

Trade name: FotoDent model2

Substance number: 8955

Version: 1 / GB

Date revised: 02.05.2023

Replaces Version: - / GB

Print date: 02.05.2023

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

1.1. Product identifier

FotoDent model2

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

Use of the substance/preparation

Light-curing material for the fabrication of dental working models

1.3. Details of the supplier of the safety data sheet

Address/Manufacturer

Dreve Dentamid GmbH

Max-Planck-Straße 31

59423 Unna

Telephone no. +49 2303 8807-0

Fax no. +49 2303 8807-29

Information provided by / telephone Department Research & Development: Fax: +49 2303 8807-562

E-mail address of person responsible sicherheitsdatenblatt@dreve.com

for this SDS

1.4. Emergency telephone number

Henkel Fire Department / 24h-Emergency-Contact-No.: +49 211 797-3350

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (Regulation (EC) No. 1272/2008)

Classification (Regulation (EC) No. 1272/2008)

Eye Irrit. 2 H319

Skin Sens. 1 H317

Aquatic Chronic 3 H412

The product is classified and labelled in accordance with Regulation (EC) No 1272/2008

For explanation of abbreviations see section 16.

2.2. Label elements

Labelling according to regulation (EC) No 1272/2008

Hazard pictograms



Signal word

Warning

Hazard statements

H319

Causes serious eye irritation.



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H317 May cause an allergic skin reaction.
H412 Harmful to aquatic life with long lasting effects.

Precautionary statements

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P264.1 Wash hands thoroughly after handling.
P273 Avoid release to the environment.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P501.1 Dispose of contents/container to industrial incineration plant.

Hazardous component(s) to be indicated on label (Regulation (EC) No. 1272/2008)

contains 2-hydroxyethyl methacrylate; Hydroxylpropyl methacrylate; 7,7,9(7,9,9)-trimethyl-4,13-dioxo-3,14-dioxo-5,12-diazahexadecane-1,16-diylbismethacrylate; Propylidynetrimethanol, ethoxylated, esters with acrylic acid

2.3. Other hazards

No special hazards have to be mentioned.

The product contains no PBT substances. The product contains no vPvB substances. This product does not contain a substance that has endocrine disrupting properties with respect to human. The product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms.

SECTION 3: Composition/information on ingredients**3.2. Mixtures****Hazardous ingredients****Bisphenol A, ethoxylated, dimethacrylate**

CAS No. 41637-38-1
EINECS no. 609-946-4
Registration no. 01-2119980659-17
Concentration \geq 50 %
Classification (Regulation (EC) No. 1272/2008)
Aquatic Chronic 4 H413

2-hydroxyethyl methacrylate

CAS No. 868-77-9
EINECS no. 212-782-2
Registration no. 01-2119490169-29
Concentration \geq 1 < 6,3 %
Classification (Regulation (EC) No. 1272/2008)
Skin Irrit. 2 H315
Eye Irrit. 2 H319
Skin Sens. 1 H317

Additional remarks:

CLP Regulation (EC) No 1272/2008, Annex VI, Note D

7,7,9(7,9,9)-trimethyl-4,13-dioxo-3,14-dioxo-5,12-diazahexadecane-1,16-diylbismethacrylate

CAS No. 72869-86-4
EINECS no. 276-957-5
Registration no. 01-2120751202-68
Concentration \geq 2,5 < 10 %
Classification (Regulation (EC) No. 1272/2008)

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Wash off immediately with soap and water. Seek medical advice immediately.

After eye contact

Separate eyelids, wash the eyes thoroughly with water (15 min.). Take medical treatment.

After ingestion

Call in a physician immediately and show him the Safety Data Sheet. Rinse mouth thoroughly with water. Let plenty of water be drunk in small gulps. Do not induce vomiting.

Adhere to personal protective measures when giving first aid

First aider: Pay attention to self-protection!

4.2. Most important symptoms and effects, both acute and delayed

Until now no symptoms known so far.

4.3. Indication of any immediate medical attention and special treatment needed**Hints for the physician / hazards**

In the case of swallowing with subsequent vomiting, aspiration of the lungs can occur which can lead to chemical pneumonia or asphyxiation.

SECTION 5: Firefighting measures**5.1. Extinguishing media****Suitable extinguishing media**

Recommended: alcohol resistant foam, CO₂, powders, water spray/mist, Extinguishing measures to suit surroundings

Non suitable extinguishing media

Full water jet

5.2. Special hazards arising from the substance or mixture

In case of combustion evolution of dangerous gases possible.

5.3. Advice for firefighters**Special protective equipment for fire-fighting**

Do not inhale explosion and/or combustion gases. In case of combustion use a suitable breathing apparatus. Wear full protective suit.

Other information

Collect contaminated fire-fighting water separately, must not be discharged into the drains. Fire residues and contaminated fire-fighting water must be disposed of in accordance with the local regulations. Observe manufacturer's / distributor's instructions.

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

Keep away sources of ignition. Ensure adequate ventilation. Use breathing apparatus if exposed to vapours/dust/aerosol. Avoid contact with skin, eyes and clothing. Use personal protective clothing. Refer to protective measures listed in Sections 7 and 8.

6.2. Environmental precautions

Prevent spread over a wide area (e.g. by containment or oil barriers). Do not discharge into the drains/surface waters/groundwater. Do not discharge into the subsoil/soil. Retain and dispose of contaminated wash water. In case of gas escape or of entry into waterways, soil or drains, inform the



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responsible authorities.

6.3. Methods and material for containment and cleaning up

Pick up rest with suitable absorbent materials. Do not pick up with the help of saw-dust or other combustible substances. Clean contaminated floors and objects thoroughly, observing environmental regulations. Containers in which spilt substance has been collected must be adequately labelled. Dispose of as prescribed.

6.4. Reference to other sections

Refer to protective measures listed in Sections 7 and 8.

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

Provide good ventilation of working area (local exhaust ventilation if necessary). Avoid formation of aerosols. Avoid impact, friction and electro-static loading; risk of ignition!. Keep container tightly closed.

Advice on protection against fire and explosion

Keep away from sources of heat and ignition. No smoking. Take action to prevent static discharges. Avoid impact and friction. Use only explosion-proof equipment. Keep away from combustible material. Wear shoes with conductive soles.

7.2. Conditions for safe storage, including any incompatibilities**Requirements for storage rooms and vessels**

Keep in original packaging, tightly closed. Storage rooms must be properly ventilated. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Hints on storage assembly

Do not store together with foodstuffs. Do not store with strong oxidizing agents.

Further information on storage conditions

Keep under lock and key or accessible only to specialists or people who are authorized. Keep container tightly closed and in a well-ventilated place. Keep in a cool place

SECTION 8: Exposure controls/personal protection**8.1. Control parameters****Other information**

Contains no substances with occupational exposure limit values.

Derived No/Minimal Effect Levels (DNEL/DMEL)**Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide**

Type of value	Derived No Effect Level (DNEL)	
Reference group	Worker	
Duration of exposure	Long term	
Route of exposure	dermal	
Mode of action	Systemic effects	
Concentration	0,233	mg/kg/d

Type of value	Derived No Effect Level (DNEL)
Reference group	Consumer
Duration of exposure	Long term



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Route of exposure	inhalative	
Mode of action	Systemic effects	
Concentration	0,145	mg/m ³
Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Long term	
Route of exposure	dermal	
Mode of action	Systemic effects	
Concentration	0,0833	mg/kg/d
Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Long term	
Route of exposure	oral	
Mode of action	Systemic effects	
Concentration	0,0833	mg/kg/d

Bisphenol A, ethoxylated, dimethacrylate

Type of value	Derived No Effect Level (DNEL)	
Reference group	Worker	
Duration of exposure	Long term	
Route of exposure	inhalative	
Mode of action	Systemic effects	
Concentration	3,52	mg/m ³
Type of value	Derived No Effect Level (DNEL)	
Reference group	Worker	
Duration of exposure	Long term	
Route of exposure	dermal	
Mode of action	Systemic effects	
Concentration	2	mg/kg
Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Long term	
Route of exposure	inhalative	
Mode of action	Systemic effects	
Concentration	0,87	mg/m ³
Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Long term	
Route of exposure	dermal	
Mode of action	Systemic effects	
Concentration	1	mg/kg
Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Long term	
Route of exposure	oral	
Mode of action	Systemic effects	
Concentration	0,5	mg/kg

2-hydroxyethyl methacrylate

Type of value	Derived No Effect Level (DNEL)	
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Reference group	Worker	
Duration of exposure	Long term	
Route of exposure	inhalative	
Mode of action	Systemic effects	
Concentration	4,9	mg/m ³
Type of value	Derived No Effect Level (DNEL)	
Reference group	Worker	
Duration of exposure	Long term	
Route of exposure	dermal	
Mode of action	Systemic effects	
Concentration	1,39	mg/kg/d
Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Long term	
Route of exposure	inhalative	
Mode of action	Systemic effects	
Concentration	1,45	mg/m ³
Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Long term	
Route of exposure	dermal	
Mode of action	Systemic effects	
Concentration	0,83	mg/kg/d
Hydroxypropyl methacrylate		
Reference substance	Hydroxypropyl methacrylate	
Type of value	Derived No Effect Level (DNEL)	
Reference group	Worker	
Route of exposure	inhalative	
Concentration	14,7	mg/m ³
Type of value	Hydroxypropyl methacrylate Derived No Effect Level (DNEL)	
Reference group	Worker	
Route of exposure	dermal	
Concentration	4,2	mg/kg/d
Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Route of exposure	dermal	
Concentration	2,5	mg/kg
Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Route of exposure	inhalative	
Concentration	8,8	mg/m ³
Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Route of exposure	oral	
Concentration	2,5	mg/kg

7,7,9(7,9,9)-trimethyl-4,13-dioxo-3,14-dioxa-5,12-diazaheptadecane-1,16-diylbismethacrylate



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Type of value	Derived No Effect Level (DNEL)	
Reference group	Worker	
Duration of exposure	Long term	
Route of exposure	inhalative	
Mode of action	Systemic effects	
Concentration	3,3	mg/m ³

Type of value	Derived No Effect Level (DNEL)	
Reference group	Worker	
Duration of exposure	Long term	
Route of exposure	dermal	
Mode of action	Systemic effects	
Concentration	1,3	mg/kg

Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Long term	
Route of exposure	inhalative	
Mode of action	Systemic effects	
Concentration	0,6	mg/m ³

Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Long term	
Route of exposure	oral	
Mode of action	Systemic effects	
Concentration	0,3	mg/kg

Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Long term	
Route of exposure	dermal	
Mode of action	Systemic effects	
Concentration	0,7	mg/kg

Propylidynetrimethanol, ethoxylated, esters with acrylic acid

Type of value	Derived No Effect Level (DNEL)	
Reference group	Worker	
Duration of exposure	Long term	
Route of exposure	inhalative	
Mode of action	Systemic effects	
Concentration	37	mg/m ³

Type of value	Derived No Effect Level (DNEL)	
Reference group	Worker	
Duration of exposure	Long term	
Route of exposure	dermal	
Mode of action	Systemic effects	
Concentration	10,5	mg/kg

Predicted No Effect Concentration (PNEC)**Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide**

Type of value	PNEC	
Type	Saltwater	
Concentration	0,00014	mg/l



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Type of value	PNEC	
Type	Freshwater sediment	
Concentration	0,115	mg/kg

Type of value	PNEC	
Type	Marine sediment	
Concentration	0,0115	mg/kg

Type of value	PNEC	
Type	Soil	
Concentration	0,0222	mg/kg

2-hydroxyethyl methacrylate

Type of value	PNEC	
Type	Freshwater	
Concentration	0,482	mg/l

Type of value	PNEC	
Type	Soil	
Concentration	0,476	mg/kg

Type of value	PNEC	
Type	Sewage treatment plant (STP)	
Concentration	10	mg/l

Type of value	PNEC	
Type	Freshwater sediment	
Concentration	3,79	mg/kg

Type of value	PNEC	
Type	Saltwater	
Concentration	0,482	mg/l

Type of value	PNEC	
Type	Marine sediment	
Concentration	3,79	mg/kg

Type of value	PNEC	
Type	Man via the environment	
Concentration	0,83	mg/kg/d

Hydroxylpropyl methacrylate

Reference substance	Hydroxylpropyl methacrylate	
Type of value	PNEC	
Type	Freshwater	
Concentration	0,904	mg/l

Type of value	Hydroxylpropyl methacrylate	
Type	PNEC	
Type	Freshwater sediment	
Concentration	6,28	mg/kg

Type of value	Hydroxylpropyl methacrylate	
Type	PNEC	
Type	Soil	
Concentration	0,727	mg/kg



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Type of value	Hydroxylpropyl methacrylate	
Type	PNEC	
Concentration	Sewage treatment plant (STP)	
	10	mg/l
Type of value	PNEC	
Type	Marine	
Concentration	0,904	mg/l
Type of value	PNEC	
Type	Marine sediment	
Concentration	6,28	mg/kg

7,7,9(7,9,9)-trimethyl-4,13-dioxo-3,14-dioxa-5,12-diazahexadecane-1,16-diylbismethacrylate

Type of value	PNEC	
Type	Freshwater	
Concentration	0,01	mg/l
Type of value	PNEC	
Type	Freshwater sediment	
Concentration	4,56	mg/kg
Type of value	PNEC	
Type	Saltwater	
Concentration	0,001	mg/l
Type of value	PNEC	
Type	Marine sediment	
Concentration	0,46	mg/kg
Type of value	PNEC	
Type	Soil	
Concentration	0,91	mg/kg
Type of value	PNEC	
Type	Sewage treatment plant (STP)	
Concentration	3,61	mg/l
Type of value	PNEC	
Type	Water (intermittent release)	
Concentration	0,1	mg/l

8.2. Exposure controls**General protective and hygiene measures**

Do not smoke during work time. Hold emergency shower available. Hold eye wash fountain available. Do not inhale gases/vapours/aerosols. Avoid contact with skin and eyes. Take off immediately all contaminated clothing. Do not eat or drink during work time. Storage of foodstuffs in work rooms is forbidden. Wash hands before breaks and after work. Clean skin thoroughly after work; apply skin cream.

Respiratory protection

Do not inhale vapours; Use suitable respiratory protective device in case of insufficient ventilation

Hand protection

There is no one glove material or combination of materials that will give unlimited resistance to any



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individual or combination of chemicals.

The instructions and information provided by the glove manufacturer on use, storage, maintenance and replacement must be followed.

Gloves should be replaced regularly and if there is any sign of damage to the glove material.

Hand protection must comply with EN 374.

Appropriate Material nitrile

Eye protection

Safety glasses

Body protection

Clothing as usual in the chemical industry.

SECTION 9: Physical and chemical properties**9.1. Information on basic physical and chemical properties**

Physical state	liquid	
Colour	Various, depending on coloration	
Odour	characteristic	
Melting point		
Remarks	not determined	
Freezing point		
Remarks	not determined	
Boiling point or initial boiling point and boiling range		
Value	213	°C
Flammability		
not determined		
Upper and lower explosive limits		
Remarks	not determined	
Flash point		
Value	> 100	°C
Method	closed cup	
Ignition temperature		
Remarks	not determined	
Decomposition temperature		
Remarks	not determined	
pH value		
Remarks	not determined	
Viscosity		
Remarks	not determined	
Solubility(ies)		
Remarks	not determined	
Partition coefficient n-octanol/water (log value)		
Remarks	not determined	
Vapour pressure		
Remarks	not determined	
Density and/or relative density		
Value	1,1	g/cm ³



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Temperature 20 °C

Relative vapour density

Remarks not determined

9.2. Other information**Odour threshold**

Remarks not determined

Evaporation rate (ether = 1) :

Remarks not determined

Solubility in water

Remarks virtually insoluble

Explosive properties

evaluation not determined

Oxidising properties

Remarks not determined

Other information

None known

SECTION 10: Stability and reactivity**10.1. Reactivity**

No hazardous reactions when stored and handled according to prescribed instructions.

10.2. Chemical stability

No hazardous reactions known.

10.3. Possibility of hazardous reactions

No hazardous reactions known.

10.4. Conditions to avoid

Protect from heat and direct sunlight

10.5. Incompatible materials

None known

10.6. Hazardous decomposition products

Irritant gases/vapours

SECTION 11: Toxicological information**11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008****Acute oral toxicity**

ATE	>	10.000	mg/kg
Method		calculated value (Regulation (EC) No. 1272/2008)	

Acute oral toxicity (Components)**Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide**

Species	rat		
LD50	>	5000	mg/kg
Method		OECD 401	



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Bisphenol A, ethoxylated, dimethacrylate

Species	rat		
LD50	>	2000	mg/kg

2-hydroxyethyl methacrylate

Species	rat		
LD50	>	5564	mg/kg

Hydroxypropyl methacrylate

Species	rat		
LD50	>=	2000	mg/kg
Method		OECD 401	

7,7,9(7,9,9)-trimethyl-4,13-dioxo-3,14-dioxa-5,12-diazaheptadecane-1,16-diylbismethacrylate

Species	rat		
LD50	>	5000	mg/kg
Method		OECD 401	

Propylidynetrimethanol, ethoxylated, esters with acrylic acid

Species	rat		
LD50	>	2000	mg/kg
Method		OECD 401	

Acrylic Resin

LD50	>	2000	mg/kg
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Aliphatic urethane methacrylate

Species	rat		
LD50	>	2000	mg/kg

Acute dermal toxicity

Remarks	Based on available data, the classification criteria are not met.
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Acute dermal toxicity (Components)**Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide**

Species	rat		
LD50	>	2000	mg/kg
Method		OECD 402	

Bisphenol A, ethoxylated, dimethacrylate

Species	rat		
LD50	>	2000	mg/kg
Method		OECD 402	

2-hydroxyethyl methacrylate

Species	rabbit		
LD50		5000	mg/kg
Remarks	Test conducted with a similar formulation.		

Hydroxypropyl methacrylate

Species	rabbit		
LD50	>	5000	mg/kg

7,7,9(7,9,9)-trimethyl-4,13-dioxo-3,14-dioxa-5,12-diazaheptadecane-1,16-diylbismethacrylate

Species	rat		
LD50	>	2000	mg/kg
Method		OECD 402	

Propylidynetrimethanol, ethoxylated, esters with acrylic acid

Species	rabbit		
LD50	>	13200	mg/kg

Acrylic Resin

LD50	>	2000	mg/kg
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Aliphatic urethane methacrylate

Species	rabbit		
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LD50 > 2000 mg/kg

Acute inhalational toxicity

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

Acute inhalative toxicity (Components)**Acrylic Resin**

LC50 > 5 mg/l

Duration of exposure 4 h

Administration/Form Dust/Mist

Aliphatic urethane methacrylate

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

Skin corrosion/irritation

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

Skin corrosion/irritation (Components)**Acrylic Resin**

evaluation irritant

Aliphatic urethane methacrylate

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

Serious eye damage/irritation

evaluation irritant

Remarks The classification criteria are met.

Serious eye damage/irritation (Components)**2-hydroxyethyl methacrylate**

Species rabbit

evaluation slightly irritant

Hydroxypropyl methacrylate

Species rabbit

evaluation slightly irritant

Propylidyntrimethanol, ethoxylated, esters with acrylic acid

Species rabbit

evaluation irritant

Method OECD 405

Acrylic Resin

evaluation irritant

Aliphatic urethane methacrylate

Species rabbit

evaluation irritant

Sensitization

evaluation May cause sensitization by skin contact.

Remarks The classification criteria are met.

Sensitization (Components)**Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide**

Route of exposure dermal

Species mouse

evaluation May cause sensitization by skin contact.

2-hydroxyethyl methacrylate

Remarks Possible sensitization potential with human beings.

Hydroxypropyl methacrylate

Species mouse

evaluation non-sensitizing



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Method OECD 429

Remarks May cause sensitization by skin contact.

7,7,9(7,9,9)-trimethyl-4,13-dioxo-3,14-dioxo-5,12-diazaheptadecane-1,16-diylbismethacrylate

Route of exposure dermal

Species mouse

evaluation sensitizing

Propylidynetrimethanol, ethoxylated, esters with acrylic acid

Route of exposure dermal

Species guinea pig

evaluation sensitizing

Method OECD 406

Aliphatic urethane methacrylate

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

Subacute, subchronic, chronic toxicity

Remarks not determined

Mutagenicity

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

Mutagenicity (Components)**Aliphatic urethane methacrylate**

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

Reproductive toxicity

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

Reproduction toxicity (Components)**Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide**

evaluation Suspected of damaging fertility.

Aliphatic urethane methacrylate

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

Carcinogenicity

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

Carcinogenicity (Components)**Aliphatic urethane methacrylate**

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

Specific Target Organ Toxicity (STOT)**Single exposure**

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

Repeated exposure

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

Specific Target Organ Toxicity (STOT) (Components)**Aliphatic urethane methacrylate**

Remarks 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 with respect to humans**

The product does not contain a substance that has endocrine disrupting properties with respect to humans.

Experience in practice

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Inhalation may lead to irritation of the respiratory tract.

Other information

No toxicological data are available.

SECTION 12: Ecological information

12.1. Toxicity**General information**

not determined

Fish toxicity (Components)**Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide**

Species	carp (Cyprinus carpio)		
LC50	1,4		mg/l
Duration of exposure	96	h	
Method	OECD 203		

Bisphenol A, ethoxylated, dimethacrylate

Species	rainbow trout (Oncorhynchus mykiss)		
LC50	> 100		mg/l
Remarks	Test conducted with a similar formulation.		

2-hydroxyethyl methacrylate

Species	Oryzias latipes		
LC50	> 100		mg/l
Duration of exposure	96	h	
Method	OECD 203		

Hydroxypropyl methacrylate

Species	golden orfe (Leuciscus idus)		
LC50	493		mg/l
Duration of exposure	48	h	
Method	DIN 38412 / Part 15		

7,7,9(7,9,9)-trimethyl-4,13-dioxo-3,14-dioxo-5,12-diazahexadecane-1,16-diylbismethacrylate

Species	zebra fish (Brachydanio rerio)		
LC50	10,1		mg/l
Duration of exposure	96	h	
Method	OECD 203		

Propylidynetrimethanol, ethoxylated, esters with acrylic acid

Species	Zebraaerbling		
LC50	1,95		mg/l
Duration of exposure	96	h	
Method	OECD 203		

Daphnia toxicity (Components)**Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide**

Species	Daphnia magna		
EC50	3,53		mg/l
Duration of exposure	48	h	
Method	OECD 202		

Bisphenol A, ethoxylated, dimethacrylate

Species	Daphnia magna		
EC50	> 100		mg/l
Duration of exposure	48	h	
Remarks	Test conducted with a similar formulation.		

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2-hydroxyethyl methacrylate

Species	Daphnia magna		
EC50	380		mg/l
Duration of exposure	48	h	
Method	OECD 202		

2-hydroxyethyl methacrylate

Species	Daphnia magna		
NOEC	24,1		mg/l
Duration of exposure	21	d	
Method	OECD 211		

Hydroxypropyl methacrylate

Species	Daphnia magna		
EC50	> 143		mg/l
Duration of exposure	48	h	
Method	OECD 202		

Hydroxypropyl methacrylate

Species	Daphnia magna		
NOEC	45,2		mg/l
Duration of exposure	21	d	
Method	OECD 211		

7,7,9(7,9,9)-trimethyl-4,13-dioxo-3,14-dioxa-5,12-diazahexadecane-1,16-diylbismethacrylate

Species	Daphnia magna		
EC50	1,2		mg/l
Duration of exposure	48	h	
Method	OECD 202		

Propylidynetrimethanol, ethoxylated, esters with acrylic acid

Species	Daphnia magna		
EC50	70,7		mg/l
Duration of exposure	48	h	
Method	OECD 202		

Algae toxicity (Components)**Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide**

Species	Pseudokirchneriella subcapitata		
EC50	> 2,01		mg/l
Duration of exposure	72	h	
Method	OECD 201		

Bisphenol A, ethoxylated, dimethacrylate

Species	Pseudokirchneriella subcapitata		
EC50	> 100		mg/l
Duration of exposure	72	h	
Method	OECD 201		
Remarks	Test conducted with a similar formulation.		

2-hydroxyethyl methacrylate

Species	Pseudokirchneriella subcapitata		
EC50	345		mg/l
Duration of exposure	72	h	
Method	OECD 201		

Hydroxypropyl methacrylate

Species	Pseudokirchneriella subcapitata		
EC50	> 97,2		mg/l
Duration of exposure	72	h	
Method	OECD 201		

7,7,9(7,9,9)-trimethyl-4,13-dioxo-3,14-dioxa-5,12-diazahexadecane-1,16-diylbismethacrylate

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Species	Scenedesmus subspicatus	
EC50	> 0,68	mg/l
Duration of exposure	72	h
Method	OECD 201	

Propylidynetrimehanol, ethoxylated, esters with acrylic acid

Species	Scenedesmus subspicatus	
EC50	2,2	mg/l
Duration of exposure	72	h
Method	OECD 201	

Bacteria toxicity (Components)**Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide**

Species	activated sludge	
EC50	> 1000	mg/l
Duration of exposure	3	h
Method	OECD 209	

Bisphenol A, ethoxylated, dimethacrylate

Species	activated sludge	
NOEC	14,3	mg/l
Duration of exposure	28	d
Remarks	Test conducted with a similar formulation.	

2-hydroxyethyl methacrylate

Species	Pseudomonas fluorescens	
EC0	> 3000	mg/l
Duration of exposure	16	h

7,7,9(7,9,9)-trimethyl-4,13-dioxo-3,14-dioxa-5,12-diazahehexadecane-1,16-diylbismethacrylate

Species	activated sludge	
NOEC	>= 36,1	mg/l
Duration of exposure	14	d

Propylidynetrimehanol, ethoxylated, esters with acrylic acid

Species	activated sludge	
EC20	292	mg/l
Duration of exposure	3	h
Method	OECD 209	

12.2. Persistence and degradability**General information**

not determined

Biodegradability (Components)**Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide**

Value	< 0	to	10	%
Duration of test	28	d		
evaluation	not readily degradabile			

Bisphenol A, ethoxylated, dimethacrylate

Value	24			%
Duration of test	28	d		
evaluation	readily degradabile			
Remarks	Test conducted with a similar formulation.			

2-hydroxyethyl methacrylate

Value	92	to	100	%
Duration of test	14	d		
evaluation	Readily biodegradable (according to OECD criteria)			

7,7,9(7,9,9)-trimethyl-4,13-dioxo-3,14-dioxa-5,12-diazahehexadecane-1,16-diylbismethacrylate

Value	22			%
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Duration of test evaluation 28 d
not readily degradable

Propylidynetrimethanol, ethoxylated, esters with acrylic acid

Value 58 to 61 %

Duration of test evaluation 28 d
Readily biodegradable (according to OECD criteria)

Ready degradability (Components)**Hydroxypropyl methacrylate**

Value 81 %

Duration of test 28 Days

12.3. Bioaccumulative potential**General information**

not determined

Partition coefficient n-octanol/water (log value)

Remarks not determined

Octanol/water partition coefficient (log Pow) (Components)**Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide**

log Pow 3,1

Temperature 23 °C

Bisphenol A, ethoxylated, dimethacrylate

log Pow 4,39

2-hydroxyethyl methacrylate

log Pow 0,42

Temperature 25 °C

Method OECD 107

Hydroxypropyl methacrylate

log Pow 0,97

Temperature 20 °C

7,7,9(7,9,9)-trimethyl-4,13-dioxo-3,14-dioxo-5,12-diazahehexadecane-1,16-diylbismethacrylate

log Pow 3,39

Temperature 20 °C

Propylidynetrimethanol, ethoxylated, esters with acrylic acid

log Pow 2,89

Temperature 23 °C

Method OECD 107

Bioconcentration factor (BCF) (Components)**Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide**

BCF 47 to 55

Concentration 0,1 mg/l

Duration of exposure 8 Weeks

Medium Freshwater

Species carp (Cyprinus carpio)

12.4. Mobility in soil**General information**

not determined

12.5. Results of PBT and vPvB assessment**General information**

not determined



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Results of PBT and vPvB assessment

The product contains no PBT substances
The product contains no vPvB substances.

12.6 Endocrine disrupting properties**Endocrine disrupting properties with respect to the environment**

The product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms.

12.7. Other adverse effects**General information**

not determined

General information / ecology

Do not allow to enter soil, waterways or waste water canal. Avoid release into the atmosphere.

SECTION 13: Disposal considerations**13.1. Waste treatment methods****Disposal recommendations for the product**

Must not be disposed together with household garbage.
Dispose of waste according to applicable legislation.

Disposal recommendations for packaging

Packaging that cannot be cleaned should be disposed off as product waste.

SECTION 14: Transport information

	Land transport ADR/RID	Marine transport IMDG/GGVSee	Air transport ICAO/IATA
14.1. UN number	The product does not constitute a hazardous substance in land transport.	The product does not constitute a hazardous substance in sea transport.	The product does not constitute a hazardous substance in air transport.
14.2. UN proper shipping name	-	-	-
14.3. Transport hazard class(es)		-	-
Label			
14.4. Packing group		-	-
14.5. Environmental hazards	-	no	-

SECTION 15: Regulatory information

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15.2. Chemical safety assessment

For this preparation a chemical safety assessment has not been carried out.

SECTION 16: Other information

Hazard statements listed in Chapter 3

H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H361f	Suspected of damaging fertility.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

CLP categories listed in Chapter 3

Aquatic Chronic 2	Hazardous to the aquatic environment, chronic, Category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic, Category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic, Category 4
Eye Irrit. 2	Eye irritation, Category 2
Repr. 2	Reproductive toxicity, Category 2
Skin Irrit. 2	Skin irritation, Category 2
Skin Sens. 1	Skin sensitization, Category 1
Skin Sens. 1B	Skin sensitization, Category 1B

Supplemental information

Relevant changes compared with the previous version of the safety data sheet are marked with: ***
This information is based on our present state of knowledge. However, it should not constitute a guarantee for any specific product properties and shall not establish a legally valid relationship.