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Safety Data Sheet according to Regulation (EC) No 1907/2006

SDS No. : 230545
V003.0

LOCTITE 3217 30CC EFD

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Replaces version from: 18.04.2018

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

1.1. Product identifier
LOCTITE 3217 30CC EFD

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

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
Fax-no.: +49 211 798 2009

ua-productsafety.de@henkel.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 irritation	Category 2
H315 Causes skin irritation.	
Serious eye irritation	Category 2
H319 Causes serious eye irritation.	
Skin sensitizer	Category 1
H317 May cause an allergic skin reaction.	
Toxic to reproduction	Category 1B
H360D May damage the unborn child.	
Chronic hazards to the aquatic environment	Category 2
H411 Toxic to aquatic life with long lasting effects.	

2.2. Label elements

Label elements (CLP):

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Hazard pictogram:	
Contains	reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight≤700) Bisphenol-F epichlorhydrin resin; MW<700 Trimethylolpropane triacrylate Acrylic acid, reaction products with dipentaerythritol Tert-butyl perbenzoate 2-benzyl-2-dimethylamino-4-morpholinobutyrophenone
Signal word:	Danger
Hazard statement:	H360D May damage the unborn child. H315 Causes skin irritation. H317 May cause an allergic skin reaction. H319 Causes serious eye irritation. H411 Toxic to aquatic life with long lasting effects.
Precautionary statement: Prevention	P201 Obtain special instructions before use. P273 Avoid release to the environment. P280 Wear protective gloves/protective clothing.
Precautionary statement: Response	P308+P313 IF exposed or concerned: Get medical advice/attention. P302+P352 IF ON SKIN: Wash with plenty of soap and water. 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.
Care should be taken during the cure of these products by UV radiation to avoid exposure of the skin and especially of the eyes to direct or reflected UV radiation as long term effects could be harmful.
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 REACH-Reg No.	content	Classification
reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight≤700) 25068-38-6	01-2119456619-26	10- 20 %	Skin Irrit. 2 H315 Skin Sens. 1 H317 Eye Irrit. 2 H319 Aquatic Chronic 2 H411
Bisphenol-F epichlorhydrin resin; MW<700 9003-36-5	500-006-8 500-006-8 01-2119454392-40	10- 20 %	Skin Irrit. 2; Dermal H315 Skin Sens. 1A H317 Aquatic Chronic 2 H411
Trimethylolpropane triacrylate 15625-89-5	239-701-3 01-2119489896-11	10- 20 %	Eye Irrit. 2 H319 Skin Irrit. 2 H315 Skin Sens. 1 H317 Aquatic Acute 1 H400
Epoxyacrylated resin~		5- < 10 %	Eye Irrit. 2 H319 Skin Irrit. 2 H315
Acrylic acid, reaction products with dipentaerythritol 1384855-91-7	800-838-4 01-2119980666-22	1- < 5 %	Eye Irrit. 2 H319 Skin Sens. 1A H317 Aquatic Chronic 2 H411
[3-(2,3-Epoxypropoxy)propyl]trimethoxysilane 2530-83-8	219-784-2 01-2119513212-58	1- < 3 %	Eye Dam. 1 H318
2-Hydroxy-2-methylpropiophenone 7473-98-5	231-272-0 01-2119472306-39	1- < 5 %	Aquatic Chronic 3 H412 Acute Tox. 4; Oral H302
Tert-butyl perbenzoate 614-45-9	210-382-2 01-2119513317-46	0,1- < 1 %	Org. Perox. C H242 Skin Irrit. 2; Dermal H315 Acute Tox. 4; Inhalation H332 Skin Sens. 1 H317 Aquatic Acute 1 H400 Aquatic Chronic 3 H412
2-benzyl-2-dimethylamino-4-morpholinobutyrophenone 119313-12-1	404-360-3 01-0000015394-70	0,1- < 1 %	Aquatic Acute 1 H400 Aquatic Chronic 1 H410 Repr. 1B H360D

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

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

Skin contact:
Rinse with running water and soap.
Seek medical advice.

Eye contact:
Rinse immediately with plenty of running water (for 10 minutes). Seek medical attention if necessary.

Ingestion:
Rinse out mouth, drink 1-2 glasses of water, do not induce vomiting.
Seek medical advice.

4.2. Most important symptoms and effects, both acute and delayed
EYE: Irritation, conjunctivitis.

SKIN: Redness, inflammation.

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:
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 (NOx) can be released.
Closed containers may rupture (due to build up of pressure) when exposed to extreme heat.
Formaldehyde
Irritating vapours.
Silicon dioxide

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 skin and eye contact.
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
Evacuate and ventilate spill area; dike spill to prevent entry into water system; wear full protective equipment during clean-up.
Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).
Scrape up as much material as possible.
Store in a partly filled, closed container until disposal.
Dispose of contaminated material as waste according to Section 13.

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SECTION 7: Handling and storage

7.1. Precautions for safe handling

Avoid skin and eye contact.
Prolonged or repeated skin contact should be avoided to minimise any risk of sensitisation.
Ventilation will remove any ozone that may be produced by the ultra violet lamp
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

7.3. Specific end use(s)

Sample only.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational Exposure Limits

Valid for
Germany

Ingredient [Regulated substance]	ppm	mg/m^3	Value type	Short term exposure limit category / Remarks	Regulatory list
Talc (Mg3H2(SiO3)4) 14807-96-6		1,25	Exposure limit(s):		TRGS 900
Talc (Mg3H2(SiO3)4) 14807-96-6		10	Exposure limit(s):	2	TRGS 900
Talc (Mg3H2(SiO3)4) 14807-96-6			Short Term Exposure Classification:	Category II: substances with a resorptive effect.	TRGS 900

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Predicted No-Effect Concentration (PNEC):

Name on list	Environmental Compartment	Exposure period	Value				Remarks
			mg/l	ppm	mg/kg	others	
Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight <= 700) 25068-38-6	aqua (freshwater)		0,006 mg/l				
Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight <= 700) 25068-38-6	aqua (marine water)		0,001 mg/l				
Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight <= 700) 25068-38-6	sewage treatment plant (STP)		10 mg/l				
Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight <= 700) 25068-38-6	sediment (freshwater)				0,996 mg/kg		
Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight <= 700) 25068-38-6	sediment (marine water)				0,1 mg/kg		
Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight <= 700) 25068-38-6	Soil				0,196 mg/kg		
Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight <= 700) 25068-38-6	oral				11 mg/kg		
Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight <= 700) 25068-38-6	aqua (intermittent releases)		0,018 mg/l				
Reaction product: bisphenol-F-(epichlorhydrin); epoxy resin (number average molecular weight ≤ 700) 9003-36-5	aqua (freshwater)		0,003 mg/l				
Reaction product: bisphenol-F-(epichlorhydrin); epoxy resin (number average molecular weight ≤ 700) 9003-36-5	aqua (marine water)		0,0003 mg/l				
Reaction product: bisphenol-F-(epichlorhydrin); epoxy resin (number average molecular weight ≤ 700) 9003-36-5	sewage treatment plant (STP)		10 mg/l				
Reaction product: bisphenol-F-(epichlorhydrin); epoxy resin (number average molecular weight ≤ 700) 9003-36-5	sediment (freshwater)				0,294 mg/kg		
Reaction product: bisphenol-F-(epichlorhydrin); epoxy resin (number average molecular weight ≤ 700) 9003-36-5	sediment (marine water)				0,0294 mg/kg		
Reaction product: bisphenol-F-(epichlorhydrin); epoxy resin (number average molecular weight ≤ 700) 9003-36-5	Soil				0,237 mg/kg		
Reaction product: bisphenol-F-(epichlorhydrin); epoxy resin (number average molecular weight ≤ 700) 9003-36-5	aqua (intermittent releases)		0,0254 mg/l				
Reaction product: bisphenol-F-(epichlorhydrin); epoxy resin (number average molecular weight ≤ 700) 9003-36-5	Air						
Reaction product: bisphenol-F-(epichlorhydrin); epoxy resin (number average molecular weight ≤ 700) 9003-36-5	Predator						
2-Ethyl-2-[[(1-oxoallyl)oxy]methyl]-1,3-propanediyl diacrylate	Soil				0,003 mg/kg		

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15625-89-5							
2-Ethyl-2-[[(1-oxoallyl)oxy]methyl]-1,3-propanediyl diacrylate 15625-89-5	sediment (freshwater)				0,017 mg/kg		
2-Ethyl-2-[[(1-oxoallyl)oxy]methyl]-1,3-propanediyl diacrylate 15625-89-5	sediment (marine water)				0,002 mg/kg		
2-Ethyl-2-[[(1-oxoallyl)oxy]methyl]-1,3-propanediyl diacrylate 15625-89-5	aqua (freshwater)		0,00087 mg/l				
2-Ethyl-2-[[(1-oxoallyl)oxy]methyl]-1,3-propanediyl diacrylate 15625-89-5	aqua (marine water)		0,000087 mg/l				
2-Ethyl-2-[[(1-oxoallyl)oxy]methyl]-1,3-propanediyl diacrylate 15625-89-5	sewage treatment plant (STP)		6,25 mg/l				
2-Ethyl-2-[[(1-oxoallyl)oxy]methyl]-1,3-propanediyl diacrylate 15625-89-5	oral				10 mg/kg		
2-Ethyl-2-[[(1-oxoallyl)oxy]methyl]-1,3-propanediyl diacrylate 15625-89-5	aqua (intermittent releases)		0,0087 mg/l				
Acrylic acid, reaction products with dipentaerythritol	aqua (freshwater)		0,013 mg/l				
Acrylic acid, reaction products with dipentaerythritol	aqua (marine water)		0,0013 mg/l				
Acrylic acid, reaction products with dipentaerythritol	aqua (intermittent releases)		0,13 mg/l				
Acrylic acid, reaction products with dipentaerythritol	sewage treatment plant (STP)		10 mg/l				
Acrylic acid, reaction products with dipentaerythritol	sediment (freshwater)				2,8 mg/kg		
Acrylic acid, reaction products with dipentaerythritol	sediment (marine water)				0,28 mg/kg		
Acrylic acid, reaction products with dipentaerythritol	Soil				0,22 mg/kg		
[3-(2,3-Epoxypropoxy)propyl]trimethoxysilane 2530-83-8	aqua (freshwater)		1 mg/l				
[3-(2,3-Epoxypropoxy)propyl]trimethoxysilane 2530-83-8	aqua (marine water)		0,1 mg/l				
[3-(2,3-Epoxypropoxy)propyl]trimethoxysilane 2530-83-8	aqua (intermittent releases)		1 mg/l				
[3-(2,3-Epoxypropoxy)propyl]trimethoxysilane 2530-83-8	Soil				0,13 mg/kg		
[3-(2,3-Epoxypropoxy)propyl]trimethoxysilane 2530-83-8	sewage treatment plant (STP)		10 mg/l				
[3-(2,3-Epoxypropoxy)propyl]trimethoxysilane 2530-83-8	sediment (freshwater)				3,6 mg/kg		
[3-(2,3-Epoxypropoxy)propyl]trimethoxysilane 2530-83-8	sediment (marine water)				0,36 mg/kg		
2-Hydroxy-2-methylpropiophenone 7473-98-5	aqua (freshwater)		0,00195 mg/l				
2-Hydroxy-2-methylpropiophenone 7473-98-5	aqua (marine water)		0,000195 mg/l				
2-Hydroxy-2-methylpropiophenone 7473-98-5	aqua (intermittent releases)		0,0195 mg/l				
2-Hydroxy-2-methylpropiophenone 7473-98-5	sediment (freshwater)				0,00514 mg/kg		
2-Hydroxy-2-methylpropiophenone 7473-98-5	sediment (marine water)				0,000514 mg/kg		
2-Hydroxy-2-methylpropiophenone	Soil				0,000674		

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7473-98-5					mg/kg		
2-Hydroxy-2-methylpropiophenone 7473-98-5	sewage treatment plant (STP)		45 mg/l				
Tert-butyl perbenzoate 614-45-9	aqua (freshwater)		0,0088 mg/l				
Tert-butyl perbenzoate 614-45-9	aqua (marine water)		0,00088 mg/l				
Tert-butyl perbenzoate 614-45-9	aqua (intermittent releases)		0,008 mg/l				
Tert-butyl perbenzoate 614-45-9	sewage treatment plant (STP)		0,6 mg/l				
Tert-butyl perbenzoate 614-45-9	sediment (freshwater)				0,24 mg/kg		
Tert-butyl perbenzoate 614-45-9	sediment (marine water)				0,024 mg/kg		
Tert-butyl perbenzoate 614-45-9	Soil				0,043 mg/kg		

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Derived No-Effect Level (DNEL):

Name on list	Application Area	Route of Exposure	Health Effect	Exposure Time	Value	Remarks
Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight <= 700) 25068-38-6	Workers	dermal	Acute/short term exposure - systemic effects		8,33 mg/kg	
Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight <= 700) 25068-38-6	Workers	Inhalation	Acute/short term exposure - systemic effects		12,25 mg/m3	
Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight <= 700) 25068-38-6	Workers	dermal	Long term exposure - systemic effects		8,33 mg/kg	
Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight <= 700) 25068-38-6	Workers	Inhalation	Long term exposure - systemic effects		12,25 mg/m3	
Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight <= 700) 25068-38-6	General population	dermal	Acute/short term exposure - systemic effects		3,571 mg/kg	
Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight <= 700) 25068-38-6	General population	dermal	Long term exposure - systemic effects		3,571 mg/kg	
Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight <= 700) 25068-38-6	General population	oral	Acute/short term exposure - systemic effects		0,75 mg/kg	
Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight <= 700) 25068-38-6	General population	oral	Long term exposure - systemic effects		0,75 mg/kg	
Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight <= 700) 25068-38-6	General population	inhalation	Acute/short term exposure - systemic effects		0,75 mg/m3	
Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight <= 700) 25068-38-6	General population	inhalation	Long term exposure - systemic effects		0,75 mg/m3	
Reaction product: bisphenol-F-(epichlorhydrin); epoxy resin (number average molecular weight ≤ 700) 9003-36-5	Workers	dermal	Long term exposure - systemic effects		104,15 mg/kg	
Reaction product: bisphenol-F-(epichlorhydrin); epoxy resin (number average molecular weight ≤ 700) 9003-36-5	Workers	Inhalation	Long term exposure - systemic effects		29,39 mg/m3	
Reaction product: bisphenol-F-(epichlorhydrin); epoxy resin (number average molecular weight ≤ 700) 9003-36-5	General population	dermal	Long term exposure - systemic effects		62,5 mg/kg	
Reaction product: bisphenol-F-(epichlorhydrin); epoxy resin (number average molecular weight ≤ 700) 9003-36-5	General population	Inhalation	Long term exposure - systemic effects		8,7 mg/m3	
Reaction product: bisphenol-F-(epichlorhydrin); epoxy resin (number average molecular weight ≤ 700) 9003-36-5	General population	oral	Long term exposure - systemic effects		6,25 mg/kg	
Reaction product: bisphenol-F-(epichlorhydrin); epoxy resin (number average molecular weight ≤ 700) 9003-36-5	Workers	dermal	Acute/short term exposure - local effects		8,3 µg/cm2	
2-Ethyl-2-[[(1-oxoallyl)oxy]methyl]-1,3-propanediyl diacrylate 15625-89-5	Workers	dermal	Long term exposure - systemic effects		83 mg/kg	
2-Ethyl-2-[[(1-oxoallyl)oxy]methyl]-1,3-propanediyl diacrylate 15625-89-5	Workers	inhalation	Long term exposure - systemic effects		3,5 mg/m3	
2-Ethyl-2-[[(1-oxoallyl)oxy]methyl]-1,3-	General	dermal	Long term		42 mg/kg	

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propanediyl diacrylate 15625-89-5	population		exposure - systemic effects			
2-Ethyl-2-[[(1-oxoallyl)oxy]methyl]-1,3-propanediyl diacrylate 15625-89-5	General population	inhalation	Long term exposure - systemic effects		0,87 mg/m3	
2-Ethyl-2-[[(1-oxoallyl)oxy]methyl]-1,3-propanediyl diacrylate 15625-89-5	General population	oral	Long term exposure - systemic effects		0,5 mg/kg	
Acrylic acid, reaction products with dipentaerythritol	Workers	Inhalation	Long term exposure - systemic effects		1,76 mg/m3	
Acrylic acid, reaction products with dipentaerythritol	Workers	dermal	Long term exposure - systemic effects		0,5 mg/kg	
[3-(2,3-Epoxypropoxy)propyl]trimethoxysilane 2530-83-8	Workers	dermal	Acute/short term exposure - systemic effects		21 mg/kg	
[3-(2,3-Epoxypropoxy)propyl]trimethoxysilane 2530-83-8	Workers	Inhalation	Acute/short term exposure - systemic effects		147 mg/m3	
[3-(2,3-Epoxypropoxy)propyl]trimethoxysilane 2530-83-8	Workers	dermal	Long term exposure - systemic effects		21 mg/kg	
[3-(2,3-Epoxypropoxy)propyl]trimethoxysilane 2530-83-8	Workers	Inhalation	Long term exposure - systemic effects		147 mg/m3	
[3-(2,3-Epoxypropoxy)propyl]trimethoxysilane 2530-83-8	General population	inhalation	Long term exposure - systemic effects		43,5 mg/m3	
[3-(2,3-Epoxypropoxy)propyl]trimethoxysilane 2530-83-8	General population	inhalation	Acute/short term exposure - systemic effects		43,5 mg/m3	
[3-(2,3-Epoxypropoxy)propyl]trimethoxysilane 2530-83-8	General population	dermal	Long term exposure - systemic effects		12,5 mg/kg	
[3-(2,3-Epoxypropoxy)propyl]trimethoxysilane 2530-83-8	General population	dermal	Acute/short term exposure - systemic effects		12,5 mg/kg	
[3-(2,3-Epoxypropoxy)propyl]trimethoxysilane 2530-83-8	General population	oral	Long term exposure - systemic effects		12,5 mg/kg	
2-Hydroxy-2-methylpropiophenone 7473-98-5	Workers	Inhalation	Acute/short term exposure - systemic effects		3,5 mg/m3	
2-Hydroxy-2-methylpropiophenone 7473-98-5	Workers	Inhalation	Long term exposure - systemic effects		3,5 mg/m3	
2-Hydroxy-2-methylpropiophenone 7473-98-5	Workers	dermal	Long term exposure - systemic effects		1,25 mg/kg	
Tert-butyl perbenzoate 614-45-9	Workers	Inhalation	Long term exposure - systemic effects		4 mg/m3	
Tert-butyl perbenzoate 614-45-9	Workers	dermal	Long term exposure - systemic effects		6,25 mg/kg	
2-benzyl-2-dimethylamino-4-morpholinobutyrophenone 119313-12-1	Workers	inhalation	Long term exposure - systemic effects		1,175 mg/m3	
2-benzyl-2-dimethylamino-4-morpholinobutyrophenone 119313-12-1	Workers	dermal	Long term exposure - systemic effects		0,294 mg/kg	
2-benzyl-2-dimethylamino-4-morpholinobutyrophenone 119313-12-1	General population	inhalation	Long term exposure - systemic effects		0,877 mg/m3	
2-benzyl-2-dimethylamino-4-morpholinobutyrophenone 119313-12-1	General population	dermal	Long term exposure - systemic effects		0,219 mg/kg	
2-benzyl-2-dimethylamino-4-morpholinobutyrophenone 119313-12-1	General population	oral	Long term exposure - systemic effects		0,219 mg/kg	

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Biological Exposure Indices:
None

8.2. Exposure controls:

Engineering controls:
Ensure good ventilation/extraction.
UV lamp should be designed, installed and operated in such a way as to eliminate exposure of the skin and eyes to stray radiation

Respiratory protection:
Use only in well-ventilated areas.
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

Appearance	liquid liquid Amber, light yellow
Odor	mild
Odour threshold	No data available / Not applicable
pH	Not applicable
Melting point	Not available.
Solidification temperature	No data available / Not applicable
Initial boiling point	Not available.
Flash point	> 93 °C (> 199.4 °F)
Evaporation rate	No data available / Not applicable
Flammability	No data available / Not applicable
Explosive limits	No data available / Not applicable
Vapour pressure	Not available.
Relative vapour density:	No data available / Not applicable
Density	No data available / Not applicable

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Bulk density	No data available / Not applicable
Solubility	No data available / Not applicable
Solubility (qualitative) (Solvent: Water)	Insoluble
Partition coefficient: n-octanol/water	No data available / Not applicable
Auto-ignition temperature	No data available / Not applicable
Decomposition temperature	No data available / Not applicable
Viscosity	No data available / Not applicable
Viscosity (kinematic)	No data available / Not applicable
Explosive properties	No data available / Not applicable
Oxidising properties	No data available / Not applicable

9.2. Other information

No data available / Not applicable

SECTION 10: Stability and reactivity

10.1. Reactivity
Reaction with strong acids.
Reacts with strong oxidants.
Avoid contact with amines.
Reaction with 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.
Avoid moisture.
Danger of decomposition if exposed to heat.
Protect from direct sunlight.
Avoid contact with acids and oxidizing agents.

10.5. Incompatible materials
See section reactivity.

10.6. Hazardous decomposition products
Irritating organic vapours.
carbon oxides.
nitrogen oxides

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SECTION 11: Toxicological information

11.1. Information on toxicological effects

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
reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight≤700) 25068-38-6	LD50	> 2.000 mg/kg	rat	OECD Guideline 420 (Acute Oral Toxicity)
Bisphenol-F epichlorhydrin resin; MW<700 9003-36-5	LD50	> 5.000 mg/kg	rat	OECD Guideline 401 (Acute Oral Toxicity)
Trimethylolpropane triacrylate 15625-89-5	LD50	> 5.000 mg/kg	rat	not specified
Acrylic acid, reaction products with dipentaerythritol	LD50	> 2.000 mg/kg	rat	OECD Guideline 423 (Acute Oral toxicity)
Acrylic acid, reaction products with dipentaerythritol	Acute toxicity estimate (ATE)	2.500 mg/kg		Expert judgement
[3-(2,3-Epoxypropoxy)propyl]trimethoxysilane 2530-83-8	LD50	8.025 mg/kg	rat	OECD Guideline 401 (Acute Oral Toxicity)
2-Hydroxy-2-methylpropiophenone 7473-98-5	LD50	1.694 mg/kg	rat	OECD Guideline 401 (Acute Oral Toxicity)
Tert-butyl perbenzoate 614-45-9	LD50	4.838 mg/kg	rat	not specified
2-benzyl-2-dimethylamino-4-morpholinobutyrophenone 119313-12-1	LD50	> 5.000 mg/kg	rat	OECD Guideline 401 (Acute Oral Toxicity)

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Acute dermal 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
reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight≤700) 25068-38-6	LD50	> 2.000 mg/kg	rat	OECD Guideline 402 (Acute Dermal Toxicity)
Bisphenol-F epichlorhydrin resin; MW<700 9003-36-5	LD50	> 2.000 mg/kg	rat	OECD Guideline 402 (Acute Dermal Toxicity)
Trimethylolpropane triacrylate 15625-89-5	LD50	7.050 mg/kg	rabbit	not specified
Acrylic acid, reaction products with dipentaerythritol	LD50	> 2.000 mg/kg	rabbit	EPA OPP 81-2 (Acute Dermal Toxicity)
[3-(2,3-Epoxypropoxy)propyl]trimethoxysilane 2530-83-8	LD50	4.250 mg/kg	rabbit	OECD Guideline 402 (Acute Dermal Toxicity)
2-Hydroxy-2-methylpropiophenone 7473-98-5	LD50	6.929 mg/kg	rat	OECD Guideline 402 (Acute Dermal Toxicity)
Tert-butyl perbenzoate 614-45-9	LD50	3.817 mg/kg	rat	not specified
2-benzyl-2-dimethylamino-4-morpholinobutyrophenone 119313-12-1	LD50	> 2.000 mg/kg	rat	OECD Guideline 402 (Acute Dermal Toxicity)
2-benzyl-2-dimethylamino-4-morpholinobutyrophenone 119313-12-1	Acute toxicity estimate (ATE)	2.500 mg/kg		Expert judgement

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Acute inhalative 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	Test atmosphere	Exposure time	Species	Method
[3-(2,3-Epoxypropoxy)propyl]trimethoxysilane 2530-83-8	LC50	> 5,3 mg/l	aerosol	4 h	rat	OECD Guideline 403 (Acute Inhalation Toxicity)
Tert-butyl perbenzoate 614-45-9	LC50	> 1,01 mg/l	dust/mist		not specified	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
reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight≤700) 25068-38-6	moderately irritating	24 h	rabbit	Draize Test
Bisphenol-F epichlorhydrin resin; MW<700 9003-36-5	irritating	4 h	rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
[3-(2,3-Epoxypropoxy)propyl]trimethoxysilane 2530-83-8	not irritating	24 h	rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
2-Hydroxy-2-methylpropiophenone 7473-98-5	not irritating	24 h	rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
2-benzyl-2-dimethylamino-4-morpholinobutyrophenone 119313-12-1	not irritating	4 h	rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)

Serious eye damage/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
reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight≤700) 25068-38-6	not irritating		rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)
Bisphenol-F epichlorhydrin resin; MW<700 9003-36-5	not irritating		rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)
Acrylic acid, reaction products with dipentaerythritol	irritating		rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)
[3-(2,3-Epoxypropoxy)propyl]trimethoxysilane 2530-83-8	highly irritating	20 s	rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)
2-Hydroxy-2-methylpropiophenone 7473-98-5	not irritating		rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)
2-benzyl-2-dimethylamino-4-morpholinobutyrophenone 119313-12-1	not irritating		rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)

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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
reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight≤700) 25068-38-6	sensitising	Mouse local lymphnode assay (LLNA)	mouse	OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay)
Bisphenol-F epichlorhydrin resin; MW<700 9003-36-5	sensitising	Mouse local lymphnode assay (LLNA)	mouse	OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay)
Acrylic acid, reaction products with dipentaerythritol	sensitising	Mouse local lymphnode assay (LLNA)	mouse	OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay)
[3-(2,3-Epoxypropoxy)propyl]trimethoxysilane 2530-83-8	not sensitising	Buehler test	guinea pig	OECD Guideline 406 (Skin Sensitisation)
2-Hydroxy-2-methylpropiophenone 7473-98-5	not sensitising	Guinea pig maximisation test	guinea pig	OECD Guideline 406 (Skin Sensitisation)
2-benzyl-2-dimethylamino-4-morpholinobutyrophenone 119313-12-1	not sensitising	Guinea pig maximisation test	guinea pig	OECD Guideline 406 (Skin Sensitisation)

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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
reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight≤700) 25068-38-6	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 472 (Genetic Toxicology: Escherichia coli, Reverse Mutation Assay)
Bisphenol-F epichlorhydrin resin; MW<700 9003-36-5	positive	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
[3-(2,3-Epoxypropoxy)propyl]trimethoxysilane 2530-83-8	A mutagenic potential can not be excluded.	mammalian cell gene mutation assay	with and without		OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)
2-Hydroxy-2-methylpropiophenone 7473-98-5	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
2-Hydroxy-2-methylpropiophenone 7473-98-5	negative	in vitro mammalian chromosome aberration test	with and without		OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test)
2-Hydroxy-2-methylpropiophenone 7473-98-5	negative	mammalian cell gene mutation assay	with and without		OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)
2-benzyl-2-dimethylamino-4-morpholinobutyrophenone 119313-12-1	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		
2-benzyl-2-dimethylamino-4-morpholinobutyrophenone 119313-12-1	negative	mammalian cell gene mutation assay	with and without		OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)
reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight≤700) 25068-38-6	negative	oral: gavage		mouse	not specified
Bisphenol-F epichlorhydrin resin; MW<700 9003-36-5	negative	oral: gavage		mouse	OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test)
Bisphenol-F epichlorhydrin resin; MW<700 9003-36-5	negative	oral: gavage		rat	OECD Guideline 486 (Unscheduled DNA Synthesis (UDS) Test with Mammalian Liver Cells in vivo)
[3-(2,3-Epoxypropoxy)propyl]trimethoxysilane 2530-83-8	A mutagenic potential can not be excluded.			mouse	OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test)
2-benzyl-2-dimethylamino-4-morpholinobutyrophenone 119313-12-1	negative	oral: unspecified		hamster, Chinese	EU Method B.12 (Mutagenicity

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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
reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight≤700) 25068-38-6	not carcinogenic	dermal	2 y daily	mouse	male	OECD Guideline 453 (Combined Chronic Toxicity / Carcinogenicity Studies)
reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight≤700) 25068-38-6	not carcinogenic	oral: gavage	2 y daily	rat	male/female	OECD Guideline 453 (Combined Chronic Toxicity / 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
reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight≤700) 25068-38-6	NOAEL P >= 50 mg/kg NOAEL F1 >= 750 mg/kg NOAEL F2 >= 750 mg/kg	Two generation study	oral: gavage	rat	OECD Guideline 416 (Two-Generation Reproduction Toxicity Study)
Bisphenol-F epichlorhydrin resin; MW<700 9003-36-5	NOAEL P > 750 mg/kg NOAEL F1 750 mg/kg NOAEL F2 750 mg/kg	two-generation study	oral: gavage	rat	OECD Guideline 416 (Two-Generation Reproduction Toxicity Study)

STOT-single exposure:

No data available.

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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
reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight≤700) 25068-38-6	NOAEL 50 mg/kg	oral: gavage	14 w daily	rat	OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)
Bisphenol-F epichlorhydrin resin; MW<700 9003-36-5	NOAEL 250 mg/kg	oral: gavage	13 w daily	rat	OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)
[3-(2,3-Epoxypropoxy)propyl]trimethoxysilane 2530-83-8	NOAEL 500 mg/kg	oral: unspecified	28 d	rat	OECD Guideline 407 (Repeated Dose 28-Day Oral Toxicity in Rodents)
[3-(2,3-Epoxypropoxy)propyl]trimethoxysilane 2530-83-8	NOAEL 0,225 mg/kg	inhalation	14 d	rat	OECD Guideline 412 (Repeated Dose Inhalation Toxicity: 28/14-Day)
2-Hydroxy-2-methylpropiophenone 7473-98-5	NOAEL 50 mg/kg	oral: gavage	92-93 d daily	rat	OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)
2-benzyl-2-dimethylamino-4-morpholinobutyrophenone 119313-12-1	NOAEL 50 mg/kg	oral: unspecified	28 d daily	rat	EU Method B.7 (Repeated Dose (28 Days) Toxicity (Oral))

Aspiration hazard:

No data available.

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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.

Hazardous substances CAS-No.	Value type	Value	Exposure time	Species	Method
reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight≤700) 25068-38-6	LC50	1,75 mg/l	96 h	Oncorhynchus mykiss	OECD Guideline 203 (Fish, Acute Toxicity Test)
Bisphenol-F epichlorhydrin resin; MW<700 9003-36-5	LC50	5,7 mg/l	96 h	Leuciscus idus	OECD Guideline 203 (Fish, Acute Toxicity Test)
Trimethylolpropane triacrylate 15625-89-5	LC50	0,87 mg/l	96 h	Danio rerio (reported as Brachydanio rerio)	OECD Guideline 203 (Fish, Acute Toxicity Test)
Acrylic acid, reaction products with dipentaerythritol	LC50	8,9 mg/l	96 h	Cyprinus carpio	OECD Guideline 203 (Fish, Acute Toxicity Test)
[3-(2,3-Epoxypropoxy)propyl]trimethoxysilane 2530-83-8	LC50	55 mg/l	96 h	Cyprinus carpio	EU Method C.1 (Acute Toxicity for Fish)
2-Hydroxy-2-methylpropiophenone 7473-98-5	LC50	160 mg/l	48 h	Leuciscus idus	OECD Guideline 203 (Fish, Acute Toxicity Test)
Tert-butyl perbenzoate 614-45-9	LC50	1,6 mg/l	96 h	Brachydanio rerio (new name: Danio rerio)	OECD Guideline 203 (Fish, Acute Toxicity Test)
2-benzyl-2-dimethylamino-4-morpholinobutyrophenone 119313-12-1	LC50	0,46 mg/l	96 h	Danio rerio (reported as Brachydanio rerio)	EU Method C.1 (Acute Toxicity for Fish)

Toxicity (Daphnia):

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

Hazardous substances CAS-No.	Value type	Value	Exposure time	Species	Method
reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight≤700) 25068-38-6	EC50	1,7 mg/l	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Bisphenol-F epichlorhydrin resin; MW<700 9003-36-5	EC50	2,55 mg/l	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Trimethylolpropane triacrylate 15625-89-5	EC50	19,9 mg/l	48 h	Daphnia magna	EU Method C.2 (Acute Toxicity for Daphnia)
Acrylic acid, reaction products with dipentaerythritol	EC50	18 mg/l	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
[3-(2,3-Epoxypropoxy)propyl]trimethoxysilane 2530-83-8	EC50	324 mg/l	48 h	Simocephalus vetulus	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
2-Hydroxy-2-methylpropiophenone 7473-98-5	EC50	> 119 mg/l	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Tert-butyl perbenzoate 614-45-9	EC50	11 mg/l	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)

Chronic toxicity to aquatic invertebrates

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

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Hazardous substances CAS-No.	Value type	Value	Exposure time	Species	Method
reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight≤700) 25068-38-6	NOEC	0,3 mg/l	21 d	Daphnia magna	OECD 211 (Daphnia magna, Reproduction Test)
Bisphenol-F epichlorhydrin resin; MW<700 9003-36-5	NOEC	0,3 mg/l	21 d	Daphnia magna	OECD 211 (Daphnia magna, Reproduction Test)
[3-(2,3-Epoxypropoxy)propyl]trimethoxysilane 2530-83-8	NOEC	100 mg/l	21 d	Daphnia magna	OECD 211 (Daphnia magna, Reproduction Test)
Tert-butyl perbenzoate 614-45-9	NOEC	0,44 mg/l	21 d	Daphnia magna	OECD 211 (Daphnia magna, Reproduction Test)

Toxicity (Algae):

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

Hazardous substances CAS-No.	Value type	Value	Exposure time	Species	Method
reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight≤700) 25068-38-6	EC50	> 11 mg/l	72 h	Scenedesmus capricornutum	OECD Guideline 201 (Alga, Growth Inhibition Test)
reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight≤700) 25068-38-6	NOEC	4,2 mg/l	72 h	Scenedesmus capricornutum	OECD Guideline 201 (Alga, Growth Inhibition Test)
Bisphenol-F epichlorhydrin resin; MW<700 9003-36-5	EC50	1,8 mg/l	72 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
Trimethylolpropane triacrylate 15625-89-5	EC50	18,8 mg/l	72 h	Desmodesmus subspicatus	EU Method C.3 (Algal Inhibition test)
Trimethylolpropane triacrylate 15625-89-5	EC10	1,9 mg/l	72 h	Desmodesmus subspicatus	EU Method C.3 (Algal Inhibition test)
Acrylic acid, reaction products with dipentaerythritol	NOEC	6,6 mg/l	72 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
Acrylic acid, reaction products with dipentaerythritol	EC50	> 36 mg/l	72 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
[3-(2,3-Epoxypropoxy)propyl]trimethoxysilane 2530-83-8	EC50	119 mg/l	7 d	Anabaena flos-aquae	OECD Guideline 201 (Alga, Growth Inhibition Test)
[3-(2,3-Epoxypropoxy)propyl]trimethoxysilane 2530-83-8	EC10	40 mg/l	7 d	Anabaena flos-aquae	OECD Guideline 201 (Alga, Growth Inhibition Test)
2-Hydroxy-2-methylpropiophenone 7473-98-5	EC50	1,95 mg/l	72 h	Desmodesmus subspicatus	OECD Guideline 201 (Alga, Growth Inhibition Test)
2-Hydroxy-2-methylpropiophenone 7473-98-5	NOEC	0,194 mg/l	72 h	Desmodesmus subspicatus	OECD Guideline 201 (Alga, Growth Inhibition Test)
Tert-butyl perbenzoate 614-45-9	NOEC	0,72 mg/l	72 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
Tert-butyl perbenzoate 614-45-9	EC50	0,8 mg/l	72 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)

Toxicity to microorganisms

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

Hazardous substances CAS-No.	Value type	Value	Exposure time	Species	Method
reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight≤700) 25068-38-6	IC50	> 100 mg/l	3 h	activated sludge, industrial	other guideline:
Bisphenol-F epichlorhydrin resin; MW<700 9003-36-5	IC50	> 100 mg/l	3 h	activated sludge, industrial	other guideline:
Trimethylolpropane triacrylate 15625-89-5	EC20	625 mg/l	30 min	activated sludge, domestic	ISO 8192 (Test for Inhibition of Oxygen Consumption by Activated Sludge)
[3-(2,3-Epoxypropoxy)propyl]trimethoxysilane 2530-83-8	NOEC	> 100 mg/l	3 h	activated sludge of a predominantly domestic sewage	OECD Guideline 209 (Activated Sludge, Respiration Inhibition Test)
2-Hydroxy-2-methylpropiophenone 7473-98-5	EC 50	3 mg/l	3 h		OECD Guideline 209 (Activated Sludge, Respiration Inhibition Test)
Tert-butyl perbenzoate 614-45-9	EC10	6 mg/l	30 min	activated sludge of a predominantly domestic sewage	OECD Guideline 209 (Activated Sludge, Respiration Inhibition Test)
2-benzyl-2-dimethylamino-4-morpholinobutyrophenone	IC50	5.9 mg/l	30 min		not specified

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119313-12-1					

12.2. Persistence and degradability

No data available.

Hazardous substances CAS-No.	Result	Test type	Degradability	Exposure time	Method
reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight≤700) 25068-38-6	not readily biodegradable.	aerobic	5 %	28 d	OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)
Bisphenol-F epichlorhydrin resin; MW<700 9003-36-5	not readily biodegradable.	aerobic	0 %	28 d	OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)
Trimethylolpropane triacrylate 15625-89-5	readily biodegradable	aerobic	82 - 90 %	28 d	OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test)
Trimethylolpropane triacrylate 15625-89-5	inherently biodegradable	aerobic	> 70 %	28 d	OECD Guideline 302 B (Inherent biodegradability: Zahn-Wellens/EMPA Test)
Acrylic acid, reaction products with dipentaerythritol		aerobic	0 - 2 %	29 d	OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test)
[3-(2,3-Epoxypropoxy)propyl]trimethoxysilane 2530-83-8	not readily biodegradable.	aerobic	37 %	28 d	OECD Guideline 301 A (new version) (Ready Biodegradability: DOC Die Away Test)
2-Hydroxy-2-methylpropiophenone 7473-98-5	readily biodegradable	aerobic	90 %	28 d	OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test)
Tert-butyl perbenzoate 614-45-9	readily biodegradable	aerobic	70 %	28 d	OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)
2-benzyl-2-dimethylamino-4-morpholinobutyrophenone 119313-12-1	not readily biodegradable.		3 %	28 d	Directive 84/449/EEC, C.5

12.3. Bioaccumulative potential

No data available for the product.

No substance data available.

12.4. Mobility in soil

Cured adhesives are immobile.

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Hazardous substances CAS-No.	LogPow	Temperature	Method
reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight≤700) 25068-38-6	3,242	25 °C	EU Method A.8 (Partition Coefficient)
Bisphenol-F epichlorhydrin resin; MW<700 9003-36-5	2,7 - 3,6		OECD Guideline 117 (Partition Coefficient (n-octanol / water), HPLC Method)
Trimethylolpropane triacrylate 15625-89-5	2,68		QSAR (Quantitative Structure Activity Relationship)
Acrylic acid, reaction products with dipentaerythritol	3,44		OECD Guideline 117 (Partition Coefficient (n-octanol / water), HPLC Method)
[3-(2,3-Epoxypropoxy)propyl]trimethoxysilane 2530-83-8	0,5	20 °C	QSAR (Quantitative Structure Activity Relationship)
2-Hydroxy-2-methylpropiophenone 7473-98-5	1,62	25 °C	OECD Guideline 107 (Partition Coefficient (n-octanol / water), Shake Flask Method)
Tert-butyl perbenzoate 614-45-9	3,00	25 °C	OECD Guideline 117 (Partition Coefficient (n-octanol / water), HPLC Method)
2-benzyl-2-dimethylamino-4-morpholinobutyrophenone 119313-12-1	2,91	25 °C	other guideline:

12.5. Results of PBT and vPvB assessment

Hazardous substances CAS-No.	PBT / vPvB
reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight≤700) 25068-38-6	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
Bisphenol-F epichlorhydrin resin; MW<700 9003-36-5	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
Trimethylolpropane triacrylate 15625-89-5	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
Acrylic acid, reaction products with dipentaerythritol 1384855-91-7	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
[3-(2,3-Epoxypropoxy)propyl]trimethoxysilane 2530-83-8	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
2-Hydroxy-2-methylpropiophenone 7473-98-5	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
Tert-butyl perbenzoate 614-45-9	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
2-benzyl-2-dimethylamino-4-morpholinobutyrophenone 119313-12-1	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

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Product disposal:
Dispose of in accordance with local and national regulations.
Collection and delivery to recycling enterprise or other registered elimination institution.

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.

SECTION 14: Transport information

14.1. UN number

ADR	3082
RID	3082
ADN	3082
IMDG	3082
IATA	3082

14.2. UN proper shipping name

ADR	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Bisphenol-A Epichlorhydrin resin,Bisphenol-F Epichlorhydrin resin)
RID	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Bisphenol-A Epichlorhydrin resin,Bisphenol-F Epichlorhydrin resin)
ADN	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Bisphenol-A Epichlorhydrin resin,Bisphenol-F Epichlorhydrin resin)
IMDG	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Bisphenol-A Epichlorhydrin resin,Bisphenol-F Epichlorhydrin resin)
IATA	Environmentally hazardous substance, liquid, n.o.s. (Bisphenol-A Epichlorhydrin resin,Bisphenol-F Epichlorhydrin resin)

14.3. Transport hazard class(es)

ADR	9
RID	9
ADN	9
IMDG	9
IATA	9

14.4. Packing group

ADR	III
RID	III
ADN	III
IMDG	III
IATA	III

14.5. Environmental hazards

ADR	not applicable
RID	not applicable
ADN	not applicable
IMDG	Marine pollutant
IATA	not applicable

14.6. Special precautions for user

ADR	not applicable

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	Tunnelcode:
RID	not applicable
ADN	not applicable
IMDG	not applicable
IATA	not applicable

The transport classifications in this section apply generally to packed and bulk goods alike. For containers with a net volume of no more than 5 L for liquid substances or a net mass of no more than 5 kg for solid substances per individual or inner package, the exemptions SP 375 (ADR), 197 (IATA), 969 (IMDG) may be applied, which can result in a deviation from the transport classification for packed goods.

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

not applicable

SECTION 15: Regulatory information

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

VOC content (2010/75/EC)	< 3 %

15.2. Chemical safety assessment

A chemical safety assessment has not been carried out.

National regulations/information (Germany):

WGK:	WGK = 2, significantly water endangering mixture. Classification according to the mixture rules in German AwSV regulation annex 1, number 5.2 from 18. April 2017.
Storage class according to TRGS 510:	6.1C
General remarks (DE):	This product is in scope of the German regulation "ChemikalienVerbotsVerordnung"

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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:

H242 Heating may cause a fire.
H302 Harmful if swallowed.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.
H319 Causes serious eye irritation.
H332 Harmful if inhaled.
H360D May damage the unborn child.
H400 Very toxic to aquatic life.
H410 Very toxic to aquatic life with long lasting effects.
H411 Toxic to aquatic life with long lasting effects.
H412 Harmful to aquatic life with long lasting effects.

Further information:

This Safety Data Sheet has been produced for sales from Henkel to parties purchasing from Henkel, is based on Regulation (EC) No 1907/2006 and provides information in accordance with applicable regulations of the European Union only. In that respect, no statement, warranty or representation of any kind is given as to compliance with any statutory laws or regulations of any other jurisdiction or territory other than the European Union. When exporting to territories other than the European Union, please consult with the respective Safety Data Sheet of the concerned territory to ensure compliance or liaise with Henkel´s Product Safety and Regulatory Affairs Department (ua-productsafety.de@henkel.com) prior to export to other territories than the European Union.

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.

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.