

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

1.1. Product identifier

Product form : Mixture
 Product name : Dental LT Clear
 Product group : Trade product

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

1.2.1. Relevant identified uses

Main use category : Professional use
 Use of the substance/mixture : Manufacture of 3D-printed applications for the dental industry
 Use of the substance/mixture : Dentistry

Title	Use descriptors
Dental LT Clear	SU20

Full text of use descriptors: see section 16

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Supplier

Vertex Dental
 Centurionbaan 190
 3769 AV Soesterberg - The Netherlands
 T +31 886160400
info@vertex-dental.com - www.vertex-dental.com

Distributor

Formlabs, Inc.
 35 Medford Street, Suite #201
 T North America call +1 800 255 3924
 Worldwide Intl. call +01 813 248 0585
 Reference Contract Number MIS47075633

1.4. Emergency telephone number

Emergency number : (Only for the purpose of informing medical personnel in cases of accidental intoxications. The emergency phone number is 24 hours/day available.)

Country	Organisation/Company	Address	Emergency number	Comment
United Kingdom	National Poisons Information Service (Birmingham Centre) City Hospital	Dudley Road B18 7QH Birmingham	0344 892 0111	

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Serious eye damage/eye irritation, Category 2 H319
 Skin sensitisation, Category 1 H317
 Hazardous to the aquatic environment — Chronic Hazard, Category 2 H411

Full text of H statements : see section 16

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP) :



GHS07

GHS09

Signal word (CLP) : Warning

Hazardous ingredients : 2-hydroxyethyl acrylate; Acrylic acid, monoester with propane-1,2-diol; ethylene dimethacrylate; 2-hydroxyethyl methacrylate; diphenyl(2,4,6- trimethylbenzoyl)phosphine oxide; Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl

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Hazard statements (CLP)	sebacate : H317 - May cause an allergic skin reaction. H319 - Causes serious eye irritation. H411 - Toxic to aquatic life with long lasting effects.
Precautionary statements (CLP)	: P280 - Wear protective gloves, eye protection, face protection. P333+P313 - If skin irritation or rash occurs: Get medical advice/attention. P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337+P313 - If eye irritation persists: Get medical advice/attention. P273 - Avoid release to the environment. P501 - Dispose of contents/container to an approved waste disposal plant.

2.3. Other hazards

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	% w/w (% w/w)	Classification according to Regulation (EC) No. 1272/2008 [CLP]
7,7,9(or 7,9,9)-trimethyl-4,13-dioxo-3,14-dioxo-5,12-diazahexadecane-1,16-diyl bismethacrylate	(CAS-No.) 72869-86-4 (EC-No.) 276-957-5 (REACH-no) 01-2120751202-68	50 - 75	Skin Sens. 1B, H317 Aquatic Chronic 2, H411
2-hydroxyethyl methacrylate (Note D)	(CAS-No.) 868-77-9 (EC-No.) 212-782-2 (EC Index-No.) 607-124-00-X (REACH-no) 01-2119490169-29	10 - 20	Eye Irrit. 2, H319 Skin Sens. 1, H317
Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate	(CAS-No.) 1065336-91-5 (EC-No.) 915-687-0 (REACH-no) 01-2119491304-40	<10	Skin Sens. 1A, H317 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
diphenyl(2,4,6- trimethylbenzoyl)phosphine oxide	(CAS-No.) 75980-60-8 (EC-No.) 278-355-8 (EC Index-No.) 015-203-00-X (REACH-no) 01-2119972295-29	1 - 5	Skin Sens. 1B, H317 Repr. 2, H361f Aquatic Chronic 2, H411
Acrylic acid, monoester with propane-1,2-diol (Note C)(Note D)	(CAS-No.) 25584-83-2 (EC-No.) 247-118-0 (EC Index-No.) 607-108-00-2 (REACH-no) 01-2119459351-41	0,1 - 1	Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Dermal), H312 Skin Corr. 1B, H314 Skin Sens. 1, H317 Aquatic Chronic 3, H412
ethylene dimethacrylate (Note D)	(CAS-No.) 97-90-5 (EC-No.) 202-617-2 (EC Index-No.) 607-114-00-5 (REACH-no) 01-2119965172-38	<10	STOT SE 3, H335 Skin Sens. 1, H317
2-hydroxyethyl acrylate (Note D)	(CAS-No.) 818-61-1 (EC-No.) 212-454-9 (EC Index-No.) 607-072-00-8 (REACH-no) 01-2119459345-34	0,1 - 1	Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Dermal), H312 Skin Corr. 1B, H314 Skin Sens. 1, H317 Aquatic Chronic 3, H412
mequinol, 4-methoxyphenol, hydroquinone monomethyl ether substance with national workplace exposure limit(s) (GB)	(CAS-No.) 150-76-5 (EC-No.) 205-769-8 (EC Index-No.) 604-044-00-7 (REACH-no) 01-2119541813-40	< 0,1	Acute Tox. 4 (Oral), H302 Eye Irrit. 2, H319 Skin Sens. 1, H317 Repr. 2, H361d Aquatic Chronic 3, H412

Specific concentration limits:

Name	Product identifier	Specific concentration limits
Acrylic acid, monoester with propane-1,2-diol	(CAS-No.) 25584-83-2 (EC-No.) 247-118-0 (EC Index-No.) 607-108-00-2 (REACH-no) 01-2119459351-41	(C >= 0,2) Skin Sens. 1, H317
ethylene dimethacrylate	(CAS-No.) 97-90-5 (EC-No.) 202-617-2 (EC Index-No.) 607-114-00-5 (REACH-no) 01-2119965172-38	(C >= 10) STOT SE 3, H335
2-hydroxyethyl acrylate	(CAS-No.) 818-61-1 (EC-No.) 212-454-9 (EC Index-No.) 607-072-00-8 (REACH-no) 01-2119459345-34	(C >= 0,2) Skin Sens. 1, H317

Note C : Some organic substances may be marketed either in a specific isomeric form or as a mixture of several isomers. In this case the supplier

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must state on the label whether the substance is a specific isomer or a mixture of isomers.

Note D : Certain substances which are susceptible to spontaneous polymerisation or decomposition are generally placed on the market in a stabilised form. It is in this form that they are listed in Part 3.

However, such substances are sometimes placed on the market in a non-stabilised form. In this case, the supplier must state on the label the name of the substance followed by the words "non-stabilised".

Full text of H-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

- First-aid measures general : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).
- First-aid measures after inhalation : Assure fresh air breathing. Allow the victim to rest.
- First-aid measures after skin contact : Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. If skin irritation or rash occurs: Get medical advice/attention. Wash contaminated clothing before reuse.
- First-aid measures after eye contact : Immediately rinse with water for a prolonged period while holding the eyelids wide open. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
- First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention.

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

No additional information available

4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

- Suitable extinguishing media : Foam. Dry powder. Carbon dioxide. Water spray. Sand.
- Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

No additional information available

5.3. Advice for firefighters

- Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire fighting water from entering the environment.
- Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

- Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

No additional information available

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

- Methods for cleaning up : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Store away from other materials.

6.4. Reference to other sections

Concerning personal protective equipment to use, see section 8. Concerning disposal elimination after cleaning, see section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Precautions for safe handling : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapour.
- Hygiene measures : Wash hands thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse.

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7.2. Conditions for safe storage, including any incompatibilities

Storage conditions	: Keep only in original container. Keep container closed when not in use. To avoid the risks of fires, all contaminated materials should be stored in purpose-built containers or in metal containers with tight-fitting self-closing lids.
Incompatible products	: Strong bases. Strong acids.
Incompatible materials	: Sources of ignition. Direct sunlight.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

mequinol, 4-methoxyphenol, hydroquinone monomethyl ether (150-76-5)		
United Kingdom	WEL TWA (mg/m ³)	5 mg/m ³

Acrylic acid, monoester with propane-1,2-diol (25584-83-2)	
DNEL/DMEL (Workers)	
Long-term - local effects, inhalation	2,4 mg/m ³
DNEL/DMEL (General population)	
Long-term - local effects, inhalation	1,2 mg/m ³
PNEC (Water)	
PNEC aqua (freshwater)	0,0096 mg/l
PNEC aqua (marine water)	0,00096 mg/l
PNEC aqua (intermittent, freshwater)	0,0361 mg/l
PNEC (Sediment)	
PNEC sediment (freshwater)	0,036 mg/kg bw
PNEC sediment (marine water)	0,0036 mg/kg bw
PNEC (Soil)	
PNEC soil	0,00156 mg/kg bw
PNEC (STP)	
PNEC sewage treatment plant	10 mg/l
ethylene dimethacrylate (97-90-5)	
DNEL/DMEL (Workers)	
Long-term - systemic effects, dermal	1,3 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	2,45 mg/m ³
DNEL/DMEL (General population)	
Long-term - systemic effects, oral	0,83
Long-term - systemic effects, inhalation	1,45 mg/m ³
Long-term - systemic effects, dermal	0,83 mg/kg bodyweight/day
PNEC (Water)	
PNEC aqua (freshwater)	0,139 mg/l
PNEC aqua (marine water)	0,0139 mg/l
PNEC aqua (intermittent, freshwater)	0,15 mg/l
PNEC (Sediment)	
PNEC sediment (freshwater)	1,6 mg/kg bw
PNEC sediment (marine water)	0,16 mg/kg bw
PNEC (Soil)	
PNEC soil	0,239 mg/kg bw
PNEC (STP)	
PNEC sewage treatment plant	57 mg/l
diphenyl(2,4,6- trimethylbenzoyl)phosphine oxide (75980-60-8)	
DNEL/DMEL (Workers)	
Long-term - systemic effects, dermal	1 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	3,5 mg/m ³
PNEC (Water)	
PNEC aqua (freshwater)	0,00353 mg/l
PNEC aqua (marine water)	0,000353 mg/l
PNEC aqua (intermittent, freshwater)	0,0353 mg/l
PNEC (Sediment)	
PNEC sediment (freshwater)	0,29 mg/kg bw

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diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide (75980-60-8)	
PNEC sediment (marine water)	0,029 mg/kg bw
PNEC (Soil)	
PNEC soil	0,0557 mg/kg bw
Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate (1065336-91-5)	
DNEL/DMEL (Workers)	
Long-term - systemic effects, dermal	2 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	3,53 mg/m ³
DNEL/DMEL (General population)	
Long-term - systemic effects, oral	0,5 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	0,87 mg/m ³
Long-term - systemic effects, dermal	1 mg/kg bodyweight/day
PNEC (Water)	
PNEC aqua (freshwater)	0,0022 mg/l
PNEC aqua (marine water)	0,22 mg/l
PNEC aqua (intermittent, freshwater)	0,009 mg/l
PNEC (Sediment)	
PNEC sediment (freshwater)	1,05 mg/kg bw
PNEC sediment (marine water)	0,11 mg/kg bw
PNEC (Soil)	
PNEC soil	0,21 mg/kg bw
PNEC (STP)	
PNEC sewage treatment plant	1 mg/l

8.2. Exposure controls

Personal protective equipment:

Gloves. Safety glasses. Protective clothing.

Hand protection:

Wear suitable gloves resistant to chemical penetration. The protective gloves to be used must comply with the specifications of EC directive 89/686/EEC and the resultant standard EN 374. penetration time (maximum wearing period): > 480 m. Suitable material: Nitrile rubber, Chloroprene rubber, Polyvinylchloride (PVC). Layer thickness : 0,4 mm - 0,5 mm - 0,7 mm

Eye protection:

Wear eye glasses with side protection according to EN 166.

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

No personal breathing protective equipment is normally required. In case of inadequate ventilation wear respiratory protection. particle filter device (DIN EN 143)

Personal protective equipment symbol(s):



Other information:

Do not eat, drink or smoke when using this product. Avoid contact with skin and eyes.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: Viscous.
Colour	: clear.
Odour	: Ester.
Odour threshold	: No data available
pH	: No data available
Relative evaporation rate (butylacetate=1)	: No data available

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Melting point	: No data available
Freezing point	: No data available
Boiling point	: > 200 °C
Flash point	: > 150 °C
Auto-ignition temperature	: 380 °C
Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: 1,1 - 1,2 Relative density, liquid (water=1)
Solubility	: Soluble in organic solvents. Water: Insoluble
Log Pow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: 1,1 - 1,3 Pa.s
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data available

9.2. Other information

VOC content : 0 %

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

Not established.

10.3. Possibility of hazardous reactions

Not established.

10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures.

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

No additional information available

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified

7,7,9(or 7,9,9)-trimethyl-4,13-dioxo-3,14-dioxa-5,12-diazahexadecane-1,16-diyl bismethacrylate (72869-86-4)

LD50 oral rat	5000 mg/kg
LD50 dermal rat	2000 mg/kg

mequinol, 4-methoxyphenol, hydroquinone monomethyl ether (150-76-5)

LD50 dermal rat	2000 mg/kg
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2-hydroxyethyl acrylate (818-61-1)

LD50 oral rat	540 mg/kg
LD50 dermal rat	1000 mg/kg bw/day

Acrylic acid, monoester with propane-1,2-diol (25584-83-2)

LD50 oral rat	820 mg/kg
LD50 dermal rat	1000 mg/kg
LC50 inhalation rat (mg/l)	380 mg/m ³ (8 h)

ethylene dimethacrylate (97-90-5)

LD50 oral rat	8300 ml/kg
LD50 dermal rat	2000 mg/kg

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2-hydroxyethyl methacrylate (868-77-9)	
LD50 oral rat	5564 mg/kg
LD50 dermal rabbit	5000 mg/kg
diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide (75980-60-8)	
LD50 oral rat	5000 mg/kg
LD50 dermal rat	2000 mg/kg
Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate (1065336-91-5)	
LD50 oral rat	3230 mg/kg
LD50 dermal rat	3170 mg/kg
Skin corrosion/irritation	: Not classified
Serious eye damage/irritation	: Causes serious eye irritation.
Respiratory or skin sensitisation	: May cause an allergic skin reaction.
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
STOT-single exposure	: Not classified
STOT-repeated exposure	: Not classified
7,7,9(or 7,9,9)-trimethyl-4,13-dioxo-3,14-dioxo-5,12-diazahexadecane-1,16-diyl bismethacrylate (72869-86-4)	
NOAEL (oral, rat, 90 days)	100 - 300 mg/kg bodyweight/day
mequinol, 4-methoxyphenol, hydroquinone monomethyl ether (150-76-5)	
LOAEL (oral, rat, 90 days)	300 mg/kg bodyweight/day
NOAEL (oral, rat, 90 days)	150 mg/kg bodyweight/day
2-hydroxyethyl acrylate (818-61-1)	
NOAEL (oral, rat, 90 days)	196 - 305
NOAEC (inhalation, rat, dust/mist/fume, 90 days)	2,4 mg/m ³
Acrylic acid, monoester with propane-1,2-diol (25584-83-2)	
LOAEC (inhalation, rat, vapour, 90 days)	24 mg/m ³ air
NOAEL (oral, rat, 90 days)	196 - 305 mg/kg bodyweight/day
NOAEC (inhalation, rat, dust/mist/fume, 90 days)	2,4 mg/m ³
ethylene dimethacrylate (97-90-5)	
NOAEL (oral, rat, 90 days)	100 - 1500 mg/kg bodyweight/day
2-hydroxyethyl methacrylate (868-77-9)	
NOAEL (oral, rat, 90 days)	100 - 1500 mg/kg bodyweight/day
diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide (75980-60-8)	
LOAEL (oral, rat, 90 days)	250 - 300 mg/kg bodyweight/day
NOAEL (oral, rat, 90 days)	50 - 100 mg/kg bodyweight/day
Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate (1065336-91-5)	
LOAEL (oral, rat, 90 days)	29 mg/kg bodyweight/day
NOAEL (oral, rat, 90 days)	29 - 300 mg/kg bodyweight/day
Aspiration hazard	: Not classified

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general	: Avoid release to the environment.
Acute aquatic toxicity	: Not classified
Chronic aquatic toxicity	: Toxic to aquatic life with long lasting effects.

7,7,9(or 7,9,9)-trimethyl-4,13-dioxo-3,14-dioxo-5,12-diazahexadecane-1,16-diyl bismethacrylate (72869-86-4)	
LC50 fishes	10,1 mg/l
EC50 Daphnia	1,2 mg/l
EC50 72h algae (1)	0,68 mg/l

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mequinol, 4-methoxyphenol, hydroquinone monomethyl ether (150-76-5)	
LC50 fishes	28,5 mg/l
EC50 Daphnia	3 mg/l
EC50 72h algae (1)	19 - 54,7 mg/l
NOEC chronic algae	680 µg/l
2-hydroxyethyl acrylate (818-61-1)	
LC50 fishes	4,8 - 17,5 mg/l
EC50 Daphnia	9,3 mg/l
EC50 72h algae (1)	6 mg/l
NOEC (chronic)	0,48 - 0,86 mg/l
NOEC chronic algae	1 mg/l
Acrylic acid, monoester with propane-1,2-diol (25584-83-2)	
LC50 fishes	3,61 mg/l
EC50 Daphnia	24 mg/l
EC50 72h algae (1)	3,88 - 6,98 mg/l
NOEC chronic fish	0,48 mg/l
NOEC chronic crustacea	480 µg/l (21 d)
NOEC chronic algae	0,625 mg/l 72 h
ethylene dimethacrylate (97-90-5)	
LC50 fishes	15,95 mg/l
EC50 Daphnia	44,9 mg/l
EC50 72h algae (1)	17,3 mg/l
NOEC (chronic)	5,05 mg/l
2-hydroxyethyl methacrylate (868-77-9)	
LC50 fishes	100 mg/l
EC50 other aquatic organisms 1	380 mg/l 48h
EC50 72h algae (1)	345 - 836 mg/l
NOEC chronic crustacea	24,1 mg/l (21 d)
diphenyl(2,4,6- trimethylbenzoyl)phosphine oxide (75980-60-8)	
LC50 fishes	6,53 mg/l (48 h)
EC50 Daphnia	3,53 mg/l
EC50 72h algae (1)	2,01 mg/l
Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate (1065336-91-5)	
LC50 fishes	0,9 mg/l
EC50 72h algae (1)	0,42 - 1,68 mg/l
NOEC (acute)	0,22 mg/l (4 d)
NOEC (chronic)	1 - 6,3 mg/l (21 d)
EC50, aquatic invertebrates, Chronic	mg/l (days)

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

7,7,9(or 7,9,9)-trimethyl-4,13-dioxo-3,14-dioxa-5,12-diazahexadecane-1,16-diyl bismethacrylate (72869-86-4)	
Log Pow	3 - 3,39 @ 20 °C and pH 7
mequinol, 4-methoxyphenol, hydroquinone monomethyl ether (150-76-5)	
Log Pow	1,13 - 1,62
2-hydroxyethyl acrylate (818-61-1)	
Log Pow	-0,17 @ 25°C
Acrylic acid, monoester with propane-1,2-diol (25584-83-2)	
Log Pow	0,2 @ 25 °C
ethylene dimethacrylate (97-90-5)	
Log Pow	2,4
2-hydroxyethyl methacrylate (868-77-9)	
Log Pow	0,42 @ 25 °C and pH 5.9 - 6.1
diphenyl(2,4,6- trimethylbenzoyl)phosphine oxide (75980-60-8)	
Log Pow	3,1 - 3,87 @ 23 °C and pH 6,4

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Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate (1065336-91-5)	
Log Pow	2,37 - 2,77 @ 25 °C and pH 7

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Other adverse effects

Additional information : Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

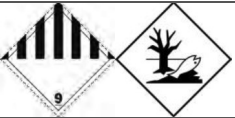


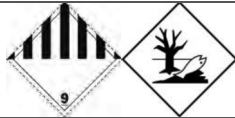
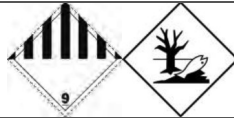
Regional legislation (waste) : Disposal must be done according to official regulations.

Product/Packaging disposal recommendations : Can be dumped in according to local regulations.

Ecology - waste materials : Avoid release to the environment.

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

ADR	IMDG	IATA	ADN	RID
14.1. UN number				
3082	3082	3082	3082	3082
14.2. UN proper shipping name				
ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.	Environmentally hazardous substance, liquid, n.o.s.	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
Transport document description (ADR)				
UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate; diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide), 9, III	UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S., 9, III, MARINE POLLUTANT	UN 3082 Environmentally hazardous substance, liquid, n.o.s., 9, III	UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S., 9, III	UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S., 9, III
14.3. Transport hazard class(es)				
9	9	9	9	9
				
14.4. Packing group				
III	III	III	III	III
14.5. Environmental hazards				
Dangerous for the environment : Yes	Dangerous for the environment : Yes Marine pollutant : Yes	Dangerous for the environment : Yes	Dangerous for the environment : Yes	Dangerous for the environment : Yes
No supplementary information available				

14.6. Special precautions for user

- Overland transport

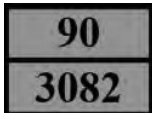
Classification code (ADR) : M6
 Special provisions (ADR) : 274, 335, 375, 601
 Limited quantities (ADR) : 5I
 Excepted quantities (ADR) : E1
 Packing instructions (ADR) : P001, IBC03, LP01, R001
 Special packing provisions (ADR) : PP1

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Mixed packing provisions (ADR)	: MP19
Portable tank and bulk container instructions (ADR)	: T4
Portable tank and bulk container special provisions (ADR)	: TP1, TP29
Tank code (ADR)	: LGBV
Vehicle for tank carriage	: AT
Transport category (ADR)	: 3
Special provisions for carriage - Packages (ADR)	: V12
Special provisions for carriage - Loading, unloading and handling (ADR)	: CV13
Hazard identification number (Kemler No.)	: 90
Orange plates	:



- Transport by sea

Special provisions (IMDG)	: 274, 335, 969
Limited quantities (IMDG)	: 5 L
Excepted quantities (IMDG)	: E1
Packing instructions (IMDG)	: P001, LP01
Special packing provisions (IMDG)	: PP1
IBC packing instructions (IMDG)	: IBC03
Tank instructions (IMDG)	: T4
Tank special provisions (IMDG)	: TP2, TP29
EmS-No. (Fire)	: F-A
EmS-No. (Spillage)	: S-F
Stowage category (IMDG)	: A
MFAG-No	: 171

- Air transport

PCA Excepted quantities (IATA)	: E1
PCA Limited quantities (IATA)	: Y964
PCA limited quantity max net quantity (IATA)	: 30kgG
PCA packing instructions (IATA)	: 964
PCA max net quantity (IATA)	: 450L
CAO packing instructions (IATA)	: 964
CAO max net quantity (IATA)	: 450L
Special provisions (IATA)	: A97, A158, A197
ERG code (IATA)	: 9L

- Inland waterway transport

Classification code (ADN)	: M6
Special provisions (ADN)	: 274, 335, 375, 601
Limited quantities (ADN)	: 5 L
Excepted quantities (ADN)	: E1
Carriage permitted (ADN)	: T
Equipment required (ADN)	: PP
Number of blue cones/lights (ADN)	: 0

- Rail transport

Classification code (RID)	: M6
Special provisions (RID)	: 274, 335, 375, 601
Limited quantities (RID)	: 5L
Excepted quantities (RID)	: E1
Packing instructions (RID)	: P001, IBC03, LP01, R001
Special packing provisions (RID)	: PP1
Mixed packing provisions (RID)	: MP19

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Portable tank and bulk container instructions (RID)	: T4
Portable tank and bulk container special provisions (RID)	: TP1, TP29
Tank codes for RID tanks (RID)	: LGBV
Transport category (RID)	: 3
Special provisions for carriage – Packages (RID)	: W12
Special provisions for carriage - Loading, unloading and handling (RID)	: CW13, CW31
Colis express (express parcels) (RID)	: CE8
Hazard identification number (RID)	: 90

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

The following restrictions are applicable according to Annex XVII of the REACH Regulation (EC) No 1907/2006:

3. Liquid substances or mixtures which are regarded as dangerous in accordance with Directive 1999/45/EC or are fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008	2-hydroxyethyl acrylate - Acrylic acid, monoester with propane-1,2-diol - ethylene dimethacrylate - 2-hydroxyethyl methacrylate
3(b) Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard classes 3.1 to 3.6, 3.7 adverse effects on sexual function and fertility or on development, 3.8 effects other than narcotic effects, 3.9 and 3.10	Dental LT Clear - 7,7,9(or 7,9,9)-trimethyl-4,13-dioxo-3,14-dioxo-5,12-diazahexadecane-1,16-diyl bismethacrylate - 2-hydroxyethyl acrylate - Acrylic acid, monoester with propane-1,2-diol - ethylene dimethacrylate - 2-hydroxyethyl methacrylate - Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate
3(c) Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard class 4.1	Dental LT Clear - 7,7,9(or 7,9,9)-trimethyl-4,13-dioxo-3,14-dioxo-5,12-diazahexadecane-1,16-diyl bismethacrylate - 2-hydroxyethyl acrylate - Acrylic acid, monoester with propane-1,2-diol - Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

VOC content : 0 %

15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Data sources : REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.

Other information : DISCLAIMER OF LIABILITY The information in this SDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use or disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. This SDS was prepared and is to be used only for this product. If the product is used as a component in another product, this SDS information may not be applicable.

Full text of H- and EUH-statements:

Acute Tox. 4 (Dermal)	Acute toxicity (dermal), Category 4
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Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Aquatic Acute 1	Hazardous to the aquatic environment — Acute Hazard, Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment — Chronic Hazard, Category 1
Aquatic Chronic 2	Hazardous to the aquatic environment — Chronic Hazard, Category 2
Aquatic Chronic 3	Hazardous to the aquatic environment — Chronic Hazard, Category 3
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Repr. 2	Reproductive toxicity, Category 2
Repr. 2	Reproductive toxicity, Category 2
Skin Corr. 1B	Skin corrosion/irritation, Category 1B
Skin Sens. 1	Skin sensitisation, Category 1
Skin Sens. 1A	Skin sensitisation, category 1A
Skin Sens. 1B	Skin sensitisation, category 1B
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H361d	Suspected of damaging the unborn child.
H361f	Suspected of damaging fertility.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

Full text of use descriptors

SU20	Health services
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Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

Eye Irrit. 2	H319	Calculation method
Skin Sens. 1	H317	Calculation method
Aquatic Chronic 2	H411	Calculation method

SDS EU (REACH Annex II)

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product