data available.                        |
| Freezing point                          | not available                             |
| Boiling Temperature                     | 100.5°C (1,013 hPa) (methyl methacrylate) |
| Flammability (solid, gas)               | No data available                         |
| Lower explosion limit                   | 2.1 %(V) at 10,5°C (methyl methacrylate)  |
| Upper explosion limit                   | 12.5 %(V) (methyl methacrylate)           |
| Flash point                             | 10°C (methyl methacrylate)                |
| Minimum ignition temperature            | 430 °C (methyl methacrylate)              |
| Decomposition Temperature               | No decomposition if used as directed.     |
| pH:                                     | not applicable                            |
| Kinematic viscosity                     | No data available                         |
| Dynamic viscosity                       | approx. 500 mPa.s                         |
| Flow time:                              | Not applicable                            |
| Solubility(ies)                         |                                           |
| Water solubility                        | approx. 16 g/l (methyl methacrylate)      |
| Solubility (other)                      | No information available                  |
| Partition coefficient (n-octanol/water) | No data available                         |
| Vapour pressure                         | 38.7 hPa (20 °C) (methyl methacrylate)    |
| Relative vapour density                 | > 1 (20 °C)                               |
| Density                                 | ca. 1 g/cm <sup>3</sup> (20 °C)           |
| Relative density                        | No data available                         |
| Surface treatment:                      | not applicable                            |

#### 9.2. Other information

## 10. Stability and reactivity

### 10.1. Reactivity

No data available.

### 10.2. Chemical stability

No decomposition if used as directed.

### 10.3. Possibility of hazardous Reactions

Polymerization with heat evolution may occur in the presence  
of radical forming substances (e.g. peroxides), reducing  
substances, and/or heavy metal ions.

### 10.4. Conditions to avoid

Avoid high temperatures and sources of ignition.  
Keep away from direct sunlight. Ultraviolet light.

### 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.

## 11. Toxicological information

### Information on likely routes of exposure



|                     |                                                                                                    |
|---------------------|----------------------------------------------------------------------------------------------------|
| <b>Inhalation</b>   | Relevant route of exposure. Information on effects are given below.                                |
| <b>Skin Contact</b> | Relevant route of exposure. Information on effects are given below.                                |
| <b>Eye contact</b>  | Relevant route of exposure. Information on effects are given below.                                |
| <b>Ingestion</b>    | If handled correctly, not a relevant route of exposure.<br>Information on effects are given below. |

**11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008**  
**Acute toxicity (list all possible routes of exposure)**

|                                       |                                                                                                 |
|---------------------------------------|-------------------------------------------------------------------------------------------------|
| <b>Oral</b>                           |                                                                                                 |
| Product                               | ATEmix: > 2,000 mg/kg                                                                           |
| Components                            |                                                                                                 |
| Methyl methacrylate                   | LD 50 (Rat): > 5,000 mg/kg<br>Based on available data, the classification criteria are not met. |
| triethyleneglycol dimethacrylate      | LD 50 (Rat): > 5,000 mg/kg                                                                      |
| ethylene di(S-thioacetate)            | LD 50 (Rat): 303 mg/kg                                                                          |
| n-butyl acrylate                      | LD 50 (Rat): 3,150 mg/kg                                                                        |
| N,N-bis-(2-hydroxypropyl)-p-toluidine | LD 50 (Rat): 25 mg/kg                                                                           |

|                                       |                                                                                                    |
|---------------------------------------|----------------------------------------------------------------------------------------------------|
| <b>Dermal</b>                         |                                                                                                    |
| Product                               | Not classified for acute toxicity based on available data.                                         |
| Components                            |                                                                                                    |
| Methyl methacrylate                   | LD 50 (Rabbit): > 5,000 mg/kg<br>Based on available data, the classification criteria are not met. |
| triethyleneglycol dimethacrylate      | LD 50 (Mouse): > 2,000 mg/kg<br>Based on available data, the classification criteria are not met.  |
| ethylene di(S-thioacetate)            | LC0 (Rabbit): 2,000 mg/kg<br>Based on available data, the classification criteria are not met.     |
| n-butyl acrylate                      | LD 50 (Rabbit): > 2,000 mg/kg                                                                      |
| N,N-bis-(2-hydroxypropyl)-p-toluidine | LD 50 (Rat): > 2,000 mg/kg                                                                         |

|                                       |                                                                                                                                                           |
|---------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Inhalation</b>                     |                                                                                                                                                           |
| Product                               | Not classified for acute toxicity based on available data.                                                                                                |
| Components                            |                                                                                                                                                           |
| Methyl methacrylate                   | LC 50 (Rat, 4 h) 29.8 mg/l<br>Vapour, Dusts, mists and fumes                                                                                              |
| triethyleneglycol dimethacrylate      | Vapour, No data available. Dusts, mists and fumes,<br>No data available.                                                                                  |
| ethylene di(S-thioacetate)            | LC 50 (Acute toxicity estimate): 1.5 mg/l<br>Dusts, mists and fumes LC 50 (Acute toxicity estimate):<br>11 mg/l Vapour                                    |
| n-butyl acrylate                      | LC 50 (Rat): 10.3 mg/l<br>Vapour Dusts, mists and fumes, No data available.                                                                               |
| N,N-bis-(2-hydroxypropyl)-p-toluidine | The substance or mixture has no acute inhalation toxicity,<br>Dusts, mists and fumes The substance or mixture has no<br>acute inhalation toxicity, Vapour |

|                                       |                                                                         |
|---------------------------------------|-------------------------------------------------------------------------|
| <b>Repeated dose toxicity</b>         |                                                                         |
| Product                               | No data available.                                                      |
| Components                            |                                                                         |
| Methyl methacrylate                   | NOAEL (Rat, Inhalation (Vapour)): 25 ppm<br>NOAEL (Rat, Oral): 2000 ppm |
| triethyleneglycol dimethacrylate      | NOAEL (Rat, Oral): 1,000 mg/kg                                          |
| ethylene di(S-thioacetate)            | No data available.                                                      |
| n-butyl acrylate                      | No data available.                                                      |
| N,N-bis-(2-hydroxypropyl)-p-toluidine | No data available.                                                      |

|                                  |                                          |
|----------------------------------|------------------------------------------|
| <b>Skin Corrosion/Irritation</b> |                                          |
| Product                          | Contact with skin may cause irritations. |



#### Components

|                                       |                                                           |
|---------------------------------------|-----------------------------------------------------------|
| Methyl methacrylate                   | (Rabbit): Irritating.                                     |
| triethyleneglycol dimethacrylate      | FDA 1959 Draize, occlusive (Rabbit, 24 h): Not irritating |
| ethylene di(S-thioacetate)            | (Rabbit): Not irritating                                  |
| n-butyl acrylate                      | (Rabbit): Irritating.                                     |
| N,N-bis-(2-hydroxypropyl)-p-toluidine | does not require labelling                                |

#### **Serious Eye Damage/Eye Irritation**

Product Contact with the eyes may cause irritation.

#### Components

|                                       |                                                                                                 |
|---------------------------------------|-------------------------------------------------------------------------------------------------|
| Methyl methacrylate                   | Not irritating Draize Rabbit: Based on available data, the classification criteria are not met. |
| triethyleneglycol dimethacrylate      | OECD Guide-line 405 (Rabbit): Not irritating                                                    |
| ethylene di(S-thioacetate)            | (Rabbit): Irritating.                                                                           |
| n-butyl acrylate                      | (Rabbit): Irritating.                                                                           |
| N,N-bis-(2-hydroxypropyl)-p-toluidine | (Rabbit): Moderately irritating OECD 405                                                        |

#### **Respiratory or Skin Sensitization**

##### Product

No data available.

##### Components

Methyl methacrylate

Local Lymph Node Assay (LLNA), OECD 429 (Mouse):  
Skin sensitizer

triethyleneglycol dimethacrylate

Local Lymph Node Assay (LLNA), OECD 429 (Mouse):  
Skin sensitizer

ethylene di(S-thioacetate)

Maximization Test, OECD 406 (Guinea Pig):  
Strong skin sensitizer.

n-butyl acrylate

Local Lymph Node Assay (LLNA), OECD 429 (Mouse):  
Skin sensitizer

N,N-bis-(2-hydroxypropyl)-p-toluidine

Not a skin sensitizer.

#### **Carcinogenicity**

##### Product

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

##### Components

Methyl methacrylate

Not classified

triethyleneglycol dimethacrylate

Not classified

ethylene di(S-thioacetate)

Not classified

n-butyl acrylate

Not carcinogenic

#### **Germ Cell Mutagenicity**

##### **In vitro**

##### Product

No data available.

##### Components

Methyl methacrylate

No data available.

triethyleneglycol dimethacrylate

gene mutation test (OECD 476): negative

ethylene di(S-thioacetate)

No data available.

n-butyl acrylate

No data available.

N,N-bis-(2-hydroxypropyl)-p-toluidine

(OECD TG 471) negative

##### **In vivo**

##### Product

No data available.

##### Components

Methyl methacrylate

No data available.

triethyleneglycol dimethacrylate

No data available.

ethylene di(S-thioacetate)

No data available.

n-butyl acrylate

No data available.

N,N-bis-(2-hydroxypropyl)-p-toluidine

Ames test: negative

N,N-bis-(2-hydroxypropyl)-p-toluidine

Not classified

#### **Reproductive toxicity**

##### Product

Contains no ingredient listed as toxic to reproduction (>0.1%).

##### Components

Methyl methacrylate

Not classified



triethyleneglycol dimethacrylate  
ethylene di(S-thioacetate)  
n-butyl acrylate  
N,N-bis-(2-hydroxypropyl)-p-toluidine

No data available.  
No data available.  
No data available.  
Not classified

#### **Specific Target Organ Toxicity**

##### **- Single Exposure**

Product

No data available.

Components

Methyl methacrylate

Inhalation - vapor: Respiratory system - Category 3 with respiratory tract irritation.

triethyleneglycol dimethacrylate

No data available.

ethylene di(S-thioacetate)

Inhalation: Lungs - Category 3 with respiratory tract irritation.

n-butyl acrylate

Inhalation - vapor: Respiratory system - Category 3 with respiratory tract irritation.

N,N-bis-(2-hydroxypropyl)-p-toluidine

Not classified.

#### **Specific Target Organ Toxicity**

##### **- Repeated Exposure**

Product

No data available.

Components

Methyl methacrylate

Not classified

triethyleneglycol dimethacrylate

No data available.

ethylene di(S-thioacetate)

No data available.

n-butyl acrylate

No data available.

N,N-bis-(2-hydroxypropyl)-p-toluidine

Not classified

#### **Aspiration Hazard**

Product

Due to the viscosity, this product does not present an aspiration hazard.

Components

Methyl methacrylate

Not classified

triethyleneglycol dimethacrylate

Not classified

ethylene di(S-thioacetate)

Not classified

n-butyl acrylate

Not classified as an aspiration hazard.

N,N-bis-(2-hydroxypropyl)-p-toluidine

Not classified

#### **11.2 Information on other hazards**

##### **Endocrine disrupting properties**

Product:

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

Components:

Methyl methacrylate

No data available.

triethyleneglycol dimethacrylate

No data available.

ethylene di(S-thioacetate)

No data available.

n-butyl acrylate

No data available.

N,N-bis-(2-hydroxypropyl)-p-toluidine

No data available.

##### **Other adverse effects**

Avoid contact with the skin and eyes and inhalation of the product vapours.

## **12. Ecological information**

### **12.1. Toxicity**

#### **Acute toxicity**

##### **Fish**

Product

No data available.

Components



|                                       |                                                                                                                         |
|---------------------------------------|-------------------------------------------------------------------------------------------------------------------------|
| Methyl methacrylate                   | LC 50 (Oncorhynchus mykiss, 96 h): > 79 mg/l<br>(OECD Test Guideline 203)                                               |
| triethyleneglycol dimethacrylate      | NOEC (Danio rerio, 32 d) : 9.4 mg/l literature                                                                          |
| ethylene di(S-thioacetate)            | LC 50 (Danio rerio, 96 h): 16.4 mg/l                                                                                    |
| n-butyl acrylate                      | LC 50 (Leuciscus idus (Golden orfe), 48 h): 4.85 mg/l<br>LC 50 (Oncorhynchus mykiss, 96 h): > 5.2 mg/l<br>(OECD TG 203) |
| N,N-bis-(2-hydroxypropyl)-p-toluidine | LC 50 (Danio rerio, 96 h): 17 mg/l                                                                                      |
| <b>Aquatic Invertebrates</b>          |                                                                                                                         |
| Product                               | No data available.                                                                                                      |
| Components                            |                                                                                                                         |
| Methyl methacrylate                   | EC 50 (Daphnia magna, 48 h): 69 mg/l<br>NOEC (Daphnia magna, 21 d): 37 mg/l                                             |
| triethyleneglycol dimethacrylate      | No data available.                                                                                                      |
| ethylene di(S-thioacetate)            | EC 50 (Daphnia magna, 48 h): 11 mg/l                                                                                    |
| n-butyl acrylate                      | EC 50 (Daphnia magna, 48 h): 8.2 mg/l                                                                                   |
| N,N-bis-(2-hydroxypropyl)-p-toluidine | EC 50 (Daphnia magna, 48 h): 28.8 mg/l                                                                                  |
| <b>Toxicity to Aquatic Plants</b>     |                                                                                                                         |
| Product                               | No data available.                                                                                                      |
| Components                            |                                                                                                                         |
| Methyl methacrylate                   | EC 50 (Selenastrum capricornutum (green algae), 72 h):<br>> 100 mg/l (OECD 201)                                         |
| triethyleneglycol dimethacrylate      | EC 50 (Pseudokirchneriella subcapitata (green algae), 72 h):<br>> 100 mg/l (OECD 201)                                   |
| ethylene di(S-thioacetate)            | EC 50 (Desmodesmus subspicatus (green algae), 72 h): > 100<br>mg/l (OECD 201)                                           |
| n-butyl acrylate                      | EC 50 (Selenastrum capricornutum (green algae), 96 h):<br>2.65 mg/l (OECD 201)                                          |
| N,N-bis-(2-hydroxypropyl)-p-toluidine | EC 50 (Desmodesmus subspicatus (green algae), 72 h):<br>245 mg/l (OECD 201)                                             |
| <b>Toxicity to microorganisms</b>     |                                                                                                                         |
| Product                               | No data available.                                                                                                      |
| Components                            |                                                                                                                         |
| Methyl methacrylate                   | No data available.                                                                                                      |
| triethyleneglycol dimethacrylate      | No data available.                                                                                                      |
| ethylene di(S-thioacetate)            | No data available.                                                                                                      |
| n-butyl acrylate                      | EC0 (Activated sludge, 3 d): > 150 mg/l                                                                                 |
| N,N-bis-(2-hydroxypropyl)-p-toluidine | EC10 (30 min): > 1,995 mg/l (OECD 209)                                                                                  |
| <b>Chronic Toxicity</b>               |                                                                                                                         |
| <b>Fish</b>                           |                                                                                                                         |
| Product                               | No data available.                                                                                                      |
| Components                            |                                                                                                                         |
| Methyl methacrylate                   | No data available.                                                                                                      |
| triethyleneglycol dimethacrylate      | No data available.                                                                                                      |
| ethylene di(S-thioacetate)            | No data available.                                                                                                      |
| n-butyl acrylate                      | No data available.                                                                                                      |
| N,N-bis-(2-hydroxypropyl)-p-toluidine | No data available.                                                                                                      |
| <b>Aquatic Invertebrates</b>          |                                                                                                                         |
| Product                               | No data available.                                                                                                      |
| Components                            |                                                                                                                         |
| Methyl methacrylate                   | No data available.                                                                                                      |
| triethyleneglycol dimethacrylate      | NOEC (Daphnia magna, 21 d): 32 mg/l                                                                                     |
| ethylene di(S-thioacetate)            | No data available.                                                                                                      |
| n-butyl acrylate                      | NOEC (Daphnia magna (Water flea), 21 d): 0.136 mg/l                                                                     |
| N,N-bis-(2-hydroxypropyl)-p-toluidine | No data available.                                                                                                      |
| <b>Toxicity to Aquatic Plants</b>     |                                                                                                                         |



|                                                          |                                                                                                                                                          |
|----------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|
| Product                                                  | No data available.                                                                                                                                       |
| Components                                               |                                                                                                                                                          |
| Methyl methacrylate                                      | NOEC (Selenastrum capricornutum (green algae), 72 h):<br>> 100 mg/l (OECD 201)                                                                           |
| triethyleneglycol dimethacrylate                         | NOEC (Pseudokirchneriella subcapitata, 72 h):<br>18.6 mg/l (OECD 201)                                                                                    |
| ethylene di(S-thioacetate)                               | NOEC (Desmodesmus subspicatus (green algae), 72 h): >= 100 mg/l (OECD 201)                                                                               |
| n-butyl acrylate                                         | No data available.                                                                                                                                       |
| N,N-bis-(2-hydroxypropyl)-p-toluidine                    | No data available.                                                                                                                                       |
| <b>Toxicity to microorganisms</b>                        |                                                                                                                                                          |
| Product                                                  | No data available.                                                                                                                                       |
| Components                                               |                                                                                                                                                          |
| Methyl methacrylate                                      | No data available                                                                                                                                        |
| triethyleneglycol dimethacrylate                         | No data available                                                                                                                                        |
| ethylene di(S-thioacetate)                               | No data available                                                                                                                                        |
| n-butyl acrylate                                         | No data available.                                                                                                                                       |
| N,N-bis-(2-hydroxypropyl)-p-toluidine                    | No data available.                                                                                                                                       |
| <b>12.2. Persistence and degradability</b>               |                                                                                                                                                          |
| <b>Biodegradation</b>                                    |                                                                                                                                                          |
| Product                                                  | (14 d, OECD 301 C): 94 % Readily biodegradable<br>Related to substance: methyl methacrylate                                                              |
| Components                                               |                                                                                                                                                          |
| Methyl methacrylate                                      | (14 d, OECD 301 C): 94 % The product is easily biodegradable.                                                                                            |
| triethyleneglycol dimethacrylate                         | (28 d): 85 % The product is easily biodegradable.                                                                                                        |
| ethylene di(S-thioacetate)                               | (28 d, OECD 301 D): 65.9 % The product is easily biodegradable.                                                                                          |
| n-butyl acrylate                                         | 60 % The product is easily biodegradable.<br>< 80 % The product is easily biodegradable.                                                                 |
| N,N-bis-(2-hydroxypropyl)-p-toluidine                    | (28 d, OECD 301 B): 39 % The product is not biodegradable.                                                                                               |
| <b>BOD/COD Ratio</b>                                     |                                                                                                                                                          |
| Product                                                  | No data available.                                                                                                                                       |
| Components                                               |                                                                                                                                                          |
| Methyl methacrylate                                      | No data available.                                                                                                                                       |
| triethyleneglycol dimethacrylate                         | No data available.                                                                                                                                       |
| ethylene di(S-thioacetate)                               | No data available.                                                                                                                                       |
| n-butyl acrylate                                         | No data available.                                                                                                                                       |
| N,N-bis-(2-hydroxypropyl)-p-toluidine                    | No data available.                                                                                                                                       |
| <b>12.3. Bioaccumulative potential</b>                   |                                                                                                                                                          |
| Product                                                  | no evidence for hazardous properties                                                                                                                     |
| Methyl methacrylate                                      | No data available.                                                                                                                                       |
| triethyleneglycol dimethacrylate                         | Accumulation in organisms is not expected due to the coefficient of distribution of n-octanol in water (log Pow).<br>Bioconcentration Factor (BCF): 2.82 |
| ethylene di(S-thioacetate)                               | Accumulation in organisms is not expected due to the coefficient of distribution of n-octanol in water (log Pow).                                        |
| n-butyl acrylate                                         | 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.                                                                                                                                       |
| <b>Partition Coefficient n-octanol / water (log Kow)</b> |                                                                                                                                                          |
| Product                                                  | No data available.                                                                                                                                       |
| Components                                               |                                                                                                                                                          |
| Methyl methacrylate                                      | Log Kow: 1.38                                                                                                                                            |
| triethyleneglycol dimethacrylate                         | Log Kow: 2.3 20 °C (OECD 117)                                                                                                                            |
| ethylene di(S-thioacetate)                               | Log Kow: 1.46 20 °C (OECD 117)                                                                                                                           |
| n-butyl acrylate                                         | Log Kow: 2.36<br>Log Kow: 2.38 25 °C                                                                                                                     |



N,N-bis-(2-hydroxypropyl)-p-toluidine Log Kow: 2.1 (OECD 107)

#### 12.4. Mobility in soil

**Product** no specific test data available

##### Components

Methyl methacrylate No data available.  
 triethyleneglycol dimethacrylate No data available.  
 ethylene di(S-thioacetate) No data available.  
 n-butyl acrylate The product evaporates slowly.  
 N,N-bis-(2-hydroxypropyl)-p-toluidine No data available.

#### 12.5. Results of PBT and

##### vPvB assessment

##### Product

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

##### Components

Methyl methacrylate Non-classified vPvB substance Non-classified PBT substance  
 triethyleneglycol dimethacrylate Non-classified vPvB substance Non-classified PBT substance  
 ethylene di(S-thioacetate) Non-classified vPvB substance Non-classified PBT substance  
 n-butyl acrylate Non-classified vPvB substance Non-classified PBT substance  
 N,N-bis-(2-hydroxypropyl)-p-toluidine Non-classified vPvB substance Non-classified PBT substance

#### 12.6. Endocrine disrupting properties:

##### Product:

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

##### Components

Methyl methacrylate No data available.  
 triethyleneglycol dimethacrylate No data available.  
 ethylene di(S-thioacetate) No data available.  
 n-butyl acrylate No data available.  
 N,N-bis-(2-hydroxypropyl)-p-toluidine No data available.

#### 12.7 Other adverse effects:

##### Other hazards

##### Product:

Prevent substance from entering soil, natural bodies of water and sewer systems.

### 13. Disposal considerations

#### 13.1. Waste treatment methods

##### General information

##### Disposal methods

No data available.

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.

##### Contaminated Packaging

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.

### 14. Transport Information

#### Transport on land (ADR/RID/GGVSEB)

##### 14.1. UN number

ADR UN 1866  
 RID UN 1866  
 IMDG UN 1866



|                                                                                                                                                                                                                                                                                                                                             |                                            |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------|
| IATA                                                                                                                                                                                                                                                                                                                                        | UN 1866                                    |
| <b>14.2. UN proper shipping name</b>                                                                                                                                                                                                                                                                                                        |                                            |
| ADR                                                                                                                                                                                                                                                                                                                                         | RESIN SOLUTION                             |
| RID                                                                                                                                                                                                                                                                                                                                         | RESIN SOLUTION                             |
| IMDG                                                                                                                                                                                                                                                                                                                                        | RESIN SOLUTION                             |
| IATA                                                                                                                                                                                                                                                                                                                                        | Resin solution                             |
| <b>14.3. Transport hazard class(es)</b>                                                                                                                                                                                                                                                                                                     |                                            |
| ADR                                                                                                                                                                                                                                                                                                                                         | 3                                          |
| RID                                                                                                                                                                                                                                                                                                                                         | 3                                          |
| IMDG                                                                                                                                                                                                                                                                                                                                        | 3                                          |
| IATA                                                                                                                                                                                                                                                                                                                                        | 3                                          |
| <b>14.4. Packing group</b>                                                                                                                                                                                                                                                                                                                  |                                            |
| ADR                                                                                                                                                                                                                                                                                                                                         |                                            |
| Packing group                                                                                                                                                                                                                                                                                                                               | II                                         |
| Classification Code                                                                                                                                                                                                                                                                                                                         | F1                                         |
| Hazard Identification Number                                                                                                                                                                                                                                                                                                                | 33                                         |
| Labels                                                                                                                                                                                                                                                                                                                                      | 3                                          |
| Remarks                                                                                                                                                                                                                                                                                                                                     | Special provision 640D, observe §35 GGVSEB |
| RID                                                                                                                                                                                                                                                                                                                                         |                                            |
| Packing group                                                                                                                                                                                                                                                                                                                               | II                                         |
| Classification Code                                                                                                                                                                                                                                                                                                                         | F1                                         |
| Hazard Identification Number                                                                                                                                                                                                                                                                                                                | 33                                         |
| 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                                          |
| <b>14.5. Environmental hazards</b>                                                                                                                                                                                                                                                                                                          |                                            |
| ADR                                                                                                                                                                                                                                                                                                                                         |                                            |
| Environmentally hazardous                                                                                                                                                                                                                                                                                                                   | No                                         |
| RID                                                                                                                                                                                                                                                                                                                                         |                                            |
| Environmentally hazardous                                                                                                                                                                                                                                                                                                                   | No                                         |
| IMDG                                                                                                                                                                                                                                                                                                                                        |                                            |
| Marine pollutant                                                                                                                                                                                                                                                                                                                            | No                                         |
| <b>14.6. Special precautions for user</b>                                                                                                                                                                                                                                                                                                   |                                            |
| 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. |                                            |
| <b>14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code</b>                                                                                                                                                                                                                                                       |                                            |
| Not applicable for product as supplied.                                                                                                                                                                                                                                                                                                     |                                            |

## 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

**Regulation 1005/2009/EC on substances that deplete the ozone layer, Annex II, New**

**Substances:** none



**EU. REACH Annex XIV, Substances Subject to Authorization:** none

**EU. Regulation 2019/1021/EU on persistent organic pollutants (POPs) (recast), as amended:** none

**EU. Directive 2010/75/EU on Industrial Emissions (IPPC), Annex II, L 334/17:** none

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

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

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

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

| Chemical name       | CAS-No. | Concentration |
|---------------------|---------|---------------|
| 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

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

**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

**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  |               |
| n-butyl acrylate    | 141-32-2 |               |

#### National Regulations

Please note Directive 94/33/EC (Protection of Young Workers at the Workplace Directive) and amendments. Please note Directive 92/85/EEC (Pregnant Workers Directive) and amendments.

#### 15.2 Chemical safety assessment

No Chemical Safety Assessment has been carried out.

##### Inventory Status:

Registration, Evaluation and

Authorisation of Chemicals (REACH):

US TSCA Inventory:

Canada DSL Inventory List:

Canada NDSL Inventory:

Australia AICS:

Japan (ENCS) List:

Korea Existing Chemicals Inv. (KECI):

Philippines PICCS:

China Inv. Existing Chemical

Substances:

preregistered, registered or exempted

On or in compliance with the inventory

On or in compliance with the inventory

Not on Inventory.

Not on Inventory.

Not on Inventory.

Not on Inventory.

On or in compliance with the inventory

On or in compliance with the inventory

##### International regulations

Montreal protocol

Not applicable

Stockholm convention

Not applicable

Rotterdam convention

Not applicable



Kyoto protocol

Not applicable

## 16. Other Information

### Abbreviations and acronyms

ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road;  
ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland  
Waterways; AGW - Occupational exposure limit; ASTM - American Society for Testing and Materials;  
AwSV - Ordinance on facilities for handling substances that are hazardous to water; BSB -  
Biochemical oxygen demand; c.c. - closed cup; CAS - Chemical Abstract Services; CESIO - European  
Committee of Organic Surfactants and their Intermediates; CSB - Chemical oxygen demand; DMEL -  
Derived minimum effect level; DNEL - Derived no effect level; EbC50 - median concentration in terms  
of reduction of growth; EC - Effective concentration; EINECS - European Inventory of Existing  
Commercial Chemical Substances; EN - European norm; ErC50 - median concentration in terms of  
reduction of growth rate; GGVSEB - German ordinance for road, rail and inland waterway  
transportation of dangerous goods; GGVSee - German ordinance for sea transportation of dangerous  
goods; GLP - Good Laboratory Practice; GMO - Genetic Modified Organism; IATA - International Air  
Transport Association; ICAO - International Civil Aviation Organization; IMDG - International Maritime  
Dangerous Goods; ISO - International Organization For Standardization; LD/LC -lethal  
dosis/concentration; LOAEL - Lowest observed adverse effect level; LOEL - Lowest observed effect  
level; M-Factor - multiplying factor; NOAEL - No observed adverse effect level; NOEC - no observed  
effect concentration; NOEL - no observed effect level; o.c. - open cup; OECD - Organisation for  
Economic Cooperation and Development; OEL - Occupational Exposure Limit; PBT - Persistent,  
bioaccumulative, toxic; PNEC - Predicted no effect concentration; REACH - REACH registration; RID -  
Convention concerning International Carriage by Rail; SVHC - Substances of Very High Concern; TA -  
Technical Instructions; TRGS - Technical Rules for Hazardous Substances; vPvB - very persistent,  
very bioaccumulative; WGK - Water Hazard Class

### Notes:

|                     |        |                                                                                                                                                                                                                                                                                                                                                                                                                |
|---------------------|--------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Methyl 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'. |
| n-butyl acrylate    |        |                                                                                                                                                                                                                                                                                                                                                                                                                |

### 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                                          | Calculation method       |
| Specific Target Organ Toxicity - Single Exposure, Category 3         | Calculation method       |

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

- H225 Highly flammable liquid and vapor.  
H226 Flammable liquid and vapour.  
H300 Fatal if swallowed.  
H302 Harmful if swallowed.  
H315 Causes skin irritation. May cause an allergic skin reaction.  
H317 May cause an allergic skin reaction.  
H319 Causes serious eye irritation.  
H332 Harmful if inhaled.  
H335 May cause respiratory irritation.  
H412 Harmful to aquatic life with long lasting effects.

Other information

The product is normally supplied in a stabilized form. If the permissible storage period and/or storage temperature is



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exceeded, the product may polymerize with heat evolution.  
This version replaces all previous versions.

Disclaimer:

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