

# Safety Data Sheet according to (EC) No 1907/2006 as amended

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#### LOCTITE 2701

SDS No. : 173107 V006.1 Revision: 07.08.2023 printing date: 07.08.2023 Replaces version from: 31.08.2022

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

#### **1.1. Product identifier** LOCTITE 2701

**1.2. Relevant identified uses of the substance or mixture and uses advised against** Intended use:

Anaerobic Adhesive

## 1.3. Details of the supplier of the safety data sheet

Henkel AG & Co. KGaA Henkelstr. 67 40589 Düsseldorf

Germany

Phone: +49 211 797 0

#### ua-productsafety.de@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

The Henkel information service also provides an around-the-clock telephone service on phone no.+49-(0)211-797-3350 for exceptional cases.

## **SECTION 2: Hazards identification**

#### 2.1. Classification of the substance or mixture

Classification (CLP):	
Skin sensitizer	Category 1
H317 May cause an allergic skin reaction.	
Serious eye irritation	Category 2
H319 Causes serious eye irritation.	
Specific target organ toxicity - single exposure	Category 3
H335 May cause respiratory irritation.	
Target organ: respiratory tract irritation	

#### 2.2. Label elements

Label elements (CLP):

Hazard pictogram:



Contains

Hydroxypropyl methacrylate

	2,2'-Ethylenedioxydiethyl dimethacrylate
	Methacryloyloxyethyl succinate Cumene hydroperoxide Acetic acid, 2-phenylhydrazide 2-Hydroxyethyl methacrylate
	methyl methacrylate
	Propylene glycol dimethacrylate
Signal word:	Warning
Hazard statement:	H317 May cause an allergic skin reaction. H319 Causes serious eye irritation. H335 May cause respiratory irritation.
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	P261 Avoid breathing vapors. P280 Wear protective gloves.
Precautionary statement: Response	P333+P313 If skin irritation or rash occurs: Get medical advice/attention. P337+P313 If eye irritation persists: Get medical advice/attention.

#### 2.3. Other hazards

None if used properly. Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria. Non corrosive to eyes according to test method OECD 438 or based on analogy to similar products tested.

Following substances are present in a concentration  $\geq$  the concentration limit for depiction in Section 3 and fulfill the criteria for PBT/vPvB, or were identified as endocrine disruptor (ED):

This mixture does not contain any substances in a concentration  $\geq$  the concentration limit for depiction in Section 3 that are assessed to be a PBT, vPvB or ED.

## **SECTION 3: Composition/information on ingredients**

## 3.2. Mixtures

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

Hazardous components	Concentration	Classification	Specific Conc. Limits, M-	Add.
CAS-No.			factors and ATEs	Information
EC Number				
REACH-Reg No. Hydroxypropyl methacrylate	25- 50 %	Skin Sens. 1, H317		
27813-02-1	20 00 10	Eye Irrit. 2, H319		
248-666-3				
01-2119490226-37				
2,2'-Ethylenedioxydiethyl	5-< 10 %	Skin Sens. 1B, H317	dermal:ATE = $> 5.000$ mg/kg	
dimethacrylate		······································	inhalation: $ATE = 28,17$	
109-16-0			mg/l;dust/mist	
203-652-6 01-2119969287-21				
01-2119909287-21				
Methacryloyloxyethyl succinate	1-< 3%	Skin Sens. 1, H317		
20882-04-6		Eye Dam. 1, H318		
244-096-4 01-2120137902-58				
01-212013/902-38				
Cumene hydroperoxide	0,25-< 2,5 %	STOT RE 2, H373	Eye Irrit. 2; H319; C 1 - < 3 %	
80-15-9		Skin Corr. 1B, H314	Skin Irrit. 2; H315; C 3 - < 10 %	
201-254-7 01-2119475796-19		Acute Tox. 2, Inhalation, H330	Eye Dam. 1; H318; C 3 - < 10 % STOT SE 3; H335; C >= 1 %	
01-2119473790-19		Aquatic Chronic 2, H411 Acute Tox. 4, Oral, H302	Skin Corr. 1B; H314; $C \ge 10\%$	
		Acute Tox. 4, Dermal, H312	=====	
		Org. Perox. E, H242	dermal:ATE = 1.100 mg/kg	
		STOT SE 3, H335		
methacrylic acid 79-41-4	0,1-< 1 %	Acute Tox. 4, Oral, H302 Acute Tox. 3, Dermal, H311	STOT SE 3; H335; C >= 1 %	
201-204-4		Acute Tox. 4, Inhalation, H332	dermal:ATE = 500 mg/kg	
01-2119463884-26		Skin Corr. 1A, H314	inhalation:ATE = $3,61$	
		Eye Dam. 1, H318	mg/l;dust/mist	
		STOT SE 3, H335		
Acetic acid, 2-phenylhydrazide	0,1-< 1 %	Acute Tox. 3, Oral, H301		
114-83-0	0,1 < 1 /0	Skin Irrit. 2, H315		
204-055-3		Skin Sens. 1, H317		
		Eye Irrit. 2, H319		
		STOT SE 3, Inhalation, H335		
		Carc. 2, H351		
2-Hydroxyethyl methacrylate	0,1-< 1 %	Skin Irrit. 2, H315		
868-77-9		Skin Sens. 1, H317		
212-782-2		Eye Irrit. 2, H319		
01-2119490169-29				
methyl methacrylate	0,1-< 1 %	Flam. Liq. 2, H225		EU OEL
80-62-6		STOT SE 3, H335		
201-297-1		Skin Irrit. 2, H315		
01_2110/52/08 28		Skin Sens. 1, H317		
01-2119452498-28				
	0,1-< 1 %	STOT SE 3, H335		
01-2119452498-28 Propylene glycol dimethacrylate 7559-82-2	0,1-< 1 %	STOT SE 3, H335 Skin Sens. 1B, H317		

If no ATE values are displayed, please refer to LD/LC50 values in Section 11. For full text of the H - statements and other abbreviations see section 16 "Other information".

# **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

EYE: Irritation, conjunctivitis.

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

SKIN: Rash, Urticaria.

#### 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:** Carbon dioxide, foam, powder

**Extinguishing media which must not be used for safety reasons:** None known

#### 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 (NOx) 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. Ensure adequate ventilation. Wear protective equipment.

#### **6.2. Environmental precautions**

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

#### 6.3. Methods and material for containment and cleaning up

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. Dispose of contaminated material as waste according to Section 13.

#### 6.4. Reference to other sections

See advice in section 8

#### **SECTION 7: Handling and storage**

#### 7.1. Precautions for safe handling

Use only in well-ventilated areas. Avoid skin and eye contact. Prolonged or repeated skin contact should be avoided 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** Refer to Technical Data Sheet

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# 7.3. Specific end use(s)

Anaerobic Adhesive

# **SECTION 8: Exposure controls/personal protection**

## 8.1. Control parameters

#### **Occupational Exposure Limits**

#### Valid for

Germany

Ingredient [Regulated substance]	ppm	mg/m <sup>3</sup>	Value type	Short term exposure limit category / Remarks	Regulatory list
Methacrylic acid 79-41-4	50	180	Exposure limit(s):	2 If the AGW and BGW values are complied with, there should be no risk of reproductive damage (see Number 2.7).	TRGS 900
Methacrylic acid 79-41-4			Short Term Exposure Classification:	Category I: substances for which the localized effect has an assigned OEL or for substances with a sensitizing effect in respiratory passages.	TRGS 900
Methyl methacrylate 80-62-6	50	210	Exposure limit(s):	2 If the AGW and BGW values are complied with, there should be no risk of reproductive damage (see Number 2.7).	TRGS 900
Methyl methacrylate 80-62-6			Short Term Exposure Classification:	Category I: substances for which the localized effect has an assigned OEL or for substances with a sensitizing effect in respiratory passages.	TRGS 900
Methyl methacrylate 80-62-6 [METHYL METHACRYLATE]	100		Short Term Exposure Limit (STEL):	Indicative	ECTLV
Methyl methacrylate 80-62-6 [METHYL METHACRYLATE]	50		Time Weighted Average (TWA):	Indicative	ECTLV

## Predicted No-Effect Concentration (PNEC):

Name on list	Environmental		e Value				Remarks
	Compartment	period	mg/l	ppm	mg/kg	others	
Methacrylic acid, monoester with propane-	aqua		0,904 mg/l	ppm	iiig/Kg	others	
1,2-diol 27813-02-1	(freshwater)						
Methacrylic acid, monoester with propane- 1,2-diol 27813-02-1	aqua (marine water)		0,904 mg/l				
Methacrylic acid, monoester with propane-	sewage		10 mg/l				
1,2-diol 27813-02-1	treatment plant (STP)						
Methacrylic acid, monoester with propane- 1,2-diol 27813-02-1	aqua (intermittent releases)		0,972 mg/l				
Methacrylic acid, monoester with propane- 1,2-diol 27813-02-1	sediment (freshwater)				6,28 mg/kg		
Methacrylic acid, monoester with propane- 1,2-diol 27813-02-1	sediment (marine water)				6,28 mg/kg		
Methacrylic acid, monoester with propane- 1,2-diol 27813-02-1	Soil				0,727 mg/kg		
Methacrylic acid, monoester with propane- 1,2-diol 27813-02-1	Marine water - intermittent		0,972 mg/l				
Methacrylic acid, monoester with propane- 1,2-diol 27813-02-1	Air						no hazard identified
Methacrylic acid, monoester with propane- 1,2-diol 27813-02-1	Predator						no potential for bioaccumulation
2,2'-Ethylenedioxydiethyl dimethacrylate 109-16-0	aqua (freshwater)		0,164 mg/l				
2,2'-Ethylenedioxydiethyl dimethacrylate 109-16-0	aqua (marine water)		0,0164 mg/l				
2,2'-Ethylenedioxydiethyl dimethacrylate 109-16-0	sewage treatment plant (STP)		10 mg/l				
2,2'-Ethylenedioxydiethyl dimethacrylate 109-16-0	aqua (intermittent releases)		0,164 mg/l				
2,2'-Ethylenedioxydiethyl dimethacrylate 109-16-0	sediment (freshwater)				1,85 mg/kg		
2,2'-Ethylenedioxydiethyl dimethacrylate 109-16-0	sediment (marine water)				0,185 mg/kg		
2,2'-Ethylenedioxydiethyl dimethacrylate 109-16-0	Soil				0,274 mg/kg		
2,2'-Ethylenedioxydiethyl dimethacrylate 109-16-0	Air						no hazard identified
2,2'-Ethylenedioxydiethyl dimethacrylate 109-16-0	Predator						no potential for bioaccumulation
.alpha.,.alphaDimethylbenzyl hydroperoxide 80-15-9	aqua (freshwater)		0,0031 mg/l				
.alphaalphaDimethylbenzyl hydroperoxide 80-15-9	aqua (intermittent releases)		0,031 mg/l				
.alpha.,.alphaDimethylbenzyl hydroperoxide 80-15-9	aqua (marine water)		0,00031 mg/l				
.alpha.,.alphaDimethylbenzyl hydroperoxide 80-15-9	sewage treatment plant (STP)		0,35 mg/l				
.alphaalphaDimethylbenzyl hydroperoxide 80-15-9	sediment (freshwater)				0,023 mg/kg		
.alpha.,.alphaDimethylbenzyl hydroperoxide 80-15-9	sediment (marine water)				0,0023 mg/kg		
.alpha.,.alphaDimethylbenzyl hydroperoxide	Soil				0,0029 mg/kg		

80-15-9	1			I
methacrylic acid	agua	0,82 mg/l		
79-41-4	(freshwater)	.,		
methacrylic acid	Freshwater -	0,45 mg/l		
79-41-4	intermittent			
methacrylic acid	aqua (marine	0,082 mg/l		
79-41-4	water)			
methacrylic acid	sewage	100 mg/l		
79-41-4	treatment plant (STP)			
methacrylic acid	sediment		3,09 mg/kg	
79-41-4	(freshwater)			
methacrylic acid	sediment		0,309	
79-41-4	(marine water)		mg/kg	
methacrylic acid 79-41-4	Soil		0,137 mg/kg	
methacrylic acid	Predator			no potential for
79-41-4				bioaccumulation
2-Hydroxyethyl methacrylate	aqua	0,482 mg/l		
868-77-9	(freshwater)			
2-Hydroxyethyl methacrylate	aqua (marine	0,482 mg/l		
868-77-9	water)	10 /		
2-Hydroxyethyl methacrylate 868-77-9	sewage treatment plant	10 mg/l		
808-77-9	(STP)			
2-Hydroxyethyl methacrylate	aqua	1 mg/l		
868-77-9	(intermittent	1 mg/1		
	releases)			
2-Hydroxyethyl methacrylate	sediment		3,79 mg/kg	
868-77-9	(freshwater)		, , ,	
2-Hydroxyethyl methacrylate	sediment		3,79 mg/kg	
868-77-9	(marine water)			
2-Hydroxyethyl methacrylate	Soil		0,476	
868-77-9			mg/kg	
2-Hydroxyethyl methacrylate	Predator			no potential for
868-77-9				bioaccumulation
2-Hydroxyethyl methacrylate 868-77-9	Marine water - intermittent	1 mg/l		
methyl methacrylate	aqua	0,94 mg/l		
80-62-6	(freshwater)			
methyl methacrylate 80-62-6	aqua (marine water)	0,94 mg/l		
methyl methacrylate	aqua	0,94 mg/l		
80-62-6	(intermittent	o,,,		
	releases)			
methyl methacrylate	sewage	10 mg/l		
80-62-6	treatment plant			
	(STP)			
methyl methacrylate	sediment		5,74 mg/kg	
80-62-6	(freshwater)			
methyl methacrylate	Soil		1,47 mg/kg	
80-62-6				

## Derived No-Effect Level (DNEL):

Name on list	Application Area	Route of Exposure	Health Effect	Exposure Time	Value	Remarks
Methacrylic acid, monoester with propane- 1,2-diol 27813-02-1	Workers	dermal	Long term exposure - systemic effects		4,2 mg/kg	no hazard identified
Methacrylic acid, monoester with propane- 1,2-diol 27813-02-1	Workers	Inhalation	Long term exposure - systemic effects		14,7 mg/m3	no hazard identified
Methacrylic acid, monoester with propane- 1,2-diol 27813-02-1	General population	dermal	Long term exposure - systemic effects		2,5 mg/kg	no hazard identified
Methacrylic acid, monoester with propane- 1,2-diol 27813-02-1	General population	Inhalation	Long term exposure - systemic effects		8,8 mg/m3	no hazard identified
Methacrylic acid, monoester with propane- 1,2-diol 27813-02-1	General population	oral	Long term exposure - systemic effects		2,5 mg/kg	no hazard identified
2,2'-Ethylenedioxydiethyl dimethacrylate 109-16-0	Workers	inhalation	Long term exposure - systemic effects		48,5 mg/m3	no hazard identified
2,2'-Ethylenedioxydiethyl dimethacrylate 109-16-0	Workers	dermal	Long term exposure - systemic effects		13,9 mg/kg	no hazard identified
2,2'-Ethylenedioxydiethyl dimethacrylate 109-16-0	General population	inhalation	Long term exposure - systemic effects		14,5 mg/m3	no hazard identified
2,2'-Ethylenedioxydiethyl dimethacrylate 109-16-0	General population	dermal	Long term exposure - systemic effects		8,33 mg/kg	no hazard identified
2,2'-Ethylenedioxydiethyl dimethacrylate 109-16-0	General population	oral	Long term exposure - systemic effects		8,33 mg/kg	no hazard identified
.alpha.,.alphaDimethylbenzyl hydroperoxide 80-15-9	Workers	inhalation	Long term exposure - systemic effects		6 mg/m3	
methacrylic acid 79-41-4	Workers	Inhalation	Long term exposure - local effects		88 mg/m3	no potential for bioaccumulation
methacrylic acid 79-41-4	Workers	Inhalation	Long term exposure - systemic effects		29,6 mg/m3	no potential for bioaccumulation
methacrylic acid 79-41-4	Workers	dermal	Long term exposure - systemic effects		4,25 mg/kg	no potential for bioaccumulation
methacrylic acid 79-41-4	General population	Inhalation	Long term exposure - local effects		6,55 mg/m3	no potential for bioaccumulation
methacrylic acid 79-41-4	General population	Inhalation	Long term exposure - systemic effects		6,3 mg/m3	no potential for bioaccumulation
methacrylic acid 79-41-4	General population	dermal	Long term exposure - systemic effects		2,55 mg/kg	no potential for bioaccumulation
2-Hydroxyethyl methacrylate 868-77-9	Workers	dermal	Long term exposure - systemic effects		1,3 mg/kg	no potential for bioaccumulation
2-Hydroxyethyl methacrylate 868-77-9	Workers	Inhalation	Long term exposure - systemic effects		4,9 mg/m3	no potential for bioaccumulation
2-Hydroxyethyl methacrylate 868-77-9	General population	dermal	Long term exposure - systemic effects		0,83 mg/kg	no potential for bioaccumulation
2-Hydroxyethyl methacrylate 868-77-9	General population	Inhalation	Long term exposure - systemic effects		2,9 mg/m3	no potential for bioaccumulation
2-Hydroxyethyl methacrylate 868-77-9	General population	oral	Long term exposure - systemic effects		0,83 mg/kg	no potential for bioaccumulation
methyl methacrylate 80-62-6	Workers	dermal	Acute/short term exposure - local effects		1,5 mg/cm2	
methyl methacrylate 80-62-6	Workers	dermal	Long term exposure -		13,67 mg/kg	

			systemic effects		
methyl methacrylate 80-62-6	Workers	Inhalation	Long term exposure - systemic effects	208 mg/m3	
methyl methacrylate 80-62-6	Workers	dermal	Long term exposure - local effects	1,5 mg/cm2	
methyl methacrylate 80-62-6	Workers	Inhalation	Long term exposure - local effects	208 mg/m3	
methyl methacrylate 80-62-6	General population	dermal	Acute/short term exposure - local effects	1,5 mg/cm2	
methyl methacrylate 80-62-6	General population	dermal	Long term exposure - systemic effects	8,2 mg/kg	
methyl methacrylate 80-62-6	General population	Inhalation	Long term exposure - systemic effects	74,3 mg/m3	
methyl methacrylate 80-62-6	General population	dermal	Long term exposure - local effects	1,5 mg/cm2	
methyl methacrylate 80-62-6	General population	Inhalation	Long term exposure - local effects	104 mg/m3	

#### **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.

#### **SECTION 9: Physical and chemical properties**

#### 9.1. Information on basic physical and chemical properties

Delivery form	liquid
Colour	green
Odor	mild, Acrylic
Physical state	liquid
Melting point	Not applicable, Product is a liquid
Solidification temperature	< -30 °C (< -22 °F)
Initial boiling point	> 150 °C (> 302 °F)None
Flammability	The product is not flammable.
Explosive limits	Not applicable, The product is not flammable.
Flash point	> 100 °C (> 212 °F)
Auto-ignition temperature	Not applicable, The product is not flammable.
Decomposition temperature	Not applicable, Substance/mixture is not self-reactive, no organic
	peroxide and does not decompose under foreseen conditions of use
pH	Not applicable, Product is non-polar/aprotic.
Viscosity (kinematic)	> 20,5 mm2/s
(40 °C (104 °F); )	
Solubility (qualitative)	Partially soluble
(Solvent: Water)	
Solubility (qualitative)	Miscible
(Solvent: Acetone)	
Solubility (qualitative)	Slight
(20 °C (68 °F); Solvent: Water)	
Partition coefficient: n-octanol/water	Not applicable
	Mixture
Vapour pressure	< 0,13 mbar
(20 °C (68 °F))	
Density	1,1 g/cm3 None
(20 °C (68 °F))	
Relative vapour density:	>1
(20 °C)	
Particle characteristics	Not applicable
	Product is a liquid

#### 9.2. Other information

Other information not applicable for this product

## **SECTION 10: Stability and reactivity**

#### 10.1. Reactivity

Reacts with strong oxidants.

## 10.2. Chemical stability

Stable under recommended storage conditions.

## 10.3. Possibility of hazardous reactions

See section reactivity

#### **10.4.** Conditions to avoid

No decomposition if used according to specifications.

## **10.5. Incompatible materials**

See section reactivity.

## 10.6. Hazardous decomposition products

carbon oxides.

## **SECTION 11: Toxicological information**

#### General toxicological information:

Prolonged or repeated contact may cause skin irritation.

## 11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

#### Acute oral toxicity:

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Species	Method
Hydroxypropyl methacrylate 27813-02-1	LD50	> 2.000 mg/kg	rat	OECD Guideline 401 (Acute Oral Toxicity)
2,2'-Ethylenedioxydiethyl dimethacrylate 109-16-0	LD50	10.837 mg/kg	rat	not specified
Methacryloyloxyethyl succinate 20882-04-6	LD50	> 2.000 mg/kg	rat	OECD Guideline 423 (Acute Oral toxicity)
Cumene hydroperoxide 80-15-9	LD50	382 mg/kg	rat	other guideline:
methacrylic acid 79-41-4	LD50	1.320 mg/kg	rat	equivalent or similar to OECD Guideline 401 (Acute Oral Toxicity)
Acetic acid, 2- phenylhydrazide 114-83-0	LD50	270 mg/kg	rat	not specified
2-Hydroxyethyl methacrylate 868-77-9	LD50	5.564 mg/kg	rat	FDA Guideline
methyl methacrylate 80-62-6	LD50	9.400 mg/kg	rat	not specified
Propylene glycol dimethacrylate 7559-82-2	LD50	8.700 mg/kg	rat	FDA Guideline

## Acute dermal toxicity:

Hazardous substances	Value	Value	Species	Method
CAS-No.	type			
Hydroxypropyl	LD50	> 5.000 mg/kg	rabbit	not specified
methacrylate 27813-02-1				
2,2'-Ethylenedioxydiethyl dimethacrylate 109-16-0	Acute toxicity estimate (ATE)	> 5.000 mg/kg		Expert judgement
Cumene hydroperoxide 80-15-9	Acute toxicity estimate (ATE)	1.100 mg/kg		Expert judgement
methacrylic acid 79-41-4	LD50	500 - 1.000 mg/kg	rabbit	Dermal Toxicity Screening
methacrylic acid 79-41-4	Acute toxicity estimate (ATE)	500 mg/kg		Expert judgement
2-Hydroxyethyl methacrylate 868-77-9	LD50	> 5.000 mg/kg	rabbit	not specified
methyl methacrylate 80-62-6	LD50	> 5.000 mg/kg	rabbit	equivalent or similar to OECD Guideline 402 (Acute Dermal Toxicity)
Propylene glycol dimethacrylate 7559-82-2	LD50	> 2.000 mg/kg	rat	OECD Guideline 402 (Acute Dermal Toxicity)

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

## Acute inhalative toxicity:

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances	Value	Value	Test atmosphere	Exposure	Species	Method
CAS-No.	type			time		
2,2'-Ethylenedioxydiethyl dimethacrylate 109-16-0	Acute toxicity estimate (ATE)	28,17 mg/l	dust/mist			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	dust/mist			Expert judgement
methyl methacrylate 80-62-6	LC50	29,8 mg/l	vapour	4 h	rat	not specified

#### Skin corrosion/irritation:

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Result	Exposure time	Species	Method
Hydroxypropyl methacrylate 27813-02-1	not irritating	24 h	rabbit	Draize Test
2,2'-Ethylenedioxydiethyl dimethacrylate 109-16-0	not irritating	24 h	rabbit	Draize Test
Methacryloyloxyethyl succinate 20882-04-6	not irritating	0,25 h	Human, EPISKIIN™ Reconstituted Human Epidermis model	OECD Guideline 439 (In Vitro Skin Irritation: Reconstructed Human Epidermis (RHE) Test Method)
Methacryloyloxyethyl succinate 20882-04-6	not corrosive	4 h	Human, EPISKIIN™ Reconstituted Human Epidermis model	OECD Guideline 431 (In Vitro Skin Corrosion: Reconstructed Human Epidermis (RHE) Test Method)
Cumene hydroperoxide 80-15-9	corrosive		rabbit	Draize Test
methacrylic acid 79-41-4	corrosive	3 min	rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
2-Hydroxyethyl methacrylate 868-77-9	slightly irritating	24 h	rabbit	Draize Test
Propylene glycol dimethacrylate 7559-82-2	not irritating	24 h	rabbit	FDA Guideline

## Serious eye damage/irritation:

Non corrosive to eyes according to test method OECD 438 or based on analogy to similar products tested.

Hazardous substances CAS-No.	Result	Exposure time	Species	Method
Hydroxypropyl methacrylate 27813-02-1	Category 2B (mildly irritating to eyes)		rabbit	Draize Test
2,2'-Ethylenedioxydiethyl dimethacrylate 109-16-0	not irritating		rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)
Methacryloyloxyethyl succinate 20882-04-6	Category I	10 min	Bovine, cornea, in vitro test	OECD Guideline 437 (BCOP)
methacrylic acid 79-41-4	corrosive		rabbit	Draize Test
2-Hydroxyethyl methacrylate 868-77-9	Category 2B (mildly irritating to eyes)		rabbit	Draize Test
Propylene glycol dimethacrylate 7559-82-2	not irritating		rabbit	Draize Test

## Respiratory or skin sensitization:

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Result	Test type	Species	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
2,2'-Ethylenedioxydiethyl dimethacrylate 109-16-0	sensitising	Mouse local lymphnode assay (LLNA)	mouse	OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay)
methacrylic acid 79-41-4	not sensitising	Buehler test	guinea pig	equivalent or similar to OECD Guideline 406 (Skin Sensitisation)
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
methyl methacrylate 80-62-6	sensitising	Mouse local lymphnode assay (LLNA)	mouse	OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay)
Propylene glycol dimethacrylate 7559-82-2	sensitising	Mouse local lymphnode assay (LLNA)	mouse	OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay)

## Germ cell mutagenicity:

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Result	Type of study / Route of administration	Metabolic activation / Exposure time	Species	Method
Hydroxypropyl methacrylate 27813-02-1	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
Hydroxypropyl methacrylate 27813-02-1	positive	in vitro mammalian chromosome aberration test	with and without		Chromosome Aberration Test
Hydroxypropyl methacrylate 27813-02-1	negative	mammalian cell gene mutation assay	with and without		OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation 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)
2,2'-Ethylenedioxydiethyl dimethacrylate 109-16-0	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
2,2'-Ethylenedioxydiethyl dimethacrylate 109-16-0	negative	in vitro mammalian cell micronucleus test	with and without		OECD Guideline 487 (In vitro Mammalian Cell Micronucleus Test)
Methacryloyloxyethyl succinate 20882-04-6	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
Cumene hydroperoxide 80-15-9	positive	bacterial reverse mutation assay (e.g Ames test)	without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
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)
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)
2-Hydroxyethyl methacrylate 868-77-9	positive	in vitro mammalian chromosome aberration test	with and without		OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test)
2-Hydroxyethyl methacrylate 868-77-9	negative	mammalian cell gene mutation assay	with and without		OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)
methyl methacrylate 80-62-6	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		not specified

## Carcinogenicity

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

Hazardous components CAS-No.	Result	Route of application	Exposure time / Frequency of treatment	Species	Sex	Method
Hydroxypropyl methacrylate 27813-02-1	not carcinogenic	inhalation	2 y 6 h/d, 5 d/w	rat	male	equivalent or similar OECD Guideline 451 (Carcinogenicity Studies)
methacrylic acid 79-41-4	not carcinogenic	inhalation	2 y	mouse	male/female	OECD Guideline 451 (Carcinogenicity Studies)
2-Hydroxyethyl methacrylate 868-77-9	not carcinogenic	inhalation	2 y 6 h/d, 5 d/w	rat	female	equivalent or similar OECD Guideline 451 (Carcinogenicity Studies)
2-Hydroxyethyl methacrylate 868-77-9	not carcinogenic	inhalation	2 y 6 h/d, 5 d/w	rat	male	equivalent or similar OECD Guideline 451 (Carcinogenicity Studies)

## **Reproductive toxicity:**

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Result / Value	Test type	Route of application	Species	Method
Hydroxypropyl methacrylate 27813-02-1	NOAEL P 300 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)
Hydroxypropyl methacrylate 27813-02-1	NOAEL P 400 mg/kg NOAEL F1 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)
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-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)

## STOT-single exposure:

No data available.

## STOT-repeated exposure:

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Result / Value	Route of application	Exposure time / Frequency of treatment	Species	Method
Hydroxypropyl methacrylate 27813-02-1	NOAEL 300 mg/kg	oral: gavage	49 d daily	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 d 6 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)
Cumene hydroperoxide 80-15-9		inhalation: aerosol	6 h/d 5 d/w	rat	not specified
methacrylic acid 79-41-4		inhalation	90 d 6 h/d, 5 d/w	rat	OECD Guideline 413 (Subchronic Inhalation Toxicity: 90-Day)
2-Hydroxyethyl methacrylate 868-77-9	NOAEL 100 mg/kg	oral: gavage	49 d daily	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 d 6 h/d, 5 d/w	rat	OECD Guideline 413 (Subchronic Inhalation Toxicity: 90-Day)
methyl methacrylate 80-62-6	LOAEL 2000 ppm	inhalation	14 weeks 6 hrs/day, 5 days/wk	mouse	Dose Range Finding Study
methyl methacrylate 80-62-6	NOAEL 1000 ppm	inhalation	14 weeks 6 hrs/day, 5 days/wk	mouse	Dose Range Finding Study

## Aspiration hazard:

No data available.

#### 11.2 Information on other hazards

not applicable

## **SECTION 12: Ecological information**

#### General ecological information:

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

#### 12.1. Toxicity

#### **Toxicity (Fish):**

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

The table below presents the data of the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Exposure time	Species	Method
Hydroxypropyl methacrylate 27813-02-1	LC50	493 mg/l	48 h	Leuciscus idus melanotus	DIN 38412-15
2,2'-Ethylenedioxydiethyl dimethacrylate 109-16-0	LC50	16,4 mg/l	96 h	Danio rerio	OECD Guideline 203 (Fish, Acute Toxicity Test)
Cumene hydroperoxide 80-15-9	LC50	3,9 mg/l	96 h	Oncorhynchus mykiss	OECD Guideline 203 (Fish, Acute Toxicity Test)
methacrylic acid 79-41-4	LC50	85 mg/l	96 h	Salmo gairdneri (new name: Oncorhynchus mykiss)	EPA OTS 797.1400 (Fish Acute Toxicity Test)
methacrylic acid 79-41-4	NOEC	10 mg/l	35 d	Danio rerio	OECD Guideline 210 (fish early lite stage toxicity test)
2-Hydroxyethyl methacrylate 868-77-9	LC50	> 100 mg/l	96 h	Oryzias latipes	OECD Guideline 203 (Fish, Acute Toxicity Test)
methyl methacrylate 80-62-6	LC50	350 mg/l	96 h	Leuciscus idus	OECD Guideline 203 (Fish, Acute Toxicity Test)
Propylene glycol dimethacrylate 7559-82-2	LC50	15,95 mg/l	96 h	Danio rerio (reported as Brachydanio rerio)	OECD Guideline 203 (Fish, Acute Toxicity Test)

#### Toxicity (aquatic invertebrates):

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

The table below presents the data of the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Exposure time	Species	Method
Hydroxypropyl methacrylate 27813-02-1	EC50	> 143 mg/l	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Methacryloyloxyethyl succinate 20882-04-6	EC50	> 515,4 mg/l	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Cumene hydroperoxide 80-15-9	EC50	18,84 mg/l	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
methacrylic acid 79-41-4	EC50	> 130 mg/l	48 h	Daphnia magna	EPA OTS 797.1300 (Aquatic Invertebrate Acute Toxicity Test, Freshwater Daphnids)
2-Hydroxyethyl methacrylate 868-77-9	EC50	380 mg/l	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
methyl methacrylate 80-62-6	EC50	69 mg/l	48 h	Daphnia magna	EPA OTS 797.1300 (Aquatic Invertebrate Acute Toxicity Test, Freshwater Daphnids)
Propylene glycol dimethacrylate 7559-82-2	EC50	44,9 mg/l	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)

Chronic toxicity (aquatic invertebrates):

The table below presents the data of the classified substances present in the mixture.

Hazardous substances	Value	Value	Exposure time	Species	Method
CAS-No.	type				
Hydroxypropyl methacrylate 27813-02-1	NOEC	45,2 mg/l	21 d	Daphnia magna	OECD 211 (Daphnia magna, Reproduction Test)
2,2'-Ethylenedioxydiethyl dimethacrylate 109-16-0	NOEC	32 mg/l	21 d	Daphnia magna	OECD 211 (Daphnia magna, Reproduction Test)
methacrylic acid 79-41-4	NOEC	53 mg/l	21 d	Daphnia magna	OECD 211 (Daphnia magna, Reproduction Test)
2-Hydroxyethyl methacrylate 868-77-9	NOEC	24,1 mg/l	21 d	Daphnia magna	OECD 211 (Daphnia magna, Reproduction Test)
methyl methacrylate 80-62-6	NOEC	37 mg/l	21 d	Daphnia magna	OECD 211 (Daphnia magna, Reproduction Test)
Propylene glycol dimethacrylate 7559-82-2	NOEC	5,05 mg/l	21 d	Daphnia magna	OECD 211 (Daphnia magna, Reproduction Test)

Toxicity (Algae):

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

The table below presents the data of the classified substances present in the mixture.

Hazardous substances	Value	Value	Exposure time	Species	Method
CAS-No.	type				
Hydroxypropyl methacrylate 27813-02-1	EC50	> 97,2 mg/l	72 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
Hydroxypropyl methacrylate 27813-02-1	NOEC	> 97,2 mg/l	72 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
2,2'-Ethylenedioxydiethyl dimethacrylate 109-16-0	EC50	> 100 mg/l	72 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
2,2'-Ethylenedioxydiethyl dimethacrylate 109-16-0	NOEC	18,6 mg/l	72 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
Methacryloyloxyethyl succinate 20882-04-6	EC50	> 312 mg/l	72 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
Methacryloyloxyethyl succinate 20882-04-6	NOEC	21,1 mg/l	72 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
Cumene hydroperoxide 80-15-9	EC50	3,1 mg/l	72 h	Desmodesmus subspicatus (reported as Scenedesmus subspicatus)	OECD Guideline 201 (Alga, Growth Inhibition Test)
Cumene hydroperoxide 80-15-9	NOEC	1 mg/l	72 h	Desmodesmus subspicatus (reported as Scenedesmus subspicatus)	OECD Guideline 201 (Alga, Growth Inhibition Test)
methacrylic acid 79-41-4	NOEC	8,2 mg/l	72 h	Selenastrum capricornutum (new name: Pseudokirchneriella subcapitata)	OECD Guideline 201 (Alga, Growth Inhibition Test)
methacrylic acid 79-41-4	EC50	45 mg/l	72 h	Selenastrum capricornutum (new name: Pseudokirchneriella subcapitata)	OECD Guideline 201 (Alga, Growth Inhibition Test)
2-Hydroxyethyl methacrylate 868-77-9	EC50	836 mg/l	72 h	Selenastrum capricornutum (new name: Pseudokirchneriella subcapitata)	OECD Guideline 201 (Alga, Growth Inhibition Test)
2-Hydroxyethyl methacrylate 868-77-9	NOEC	400 mg/l	72 h	Selenastrum capricornutum (new name: Pseudokirchneriella subcapitata)	OECD Guideline 201 (Alga, Growth Inhibition Test)
methyl methacrylate 80-62-6	EC50	170 mg/l	96 h	Selenastrum capricornutum (new name: Pseudokirchneriella subcapitata)	OECD Guideline 201 (Alga, Growth Inhibition Test)
methyl methacrylate 80-62-6	NOEC	100 mg/l	96 h	Selenastrum capricornutum (new name: Pseudokirchneriella subcapitata)	OECD Guideline 201 (Alga, Growth Inhibition Test)
Propylene glycol dimethacrylate 7559-82-2	EC50	17,3 mg/l	72 h	Pseudokirchneriella subcapitata (reported as Raphidocelis subcapitata)	OECD Guideline 201 (Alga, Growth Inhibition Test)
Propylene glycol dimethacrylate 7559-82-2	EC10	6,93 mg/l	72 h	Pseudokirchneriella subcapitata (reported as Raphidocelis subcapitata)	OECD Guideline 201 (Alga, Growth Inhibition Test)

#### Toxicity (microorganisms):

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

The table below presents the data of the classified substances present in the mixture.

Hazardous substances	Value	Value	Exposure time	Species	Method
CAS-No.	type		_	_	
Hydroxypropyl methacrylate 27813-02-1	EC10	1.140 mg/l	16 h		not specified
Cumene hydroperoxide 80-15-9	EC10	70 mg/l	30 min	not specified	not specified
methacrylic acid 79-41-4	EC10	100 mg/l	17 h	Pseudomonas putida	DIN 38412, part 8 (Pseudomonas Zellvermehrungshemm- Test)
2-Hydroxyethyl methacrylate 868-77-9	EC0	> 3.000 mg/l	16 h	Pseudomonas fluorescens	other guideline:
methyl methacrylate 80-62-6	EC20	> 150 - 200 mg/l	30 min	activated sludge, domestic	ISO 8192 (Test for Inhibition of Oxygen Consumption by Activated Sludge)

Propylene glycol	EC50	570 mg/l	3 h	activated sludge of a	OECD Guideline 209
dimethacrylate				predominantly domestic sewage	(Activated Sludge,
7559-82-2					Respiration Inhibition Test)

## 12.2. Persistence and degradability

The product is not biodegradable.

The table below presents the data of the classified substances present in the mixture.

Hazardous substances CAS-No.	Result	Test type	Degradability	Exposure time	Method
Hydroxypropyl methacrylate 27813-02-1	readily biodegradable	aerobic	94,2 %	28 d	OECD Guideline 301 E (Ready biodegradability: Modified OECD Screening Test)
2,2'-Ethylenedioxydiethyl dimethacrylate 109-16-0	readily biodegradable	aerobic	85 %	28 d	OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test)
Methacryloyloxyethyl succinate 20882-04-6	readily biodegradable, but failing 10-day window	aerobic	80 %	28 d	OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)
Cumene hydroperoxide 80-15-9	not readily biodegradable.	aerobic	3 %	28 d	OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test)
methacrylic acid 79-41-4	readily biodegradable	aerobic	86 %	28 d	OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)
methacrylic acid 79-41-4	inherently biodegradable	aerobic	100 %	14 d	OECD Guideline 302 B (Inherent biodegradability: Zahn- Wellens/EMPA Test)
2-Hydroxyethyl methacrylate 868-77-9	readily biodegradable	aerobic	92 - 100 %	14 d	OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I))
methyl methacrylate 80-62-6	readily biodegradable	aerobic	94 %	14 d	OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I))
Propylene glycol dimethacrylate 7559-82-2	not readily biodegradable.	aerobic	69 %	28 d	OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)

#### **12.3. Bioaccumulative potential**

The table below presents the data of the classified substances present in the mixture.

Hazardous substances CAS-No.	Bioconcentratio n factor (BCF)	Exposure time	Temperature	Species	Method
Cumene hydroperoxide	9,1			calculation	OECD Guideline 305
80-15-9					(Bioconcentration: Flow-through
					Fish Test)

#### 12.4. Mobility in soil

Cured adhesives are immobile.

The table below presents the data of the classified substances present in the mixture.

Hazardous substances CAS-No.	LogPow	Temperature	Method
Hydroxypropyl methacrylate 27813-02-1	0,97	20 °C	not specified
2,2'-Ethylenedioxydiethyl dimethacrylate 109-16-0	2,3		OECD Guideline 117 (Partition Coefficient (n-octanol / water), HPLC Method)
Methacryloyloxyethyl succinate 20882-04-6	0,783	23 °C	EU Method A.8 (Partition Coefficient)
Cumene hydroperoxide 80-15-9	1,6	25 °C	OECD Guideline 117 (Partition Coefficient (n-octanol / water), HPLC Method)
methacrylic acid 79-41-4	0,93	22 °C	OECD Guideline 107 (Partition Coefficient (n-octanol / water), Shake Flask Method)
Acetic acid, 2- phenylhydrazide 114-83-0	0,74		not specified
2-Hydroxyethyl methacrylate 868-77-9	0,42	25 °C	OECD Guideline 107 (Partition Coefficient (n-octanol / water), Shake Flask Method)
methyl methacrylate 80-62-6	1,38	20 °C	other guideline:
Propylene glycol dimethacrylate 7559-82-2	2,63		other (calculated)

## 12.5. Results of PBT and vPvB assessment

The table below presents the data of the classified substances present in the mixture.

Hazardous substances	PBT / vPvB
CAS-No.	
Hydroxypropyl methacrylate	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very
27813-02-1	Bioaccumulative (vPvB) criteria.
2,2'-Ethylenedioxydiethyl dimethacrylate	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very
109-16-0	Bioaccumulative (vPvB) criteria.
Cumene hydroperoxide	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very
80-15-9	Bioaccumulative (vPvB) criteria.
methacrylic acid	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very
79-41-4	Bioaccumulative (vPvB) criteria.
2-Hydroxyethyl methacrylate	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very
868-77-9	Bioaccumulative (vPvB) criteria.
methyl methacrylate	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very
80-62-6	Bioaccumulative (vPvB) criteria.

#### 12.6. Endocrine disrupting properties

not applicable

#### 12.7. Other adverse effects

No data available.

# **SECTION 13: Disposal considerations**

#### 13.1. Waste treatment methods

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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.

Disposal must be made according to official regulations.

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.

## **SECTION 14: Transport information**

14.1.	UN number or ID 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	haranda	
14.5.	Environmentai	nazarus	
	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. Maritime transport in bulk according to IMO instruments

not applicable

## **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

< 3 %

Ozone Depleting Substance (ODS) (Regulation (EC) No 1005/2009): Prior Informed Consent (PIC) (Regulation (EU) No 649/2012): Persistent organic pollutants (Regulation (EU) 2019/1021):

(2010/75/EC)

VOC content

**15.2. Chemical safety assessment** A chemical safety assessment has not been carried out.

#### .

#### National regulations/information (Germany):

WGK:

WGK 3: highly hazardous to water (Ordinance on facilities for handling substances that are hazardous to water (AwSV)) Classification according to AwSV, Annex 1 (5.2)

Not applicable

Not applicable

Storage class according to TRGS 510: 10

## **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:

H225 Highly 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 eve 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.

H411 Toxic to aquatic life with long lasting effects.

H412 Harmful to aquatic life with long lasting effects.

ED:	Substance identified as having endocrine disrupting properties
EU OEL:	Substance with a Union workplace exposure limit
EU EXPLD 1:	Substance listed in Annex I, Reg (EC) No. 2019/1148
EU EXPLD 2	Substance listed in Annex II, Reg (EC) No. 2019/1148
SVHC:	Substance of very high concern (REACH Candidate List)
PBT:	Substance fulfilling persistent, bioaccumulative and toxic criteria
PBT/vPvB:	Substance fulfilling persistent, bioaccumulative and toxic plus very persistent and very
	bioaccumulative criteria
vPvB:	Substance fulfilling very persistent and very bioaccumulative criteria

#### Further information:

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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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Relevant changes in this safety data sheet are indicated by vertical lines at the left margin in the body of this document. Corresponding text is displayed in a different color on shadowed fields.