

**Safety data sheet  
 according to 1907/2006/EC, Article 31**

Printing date 14.04.2022

Version number 7 (replaces version 6)

Revision: 14.04.2022


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

- **1.1 Product identifier**
  - Trade name: **Technovit 7200 VLC**
- **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** Resin for histological examinations
- **1.3 Details of the supplier of the safety data sheet**
  - **Manufacturer/Supplier:**  
 Kulzer GmbH  
 Leipziger Straße 2, 63450 Hanau (Germany)  
 Tel.: +49 (0)6181 9689-2570 (Wehrheim)
  - **Informing department:** email: [technik.wehrheim@kulzer-dental.com](mailto:technik.wehrheim@kulzer-dental.com)
- **1.4 Emergency telephone number:** Emergency CONTACT (24-Hour-Number): +49 (0)6132-84463

**SECTION 2: Hazards identification**

- **2.1 Classification of the substance or mixture**
  - **Classification according to Regulation (EC) No 1272/2008**  

Skin Irrit. 2	H315 Causes skin irritation.
Eye Irrit. 2	H319 Causes serious eye irritation.
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**  
 The product is classified and labelled according to the GB CLP regulation.
    - **Hazard pictograms**  

  
 GHS07
    - **Signal word** Warning
    - **Hazard-determining components of labelling:**  
 2-hydroxyethyl methacrylate  
 Exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl methacrylate  
 diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide
    - **Hazard statements**  
 H315 Causes skin irritation.  
 H319 Causes serious eye irritation.  
 H317 May cause an allergic skin reaction.  
 H335 May cause respiratory irritation.  
 H412 Harmful to aquatic life with long lasting effects.
    - **Precautionary statements**  
 P261 Avoid breathing dust/fume/gas/mist/vapours/spray.  
 P273 Avoid release to the environment.  
 P280 Wear protective gloves/protective clothing/eye protection/face protection.  
 P302+P352 IF ON SKIN: Wash with plenty of soap and water.  
 P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

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

### SECTION 3: Composition/information on ingredients

#### · 3.2 Mixtures

##### · **Dangerous components:**

CAS: 7534-94-3 EINECS: 231-403-1 Reg.nr.: 01-2119886505-27-xxxx	Exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl methacrylate Skin Irrit. 2, H315; Eye Irrit. 2, H319; STOT SE 3, H335 Aquatic Chronic 3, H412	50-75%
CAS: 868-77-9 EINECS: 212-782-2 Reg.nr.: 01-2119490169-29-xxxx	2-hydroxyethyl methacrylate Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317	25-50%
CAS: 75980-60-8 EINECS: 278-355-8 Reg.nr.: 01-2119972295-29-xxxx	diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide Repr. 2, H361f Aquatic Chronic 2, H411 Skin Sens. 1B, H317	≥0.25-<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**

Instantly remove any clothing soiled by the product.

Personal protection for the First Aider.

Take affected persons into the open air.

##### · **After inhalation**

In case of unconsciousness bring patient into stable side position for transport.

Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.

##### · **After skin contact**

Instantly wash with water and soap and rinse thoroughly.

If skin irritation or rash occurs: Get medical advice/attention.

##### · **After eye contact**

Rinse opened eye for several minutes under running water. If symptoms persist, consult doctor.

Remove contact lenses, if present and easy to do. Continue rinsing.

##### · **After swallowing**

Rinse out mouth and then drink plenty of water.

In case of persistent symptoms consult doctor.

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

#### · 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** CO<sub>2</sub>, sand, extinguishing powder. Do not use water.

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- **For safety reasons unsuitable extinguishing agents** Water with a full water jet.
- **5.2 Special hazards arising from the substance or mixture**  
Formation of toxic gases is possible during heating or in case of fire.  
Can be released in case of fire  
Carbon dioxide (CO<sub>2</sub>)  
Carbon monoxide (CO)  
phosphorus oxides (P<sub>x</sub>O<sub>y</sub>)
- **5.3 Advice for firefighters**
  - **Protective equipment:** Wear self-contained breathing apparatus.
  - **Additional information** Cool endangered containers with water spray jet.

**SECTION 6: Accidental release measures**

- **6.1 Personal precautions, protective equipment and emergency procedures**  
Avoid contact with eyes and skin.  
Do not breathe vapor / mist / gas.  
Ensure adequate ventilation  
Wear protective equipment. Keep unprotected persons away.  
Keep away from ignition sources
- **6.2 Environmental precautions:**  
Do not allow to enter drainage system, surface or ground water.  
Do not allow to enter the ground/soil.
- **6.3 Methods and material for containment and cleaning up:**  
Absorb with liquid-binding material (diatomite, universal binders, for small amounts tissues).
- **6.4 Reference to other sections**  
See Section 8 for information on personal protection equipment.  
See Section 7 for information on safe handling

**SECTION 7: Handling and storage**

- **7.1 Precautions for safe handling**  
Avoid contact with eyes and skin.  
Do not breathe vapor / mist / gas.  
Prevent formation of aerosols.  
Keep away from heat and direct sunlight.
  - **Information about protection against explosions and fires:**  
Fumes can combine with air to form an explosive mixture.  
Protect against electrostatic charges.  
Do not spray on flames or red-hot objects.  
Keep ignition sources away - Do not smoke.
  - **Handling**  
do not mix with  
organic peroxides  
amine  
metals  
reducing agent  
Strong oxidizers  
Radical initiator
- **7.2 Conditions for safe storage, including any incompatibilities**
  - **Storage**
    - **Requirements to be met by storerooms and containers:** Store in cool location.
    - **Information about storage in one common storage facility:** Not required.

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- **Further information about storage conditions:**  
Do not seal container gastight.  
Protect from humidity and keep away from water.
- **7.3 Specific end use(s)** No further relevant information available.

**SECTION 8: Exposure controls/personal protection**

- **8.1 Control parameters**
- **Components with critical 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.  
Not required.

· **DNELs**

**7534-94-3 Exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl methacrylate**

Oral	general population, long term, systemic	0.21 mg/Kg (not defined)
Dermal	worker industrial, long term, systemic	0.35 mg/Kg/d (not defined)
	general population, long term, systemic	0.21 mg/Kg/d (not defined)
Inhalative	worker industrial, long term, systemic	1.22 mg/m3 (not defined)
	general population, long term, systemic	0.36 mg/m3 (not defined)

**868-77-9 2-hydroxyethyl methacrylate**

Oral	general population, long term, systemic	0.83 mg/Kg (not defined)
Dermal	worker industrial, long term, systemic	1.3 mg/Kg/d (not defined)
	general population, long term, systemic	0.83 mg/Kg/d (not defined)
Inhalative	worker industrial, long term, systemic	4.9 mg/m3 (not defined)
	general population, long term, systemic	2.9 mg/m3 (not defined)

**75980-60-8 diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide**

Oral	general population, long term, systemic	0.0833 mg/Kg (not defined)
Dermal	worker industrial, long term, systemic	0.233 mg/Kg/d (not defined)
	general population, long term, systemic	0.0833 mg/Kg/d (not defined)
Inhalative	worker industrial, long term, systemic	0.822 mg/m3 (not defined)
	general population, long term, systemic	0.145 mg/m3 (not defined)

· **PNECs**

**7534-94-3 Exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl methacrylate**

freshwater	0.00233 mg/l (not defined)
marine water	0.000233 mg/l (not defined)
sewage treatment plant	2.45 mg/l (not defined)
sediment, dry weight, freshwater	1.2 mg/Kg (not defined)
sediment, dry weight, marine water	0.12 mg/Kg (not defined)
soil, dry weight	0.239 mg/Kg (not defined)

**868-77-9 2-hydroxyethyl methacrylate**

freshwater	0.482 mg/l (not defined)
marine water	0.482 mg/l (not defined)
sewage treatment plant	10 mg/l (not defined)
sediment, dry weight, freshwater	3.79 mg/Kg (not defined)
sediment, dry weight, marine water	3.79 mg/Kg (not defined)

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soil, dry weight	0.476 mg/Kg (not defined)
<b>75980-60-8 diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide</b>	
freshwater	0.0014 mg/l (not defined)
marine water	0.00014 mg/l (not defined)
sediment, dry weight, freshwater	0.115 mg/Kg (not defined)
sediment, dry weight, marine water	0.0115 mg/Kg (not defined)
soil, dry weight	0.0222 mg/Kg (not defined)

· **Additional information:** The lists that were valid during the compilation 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**

The usual precautionary measures should be adhered to in handling the chemicals.

Do not eat or drink while working.

Do not inhale gases / fumes / aerosols.

Keep away from foodstuffs, beverages and food.

Instantly remove any soiled and impregnated garments.

Wash hands during breaks and at the end of the work.

Avoid contact with the eyes and skin.

· **Breathing equipment:**

Use breathing protection in case of insufficient ventilation.

Filter A/P2.

· **Hand protection**

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

Check protective gloves prior to each use for their proper condition.

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.

NBR: acrylonitrile-butadiene rubber (0,11 mm)

· **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.

>30 min

· **Eye/face protection** eye protection (EN 166)

· **Body protection:** Light weight protective clothing

· **Environmental exposure controls**

Do not allow to enter drainage system, surface or ground water.

**SECTION 9: Physical and chemical properties**

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

· **General Information**

· **Physical state**

Fluid

· **Colour:**

Colourless

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<ul style="list-style-type: none"> <li>· <b>Smell:</b></li> <li>· <b>Odour threshold:</b></li> <li>· <b>Melting point/freezing point:</b></li> <li>· <b>Boiling point or initial boiling point and boiling range</b></li> <li>· <b>Flammability</b></li> <li>· <b>Lower and upper explosion limit</b> <ul style="list-style-type: none"> <li>· <b>Lower:</b></li> <li>· <b>Upper:</b></li> </ul> </li> <li>· <b>Flash point:</b></li> <li>· <b>Ignition temperature:</b></li> <li>· <b>Decomposition temperature:</b></li> </ul>	<p>Weak, characteristic Not determined. Not determined 213 °C (868-77-9 2-hydroxyethyl methacrylate) Not applicable. Not determined. Not determined. 106 °C (868-77-9 2-hydroxyethyl methacrylate) 375 °C (868-77-9 2-hydroxyethyl methacrylate) Not determined.</p>
<ul style="list-style-type: none"> <li>· <b>SAPT</b></li> </ul>	Technovit 7200 VLC >100 °C
<ul style="list-style-type: none"> <li>· <b>SADT</b></li> <li>· <b>pH</b></li> <li>· <b>Viscosity:</b> <ul style="list-style-type: none"> <li>· <b>Kinematic viscosity</b></li> <li>· <b>dynamic:</b></li> </ul> </li> <li>· <b>Solubility</b> <ul style="list-style-type: none"> <li>· <b>Water:</b></li> </ul> </li> <li>· <b>Partition coefficient n-octanol/water (log value)</b></li> <li>· <b>Steam pressure at 20 °C:</b></li> <li>· <b>Density and/or relative density</b> <ul style="list-style-type: none"> <li>· <b>Density at 20 °C</b></li> <li>· <b>Relative density</b></li> <li>· <b>Vapour density</b></li> </ul> </li> </ul>	<p>Not determined. Not determined. Not determined. Not miscible or difficult to mix Not determined. 0.1 hPa 1 g/cm<sup>3</sup> Not determined. Not determined.</p>
<ul style="list-style-type: none"> <li>· <b>9.2 Other information</b></li> <li>· <b>Appearance:</b> <ul style="list-style-type: none"> <li>· <b>Form:</b></li> </ul> </li> <li>· <b>Important information on protection of health and environment, and on safety.</b> <ul style="list-style-type: none"> <li>· <b>Self-inflammability:</b></li> <li>· <b>Explosive properties:</b></li> <li>· <b>Solvent content:</b> <ul style="list-style-type: none"> <li>· <b>VOC EU</b></li> </ul> </li> </ul> </li> <li>· <b>Change in condition</b> <ul style="list-style-type: none"> <li>· <b>Evaporation rate</b></li> </ul> </li> </ul>	<p>No further relevant information available. Fluid Product is not selfigniting. Product is not explosive. g/l Not determined.</p>
<ul style="list-style-type: none"> <li>· <b>Information with regard to physical hazard classes</b> <ul style="list-style-type: none"> <li>· <b>Explosives</b></li> <li>· <b>Flammable gases</b></li> <li>· <b>Aerosols</b></li> <li>· <b>Oxidising gases</b></li> <li>· <b>Gases under pressure</b></li> <li>· <b>Flammable liquids</b></li> <li>· <b>Flammable solids</b></li> <li>· <b>Self-reactive substances and mixtures</b></li> <li>· <b>Pyrophoric liquids</b></li> <li>· <b>Pyrophoric solids</b></li> </ul> </li> </ul>	<p>Void Void Void Void Void Void Void Void Void Void</p>

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· <b>Self-heating substances and mixtures</b>	Void
· <b>Substances and mixtures, which emit flammable gases in contact with water</b>	Void
· <b>Oxidising liquids</b>	Void
· <b>Oxidising solids</b>	Void
· <b>Organic peroxides</b>	Void
· <b>Corrosive to metals</b>	Void
· <b>Desensitised explosives</b>	Void

**SECTION 10: Stability and reactivity**

- **10.1 Reactivity** No further relevant information available.
- **10.2 Chemical stability**
  - **Conditions to be avoided:** No decomposition if used and stored according to specifications.
- **10.3 Possibility of hazardous reactions** Exothermic polymerisation
- **10.4 Conditions to avoid**  
Heat, flames and sparks.  
moisture exposure
- **10.5 Incompatible materials:**  
organic peroxides  
amine  
metals  
reducing agent  
Strong oxidizers  
Radical initiator
- **10.6 Hazardous decomposition products:** None

**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 that are relevant for classification:**

**7534-94-3 Exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl methacrylate**

Oral	LD50	3,160 mg/kg (rat)
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**868-77-9 2-hydroxyethyl methacrylate**

Oral	LD50	5,564 mg/kg (rat)
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Dermal	LD50	>5,000 mg/kg (rabbit)
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**75980-60-8 diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide**

Oral	LD50	>5,000 mg/kg (rat) (OECD 401)
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Dermal	LD50	>2,000 mg/kg (rat) (OECD 402)
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- **Skin corrosion/irritation**  
Causes skin irritation.
- **Serious eye damage/irritation**  
Causes serious eye irritation.
- **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.

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- **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**

75980-60-8 diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide

List II

**SECTION 12: Ecological information**· **12.1 Toxicity**· **Aquatic toxicity:****7534-94-3 Exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl methacrylate**

EC50/72h	2.28 mg/l (algae)
EC50/21d	0.658 mg/L (daphnia) (OECD 211)
EC50/48h	>2.57 mg/l (daphnia) (OECD 202)
LC50/96h	1.79 mg/l (fish) (OECD 203)
NOEC / 21d	0.233 mg/l (daphnia) (OECD 211)
ErC50 / 72 h	2.28 mg/l (algae) (OECD 201)
NOEC / 72h	0.251 mg/l (algae) (OECD 201)
NOEC / 96h	0.97 mg/l (fish) (OECD 203)
NOEC / 48h	2.57 mg/l (daphnia) (OECD 202)
ErC10/72h	0.751 mg/L (algae) (OECD 201)

**868-77-9 2-hydroxyethyl methacrylate**

EC50/72h	345 mg/l (algae) (OECD 201)
EC50/21d	90.1 mg/L (daphnia) (OECD 211)
EC50/48h (static)	380 mg/l (daphnia) (OECD 202)
LC50/96h	>100 mg/l (fish) (OECD 203)
NOEC / 21d	24.1 mg/l (daphnia) (OECD 211)
ErC50 / 72 h	836 mg/l (algae) (OECD 201)
NOEC / 72h	400 mg/l (algae) (OECD 201)
NOEC / 48h	171 mg/l (daphnia) (OECD 202)

**75980-60-8 diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide**

EC50/48h	10,100 mg/l (algae)
	3.53 mg/l (daphnia) (OECD 202)
LC50/96h	1.4 mg/l (fish) (OECD 203)
ErC50 / 72 h	>2.01 mg/l (algae) (OECD 201)
ErC10/72h	1.56 mg/L (algae) (OECD 201)

· **12.2 Persistence and degradability****7534-94-3 Exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl methacrylate**

Biodegradation 70 % /28d (not defined) (OECD 310)

**868-77-9 2-hydroxyethyl methacrylate**

Biodegradation 92-100 % /14d (not defined) (OECD 301C)

**75980-60-8 diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide**

Biodegradation 0-10 % /28d (not defined) (OECD 301F; ISO 9408/ EEC 92/69/V, C.4-D)

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· **12.3 Bioaccumulative potential**

**7534-94-3 Exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl methacrylate**

Bloconcentration factor (BCF) 37 (not defined) (OECD 305)

**75980-60-8 diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide**

Bloconcentration factor (BCF) 47-55 (not defined)

· **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.

· **12.7 Other adverse effects** No further relevant information available.

**SECTION 13: Disposal considerations**

· **13.1 Waste treatment methods**

· **Recommendation**

Small quantities can be polymerized by light and the cured solid material can be disposed of with the regular garbage. Larger quantities must be disposed of following the regulations of the local authorities.

· **Uncleaned packagings:**

· **Recommendation:** Disposal must be made according to official regulations.

**SECTION 14: Transport information**

· **14.1 UN number or ID number**

· **ADR, IMDG, IATA** Void

· **14.2 UN proper shipping name**

· **ADR, IMDG, IATA** Void

· **14.3 Transport hazard class(es)**

· **ADR, ADN, IMDG, IATA**  
 · **Class** Void

· **14.4 Packing group**

· **ADR, IMDG, IATA** Void

· **14.5 Environmental hazards:**

· **Marine pollutant:** No

· **14.6 Special precautions for user** Not applicable.

· **14.7 Maritime transport in bulk according to IMO instruments** Not applicable.

· **Transport/Additional information:** -

· **UN "Model Regulation":** Void

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### 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** None of the ingredients is listed.
    - **Information about limitation of use:**  
Employment restrictions concerning young persons must be observed.
- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

### SECTION 16: Other information

These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Relevant phrases**
  - H315 Causes skin irritation.
  - H317 May cause an allergic skin reaction.
  - H319 Causes serious eye irritation.
  - H335 May cause respiratory irritation.
  - H361f Suspected of damaging fertility.
  - H411 Toxic to aquatic life with long lasting effects.
  - H412 Harmful to aquatic life with long lasting effects.
- **Abbreviations and acronyms:**
  - SADT: Self Accelerating Decomposition Temperature
  - SAPT: Self Accelerating Polymerisation Temperature
  - 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)
  - VOCV: Lenkungsabgabe auf flüchtigen organischen Verbindungen, Schweiz (Swiss Ordinance on volatile organic compounds)
  - DNEL: Derived No-Effect Level (GB REACH)
  - PNEC: Predicted No-Effect Concentration (GB REACH)
  - LC50: Lethal concentration, 50 percent
  - LD50: Lethal dose, 50 percent
  - PBT: Persistent, Bioaccumulative and Toxic
  - vPvB: very Persistent and very Bioaccumulative
  - Skin Irrit. 2: Skin corrosion/irritation – Category 2
  - Eye Irrit. 2: Serious eye damage/eye irritation – Category 2
  - Skin Sens. 1: Skin sensitisation – Category 1
  - Skin Sens. 1B: Skin sensitisation – Category 1B
  - Repr. 2: Reproductive toxicity – Category 2
  - STOT SE 3: Specific target organ toxicity (single exposure) – Category 3
  - 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
- **Sources**
  - (EC) 1272/2008: classification, labelling and packaging of substances and mixtures
  - (EC) 1907/2006: GB REACH
  - ADR/RID/ADN - IMDG - IATA: transport of dangerous goods by road, rail, inland waterway, with maritime vessels and for the air transport
- **\* Data compared to the previous version altered.**

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

- **1.1 Product identifier**
  - Trade name: **Technovit 7210 VLC**
- **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** Fixation adhesive
- **1.3 Details of the supplier of the safety data sheet**
  - **Manufacturer/Supplier:**  
Kulzer GmbH  
Leipziger Straße 2, 63450 Hanau (Germany)  
Tel.: +49 (0)6181 9689-2570 (Wehrheim)
  - **Informing department:** email: [technik.wehrheim@kulzer-dental.com](mailto:technik.wehrheim@kulzer-dental.com)
- **1.4 Emergency telephone number:** Emergency CONTACT (24-Hour-Number): +49 (0)6132-84463

## 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 Irrit. 2	H315 Causes skin irritation.
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**  
The product is classified and labelled according to the GB CLP regulation.
  - **Hazard pictograms**



GHS02 GHS05 GHS07

- **Signal word** Danger
- **Hazard-determining components of labelling:**  
methyl methacrylate  
(2,4,6-trioxo-1,3,5-triazinane-1,3,5-triyl)triethylene triacrylate  
diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide  
2- (2H-Benzotriazol-2-yl) -p-cresol
- **Hazard statements**  
H225 Highly flammable liquid and vapour.  
H315 Causes skin irritation.  
H318 Causes serious eye damage.  
H317 May cause an allergic skin reaction.  
H335 May cause respiratory irritation.  
H412 Harmful to aquatic life with long lasting effects.
- **Precautionary statements**  
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
P273 Avoid release to the environment.

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P280 Wear protective gloves/protective clothing/eye protection/face protection.  
 P302+P352 IF ON SKIN: Wash with plenty of soap and water.  
 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.

· **2.3 Other hazards -**

· **Results of PBT and vPvB assessment**

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

**SECTION 3: Composition/information on ingredients**

· **3.2 Mixtures**

· **Dangerous components:**

CAS: 80-62-6 EINECS: 201-297-1 Reg.nr.: 01-2119452498-28-xxxx	methyl methacrylate Flam. Liq. 2, H225 Skin Irrit. 2, H315; Skin Sens. 1, H317; STOT SE 3, H335	≥25-≤75%
CAS: 32435-46-4 EINECS: 251-040-2	Bis [2- (methacryloyloxy) ethyl] phosphate Skin Irrit. 2, H315; Eye Irrit. 2, H319; STOT SE 3, H335	≥5-<10%
CAS: 40220-08-4 EINECS: 254-843-6 Reg.nr.: 01-2120741502-64-xxxx	(2,4,6-trioxo-1,3,5-triazinane-1,3,5-triyl)triethylene triacrylate Eye Dam. 1, H318 Aquatic Chronic 2, H411 Skin Sens. 1B, H317	≥3-<5%
CAS: 75980-60-8 EINECS: 278-355-8 Reg.nr.: 01-2119972295-29-xxxx	diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide Repr. 2, H361f Aquatic Chronic 2, H411 Skin Sens. 1B, H317	≥1-<2.5%
CAS: 2440-22-4 EINECS: 219-470-5 Reg.nr.: 01-2119583811-34-xxxx	2- (2H-Benzotriazol-2-yl) -p-cresol Aquatic Chronic 1, H410 Skin Sens. 1B, H317	≥0.25-<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**

Take affected persons into the open air.  
 Instantly remove any clothing soiled by the product.  
 Personal protection for the First Aider.

· **After inhalation**

In case of unconsciousness bring patient into stable side position for transport.  
 Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.

· **After skin contact**

Instantly wash with water and soap and rinse thoroughly.  
 If skin irritation or rash occurs: Get medical advice/attention.

· **After eye contact**

Rinse opened eye for several minutes under running water. Then consult doctor.

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Remove contact lenses, if present and easy to do. Continue rinsing.

Use eye protection.

· **After swallowing**

Rinse out mouth and then drink plenty of water.

In case of persistent symptoms consult doctor.

· **4.2 Most important symptoms and effects, both acute and delayed** Allergic reactions

· **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** CO<sub>2</sub>, sand, extinguishing powder. Do not use water.

· **For safety reasons unsuitable extinguishing agents** Water.

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

Can form explosive gas-air mixtures.

Can be released in case of fire

Carbon dioxide (CO<sub>2</sub>)

Carbon monoxide (CO)

phosphorus oxides (PxO<sub>y</sub>)

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

· **5.3 Advice for firefighters**

· **Protective equipment:** Wear self-contained breathing apparatus.

· **Additional information**

Cool endangered containers with water spray jet.

Collect contaminated fire fighting water separately. It must not enter drains.

Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

### SECTION 6: Accidental release measures

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

Wear protective equipment. Keep unprotected persons away.

Avoid contact with eyes and skin.

Do not breathe vapor / mist / gas.

Ensure adequate ventilation

Keep away from ignition sources

· **6.2 Environmental precautions:**

Do not allow to enter drainage system, surface or ground water.

Damp down gases/fumes/haze with water spray jet.

Keep dirty washing water for appropriate disposal.

Do not allow to enter the ground/soil.

· **6.3 Methods and material for containment and cleaning up:**

Absorb with liquid-binding material (diatomite, universal binders, for small amounts tissues).

Do not flush with water or aqueous cleansing agents

Send for recovery or disposal in suitable containers.

Dispose of the material collected according to regulations.

· **6.4 Reference to other sections**

See Section 8 for information on personal protection equipment.

See Section 7 for information on safe handling

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**SECTION 7: Handling and storage**

**· 7.1 Precautions for safe handling**

- Keep containers tightly sealed.
- Prevent formation of aerosols.
- Avoid contact with eyes and skin.
- Do not breathe vapor / mist / gas.
- Ensure good ventilation/exhaustion at the workplace.
- Keep away from heat and direct sunlight.

**· Information about protection against explosions and fires:**

- Keep ignition sources away - Do not smoke.
- Fumes can combine with air to form an explosive mixture.
- Do not spray on flames or red-hot objects.
- Protect against electrostatic charges.

**· Handling**

- do not mix with organic peroxides
- Radical initiator
- amine
- Strong oxidizers
- reducing agent
- metals
- Strong acids

**· 7.2 Conditions for safe storage, including any incompatibilities**

**· Storage**

- **Requirements to be met by storerooms and containers:** Store in cool location.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:**  
 Store cool (not above 25 °C).  
 Store in cool, dry conditions in well sealed containers.

**· 7.3 Specific end use(s) No further relevant information available.**

**SECTION 8: Exposure controls/personal protection**

**· 8.1 Control parameters**

**· Components with critical values that require monitoring at the workplace:**

**80-62-6 methyl methacrylate**

WEL (Great Britain)	Short-term value: 416 mg/m <sup>3</sup> , 100 ppm Long-term value: 208 mg/m <sup>3</sup> , 50 ppm
IOELV (European Union)	Short-term value: 100 ppm Long-term value: 50 ppm

**· DNELs**

**80-62-6 methyl methacrylate**

Oral	general population, long term, systemic	8.2 mg/Kg (not defined)
Dermal	worker industrial, long term, systemic	13.67 mg/Kg/d (not defined)
Inhalative	general population, long term, systemic	8.2 mg/Kg/d (not defined)
	worker industrial, acute, local	416 mg/m <sup>3</sup> (not defined)
	worker industrial, long term, systemic	348.4 mg/m <sup>3</sup> (not defined)
	worker industrial, long term, local	208 mg/m <sup>3</sup> (not defined)

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	general population, acute, local	208 mg/m <sup>3</sup> (not defined)
	general population, long term, systemic	74.3 mg/m <sup>3</sup> (not defined)
<b>40220-08-4 (2,4,6-trioxo-1,3,5-triazinane-1,3,5-triyl)triethylene triacrylate</b>		
Oral	general population, long term, systemic	0.083 mg/Kg (not defined)
Dermal	worker industrial, long term, systemic	2.3 mg/Kg/d (not defined)
	general population, long term, systemic	0.83 mg/Kg/d (not defined)
Inhalative	worker industrial, long term, systemic	1.65 mg/m <sup>3</sup> (not defined)
	general population, long term, systemic	0.29 mg/m <sup>3</sup> (not defined)
<b>75980-60-8 diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide</b>		
Oral	general population, long term, systemic	0.0833 mg/Kg (not defined)
Dermal	worker industrial, long term, systemic	0.233 mg/Kg/d (not defined)
	general population, long term, systemic	0.0833 mg/Kg/d (not defined)
Inhalative	worker industrial, long term, systemic	0.822 mg/m <sup>3</sup> (not defined)
	general population, long term, systemic	0.145 mg/m <sup>3</sup> (not defined)
<b>2440-22-4 2- (2H-Benzotriazol-2-yl) -p-cresol</b>		
Oral	general population, long term, systemic	1.2 mg/Kg (not defined)
Dermal	worker industrial, long term, systemic	2.5 mg/Kg/d (not defined)
	general population, long term, systemic	1.2 mg/Kg/d (not defined)
Inhalative	worker industrial, acute, systemic	1 mg/m <sup>3</sup> (not defined)
	worker industrial, long term, systemic	1 mg/m <sup>3</sup> (not defined)
	worker professional, long term, local	1 mg/m <sup>3</sup> (not defined)

**· PNECs**

**80-62-6 methyl methacrylate**

freshwater	0.94 mg/l (not defined)
marine water	0.094 mg/l (not defined)
sewage treatment plant	10 mg/l (not defined)
sediment, dry weight, freshwater	10.2 mg/Kg (not defined)
sediment, dry weight, marine water	0.102 mg/Kg (not defined)
soil, dry weight	1.48 mg/Kg (not defined)

**40220-08-4 (2,4,6-trioxo-1,3,5-triazinane-1,3,5-triyl)triethylene triacrylate**

freshwater	0.00943 mg/l (not defined)
marine water	0.000943 mg/l (not defined)
sewage treatment plant	10 mg/l (not defined)
sediment, dry weight, freshwater	0.62 mg/Kg (not defined)
sediment, dry weight, marine water	0.062 mg/Kg (not defined)
soil, dry weight	0.118 mg/Kg (not defined)

**75980-60-8 diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide**

freshwater	0.0014 mg/l (not defined)
marine water	0.00014 mg/l (not defined)
sediment, dry weight, freshwater	0.115 mg/Kg (not defined)
sediment, dry weight, marine water	0.0115 mg/Kg (not defined)
soil, dry weight	0.0222 mg/Kg (not defined)

**2440-22-4 2- (2H-Benzotriazol-2-yl) -p-cresol**

freshwater	0 mg/l (not defined)
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marine water	0 mg/l (not defined)
sewage treatment plant	1 mg/l (not defined)
sediment, dry weight, freshwater	0.136 mg/Kg (not defined)
sediment, dry weight, marine water	0.014 mg/Kg (not defined)
soil, dry weight	100 mg/Kg (not defined)

· **Additional information:** The lists that were valid during the compilation 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 food.

Do not eat or drink while working.

The usual precautionary measures should be adhered to in handling the chemicals.

Do not inhale gases / fumes / aerosols.

Instantly remove any soiled and impregnated garments.

Wash hands during breaks and at the end of the work.

Avoid contact with the eyes and skin.

· **Breathing equipment:**

Use breathing protection in case of insufficient ventilation.

Filter A/P2.

· **Hand protection**

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

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

Check protective gloves prior to each use for their proper condition.

· **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.

NBR: acrylonitrile-butadiene rubber (0,11 mm)

· **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.

>30 min

· **Eye/face protection** eye protection (EN 166)

· **Body protection:** Light weight protective clothing

· **Environmental exposure controls**

Do not allow to enter the ground/soil.

Do not allow to enter drainage system, surface or ground water.

**SECTION 9: Physical and chemical properties**

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

· **General Information**

· **Physical state**

Fluid

· **Colour:**

Colourless

· **Smell:**

Characteristic

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· <b>Odour threshold:</b>	Not determined.
· <b>Melting point/freezing point:</b>	Not determined
· <b>Boiling point or initial boiling point and boiling range</b>	100.3 °C (80-62-6 methyl methacrylate)
· <b>Flammability</b>	Not applicable.
· <b>Lower and upper explosion limit</b>	
· <b>Lower:</b>	Not determined.
· <b>Upper:</b>	Not determined.
· <b>Flash point:</b>	10 °C (80-62-6 methyl methacrylate)
· <b>Decomposition temperature:</b>	Not determined.
· <b>SADT</b>	
· <b>pH</b>	Not determined.
· <b>Viscosity:</b>	
· <b>Kinematic viscosity</b>	Not determined.
· <b>dynamic:</b>	Not determined.
· <b>Solubility</b>	
· <b>Water:</b>	Not miscible or difficult to mix
· <b>Partition coefficient n-octanol/water (log value)</b>	Not determined.
· <b>Steam pressure at 20 °C:</b>	37 hPa (80-62-6 methyl methacrylate)
· <b>Density and/or relative density</b>	
· <b>Density at 20 °C</b>	1 g/cm <sup>3</sup>
· <b>Relative density</b>	Not determined.
· <b>Vapour density</b>	Not determined.

· <b>9.2 Other information</b>	No further relevant information available.
· <b>Appearance:</b>	
· <b>Form:</b>	Fluid
· <b>Important information on protection of health and environment, and on safety.</b>	
· <b>Self-inflammability:</b>	Product is not selfigniting.
· <b>Explosive properties:</b>	Product is not explosive. However, formation of explosive air/vapour mixtures is possible.
· <b>Change in condition</b>	
· <b>Evaporation rate</b>	Not determined.

· <b>Information with regard to physical hazard classes</b>	
· <b>Explosives</b>	Void
· <b>Flammable gases</b>	Void
· <b>Aerosols</b>	Void
· <b>Oxidising gases</b>	Void
· <b>Gases under pressure</b>	Void
· <b>Flammable liquids</b>	
Highly flammable liquid and vapour.	
· <b>Flammable solids</b>	Void
· <b>Self-reactive substances and mixtures</b>	Void
· <b>Pyrophoric liquids</b>	Void
· <b>Pyrophoric solids</b>	Void
· <b>Self-heating substances and mixtures</b>	Void
· <b>Substances and mixtures, which emit flammable gases in contact with water</b>	Void
· <b>Oxidising liquids</b>	Void
· <b>Oxidising solids</b>	Void
· <b>Organic peroxides</b>	Void

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- |                           |      |
|---------------------------|------|
| · Corrosive to metals     | Void |
| · Desensitised explosives | Void |

**SECTION 10: Stability and reactivity**

- **10.1 Reactivity** No further relevant information available.
- **10.2 Chemical stability**
  - **Conditions to be avoided:** No decomposition if used and stored according to specifications.
- **10.3 Possibility of hazardous reactions** Exothermic polymerisation
- **10.4 Conditions to avoid**  
moisture exposure  
Heat, flames and sparks.
- **10.5 Incompatible materials:**  
organic peroxides  
Radical initiator  
amine  
Strong oxidizers  
reducing agent  
metals  
Strong acids
- **10.6 Hazardous decomposition products:** None

**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 that are relevant for classification:**

**80-62-6 methyl methacrylate**

Oral	LD50	~7,900 mg/kg (rat)
Dermal	LD50	>5,000 mg/kg (guinea pig) (OECD 402)
Inhalative	LC50/4 h	29.8 mg/l (rat)

**40220-08-4 (2,4,6-trioxo-1,3,5-triazinane-1,3,5-triyl)triethylene triacrylate**

Oral	LD50	>2,000 mg/kg (rat) (OECD 423)
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**75980-60-8 diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide**

Oral	LD50	>5,000 mg/kg (rat) (OECD 401)
Dermal	LD50	>2,000 mg/kg (rat) (OECD 402)

**2440-22-4 2-(2H-Benzotriazol-2-yl)-p-cresol**

Oral	LD50	10,000 mg/kg (rat) (OECD 423)
------	------	-------------------------------

- **Skin corrosion/irritation**  
Causes skin irritation.
- **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.

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## · 11.2 Information on other hazards

## · Endocrine disrupting properties

75980-60-8 diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide

List II

**SECTION 12: Ecological information**

## · 12.1 Toxicity

## · Aquatic toxicity:

**80-62-6 methyl methacrylate**

EC50/21d	49 mg/L (daphnia) (OECD 211)
EC50/48h	69 mg/l (daphnia) (EPA OTS 797.1300)
NOEC / 21d	37 mg/l (daphnia) (OECD 211)
ErC50 / 72 h	>110 mg/l (algae) (OECD 201)
NOEC / 72h	110 mg/l (algae) (OECD 201)
NOEC / 48h	48 mg/l (daphnia) (EPA OTS 797.1300)
EbC50 / 72h	>110 mg/l (algae) (OECD 201)
NOEC/ 35d	9.4 mg/L (fish) (OECD 210)
LC50/ 35d	33.7 mg/L (fish) (OECD 210)

**40220-08-4 (2,4,6-trioxo-1,3,5-triazinane-1,3,5-triyl)triethylene triacrylate**

EC50/48h	158.3 mg/l (daphnia) (OECD 202)
LC50/96h	9.43 mg/l (fish) (OECD 203)
ErC50 / 72 h	25.7 mg/l (algae) (OECD 201)
ErC10/72h	12.9 mg/L (algae) (OECD 201)

**75980-60-8 diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide**

EC50/48h	10,100 mg/l (algae)
	3.53 mg/l (daphnia) (OECD 202)
LC50/96h	1.4 mg/l (fish) (OECD 203)
ErC50 / 72 h	>2.01 mg/l (algae) (OECD 201)
ErC10/72h	1.56 mg/L (algae) (OECD 201)

**2440-22-4 2-(2H-Benzotriazol-2-yl) -p-cresol**

EC50/72h	>100 mg/l (algae)
EC50/21d	0.015 mg/L (daphnia) (OECD 211)
LC50/96h	>0.17 mg/l (fish) (OECD 203)
NOEC / 21d	0.013 mg/l (daphnia) (OECD 211)
ErC50 / 72 h	>0.0822 mg/l (algae) (OECD 201)
NOEC / 96h	0.17 mg/l (fish) (OECD 203)
EC50 / 24h	>1,000 mg/l (daphnia) (OECD 202)
ErC10/72h	0.0588 mg/L (algae) (OECD 201)

## · 12.2 Persistence and degradability

**80-62-6 methyl methacrylate**

Biodegradation 94 % /14d (not defined) (OECD 301C)

**40220-08-4 (2,4,6-trioxo-1,3,5-triazinane-1,3,5-triyl)triethylene triacrylate**

Biodegradation 14.5-19.7 % /28d (not defined) (OECD 301F; ISO 9408/ EEC 92/69/V, C.4-D)

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**75980-60-8 diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide**

Biodegradation 0-10 % /28d (not defined) (OECD 301F; ISO 9408/ EEC 92/69/V, C.4-D)

**2440-22-4 2- (2H-Benzotriazol-2-yl) -p-cresol**

Biodegradation 0-2 % /28d (not defined) (OECD 301B; ISO/ 9439/ EEC 92/69/V, C.4-C)

**· 12.3 Bioaccumulative potential**

**75980-60-8 diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide**

Bioconcentration factor (BCF) 47-55 (not defined)

· **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.

**· 12.7 Other adverse effects**

· **Additional ecological information:**

· **General notes:**

Do not allow product to reach ground water, water bodies or sewage system, even in small quantities.

Danger to drinking water if even extremely small quantities leak into soil.

**SECTION 13: Disposal considerations**

**· 13.1 Waste treatment methods**

· **Recommendation**

Small quantities can be polymerized with the matching system component(s) and the cured solid material can be disposed of with the regular garbage. Larger quantities must be disposed of following the regulations of the local authorities.

Disposal must be made according to official regulations.

· **Uncleaned packagings:**

· **Recommendation:** Disposal must be made according to official regulations.

**SECTION 14: Transport information**

**· 14.1 UN number or ID number**

· **ADR, IMDG, IATA**

UN1247

**· 14.2 UN proper shipping name**

· **ADR**

1247 METHYL METHACRYLATE MONOMER, STABILIZED solution

· **IMDG, IATA**

METHYL METHACRYLATE MONOMER, STABILIZED solution

**· 14.3 Transport hazard class(es)**

· **ADR**



· **Class**

3 (F1) Flammable liquids.

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· Label	3
· IMDG, IATA	
	
· Class	3 Flammable liquids.
· Label	3
· 14.4 Packing group · ADR, IMDG, IATA	II
· 14.5 Environmental hazards: · Marine pollutant:	No
· 14.6 Special precautions for user	Warning: Flammable liquids.
· Kemler Number:	33
· EMS Number:	F-E,S-D
· Stowage Category	C
· Stowage Code	SW1 Protected from sources of heat. SW2 Clear of living quarters.
· 14.7 Maritime transport in bulk according to IMO instruments	Not applicable.
· Transport/Additional information:	-
· ADR	
· Limited quantities (LQ)	1L
· Excepted quantities (EQ)	Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
· Transport category	2
· Tunnel restriction code	D/E
· IMDG	
· Limited quantities (LQ)	1L
· Excepted quantities (EQ)	Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
· UN "Model Regulation":	UN 1247 METHYL METHACRYLATE MONOMER, STABILIZED SOLUTION, 3, 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 None of the ingredients is listed.
    - Seveso category P5c FLAMMABLE LIQUIDS

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- **Qualifying quantity (tonnes) for the application of lower-tier requirements** 5.000 t
- **Qualifying quantity (tonnes) for the application of upper-tier requirements** 50.000 t
- **Information about limitation of use:**  
 Employment restrictions concerning young persons must be observed.  
 Employment restrictions concerning pregnant and lactating women must be observed.
- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

### SECTION 16: Other information

These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Relevant phrases**

- H225 Highly flammable liquid and vapour.
- H315 Causes skin irritation.
- H317 May cause an allergic skin reaction.
- H318 Causes serious eye damage.
- H319 Causes serious eye irritation.
- H335 May cause respiratory irritation.
- H361f Suspected of damaging fertility.
- H410 Very toxic to aquatic life with long lasting effects.
- H411 Toxic to aquatic life with long lasting effects.

- **Abbreviations and acronyms:**

- SADT: Self Accelerating Decomposition Temperature
- 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 (GB REACH)
- PNEC: Predicted No-Effect Concentration (GB REACH)
- LC50: Lethal concentration, 50 percent
- LD50: Lethal dose, 50 percent
- PBT: Persistent, Bioaccumulative and Toxic
- vPvB: very Persistent and very Bioaccumulative
- Flam. Liq. 2: Flammable liquids – Category 2
- 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
- Repr. 2: Reproductive toxicity – Category 2
- STOT SE 3: Specific target organ toxicity (single exposure) – Category 3
- 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

- **Sources**

- (EC) 1272/2008: classification, labelling and packaging of substances and mixtures
- (EC) 1907/2006: GB REACH
- ADR/RID/ADN - IMDG - IATA: transport of dangerous goods by road, rail, inland waterway, with maritime vessels and for the air transport

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

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Revision: 29.04.2022

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

- **1.1 Product identifier**
  - Trade name: **Technovit 7230 VLC**
- **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** Fixation adhesive
- **1.3 Details of the supplier of the safety data sheet**
  - **Manufacturer/Supplier:**  
 Kulzer GmbH  
 Leipziger Straße 2, 63450 Hanau (Germany)  
 Tel.: +49 (0)6181 9689-2570 (Wehrheim)
  - **Informing department:** email: [technik.wehrheim@kulzer-dental.com](mailto:technik.wehrheim@kulzer-dental.com)
- **1.4 Emergency telephone number:** Emergency CONTACT (24-Hour-Number): +49 (0)6132-84463

**SECTION 2: Hazards identification**

- **2.1 Classification of the substance or mixture**
    - **Classification according to Regulation (EC) No 1272/2008**  
 Skin Sens. 1 H317 May cause an allergic skin reaction.  
 Aquatic Chronic 2 H411 Toxic to aquatic life with long lasting effects.
  - **2.2 Label elements**
    - **Labelling according to Regulation (EC) No 1272/2008**  
 The product is classified and labelled according to the GB CLP regulation.
      - **Hazard pictograms**
- 

- GHS07 GHS09
- **Signal word** Warning
  - **Hazard-determining components of labelling:**  
 7,7,9(or 7,9,9)-trimethyl-4,13-dioxo-3,14-dioxa-5,12-diazahexadecane-1,16-diyl bismethacrylate  
 diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide
  - **Hazard statements**  
 H317 May cause an allergic skin reaction.  
 H411 Toxic to aquatic life with long lasting effects.
  - **Precautionary statements**  
 P273 Avoid release to the environment.  
 P280 Wear protective gloves/protective clothing/eye protection/face protection.  
 P302+P352 IF ON SKIN: Wash with plenty of soap and water.  
 P333+P313 If skin irritation or rash occurs: Get medical advice/attention.  
 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.

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**Trade name: Technovit 7230 VLC**

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**SECTION 3: Composition/information on ingredients**

· **3.2 Mixtures**

· **Dangerous components:**

CAS: 72869-86-4 EINECS: 276-957-5 Reg.nr.: 01-2120751202-68-xxxx	7,7,9(or 7,9,9)-trimethyl-4,13-dioxo-3,14-dioxa-5,12-diazahexadecane-1,16-diyl bismethacrylate ----- Aquatic Chronic 2, H411 Skin Sens. 1B, H317 EUH204	>90%
CAS: 75980-60-8 EINECS: 278-355-8 Reg.nr.: 01-2119972295-29-xxxx	diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide ----- Repr. 2, H361f Aquatic Chronic 2, H411 Skin Sens. 1B, H317	≥1-<2.5%

· **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**

Instantly remove any clothing soiled by the product.  
 Personal protection for the First Aider.

· **After inhalation** Supply fresh air; consult doctor in case of symptoms.

· **After skin contact**

Instantly wash with water and soap and rinse thoroughly.  
 If skin irritation or rash occurs: Get medical advice/attention.

· **After eye contact**

Rinse opened eye for several minutes under running water. If symptoms persist, consult doctor.  
 Remove contact lenses, if present and easy to do. Continue rinsing.

· **After swallowing**

Rinse out mouth and then drink plenty of water.  
 In case of persistent symptoms consult doctor.

· **4.2 Most important symptoms and effects, both acute and delayed** Allergic reactions

· **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**

CO<sub>2</sub>, extinguishing powder or water jet. Fight larger fires with water jet or alcohol-resistant foam.

· **For safety reasons unsuitable extinguishing agents** Water with a full water jet.

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

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

Can be released in case of fire

Carbon dioxide (CO<sub>2</sub>)

Carbon monoxide (CO)

phosphorus oxides (P<sub>x</sub>O<sub>y</sub>)

· **5.3 Advice for firefighters**

· **Protective equipment:**

Wear self-contained breathing apparatus.  
 (EN 133)

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**Trade name: Technovit 7230 VLC****Additional information** Cool endangered containers with water spray jet.

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**SECTION 6: Accidental release measures****6.1 Personal precautions, protective equipment and emergency procedures**

Avoid contact with eyes and skin.

Ensure adequate ventilation

Wear protective equipment. Keep unprotected persons away.

Keep away from ignition sources

**6.2 Environmental precautions:**

Do not allow to enter drainage system, surface or ground water.

Damp down gases/fumes/haze with water spray jet.

**6.3 Methods and material for containment and cleaning up:**

Absorb with liquid-binding material (diatomite, universal binders, for small amounts tissues).

Send for recovery or disposal in suitable containers.

**6.4 Reference to other sections**

See Section 7 for information on safe handling

See Section 8 for information on personal protection equipment.

**SECTION 7: Handling and storage****7.1 Precautions for safe handling**

Avoid contact with eyes and skin.

Keep away from heat and direct sunlight.

Prevent formation of aerosols.

**Information about protection against explosions and fires:**

Protect against electrostatic charges.

Keep ignition sources away - Do not smoke.

**Handling**

do not mix with

organic peroxides

Radical initiator

metals

Strong bases

**7.2 Conditions for safe storage, including any incompatibilities****Storage****Requirements to be met by storerooms and containers:** Store in cool location.**Information about storage in one common storage facility:** Not required.**Further information about storage conditions:** Store cool (not above 25 °C).**7.3 Specific end use(s)** No further relevant information available.**SECTION 8: Exposure controls/personal protection****8.1 Control parameters****Components with critical 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.

Not required.

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<b>· DNELs</b>		
<b>72869-86-4 7,7,9(or 7,9,9)-trimethyl-4,13-dioxo-3,14-dioxa-5,12-diazahexadecane-1,16-diyl bismethacrylate</b>		
Oral	general population, long term, systemic	0.3 mg/Kg (not defined)
Dermal	worker industrial, long term, systemic	1.3 mg/Kg/d (not defined)
Inhalative	general population, long term, systemic	0.7 mg/Kg/d (not defined)
	worker industrial, long term, systemic	3.3 mg/m3 (not defined)
	general population, long term, systemic	0.6 mg/m3 (not defined)
<b>75980-60-8 diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide</b>		
Oral	general population, long term, systemic	0.0833 mg/Kg (not defined)
Dermal	worker industrial, long term, systemic	0.233 mg/Kg/d (not defined)
Inhalative	general population, long term, systemic	0.0833 mg/Kg/d (not defined)
	worker industrial, long term, systemic	0.822 mg/m3 (not defined)
	general population, long term, systemic	0.145 mg/m3 (not defined)
<b>· PNECs</b>		
<b>72869-86-4 7,7,9(or 7,9,9)-trimethyl-4,13-dioxo-3,14-dioxa-5,12-diazahexadecane-1,16-diyl bismethacrylate</b>		
freshwater		0.01 mg/l (not defined)
marine water		0.001 mg/l (not defined)
sewage treatment plant		3.61 mg/l (not defined)
sediment, dry weight, freshwater		4.56 mg/Kg (not defined)
sediment, dry weight, marine water		0.46 mg/Kg (not defined)
soil, dry weight		0.91 mg/Kg (not defined)
<b>75980-60-8 diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide</b>		
freshwater		0.0014 mg/l (not defined)
marine water		0.00014 mg/l (not defined)
sediment, dry weight, freshwater		0.115 mg/Kg (not defined)
sediment, dry weight, marine water		0.0115 mg/Kg (not defined)
soil, dry weight		0.0222 mg/Kg (not defined)

**· Additional information:** The lists that were valid during the compilation 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**

The usual precautionary measures should be adhered to in handling the chemicals.

Do not eat or drink while working.

Avoid contact with the eyes and skin.

Instantly remove any soiled and impregnated garments.

Wash hands during breaks and at the end of the work.

**· Breathing equipment:**

Use breathing protection in case of insufficient ventilation.

Filter A/P2.

**· Hand protection**

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

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

Check protective gloves prior to each use for their proper condition.

· **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.

NBR: acrylonitrile-butadiene rubber (0,11 mm)

· **Penetration time of glove material**

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

>30 min

· **Eye/face protection** eye protection (EN 166)

· **Body protection:** Light weight protective clothing

· **Environmental exposure controls**

Do not allow to enter drainage system, surface or ground water.

**SECTION 9: Physical and chemical properties**

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

· **General Information**

· **Physical state**

Fluid

· **Colour:**

Colourless

· **Smell:**

Weak, characteristic

· **Odour threshold:**

Not determined.

· **Melting point/freezing point:**

Not determined

· **Boiling point or initial boiling point and boiling range**

140 °C (72869-86-4 7,7,9(or 7,9,9)-trimethyl-4,13-dioxo-3,14-dioxa-5,12-diazahexadecane-1,16-diyl bismethacrylate)

Not applicable.

· **Flammability**

· **Lower and upper explosion limit**

· **Lower:**

Not determined.

· **Upper:**

Not determined.

· **Flash point:**

>100 °C (72869-86-4 7,7,9(or 7,9,9)-trimethyl-4,13-dioxo-3,14-dioxa-5,12-diazahexadecane-1,16-diyl bismethacrylate)

· **Ignition temperature:**

445 °C (72869-86-4 7,7,9(or 7,9,9)-trimethyl-4,13-dioxo-3,14-dioxa-5,12-diazahexadecane-1,16-diyl bismethacrylate)

· **Decomposition temperature:**

Not determined.

· **SAPT**

Technovit 7230 VLC >100 °C

· **SADT**

· **pH**

Not determined.

· **Viscosity:**

· **Kinematic viscosity**

Not determined.

· **dynamic:**

Not determined.

· **Solubility**

· **Water:**

Not miscible or difficult to mix

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· <b>Partition coefficient n-octanol/water (log value)</b>	Not determined.
· <b>Steam pressure:</b>	Not determined. components: no information available
· <b>Density and/or relative density</b>	
· <b>Density at 20 °C</b>	1.11 g/cm <sup>3</sup>
· <b>Relative density</b>	Not determined.
· <b>Vapour density</b>	Not determined.

· <b>9.2 Other information</b>	No further relevant information available.
· <b>Appearance:</b>	
· <b>Form:</b>	Viscous
· <b>Important information on protection of health and environment, and on safety.</b>	
· <b>Self-inflammability:</b>	Product is not selfigniting.
· <b>Explosive properties:</b>	Product is not explosive.
· <b>Change in condition</b>	
· <b>Evaporation rate</b>	Not determined.

· <b>Information with regard to physical hazard classes</b>	
· <b>Explosives</b>	Void
· <b>Flammable gases</b>	Void
· <b>Aerosols</b>	Void
· <b>Oxidising gases</b>	Void
· <b>Gases under pressure</b>	Void
· <b>Flammable liquids</b>	Void
· <b>Flammable solids</b>	Void
· <b>Self-reactive substances and mixtures</b>	Void
· <b>Pyrophoric liquids</b>	Void
· <b>Pyrophoric solids</b>	Void
· <b>Self-heating substances and mixtures</b>	Void
· <b>Substances and mixtures, which emit flammable gases in contact with water</b>	Void
· <b>Oxidising liquids</b>	Void
· <b>Oxidising solids</b>	Void
· <b>Organic peroxides</b>	Void
· <b>Corrosive to metals</b>	Void
· <b>Desensitised explosives</b>	Void

### SECTION 10: Stability and reactivity

- **10.1 Reactivity** No further relevant information available.
- **10.2 Chemical stability**
  - **Conditions to be avoided:** No decomposition if used and stored according to specifications.
- **10.3 Possibility of hazardous reactions** Exothermic polymerisation
- **10.4 Conditions to avoid** Heat, flames and sparks.
- **10.5 Incompatible materials:**
  - organic peroxides
  - Radical initiator
  - metals
  - Strong bases

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· 10.6 Hazardous decomposition products: None

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**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 that are relevant for classification:

**72869-86-4 7,7,9(or 7,9,9)-trimethyl-4,13-dioxo-3,14-dioxa-5,12-diazahexadecane-1,16-diyl bismethacrylate**

Oral LD50 >5,000 mg/kg (rat) (OECD 401)

Dermal LD50 >2,000 mg/kg (rat) (OECD 402)

**75980-60-8 diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide**

Oral LD50 >5,000 mg/kg (rat) (OECD 401)

Dermal LD50 >2,000 mg/kg (rat) (OECD 402)

· Skin corrosion/irritation Based on available data, the classification criteria are not met.

· Serious eye damage/irritation Based on available data, the classification criteria are not met.

· 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 Based on available data, the classification criteria are not met.

· 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

75980-60-8 diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide

List II

**SECTION 12: Ecological information**

· 12.1 Toxicity

· Aquatic toxicity:

**72869-86-4 7,7,9(or 7,9,9)-trimethyl-4,13-dioxo-3,14-dioxa-5,12-diazahexadecane-1,16-diyl bismethacrylate**

EC50/48h >1.2 mg/l (daphnia) (OECD 202)

LC50/96h 10.1 mg/l (fish) (OECD 203)

ErC50 / 72 h >0.68 mg/l (algae) (OECD 201)

NOEC / 72h 0.21 mg/l (algae) (OECD 201)

**75980-60-8 diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide**

EC50/48h 10,100 mg/l (algae)

3.53 mg/l (daphnia) (OECD 202)

LC50/96h 1.4 mg/l (fish) (OECD 203)

ErC50 / 72 h >2.01 mg/l (algae) (OECD 201)

ErC10/72h 1.56 mg/L (algae) (OECD 201)

· 12.2 Persistence and degradability

**72869-86-4 7,7,9(or 7,9,9)-trimethyl-4,13-dioxo-3,14-dioxa-5,12-diazahexadecane-1,16-diyl bismethacrylate**

Biodegradation 22 % /28d (not defined) (OECD 301B; ISO/ 9439/ EEC 92/69/V, C.4-C)

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**75980-60-8 diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide**

Biodegradation 0-10 % /28d (not defined) (OECD 301F; ISO 9408/ EEC 92/69/V, C.4-D)

· **12.3 Bioaccumulative potential****75980-60-8 diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide**

Bioconcentration factor (BCF) 47-55 (not defined)

· **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.

· **12.7 Other adverse effects** No further relevant information available.**SECTION 13: Disposal considerations**· **13.1 Waste treatment methods**· **Recommendation**

Small quantities can be polymerized by light and the cured solid material can be disposed of with the regular garbage. Larger quantities must be disposed of following the regulations of the local authorities.

· **Waste disposal key number:** 55370· **Uncleaned packagings:**· **Recommendation:** Disposal must be made according to official regulations.**SECTION 14: Transport information**· **14.1 UN number or ID number**· **ADR, IMDG, IATA**

UN3082

· **14.2 UN proper shipping name**· **ADR**

3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (7,7,9(or 7,9,9)-trimethyl-4,13-dioxo-3,14-dioxa-5,12-diazahexadecane-1,16-diyl bismethacrylate, diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide)

· **IMDG**

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (7,7,9(or 7,9,9)-trimethyl-4,13-dioxo-3,14-dioxa-5,12-diazahexadecane-1,16-diyl bismethacrylate, diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide), MARINE POLLUTANT

· **IATA**

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (7,7,9(or 7,9,9)-trimethyl-4,13-dioxo-3,14-dioxa-5,12-diazahexadecane-1,16-diyl bismethacrylate, diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide)

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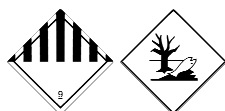
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**· 14.3 Transport hazard class(es)**

**· ADR**



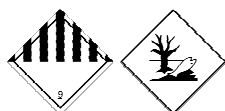
**· Class**

9 (M6) Miscellaneous dangerous substances and articles.

**· Label**

9

**· IMDG, IATA**



**· Class**

9 Miscellaneous dangerous substances and articles.

**· Label**

9

**· 14.4 Packing group**

**· ADR, IMDG, IATA**

III

**· 14.5 Environmental hazards:**

**· Marine pollutant:**

No

**· Special marking (ADR):**

Symbol (fish and tree)

**· Special marking (IATA):**

Symbol (fish and tree)

Symbol (fish and tree)

**· 14.6 Special precautions for user**

Warning: Miscellaneous dangerous substances and articles.

**· Kemler Number:**

90

**· EMS Number:**

F-A, S-F

**· Stowage Category**

A

**· 14.7 Maritime transport in bulk according to IMO instruments**

Not applicable.

**· Transport/Additional information:**

-

**· ADR**

**· Limited quantities (LQ)**

5L

**· Excepted quantities (EQ)**

Code: E1

Maximum net quantity per inner packaging:

30 ml

Maximum net quantity per outer packaging:

1000 ml

**· Transport category**

3

**· Tunnel restriction code**

(-)

**· IMDG**

**· Limited quantities (LQ)**

5L

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· <b>Excepted quantities (EQ)</b>	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· <b>UN "Model Regulation":</b>	UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (7,7,9(OR 7,9,9)-TRIMETHYL-4,13-DIOXO-3,14-DIOXA-5,12-DIAZAHEXADECANE-1,16-DIYL BISMETHACRYLATE, DIPHENYL(2,4,6-TRIMETHYLBENZOYL)PHOSPHINE OXIDE), 9, III

**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** None of the ingredients is listed.
    - **Seveso category E2** Hazardous to the Aquatic Environment
    - **Information about limitation of use:**  
Employment restrictions concerning young persons must be observed.
- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

**SECTION 16: Other information**

These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Relevant phrases**

- H317 May cause an allergic skin reaction.
- H361f Suspected of damaging fertility.
- H411 Toxic to aquatic life with long lasting effects.
- EUH204 Contains isocyanates. May produce an allergic reaction.

· **Abbreviations and acronyms:**

- SADT: Self Accelerating Decomposition Temperature
- SAPT: Self Accelerating Polymerisation Temperature
- 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 (GB REACH)
- PNEC: Predicted No-Effect Concentration (GB REACH)
- LC50: Lethal concentration, 50 percent
- LD50: Lethal dose, 50 percent
- PBT: Persistent, Bioaccumulative and Toxic
- vPvB: very Persistent and very Bioaccumulative
- Skin Sens. 1: Skin sensitisation – Category 1
- Skin Sens. 1B: Skin sensitisation – Category 1B
- Repr. 2: Reproductive toxicity – Category 2
- Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2

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**· Sources***(EC) 1272/2008: classification, labelling and packaging of substances and mixtures**(EC) 1907/2006: GB REACH**ADR/RID/ADN - IDMG - IATA: transport of dangerous goods by road, rail, inland waterway, with maritime vessels and for the air transport***· \* Data compared to the previous version altered.**

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