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

1.1. Product identifier

Plaquit

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

Use of the substance/preparation

Light-curing lacquer for plastic dental applications

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)

Flam. Liq. 2	H225
Skin Irrit. 2	H315
Eye Dam. 1	H318
Skin Sens. 1	H317
Repr. 1B	H360Fd.
STOT SE 3	H335
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

Danger

Hazard statements ***

H225	Highly flammable liquid and vapour.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H317	May cause an allergic skin reaction.
H360Fd.	May damage fertility. Suspected of damaging the unborn child.
H335	May cause respiratory irritation.
H412	Harmful to aquatic life with long lasting effects.

Precautionary statements

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER or doctor.

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

contains: 2-Propenoic acid, reaction products with pentaerythritol; Methyl methacrylate monomer, stabilized; 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 ***

Methyl methacrylate monomer, stabilized

CAS No.	80-62-6				
EINECS no.	201-297-1				
Registration no.	01-2119452498-28				
Concentration	>=	25	<	50	%
Classification (Regulation (EC) No. 1272/2008)					
	Flam. Liq. 2	H225			
	Skin Irrit. 2	H315			

Skin Sens. 1	H317
STOT SE 3	H335

Additional remarks:

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

2-Propenoic acid, reaction products with pentaerythritol

CAS No. 1245638-61-2
EINECS no. 629-850-6
Registration no. 01-2119490003-49
Concentration >= 10 < 19 %
Classification (Regulation (EC) No. 1272/2008)

Acute Tox. 4	H302
Skin Irrit. 2	H315
Eye Dam. 1	H318
Skin Sens. 1	H317
Aquatic Chronic 2	H411

ATE oral 540 mg/kg

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

CAS No. 75980-60-8
EINECS no. 278-355-8
Registration no. 01-2119972295-29
Concentration >= 2,5 < 10 %
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).

2-hydroxy-2-methylpropiophenone

CAS No. 7473-98-5
EINECS no. 231-272-0
Registration no. 01-2119472306-39
Concentration >= 1 < 1,7 %
Classification (Regulation (EC) No. 1272/2008)

Acute Tox. 4	H302
Aquatic Chronic 3	H412

ATE oral 1.694 mg/kg

Acrylic acid

CAS No. 79-10-7
EINECS no. 201-177-9
Registration no. 01-2119452449-31
Concentration >= 0,1 < 1 %
Classification (Regulation (EC) No. 1272/2008)

Flam. Liq. 3	H226
Acute Tox. 4	H302
Acute Tox. 4	H312
Acute Tox. 4	H332
Skin Corr. 1A	H314
Aquatic Acute 1	H400

Concentration limits (Regulation (EC) No. 1272/2008)

STOT SE 3 H335 >= 1 %

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

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

Exposure limit values

Methyl methacrylate monomer, stabilized

Value			50	ppm(V)
Short term exposure limit			100	ppm(V)

Methyl methacrylate monomer, stabilized

Value	208	mg/m³	50	ppm(V)
Short term exposure limit	416	mg/m³	100	ppm(V)

Other information

Contains no substances with occupational exposure limit values.

Derived No/Minimal Effect Levels (DNEL/DMEL)

Methyl methacrylate monomer, stabilized

Reference substance	Methyl methacrylate monomer, stabilized	
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	348,4	mg/m³
	Methyl methacrylate monomer, stabilized	
Type of value	Derived No Effect Level (DNEL)	
Reference group	Worker	
Duration of exposure	Long term	
Route of exposure	inhalative	
Mode of action	Local effects	
Concentration	208	mg/m³
Type of value	Derived No Effect Level (DNEL)	
Reference group	Worker	
Duration of exposure	Lifetime	
Route of exposure	inhalative	
Concentration	416	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	13,67	mg/kg
Type of value	Derived No Effect Level (DNEL)	
Reference group	Worker	
Duration of exposure	Long term	
Route of exposure	dermal	
Mode of action	Local effects	
Concentration	1,5	mg/cm²
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	74,3	mg/m³

Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Long term	
Route of exposure	inhalative	
Mode of action	Local effects	
Concentration	104	mg/m³

Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Short term	
Route of exposure	inhalative	
Concentration	208	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	8,2	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	Local effects	
Concentration	1,5	mg/cm²

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	8,2	mg/kg/d

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

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	Local effects	
Concentration	30	mg/m³
Type of value	Derived No Effect Level (DNEL)	
Reference group	Worker	
Duration of exposure	Short term	
Route of exposure	inhalative	
Mode of action	Local effects	
Concentration	30	mg/m³
Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Long term	
Route of exposure	inhalative	
Mode of action	Local effects	
Concentration	3,6	mg/m³
Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Short term	
Route of exposure	inhalative	
Mode of action	Local effects	
Concentration	3,6	mg/m³
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	30	mg/m³
Type of value	Derived No Effect Level (DNEL)	
Reference group	Worker	
Duration of exposure	Short term	
Route of exposure	inhalative	
Mode of action	Systemic effects	
Concentration	30	mg/m³
Type of value	Derived No Effect Level (DNEL)	

Reference group	General Population	
Duration of exposure	Long term	
Route of exposure	inhalative	
Mode of action	Systemic effects	
Concentration	3,6	mg/m³

Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Short term	
Route of exposure	inhalative	
Mode of action	Systemic effects	
Concentration	3,6	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	0,4	mg/kg/d

Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Short term	
Route of exposure	oral	
Mode of action	Local effects	
Concentration	1,2	mg/kg/d

Predicted No Effect Concentration (PNEC)

Methyl methacrylate monomer, stabilized

Reference substance	Methyl methacrylate monomer, stabilized	
Type of value	PNEC	
Type	Freshwater	
Concentration	0,94	mg/l

Type of value	PNEC	
Type	Saltwater	
Concentration	0,094	mg/l

Type of value	PNEC	
Type	Soil	
Concentration	1,48	mg/kg

Type of value	PNEC	
Type	Freshwater sediment	
Concentration	10,2	mg/kg

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

Type of value	PNEC	
Type	Man via the environment	
Concentration	8,2	mg/kg/d

Type of value	PNEC	
Type	Marine sediment	

Concentration	1,2	mg/kg

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-Propenoic acid, reaction products with pentaerythritol

Type of value	PNEC	
Type	Freshwater	
Concentration	0,003	mg/l
Type of value	PNEC	
Type	Freshwater sediment	
Concentration	1,73	mg/kg
Type of value	PNEC	
Type	Marine sediment	
Concentration	0,173	mg/kg
Type of value	PNEC	
Type	Sewage treatment plant (STP)	
Concentration	10	mg/l
Type of value	PNEC	
Type	Soil	
Concentration	0,34	mg/kg

Acrylic acid

Type of value	PNEC	
Type	Freshwater	
Concentration	0,003	mg/l
Type of value	PNEC	
Type	Marine	
Concentration	0,3	µg/l
Type of value	PNEC	
Type	Sewage treatment plant (STP)	
Concentration	0,9	mg/l
Type of value	PNEC	
Type	Freshwater sediment	
Concentration	0,024	mg/kg

Type of value	PNEC	
Type	Marine sediment	
Concentration	0,002	mg/kg
Type of value	PNEC	
Type	Soil	
Concentration	1	mg/kg
Type of value	PNEC	
Type	Secondary poisoning	
Concentration	0,03	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

Physical state	liquid	
Colour	colourless	
Odour	characteristic	

Melting point

Remarks	not determined

Freezing point

Remarks	not determined

Boiling point or initial boiling point and boiling range

Value	101	°C

Flammability

evaluation	Not applicable

Upper and lower explosive limits

Lower explosion limit	2,1	%(V)
Upper explosion limit	12,5	%(V)

Flash point

Value	10	°C
Method	closed cup	

Auto-ignition temperature

Value	430	°C

Decomposition temperature

Remarks	not determined

Self Accelerating Decomposition / Polymerization Temperature (SADT/SAPT)

Value	>	50	°C

pH value

Remarks	not determined

Viscosity

dynamic

Value	20		mPa.s
Temperature	23	°C	

Solubility(ies)

Remarks	not determined

Partition coefficient n-octanol/water (log value)

Remarks	not determined

Vapour pressure

Value	47		hPa
Temperature	20	°C	

Density and/or relative density

Value	0,98		g/cm³
Temperature	20	°C	

Relative vapour density

Remarks	not determined

9.2. Other information

Odour threshold

Remarks	not determined

Evaporation rate

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		4.331,98		mg/kg
		25		
Method	calculated value according to GHS (e.g see UN GHS)			

Acute oral toxicity (Components)

Methyl methacrylate monomer, stabilized

Species	rat			
LD50	appr.	7900		mg/kg

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

Species	rat			
LD50	>	5000		mg/kg
Method	OECD 401			

2-Propenoic acid, reaction products with pentaerythritol

Species	rat			
LD50		540		mg/kg
Method	OECD 401			

2-hydroxy-2-methylpropiophenone

Species	rat			
LD50		1694		mg/kg
Method	OECD 401			

Acrylic acid

Species	rat (male)				
LD50	appr.	1000	to	2000	mg/kg
Method	OECD 423				

Acute dermal toxicity

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

Acute dermal toxicity (Components)

Methyl methacrylate monomer, stabilized

Species	rabbit		
LD50	>	5000	mg/kg
Method	OECD 402		

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

Species	rat		
LD50	>	2000	mg/kg
Method	OECD 402		

2-Propenoic acid, reaction products with pentaerythritol

Species	rabbit		
LD50	>	2000	mg/kg
Method	OECD 402		

2-hydroxy-2-methylpropiophenone

Species	rat		
LD50		6929	mg/kg
Method	OECD 402		

Acrylic acid

Species	rabbit		
LD50	>	2000	mg/kg
Method	OECD 402		

Acute inhalational toxicity

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

Acute inhalative toxicity (Components)

Methyl methacrylate monomer, stabilized

Species	rat		
LC50		29,8	mg/l
Duration of exposure		4 h	
Administration/Form	Vapors		

Acrylic acid

Species	rat		
LC50	>	5,1	mg/l
Duration of exposure		4 h	
Administration/Form	Vapors		
Method	OECD 403		

Skin corrosion/irritation

evaluation: irritant

Remarks: The classification criteria are met.

Skin corrosion/irritation (Components)

Methyl methacrylate monomer, stabilized

Species	Human
evaluation	irritant

2-Propenoic acid, reaction products with pentaerythritol

Species	rabbit
evaluation	irritant
Method	OECD 404

Acrylic acid

Species	rabbit
evaluation	corrosive
Method	OECD 404

Serious eye damage/irritation

evaluation: corrosive

Remarks The classification criteria are met.

Serious eye damage/irritation (Components)

2-Propenoic acid, reaction products with pentaerythritol

Species rabbit
evaluation corrosive
Method OECD 405

Acrylic acid

Species rabbit
evaluation corrosive

Sensitization

evaluation May cause sensitization by skin contact.
Remarks The classification criteria are met.

Sensitization (Components)

Methyl methacrylate monomer, stabilized

Route of exposure dermal
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.

2-Propenoic acid, reaction products with pentaerythritol

Species guinea pig
evaluation non-sensitizing
Method OECD 406

2-Propenoic acid, reaction products with pentaerythritol

Species Human
evaluation Possible sensitization potential with human beings.

Subacute, subchronic, chronic toxicity

Remarks not determined

Mutagenicity

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

Reproductive toxicity

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 The classification criteria are met.
evaluation May cause respiratory irritation.

Repeated exposure

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

Specific Target Organ Toxicity (STOT) (Components)

Methyl methacrylate monomer, stabilized

Single exposure

evaluation	May cause respiratory irritation. Route of exposure inhalative

Acrylic acid

Single exposure

evaluation	May cause respiratory irritation. Route of exposure inhalative
Species	rat

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)

Methyl methacrylate monomer, stabilized

Species	rainbow trout (Oncorhynchus mykiss)		
LC50	85		mg/l
Duration of exposure	96	h	

Methyl methacrylate monomer, stabilized

Species	zebra fish (Brachydanio rerio)		
NOEC	9,4		mg/l
Duration of exposure	35	d	
Method	OECD 210		

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

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

2-Propenoic acid, reaction products with pentaerythritol

Species	carp (Cyprinus carpio)		
LC50	3,2		mg/l
Duration of exposure	96	h	
Method	OECD 203		

2-hydroxy-2-methylpropiophenone

Species	golden orfe (Leuciscus idus)		
EC50	160		mg/l
Duration of exposure	48	h	

Acrylic acid

Species	rainbow trout (Oncorhynchus mykiss)		
LC50	27		mg/l
Duration of exposure	96	h	

Acrylic acid

Species	Oryzias latipes		
NOEC	>= 10,1		mg/l
Duration of exposure	45	d	
Method	OECD 210		

Daphnia toxicity (Components)

Methyl methacrylate monomer, stabilized

Species	Daphnia magna		
EC50	69		mg/l
Duration of exposure	48	h	

Methyl methacrylate monomer, stabilized

Species	Daphnia magna		
NOEC	37		mg/l
Duration of exposure	21	d	
Method	OECD 211		

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

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

2-Propenoic acid, reaction products with pentaerythritol

Species	Daphnia magna		
EC50	13		mg/l
Duration of exposure	48	h	
Method	OECD 202		

2-hydroxy-2-methylpropiophenone

Species	Daphnia magna		
EC50	119		mg/l
Duration of exposure	48	h	
Method	OECD 202		

Acrylic acid

Species	Daphnia magna		
EC50	95		mg/l
Duration of exposure	48	h	

Acrylic acid

Species	Daphnia magna		
NOEC	19		mg/l
Duration of exposure	21	d	

Algae toxicity (Components)

Methyl methacrylate monomer, stabilized

Species	Pseudokirchneriella subcapitata		
EC50	> 110		mg/l
Duration of exposure	72	h	
Method	OECD 201		

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

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

2-Propenoic acid, reaction products with pentaerythritol

Species	Pseudokirchneriella subcapitata			
EL50	33			mg/l
Duration of exposure	96	h		
Method	OECD 201			

2-hydroxy-2-methylpropiophenone

Species	Scenedesmus subspicatus			
ErC50	1,95			mg/l
Duration of exposure	72	h		
Method	OECD 201			

2-hydroxy-2-methylpropiophenone

Species	Scenedesmus subspicatus			
NOEC	0,194			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-Propenoic acid, reaction products with pentaerythritol

Species	activated sludge			
EC50	> 100			mg/l
Duration of exposure	3	h		
Method	OECD 209			

2-hydroxy-2-methylpropiophenone

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

Acrylic acid

Species	activated sludge			
NOEC	100			mg/l
Duration of exposure	30	min		

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-Propenoic acid, reaction products with pentaerythritol

Value	6	to	14	%
Duration of test	28	d		
evaluation	not readily degradable			

Methyl methacrylate monomer, stabilized

Value	94			%
Duration of test	14	d		
evaluation	Readily biodegradable (according to OECD criteria)			
Method	OECD 301 C			

Ready degradability (Components)

2-hydroxy-2-methylpropiophenone

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)

Methyl methacrylate monomer, stabilized

log Pow	1,38	
Temperature	20	°C
Method	OECD 107	

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

log Pow	3,1	
Temperature	23	°C

2-Propenoic acid, reaction products with pentaerythritol

log Pow	3,11	

Acrylic acid

log Pow	0,46	
Temperature	25	°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 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	1247	1247	1247
14.2. UN proper shipping name	METHYL METHACRYLATE MONOMER, STABILIZED, Solution	METHYL METHACRYLATE MONOMER, STABILIZED, Solution	METHYL METHACRYLATE MONOMER, STABILIZED, Solution
14.3. Transport hazard class(es)	3	3	3
Label			
14.4. Packing group	II	II	II
Limited Quantity	1 l	1 l	
Transport category	2		
14.5. Environmental hazards	-		
Tunnel restriction code	D/E		

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

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.

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)

Flam. Liq. 2	H225	On basis of test data
Skin Irrit. 2	H315	Calculation method
Eye Dam. 1	H318	Calculation method
Skin Sens. 1	H317	Calculation method
Repr. 1B	H360Fd.	Calculation method
STOT SE 3	H335	Calculation method
Aquatic Chronic 3	H412	Calculation method

Hazard statements listed in Chapter 2/3

H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H360Fd.	May damage fertility. Suspected of damaging the unborn child.
H400	Very toxic to aquatic life.
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

Acute Tox. 4	Acute toxicity, Category 4
Aquatic Acute 1	Hazardous to the aquatic environment, acute, Category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic, Category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic, Category 3
Eye Dam. 1	Serious eye damage, Category 1
Flam. Liq. 2	Flammable liquid, Category 2
Flam. Liq. 3	Flammable liquid, Category 3
Repr. 1B	Reproductive toxicity, Category 1B
Skin Corr. 1A	Skin corrosion, Category 1A
Skin Irrit. 2	Skin irritation, Category 2
Skin Sens. 1	Skin sensitization, Category 1
Skin Sens. 1B	Skin sensitization, Category 1B
STOT SE 3	Specific target organ toxicity - single exposure, Category 3

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.