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

1.1. Product identifier

Thermosoft Lack

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

Use of the substance/preparation

Light-curing lacquer for earmolds

1.3. Details of the supplier of the safety data sheet

Address/Manufacturer

Dreve Otoplastik GmbH
Max-Planck-Straße 31
59423 Unna

Telephone no.	+49 2303 8807-0
Fax no.	+49 2303 8807-29
Information provided by / telephone	Department Research & Development: Fax: +49 2303 8807-562
E-mail address of person responsible for this SDS	sicherheitsdatenblatt@dreve.de

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 Irrit. 2	H319
Skin Sens. 1	H317
STOT SE 3	H335

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.
H319	Causes serious eye irritation.
H317	May cause an allergic skin reaction.
H335	May cause respiratory irritation.

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.
P501.1	Dispose of contents/container to industrial incineration plant.

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

contains: Methyl methacrylate monomer, stabilized; Ethyl methylacrylate, stabilized; 2-hydroxyethyl methacrylate; 2-ethylhexyl acrylate; 2-Propenoic acid, reaction products with pentaerythritol

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

Ethyl methylacrylate, stabilized

CAS No.	97-63-2			
EINECS no.	202-597-5			
Registration no.	01-2119490215-40			
Concentration	>= 20	< 25	%	

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

Flam. Liq. 2	H225
Skin Irrit. 2	H315
Eye Irrit. 2	H319
Skin Sens. 1	H317
STOT SE 3	H335

2-ethylhexyl acrylate

CAS No. 103-11-7
EINECS no. 203-080-7
Registration no. 01-2119453158-37
Concentration >= 1 < 10 %
Classification (Regulation (EC) No. 1272/2008)

Aquatic Chronic 3	H412
Skin Irrit. 2	H315
Skin Sens. 1	H317
STOT SE 3	H335

ATE inhalative, Dust/Mist 1,19 mg/l
Additional remarks:
CLP Regulation (EC) No 1272/2008, Annex VI, Note D

2-hydroxyethyl methacrylate

CAS No. 868-77-9
EINECS no. 212-782-2
Registration no. 01-2119490169-29
Concentration >= 1 < 10 %
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

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

CAS No. 75980-60-8
EINECS no. 278-355-8
Registration no. 01-2119972295-29
Concentration >= 1 < 3 %
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).

2-Propenoic acid, reaction products with pentaerythritol

CAS No. 1245638-61-2
EINECS no. 629-850-6
Registration no. 01-2119490003-49
Concentration >= 0,1 < 1 %
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

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

Remove contaminated clothing immediately and dispose of safely. In case of persistent symptoms consult doctor.

After inhalation

Ensure supply of fresh air. Seek medical advice immediately.

After skin contact

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

After eye contact

Separate eyelids, wash the eyes thoroughly with water (15 min.). Seek medical advice immediately.

After ingestion

Call in a physician immediately and show him the Safety Data Sheet.

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.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Keep away sources of ignition. Ensure adequate ventilation. Use personal protective clothing. Avoid contact with skin, eyes and clothing.

6.2. Environmental precautions

Prevent spread over a wide area (e.g. by containment or oil barriers). Do not allow to enter drains or waterways. Do not discharge into the subsoil/soil.

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. 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). Provide suitable exhaust ventilation at processing machines. Avoid formation of aerosols. Avoid impact, friction and electro-static loading; risk of ignition!. Use explosion-proof apparatus and fittings. 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

Store product in closed containers.

Hints on storage assembly

Do not store with strong oxidizing agents.

Further information on storage conditions

Keep container tightly closed. Keep container 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

List	TRGS 900			
Type	AGW			
Value	210	mg/m³	50	ppm(V)

Maximum limit value: 2(I) Pregnancy group: Y; Status: Jan 2006; Remarks: DFG

2-ethylhexyl acrylate

List	TRGS 900			
Value	38	mg/m³	5	ppm(V)

Maximum limit value: 1(I); Skin resorption / sensibilisation: Sh; Pregnancy group: Y; Status: 07/13; Remarks: DFG

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	208	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	dermal	
Mode of action	Systemic effects	
Concentration	13,7	mg/kg/d

Type of value	Derived No Effect Level (DNEL)	
Reference group	Worker	
Duration of exposure	Short term	
Route of exposure	inhalative	
Concentration	416	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	0,0015	mg/cm²

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/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	8,2	mg/kg/d

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	inhalative	
Mode of action	Systemic effects	
Concentration	74,3	mg/m³

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

2-hydroxyethyl methacrylate

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	4,9	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	1,39	mg/kg/d
Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	

Duration of exposure	Long term	
Route of exposure	inhalative	
Mode of action	Systemic effects	
Concentration	1,45	mg/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	0,83	mg/kg/d

2-ethylhexyl acrylate

Type of value	Derived No Effect Level (DNEL)	
Reference group	Worker	
Route of exposure	dermal	
Mode of action	Acute effects	
Concentration	0,242	mg/cm²

Type of value	Derived No Effect Level (DNEL)	
Reference group	Worker	
Route of exposure	inhalative	
Mode of action	Acute effects	
Concentration	37,5	mg/m³

Type of value	Derived No Effect Level (DNEL)	
Reference group	Worker	
Route of exposure	inhalative	
Mode of action	Chronic effects	
Concentration	37,5	mg/m³

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	0,0032	mg/l
Type of value	PNEC	
Type	Saltwater	
Concentration	0,0003	mg/l
Type of value	PNEC	
Type	Water (intermittent release)	
Concentration	0,032	mg/l
Type of value	PNEC	
Type	Freshwater sediment	
Concentration	0,151	mg/kg
Type of value	PNEC	
Type	Marine sediment	
Concentration	0,0151	mg/kg
Type of value	PNEC	
Type	Sewage treatment plant (STP)	
Concentration	10	mg/l
Type of value	PNEC	
Type	Soil	
Concentration	0,0283	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

2-ethylhexyl acrylate

Type of value	PNEC	
Type	Freshwater	
Concentration	0,00272	mg/l
Type of value	PNEC	
Type	Freshwater sediment	
Concentration	0,126	mg/kg
Type of value	PNEC	
Type	Saltwater	
Concentration	0,00027	mg/l
Type of value	PNEC	
Type	Water (intermittent release)	
Concentration	0,011	mg/l
Type of value	PNEC	
Type	Soil	
Concentration	1	mg/kg

8.2. Exposure controls

General protective and hygiene measures

Do not smoke during work time. Do not inhale gases/vapours/aerosols. Do not eat or drink during work time. Storage of foodstuffs in work rooms is forbidden. Take off immediately all contaminated clothing. Wash hands before breaks and after work.

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

Tightly fitting 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	1,8	%(V)	
Upper explosion limit	12,5	%(V)	
Flash point			
Value	10	°C	
Method	closed cup		
Ignition temperature			
Remarks	not determined		
Decomposition temperature			
Remarks	not determined		
Self Accelerating Decomposition / Polymerization Temperature (SADT/SAPT)			
Value	> 50	°C	
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

Value	47		hPa
Temperature	20	°C	

Density and/or relative density

Value	1,02		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

Solvent content

Value: 0,0 %

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

No hazardous reactions known. Evolution of flammable mixtures possible in air when heated above flash point and/or during spraying or misting.

10.5. Incompatible materials

None known

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)

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		

Ethyl methylacrylate, stabilized

Species	rat		
LD50		13424	mg/kg

2-hydroxyethyl methacrylate

Species	rat		
LD50	>	5564	mg/kg

2-ethylhexyl acrylate

Species	rat		
LD50	appr.	4435	mg/kg
Method	OECD 401		

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-hydroxyethyl methacrylate

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

2-ethylhexyl acrylate

Species	rabbit		
LD50		7522	mg/kg

Acute inhalational toxicity

ATE		16,1446	mg/l
Administration/Form	Dust/Mist		

Method	calculated value (Regulation (EC) No. 1272/2008)		
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		

Ethyl methylacrylate, stabilized

Species	rat		
LC50	55		mg/l
Duration of exposure	4	h	
Method	OECD 403		

2-ethylhexyl acrylate

Species	rat		
LC0	> 1,19		mg/l
Duration of exposure	8	h	
Administration/Form	Dust/Mist		
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

Ethyl methylacrylate, stabilized

Species	rabbit
evaluation	Moderately irritating

2-ethylhexyl acrylate

Species	rabbit
evaluation	irritant

Serious eye damage/irritation

evaluation	irritant
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

Ethyl methylacrylate, stabilized

Species	rabbit
evaluation	slightly irritant

2-hydroxyethyl methacrylate

Species	rabbit
evaluation	slightly irritant

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.

Ethyl methylacrylate, stabilized

Route of exposure	dermal
Species	mouse
evaluation	sensitizing

2-hydroxyethyl methacrylate

Remarks	Possible sensitization potential with human beings.

2-ethylhexyl acrylate

Route of exposure	dermal
Species	mouse
evaluation	sensitizing
Method	OECD 429

Subacute, subchronic, chronic toxicity

Remarks	not determined

Mutagenicity

Remarks	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.

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

Ethyl methylacrylate, stabilized

Single exposure

evaluation: May cause respiratory irritation. Route of exposure inhalative

2-ethylhexyl acrylate

Single exposure

evaluation: May cause respiratory irritation. Route of exposure inhalative

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.

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	> 79		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		

Ethyl methylacrylate, stabilized

Species	rainbow trout (Oncorhynchus mykiss)		
LC50	100		mg/l

Duration of exposure	96	h	
Method	OECD 203		

2-hydroxyethyl methacrylate

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

2-ethylhexyl acrylate

Species	rainbow trout (Oncorhynchus mykiss)		
LC50	1,81		mg/l
Duration of exposure	96	h	
Source	ECHA		

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		

Ethyl methylacrylate, stabilized

Species	Daphnia magna		
EC50	> 66		mg/l
Duration of exposure	48	h	
Method	OECD 202		

Ethyl methylacrylate, stabilized

Species	Daphnia magna		
NOEC	18		mg/l
Duration of exposure	21	d	
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		

2-ethylhexyl acrylate

Species	Daphnia magna		
EC50	1,3		mg/l
Duration of exposure	48	h	
Method	OECD 202		
Source	ECHA		

2-ethylhexyl acrylate

Species	Daphnia magna		
EC10	0,91		mg/l
Duration of exposure	21	d	
Method	OECD 211		
Source	ECHA		

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		

Ethyl methylacrylate, stabilized

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

Ethyl methylacrylate, stabilized

NOEC	110		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		

2-ethylhexyl acrylate

Species	Desmodesmus subspicatus		
EC50	1,71		mg/l
Duration of exposure	72	h	
Method	OECD 201		
Source	ECHA		

Bacteria toxicity (Components)

Methyl methacrylate monomer, stabilized

Species	activated sludge		
NOEC	> 100		mg/l
Duration of exposure	14	d	

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				

Ethyl methylacrylate, stabilized

Species	activated sludge				
EC50		1000	to	1800	mg/l
Duration of exposure		30	min		
Method	OECD 209				

2-hydroxyethyl methacrylate

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

2-ethylhexyl acrylate

Species	activated sludge				
EC20	>	1000			mg/l
Duration of exposure		30	min		
Source	ECHA				

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				

2-hydroxyethyl methacrylate

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

Ready degradability (Components)

Methyl methacrylate monomer, stabilized

Value		94			%
Duration of test		14	d		

Ethyl methylacrylate, stabilized

2-ethylhexyl acrylate

Value		70	to	80	%
Duration of test		15	d		
Source	ECHA				

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

Ethyl methylacrylate, stabilized

log Pow	1,87

2-hydroxyethyl methacrylate

log Pow	0,42	
Temperature	25	°C
Method	OECD 107	

2-ethylhexyl acrylate

log Pow	4,64	
Temperature	25	°C
Method	OECD 107	
Source	ECHA	

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)			

Ethyl methylacrylate, stabilized

BCF	8

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.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal recommendations for the product

Must not be disposed together with household garbage.
Allocation of a waste code number, according to the European Waste Catalogue (EWC), should be carried out in agreement with the regional waste disposal company.

Disposal recommendations for packaging

Packaging that cannot be cleaned should be disposed off in agreement with the regional waste disposal company.

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

15.2. 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 Irrit. 2	H319	Calculation method
Skin Sens. 1	H317	Calculation method
STOT SE 3	H335	Calculation method

Hazard statements listed in Chapter 2/3

H225	Highly flammable liquid and vapour.
H302	Harmful if swallowed.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H361f	Suspected of damaging fertility.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

CLP categories listed in Chapter 2/3

Acute Tox. 4	Acute toxicity, Category 4
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
Eye Irrit. 2	Eye irritation, Category 2
Flam. Liq. 2	Flammable liquid, Category 2
Repr. 2	Reproductive toxicity, Category 2
Skin Irrit. 2	Skin irritation, Category 2
Skin Sens. 1	Skin sensitization, Category 1
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.