

Trade name: Fotoplast S IO opaque

Substance number: S0021

Version: 2 / GB

Date revised: 16.05.2024

Replaces Version: 1 / GB

Print date: 16.05.2024

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

1.1. Product identifier

Fotoplast S IO opaque

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

Use of the substance/preparation

Light-curing material for the production of earmolds

1.3. Details of the supplier of the safety data sheet

Address/Manufacturer

Dreve Otoplastik GmbH

Max-Planck-Straße 31

DE-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)

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



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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.
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.
P501.1 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-dioxa-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 *******7,7,9(7,9,9)-trimethyl-4,13-dioxo-3,14-dioxa-5,12-diazahexadecane-1,16-diylbismethacrylate**

CAS No.	72869-86-4			
EINECS no.	276-957-5			
Registration no.	01-2120751202-68			
Concentration	>= 2,5	<	10	%
Classification (Regulation (EC) No. 1272/2008)				
	Skin Sens. 1B		H317	
	Aquatic Chronic 2		H411	

2-hydroxyethyl methacrylate

CAS No.	868-77-9			
EINECS no.	212-782-2			
Registration no.	01-2119490169-29			
Concentration	>= 1	<	3,9	%
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

Aliphatic urethane methacrylate

EINECS no.	933-881-3			
Concentration	>= 1	<	3,5	%
Classification (Regulation (EC) No. 1272/2008)				
	Eye Irrit. 2		H319	



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Hydroxypropyl methacrylate

CAS No.	27813-02-1			
EINECS no.	248-666-3			
Registration no.	01-2119490226-37			
Concentration	>= 1	<	2,4	%
Classification (Regulation (EC) No. 1272/2008)				
	Eye Irrit. 2		H319	
	Skin Sens. 1		H317	

ATE	oral	2.000	mg/kg
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Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide

CAS No.	75980-60-8			
EINECS no.	278-355-8			
Registration no.	01-2119972295-29			
Concentration	>= 0,1	<	1	%
Classification (Regulation (EC) No. 1272/2008)				
	Repr. 2		H361f	

Supplemental information

The substance is contained in the Candidate List for inclusion in Annex XIV of Regulation (EC) No. 1907/2006 (REACH).

Propylidynetrimethanol, ethoxylated, esters with acrylic acid

CAS No.	28961-43-5			
EINECS no.	500-066-5			
Registration no.	01-2119489900-30			
Concentration	>= 0,1	<	1	%
Classification (Regulation (EC) No. 1272/2008)				
	Eye Irrit. 2		H319	
	Skin Sens. 1B		H317	
	Aquatic Chronic 3		H412	

SECTION 4: First aid measures**4.1. Description of first aid measures****General information**

Remove contaminated clothing immediately and dispose of safely. Adhere to personal protective measures when giving first aid

After inhalation

Remove the casualty into fresh air and keep him calm. In the event of symptoms take medical treatment.

After skin contact

After contact with skin, wash immediately with plenty of water and soap. Consult a doctor if skin irritation persists.

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



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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 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



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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	
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	



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Concentration	0,0833	mg/kg/d
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Type of value	Derived No Effect Level (DNEL)	
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Reference group	Consumer	
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Duration of exposure	Long term	
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Route of exposure	oral	
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Mode of action	Systemic effects	
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Concentration	0,0833	mg/kg/d
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2-hydroxyethyl methacrylate

Type of value	Derived No Effect Level (DNEL)	
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Reference group	Worker	
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Duration of exposure	Long term	
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Route of exposure	inhalative	
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Mode of action	Systemic effects	
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Concentration	4,9	mg/m ³
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Type of value	Derived No Effect Level (DNEL)	
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Reference group	Worker	
-----------------	--------	--

Duration of exposure	Long term	
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Route of exposure	dermal	
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Mode of action	Systemic effects	
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Concentration	1,39	mg/kg/d
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Type of value	Derived No Effect Level (DNEL)	
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Reference group	Consumer	
-----------------	----------	--

Duration of exposure	Long term	
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Route of exposure	inhalative	
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Mode of action	Systemic effects	
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Concentration	1,45	mg/m ³
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Type of value	Derived No Effect Level (DNEL)	
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Reference group	Consumer	
-----------------	----------	--

Duration of exposure	Long term	
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Route of exposure	dermal	
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Mode of action	Systemic effects	
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Concentration	0,83	mg/kg/d
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Hydroxylpropyl methacrylate

Reference substance	Hydroxylpropyl methacrylate	
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Type of value	Derived No Effect Level (DNEL)	
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Reference group	Worker	
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Route of exposure	inhalative	
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Concentration	14,7	mg/m ³
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Type of value	Hydroxylpropyl methacrylate Derived No Effect Level (DNEL)	
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Reference group	Worker	
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Route of exposure	dermal	
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Concentration	4,2	mg/kg/d
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Type of value	Derived No Effect Level (DNEL)	
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Reference group	Consumer	
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Route of exposure	dermal	
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Concentration	2,5	mg/kg
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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-diazahexadecane-1,16-diylbismethacrylate

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

Propylidyntrimethanol, 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	



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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
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
Type of value	PNEC	
Type	Water (intermittent release)	
Concentration	1	mg/l



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Hydroxypropyl methacrylate

Reference substance	Hydroxypropyl methacrylate	
Type of value	PNEC	
Type	Freshwater	
Concentration	0,904	mg/l
Type of value	Hydroxypropyl methacrylate	
Type	PNEC	
Type	Freshwater sediment	
Concentration	6,28	mg/kg
Type of value	Hydroxypropyl methacrylate	
Type	PNEC	
Type	Soil	
Concentration	0,727	mg/kg
Type of value	Hydroxypropyl methacrylate	
Type	PNEC	
Type	Sewage treatment plant (STP)	
Concentration	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-dioxo-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)	



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Concentration	0,1	mg/l
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Propylidynetrimethanol, ethoxylated, esters with acrylic acid

Type of value	PNEC	
Type	Freshwater	
Concentration	0,002	mg/l

Type of value	PNEC	
Type	Saltwater	
Concentration	0,0002	mg/l

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

Type	Freshwater sediment	
Concentration	0,038	mg/kg

Type of value	PNEC	
Type	Marine sediment	
Concentration	0,004	mg/kg

Type of value	PNEC	
Type	Soil	
Concentration	0,006	mg/kg

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 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 Butyl rubber

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**



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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	201		°C
Flammability			
evaluation	not determined		
Upper and lower explosive limits			
Remarks	not determined		
Flash point			
Value	101		°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
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			



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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	

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-dioxo-5,12-diazahexadecane-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	

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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.

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

Species	rat		
LD50	>	2000	mg/kg
Method	OECD 402		

2-hydroxyethyl methacrylate

Species	hamster		
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-dioxo-5,12-diazahexadecane-1,16-diylbismethacrylate

Species	rat		
LD50	>	2000	mg/kg
Method	OECD 402		

Propylidynetrimethanol, ethoxylated, esters with acrylic acid

Species	rabbit		
LD50	>	13200	mg/kg

Aliphatic urethane methacrylate

Species	rabbit		
LD50	>	2000	mg/kg

Acute inhalational toxicity

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

Acute inhalative toxicity (Components)**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)**Aliphatic urethane methacrylate**

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

Serious eye damage/irritation

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

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

Species	rabbit		
evaluation	slightly irritant		

Hydroxypropyl methacrylate

Species	rabbit		
evaluation	slightly irritant		

Propylidynetrimethanol, ethoxylated, esters with acrylic acid

Species	rabbit		
evaluation	irritant		



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Method OECD 405

Aliphatic urethane methacrylateSpecies 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 methacrylateSpecies mouse
evaluation non-sensitizing
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.



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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

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 (<i>Cyprinus carpio</i>)	
LC50	1,4	mg/l
Duration of exposure	96	h
Method	OECD 203	

2-hydroxyethyl methacrylate

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

Hydroxypropyl methacrylate

Species	golden orfe (<i>Leuciscus idus</i>)	
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 (<i>Brachydanio rerio</i>)	
LC50	10,1	mg/l
Duration of exposure	96	h
Method	OECD 203	

Propylidynetrimethanol, ethoxylated, esters with acrylic acid

Species	Zebrabaerbling
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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		

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-dioxo-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		

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



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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

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

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-diazahexadecane-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 degradable

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-diazahexadecane-1,16-diylbismethacrylate

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

Propylidynetrimehanol, ethoxylated, esters with acrylic acid

Value 58 to 61 %
Duration of test 28 d
evaluation Readily biodegradable (according to OECD criteria)

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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

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-diazahexadecane-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

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.



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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 or ID 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		-	-

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Other information

All components are contained in the TSCA inventory or exempted.

15.2. Chemical safety assessment

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



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SECTION 16: Other information

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

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

Skin Sens. 1	H317	Calculation method
Aquatic Chronic 3	H412	Calculation method

Hazard statements listed in Chapter 2/3

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.

CLP categories listed in Chapter 2/3

Aquatic Chronic 2	Hazardous to the aquatic environment, chronic, Category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic, Category 3
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.