



Safety Data Sheet according to Regulation on Safety Data Sheets of Hazardous Substances and Mixtures (Number:29204, Date:13.12.2014)

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LOCTITE 648

SDS No. : 450730
V008.0

Revision: 19.07.2022
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SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

LOCTITE 648

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

Intended use:
Adhesive

1.3. Details of the supplier of the safety data sheet

Türk Henkel Kimya San. Tic. A.Ş.
Fatih Sultan Mehmet Mah.Poligon Cad. 8 Buyaka 2 Sitesi C Blok
34771 Tepeüstü / Istanbul

Turkey

Phone: +90 216 579 40 74

ua-productsafety.tr@tr.henkel.com

For Safety Data Sheet updates please visit our website <https://mysds.henkel.com/index.html#/appSelection> or www.henkel-adhesives.com.

1.4. Emergency telephone number

Türk Henkel + 90 216 579 40 00 (9-17h), 112 emergency line outside office hours

National Poison Information Center: 114

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (CLP):

Skin irritation	Category 2
H315 Causes skin irritation.	
Serious eye damage	Category 1
H318 Causes serious eye damage.	
Skin sensitizer	Category 1
H317 May cause an allergic skin reaction.	
Specific target organ toxicity - single exposure	Category 3
H335 May cause respiratory irritation.	
Target organ: respiratory tract irritation	
Chronic hazards to the aquatic environment	Category 3
H412 Harmful to aquatic life with long lasting effects.	

2.2. Label elements

Label elements (CLP):

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Hazard pictogram:



Contains

3,3,5 Trimethylcyclohexyl methacrylate

2-Hydroxyethyl methacrylate

Acrylic acid

Hydroxypropyl methacrylate
maleic acid

Acetic acid, 2-phenylhydrazide
2,2'-Ethylenedioxydiethyl dimethacrylate

2-Propenoic acid, 2-methyl-, 2-(2-hydroxyethoxy)ethyl ester

Signal word:

Danger

Hazard statement:

H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.
H335 May cause respiratory irritation.
H412 Harmful to aquatic life with long lasting effects.

Precautionary statement:

***** ***For consumer use only: P101 If medical advice is needed, have product container or label at hand. P102 Keep out of reach of children. P501 Dispose of contents/container in accordance with national regulation.***

**Precautionary statement:
Prevention**

P273 Avoid release to the environment.
P261 Avoid breathing vapors.
P280 Wear protective gloves/eye protection.

**Precautionary statement:
Response**

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
P302+P352 IF ON SKIN: Wash with plenty of soap and water.

2.3. Other hazards

None if used properly.

Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

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Declaration of the ingredients according to CLP (EC) No 1272/2008:

Hazardous components CAS-No.	EC Number	content	Classification
Reaction mass of (1-methylethylidene)bis(4,1-phenyleneoxy-2,1-ethanediyl) bismethacrylate and 2-[4-[2-(4-[2-[2-(methacryloyloxy)etho		25- 50 %	Aquatic Chronic 4 H413
3,3,5 Trimethylcyclohexyl methacrylate 7779-31-9	231-927-0	10- 20 %	Aquatic Chronic 2 H411 Skin Sens. 1B H317 STOT SE 3 H335 Skin Irrit. 2 H315 Eye Irrit. 2 H319
2-Hydroxyethyl methacrylate 868-77-9	212-782-2	10- 20 %	Skin Irrit. 2 H315 Skin Sens. 1 H317 Eye Irrit. 2 H319
Acrylic acid 79-10-7	201-177-9	1- < 5 %	Acute Tox. 4; Dermal H312 Skin Corr. 1A H314 Flam. Liq. 3 H226 Acute Tox. 4; Oral H302 Acute Tox. 4; Inhalation H332 Aquatic Acute 1 H400 Aquatic Chronic 2 H411 STOT SE 3 H335
Hydroxypropyl methacrylate 27813-02-1	248-666-3	1- < 3 %	Skin Sens. 1 H317 Eye Irrit. 2 H319
Reaction products of 4,4'-isopropylidenediphenol, ethoxylated and methacrylic acid		1- < 3 %	Aquatic Chronic 4 H413
Cumene hydroperoxide 80-15-9	201-254-7	0,1- < 1 %	STOT RE 2 H373 Skin Corr. 1B H314 Acute Tox. 2; Inhalation H330 Aquatic Chronic 2 H411 Acute Tox. 4; Oral H302 Acute Tox. 4; Dermal H312 Org. Perox. E H242 STOT SE 3 H335
maleic acid 110-16-7	203-742-5	0,1- < 1 %	Acute Tox. 4; Oral H302 Eye Irrit. 2 H319 STOT SE 3 H335 Skin Irrit. 2

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			H315 Skin Sens. 1 H317 Acute Tox. 4; Dermal H312
Acetic acid, 2-phenylhydrazide 114-83-0	204-055-3	0,1- < 1 %	Acute Tox. 3; Oral H301 Skin Irrit. 2 H315 Skin Sens. 1 H317 Eye Irrit. 2 H319 STOT SE 3; Inhalation H335 Carc. 2 H351
methacrylic acid 79-41-4	201-204-4	0,1- < 1 %	Acute Tox. 4; Oral H302 Acute Tox. 3; Dermal H311 Acute Tox. 4; Inhalation H332 Skin Corr. 1A H314 Eye Dam. 1 H318 STOT SE 3 H335
2,2'-Ethylenedioxydiethyl dimethacrylate 109-16-0	203-652-6	0,1- < 1 %	Skin Sens. 1B H317
2-Propenoic acid, 2-methyl-, 2-(2-hydroxyethoxy)ethyl ester 2351-43-1		0,1- < 1 %	Eye Irrit. 2 H319 Skin Sens. 1 H317

For full text of the H - statements and other abbreviations see section 16 "Other information".
Substances without classification may have community workplace exposure limits available.

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation:

Move to fresh air. If symptoms persist, seek medical advice.

Skin contact:

Rinse with running water and soap.
Obtain medical attention if irritation persists.

Eye contact:

Rinse immediately with plenty of running water (for 10 minutes), seek medical attention from a specialist.

Ingestion:

Rinse mouth, drink 1-2 glasses of water, do not induce vomiting, consult a doctor.

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

SKIN: Redness, inflammation.

RESPIRATORY: Irritation, coughing, shortness of breath, chest tightness.

SKIN: Rash, Urticaria.

After eye contact: Corrosive, may cause permanent damage to eyes (impairment of vision).

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

See section: Description of first aid measures

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:

water, carbon dioxide, foam, powder

Extinguishing media which must not be used for safety reasons:

High pressure waterjet

5.2. Special hazards arising from the substance or mixture

In the event of a fire, carbon monoxide (CO), carbon dioxide (CO₂) and nitrogen oxides (NO_x) can be released.

5.3. Advice for firefighters

Wear self-contained breathing apparatus and full protective clothing, such as turn-out gear.

Additional information:

In case of fire, keep containers cool with water spray.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Avoid contact with skin and eyes.

Wear protective equipment.

Ensure adequate ventilation.

Keep away from sources of ignition.

6.2. Environmental precautions

Do not empty into drains / surface water / ground water.

6.3. Methods and material for containment and cleaning up

Dispose of contaminated material as waste according to Section 13.

For small spills wipe up with paper towel and place in container for disposal.

For large spills absorb onto inert absorbent material and place in sealed container for disposal.

6.4. Reference to other sections

See advice in section 8

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Avoid skin and eye contact.

See advice in section 8

Hygiene measures:

Wash hands before work breaks and after finishing work.

Do not eat, drink or smoke while working.

Good industrial hygiene practices should be observed.

7.2. Conditions for safe storage, including any incompatibilities

Ensure good ventilation/extraction.

Refer to Technical Data Sheet

Keep container tightly sealed.

7.3. Specific end use(s)

Adhesive

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SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational Exposure Limits

Valid for
Turkey

None

Biological Exposure Indices:

None

8.2. Exposure controls:

Engineering controls:

Ensure good ventilation/extraction.

Respiratory protection:

Ensure adequate ventilation.

An approved mask or respirator fitted with an organic vapour cartridge should be worn if the product is used in a poorly ventilated area

Filter type: A (EN 14387)

Hand protection:

Chemical-resistant protective gloves (EN 374).

Suitable materials for short-term contact or splashes (recommended: at least protection index 2, corresponding to > 30 minutes permeation time as per EN 374):

nitrile rubber (NBR; ≥ 0.4 mm thickness)

Suitable materials for longer, direct contact (recommended: protection index 6, corresponding to > 480 minutes permeation time as per EN 374):

nitrile rubber (NBR; ≥ 0.4 mm thickness)

This information is based on literature references and on information provided by glove manufacturers, or is derived by analogy with similar substances. Please note that in practice the working life of chemical-resistant protective gloves may be considerably shorter than the permeation time determined in accordance with EN 374 as a result of the many influencing factors (e.g. temperature). If signs of wear and tear are noticed then the gloves should be replaced.

Eye protection:

Safety glasses with sideshields or chemical safety goggles should be worn if there is a risk of splashing.

Protective eye equipment should conform to EN166.

Skin protection:

Wear suitable protective clothing.

Protective clothing should conform to EN 14605 for liquid splashes or to EN 13982 for dusts.

Advices to personal protection equipment:

The information provided on personal protective equipment is for guidance purposes only. A full risk assessment should be conducted prior to using this product to determine the appropriate personal protective equipment to suit local conditions. Personal protective equipment should conform to the relevant EN standard.

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SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	liquid green
Odor	characteristic
Odour threshold	No data available / Not applicable
pH	Not applicable, Product reacts with water.
Initial boiling point	> 148 °C (> 298.4 °F)
Flash point	93,3 °C (199.94 °F)
Decomposition temperature	No data available / Not applicable
Vapour pressure (26 °C (78.8 °F))	< 5 mm hg
Density ()	1,1 g/cm3
Bulk density	No data available / Not applicable
Viscosity ()	450 - 550 mPa.s
Viscosity (kinematic)	No data available / Not applicable
Explosive properties	No data available / Not applicable
Solubility (qualitative) (Solvent: Water)	Insoluble
Solubility (qualitative) (Solvent: Acetone)	Soluble
Solidification temperature	No data available / Not applicable
Melting point	No data available / Not applicable
Flammability	No data available / Not applicable
Auto-ignition temperature	No data available / Not applicable
Explosive limits	No data available / Not applicable
Partition coefficient: n-octanol/water	No data available / Not applicable
Evaporation rate	No data available / Not applicable
Vapor density	Not available.
Oxidising properties	No data available / Not applicable

9.2. Other information

No data available / Not applicable

SECTION 10: Stability and reactivity

10.1. Reactivity

Reacts with strong oxidants.
Acids.
Reducing agents.
Strong bases.

10.2. Chemical stability

Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

See section reactivity

10.4. Conditions to avoid

Stable under normal conditions of storage and use.

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10.5. Incompatible materials

See section reactivity.

10.6. Hazardous decomposition products

carbon oxides.

Hydrocarbons

nitrogen oxides

Rapid polymerisation may generate excessive heat and pressure.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute oral toxicity:

Hazardous components CAS-No.	Value type	Value	Route of application	Exposure time	Species	Method
Reaction mass of (1-methylethylidene)bis(4,1-phenyleneoxy-2,1-ethanediyl) bismethacrylate and 2-{4-[2-(4-{2-[2-(methacryloyloxy)etho	LD50	> 35.000 mg/kg	oral		rat	not specified
3,3,5 Trimethylcyclohexyl methacrylate 7779-31-9	LD0	> 5.000 mg/kg	oral		rat	OECD Guideline 401 (Acute Oral Toxicity)
3,3,5 Trimethylcyclohexyl methacrylate 7779-31-9	LD50	> 5.000 mg/kg			rat	OECD Guideline 401 (Acute Oral Toxicity)
2-Hydroxyethyl methacrylate 868-77-9	LD50	5.564 mg/kg	oral		rat	FDA Guideline
Acrylic acid 79-10-7	LD50	1.500 mg/kg	oral		rat	equivalent or similar to OECD Guideline 401 (Acute Oral Toxicity)
Hydroxypropyl methacrylate 27813-02-1	LD50	> 2.000 mg/kg	oral		rat	OECD Guideline 401 (Acute Oral Toxicity)
Reaction products of 4,4'-isopropylidenediphenol, ethoxylated and methacrylic acid	LD50	> 2.000 mg/kg	oral		rat	OECD Guideline 423 (Acute Oral toxicity)
Cumene hydroperoxide 80-15-9	LD50	382 mg/kg	oral		rat	other guideline:
maleic acid 110-16-7	LD50	708 mg/kg	oral		rat	not specified
Acetic acid, 2-phenylhydrazide 114-83-0	LD50	270 mg/kg	oral		rat	not specified
methacrylic acid 79-41-4	LD50	1.320 mg/kg	oral		rat	equivalent or similar to OECD Guideline 401 (Acute Oral Toxicity)
2,2'-Ethylenedioxydiethyl dimethacrylate 109-16-0	LD50	10.837 mg/kg	oral		rat	not specified
2-Propenoic acid, 2-methyl-, 2-(2-hydroxyethoxy)ethyl ester 2351-43-1	LD50	5.564 mg/kg	oral		rat	FDA Guideline

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Acute inhalative toxicity:

Hazardous components CAS-No.	Value type	Value	Route of application	Exposure time	Species	Method
Acrylic acid 79-10-7	LC0	5,1 mg/l	vapour	4 h	rat	equivalent or similar to OECD Guideline 403 (Acute Inhalation Toxicity)
Acrylic acid 79-10-7	Acute toxicity estimate (ATE)	11 mg/l	vapour			Expert judgement
Cumene hydroperoxide 80-15-9	LC50	1,370 mg/l	vapour	4 h	rat	not specified
methacrylic acid 79-41-4	LC50	> 3,6 mg/l	dust/mist	4 h	rat	OECD Guideline 403 (Acute Inhalation Toxicity)
methacrylic acid 79-41-4	Acute toxicity estimate (ATE)	3,61 mg/l				Expert judgement
2,2'-Ethylenedioxydiethyl dimethacrylate 109-16-0	Acute toxicity estimate (ATE)	28,17 mg/l	dust/mist			Expert judgement

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Acute dermal toxicity:

Hazardous components CAS-No.	Value type	Value	Route of application	Exposure time	Species	Method
Reaction mass of (1-methylethylidene)bis(4,1-phenyleneoxy-2,1-ethanediyl) bismethacrylate and 2-{4-[2-(4-{2-[2-(methacryloyloxy)etho	LD50	> 2.000 mg/kg	dermal		rat	OECD Guideline 402 (Acute Dermal Toxicity)
3,3,5 Trimethylcyclohexyl methacrylate 7779-31-9	LD0	> 2.000 mg/kg	dermal		rat	OECD Guideline 402 (Acute Dermal Toxicity)
3,3,5 Trimethylcyclohexyl methacrylate 7779-31-9	LD50	> 2.000 mg/kg			rat	OECD Guideline 402 (Acute Dermal Toxicity)
2-Hydroxyethyl methacrylate 868-77-9	LD50	> 5.000 mg/kg	dermal		rabbit	not specified
Acrylic acid 79-10-7	Acute toxicity estimate (ATE)	1.100 mg/kg	dermal			Expert judgement
Acrylic acid 79-10-7	LD50	> 2.000 mg/kg			rabbit	OECD Guideline 402 (Acute Dermal Toxicity)
Hydroxypropyl methacrylate 27813-02-1	LD50	> 5.000 mg/kg	dermal		rabbit	not specified
Reaction products of 4,4'-isopropylidenediphenol, ethoxylated and methacrylic acid	LD50	> 2.000 mg/kg	dermal		rat	OECD Guideline 402 (Acute Dermal Toxicity)
Cumene hydroperoxide 80-15-9	Acute toxicity estimate (ATE)	1.100 mg/kg	dermal			Expert judgement
maleic acid 110-16-7	LD50	1.560 mg/kg	dermal		rabbit	not specified
methacrylic acid 79-41-4	LD50	500 - 1.000 mg/kg	dermal		rabbit	Dermal Toxicity Screening
methacrylic acid 79-41-4	Acute toxicity estimate (ATE)	500 mg/kg				Expert judgement
2,2'-Ethylenedioxydiethyl dimethacrylate 109-16-0	Acute toxicity estimate (ATE)	> 5.000 mg/kg	dermal			Expert judgement
2-Propenoic acid, 2-methyl-, 2-(2-hydroxyethoxy)ethyl ester 2351-43-1	LD50	> 5.000 mg/kg	dermal		rabbit	not specified

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Skin corrosion/irritation:

Hazardous components CAS-No.	Result	Exposure time	Species	Method
Reaction mass of (1-methylethylidene)bis(4,1-phenyleneoxy-2,1-ethanediyl) bismethacrylate and 2-[4-[2-(4-[2-[2-(methacryloyloxy)etho	not irritating	24 h	rabbit	not specified
2-Hydroxyethyl methacrylate 868-77-9	slightly irritating	24 h	rabbit	Draize Test
Acrylic acid 79-10-7	Category 1 (corrosive)	3 min	rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
Hydroxypropyl methacrylate 27813-02-1	not irritating	24 h	rabbit	Draize Test
Reaction products of 4,4'-isopropylidenediphenol, ethoxylated and methacrylic acid	not irritating	15 min	Human, EpiSkin TM (SM), Reconstructed Human Epidermis (RHE)	OECD Guideline 439 (In Vitro Skin Irritation: Reconstructed Human Epidermis (RHE) Test Method)
Cumene hydroperoxide 80-15-9	corrosive		rabbit	Draize Test
maleic acid 110-16-7	irritating	24 h	human	Patch Test
methacrylic acid 79-41-4	corrosive	3 min	rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
2,2'-Ethylenedioxydiethyl dimethacrylate 109-16-0	not irritating	24 h	rabbit	Draize Test
2-Propenoic acid, 2-methyl-, 2-(2-hydroxyethoxy)ethyl ester 2351-43-1	not irritating	24 h	rabbit	Draize Test

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Serious eye damage/irritation:

Hazardous components CAS-No.	Result	Exposure time	Species	Method
Reaction mass of (1-methylethylidene)bis(4,1-phenyleneoxy-2,1-ethanediyl) bismethacrylate and 2-[4-[2-(4-{2-[2-(methacryloyloxy)etho	not irritating		rabbit	not specified
2-Hydroxyethyl methacrylate 868-77-9	Category 2B (mildly irritating to eyes)		rabbit	Draize Test
Acrylic acid 79-10-7	Category 1 (irreversible effects on the eye)		rabbit	BASF Test
Hydroxypropyl methacrylate 27813-02-1	Category 2B (mildly irritating to eyes)		rabbit	Draize Test
Reaction products of 4,4'-isopropylidenediphenol, ethoxylated and methacrylic acid	not irritating		Bovine, cornea, in vitro test	OECD Guideline 437 (BCOP)
maleic acid 110-16-7	highly irritating		rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)
methacrylic acid 79-41-4	corrosive		rabbit	Draize Test
2,2'-Ethylenedioxydiethyl dimethacrylate 109-16-0	not irritating		rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)
2-Propenoic acid, 2-methyl-, 2-(2-hydroxyethoxy)ethyl ester 2351-43-1	irritating		rabbit	Draize Test

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Respiratory or skin sensitization:

Hazardous components CAS-No.	Result	Test type	Species	Method
Reaction mass of (1-methylethylidene)bis(4,1-phenyleneoxy-2,1-ethanediyl) bismethacrylate and 2-[4-[2-(4-[2-(methacryloyloxy)etho	not sensitising	Mouse local lymphnode assay (LLNA)	mouse	OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay)
3,3,5 Trimethylcyclohexyl methacrylate 7779-31-9	sensitising	Mouse local lymphnode assay (LLNA)	mouse	OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay)
2-Hydroxyethyl methacrylate 868-77-9	not sensitising	Buehler test	guinea pig	Buehler test
2-Hydroxyethyl methacrylate 868-77-9	sensitising	Guinea pig maximisation test	guinea pig	Magnusson and Kligman Method
Acrylic acid 79-10-7	not sensitising	Freund's complete adjuvant test	guinea pig	Klecak Method
Acrylic acid 79-10-7	not sensitising	Split adjuvant test	guinea pig	Maguire Method
Hydroxypropyl methacrylate 27813-02-1	not sensitising	Mouse local lymphnode assay (LLNA)	mouse	equivalent or similar to OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay)
Hydroxypropyl methacrylate 27813-02-1	sensitising	Guinea pig maximisation test	guinea pig	not specified
Reaction products of 4,4'-isopropylidenediphenol, ethoxylated and methacrylic acid	not sensitising	Mouse local lymphnode assay (LLNA)	mouse	OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay)
maleic acid 110-16-7	sensitising	Mouse local lymphnode assay (LLNA)	mouse	OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay)
maleic acid 110-16-7	sensitising	Mouse local lymphnode assay (LLNA)	guinea pig	OECD Guideline 406 (Skin Sensitisation)
methacrylic acid 79-41-4	not sensitising	Buehler test	guinea pig	equivalent or similar to OECD Guideline 406 (Skin Sensitisation)
2,2'-Ethylenedioxydiethyl dimethacrylate 109-16-0	sensitising	Mouse local lymphnode assay (LLNA)	mouse	OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay)

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Germ cell mutagenicity:

Hazardous components CAS-No.	Result	Type of study / Route of administration	Metabolic activation / Exposure time	Species	Method
Reaction mass of (1-methylethylidene)bis(4,1-phenyleneoxy-2,1-ethanediyl) bismethacrylate and 2-{4-[2-(4-{2-[2-(methacryloyloxy)etho	negative	mammalian cell gene mutation assay	with and without		OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)
	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
	negative	in vitro mammalian cell micronucleus test	with and without		OECD Guideline 487 (In vitro Mammalian Cell Micronucleus Test)
3,3,5 Trimethylcyclohexyl methacrylate 7779-31-9	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
2-Hydroxyethyl methacrylate 868-77-9	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
	positive	in vitro mammalian chromosome aberration test	with and without		OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test)
	negative	mammalian cell gene mutation assay	with and without		OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)
2-Hydroxyethyl methacrylate 868-77-9	negative	oral: gavage		rat	OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test)
	negative	oral: gavage		Drosophila melanogaster	not specified
Acrylic acid 79-10-7	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		equivalent or similar to OECD Guideline 471 (Bacterial Reverse Mutation Assay)
	negative	mammalian cell gene mutation assay	with and without		equivalent or similar to OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)
	negative	DNA damage and repair assay, unscheduled DNA synthesis in mammalian cells in vitro	without		equivalent or similar to OECD Guideline 482 (Genetic Toxicology: DNA Damage and Repair, Unscheduled DNA Synthesis in Mammalian Cells)
Acrylic acid 79-10-7	negative	oral: gavage		rat	equivalent or similar to OECD Guideline 475 (Mammalian Bone Marrow Chromosome Aberration Test)
	negative	oral: gavage		mouse	not specified
Hydroxypropyl methacrylate 27813-02-1	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
	positive	in vitro mammalian chromosome aberration test	with and without		Chromosome Aberration Test
	negative	mammalian cell gene mutation assay	with and without		OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)
Hydroxypropyl methacrylate 27813-02-1	negative	oral: gavage		mouse	OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test)
	negative	oral: gavage		Drosophila melanogaster	not specified
Reaction products of 4,4'-isopropylidenediphenol,	negative	bacterial reverse mutation assay (e.g	with and without		OECD Guideline 471 (Bacterial Reverse Mutation

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ethoxylated and methacrylic acid		Ames test)			Assay)
	negative	mammalian cell gene mutation assay	with and without		OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)
	negative	in vitro mammalian cell micronucleus test	with and without		OECD Guideline 487 (In vitro Mammalian Cell Micronucleus Test)
Cumene hydroperoxide 80-15-9	positive	bacterial reverse mutation assay (e.g Ames test)	without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
Cumene hydroperoxide 80-15-9	negative	dermal		mouse	not specified
maleic acid 110-16-7	negative	bacterial reverse mutation assay (e.g Ames test)	no data		Ames Test
	negative	mammalian cell gene mutation assay	with and without		OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)
methacrylic acid 79-41-4	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		equivalent or similar to OECD Guideline 471 (Bacterial Reverse Mutation Assay)
methacrylic acid 79-41-4	negative	inhalation		mouse	equivalent or similar to OECD Guideline 478 (Genetic Toxicology: Rodent Dominant Lethal Test)
	negative	oral: gavage		mouse	equivalent or similar to OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test)
2,2'-Ethylenedioxydiethyl dimethacrylate 109-16-0	negative	mammalian cell gene mutation assay	with and without		OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)
	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
	negative	in vitro mammalian cell micronucleus test	with and without		OECD Guideline 487 (In vitro Mammalian Cell Micronucleus Test)

Carcinogenicity:

Hazardous components CAS-No.	Result	Species	Sex	Exposure timeFrequency of treatment	Route of application	Method
2-Hydroxyethyl methacrylate 868-77-9	not carcinogenic	rat	female	2 y 6 h/d, 5 d/w	inhalation	equivalent or similar OECD Guideline 451 (Carcinogenicity Studies)
2-Hydroxyethyl methacrylate 868-77-9	not carcinogenic	rat	male	2 y 6 h/d, 5 d/w	inhalation	equivalent or similar OECD Guideline 451 (Carcinogenicity Studies)
Acrylic acid 79-10-7	not carcinogenic	rat	male/female	26 - 28 m continuously	oral: drinking water	OECD Guideline 451 (Carcinogenicity Studies)
Acrylic acid 79-10-7	not carcinogenic	mouse	male/female	21 m 3 times/w	dermal	not specified
Hydroxypropyl methacrylate 27813-02-1	not carcinogenic	rat	male	2 y 6 h/d, 5 d/w	inhalation	equivalent or similar OECD Guideline 451 (Carcinogenicity Studies)
maleic acid 110-16-7	not carcinogenic	rat	male/female	2 y daily	oral: feed	OECD Guideline 451 (Carcinogenicity Studies)
methacrylic acid 79-41-4	not carcinogenic	mouse	male/female	2 y	inhalation	OECD Guideline 451 (Carcinogenicity Studies)

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Reproductive toxicity:

Hazardous substances CAS-No.	Result / Classification	Species	Exposure time	Species	Method
Reaction mass of (1-methylethylidene)bis(4,1-phenyleneoxy-2,1-ethanediyl) bismethacrylate and 2-[4-[2-(4-{2-[2-(methacryloyloxy)etho	NOAEL P = 1.000 mg/kg	screening oral: gavage		rat	OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)
2-Hydroxyethyl methacrylate 868-77-9	NOAEL P = >= 1.000 mg/kg NOAEL F1 = >= 1.000 mg/kg	screening oral: gavage		rat	equivalent or similar to OECD Guideline 422 (Combined Repeated Dose Toxicity Study)
Acrylic acid 79-10-7	NOAEL P = 83 mg/kg NOAEL F1 = 250 mg/kg	one-generation study oral: drinking water		rat	equivalent or similar to OECD Guideline 415 (One-Generation Reproduction Toxicity Study)
	NOAEL P = 240 mg/kg NOAEL F1 = 53 mg/kg NOAEL F2 = 53 mg/kg	two-generation study oral: drinking water		rat	OECD Guideline 416 (Two-Generation Reproduction Toxicity Study)
Hydroxypropyl methacrylate 27813-02-1	NOAEL P = 300 mg/kg NOAEL F1 = 1.000 mg/kg	screening oral: gavage	49 d	rat	OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)
	NOAEL P = 400 mg/kg NOAEL F1 = 400 mg/kg	two-generation study oral: gavage		rat	OECD Guideline 416 (Two-Generation Reproduction Toxicity Study)
Reaction products of 4,4'-isopropylidenediphenol, ethoxylated and methacrylic acid	NOAEL P = 1.000 mg/kg NOAEL F1 = 1.000 mg/kg	screening oral: gavage		rat	OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)
maleic acid 110-16-7	NOAEL F1 = 150 mg/kg NOAEL F2 = 55 mg/kg	Two generation study oral: gavage	min. 80 d	rat	OECD Guideline 416 (Two-Generation Reproduction Toxicity Study)
methacrylic acid 79-41-4	NOAEL P = 50 mg/kg NOAEL F1 = 400 mg/kg NOAEL F2 = 400 mg/kg	Two generation study oral: gavage		rat	OECD Guideline 416 (Two-Generation Reproduction Toxicity Study)
2,2'-Ethylenedioxydiethyl dimethacrylate 109-16-0	NOAEL P = 1.000 mg/kg NOAEL F1 = 1.000 mg/kg	oral: gavage		rat	OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)

Repeated dose toxicity

Hazardous components CAS-No.	Result	Route of application	Exposure time / Frequency of treatment	Species	Method
Reaction mass of (1-methylethylidene)bis(4,1-phenyleneoxy-2,1-ethanediyl) bismethacrylate and 2-[4-[2-(4-{2-[2-(methacryloyloxy)etho	NOAEL=1.000 mg/kg	oral: gavage	13 weeksdaily	rat	OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)

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3,3,5 Trimethylcyclohexyl methacrylate 7779-31-9	NOAEL=1.000 mg/kg	oral: gavage	28 ddaily	rat	OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)
2-Hydroxyethyl methacrylate 868-77-9	NOAEL=100 mg/kg	oral: gavage	49 ddaily	rat	OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)
2-Hydroxyethyl methacrylate 868-77-9	NOAEL=0,352 mg/l	inhalation	90 d6 h/d, 5 d/w	rat	OECD Guideline 413 (Subchronic Inhalation Toxicity: 90-Day)
Acrylic acid 79-10-7	NOAEL=40 mg/kg	oral: drinking water	12 mdaily	rat	equivalent or similar to OECD Guideline 452 (Chronic Toxicity Studies)
Acrylic acid 79-10-7	NOAEL=0,015 mg/l	inhalation: vapour	90 d6 h/d, 5 d/w	mouse	equivalent or similar to OECD Guideline 413 (Subchronic Inhalation Toxicity: 90-Day)
Hydroxypropyl methacrylate 27813-02-1	NOAEL=300 mg/kg	oral: gavage	49 ddaily	rat	OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)
Hydroxypropyl methacrylate 27813-02-1	NOAEL=0,352 mg/l	inhalation	90 d6 h/d, 5 d/w	rat	OECD Guideline 413 (Subchronic Inhalation Toxicity: 90-Day)
Reaction products of 4,4'-isopropylidenediphenol, ethoxylated and methacrylic acid	NOAEL=1.000 mg/kg	oral: gavage	13 weeksdaily	rat	OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)
Cumene hydroperoxide 80-15-9		inhalation: aerosol	6 h/d5 d/w	rat	not specified
maleic acid 110-16-7	NOAEL>=>= 40 mg/kg	oral: feed	90 ddaily	rat	OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)
methacrylic acid 79-41-4		inhalation	90 d6 h/d, 5 d/w	rat	OECD Guideline 413 (Subchronic Inhalation Toxicity: 90-Day)
2,2'-Ethylenedioxydiethyl dimethacrylate 109-16-0	NOAEL=1.000 mg/kg	oral: gavage	daily	rat	OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)

SECTION 12: Ecological information

General ecological information:

Do not empty into drains / surface water / ground water.

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12.1. Toxicity

Hazardous components CAS-No.	Value type	Value	Acute Toxicity Study	Exposure time	Species	Method
Reaction mass of (1-methylethylidene)bis(4,1-phenyleneoxy-2,1-ethanediyl) bismethacrylate and 2-{4-[2-(4-{2-[2-(methacryloyloxy)etho	LL50	Toxicity > Water solubility	Fish	96 h	Danio rerio	OECD Guideline 203 (Fish, Acute Toxicity Test)
	NOEC	Toxicity > Water solubility	Fish	34 d	Danio rerio	OECD Guideline 210 (fish early life stage toxicity test)
Reaction mass of (1-methylethylidene)bis(4,1-phenyleneoxy-2,1-ethanediyl) bismethacrylate and 2-{4-[2-(4-{2-[2-(methacryloyloxy)etho	EL50	Toxicity > Water solubility	Daphnia	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Reaction mass of (1-methylethylidene)bis(4,1-phenyleneoxy-2,1-ethanediyl) bismethacrylate and 2-{4-[2-(4-{2-[2-(methacryloyloxy)etho	EL50	Toxicity > Water solubility	Algae	72 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
Reaction mass of (1-methylethylidene)bis(4,1-phenyleneoxy-2,1-ethanediyl) bismethacrylate and 2-{4-[2-(4-{2-[2-(methacryloyloxy)etho	EC50	Toxicity > Water solubility	Bacteria	3 h	activated sludge of a predominantly domestic sewage	OECD Guideline 209 (Activated Sludge, Respiration Inhibition Test)
Reaction mass of (1-methylethylidene)bis(4,1-phenyleneoxy-2,1-ethanediyl) bismethacrylate and 2-{4-[2-(4-{2-[2-(methacryloyloxy)etho	EC10	Toxicity > Water solubility	chronic Daphnia	21 d	Daphnia magna	OECD 211 (Daphnia magna, Reproduction Test)
3,3,5 Trimethylcyclohexyl methacrylate 7779-31-9	LC50	1,9 mg/l	Fish	96 h	Brachydanio rerio (new name: Danio rerio)	OECD Guideline 203 (Fish, Acute Toxicity Test)
3,3,5 Trimethylcyclohexyl methacrylate 7779-31-9	EC50	14,43 mg/l	Daphnia	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
3,3,5 Trimethylcyclohexyl methacrylate 7779-31-9	EC10	0,43 mg/l	Algae	72 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
2-Hydroxyethyl methacrylate 868-77-9	LC50	> 100 mg/l	Fish	96 h	Oryzias latipes	OECD Guideline 203 (Fish, Acute Toxicity Test)
2-Hydroxyethyl methacrylate 868-77-9	EC50	380 mg/l	Daphnia	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
2-Hydroxyethyl methacrylate 868-77-9	EC50	836 mg/l	Algae	72 h	Selenastrum capricornutum (new name: Pseudokirchneriella subcapitata)	OECD Guideline 201 (Alga, Growth Inhibition Test)
	NOEC	400 mg/l	Algae	72 h	Selenastrum capricornutum (new name: Pseudokirchneriella subcapitata)	OECD Guideline 201 (Alga, Growth Inhibition Test)
2-Hydroxyethyl methacrylate 868-77-9	EC0	> 3.000 mg/l	Bacteria	16 h	Pseudomonas fluorescens	other guideline:
2-Hydroxyethyl methacrylate 868-77-9	NOEC	24,1 mg/l	chronic Daphnia	21 d	Daphnia magna	OECD 211 (Daphnia magna, Reproduction Test)

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Acrylic acid 79-10-7	LC50	27 mg/l	Fish	96 h	Salmo gairdneri (new name: Oncorhynchus mykiss)	EPA OTS 797.1400 (Fish Acute Toxicity Test)
	NOEC	>= 10,1 mg/l	Fish	45 d	Oryzias latipes	OECD Guideline 210 (fish early lite stage toxicity test)
Acrylic acid 79-10-7	EC50	95 mg/l	Daphnia	48 h	Daphnia magna	EPA OTS 797.1300 (Aquatic Invertebrate Acute Toxicity Test, Freshwater Daphnids)
Acrylic acid 79-10-7	EC10	0,03 mg/l	Algae	72 h	Scenedesmus subspicatus (new name: Desmodesmus subspicatus)	EU Method C.3 (Algal Inhibition test)
	EC50	0,13 mg/l	Algae	72 h	Scenedesmus subspicatus (new name: Desmodesmus subspicatus)	EU Method C.3 (Algal Inhibition test)
Acrylic acid 79-10-7	EC20	900 mg/l	Bacteria	30 min	activated sludge, domestic	ISO 8192 (Test for Inhibition of Oxygen Consumption by Activated Sludge)
Acrylic acid 79-10-7	NOEC	19 mg/l	chronic Daphnia	21 d	Daphnia magna	EPA OTS 797.1330 (Daphnid Chronic Toxicity Test)
Hydroxypropyl methacrylate 27813-02-1	LC50	493 mg/l	Fish	48 h	Leuciscus idus melanotus	DIN 38412-15
Hydroxypropyl methacrylate 27813-02-1	EC50	> 143 mg/l	Daphnia	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Hydroxypropyl methacrylate 27813-02-1	EC50	> 97,2 mg/l	Algae	72 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
	NOEC	> 97,2 mg/l	Algae	72 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
Hydroxypropyl methacrylate 27813-02-1	EC10	1.140 mg/l	Bacteria	16 h		not specified
Hydroxypropyl methacrylate 27813-02-1	NOEC	45,2 mg/l	chronic Daphnia	21 d	Daphnia magna	OECD 211 (Daphnia magna, Reproduction Test)
Reaction products of 4,4'- isopropylidenediphenol, ethoxylated and methacrylic acid	LL50	Toxicity > Water solubility	Fish	96 h	Oncorhynchus mykiss	OECD Guideline 203 (Fish, Acute Toxicity Test)
Reaction products of 4,4'- isopropylidenediphenol, ethoxylated and methacrylic acid	EL50	Toxicity > Water solubility	Daphnia	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Reaction products of 4,4'- isopropylidenediphenol, ethoxylated and methacrylic acid	EL50	Toxicity > Water solubility	Algae	72 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
	EL10	Toxicity > Water solubility	Algae	72 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
Reaction products of 4,4'- isopropylidenediphenol, ethoxylated and methacrylic acid	EC10	Toxicity > Water solubility	chronic Daphnia	21 d	Daphnia magna	OECD 211 (Daphnia magna, Reproduction Test)
Cumene hydroperoxide 80-15-9	LC50	3,9 mg/l	Fish	96 h	Oncorhynchus mykiss	OECD Guideline 203 (Fish, Acute Toxicity Test)
Cumene hydroperoxide	EC50	18,84 mg/l	Daphnia	48 h	Daphnia magna	OECD Guideline

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80-15-9						202 (Daphnia sp. Acute Immobilisation Test)
Cumene hydroperoxide 80-15-9	EC50	3,1 mg/l	Algae	72 h	Desmodesmus subspicatus (reported as Scenedesmus subspicatus)	OECD Guideline 201 (Alga, Growth Inhibition Test)
	NOEC	1 mg/l	Algae	72 h	Desmodesmus subspicatus (reported as Scenedesmus subspicatus)	OECD Guideline 201 (Alga, Growth Inhibition Test)
Cumene hydroperoxide 80-15-9	EC10	70 mg/l	Bacteria	30 min	not specified	not specified
maleic acid 110-16-7	LC50	> 245 mg/l	Fish	48 h	Leuciscus idus	DIN 38412-15
maleic acid 110-16-7	EC50	42,81 mg/l	Daphnia	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
maleic acid 110-16-7	EC50	74,35 mg/l	Algae	72 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
	EC10	11,8 mg/l	Algae	72 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
maleic acid 110-16-7	EC10	44,6 mg/l	Bacteria	18 h	Pseudomonas putida	DIN 38412, part 8 (Pseudomonas Zellvermehrungshe mm-Test)
maleic acid 110-16-7	NOEC	10 mg/l	chronic Daphnia	21 d	Daphnia magna	other guideline:
methacrylic acid 79-41-4	LC50	85 mg/l	Fish	96 h	Salmo gairdneri (new name: Oncorhynchus mykiss)	EPA OTS 797.1400 (Fish Acute Toxicity Test)
methacrylic acid 79-41-4	EC50	> 130 mg/l	Daphnia	48 h	Daphnia magna	EPA OTS 797.1300 (Aquatic Invertebrate Acute Toxicity Test, Freshwater Daphnids)
methacrylic acid 79-41-4	NOEC	8,2 mg/l	Algae	72 h	Selenastrum capricornutum (new name: Pseudokirchneriella subcapitata)	OECD Guideline 201 (Alga, Growth Inhibition Test)
	EC50	45 mg/l	Algae	72 h	Selenastrum capricornutum (new name: Pseudokirchneriella subcapitata)	OECD Guideline 201 (Alga, Growth Inhibition Test)
methacrylic acid 79-41-4	EC10	100 mg/l	Bacteria	17 h		not specified
2,2'-Ethylenedioxydiethyl dimethacrylate 109-16-0	LC50	16,4 mg/l	Fish	96 h	Danio rerio	OECD Guideline 203 (Fish, Acute Toxicity Test)
2,2'-Ethylenedioxydiethyl dimethacrylate 109-16-0	EC50	> 100 mg/l	Algae	72 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
	NOEC	18,6 mg/l	Algae	72 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
2,2'-Ethylenedioxydiethyl dimethacrylate 109-16-0	NOEC	32 mg/l	chronic Daphnia	21 d	Daphnia magna	OECD 211 (Daphnia magna, Reproduction Test)

12.2. Persistence and degradability

Hazardous components CAS-No.	Result	Route of application	Degradability	Method
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Reaction mass of (1-methylethylidene)bis(4,1-phenyleneoxy-2,1-ethanediyl) bismethacrylate and 2-{4-[2-(4-{2-[2-(methacryloyloxy)etho	not readily biodegradable.	aerobic	> 19,9 - 41,3 %	OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)
	inherently biodegradable	aerobic	> 52,2 - 65,5 %	OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)
3,3,5 Trimethylcyclohexyl methacrylate 7779-31-9	not readily biodegradable.	aerobic	16,8 %	OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)
2-Hydroxyethyl methacrylate 868-77-9	readily biodegradable	aerobic	92 - 100 %	OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I))
Acrylic acid 79-10-7	inherently biodegradable	aerobic	100 %	OECD Guideline 302 B (Inherent biodegradability: Zahn-Wellens/EMPA Test)
	readily biodegradable	aerobic	81 %	OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)
Hydroxypropyl methacrylate 27813-02-1	readily biodegradable	aerobic	94,2 %	OECD Guideline 301 E (Ready biodegradability: Modified OECD Screening Test)
Reaction products of 4,4'-isopropylidenediphenol, ethoxylated and methacrylic acid	not readily biodegradable.	aerobic	43 %	OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)
	inherently biodegradable	aerobic	66 %	OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)
Cumene hydroperoxide 80-15-9	not readily biodegradable.	aerobic	3 %	OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test)
maleic acid 110-16-7	readily biodegradable	aerobic	97,08 %	OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test)
methacrylic acid 79-41-4	inherently biodegradable	aerobic	100 %	OECD Guideline 302 B (Inherent biodegradability: Zahn-Wellens/EMPA Test)
	readily biodegradable	aerobic	86 %	OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)
2,2'-Ethylenedioxydiethyl dimethacrylate 109-16-0	readily biodegradable	aerobic	85 %	OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test)
2-Propenoic acid, 2-methyl-, 2-(2-hydroxyethoxy)ethyl ester 2351-43-1	readily biodegradable	aerobic	92 - 100 %	OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I))

12.3. Bioaccumulative potential / 12.4. Mobility in soil

Hazardous components CAS-No.	LogPow	Bioconcentration factor (BCF)	Exposure time	Species	Temperature	Method
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Reaction mass of (1-methylethylidene)bis(4,1-phenyleneoxy-2,1-ethanediyl) bismethacrylate and 2-{4-[2-(4-{2-[2-(methacryloyloxy)etho	> 6,2					OECD Guideline 117 (Partition Coefficient (n-octanol / water), HPLC Method)
3,3,5 Trimethylcyclohexyl methacrylate 7779-31-9	5,25				20 °C	OECD Guideline 117 (Partition Coefficient (n-octanol / water), HPLC Method)
2-Hydroxyethyl methacrylate 868-77-9	0,42				25 °C	OECD Guideline 107 (Partition Coefficient (n-octanol / water), Shake Flask Method)
Acrylic acid 79-10-7		3,16				QSAR (Quantitative Structure Activity Relationship)
Acrylic acid 79-10-7	0,46				25 °C	OECD Guideline 107 (Partition Coefficient (n-octanol / water), Shake Flask Method)
Hydroxypropyl methacrylate 27813-02-1	0,97				20 °C	not specified
Reaction products of 4,4'-isopropylidenediphenol, ethoxylated and methacrylic acid	> 5,3 - 5,62					OECD Guideline 117 (Partition Coefficient (n-octanol / water), HPLC Method)
Cumene hydroperoxide 80-15-9		9,1		calculation		OECD Guideline 305 (Bioconcentration: Flow-through Fish Test)
Cumene hydroperoxide 80-15-9	1,6				25 °C	OECD Guideline 117 (Partition Coefficient (n-octanol / water), HPLC Method)
maleic acid 110-16-7	-1,3				20 °C	OECD Guideline 107 (Partition Coefficient (n-octanol / water), Shake Flask Method)
Acetic acid, 2-phenylhydrazide 114-83-0	0,74					not specified
methacrylic acid 79-41-4	0,93				22 °C	OECD Guideline 107 (Partition Coefficient (n-octanol / water), Shake Flask Method)
2,2'-Ethylenedioxydiethyl dimethacrylate 109-16-0	2,3					OECD Guideline 117 (Partition Coefficient (n-octanol / water), HPLC Method)

12.5. Results of PBT and vPvB assessment

Hazardous components CAS-No.	PBT/vPvB
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Reaction mass of (1-methylethylidene)bis(4,1-phenyleneoxy-2,1-ethanediyl) bismethacrylate and 2-{4-[2-(4-{2-[2-(methacryloyloxy)etho	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
3,3,5 Trimethylcyclohexyl methacrylate 7779-31-9	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
2-Hydroxyethyl methacrylate 868-77-9	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
Acrylic acid 79-10-7	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
Hydroxypropyl methacrylate 27813-02-1	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
Reaction products of 4,4'-isopropylidenediphenol, ethoxylated and methacrylic acid	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
Cumene hydroperoxide 80-15-9	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
maleic acid 110-16-7	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
methacrylic acid 79-41-4	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
2,2'-Ethylenedioxydiethyl dimethacrylate 109-16-0	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.

12.6. Other adverse effects

No data available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product disposal:

Do not empty into drains / surface water / ground water.

Dispose of in accordance with local and national regulations.

Disposal of uncleaned packages:

After use, tubes, cartons and bottles containing residual product should be disposed of as chemically contaminated waste in an authorised legal land fill site or incinerated.

Waste code

08 04 09* waste adhesives and sealants containing organic solvents and other dangerous substances

The valid EWC waste code numbers are source-related. The manufacturer is therefore unable to specify EWC waste codes for the articles or products used in the various sectors. The EWC codes listed are intended as a recommendation for users. We will be happy to advise you.

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SECTION 14: Transport information

14.1. UN number

ADR	Not dangerous goods
RID	Not dangerous goods
ADN	Not dangerous goods
IMDG	Not dangerous goods
IATA	Not dangerous goods

14.2. UN proper shipping name

ADR	Not dangerous goods
RID	Not dangerous goods
ADN	Not dangerous goods
IMDG	Not dangerous goods
IATA	Not dangerous goods

14.3. Transport hazard class(es)

ADR	Not dangerous goods
RID	Not dangerous goods
ADN	Not dangerous goods
IMDG	Not dangerous goods
IATA	Not dangerous goods

14.4. Packing group

ADR	Not dangerous goods
RID	Not dangerous goods
ADN	Not dangerous goods
IMDG	Not dangerous goods
IATA	Not dangerous goods

14.5. Environmental hazards

ADR	not applicable
RID	not applicable
ADN	not applicable
IMDG	not applicable
IATA	not applicable

14.6. Special precautions for user

ADR	not applicable
RID	not applicable
ADN	not applicable
IMDG	not applicable
IATA	not applicable

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

not applicable

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SECTION 15: Regulatory information

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

Ozone Depleting Substance (ODS) (Regulation (EC) No 1005/2009):	Not applicable
Prior Informed Consent (PIC) (Regulation (EU) No 649/2012):	Not applicable
Persistent organic pollutants (Regulation (EU) 2019/1021):	Not applicable

VOC content (2010/75/EC)	< 3 %
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15.2. Chemical safety assessment

A chemical safety assessment has been carried out.

SECTION 16: Other information

The labelling of the product is indicated in Section 2. The full text of all abbreviations indicated by codes in this safety data sheet are as follows:

H226 Flammable liquid and vapour.
H242 Heating may cause a fire.
H301 Toxic if swallowed.
H302 Harmful if swallowed.
H311 Toxic in contact with skin.
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.
H319 Causes serious eye irritation.
H330 Fatal if inhaled.
H332 Harmful if inhaled.
H335 May cause respiratory irritation.
H351 Suspected of causing cancer.
H373 May cause damage to organs through prolonged or repeated exposure.
H400 Very toxic to aquatic life.
H411 Toxic to aquatic life with long lasting effects.
H413 May cause long lasting harmful effects to aquatic life.

SDS Author:

Name and contact:	Tuba Acar tuba.acar@henkel.com
Certification number:	KDU01.11.01 (14.12.2019)

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Further information:

This information is based on our current level of knowledge and relates to the product in the state in which it is delivered. It is intended to describe our products from the point of view of safety requirements and is not intended to guarantee any particular properties.

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