

# Safety data sheet

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

Printing date 14.06.2013


Version number 2

Revision: 14.06.2013

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

- **1.1 Product identifier**
- **Trade name:** *SmartCem 2 Catalyst*
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**  
No further relevant information available.
- **Application of the substance / the preparation** self adhesive cement
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
DENTSPLY DeTrey GmbH  
De-Trey-Str. 1  
D-78467 Konstanz  
GERMANY  
Tel.: +49-(0)7531-583-0  
Fax: +49-(0)7531-583-104  
email: KonstanzDEU.info-sdb@dentsply.com
- **Further information obtainable from:**
  - Departement Analytical Research / Research & Development for technical information
  - Departement Marketing & Sales for distribution of the safety data sheets
- **1.4 Emergency telephone number:** +49-(0)7531-583-0 8:00 - 17:00 (GMT + 1:00)

### 2 Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**  
Xi; Irritant  
R36/37/38: Irritating to eyes, respiratory system and skin.  
Xi; Sensitising  
R43: May cause sensitisation by skin contact.  
R52/53: Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
- **Information concerning particular hazards for human and environment:**  
The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.
- **Classification system:**  
The classification is according to the latest editions of the EU-lists, and extended by company and literature data.
- **2.2 Label elements**
- **Labelling according to EU guidelines:**  
The product has been classified and marked in accordance with EU Directives / Ordinance on Hazardous Materials
- **Code letter and hazard designation of product:**  
 Xi Irritant
- **Hazard-determining components of labelling:**  
2,2'-Ethylendioxydiethyldimethacrylat
- **Risk phrases:**  
36/37/38 Irritating to eyes, respiratory system and skin.  
43 May cause sensitisation by skin contact.

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52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

**Safety phrases:**

- 23 Do not breathe gas/fumes/vapour/spray (appropriate wording to be specified by the manufacturer).
- 24/25 Avoid contact with skin and eyes.
- 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
- 28 After contact with skin, wash immediately with plenty of water.
- 37 Wear suitable gloves.
- 61 Avoid release to the environment. Refer to special instructions/safety data sheets.

**2.3 Other hazards****Results of PBT and vPvB assessment**

- **PBT:** Not applicable.
- **vPvB:** Not applicable.

### 3 Composition/information on ingredients

**3.2 Chemical characterization: Mixtures**• **Description:** Mixture of substances listed below with nonhazardous additions.**Dangerous components:**

	acrylates with the exception of those specified elsewhere in this Annex ■ Xi R36/37/38; ■ N R51/53 ⚠ Aquatic Chronic 2, H411; ⚠ Skin Irrit. 2, H315; Eye Irrit. 2, H319; STOT SE 3, H335	2.5-10%
CAS: 105883-40-7	Urethan dimethacrylate resin ■ Xi R36/38 ⚠ Skin Irrit. 2, H315; Eye Irrit. 2, H319	2.5-10%
CAS: 41637-38-1	Dimethacrylate Resin ■ Xi R36/37/38 ⚠ Skin Irrit. 2, H315; Eye Irrit. 2, H319; STOT SE 3, H335	2.5-10%
CAS: 3290-92-4	Trimethylolpropane Trimethacrylate (TMPTMA) ■ N R51/53 ⚠ Aquatic Chronic 2, H411	2.5-10%
CAS: 109-16-0 EINECS: 203-652-6	2,2'-Ethylendioxydiethyldimethacrylat ■ Xi R36/37/38; ■ Xi R43 ⚠ Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317; STOT SE 3, H335	2.5-10%
CAS: 80-15-9 EINECS: 201-254-7	α,α -dimethylbenzyl hydroperoxide ■ T R23; ■ C R34; ■ Xn R21/22-48/20/22; ■ O R7; ■ N R51/53 ⚠ Org. Perox. EF, H242; ⚠ Acute Tox. 3, H331; ⚠ STOT RE 2, H373; ⚠ Skin Corr. 1B, H314; ⚠ Aquatic Chronic 2, H411; ⚠ Acute Tox. 4, H302; Acute Tox. 4, H312	≤ 2.5%

• **Additional information** For the wording of the listed risk phrases refer to section 16.

### 4 First aid measures

**4.1 Description of first aid measures**

- **After inhalation** Supply fresh air; consult doctor in case of complaints.
- **After skin contact** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact**  
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing** If symptoms persist consult doctor.
- **4.2 Most important symptoms and effects, both acute and delayed** No further relevant information available.

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- **4.3 Indication of any immediate medical attention and special treatment needed**  
No further relevant information available.

### 5 Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents**  
CO<sub>2</sub>, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **5.2 Special hazards arising from the substance or mixture** No further relevant information available.
- **5.3 Advice for firefighters**
- **Protective equipment:** Self-contained respiratory protective device.

### 6 Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures** Wear protective clothing.
- **6.2 Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **6.3 Methods and material for containment and cleaning up:** 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.

### 7 Handling and storage

- **7.1 Precautions for safe handling**  
Observe normal care for working with chemicals.  
Ensure good ventilation/exhaustion at the workplace.
- **Handling** Product is intended for dental use only.
- **Information about fire - and explosion protection:** No special measures required.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:**  
Keep receptacle tightly sealed.  
Protect from heat and direct sunlight.
- **7.3 Specific end use(s)** No further relevant information available.

### 8 Exposure controls/personal protection

- **Additional information about design of technical facilities:** No further data; see item 7.
- **8.1 Control parameters**
- **Ingredients with limit values that require monitoring at the workplace:**  
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- **Additional information:** The lists valid during the making were used as basis.

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### 8.2 Exposure controls

#### 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.

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.

Not necessary if room is well-ventilated.

#### Protection of hands:



Protective gloves.

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

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

#### Material of gloves

Natural rubber, NR

Recommended thickness of the material:  $\geq 0.12$  mmPermeation: Level  $\geq 1$ 

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.

#### Eye protection:

Safety glasses



Tightly sealed goggles.

#### Body protection: Protective work clothing.

## 9 Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

#### General Information

#### Appearance:

Form:

paste

Colour:

According to product specification

#### Odour:

Characteristic

#### Odour threshold:

Not determined.

#### pH-value:

Not applicable.

#### Change in condition

Melting point/Melting range:

undetermined

Boiling point/Boiling range:

undetermined

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· Flash point:	Not applicable
· Flammability (solid, gaseous)	Not determined.
· Ignition temperature:	
Decomposition temperature:	Not determined.
· Self-igniting:	Product is not selfigniting.
· Danger of explosion:	Product does not present an explosion hazard.
· Explosion limits:	
Lower:	Not determined.
Upper:	Not determined.
· Vapour pressure:	Not applicable.
· Density:	Not determined
· Relative density	Not determined.
· Vapour density	Not applicable.
· Evaporation rate	Not applicable.
· Solubility in / Miscibility with Water:	Insoluble
· Partition coefficient (n-octanol/water):	Not determined.
· Viscosity:	
dynamic:	Not applicable.
kinematic:	Not applicable.
· Solvent content:	
Organic solvents:	0.0 %
Solids content:	60.0 %
· 9.2 Other information	No further relevant information available.

## 10 Stability and reactivity

- 10.1 Reactivity
- 10.2 Chemical stability
- Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- 10.3 Possibility of hazardous reactions No dangerous reactions known
- 10.4 Conditions to avoid No further relevant information available.
- 10.5 Incompatible materials: No further relevant information available.
- 10.6 Hazardous decomposition products: No dangerous decomposition products known

## 11 Toxicological information

- 11.1 Information on toxicological effects
- Acute toxicity:

· LD/LC50 values relevant for classification:

3290-92-4 Trimethylolpropane Trimethacrylate (TMPTMA)

Oral LD50 >2000 mg/kg (rat)

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- **Primary irritant effect:**
- **on the skin:**  
Irritant to skin and mucous membranes.  
The unpolymerized product may be irritant to the skin for susceptible persons.
- **on the eye:** Irritating effect.
- **Sensitization:**  
Sensitization possible through skin contact.  
Repeated or prolonged contact with the not polymerized product may cause sensitization for acrylates / methacrylates.
- **Additional toxicological information:**  
The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version.  
Irritant

## 12 Ecological information

### · 12.1 Toxicity

#### · Aquatic toxicity:

<b>3290-92-4 Trimethylolpropane Trimethacrylate (TMPTMA)</b>	
EC50/48h	>9.22 mg/L (daphnia)
LC50/96h	2 mg/l (fish)

- **12.2 Persistence and degradability** No further relevant information available.

- **12.3 Bioaccumulative potential** No further relevant information available.

- **12.4 Mobility in soil** No further relevant information available.

#### · Ecotoxicological effects:

- **Remark:** Harmful to fish

#### · Additional ecological information:

#### · General notes:

Harmful to aquatic organisms

Do not allow product to reach ground water, water course or sewage system.

Danger to drinking water if even small quantities leak into the ground.

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

- **PBT:** Not applicable.

- **vPvB:** Not applicable.

- **12.6 Other adverse effects** No further relevant information available.

## 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

18 01 06*	chemicals consisting of or containing dangerous substances
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- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.

#### 14 Transport information

- |  |                 |
|--|-----------------|
| · <b>14.1 UN-Number</b>  |                 |
| · <b>ADR, ADN, IMDG, IATA</b>  | Void            |
| · <b>14.2 UN proper shipping name</b>  |                 |
| · <b>ADR, ADN, IMDG, IATA</b>  | Void            |
| · <b>14.3 Transport hazard class(es)</b>   |                 |
| · <b>ADR, ADN, IMDG, IATA</b>  |                 |
| · <b>Class</b>   | Void            |
| · <b>14.4 Packing group</b>  |                 |
| · <b>ADR, IMDG, IATA</b>   | Void            |
| · <b>14.5 Environmental hazards:</b>   |                 |
| · <b>Marine pollutant:</b>   | No              |
| · <b>14.6 Special precautions for user</b>   | Not applicable. |
| · <b>14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code</b> | Not applicable. |

#### 15 Regulatory information

- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

#### 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.

The attached safety data sheet covers the dangers and measures to be taken when large quantities of material are released, for example due to accidents during transport or storage by the dealer.

For quantities of material typically used in clinical practice, information necessary for safe use and storage of the product is given in the DFU.

##### · **Relevant phrases**

- |        |  |
|--------|--|
| H242   | Heating may cause a fire.  |
| H302   | Harmful if swallowed.  |
| H312   | Harmful in contact with skin.                                      |
| H314   | Causes severe skin burns and eye damage.                           |
| H315   | Causes skin irritation.  |
| H317   | May cause an allergic skin reaction.                               |
| H319   | Causes serious eye irritation.                                     |
| H331   | Toxic if inhaled.  |
| H335   | May cause respiratory irritation.                                  |
| H373   | May cause damage to organs through prolonged or repeated exposure. |
| H411   | Toxic to aquatic life with long lasting effects.                   |
| R21/22 | Harmful in contact with skin and if swallowed.                     |

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*R23 Toxic by inhalation.**R34 Causes burns.**R36/37/38 Irritating to eyes, respiratory system and skin.**R36/38 Irritating to eyes and skin.**R43 May cause sensitisation by skin contact.**R48/20/22 Harmful: danger of serious damage to health by prolonged exposure through inhalation and if swallowed.**R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.**R7 May cause fire.**· Department issuing MSDS: Analytical Research**· Contact: HotLine for urgent technical support: +49-7531-583-333**· \* Data compared to the previous version altered.*

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

- **1.1 Product identifier**
- **Trade name:** *SmartCem 2 Base*
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**  
No further relevant information available.
- **Application of the substance / the preparation** self adhesive cement
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
DENTSPLY DeTrey GmbH  
De-Trey-Str. 1  
D-78467 Konstanz  
GERMANY  
Tel.: +49-(0)7531-583-0  
Fax: +49-(0)7531-583-104  
email: KonstanzDEU.info-sdb@dentsply.com
- **Further information obtainable from:**
  - Departement Analytical Research / Research & Development for technical information
  - Departement Marketing & Sales for distribution of the safety data sheets
- **1.4 Emergency telephone number:** +49-(0)7531-583-0 8:00 - 17:00 (GMT + 1:00)

### 2 Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**  
Xi; Irritant  
R36/38: Irritating to eyes and skin.  
Xi; Sensitising  
R43: May cause sensitisation by skin contact.  
R52/53: Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
- **Information concerning particular hazards for human and environment:**  
The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.
- **Classification system:**  
The classification is according to the latest editions of the EU-lists, and extended by company and literature data.
- **2.2 Label elements**
- **Labelling according to EU guidelines:**  
The product has been classified and marked in accordance with EU Directives / Ordinance on Hazardous Materials
- **Code letter and hazard designation of product:**  
 Xi Irritant
- **Hazard-determining components of labelling:**  
2,2'-Ethylendioxydiethylmethacrylat
- **Risk phrases:**  
36/38 Irritating to eyes and skin.  
43 May cause sensitisation by skin contact.

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52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

**Safety phrases:**

- 23 Do not breathe gas/fumes/vapour/spray (appropriate wording to be specified by the manufacturer).
- 24/25 Avoid contact with skin and eyes.
- 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
- 28 After contact with skin, wash immediately with plenty of soap and water.
- 37 Wear suitable gloves.
- 61 Avoid release to the environment. Refer to special instructions/safety data sheets.

**2.3 Other hazards****Results of PBT and vPvB assessment****PBT:** Not applicable.**vPvB:** Not applicable.

### 3 Composition/information on ingredients

**3.2 Chemical characterization: Mixtures****Description:** Mixture of substances listed below with nonhazardous additions.**Dangerous components:**

CAS: 105883-40-7	Urethan dimethacrylate resin Xi R36/38 Skin Irrit. 2, H315; Eye Irrit. 2, H319	2.5-10%
CAS: 41637-38-1	Dimethacrylate Resin Xi R36/37/38 Skin Irrit. 2, H315; Eye Irrit. 2, H319; STOT SE 3, H335	2.5-10%
CAS: 3290-92-4	Trimethylolpropane Trimethacrylate (TMPTMA) N R51/53 Aquatic Chronic 2, H411	2.5-10%
CAS: 109-16-0 EINECS: 203-652-6	2,2'-Ethylendioxydiethylmethacrylat Xi R36/37/38; Xi R43 Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317; STOT SE 3, H335	2.5-10%

**Additional information** For the wording of the listed risk phrases refer to section 16.

### 4 First aid measures

**4.1 Description of first aid measures**

- After inhalation** Supply fresh air; consult doctor in case of complaints.
- After skin contact** Immediately wash with water and soap and rinse thoroughly.
- After eye contact**  
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- After swallowing** If symptoms persist consult doctor.
- 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.

### 5 Firefighting measures

**5.1 Extinguishing media****Suitable extinguishing agents**CO<sub>2</sub>, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

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- **5.2 Special hazards arising from the substance or mixture** No further relevant information available.
- **5.3 Advice for firefighters**
- **Protective equipment:** Self-contained respiratory protective device.

## 6 Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures** Wear protective clothing.
- **6.2 Environmental precautions:** 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.  
Pick up mechanically.
- **6.4 Reference to other sections**  
No dangerous substances are released.  
See Section 7 for information on safe handling  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.

## 7 Handling and storage

- **7.1 Precautions for safe handling**  
Ensure good ventilation/exhaustion at the workplace.  
Prevent formation of aerosols.  
Observe normal care for working with chemicals.
- **Handling** Product is intended for dental use only.
- **Information about fire - and explosion protection:** No special measures required.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage**  
Requirements to be met by storerooms and receptacles: No special requirements.  
Information about storage in one common storage facility: Not required.  
Further information about storage conditions:  
Keep receptacle tightly sealed.  
Protect from heat and direct sunlight.
- **7.3 Specific end use(s)** No further relevant information available.

## 8 Exposure controls/personal protection

- **Additional information about design of technical facilities:** No further data; see item 7.
- **8.1 Control parameters**
- **Ingredients with limit values that require monitoring at the workplace:**  
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- **Additional information:** The lists valid during the making were used as basis.
- **8.2 Exposure controls**
- **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.

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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.

Not necessary if room is well-ventilated.

• **Protection of hands:**



Protective gloves.

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

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.

Natural rubber, NR

Recommended thickness of the material:  $\geq 0.12$  mm

Permeation: Level  $\geq 1$

• **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.

• **Eye protection:**

Safety glasses



Tightly sealed goggles.

• **Body protection:** Protective work clothing.

## 9 Physical and chemical properties

• **9.1 Information on basic physical and chemical properties**

• **General Information**

• **Appearance:**

Form: paste

Colour: According to product specification

• **Odour:** Characteristic

• **Odour threshold:** Not determined.

• **pH-value:** Not determined.

• **Change in condition**

Melting point/Melting range: undetermined

Boiling point/Boiling range: undetermined

• **Flash point:** Not applicable

• **Flammability (solid, gaseous)** Not applicable.

• **Ignition temperature:**

Decomposition temperature: Not determined.

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· <b>Self-igniting:</b>	Product is not selfigniting.
· <b>Danger of explosion:</b>	Product does not present an explosion hazard.
· <b>Explosion limits:</b>	
Lower:	Not determined.
Upper:	Not determined.
· <b>Vapour pressure:</b>	Not determined.
· <b>Density:</b>	Not determined
· <b>Relative density</b>	Not determined.
· <b>Vapour density</b>	Not determined.
· <b>Evaporation rate</b>	Not determined.
· <b>Solubility in / Miscibility with Water:</b>	Not miscible or difficult to mix
· <b>Partition coefficient (n-octanol/water):</b>	Not determined.
· <b>Viscosity:</b>	
dynamic:	Not determined.
kinematic:	Not determined.
· <b>Solvent content:</b>	
Organic solvents:	0.0 %
· <b>9.2 Other information</b>	No further relevant information available.

### 10 Stability and reactivity

- **10.1 Reactivity**
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions** No dangerous reactions known
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:** No dangerous decomposition products known

### 11 Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity:**

· **LD/LC50 values relevant for classification:**

3290-92-4 Trimethylolpropane Trimethacrylate (TMPTMA)

Oral LD50 >2000 mg/kg (rat)

- **Primary irritant effect:**

· **on the skin:**

Irritant to skin and mucous membranes.

The unpolymerized product may be irritant to the skin for susceptible persons.

· **on the eye:** Irritating effect.

· **Sensitization:**

Sensitization possible through skin contact.

Repeated or prolonged contact with the not polymerized product may cause sensitization for acrylates / methacrylates.

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**Additional toxicological information:**

The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version.

Irritant

**12 Ecological information****12.1 Toxicity****Aquatic toxicity:****3290-92-4 Trimethylolpropane Trimethacrylate (TMPTMA)**

EC50/48h &gt;9.22 mg/L (daphnia)

LC50/96h 2 mg/l (fish)

**12.2 Persistence and degradability** No further relevant information available.**12.3 Bioaccumulative potential** No further relevant information available.**12.4 Mobility in soil** No further relevant information available.**Ecotoxicological effects:****Remark:** Harmful to fish**Additional ecological information:****General notes:**

Harmful to aquatic organisms

Do not allow product to reach ground water, water course or sewage system.

Danger to drinking water if even small quantities leak into the ground.

**12.5 Results of PBT and vPvB assessment****PBT:** Not applicable.**vPvB:** Not applicable.**12.6 Other adverse effects** No further relevant information available.**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**

18 01 06\* chemicals consisting of or containing dangerous substances

**Uncleaned packaging:****Recommendation:** Disposal must be made according to official regulations.**14 Transport information****14.1 UN-Number****ADR, ADN, IMDG, IATA**

Void

**14.2 UN proper shipping name****ADR, ADN, IMDG, IATA**

Void

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# Safety data sheet

according to 1907/2006/EC, Article 31

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- |  |                 |
|--|-----------------|
| · <b>14.3 Transport hazard class(es)</b>   |                 |
| · <b>ADR, ADN, IMDG, IATA</b>  |                 |
| · <b>Class</b>   | Void            |
| · <b>14.4 Packing group</b>  |                 |
| · <b>ADR, IMDG, IATA</b>   | Void            |
| · <b>14.5 Environmental hazards:</b>   |                 |
| · <b>Marine pollutant:</b>   | No              |
| · <b>14.6 Special precautions for user</b>   | Not applicable. |
| · <b>14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code</b> |                 |
|  | Not applicable. |

## \* 15 Regulatory information

- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

## \* 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.

The attached safety data sheet covers the dangers and measures to be taken when large quantities of material are released, for example due to accidents during transport or storage by the dealer.

For quantities of material typically used in clinical practice, information necessary for safe use and storage of the product is given in the DFU.

### · Relevant phrases

- H315 Causes skin irritation.
- H317 May cause an allergic skin reaction.
- H319 Causes serious eye irritation.
- H335 May cause respiratory irritation.
- H411 Toxic to aquatic life with long lasting effects.
- R36/37/38 Irritating to eyes, respiratory system and skin.
- R36/38 Irritating to eyes and skin.
- R43 May cause sensitisation by skin contact.
- R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

### · Department issuing MSDS: Analytical Research

· **Contact:** HotLine for urgent technical support: +49-7531-583-333

· **\* Data compared to the previous version altered.**

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