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

1.1. Product identifier

FotoDent denture

This substance/mixture contains components in nanoform

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

Use of the substance/preparation

Light curing material for production of dental denture base

1.3. Details of the supplier of the safety data sheet

Address/Manufacturer

Dreve Dentamid 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 for this SDS	sicherheitsdatenblatt@dreve.com

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. 1A	H317
Repr. 1B	H360F
Aquatic Chronic 2	H411

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 ***

Danger

Hazard statements ***

H317	May cause an allergic skin reaction.
H360F	May damage fertility.
H411	Toxic to aquatic life with long lasting effects.

Precautionary statements ***

P201	Obtain special instructions before use.
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.
P308+P313	IF exposed or concerned: 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 *** Poly[oxy(methyl-1,2-ethanediyl)],.alpha.,.alpha'.-(2,2-dimethyl-1,3-propanediyl)bis[.omega.-[(1-oxo-2-propenyl)oxy]-; 7,7,9(7,9,9)-trimethyl-4,13-dioxo-3,14-dioxa-5,12-diazahexadecane-1,16-diylbismethacrylate; aliphatic urethane triacrylate; Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide

Supplemental information

Further supplemental information ***

Restricted to professional users

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 ***

Poly[oxy(methyl-1,2-ethanediyl)],.alpha.,.alpha'.-(2,2-dimethyl-1,3-propanediyl)bis[.omega.-[(1-oxo-2-propenyl)oxy]-

CAS No.	84170-74-1				
EINECS no.	617-546-6				
Registration no.	01-2119970213-43				
Concentration	>=	25	<	50	%
Classification (Regulation (EC) No. 1272/2008)					
	Skin Sens. 1B	H317			
	Aquatic Chronic 2	H411			

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	>=	25	<	50	%
Classification (Regulation (EC) No. 1272/2008)					
	Skin Sens. 1B	H317			
	Aquatic Chronic 2	H411			

aliphatic urethane triacrylate

Concentration	>=	10	<	25	%

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

Skin Sens. 1A	H317
Aquatic Chronic 4	H413

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

CAS No.	75980-60-8				
EINECS no.	278-355-8				
Registration no.	01-2119972295-29				
Concentration	>=	1	<	2,5	%

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

Repr. 1B	H360Fd.
Skin Sens. 1B	H317
Aquatic Chronic 2	H411

Supplemental information

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

Dichlorodimethylsilane, reaction products with silica

CAS No.	68611-44-9				
EINECS no.	271-893-4				
Registration no.	01-2119379499-16				
Concentration	>=	0,1	<	2,0	%

Name of set of nanoform	Nanoagglomerate		
Particle size distribution	d50	2,5-50	nm
	Method	Transmission Electron Microscopy (TEM)	
Shape and aspect ratio of particles	Spheroidal		

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

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

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/m³

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

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/m³

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/m³

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

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

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

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 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 pink

Odour characteristic

Melting point

Remarks not determined

Freezing point

Remarks not determined

Boiling point or initial boiling point and boiling range

Value	225		°C

Flammability

evaluation not determined

Upper and lower explosive limits

Remarks not determined

Flash point

Value	>	100	°C
Method	closed cup		

Auto-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	1,08		g/cm³
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

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

Acute oral toxicity (Components)

Poly[oxy(methyl-1,2-ethanediyl)],.alpha.,.alpha'.-(2,2-dimethyl-1,3-propanediyl)bis[.omega.-[(1-oxo-2-propenyl)oxy]-

Species	rat		
LD50	>	5000	mg/kg
Method	OECD 401		

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

Species	rat		
LD50	>	5000	mg/kg
Method	OECD 401		

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

Species	rat		
LD50	>	5000	mg/kg
Method	OECD 401		

aliphatic urethane triacrylate

Species rat

LD50	>	5000	mg/kg

Dichlorodimethylsilane, reaction products with silica

Species	rat		
LD50	>	5000	mg/kg
Method	OECD 401		
Remarks	Test conducted with a similar formulation.		

Acute dermal toxicity

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

Acute dermal toxicity (Components)

Poly[oxy(methyl-1,2-ethanediyl)],.alpha.,.alpha'.-(2,2-dimethyl-1,3-propanediyl)bis[.omega.-[(1-oxo-2-propenyl)oxy]-

Species	rat		
LD50	>	2000	mg/kg
Method	OECD 402		

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

Species	rat		
LD50	>	2000	mg/kg
Method	OECD 402		

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

Species	rat		
LD50	>	2000	mg/kg
Method	OECD 402		

aliphatic urethane triacrylate

Species	rat		
LD50	>	2000	mg/kg
Method	OECD 402		

Dichlorodimethylsilane, reaction products with silica

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

Acute inhalational toxicity

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

Acute inhalative toxicity (Components)

Dichlorodimethylsilane, reaction products with silica

Species	rat		
LC50	>	5,01	mg/l
Duration of exposure		4 h	
Administration/Form	Dust/Mist		
Remarks	Test conducted with a similar formulation.		

Skin corrosion/irritation

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.

Sensitization

evaluation: May cause sensitization by skin contact.

Remarks: The classification criteria are met.

Sensitization (Components)

Poly[oxy(methyl-1,2-ethanediyl)],.alpha.,.alpha'.-(2,2-dimethyl-1,3-propanediyl)bis[.omega.-[(1-oxo-2-propenyl)oxy]-

Species: mouse

evaluation	sensitizing
Method	OECD 429

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

Route of exposure	dermal
Species	mouse
evaluation	May cause sensitization by skin contact.

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

Route of exposure	dermal
Species	mouse
evaluation	sensitizing

aliphatic urethane triacrylate

Route of exposure	dermal
Species	guinea pig
evaluation	sensitizing

Subacute, subchronic, chronic toxicity

Remarks: not determined

Mutagenicity

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

Reproductive toxicity

evaluation	May damage fertility.
Remarks	The classification criteria are met.

Reproduction toxicity (Components)

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

evaluation: Suspected of damaging fertility.

Carcinogenicity

Remarks: 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.

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)

Poly[oxy(methyl-1,2-ethanediyl)],.alpha.,.alpha'.-(2,2-dimethyl-1,3-propanediyl)bis[.omega.-[(1-oxo-2-propenyl)oxy]-

Species	zebra fish (Brachydanio rerio)		
LC50	2,7		mg/l
Duration of exposure	96	h	

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

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

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

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

aliphatic urethane triacrylate

Species	zebra fish (Brachydanio rerio)		
EC50	> 100		mg/l
Duration of exposure	96	h	
Method	OECD 203		

Dichlorodimethylsilane, reaction products with silica

Species	zebra fish (Brachydanio rerio)		
LC50	> 10000		
Duration of exposure	96	h	
Method	OECD 203		
Remarks	Test conducted with a similar formulation.		

Daphnia toxicity (Components)

Poly[oxy(methyl-1,2-ethanediyl)],.alpha.,.alpha'.-(2,2-dimethyl-1,3-propanediyl)bis[.omega.-[(1-oxo-2-propenyl)oxy]-

Species	Daphnia magna		
EC50	37		mg/l
Duration of exposure	48	h	

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

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

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		

aliphatic urethane triacrylate

Species	Daphnia magna		
EC50	> 100		mg/l
Duration of exposure	48	h	
Method	OECD 202		

Dichlorodimethylsilane, reaction products with silica

Species	Daphnia magna		
LC50	> 10000		mg/l
Duration of exposure	24	h	

Method	OECD 202				
Remarks	Test conducted with a similar formulation.				

Algae toxicity (Components)

Poly[oxy(methyl-1,2-ethanediyl)],.alpha.,.alpha'.-(2,2-dimethyl-1,3-propanediyl)bis[.omega.-[(1-oxo-2-propenyl)oxy]-

Species	Pseudokirchneriella subcapitata			
EC50		11		mg/l
Duration of exposure		72	h	

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

Species	Pseudokirchneriella subcapitata			
EC50	>	2,01		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

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

aliphatic urethane triacrylate

Species	Pseudokirchneriella subcapitata			
EC50	>	100		mg/l
Duration of exposure		72	h	
Method	OECD 201			

Dichlorodimethylsilane, reaction products with silica

Species	Desmodesmus subspicatus			
EC50	>	173		mg/l
Duration of exposure		72	h	
Method	OECD 201			
Remarks	Test conducted with a similar formulation.			

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			

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	

Dichlorodimethylsilane, reaction products with silica

Species	activated sludge			
EC50	>	2500		mg/l
Duration of exposure		3	h	
Method	OECD 209			
Remarks	Test conducted with a similar formulation.			

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	

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	

aliphatic urethane triacrylate

evaluation	not readily degradable

Poly[oxy(methyl-1,2-ethanediyl)],.alpha.,.alpha'.-(2,2-dimethyl-1,3-propanediyl)bis[.omega.-[(1-oxo-2-propenyl)oxy]-

evaluation	Moderately/partially biodegradable

Dichlorodimethylsilane, reaction products with silica

Remarks	Inorganic product, cannot be eliminated from the water by biological purification processes.

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

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

log Pow	3,39	
Temperature	20	°C

aliphatic urethane triacrylate

log Pow	4,23	
Temperature	20	°C

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 envrionment

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 or ID number	3082	3082	3082
14.2. UN proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Poly[oxy(methyl-1,2-ethanediyl)],.alpha.,.alpha'.-(2,2-dimethyl-1,3-propanediyl)bis[.omega.-[(1-oxo-2-propenyl)oxy]-, 7,7,9(7,9,9)-trimethyl-4,13-dioxo-3,14-dioxa-5,12-diazahexadecane-1,16-diylbismethacrylate)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Poly[oxy(methyl-1,2-ethanediyl)],.alpha.,.alpha'.-(2,2-dimethyl-1,3-propanediyl)bis[.omega.-[(1-oxo-2-propenyl)oxy]-, 7,7,9(7,9,9)-trimethyl-4,13-dioxo-3,14-dioxa-5,12-diazahexadecane-1,16-diylbismethacrylate)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Poly[oxy(methyl-1,2-ethanediyl)],.alpha.,.alpha'.-(2,2-dimethyl-1,3-propanediyl)bis[.omega.-[(1-oxo-2-propenyl)oxy]-, 7,7,9(7,9,9)-trimethyl-4,13-dioxo-3,14-dioxa-5,12-diazahexadecane-1,16-diylbismethacrylate)
14.3. Transport hazard class(es)	9	9	9
Label			
14.4. Packing group	III	III	III
Remarks	The product is not subject to any other provisions of ADR provided packaging of not more than 5 l / 5 kg	The product can be transported in accordance with IMDG Code paragraph 2.10.2.7, provided packaging not more than 5 l / 5 kg.	The product is not subject to any other provisions of IATA provided packaging of not more than 5 l / 5 kg (A197)
Limited Quantity	5 l	5 l	
Transport category	3		
14.5. Environmental hazards	-		
Tunnel restriction code	-		

SECTION 15: Regulatory information

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

Restriction according to annex XVII to regulation (EU) No 1907/2006

The product is subject to restrictions according to Annex XVII Regulation (EU) No. 1907/2006: Entry No. 3

15.2. Chemical safety assessment

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

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. 1A	H317	Calculation method
Repr. 1B	H360F	Calculation method
Aquatic Chronic 2	H411	Calculation method

Hazard statements listed in Chapter 2/3

H317	May cause an allergic skin reaction.
H360F	May damage fertility.
H360Fd.	May damage fertility. Suspected of damaging the unborn child.
H411	Toxic to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

CLP categories listed in Chapter 2/3

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