



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

Page 1 of 24

LOCTITE AA 3321 LC known as 3321 Adhesive Medical Grade

SDS No. : 153595

V002.0

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

1.1. Product identifier

LOCTITE AA 3321 LC known as 3321 Adhesive Medical Grade

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

Intended use:

Ultraviolet adhesive

1.3. Details of the supplier of the safety data sheet

Henkel Ireland

Operations and Research Limited

Tallaght Business Park, Whitestown

24 Dublin

Ireland

Phone: +353 (0)353 1 404 6444

SDSinfo.Adhesive@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

00353 14046280

National Poisons Information Centre: Members of Public: +353 (1) 809 2166. (8.00 a.m. to 10.00 p.m. 7 days a week)

Healthcare Professionals: +353 (1) 809 2566 (24-hour service)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (CLP):

Acute toxicity	Category 4
H302 Harmful if swallowed.	
Route of Exposure: Oral	
Skin irritation	Category 2
H315 Causes skin irritation.	
Serious eye damage	Category 1
H318 Causes serious eye damage.	
Skin sensitizer	Category 1
H317 May cause an allergic skin reaction.	
Specific target organ toxicity - single exposure	Category 3
H335 May cause respiratory irritation.	
Target organ: respiratory tract irritation	
Acute hazards to the aquatic environment	Category 1
H400 Very toxic to aquatic life.	
Chronic hazards to the aquatic environment	Category 1
H410 Very toxic to aquatic life with long lasting effects.	

2.2. Label elements**Label elements (CLP):****Hazard pictogram:****Contains**

Isobornyl acrylate

2-Propenamide, N,N-dimethyl-
 Diphenyl-2,4,6-trimethylbenzoyl phosphine oxide
 2-Hydroxyethyl acrylate

Signal word:

Danger

Hazard statement:

H302 Harmful if swallowed.
 H315 Causes skin irritation.
 H317 May cause an allergic skin reaction.
 H318 Causes serious eye damage.
 H335 May cause respiratory irritation.
 H410 Very toxic to aquatic life with long lasting effects.

Precautionary statement:

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

**Precautionary statement:
Prevention**

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

**Precautionary statement:
Response**

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

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.

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 CAS-No. EC Number REACH-Reg No.	Concentration	Classification	Specific Conc. Limits, M-factors and ATEs	Add. Information
Isobornyl acrylate 5888-33-5 227-561-6 01-2119957862-25	25- 50 %	Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335 Skin Sens. 1A, H317 Aquatic Acute 1, H400 Aquatic Chronic 1, H410	M acute = 1 M chronic = 1	
2-Propenamide, N,N-dimethyl- 2680-03-7 220-237-5 01-2119971262-39	10- 20 %	Acute Tox. 3, Oral, H301 Acute Tox. 3, Dermal, H311 Eye Dam. 1, H318	oral:ATE = 216 mg/kg	
Ethanone, 2,2-dimethoxy-1,2-diphenyl- 24650-42-8 246-386-6 01-2120000336-73	1- < 5 %	Aquatic Chronic 1, H410 Aquatic Acute 1, H400	M acute = 1 M chronic = 1	
[3-(2,3-Epoxypropoxy)propyl]trimethoxysilane 2530-83-8 219-784-2 01-2119513212-58	1- < 3 %	Aquatic Chronic 3, H412 Eye Dam. 1, H318		
Diphenyl-2,4,6-trimethylbenzoyl phosphine oxide 75980-60-8 278-355-8 01-2119972295-29	0,1- < 1 %	Repr. 2, H361f Aquatic Chronic 2, H411 Skin Sens. 1B, H317		
Acrylic acid 79-10-7 201-177-9 01-2119452449-31	0,1- < 0,25 %	Acute Tox. 4, Dermal, H312 Skin Corr. 1A, H314 Flam. Liq. 3, H226 Acute Tox. 4, Oral, H302 Acute Tox. 4, Inhalation, H332 Aquatic Acute 1, H400 Aquatic Chronic 2, H411 STOT SE 3, H335 Eye Dam. 1, H318	STOT SE 3; H335; C >= 1 % ===== M acute = 1 ===== dermal:ATE = 1.100 mg/kg inhalation:ATE = 11 mg/l;vapour	EU OEL
1,7,7-Trimethyltricyclo[2.2.1.0 ^{2,6}]heptane 508-32-7 208-083-7, 208-083-7	0,1- < 1 %	Aquatic Acute 1, H400 Aquatic Chronic 1, H410	M acute = 1 M chronic = 1	
Camphene 79-92-5 201-234-8	0,1- < 0,25 %	Aquatic Acute 1, H400 Aquatic Chronic 1, H410 Flam. Sol. 2, H228 Eye Irrit. 2, H319	M acute = 1 M chronic = 1	
2-Hydroxyethyl acrylate 818-61-1 212-454-9 01-2119459345-34	0,02- < 0,2 %	Acute Tox. 4, Oral, H302 Acute Tox. 3, Dermal, H311 Skin Corr. 1B, H314 Skin Sens. 1, H317 Aquatic Acute 1, H400 Aquatic Chronic 3, H412	Skin Sens. 1; H317; C >= 0,2 % ===== M acute = 1	

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

INGESTION: Nausea, vomiting, diarrhea, abdominal pain.

SKIN: Redness, inflammation.

SKIN: Rash, Urticaria.

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

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

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 (NO_x) can be released.

5.3. Advice for firefighters

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

Additional information:

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

SECTION 6: Accidental release measures**6.1. Personal precautions, protective equipment and emergency procedures**

Avoid contact with skin and eyes.

Wear protective equipment.

Ensure adequate ventilation.

Keep away from sources of ignition.

6.2. Environmental precautions

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

6.3. Methods and material for containment and cleaning up

Dispose of contaminated material as waste according to Section 13.

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

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

6.4. Reference to other sections

See advice in section 8

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Ventilation will remove any ozone that may be produced by the ultra violet lamp
 Avoid skin and eye contact.
 See advice in section 8

Hygiene measures:

Wash hands before work breaks and after finishing work.
 Do not eat, drink or smoke while working.
 Good industrial hygiene practices should be observed.

7.2. Conditions for safe storage, including any incompatibilities

Refer to Technical Data Sheet

7.3. Specific end use(s)

Ultraviolet adhesive

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational Exposure Limits

Valid for
 Ireland

Ingredient [Regulated substance]	ppm	mg/m ³	Value type	Short term exposure limit category / Remarks	Regulatory list
Acrylic acid 79-10-7 [ACRYLIC ACID (PROP-2-ENOIC ACID)]	10	29	Time Weighted Average (TWA):	Indicative	ECTLV
Acrylic acid 79-10-7 [ACRYLIC ACID (PROP-2-ENOIC ACID)]	20	59	Short Term Exposure Limit (STEL):	Indicative	ECTLV
Acrylic acid 79-10-7 [ACRYLIC ACID]	20	59	Short Term Exposure Limit (STEL):	1 minute Indicative OELV	IR_OEL
Acrylic acid 79-10-7 [ACRYLIC ACID]	10	29	Time Weighted Average (TWA):	Indicative OELV	IR_OEL

Occupational Exposure Limits

Valid for
 Great Britain

Ingredient [Regulated substance]	ppm	mg/m ³	Value type	Short term exposure limit category / Remarks	Regulatory list
Acrylic acid 79-10-7 [ACRYLIC ACID]	10	29	Time Weighted Average (TWA):		EH40 WEL
Acrylic acid 79-10-7 [Acrylic acid]	20	59	Short Term Exposure Limit (STEL):	1 minute	EH40 WEL

Predicted No-Effect Concentration (PNEC):

Name on list	Environmental Compartment	Exposure period	Value				Remarks
			mg/l	ppm	mg/kg	others	
Isobornyl acrylate 5888-33-5	aqua (freshwater)		0,001 mg/l				
Isobornyl acrylate 5888-33-5	aqua (intermittent releases)		0,007 mg/l				
Isobornyl acrylate 5888-33-5	aqua (marine water)		0,0001 mg/l				
Isobornyl acrylate 5888-33-5	sewage treatment plant (STP)		2 mg/l				
Isobornyl acrylate 5888-33-5	sediment (freshwater)				0,145 mg/kg		
Isobornyl acrylate 5888-33-5	sediment (marine water)				0,0145 mg/kg		
Isobornyl acrylate 5888-33-5	Soil				0,0285 mg/kg		
Isobornyl acrylate 5888-33-5	Predator						no potential for bioaccumulation
N,N-Dimethylacrylamide 2680-03-7	aqua (freshwater)		0,12 mg/l				
N,N-Dimethylacrylamide 2680-03-7	aqua (marine water)		0,012 mg/l				
N,N-Dimethylacrylamide 2680-03-7	aqua (intermittent releases)		1,2 mg/l				
N,N-Dimethylacrylamide 2680-03-7	sediment (freshwater)				0,509 mg/kg		
N,N-Dimethylacrylamide 2680-03-7	sediment (marine water)				0,051 mg/kg		
N,N-Dimethylacrylamide 2680-03-7	Soil				0,0313 mg/kg		
N,N-Dimethylacrylamide 2680-03-7	sewage treatment plant (STP)		18 mg/l				
N,N-Dimethylacrylamide 2680-03-7	Predator						no potential for bioaccumulation
2,2-Dimethoxy-1,2-diphenylethan-1-one 24650-42-8	aqua (freshwater)		0,229 mg/l				
2,2-Dimethoxy-1,2-diphenylethan-1-one 24650-42-8	Freshwater - intermittent		0,184 mg/l				
2,2-Dimethoxy-1,2-diphenylethan-1-one 24650-42-8	aqua (marine water)		0,0229 mg/l				
2,2-Dimethoxy-1,2-diphenylethan-1-one 24650-42-8	sewage treatment plant (STP)		19,4 mg/l				
2,2-Dimethoxy-1,2-diphenylethan-1-one 24650-42-8	sediment (freshwater)				8,87 mg/kg		
2,2-Dimethoxy-1,2-diphenylethan-1-one 24650-42-8	sediment (marine water)				0,887 mg/kg		
2,2-Dimethoxy-1,2-diphenylethan-1-one 24650-42-8	Soil				1,64 mg/kg		
[3-(2,3- Epoxypropoxy)propyl]trimethoxysilane 2530-83-8	aqua (freshwater)		0,45 mg/l				
[3-(2,3- Epoxypropoxy)propyl]trimethoxysilane 2530-83-8	aqua (marine water)		0,045 mg/l				
[3-(2,3- Epoxypropoxy)propyl]trimethoxysilane 2530-83-8	sewage treatment plant (STP)		8,2 mg/l				
[3-(2,3- Epoxypropoxy)propyl]trimethoxysilane 2530-83-8	sediment (freshwater)				1,6 mg/kg		
[3-(2,3- Epoxypropoxy)propyl]trimethoxysilane 2530-83-8	sediment (marine water)				0,16 mg/kg		
[3-(2,3- Epoxypropoxy)propyl]trimethoxysilane 2530-83-8	Soil				0,063 mg/kg		

[3-(2,3-Epoxypropoxy)propyl]trimethoxysilane 2530-83-8	aqua (intermittent releases)		0,45 mg/l				
Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide 75980-60-8	aqua (freshwater)		0,0014 mg/l				
Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide 75980-60-8	aqua (marine water)		0,00014 mg/l				
Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide 75980-60-8	Freshwater - intermittent		0,014 mg/l				
Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide 75980-60-8	Marine water - intermittent		0,0014 mg/l				
Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide 75980-60-8	sediment (freshwater)				0,115 mg/kg		
Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide 75980-60-8	sediment (marine water)				0,0115 mg/kg		
Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide 75980-60-8	Soil				0,0222 mg/kg		
Acrylic acid 79-10-7	aqua (freshwater)		0,003 mg/l				
Acrylic acid 79-10-7	aqua (marine water)		0,0003 mg/l				
Acrylic acid 79-10-7	sewage treatment plant (STP)		0,9 mg/l				
Acrylic acid 79-10-7	sediment (freshwater)				0,0236 mg/kg		
Acrylic acid 79-10-7	sediment (marine water)				0,00236 mg/kg		
Acrylic acid 79-10-7	Soil				1 mg/kg		
Acrylic acid 79-10-7	oral				0,03 g/kg		
Acrylic acid 79-10-7	Air						no hazard identified
2-Hydroxyethyl acrylate 818-61-1	aqua (freshwater)		0,017 mg/l				
2-Hydroxyethyl acrylate 818-61-1	aqua (marine water)		0,002 mg/l				
2-Hydroxyethyl acrylate 818-61-1	aqua (intermittent releases)		0,036 mg/l				
2-Hydroxyethyl acrylate 818-61-1	sediment (freshwater)				0,064 mg/kg		
2-Hydroxyethyl acrylate 818-61-1	sediment (marine water)				0,006 mg/kg		
2-Hydroxyethyl acrylate 818-61-1	Soil				0,003 mg/kg		
2-Hydroxyethyl acrylate 818-61-1	Sewage treatment plant		10 mg/l				
2-Hydroxyethyl acrylate 818-61-1	Air						no hazard identified

Derived No-Effect Level (DNEL):

Name on list	Application Area	Route of Exposure	Health Effect	Exposure Time	Value	Remarks
Isobornyl acrylate 5888-33-5	Workers	dermal	Long term exposure - systemic effects		1,39 mg/kg	no potential for bioaccumulation
Isobornyl acrylate 5888-33-5	General population	oral	Long term exposure - systemic effects		0,83 mg/kg	no potential for bioaccumulation
Isobornyl acrylate 5888-33-5	General population	dermal	Long term exposure - systemic effects		0,83 mg/kg	no potential for bioaccumulation
N,N-Dimethylacrylamide 2680-03-7	Workers	dermal	Long term exposure - systemic effects		0,357 mg/kg 357 µg/kg bw/day	no potential for bioaccumulation
N,N-Dimethylacrylamide 2680-03-7	Workers	inhalation	Long term exposure - systemic effects		0,207 mg/m3	no potential for bioaccumulation
N,N-Dimethylacrylamide 2680-03-7	General population	oral	Long term exposure - systemic effects		0,0147 mg/kg 14,7 µg/kg bw/day	no potential for bioaccumulation
N,N-Dimethylacrylamide 2680-03-7	General population	dermal	Long term exposure - systemic effects		0,179 mg/kg 179 µg/kg bw/day	no potential for bioaccumulation
N,N-Dimethylacrylamide 2680-03-7	General population	inhalation	Long term exposure - systemic effects		0,051 mg/m3	no potential for bioaccumulation
2,2-Dimethoxy-1,2-diphenylethan-1-one 24650-42-8	Workers	inhalation	Long term exposure - systemic effects		2,11 mg/m3	
2,2-Dimethoxy-1,2-diphenylethan-1-one 24650-42-8	Workers	dermal	Long term exposure - systemic effects		0,599 mg/kg	
2,2-Dimethoxy-1,2-diphenylethan-1-one 24650-42-8	General population	inhalation	Long term exposure - systemic effects		0,372 mg/m3	
2,2-Dimethoxy-1,2-diphenylethan-1-one 24650-42-8	General population	dermal	Long term exposure - systemic effects		0,214 mg/kg	
2,2-Dimethoxy-1,2-diphenylethan-1-one 24650-42-8	General population	oral	Long term exposure - systemic effects		0,214 mg/kg	
[3-(2,3-Epoxypropoxy)propyl]trimethoxysilane 2530-83-8	Workers	dermal	Long term exposure - systemic effects		10 mg/kg	
[3-(2,3-Epoxypropoxy)propyl]trimethoxysilane 2530-83-8	Workers	Inhalation	Long term exposure - systemic effects		70,5 mg/m3	
[3-(2,3-Epoxypropoxy)propyl]trimethoxysilane 2530-83-8	General population	inhalation	Long term exposure - systemic effects		17 mg/m3	
[3-(2,3-Epoxypropoxy)propyl]trimethoxysilane 2530-83-8	General population	dermal	Long term exposure - systemic effects		5 mg/kg	
[3-(2,3-Epoxypropoxy)propyl]trimethoxysilane 2530-83-8	General population	oral	Long term exposure - systemic effects		5 mg/kg	
[3-(2,3-Epoxypropoxy)propyl]trimethoxysilane 2530-83-8	General population	inhalation	Acute/short term exposure - systemic effects		26400 mg/m3	
Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide 75980-60-8	Workers	inhalation	Long term exposure - systemic effects		0,822 mg/m3	
Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide 75980-60-8	Workers	dermal	Long term exposure - systemic effects		0,233 mg/kg	
Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide 75980-60-8	General population	inhalation	Long term exposure - systemic effects		0,145 mg/m3	
Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide 75980-60-8	General population	dermal	Long term exposure - systemic effects		0,0833 mg/kg	
Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	General population	oral	Long term exposure -		0,0833 mg/kg	

75980-60-8			systemic effects			
Acrylic acid 79-10-7	Workers	inhalation	Long term exposure - local effects		30 mg/m3	no hazard identified
Acrylic acid 79-10-7	Workers	inhalation	Acute/short term exposure - local effects		30 mg/m3	no hazard identified
Acrylic acid 79-10-7	Workers	dermal	Acute/short term exposure - local effects		1 mg/cm2	no hazard identified
Acrylic acid 79-10-7	General population	dermal	Acute/short term exposure - local effects		1 mg/cm2	no hazard identified
Acrylic acid 79-10-7	General population	inhalation	Acute/short term exposure - local effects		3,6 mg/m3	no hazard identified
Acrylic acid 79-10-7	General population	inhalation	Long term exposure - local effects		3,6 mg/m3	no hazard identified
2-Hydroxyethyl acrylate 818-61-1	Workers	inhalation	Long term exposure - local effects		2,4 mg/m3	no hazard identified
2-Hydroxyethyl acrylate 818-61-1	General population	inhalation	Long term exposure - local effects		1,2 mg/m3	no hazard identified

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:

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	Clear
Odor	mild
Physical state	liquid
Melting point	Not applicable, Product is a liquid
Solidification temperature	< -25 °C (< -13 °F)
Initial boiling point	> 93 °C (> 199.4 °F)
Flammability	The product is not flammable.
Explosive limits	Not applicable, The product is not flammable.
Flash point	77,8 °C (172.04 °F)
Auto-ignition temperature	485 °C (905 °F)
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 reacts with water.
Viscosity (kinematic) (40 °C (104 °F);)	> 20,5 mm ² /s
Solubility (qualitative) (20 °C (68 °F); Solvent: Water)	Slight
Partition coefficient: n-octanol/water	Not applicable
Vapour pressure (20 °C (68 °F))	Mixture < 5 mm hg
Density (20 °C (68 °F))	1,078 g/cm ³ None
Relative vapour density: (20 °C)	> 1
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.
Acids.
Reducing agents.
Strong bases.

10.2. Chemical stability

Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

See section reactivity

10.4. Conditions to avoid

Stable under normal conditions of storage and use.
Protect from direct sunlight.
Avoid contact with acids and oxidizing agents.

10.5. Incompatible materials

See section reactivity.

10.6. Hazardous decomposition products

carbon oxides.

Hydrocarbons

nitrogen oxides

Rapid polymerisation may generate excessive heat and pressure.

SECTION 11: Toxicological information**11.1 Information on 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
Isobornyl acrylate 5888-33-5	LD50	4.350 mg/kg	rat	not specified
2-Propenamide, N,N-dimethyl- 2680-03-7	LD50	> 215 - 464 mg/kg	rat	equivalent or similar to OECD Guideline 401 (Acute Oral Toxicity)
2-Propenamide, N,N-dimethyl- 2680-03-7	Acute toxicity estimate (ATE)	216 mg/kg		Expert judgement
Ethanone, 2,2-dimethoxy- 1,2-diphenyl- 24650-42-8	LD50	> 5.000 mg/kg	rat	not specified
[3-(2,3-Epoxypropoxy)propyl]tri methoxysilane 2530-83-8	LD50	8.025 mg/kg	rat	equivalent or similar to OECD Guideline 401 (Acute Oral Toxicity)
Diphenyl-2,4,6-trimethylbenzoyl phosphine oxide 75980-60-8	LD50	> 5.000 mg/kg	rat	OECD Guideline 401 (Acute Oral Toxicity)
Acrylic acid 79-10-7	LD50	1.500 mg/kg	rat	equivalent or similar to OECD Guideline 401 (Acute Oral Toxicity)
Camphene 79-92-5	LD50	>= 5.000 mg/kg	rat	Limit Test
2-Hydroxyethyl acrylate 818-61-1	LD50	540 mg/kg	rat	not specified

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
Isobornyl acrylate 5888-33-5	LD50	> 3.000 mg/kg	rabbit	not specified
2-Propenamide, N,N-dimethyl- 2680-03-7	LD50	500 mg/kg	rat	not specified
Ethanone, 2,2-dimethoxy- 1,2-diphenyl- 24650-42-8	LD50	> 5.000 mg/kg	rat	not specified
[3-(2,3-Epoxypropoxy)propyl]tri methoxysilane 2530-83-8	LD50	4.250 mg/kg	rabbit	equivalent or similar to OECD Guideline 402 (Acute Dermal Toxicity)
Diphenyl-2,4,6-trimethylbenzoyl phosphine oxide 75980-60-8	LD50	> 2.000 mg/kg	rat	OECD Guideline 402 (Acute Dermal Toxicity)
Acrylic acid 79-10-7	Acute toxicity estimate (ATE)	1.100 mg/kg		Expert judgement
Acrylic acid 79-10-7	LD50	> 2.000 mg/kg	rabbit	OECD Guideline 402 (Acute Dermal Toxicity)

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]tri methoxysilane 2530-83-8	LC50	> 5,3 mg/l	dust/mist	4 h	rat	equivalent or similar to OECD Guideline 403 (Acute Inhalation Toxicity)
Acrylic acid 79-10-7	LC0	5,1 mg/l	vapour	4 h	rat	equivalent or similar to OECD Guideline 403 (Acute Inhalation Toxicity)
Acrylic acid 79-10-7	Acute toxicity estimate (ATE)	11 mg/l	vapour			Expert judgement

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
Isobornyl acrylate 5888-33-5	irritating		rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
2-Propenamide, N,N-dimethyl- 2680-03-7	not irritating	24 h	rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
[3-(2,3-Epoxypropoxy)propyl]tri methoxysilane 2530-83-8	not irritating	24 h	rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
Diphenyl-2,4,6-trimethylbenzoyl phosphine oxide 75980-60-8	not irritating	24 h	rabbit	not specified
Acrylic acid 79-10-7	Category 1 (corrosive)	3 min	rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
Camphene 79-92-5	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
2-Propenamide, N,N-dimethyl- 2680-03-7	Category 1 (irreversible effects on the eye)		rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)
[3-(2,3-Epoxypropoxy)propyl]tri methoxysilane 2530-83-8	corrosive		rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)
Diphenyl-2,4,6-trimethylbenzoyl phosphine oxide 75980-60-8	not irritating		rabbit	not specified
Acrylic acid 79-10-7	Category 1 (irreversible effects on the eye)		rabbit	BASF Test
Camphene 79-92-5	irritating	24 h	rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)

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
Isobornyl acrylate 5888-33-5	sensitising	Mouse local lymphnode assay (LLNA)	mouse	OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay)
2-Propenamide, N,N-dimethyl- 2680-03-7	not sensitising	Guinea pig maximisation test	guinea pig	OECD Guideline 406 (Skin Sensitisation)
[3-(2,3-Epoxypropoxy)propyl]tri methoxysilane 2530-83-8	not sensitising	Buehler test	guinea pig	OECD Guideline 406 (Skin Sensitisation)
Diphenyl-2,4,6-trimethylbenzoyl phosphine oxide 75980-60-8	sensitising	Mouse local lymphnode assay (LLNA)	mouse	OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay)
Acrylic acid 79-10-7	not sensitising	Freund's complete adjuvant test	guinea pig	Klecak Method
Acrylic acid 79-10-7	not sensitising	Split adjuvant test	guinea pig	Maguire Method
2-Hydroxyethyl acrylate 818-61-1	sensitising	Mouse local lymphnode assay (LLNA)	mouse	not specified

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
Isobornyl acrylate 5888-33-5	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
Isobornyl acrylate 5888-33-5	negative	mammalian cell gene mutation assay	with and without		OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)
Isobornyl acrylate 5888-33-5	negative	in vitro mammalian cell micronucleus test	with and without		OECD Guideline 487 (In vitro Mammalian Cell Micronucleus Test)
2-Propenamide, N,N- dimethyl- 2680-03-7	negative		with and without		OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)
2-Propenamide, N,N- dimethyl- 2680-03-7	negative		with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
[3-(2,3- Epoxypropoxy)propyl]tri methoxysilane 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)
Diphenyl-2,4,6- trimethylbenzoyl phosphine oxide 75980-60-8	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
Diphenyl-2,4,6- trimethylbenzoyl phosphine oxide 75980-60-8	negative	in vitro mammalian chromosome aberration test	with and without		OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test)
Diphenyl-2,4,6- trimethylbenzoyl phosphine oxide 75980-60-8	negative	mammalian cell gene mutation assay	with and without		OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)
Acrylic acid 79-10-7	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		equivalent or similar to OECD Guideline 471 (Bacterial Reverse Mutation Assay)
Acrylic acid 79-10-7	negative	mammalian cell gene mutation assay	with and without		equivalent or similar to OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)
Acrylic acid 79-10-7	negative	DNA damage and repair assay, unscheduled DNA synthesis in mammalian cells in vitro	without		equivalent or similar to OECD Guideline 482 (Genetic Toxicology: DNA Damage and Repair, Unscheduled DNA Synthesis in Mammalian Cells)
2-Hydroxyethyl acrylate 818-61-1	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		not specified
2-Propenamide, N,N- dimethyl- 2680-03-7	negative	oral: gavage		mouse	OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test)
[3-(2,3- Epoxypropoxy)propyl]tri methoxysilane 2530-83-8	A mutagenic potential can not be excluded.			mouse	OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test)
Acrylic acid 79-10-7	negative	oral: gavage		rat	equivalent or similar to OECD Guideline 475 (Mammalian Bone Marrow Chromosome Aberration Test)
Acrylic acid 79-10-7	negative	oral: gavage		mouse	not specified
Camphene 79-92-5	negative	oral: gavage		mouse	OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test)
2-Hydroxyethyl acrylate 818-61-1	negative	oral: gavage		mouse	OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test)

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
Acrylic acid 79-10-7	not carcinogenic	oral: drinking water	26 - 28 m continuously	rat	male/female	OECD Guideline 451 (Carcinogenicity Studies)
Acrylic acid 79-10-7	not carcinogenic	dermal	21 m 3 times/w	mouse	male/female	not specified

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
Isobornyl acrylate 5888-33-5	NOAEL P 100 mg/kg NOAEL F1 100 mg/kg	screening	oral: gavage	rat	OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)
2-Propenamide, N,N- dimethyl- 2680-03-7	NOAEL P 5 mg/kg NOAEL F1 30 mg/kg		oral: gavage	rat	OECD Guideline 421 (Reproduction / Developmental Toxicity Screening Test)
Acrylic acid 79-10-7	NOAEL P 83 mg/kg NOAEL F1 250 mg/kg	one- generation study	oral: drinking water	rat	equivalent or similar to OECD Guideline 415 (One- Generation Reproduction Toxicity Study)
Acrylic acid 79-10-7	NOAEL P 240 mg/kg NOAEL F1 53 mg/kg NOAEL F2 53 mg/kg	two- generation study	oral: drinking water	rat	OECD Guideline 416 (Two- Generation Reproduction Toxicity Study)

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
Isobornyl acrylate 5888-33-5	NOAEL 100 mg/kg	oral: gavage	once daily	rat	OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)
2-Propenamide, N,N- dimethyl- 2680-03-7	NOAEL 10 mg/kg	dermal	13 weeks 6 hours/day, 7 days/week	rat	OECD Guideline 411 (Subchronic Dermal Toxicity: 90-Day Study)
[3-(2,3- Epoxypropoxy)propyl]tri methoxysilane 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]tri methoxysilane 2530-83-8	NOAEL 0,225 mg/kg	inhalation	14 d	rat	OECD Guideline 412 (Repeated Dose Inhalation Toxicity: 28/14-Day)
Diphenyl-2,4,6- trimethylbenzoyl phosphine oxide 75980-60-8	NOAEL 100 mg/kg	oral: gavage	3 m 5 d/w	rat	OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)
Acrylic acid 79-10-7	NOAEL 40 mg/kg	oral: drinking water	12 m daily	rat	equivalent or similar to OECD Guideline 452 (Chronic Toxicity Studies)
Acrylic acid 79-10-7	NOAEL 0,015 mg/l	inhalation: vapour	90 d 6 h/d, 5 d/w	mouse	equivalent or similar to OECD Guideline 413 (Subchronic Inhalation Toxicity: 90-Day)
Camphene 79-92-5	LOAEL 1.000 mg/kg	oral: gavage	28 days daily	rat	OECD Guideline 407 (Repeated Dose 28-Day Oral Toxicity in Rodents)

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
Isobornyl acrylate 5888-33-5	LC50	0,704 mg/l	96 h	Danio rerio	OECD Guideline 203 (Fish, Acute Toxicity Test)
2-Propenamide, N,N-dimethyl- 2680-03-7	LC50	> 120 mg/l	96 h	Oncorhynchus mykiss	OECD Guideline 203 (Fish, Acute Toxicity Test)
Ethanone, 2,2-dimethoxy-1,2-diphenyl- 24650-42-8	LC50	7,2 mg/l	96 h	Oncorhynchus mykiss	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)
Diphenyl-2,4,6-trimethylbenzoyl phosphine oxide 75980-60-8	LC50	1,4 mg/l	96 h	Cyprinus carpio	OECD Guideline 203 (Fish, Acute Toxicity Test)
Acrylic acid 79-10-7	LC50	27 mg/l	96 h	Salmo gairdneri (new name: Oncorhynchus mykiss)	EPA OTS 797.1400 (Fish Acute Toxicity Test)
Acrylic acid 79-10-7	NOEC	>= 10,1 mg/l	45 d	Oryzias latipes	OECD Guideline 210 (fish early life stage toxicity test)
Camphene 79-92-5	LC50	0,72 mg/l	96 h	Brachydanio rerio (new name: Danio rerio)	OECD Guideline 203 (Fish, Acute Toxicity Test)
2-Hydroxyethyl acrylate 818-61-1	LC50	4,8 mg/l	96 h	Pimephales promelas	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
Isobornyl acrylate 5888-33-5	EC50	1 mg/l	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
2-Propenamide, N,N-dimethyl- 2680-03-7	EC50	> 120 mg/l	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Ethanone, 2,2-dimethoxy-1,2-diphenyl- 24650-42-8	EC50	26 mg/l	24 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)
Diphenyl-2,4,6-trimethylbenzoyl phosphine oxide 75980-60-8	EC50	3,53 mg/l	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Acrylic acid 79-10-7	EC50	95 mg/l	48 h	Daphnia magna	EPA OTS 797.1300 (Aquatic Invertebrate Acute Toxicity Test, Freshwater Daphnids)
Camphene 79-92-5	EC50	22 mg/l	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)

2-Hydroxyethyl acrylate 818-61-1	EC50	9,3 mg/l	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
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Chronic toxicity (aquatic invertebrates):

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
Isobornyl acrylate 5888-33-5	NOEC	0,092 mg/l	21 d	Daphnia magna	OECD 211 (Daphnia magna, Reproduction Test)
[3-(2,3- Epoxypropoxy)propyl]trimeth oxysilane 2530-83-8	NOEC	100 mg/l	21 d	Daphnia magna	OECD 211 (Daphnia magna, Reproduction Test)
Acrylic acid 79-10-7	NOEC	19 mg/l	21 d	Daphnia magna	EPA OTS 797.1330 (Daphnid Chronic Toxicity Test)
2-Hydroxyethyl acrylate 818-61-1	NOEC	0,86 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 CAS-No.	Value type	Value	Exposure time	Species	Method
Isobornyl acrylate 5888-33-5	NOEC	0,405 mg/l	72 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
Isobornyl acrylate 5888-33-5	EC50	1,98 mg/l	72 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
2-Propenamide, N,N- dimethyl- 2680-03-7	EC50	> 400 mg/l	72 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
2-Propenamide, N,N- dimethyl- 2680-03-7	NOEC	50 mg/l	72 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
Ethanone, 2,2-dimethoxy-1,2- diphenyl- 24650-42-8	EC50	0,17 mg/l	72 h	Scenedesmus sp.	OECD Guideline 201 (Alga, Growth Inhibition Test)
[3-(2,3- Epoxypropoxy)propyl]trimeth oxysilane 2530-83-8	EC50	350 mg/l	96 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
[3-(2,3- Epoxypropoxy)propyl]trimeth oxysilane 2530-83-8	NOEC	130 mg/l	96 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
Diphenyl-2,4,6- trimethylbenzoyl phosphine oxide 75980-60-8	EC50	> 2,01 mg/l	72 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
Diphenyl-2,4,6- trimethylbenzoyl phosphine oxide 75980-60-8	EC10	1,56 mg/l	72 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
Acrylic acid 79-10-7	EC10	0,03 mg/l	72 h	Scenedesmus subspicatus (new name: Desmodesmus subspicatus)	EU Method C.3 (Algal Inhibition test)
Acrylic acid 79-10-7	EC50	0,13 mg/l	72 h	Scenedesmus subspicatus (new name: Desmodesmus subspicatus)	EU Method C.3 (Algal Inhibition test)
Camphene 79-92-5	NOEC	320 - 580 mg/l	72 h	Scenedesmus subspicatus (new name: Desmodesmus subspicatus)	OECD Guideline 201 (Alga, Growth Inhibition Test)
Camphene 79-92-5	EC50	> 1.000 mg/l	72 h	Scenedesmus subspicatus (new name: Desmodesmus subspicatus)	OECD Guideline 201 (Alga, Growth Inhibition Test)
2-Hydroxyethyl acrylate 818-61-1	EC50	6 mg/l	72 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
2-Hydroxyethyl acrylate 818-61-1	NOEC	1 mg/l	72 h	Pseudokirchneriella 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 CAS-No.	Value type	Value	Exposure time	Species	Method
2-Propenamide, N,N- dimethyl- 2680-03-7	EC50	> 1.000 mg/l	3 h	activated sludge, domestic	OECD Guideline 209 (Activated Sludge, Respiration Inhibition Test)
Ethanone, 2,2-dimethoxy-1,2- diphenyl- 24650-42-8	EC 50	> 100 mg/l	3 h		OECD Guideline 209 (Activated Sludge, Respiration Inhibition Test)
[3-(2,3- Epoxypropoxy)propyl]trimeth oxysilane 2530-83-8	EC50	> 100 mg/l	3 h	activated sludge of a predominantly domestic sewage	OECD Guideline 209 (Activated Sludge, Respiration Inhibition Test)
Diphenyl-2,4,6- trimethylbenzoyl phosphine oxide 75980-60-8	EC 50	> 1.000 mg/l	30 min		OECD Guideline 209 (Activated Sludge, Respiration Inhibition Test)
Acrylic acid 79-10-7	EC20	900 mg/l	30 min	activated sludge, domestic	ISO 8192 (Test for Inhibition of Oxygen)

					Consumption by Activated Sludge)
Camphene 79-92-5	EC10	490 mg/l	3 h		OECD Guideline 209 (Activated Sludge, Respiration Inhibition Test)
2-Hydroxyethyl acrylate 818-61-1	EC10	> 100 mg/l	72 h	activated sludge, domestic	other guideline:

12.2. Persistence and degradability

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
Isobornyl acrylate 5888-33-5	inherently biodegradable	aerobic	73,9 %	60 d	OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)
Isobornyl acrylate 5888-33-5	not readily biodegradable.	aerobic	57 %	28 d	OECD Guideline 310 (Ready Biodegradability CO2 in Sealed Vessels (Headspace Test)
2-Propenamide, N,N-dimethyl- 2680-03-7	not readily biodegradable.	aerobic	0 %	28 d	OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I))
Ethanone, 2,2-dimethoxy-1,2-diphenyl- 24650-42-8	not readily biodegradable.	aerobic	3 %	28 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	EU Method C.4-A (Determination of the "Ready" Biodegradability Dissolved Organic Carbon (DOC) Die-Away Test)
Diphenyl-2,4,6-trimethylbenzoyl phosphine oxide 75980-60-8	not readily biodegradable.	aerobic	0 - 10 %	28 d	OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)
Acrylic acid 79-10-7	inherently biodegradable	aerobic	100 %	28 d	OECD Guideline 302 B (Inherent biodegradability: Zahn-Wellens/EMPA Test)
Acrylic acid 79-10-7	readily biodegradable	aerobic	81 %	28 d	OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)
Camphene 79-92-5	not readily biodegradable.	aerobic	78 %	28 day	OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)
Camphene 79-92-5	inherently biodegradable	aerobic	78 %	28 day	OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)
2-Hydroxyethyl acrylate 818-61-1	readily biodegradable	aerobic	> 79 - 80 %	28 d	OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test)

12.3. Bioaccumulative potential

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

Hazardous substances CAS-No.	Bioconcentration factor (BCF)	Exposure time	Temperature	Species	Method
Isobornyl acrylate 5888-33-5	37	56 h	24 °C	Danio rerio	OECD Guideline 305 (Bioconcentration: Flow-through Fish Test)
Acrylic acid 79-10-7	3,16				QSAR (Quantitative Structure Activity Relationship)

12.4. Mobility in soil

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

Hazardous substances CAS-No.	LogPow	Temperature	Method
Isobornyl acrylate 5888-33-5	4,52		OECD Guideline 117 (Partition Coefficient (n-octanol / water), HPLC Method)
2-Propenamide, N,N-dimethyl- 2680-03-7	< 0,3	23 °C	OECD Guideline 117 (Partition Coefficient (n-octanol / water), HPLC Method)
Ethanone, 2,2-dimethoxy-1,2-diphenyl- 24650-42-8	3,42		not specified
[3-(2,3-Epoxypropoxy)propyl]trimethoxysilane 2530-83-8	0,5	20 °C	QSAR (Quantitative Structure Activity Relationship)
Diphenyl-2,4,6-trimethylbenzoyl phosphine oxide 75980-60-8	3,1	23 °C	OECD Guideline 117 (Partition Coefficient (n-octanol / water), HPLC Method)
Acrylic acid 79-10-7	0,46	25 °C	OECD Guideline 107 (Partition Coefficient (n-octanol / water), Shake Flask Method)
Camphene 79-92-5	4,35		not specified
2-Hydroxyethyl acrylate 818-61-1	-0,17	25 °C	OECD Guideline 107 (Partition Coefficient (n-octanol / water), Shake Flask Method)

12.5. Results of PBT and vPvB assessment

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

Hazardous substances CAS-No.	PBT / vPvB
Isobornyl acrylate 5888-33-5	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
2-Propenamide, N,N-dimethyl- 2680-03-7	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
Ethanone, 2,2-dimethoxy-1,2-diphenyl- 24650-42-8	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.
Diphenyl-2,4,6-trimethylbenzoyl phosphine oxide 75980-60-8	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
Acrylic acid 79-10-7	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
Camphene 79-92-5	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
2-Hydroxyethyl acrylate 818-61-1	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very 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

Product disposal:

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

Dispose of in accordance with local and national regulations.

Disposal of uncleaned packages:

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

Waste code

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

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

SECTION 14: Transport information**14.1. UN number or ID number**

ADR	3082
RID	3082
IMDG	3082
IATA	3082

14.2. UN proper shipping name

ADR	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (2,2-Dimethoxy-1,2-diphenylethan-1-one,Isobornyl acrylate)
RID	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (2,2-Dimethoxy-1,2-diphenylethan-1-one,Isobornyl acrylate)
IMDG	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (2,2-Dimethoxy-1,2-diphenylethan-1-one,Isobornyl acrylate)
IATA	Environmentally hazardous substance, liquid, n.o.s. (2,2-Dimethoxy-1,2-diphenylethan-1-one,Isobornyl acrylate)

14.3. Transport hazard class(es)

ADR	9
RID	9
IMDG	9
IATA	9

14.4. Packing group

ADR	III
RID	III
IMDG	III
IATA	III

14.5. Environmental hazards

ADR	Environmentally Hazardous
RID	Environmentally Hazardous
ADN	Environmentally Hazardous
IMDG	Marine Pollutant
IATA	Environmentally Hazardous

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), A197 (IATA), 2.10.2.7 (IMDG) may be applied, which can result in a deviation from the transport classification for packed goods.

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
Prior Informed Consent (PIC) (Regulation (EU) No 649/2012):	Not applicable
Persistent organic pollutants (Regulation (EU) 2019/1021):	1,1'-Biphenyl, chloro derivs. CAS 1336-36-3

VOC content (2010/75/EC)	< 3,00 %
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15.2. Chemical safety assessment

A chemical safety assessment has not been carried out.

SECTION 16: Other information

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

H226 Flammable liquid and vapour.
H228 Flammable solid.
H301 Toxic if swallowed.
H302 Harmful if swallowed.
H311 Toxic in contact with skin.
H312 Harmful in contact with skin.
H314 Causes severe skin burns and eye damage.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.
H319 Causes serious eye irritation.
H332 Harmful if inhaled.
H335 May cause respiratory irritation.
H361f Suspected of damaging fertility.
H400 Very toxic to aquatic life.
H410 Very toxic to aquatic life with long lasting effects.
H411 Toxic to aquatic life with long lasting effects.
H412 Harmful to aquatic life with long lasting effects.

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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