

# Safety data sheet

## according to 1907/2006/EC, Article 31

Printing date 19.01.2023

Version number 12 (replaces version 11)

Revision: 19.01.2023

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

#### 1.1 Product identifier

Trade name: **MMA Adhesive 6 min, Part A**

Article number: 87554A

UFI: A112-P0DF-400K-C76G

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

No further relevant information available.

Application of the substance / the mixture

Structural resins  
Adhesives

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

Manufacturer/Supplier: AKEMI chemisch technische Spezialfabrik GmbH  
Lechstrasse 28  
D 90451 Nürnberg

Tel. +49(0)911-642960  
Fax. +49(0)911-644456  
e-mail info@akemi.de

Further information obtainable from:

Laboratory

#### 1.4 Emergency telephone number:

Product Safety Department AKEMI chemisch technische Spezialfabrik GmbH  
Tel. +49(0)911-64296-59  
Reachable during the following office hours:  
Monday – Thursday from 07:30 a.m. to 16:30 p.m.  
Friday from 07:30 a.m. to 13:30 p.m.

### SECTION 2: Hazards identification

#### 2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

|                   |                                                         |
|-------------------|---------------------------------------------------------|
| Flam. Liq. 2      | H225 Highly flammable liquid and vapour.                |
| Skin Corr. 1A     | H314 Causes severe skin burns and eye damage.           |
| Eye Dam. 1        | H318 Causes serious eye damage.                         |
| Skin Sens. 1      | H317 May cause an allergic skin reaction.               |
| STOT SE 3         | H335 May cause respiratory irritation.                  |
| Aquatic Chronic 3 | H412 Harmful to aquatic life with long lasting effects. |

#### 2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008

Hazard pictograms

The product is classified and labelled according to the CLP regulation.



GHS02 GHS05 GHS07

Signal word

Danger

Hazard-determining components of labelling:

methyl methacrylate  
methacrylic acid  
 $\alpha,\alpha$ -dimethylbenzyl hydroperoxide  
propylidynetrimethanol, ethoxylated, esters with acrylic acid  
H225 Highly flammable liquid and vapour.  
H314 Causes severe skin burns and eye damage.  
H317 May cause an allergic skin reaction.  
H335 May cause respiratory irritation.  
H412 Harmful to aquatic life with long lasting effects.

Hazard statements

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|                                   |                |                                                                                                                                  |
|-----------------------------------|----------------|----------------------------------------------------------------------------------------------------------------------------------|
| · <u>Precautionary statements</u> | P101           | If medical advice is needed, have product container or label at hand.                                                            |
|                                   | P102           | Keep out of reach of children.                                                                                                   |
|                                   | P103           | Read carefully and follow all instructions.                                                                                      |
|                                   | P210           | Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.                                   |
|                                   | P271           | Use only outdoors or in a well-ventilated area.                                                                                  |
|                                   | P280           | Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.                                    |
|                                   | P301+P330+P331 | IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.                                                                               |
|                                   | P303+P361+P353 | IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].                         |
|                                   | P305+P351+P338 | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |
|                                   | P310           | Immediately call a POISON CENTER/doctor.                                                                                         |
|                                   | P405           | Store locked up.                                                                                                                 |
|                                   | P501           | Dispose of contents/container in accordance with local/regional/national/international regulations.                              |

**· 2.3 Other hazards**

· Results of PBT and vPvB assessment

· PBT: Not applicable.

· vPvB: Not applicable.

· Determination of endocrine-disrupting properties

128-37-0 Butylated hydroxytoluene

List II

**SECTION 3: Composition/information on ingredients****· 3.2 Mixtures**· Description: Mixture: consisting of the following components.· Dangerous components:

|                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                        |         |
|---------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|
| CAS: 80-62-6<br>EINECS: 201-297-1<br>Index number: 607-035-00-6<br>Reg.nr.: 01-2119452498-28      | methyl methacrylate<br>Flam. Liq. 2, H225<br>Skin Irrit. 2, H315; Skin Sens. 1, H317; STOT SE 3, H335                                                                                                                                                                                                                                                                                                                                  | 50-100% |
| CAS: 79-41-4<br>EINECS: 201-204-4<br>Index number: 607-088-00-5<br>Reg.nr.: 01-2119463884-26-XXXX | methacrylic acid<br>Skin Corr. 1A, H314; Eye Dam. 1, H318<br>Acute Tox. 4, H302; Acute Tox. 4, H312; Acute Tox. 4, H332; STOT SE 3, H335<br>Specific concentration limit: STOT SE 3; H335: C ≥ 1 %                                                                                                                                                                                                                                     | <12.5%  |
|                                                                                                   | Urethanmethacrylat-Oligomer<br>Skin Irrit. 2, H315; Eye Irrit. 2, H319                                                                                                                                                                                                                                                                                                                                                                 | <12.5%  |
| CAS: 80-15-9<br>EINECS: 201-254-7<br>Index number: 617-002-00-8                                   | α,α -dimethylbenzyl hydroperoxide<br>Org. Perox. E, H242<br>Acute Tox. 3, H331<br>STOT RE 2, H373<br>Skin Corr. 1B, H314; Eye Dam. 1, H318<br>Aquatic Chronic 2, H411<br>Acute Tox. 4, H302; Acute Tox. 4, H312; STOT SE 3, H335<br>Specific concentration limits: Skin Corr. 1B; H314: C ≥ 10 %<br>Skin Irrit. 2; H315: 3 % ≤ C < 10 %<br>Eye Dam. 1; H318: C ≥ 3 %<br>Eye Irrit. 2; H319: 1 % ≤ C < 3 %<br>STOT SE 3; H335: C < 10 % | 1-5%    |

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|                                                                      |                                                                                                          |      |
|----------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|------|
| CAS: 98-59-9<br>EINECS: 202-684-8                                    | tosyl chloride<br>Skin Corr. 1B, H314<br>EUH029                                                          | 1-5% |
| CAS: 128-37-0<br>EINECS: 204-881-4<br>Reg.nr.: 01-2119565113-46-0000 | Butylated hydroxytoluene<br>Aquatic Acute 1, H400; Aquatic Chronic 1, H410                               | 1-5% |
| CAS: 28961-43-5<br>NLP: 500-066-5<br>Reg.nr.: 01-2119489900-30       | propylidynetrimethanol, ethoxylated, esters with acrylic acid<br>Eye Irrit. 2, H319; Skin Sens. 1B, H317 | <1%  |

· Additional information: For the wording of the listed hazard phrases refer to section 16.

#### SECTION 4: First aid measures

##### · 4.1 Description of first aid measures

- General information: Immediately remove any clothing soiled by the product.
- After inhalation: Supply fresh air and to be sure call for a doctor.  
In case of unconsciousness place patient stably in side position for transportation.
- After skin contact: Immediate medical treatment necessary. Failure to treat burns can prevent wounds from healing.  
Immediately wash with water and soap and rinse thoroughly.
- After eye contact: Rinse opened eye for several minutes under running water. Then consult a doctor.
- After swallowing: Do not induce vomiting; call for medical help immediately.  
Rinse out mouth and then drink plenty of water.

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

No further relevant information available.

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

No further relevant information available.

#### SECTION 5: Firefighting measures

##### · 5.1 Extinguishing media

- Suitable extinguishing agents: CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

##### · For safety reasons unsuitable extinguishing agents:

Water with full jet

##### · 5.2 Special hazards arising from the substance or mixture

Formation of toxic gases is possible during heating or in case of fire.

##### · 5.3 Advice for firefighters

##### · Protective equipment:

Do not inhale explosion gases or combustion gases.  
Wear self-contained respiratory protective device.  
Wear fully protective suit.

##### · Additional information

Cool endangered receptacles with water spray.  
Collect contaminated fire fighting water separately. It must not enter the sewage system.

#### SECTION 6: Accidental release measures

##### · 6.1 Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Keep unprotected persons away.  
Ensure adequate ventilation

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- **6.2 Environmental precautions:** Do not allow product to reach sewage system or any water course.  
Prevent seepage into sewage system, workpits and cellars.  
Inform respective authorities in case of seepage into water course or sewage system.  
Do not allow to enter sewers/ surface or ground water.
- **6.3 Methods and material for containment and cleaning up:** Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
Ensure adequate ventilation.
- **6.4 Reference to other sections** See Section 7 for information on safe handling.  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.

**SECTION 7: Handling and storage**

- **7.1 Precautions for safe handling** Ensure good ventilation/exhaustion at the workplace.  
Keep away from heat and direct sunlight.
- **Information about fire - and explosion protection:** Keep ignition sources away - Do not smoke.  
Protect against electrostatic charges.  
Fumes can combine with air to form an explosive mixture.  
Use explosion-proof apparatus / fittings and spark-proof tools.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** Store only in the original receptacle.  
Store in a cool location.
- **Information about storage in one common storage facility:** Store away from oxidising agents.  
Store away from foodstuffs.
- **Further information about storage conditions:** Protect from exposure to the light.  
Protect from frost.  
Keep container tightly sealed.  
Store in cool, dry conditions in well sealed receptacles.
- **Storage class:** 3
- **7.3 Specific end use(s)** No further relevant information available.

**SECTION 8: Exposure controls/personal protection**· **8.1 Control parameters**

- **Ingredients with limit values that require monitoring at the workplace:**

**80-62-6 methyl methacrylate**

|       |                                                      |
|-------|------------------------------------------------------|
| IOELV | Short-term value: 100 ppm<br>Long-term value: 50 ppm |
|-------|------------------------------------------------------|

· **DNELs****80-62-6 methyl methacrylate**

|        |                             |                              |
|--------|-----------------------------|------------------------------|
| Oral   | DNEL (Kurzzeit-akut)        | 0.25 mg/kg bw/day (BEV)      |
| Dermal | DNEL (Kurzzeit-akut)        | 1.5 mg/kg bw/day (ARB)       |
|        |                             | 1.5 mg/kg bw/day (BEV)       |
|        | DNEL ( Langzeit-wiederholt) | 1.5-13.67 mg/kg bw/day (ARB) |

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|            |                            |                                                                                                           |
|------------|----------------------------|-----------------------------------------------------------------------------------------------------------|
| Inhalative | DNEL (Kurzzeit-akut)       | 1.5-8.2 mg/kg bw/day (BEV)<br>29.6-416 mg/m <sup>3</sup> Air (ARB)<br>6.3-104 mg/m <sup>3</sup> Air (BEV) |
|            | DNEL (Langzeit-wiederholt) | 208 mg/m <sup>3</sup> Air (ARB)<br>74.3-104 mg/m <sup>3</sup> Air (BEV)                                   |

**79-41-4 methacrylic acid**

|            |                             |                                                                             |
|------------|-----------------------------|-----------------------------------------------------------------------------|
| Dermal     | DNEL ( Langzeit-wiederholt) | 4.25 mg/kg bw/day (ARB)<br>2.55 mg/kg bw/day (BEV)                          |
| Inhalative | DNEL (Langzeit-wiederholt)  | 29.6-88 mg/m <sup>3</sup> Air (ARB)<br>6.3-6.55 mg/m <sup>3</sup> Air (BEV) |

**128-37-0 Butylated hydroxytoluene**

|            |                             |                                                                      |
|------------|-----------------------------|----------------------------------------------------------------------|
| Oral       | DNEL (Langzeit-wiederholt)  | 0.25 mg/kg bw/day (BEV)                                              |
| Dermal     | DNEL ( Langzeit-wiederholt) | 0.5 mg/kg bw/day (ARB)<br>5 mg/kg bw/day (BEV)                       |
| Inhalative | DNEL (Langzeit-wiederholt)  | 1.76 mg/m <sup>3</sup> Air (ARB)<br>1.74 mg/m <sup>3</sup> Air (BEV) |

**28961-43-5 propylidynetrimethanol, ethoxylated, esters with acrylic acid**

|            |                             |                                                                     |
|------------|-----------------------------|---------------------------------------------------------------------|
| Oral       | DNEL (Langzeit-wiederholt)  | 1.4 mg/kg bw/day (BEV)                                              |
| Dermal     | DNEL ( Langzeit-wiederholt) | 0.8 mg/kg bw/day (ARB)<br>0.5 mg/kg bw/day (BEV)                    |
| Inhalative | DNEL (Langzeit-wiederholt)  | 16.2 mg/m <sup>3</sup> Air (ARB)<br>4.9 mg/m <sup>3</sup> Air (BEV) |

**· PNECs****80-62-6 methyl methacrylate**

|                |                                                                                           |
|----------------|-------------------------------------------------------------------------------------------|
| PNEC (wässrig) | 10 mg/l (KA)<br>0.094 mg/l (MW)<br>0.94 mg/l (SW)<br>0.15-0.94 mg/l (WAS)                 |
| PNEC (fest)    | 1.47 mg/kg Trockengew (BO)<br>0.102 mg/kg Trockengew (MWS)<br>10.2 mg/kg Trockengew (SWS) |

**79-41-4 methacrylic acid**

|                |                                                  |
|----------------|--------------------------------------------------|
| PNEC (wässrig) | 10 mg/l (KA)<br>0.82 mg/l (MW)<br>0.82 mg/l (SW) |
| PNEC (fest)    | 1.2 mg/kg Trockengew (BO)                        |

**128-37-0 Butylated hydroxytoluene**

|                |                                                                                             |
|----------------|---------------------------------------------------------------------------------------------|
| PNEC (wässrig) | 0.017 mg/l (KA)<br>0.00002 mg/l (MW)<br>0.000199 mg/l (SW)<br>0.00199 mg/l (WAS)            |
| PNEC (fest)    | 0.054 mg/kg Trockengew (BO)<br>0.046 mg/kg Trockengew (MWS)<br>0.458 mg/kg Trockengew (SWS) |

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**28961-43-5 propylidynetrimethanol, ethoxylated, esters with acrylic acid**

|                |                                |
|----------------|--------------------------------|
| PNEC (wässrig) | 10 mg/l (KA)                   |
|                | 0.000195 mg/l (MW)             |
|                | 0.00195 mg/l (SW)              |
|                | 0.0195 mg/l (WAS)              |
| PNEC (fest)    | 0.00587 mg/kg Trockengew (BO)  |
|                | 0.00082 mg/kg Trockengew (MWS) |
|                | 0.0082 mg/kg Trockengew (SWS)  |

· Additional information: The lists valid during the making were used as basis.

· **8.2 Exposure controls**

· Appropriate engineering controls No further data; see item 7.

· Individual protection measures, such as personal protective equipment

· General protective and hygienic measures:

Keep away from foodstuffs, beverages and feed.  
Immediately remove all soiled and contaminated clothing  
Wash hands before breaks and at the end of work.  
Do not inhale gases / fumes / aerosols.  
Avoid contact with the skin.  
Avoid contact with the eyes and skin.

· Respiratory protection:

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.  
Filter A/P2

· Hand protection



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

The protection gloves to be used have to comply with the specifications of the directive 89/686/EC and the directive derived decree EN374, respectively, e.g. the above listed protection glove type. The mentioned permeation times' data were generated and verified with material samples of the recommended protection glove type in the scope of laboratory analyses of the company KCL GmbH in compliance with EN374.

This recommendation refers exclusively to the material safety data sheet referenced product delivered by Akemi and the indicated field of application. In case of product dilution or in case of mixture with different substances or chemicals, and in condition of EN374 deviation the producer of CE-approved protection gloves must be contacted for detailed information (e.g., KCL GmbH, Germany, 36124 Eichenzell, internet: <http://www.kcl.de>).

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

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- Value for the permeation: Level  $\leq$  480 min
- For the permanent contact gloves made of the following materials are suitable: Butyl rubber, BR
  - As protection from splashes gloves made of the following materials are suitable: Butyl rubber, BR  
Nitrile rubber, NBR
  - Not suitable are gloves made of the following materials: Leather gloves  
Strong material gloves
  - Eye/face protection  Tightly sealed goggles
  - Body protection: Protective work clothing

### SECTION 9: Physical and chemical properties

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

- General Information
- Colour: Black
- Odour: Specific type
- Odour threshold: Not determined.
- Melting point/freezing point: Undetermined.
- Boiling point or initial boiling point and boiling range >35 °C
- Flammability: Not applicable.
- Lower and upper explosion limit
- Lower: 1.6 Vol %
- Upper: 12.5 Vol %
- Flash point: 15 °C
- Ignition temperature: 421 °C
- Decomposition temperature: Not determined.
- pH: Not determined.
- Viscosity:
- Kinematic viscosity: Not determined.
- Dynamic at 20 °C: 130,000-150,000 mPas
- Solubility
- water: Not miscible or difficult to mix.
- Partition coefficient n-octanol/water (log value): Not determined.
- Vapour pressure: Not determined.
- Density and/or relative density
- Density at 20 °C: 0.97 g/cm<sup>3</sup>
- Relative density: Not determined.
- Vapour density: Not determined.

#### · 9.2 Other information

- Appearance:
- Form: Gel
- Important information on protection of health and environment, and on safety.
- Auto-ignition temperature: Product is not selfigniting.
- Explosive properties: Product does not present an explosion hazard.
- Solvent content:
- Organic solvents: 70.0 %
- Solids content: 6.7 %

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- Change in condition
- Evaporation rate Not determined.
- Information with regard to physical hazard classes
- Explosives Void
- Flammable gases Void
- Aerosols Void
- Oxidising gases Void
- Gases under pressure Void
- Flammable liquids Highly flammable liquid and vapour.
- Flammable solids Void
- Self-reactive substances and mixtures
- Void
- Pyrophoric liquids Void
- Pyrophoric solids Void
- Self-heating substances and mixtures
- Void
- Substances and mixtures, which emit flammable gases in contact with water
- Void
- Oxidising liquids Void
- Oxidising solids Void
- Organic peroxides Void
- Corrosive to metals Void
- Desensitised explosives Void

**SECTION 10: Stability and reactivity**

- **10.1 Reactivity** Stable under recommended transport or storage conditions
- **10.2 Chemical stability**
- Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions** Reacts with strong acids and oxidising agents.  
Polymerisation.
- **10.4 Conditions to avoid** Heat, flames and other sources of ignition
- **10.5 Incompatible materials:** strong oxidizing agents  
Acids  
bases
- **10.6 Hazardous decomposition products:** Carbon monoxide and carbon dioxide  
Poisonous gases/vapours

**SECTION 11: Toxicological information**

- **11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008**
- Acute toxicity Based on available data, the classification criteria are not met.

· LD/LC50 values relevant for classification:**ATE (Acute Toxicity Estimates)**

|            |          |                   |
|------------|----------|-------------------|
| Oral       | LD50     | 7,216 mg/kg (rat) |
| Dermal     | LD50     | 4,032-6,757 mg/kg |
| Inhalative | LC50/4 h | 37.6 mg/l         |

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**80-62-6 methyl methacrylate**

|            |          |                               |
|------------|----------|-------------------------------|
| Oral       | LD50     | 7,872 mg/kg (rat) (OECD 401)  |
|            | NOAEL    | 2,000 mg/kg (rat)             |
| Dermal     | LD50     | >5,000 mg/kg (rabbit)         |
| Inhalative | LC50/4h  | 4,632 mg/m <sup>3</sup> (rat) |
|            | LC50/4 h | 29.8 mg/l (rat)               |
|            | NOAEL    | 25 mg/m <sup>3</sup> (rat)    |

**79-41-4 methacrylic acid**

|            |          |                          |
|------------|----------|--------------------------|
| Oral       | LD50     | 1,320 mg/kg (rat)        |
| Dermal     | LD50     | 500-1,000 mg/kg (rabbit) |
| Inhalative | LC50/4 h | 11 mg/l (ATE)            |
|            | LC50/1h  | 7.1 mg/l (rat)           |

**80-15-9  $\alpha,\alpha$ -dimethylbenzyl hydroperoxide**

|            |          |                                   |
|------------|----------|-----------------------------------|
| Oral       | LD50     | 382 mg/kg (rat)                   |
| Dermal     | LD50     | 500 mg/kg (rat)                   |
| Inhalative | LC50/4h  | 220 mg/m <sup>3</sup> (rat)       |
|            | LC50/4 h | 1.37 mg/l (rat)                   |
|            | LC50/48h | 17 mg/l (Leuciscus idus) (IUCLID) |

**98-59-9 tosyl chloride**

|      |      |                   |
|------|------|-------------------|
| Oral | LD50 | 4,680 mg/kg (rat) |
|------|------|-------------------|

**128-37-0 Butylated hydroxytoluene**

|        |      |                       |
|--------|------|-----------------------|
| Oral   | LD50 | >2,930 mg/kg (rat)    |
| Dermal | LD50 | >2,000 mg/kg (rabbit) |

**28961-43-5 propylidynetrimethanol, ethoxylated, esters with acrylic acid**

|        |             |                       |
|--------|-------------|-----------------------|
| Oral   | LD50        | 2,000 mg/kg (rat)     |
|        | NOAEL-Werte | <1,000 mg/kg (rat)    |
| Dermal | LD50        | 13,200 mg/kg (rabbit) |

- Skin corrosion/irritation Causes severe skin burns and eye damage.
- Serious eye damage/irritation Causes serious eye damage.
- Respiratory or skin sensitisation May cause an allergic skin reaction.
- Germ cell mutagenicity Based on available data, the classification criteria are not met.
- Carcinogenicity Based on available data, the classification criteria are not met.
- Reproductive toxicity Based on available data, the classification criteria are not met.
- STOT-single exposure May cause respiratory irritation.
- STOT-repeated exposure Based on available data, the classification criteria are not met.
- Aspiration hazard Based on available data, the classification criteria are not met.

**11.2 Information on other hazards**

- Endocrine disrupting properties

128-37-0 Butylated hydroxytoluene

List II

**SECTION 12: Ecological information****12.1 Toxicity**

- Aquatic toxicity:

**80-62-6 methyl methacrylate**

|          |                                            |
|----------|--------------------------------------------|
| EC50/96h | 170 mg/l (Pseudokirchneriella subcapitata) |
| EC50/48h | 69 mg/l (daphnia magna) (OECD 202)         |

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|          |                                           |
|----------|-------------------------------------------|
| EC0      | 100 mg/l (pseudomonas putida)             |
| NOEC     | 9.4 mg/kg (Danio rerio.) (OECD 210)       |
| NOEC     | >100 mg/l (Selenastrum capricornutum)     |
| NOEC/21d | 37 mg/l (daphnia magna) (OECD 202)        |
| EC50/72h | >110 mg/l (Selenastrum capricornutum)     |
| LC50/96h | 153.9-341.8 mg/l (lem)                    |
|          | >79 mg/l (Oncorhynchus mykiss) (OECD 203) |
|          | 125-275 mg/l (pimephales promelas)        |
|          | 326.4-426.9 mg/l (poecilia reticulata)    |

**79-41-4 methacrylic acid**

|           |                                       |
|-----------|---------------------------------------|
| IC50/72h  | 0.59 mg/l (Selenastrum capricornutum) |
| EC10/16h  | 100 mg/l (Microcystis aeruginosa)     |
| NOELR/21d | 53 mg/l (daphnia magna)               |
| EC50/48h  | >130 mg/l (daphnia magna)             |
| EC50/72h  | 45 mg/l (green alge)                  |
| LC50/96h  | 85 mg/l (Oncorhynchus mykiss)         |

**80-15-9  $\alpha,\alpha$ -dimethylbenzyl hydroperoxide**

|          |                                         |
|----------|-----------------------------------------|
| EC50/24h | 7 mg/l (daphnia magna) (IUCLID)         |
| EC10/18h | 103 mg/l (pseudomonas putida) (IUCLID)  |
| LC50/96h | 3.9 mg/l (Oncorhynchus mykiss) (IUCLID) |

**98-59-9 tosyl chloride**

|          |                    |
|----------|--------------------|
| LC50/96h | >100 mg/l (piscis) |
|----------|--------------------|

**128-37-0 Butylated hydroxytoluene**

|           |                                                                     |
|-----------|---------------------------------------------------------------------|
| IC50/72h  | >0.1-1 mg/l (green alge)                                            |
| EC50/48h  | 0.48 mg/l (daphnia magna)                                           |
| ErC50/72h | >0.4 mg/l (Desmodesmus subspicatus)                                 |
| LL0/96h   | >0.1-1 mg/l (piscis)                                                |
| NOEC/21d  | 0.07 mg/l (daphnia magna)                                           |
| EC50/72h  | 0.42 mg/l (Desmodesmus subspicatus) ((EC) Nr. 440/2008, Anhang C.3) |
| LC50/96h  | >0.57 mg/l (Brachydanio rerio)                                      |
|           | 199 mg/l (piscis)                                                   |

**28961-43-5 propylidynetrimethanol, ethoxylated, esters with acrylic acid**

|          |                                      |
|----------|--------------------------------------|
| EC50     | >1,000 mg/l (BES)                    |
| EC50/48h | 70.7 mg/l (daphnia magna)            |
| EC10     | 0.323 mg/l (Desmodesmus subspicatus) |
| EC50/72h | 2.2 mg/l (Desmodesmus subspicatus)   |
| LC50/96h | 1.95 mg/l (Danio rerio.)             |

· **12.2 Persistence and degradability**

biodegradable

· **12.3 Bioaccumulative potential**

Does not accumulate in organisms

· **12.4 Mobility in soil**

No further relevant information available.

· **12.5 Results of PBT and vPvB assessment**

· PBT: Not applicable.

· vPvB: Not applicable.

· **12.6 Endocrine disrupting properties**

For information on endocrine disrupting properties see section 11.

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· **12.7 Other adverse effects**

· Additional ecological information:

· General notes:

Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water

### SECTION 13: Disposal considerations

· **13.1 Waste treatment methods**

· Recommendation

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

· European waste catalogue

|           |                                                                                                                                                             |
|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 08 00 00  | WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS |
| 08 04 00  | wastes from MFSU of adhesives and sealants (including waterproofing products)                                                                               |
| 08 04 09* | waste adhesives and sealants containing organic solvents or other hazardous substances                                                                      |
| 15 00 00  | WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED                                                |
| 15 01 00  | packaging (including separately collected municipal packaging waste)                                                                                        |
| 15 01 10* | packaging containing residues of or contaminated by hazardous substances                                                                                    |

· Uncleaned packaging:

· Recommendation:

Disposal must be made according to official regulations.

### SECTION 14: Transport information

· **14.1 UN number or ID number**

· ADR, IMDG, IATA

UN2924

· **14.2 UN proper shipping name**

· ADR

2924 FLAMMABLE LIQUID, CORROSIVE, N.O.S. (METHACRYLIC ACID, STABILIZED, METHYL METHACRYLATE MONOMER, STABILIZED)

· IMDG, IATA

FLAMMABLE LIQUID, CORROSIVE, N.O.S. (METHACRYLIC ACID, STABILIZED, METHYL METHACRYLATE MONOMER, STABILIZED)

· **14.3 Transport hazard class(es)**

· ADR



· Class

3 (FC) Flammable liquids.

· Label

3+8

· IMDG



· Class

3 Flammable liquids.

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|                                                                                                                                                                     |                                                                                                                                      |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|
| · <u>Label</u>                                                                                                                                                      | 3/8                                                                                                                                  |
| · <u>IATA</u>                                                                                                                                                       |                                                                                                                                      |
|   |                                                                                                                                      |
| · <u>Class</u>                                                                                                                                                      | 3 Flammable liquids.                                                                                                                 |
| · <u>Label</u>                                                                                                                                                      | 3 (8)                                                                                                                                |
| · <b>14.4 Packing group</b>                                                                                                                                         |                                                                                                                                      |
| · ADR, IMDG, IATA                                                                                                                                                   | II                                                                                                                                   |
| · <b>14.5 Environmental hazards:</b>                                                                                                                                |                                                                                                                                      |
| · <u>Marine pollutant:</u>                                                                                                                                          | No                                                                                                                                   |
| · <b>14.6 Special precautions for user</b>                                                                                                                          | Warning: Flammable liquids.                                                                                                          |
| · <u>Hazard identification number (Kemler code):</u>                                                                                                                | 338                                                                                                                                  |
| · <u>EMS Number:</u>                                                                                                                                                | F-E, S-C                                                                                                                             |
| · <u>Stowage Category</u>                                                                                                                                           | B                                                                                                                                    |
| · <u>Stowage Code</u>                                                                                                                                               | SW2 Clear of living quarters.                                                                                                        |
| · <b>14.7 Maritime transport in bulk according to IMO instruments</b>                                                                                               | Not applicable.                                                                                                                      |
| · <u>Transport/Additional information:</u>                                                                                                                          |                                                                                                                                      |
| · <u>ADR</u>                                                                                                                                                        |                                                                                                                                      |
| · <u>Limited quantities (LQ)</u>                                                                                                                                    | 1L                                                                                                                                   |
| · <u>Excepted quantities (EQ)</u>                                                                                                                                   | Code: E2<br>Maximum net quantity per inner packaging: 30 ml<br>Maximum net quantity per outer packaging: 500 ml                      |
| · <u>Transport category</u>                                                                                                                                         | 2                                                                                                                                    |
| · <u>Tunnel restriction code</u>                                                                                                                                    | D/E                                                                                                                                  |
| · <u>IMDG</u>                                                                                                                                                       |                                                                                                                                      |
| · <u>Limited quantities (LQ)</u>                                                                                                                                    | 1L                                                                                                                                   |
| · <u>Excepted quantities (EQ)</u>                                                                                                                                   | Code: E2<br>Maximum net quantity per inner packaging: 30 ml<br>Maximum net quantity per outer packaging: 500 ml                      |
| · <u>UN "Model Regulation":</u>                                                                                                                                     | UN 2924 FLAMMABLE LIQUID, CORROSIVE, N.O.S.<br>(METHACRYLIC ACID, STABILIZED, METHYL<br>METHACRYLATE MONOMER, STABILIZED), 3 (8), II |

**SECTION 15: Regulatory information****15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

- Directive 2012/18/EU
  - Named dangerous substances - ANNEX I
  - Seveso category
  - Qualifying quantity (tonnes) for the application of lower-tier requirements
  - Qualifying quantity (tonnes) for the application of upper-tier requirements
- None of the ingredients is listed.  
P5c FLAMMABLE LIQUIDS
- 5,000 t
- 50,000 t

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EU

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· REGULATION (EC) No 1907/2006  
ANNEX XVII

Conditions of restriction: 3

· DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II

None of the ingredients is listed.

· REGULATION (EU) 2019/1148

· Annex I - RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3))

None of the ingredients is listed.

· Annex II - REPORTABLE EXPLOSIVES PRECURSORS

None of the ingredients is listed.

· Regulation (EC) No 273/2004 on drug precursors

None of the ingredients is listed.

· Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors

None of the ingredients is listed.

· National regulations:

· Information about limitation of use: Employment restrictions concerning juveniles must be observed.  
 Employment restrictions concerning pregnant and lactating women must be observed.

· Waterhazard class: Water hazard class 2 (Self-assessment): hazardous for water.

· Substances of very high concern (SVHC) according to REACH, Article 57

None of the ingredients is listed.

· VOC EU 679.0 g/l

· **15.2 Chemical safety**  
**assessment:**

A Chemical Safety Assessment has not been carried out.

**SECTION 16: Other information**

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· Department issuing SDS:

Laboratory

· Contact:

Elke Hake  
 Fon ++49 (0)911 64296-59  
 @mail E.Hake@akemi.de  
 19.01.2023

· Date of previous version:

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· Version number of previous version:

· Abbreviations and acronyms:

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)  
 IMDG: International Maritime Code for Dangerous Goods  
 IATA: International Air Transport Association  
 GHS: Globally Harmonised System of Classification and Labelling of Chemicals  
 EINECS: European Inventory of Existing Commercial Chemical Substances  
 ELINCS: European List of Notified Chemical Substances  
 CAS: Chemical Abstracts Service (division of the American Chemical Society)  
 DNEL: Derived No-Effect Level (REACH)  
 PNEC: Predicted No-Effect Concentration (REACH)  
 LC50: Lethal concentration, 50 percent  
 LD50: Lethal dose, 50 percent  
 PBT: Persistent, Bioaccumulative and Toxic  
 SVHC: Substances of Very High Concern  
 vPvB: very Persistent and very Bioaccumulative  
 Flam. Liq. 2: Flammable liquids – Category 2

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Org. Perox. E: Organic peroxides – Type E/F  
Acute Tox. 4: Acute toxicity – Category 4  
Acute Tox. 3: Acute toxicity – Category 3  
Skin Corr. 1A: Skin corrosion/irritation – Category 1A  
Skin Corr. 1B: Skin corrosion/irritation – Category 1B  
Skin Irrit. 2: Skin corrosion/irritation – Category 2  
Eye Dam. 1: Serious eye damage/eye irritation – Category 1  
Eye Irrit. 2: Serious eye damage/eye irritation – Category 2  
Skin Sens. 1: Skin sensitisation – Category 1  
Skin Sens. 1B: Skin sensitisation – Category 1B  
STOT SE 3: Specific target organ toxicity (single exposure) – Category 3  
STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2  
Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1  
Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard – Category 1  
Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2  
Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3

EU