



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

Printing date 10.01.2024

Version number 4

Revision: 10.01.2024

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

· **1.1 Product identifier**

· Trade name: **Palaseal**

· **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** Auxiliary for manufacture of dental prothesis

· **1.3 Details of the supplier of the safety data sheet**

· **Manufacturer/Supplier:**

Kulzer GmbH

Leipziger Straße 2, 63450 Hanau (Germany)

Tel.: +49 (0)800 4372522

· **Informing department:** E-Mail: [msds@kulzer-dental.com](mailto:msds@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.

Repr. 2 H361f Suspected of damaging fertility.

STOT SE 3 H335 May cause respiratory irritation.

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**



GHS02 GHS05 GHS07 GHS08 GHS09

· **Signal word** Danger

· **Hazard-determining components of labelling:**

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

methyl methacrylate

diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide

glycerol, propoxylated, esters with acrylic acid

Bisphenol A Diglycidylether Diacrylate (BADGE-DA)

· **Hazard statements**

H225 Highly flammable liquid and vapour.

H315 Causes skin irritation.

H318 Causes serious eye damage.

H317 May cause an allergic skin reaction.

(Contd. on page 2)

GB



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

Printing date 10.01.2024

Version number 4

Revision: 10.01.2024

**Trade name: Palaseal**

(Contd. of page 1)

H361f Suspected of damaging fertility.

H335 May cause respiratory irritation.

H411 Toxic 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.

P261 Avoid breathing mist/vapours/spray.

P273 Avoid release to the environment.

P280 Wear protective gloves / eye protection.

P312 Call a POISON CENTER/doctor if you feel unwell.

P405 Store locked up.

**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**

**Description:** Product based on methacrylates

**Dangerous components:**

CAS: 80-62-6 EINECS: 201-297-1 Index number: 607-035-00-6	methyl methacrylate Flam. Liq. 2, H225 Skin Irrit. 2, H315; Skin Sens. 1, H317; STOT SE 3, H335	≥25-≤50%
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	≥25-≤50%
CAS: 52408-84-1 NLP: 500-114-5 Reg.nr.: 01-2119487948-12-xxxx	glycerol, propoxylated, esters with acrylic acid Eye Irrit. 2, H319; Skin Sens. 1, H317	10%
CAS: 55818-57-0 NLP: 500-130-2 Reg.nr.: 01-2119490020-53-XXXX	Bisphenol A Diglycidylether Diacrylate (BADGE-DA) Aquatic Chronic 2, H411 Skin Sens. 1, H317	≥5-≤10%
CAS: 75980-60-8 EINECS: 278-355-8 Index number: 015-203-00-X Reg.nr.: 01-2119972295-29-xxxx	diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide Repr. 2, H361f Aquatic Chronic 2, H411 Skin Sens. 1B, H317	≥3-≤5%
	Polysiloxane hexa-acrylate Eye Irrit. 2, H319	≥0-≤5%

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

GB

(Contd. on page 3)



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

Printing date 10.01.2024

Version number 4

Revision: 10.01.2024

**Trade name: Palaseal**

(Contd. of page 2)

#### **SECTION 4: First aid measures**

- **4.1 Description of first aid measures**
  - **After inhalation** Supply fresh air; consult doctor in case of symptoms.
  - **After skin contact**  
Instantly rinse with water.  
Seek medical treatment.
  - **After eye contact** Rinse opened eye for several minutes under running water. Then consult doctor.
  - **After swallowing**  
Rinse out mouth and then drink plenty of water.  
Do not induce vomiting; instantly call for medical help.
- **4.2 Most important symptoms and effects, both acute and delayed**  
No further relevant information available.
- **4.3 Indication of any immediate medical attention and special treatment needed**  
No further relevant information available.

#### **SECTION 5: Firefighting measures**

- **5.1 Extinguishing media**
  - **Suitable extinguishing agents** 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.  
Formation of toxic gases is possible during heating or in case of fire.
- **5.3 Advice for firefighters**
  - **Protective equipment:** No special measures required.
  - **Additional information** -

#### **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.
- **6.2 Environmental precautions:** Prevent material from reaching sewage system, holes and cellars.
- **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
- **6.4 Reference to other sections**  
No dangerous materials are released.  
See Section 8 for information on personal protection equipment.  
-

#### **SECTION 7: Handling and storage**

- **7.1 Precautions for safe handling** Keep containers tightly sealed.
  - **Information about protection against explosions and fires:**  
Keep ignition sources away - Do not smoke.  
Protect against electrostatic charges.

(Contd. on page 4)

GB



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

Printing date 10.01.2024

Version number 4

Revision: 10.01.2024

**Trade name: Palaseal**

(Contd. of page 3)

- **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

**108-31-6 maleic anhydride**

WEL (Great Britain)	Short-term value: 3 mg/m <sup>3</sup> Long-term value: 1 mg/m <sup>3</sup> Sen
---------------------	--

· **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)
	general population, long term, systemic	8.2 mg/Kg/d (not defined)
Inhalative	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)
	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)

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

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)

**52408-84-1 glycerol, propoxylated, esters with acrylic acid**

Dermal	worker industrial, long term, systemic	2.1 mg/Kg/d (not defined)
Inhalative	worker industrial, long term, systemic	7.4 mg/m <sup>3</sup> (not defined)

(Contd. on page 5)



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

Printing date 10.01.2024

Version number 4

Revision: 10.01.2024

**Trade name: Palaseal**

(Contd. of page 4)

**55818-57-0 Bisphenol A Diglycidylether Diacrylate (BADGE-DA)**

Dermal	worker industrial, long term, systemic	17.5 mg/Kg/d (not defined)
Inhalative	worker industrial, long term, systemic	122.5 mg/m <sup>3</sup> (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/m <sup>3</sup> (not defined)
	general population, long term, systemic	0.145 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)

**52408-84-1 glycerol, propoxylated, esters with acrylic acid**

freshwater	0.006 mg/l (not defined)
marine water	0.001 mg/l (not defined)
sewage treatment plant	10 mg/l (not defined)
sediment, dry weight, freshwater	0.078 mg/Kg (not defined)
sediment, dry weight, marine water	0.008 mg/Kg (not defined)
soil, dry weight	0.012 mg/Kg (not defined)

**55818-57-0 Bisphenol A Diglycidylether Diacrylate (BADGE-DA)**

freshwater	0.1 mg/l (not defined)
marine water	0.01 mg/l (not defined)
intermediate water release	1 mg/l (not defined)
sewage treatment plant	10 mg/l (not defined)
sediment, dry weight, freshwater	35.8 mg/Kg (not defined)
soil, dry weight	71 mg/Kg (not defined)

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

freshwater	0.0014 mg/l (not defined)
------------	---------------------------

(Contd. on page 6)



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

Printing date 10.01.2024

Version number 4

Revision: 10.01.2024

**Trade name: Palaseal**

(Contd. of page 5)

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 section 7.

· **Individual protection measures, such as personal protective equipment**

· **General protective and hygienic measures**

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:**

Not necessary with efficient local exhaust. If exposition to vapours is possible, use breathing protective mask (filter A).

· **Hand protection**

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

If skin contact cannot be avoided, protective gloves are recommended to avoid possible sensitization.

Solvent resistant gloves

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

· **Material of gloves**

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

· **Penetration time of glove material**

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

· **For the permanent contact of a maximum of 15 minutes gloves made of the following materials are suitable:**

Butyl rubber, BR

Nitrile rubber, NBR

· **Eye/face protection** Tightly sealed safety glasses.

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

**SECTION 9: Physical and chemical properties**

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

· **General Information**

· **Physical state**

Fluid

· **Colour:**

Yellow

(Contd. on page 7)



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

Printing date 10.01.2024

Version number 4

Revision: 10.01.2024

**Trade name: Palaseal**

(Contd. of page 6)

<ul style="list-style-type: none"><li>· <b>Smell:</b> Characteristic</li><li>· <b>Odour threshold:</b> Not determined.</li><li>· <b>Melting point/freezing point:</b> Not determined</li><li>· <b>Boiling point or initial boiling point and boiling range</b> 100 °C</li><li>· <b>Flammability</b> Not applicable.</li><li>· <b>Lower and upper explosion limit</b><ul style="list-style-type: none"><li>· <b>Lower:</b> 2.1 Vol %</li><li>· <b>Upper:</b> 12.5 Vol %</li></ul></li><li>· <b>Flash point:</b> 13 °C</li><li>· <b>Auto-ignition temperature:</b> 430 °C</li><li>· <b>Decomposition temperature:</b> Not determined.</li></ul>	
<ul style="list-style-type: none"><li>· <b>SAPT</b> Palaseal &gt; 60 °C</li></ul>	
<ul style="list-style-type: none"><li>· <b>SADT</b></li><li>· <b>pH</b> Mixture is non-soluble (in water).</li><li>· <b>Viscosity:</b><ul style="list-style-type: none"><li>· <b>Kinematic viscosity</b> Not determined.</li></ul></li><li>· <b>Kinematic viscosity</b><ul style="list-style-type: none"><li>· <b>dynamic at 20 °C:</b> 11 mPas</li></ul></li><li>· <b>Solubility</b><ul style="list-style-type: none"><li>· <b>Water:</b> Not miscible or difficult to mix</li></ul></li><li>· <b>Partition coefficient n-octanol/water (log value)</b> Not determined.</li><li>· <b>Steam pressure at 20 °C:</b> 47 hPa</li><li>· <b>Vapour pressure:</b><ul style="list-style-type: none"><li>· <b>Density and/or relative density</b><ul style="list-style-type: none"><li>· <b>Density at 20 °C</b> 1.060 g/cm<sup>3</sup></li><li>· <b>Relative density</b> Not determined.</li><li>· <b>Vapour density</b> Not determined.</li></ul></li></ul></li></ul>	
<ul style="list-style-type: none"><li>· <b>9.2 Other information</b> No further relevant information available.</li><li>· <b>Appearance:</b></li><li>· <b>Form:</b> Fluid</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> Product is not selfigniting.</li><li>· <b>Explosive properties:</b> Product is not explosive. However, formation of explosive air/vapour mixtures is possible.</li></ul></li><li>· <b>Solvent content:</b><ul style="list-style-type: none"><li>· <b>VOC EU</b> 504.9 g/l</li></ul></li><li>· <b>Change in condition</b><ul style="list-style-type: none"><li>· <b>Evaporation rate</b> Not determined.</li></ul></li></ul>	
<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> Void</li><li>· <b>Flammable gases</b> Void</li><li>· <b>Aerosols</b> Void</li></ul></li></ul>	

(Contd. on page 8)



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

Printing date 10.01.2024

Version number 4

Revision: 10.01.2024

**Trade name: Palaseal**

(Contd. of page 7)

· <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
· <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** 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:** None
  - **Additional information:**  
If stored longer than recommended and/or above recommended temperature, product may polymerize generating heat.

**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:**

<b>80-62-6 methyl methacrylate</b>		
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)
<b>40220-08-4 (2,4,6-trioxo-1,3,5-triazinane-1,3,5-triyl)triethylene triacrylate</b>		
Oral	LD50	>2,000 mg/kg (rat) (OECD 423)
<b>52408-84-1 glycerol, propoxylated, esters with acrylic acid</b>		
Oral	LD50	>2,000 mg/kg (rat) (OECD 401)
Dermal	LD50	>2,000 mg/kg (rabbit) (OECD 402)

(Contd. on page 9)





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

Printing date 10.01.2024

Version number 4

Revision: 10.01.2024

**Trade name: Palaseal**

(Contd. of page 8)

**55818-57-0 Bisphenol A Diglycidylether Diacrylate (BADGE-DA)**

Oral	LD0	>2,000 mg/kg (rat) (OECD 401)
Dermal	LD0	>2,000 mg/kg (rat) (OECD 402)
Sensitisation	sensitization	(human) (mouse) (LLNA)

**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)

**Polysiloxane hexa-acrylate**

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

- **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**  
Suspected of damaging fertility.
- **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.
- **Additional toxicological information:**
  - **CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)**  
Repr. 2

· **11.2 Information on other hazards**

· <b>Endocrine disrupting properties</b>
None of the ingredients is listed.

**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)

(Contd. on page 10)



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

Printing date 10.01.2024

Version number 4

Revision: 10.01.2024

**Trade name: Palaseal**

(Contd. of page 9)

<i>EbC50 / 72h</i>	>110 mg/l (algae) (OECD 201)
<i>NOEC/ 35d</i>	9.4 mg/L (fish) (OECD 210)
<i>LC50/ 35d</i>	33.7 mg/L (fish) (OECD 210)
<b>40220-08-4 (2,4,6-trioxo-1,3,5-triazinane-1,3,5-triyl)triethylene triacrylate</b>	
<i>EC50/48h</i>	158.3 mg/l (daphnia) (OECD 202)
<i>LC50/96h</i>	9.43 mg/l (fish) (OECD 203)
<i>ErC50 / 72 h</i>	25.7 mg/l (algae) (OECD 201)
<i>ErC10/72h</i>	12.9 mg/L (algae) (OECD 201)
<b>52408-84-1 glycerol, propoxylated, esters with acrylic acid</b>	
<i>EC50/48h</i>	91.4 mg/l (daphnia) (OECD 202)
<i>LC50/96h</i>	5.74 mg/l (fish) (OECD 203)
<i>ErC50 / 72 h</i>	12.2 mg/l (algae) (OECD 201)
<i>NOEC / 96h</i>	1.59 mg/l (fish) (OECD 203)
<i>ErC10/72h</i>	2.06 mg/L (algae) (OECD 201)
<b>55818-57-0 Bisphenol A Diglycidylether Diacrylate (BADGE-DA)</b>	
<i>EC50/72h</i>	>110 mg/l (algae) (OECD 201)
<i>LC50/96h</i>	>79 mg/l (fish) (OECD 203)
<b>75980-60-8 diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide</b>	
<i>EC50/48h</i>	10,100 mg/l (algae)
	3.53 mg/l (daphnia) (OECD 202)
<i>LC50/96h</i>	1.4 mg/l (fish) (OECD 203)
<i>ErC50 / 72 h</i>	>2.01 mg/l (algae) (OECD 201)
<i>ErC10/72h</i>	1.56 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)

**52408-84-1 glycerol, propoxylated, esters with acrylic acid**

*Biodegradation* 72-85 % /28d (not defined) (OECD 301B; ISO/ 9439/ EEC 92/69/V, C.4-C)

**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**

*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**

The product does not contain substances with endocrine disrupting properties.

(Contd. on page 11)



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

Printing date 10.01.2024

Version number 4

Revision: 10.01.2024

**Trade name: Palaseal**

(Contd. of page 10)

· **12.7 Other adverse effects**

· **Additional ecological information:**

· **General notes:**

Do not allow product to reach ground water, water bodies or sewage system.  
Danger to drinking water if even small quantities leak into soil.

**SECTION 13: Disposal considerations**

· **13.1 Waste treatment methods**

· **Recommendation**

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

Disposal must be made according to official regulations.

· **Waste disposal key number:** 55512

· **Uncleaned packagings:**

· **Recommendation:**

Disposal must be made according to official regulations.  
Non contaminated packagings can be used for recycling.

**SECTION 14: Transport information**

· **14.1 UN number or ID number**

· **ADR, IMDG, IATA**

UN1993

· **14.2 UN proper shipping name**

· **ADR**

1247 METHYL METHACRYLATE MONOMER, STABILIZED solution

· **IMDG**

FLAMMABLE LIQUID, N.O.S. (METHYL METHACRYLATE MONOMER, STABILIZED, (2,4,6-trioxo-1,3,5-triazinane-1,3,5-triyl) triethylene triacrylate), MARINE POLLUTANT

· **IATA**

FLAMMABLE LIQUID, N.O.S. (METHYL METHACRYLATE MONOMER, STABILIZED, (2,4,6-trioxo-1,3,5-triazinane-1,3,5-triyl) triethylene triacrylate)

· **14.3 Transport hazard class(es)**

· **ADR**



· **Class**

3 (F1) Flammable liquids.

(Contd. on page 12)



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

Printing date 10.01.2024

Version number 4

Revision: 10.01.2024

**Trade name: Palaseal**

(Contd. of page 11)

· <b>Label</b>	3
· <b>IMDG</b>	
· <b>Class</b>	3 Flammable liquids.
· <b>Label</b>	3
· <b>IATA</b>	
· <b>Class</b>	3 Flammable liquids.
· <b>Label</b>	3
· <b>14.4 Packing group</b> · <b>ADR, IMDG, IATA</b>	II
· <b>14.5 Environmental hazards:</b> · <b>Marine pollutant:</b> · <b>Special marking (ADR):</b>	Symbol (fish and tree) Symbol (fish and tree)
· <b>14.6 Special precautions for user</b> · <b>Kemler Number:</b> · <b>EMS Number:</b> · <b>Stowage Category</b>	Warning: Flammable liquids. 33 F-E,S-E B
· <b>14.7 Maritime transport in bulk according to IMO instruments</b>	Not applicable.
· <b>Transport/Additional information:</b>	-
· <b>ADR</b> · <b>Limited quantities (LQ)</b> · <b>Excepted quantities (EQ)</b>	1L Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
· <b>Transport category</b> · <b>Tunnel restriction code</b>	2 D/E
· <b>IMDG</b> · <b>Limited quantities (LQ)</b>	1L

(Contd. on page 13)



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

Printing date 10.01.2024

Version number 4

Revision: 10.01.2024

**Trade name: Palaseal**

(Contd. of page 12)

· **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**
    - **Qualifying quantity (tonnes) for the application of lower-tier requirements 200 t**
    - **Qualifying quantity (tonnes) for the application of upper-tier requirements 500 t**
- **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.
- H411 Toxic 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 (UK REACH)
- PNEC: Predicted No-Effect Concentration (UK 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

(Contd. on page 14)



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

Printing date 10.01.2024

Version number 4

Revision: 10.01.2024

**Trade name: Palaseal**

(Contd. of page 13)

*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 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2*

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

GB