

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 05.04.2013

Version number 7

Revision: 04.04.2013

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

- **1.1 Product identifier**
- **Trade name:** *Seal&Protect*
- **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** Dental sealing material
- **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.
F; Highly flammable
R11: Highly flammable.
N; Dangerous for the environment
R50/53: Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R67: Vapours may cause drowsiness and dizziness.
- **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.
Has a narcotizing effect.
- **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 F Highly flammable N Dangerous for the environment
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- **Risk phrases:**
11 Highly flammable.
36/37/38 Irritating to eyes, respiratory system and skin.

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50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

67 Vapours may cause drowsiness and dizziness.

• Safety phrases:

9 Keep container in a well-ventilated place.

16 Keep away from sources of ignition - No smoking.

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.

57 Use appropriate container to avoid environmental contamination.

• 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: 67-64-1 EINECS: 200-662-2	acetone  Xi R36;  F R11 R66-67  Flam. Liq. 2, H225;  Eye Irrit. 2, H319; STOT SE 3, H336	25-50%
CAS: 105883-40-7	Urethan dimethacrylate resin  Xi R36/38  Skin Irrit. 2, H315; Eye Irrit. 2, H319	10-25%
	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: 3290-92-4	Trimethylolpropane Trimethacrylate (TMPTMA)  N R51/53  Aquatic Chronic 2, H411	2.5-10%
CAS: 3380-34-5 EINECS: 222-182-2	triclosan  Xi R36/38;  N R50/53  Aquatic Acute 1, H400; Aquatic Chronic 1, H410;  Skin Irrit. 2, H315; Eye Irrit. 2, H319	2.5-10%
CAS: 128-37-0 EINECS: 204-881-4	2,6-di-tert-butyl-p-cresol  N R50/53  Aquatic Acute 1, H400; Aquatic Chronic 1, H410	≤ 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.

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- **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**
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** 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 equipment. Keep unprotected persons away.
- **6.2 Environmental precautions:**
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).
Dispose of the material collected according to regulations.
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**
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:**



Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.

- **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 oxidizing agents.

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- **Further information about storage conditions:**
Keep receptacle tightly sealed.
Store in cool, dry conditions in well sealed receptacles.
- **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:**

67-64-1 acetone

WEL	Short-term value: 3620 mg/m ³ , 1500 ppm
	Long-term value: 1210 mg/m ³ , 500 ppm

- **DNELs**

128-37-0 2,6-di-tert-butyl-p-cresol

Inhalative	DNEL Werte	3.5 mg/m ³ bw/day (rat)
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- **Additional information:** The lists valid during the making were used as basis.

8.2 Exposure controls

Personal protective equipment

General protective and hygienic measures

The usual precautionary measures are to be adhered to when handling chemicals.

Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

- **Respiratory protection:** Use suitable respiratory protective device in case of insufficient ventilation.

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: ≥ 0.12 mm

Permeation: Level ≥ 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:



Tightly sealed goggles.

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

9 Physical and chemical properties

· 9.1 Information on basic physical and chemical properties

· General Information

· Appearance:

Form:	Fluid
Colour:	Yellow
Odour:	Characteristic
Odour threshold:	Not determined.

· pH-value: Not determined.

· Change in condition

Melting point/Melting range:	undetermined
Boiling point/Boiling range:	63 °C

· Flash point: -17 °C (c.c. Abel)

· Flammability (solid, gaseous) Not applicable.

· Ignition temperature: 465 °C (Aceton)

· Decomposition temperature: Not determined.

· Self-igniting: Product is not selfigniting.

· Danger of explosion: Product is not explosive. However, formation of explosive air/vapour mixtures are possible.

· Explosion limits:

Lower:	2.6 Vol % (Aceton)
Upper:	12.8 Vol % (Aceton)

· Vapour pressure at 20 °C: 233 hPa

Density at 20 °C:	0.96 g/cm ³
Relative density	Not determined.
Vapour density	Not determined.
Evaporation rate	Not determined.

· Solubility in / Miscibility with

Water: Partly miscible

· Partition coefficient (n-octanol/water): Not determined.

· Viscosity:

dynamic:	Not determined.
kinematic:	Not determined.

· Solvent content:

Organic solvents: 45.0 %

Solids content: 8.5 %

· 9.2 Other information No further relevant information available.

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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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3380-34-5 triclosan

Oral	LD50	3700 mg/kg (rat)
------	------	------------------

Dermal	LD50	9300 mg/kg (rabbit)
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128-37-0 2,6-di-tert-butyl-p-cresol

Oral	LD50	2930 mg/kg (rat)
------	------	------------------

Dermal	LD50	> 2000 mg/kg (rabbit)
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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:**

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:**

3290-92-4 Trimethylolpropane Trimethacrylate (TMPTMA)

EC50/48h	>9.22 mg/L (daphnia)
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LC50/96h	2 mg/l (fish)
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3380-34-5 triclosan

EC50/48h	0.39 mg/L (daphnia)
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LC50/96h	0.288 mg/l (fish)
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128-37-0 2,6-di-tert-butyl-p-cresol

EC50/72h	>0.42 mg/l (algae)
LC50/48h	>0.57 mg/l (daphnia)
LC50/96h	>0.42 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:** Very toxic for fish
- **Additional ecological information:**
- **General notes:**
 Also poisonous for fish and plankton in water bodies.
 Very toxic for 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.
- **Recommended cleansing agents:** Water, if necessary together with cleansing agents.

14 Transport information

- | | |
|---|---|
| <ul style="list-style-type: none"> · 14.1 UN-Number · ADR, IMDG, IATA | UN1993 |
| <ul style="list-style-type: none"> · 14.2 UN proper shipping name · ADR · IMDG · IATA | 1993 FLAMMABLE LIQUID, N.O.S. (ACETONE, triclosan),
ENVIRONMENTALLY HAZARDOUS
FLAMMABLE LIQUID, N.O.S. (ACETONE, triclosan),
MARINE POLLUTANT
FLAMMABLE LIQUID, N.O.S. (ACETONE, triclosan) |

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· **14.3 Transport hazard class(es)**

· **ADR**



· **Class** 3 (F1) Flammable liquids.
 · **Label** 3

· **IMDG**



· **Class** 3 Flammable liquids.
 · **Label** 3

· **IATA**



· **Class** 3 Flammable liquids.
 · **Label** 3

· **14.4 Packing group**

· **ADR, IMDG, IATA** II

· **14.5 Environmental hazards:** Product contains environmentally hazardous substances: triclosan

· **Marine pollutant:** Yes
 Symbol (fish and tree)

· **Special marking (ADR):** Symbol (fish and tree)

· **14.6 Special precautions for user** Warning: Flammable liquids.

· **Danger code (Kemler):** 33

· **EMS Number:** F-E,S-E

· **14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code** Not applicable.

· **Transport/Additional information:**

· **ADR**

· **Limited quantities (LQ)** 1L
 · **Transport category** 2
 · **Tunnel restriction code** D/E

15 Regulatory information

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

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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

H225	Highly flammable liquid and vapour.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
.....	
R11	Highly flammable.
R36	Irritating to eyes.
R36/37/38	Irritating to eyes, respiratory system and skin.
R36/38	Irritating to eyes and skin.
R50/53	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R51/53	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R66	Repeated exposure may cause skin dryness or cracking.
R67	Vapours may cause drowsiness and dizziness.

· 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:** Seal & Protect without Triclosan
- **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** Dental sealing material
- **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.
F; Highly flammable
R11: Highly flammable.
R52/53-67: Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
Vapours may cause drowsiness and dizziness.
 - **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.
Has a narcotizing effect.
 - **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

F Highly flammable
- **Risk phrases:**
11 Highly flammable.
36/37/38 Irritating to eyes, respiratory system and skin.
52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

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67 Vapours may cause drowsiness and dizziness.

• Safety phrases:

9 Keep container in a well-ventilated place.

16 Keep away from sources of ignition - No smoking.

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.

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: 67-64-1 EINECS: 200-662-2	acetone  Xi R36;  F R11 R66-67  Flam. Liq. 2, H225;  Eye Irrit. 2, H319; STOT SE 3, H336	25-50%
CAS: 105883-40-7	Urethan dimethacrylate resin  Xi R36/38  Skin Irrit. 2, H315; Eye Irrit. 2, H319	25-50%
	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	10-25%
CAS: 3290-92-4	Trimethylolpropane Trimethacrylate (TMPTMA)  N R51/53  Aquatic Chronic 2, H411	2.5-10%
CAS: 128-37-0 EINECS: 204-881-4	2,6-di-tert-butyl-p-cresol  N R50/53  Aquatic Acute 1, H400; Aquatic Chronic 1, H410	≤ 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.**• 4.3 Indication of any immediate medical attention and special treatment needed**

No further relevant information available.

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5 Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents** CO₂, sand, extinguishing powder. Do not use water.
- **For safety reasons unsuitable extinguishing agents**
Water.
Water with full jet.
- **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 equipment. Keep unprotected persons away.
- **6.2 Environmental precautions:**
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.
Do not flush with water or aqueous cleansing agents
- **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**
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:**



Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.

- **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 oxidizing agents.
- **Further information about storage conditions:**
Keep receptacle tightly sealed.
Store in cool, dry conditions in well sealed receptacles.

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· 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:

67-64-1 acetone

WEL	Short-term value: 3620 mg/m ³ , 1500 ppm
	Long-term value: 1210 mg/m ³ , 500 ppm

· DNELs

128-37-0 2,6-di-tert-butyl-p-cresol

Inhalative	DNEL Werte	3.5 mg/m ³ bw/day (rat)
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· Additional information: The lists valid during the making were used as basis.

· 8.2 Exposure controls

· Personal protective equipment

· General protective and hygienic measures

The usual precautionary measures are to be adhered to when handling chemicals.

Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

· Respiratory protection: Use suitable respiratory protective device in case of insufficient ventilation.

· 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: ≥ 0.12 mmPermeation: Level ≥ 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:



Tightly sealed goggles.

· Body protection: Protective work clothing.

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9 Physical and chemical properties

· 9.1 Information on basic physical and chemical properties

· General Information

· Appearance:

Form:	Fluid
Colour:	Yellow
· Odour:	Characteristic
· Odour threshold:	Not determined.

· pH-value: Not determined.

· Change in condition

Melting point/Melting range:	undetermined
Boiling point/Boiling range:	63 °C

· Flash point: -17 °C (c.c. Abel)

· Flammability (solid, gaseous) Not applicable.

· Ignition temperature: 465 °C

· Decomposition temperature: Not determined.

· Self-igniting: Product is not selfigniting.

· Danger of explosion: Product is not explosive. However, formation of explosive air/vapour mixtures are possible.

· Explosion limits:

Lower:	2.6 Vol % (Aceton)
Upper:	12.8 Vol % (Aceton)

· Vapour pressure at 20 °C: 233 hPa

· Density:	Not determined
· Relative density	Not determined.
· Vapour density	Not determined.
· Evaporation rate	Not determined.

· Solubility in / Miscibility with

Water: Partly miscible

· Partition coefficient (n-octanol/water): Not determined.

· Viscosity:

dynamic:	Not determined.
kinematic:	Not determined.

· Solvent content:

Organic solvents: 47.0 %

Solids content: 5.0 %

· 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

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- **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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128-37-0 2,6-di-tert-butyl-p-cresol

Oral	LD50	2930 mg/kg (rat)
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Dermal	LD50	> 2000 mg/kg (rabbit)
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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:**

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:**

3290-92-4 Trimethylolpropane Trimethacrylate (TMPTMA)

EC50/48h	>9.22 mg/L (daphnia)
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LC50/96h	2 mg/l (fish)
----------	---------------

128-37-0 2,6-di-tert-butyl-p-cresol

EC50/72h	>0.42 mg/l (algae)
----------	--------------------

LC50/48h	>0.57 mg/l (daphnia)
----------	----------------------

LC50/96h	>0.42 mg/l (fish)
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- **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:**

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

Harmful to aquatic organisms

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- **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

- **14.1 UN-Number**

· ADR, IMDG, IATA	UN1993
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- **14.2 UN proper shipping name**

· ADR	1993 FLAMMABLE LIQUID, N.O.S. (ACETONE)
· IMDG, IATA	FLAMMABLE LIQUID, N.O.S. (ACETONE)

- **14.3 Transport hazard class(es)**

- **ADR**



· Class	3 (F1) Flammable liquids.
· Label	3

- **IMDG, IATA**



· Class	3 Flammable liquids.
· Label	3

- **14.4 Packing group**

· ADR, IMDG, IATA	II
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- **14.5 Environmental hazards:**

· Marine pollutant:	No
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- **14.6 Special precautions for user**

Warning: Flammable liquids.

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- | | |
|---|-----------------|
| · Danger code (Kemler): | 33 |
| · EMS Number: | F-E, S-E |
| · 14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code | Not applicable. |
| · Transport/Additional information: | |
| · ADR | |
| · Limited quantities (LQ) | 1L |
| · Transport category | 2 |
| · Tunnel restriction code | D/E |

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**

- H225 Highly flammable liquid and vapour.
- H315 Causes skin irritation.
- H319 Causes serious eye irritation.
- H335 May cause respiratory irritation.
- H336 May cause drowsiness or dizziness.
- H400 Very toxic to aquatic life.
- H410 Very toxic to aquatic life with long lasting effects.
- H411 Toxic to aquatic life with long lasting effects.

- R11 Highly flammable.
- R36 Irritating to eyes.
- R36/37/38 Irritating to eyes, respiratory system and skin.
- R36/38 Irritating to eyes and skin.
- R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
- R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
- R66 Repeated exposure may cause skin dryness or cracking.
- R67 Vapours may cause drowsiness and dizziness.

- **Department issuing MSDS:** Analytical Research
- **Contact:** HotLine for urgent technical support: +49-7531-583-333
- *** Data compared to the previous version altered.**