



Safety Data Sheet according to Regulation (EC) No1907/2006

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SDS No. : 153618
V009.0

LOCTITE AA 3494 LC known as Loctite 3494

Revision: 21.01.2014
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SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

LOCTITE AA 3494 LC known as Loctite 3494

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

Intended use:
Acrylics

1.3. Details of the supplier of the safety data sheet

Henkel Limited
2 Bishop Square Business Park
AL109EY Herfordshire Hatfield

Great Britain

Phone: +44 1606 593933
Fax-no.: +44 1606 863762

ua-productsafety.uk@uk.henkel.com

1.4. Emergency telephone number

24 Hours Emergency Tel: +44 (0)1442 278497

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (DPD):

Xi - Irritant
R37/38 Irritating to respiratory system and skin.
R41 Risk of serious damage to eyes.
Sensitizing
R43 May cause sensitisation by skin contact.
N - Dangerous for the environment
R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

2.2. Label elements

Label elements (DPD):

Xi - Irritant



N - Dangerous for the environment



Risk phrases:

- R41 Risk of serious damage to eyes.
- R37/38 Irritating to respiratory system and skin.
- R43 May cause sensitisation by skin contact.
- R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Safety phrases:

- S23 Do not breathe vapour.
- S24/25 Avoid contact with skin and eyes.
- S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
- S36/37 Wear suitable protective clothing and gloves.
- S39 Wear eye/face protection.
- S51 Use only in well-ventilated areas.
- S61 Avoid release to the environment. Refer to special instructions/Safety data sheets.

Additional labeling:

- For consumer use only: S2 Keep out of the reach of children.
- S46 If swallowed, seek medical advice immediately and show this container or label.

Contains:

- 2-Hydroxyethyl methacrylate,
- Hydroxypropyl methacrylate,
- Diphenyl-2,4,6-trimethylbenzoyl phosphine oxide

2.3. Other hazards

None if used properly.

SECTION 3: Composition/information on ingredients

General chemical description:

UV curing acrylic adhesive

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

Hazardous components CAS-No.	EC Number REACH-Reg No.	content	Classification
Isobornyl acrylate 5888-33-5	227-561-6	>= 25- 30 %	Serious eye irritation 2 H319 Skin irritation 2 H315 Chronic hazards to the aquatic environment 2 H411 Specific target organ toxicity - single exposure 3 H335
2-Hydroxyethyl methacrylate 868-77-9	212-782-2 01-2119490169-29	10- 20 %	Skin irritation 2 H315 Skin sensitizer 1 H317 Serious eye irritation 2 H319
Isobornyl methacrylate 7534-94-3	231-403-1	>= 2,5- 10 %	Specific target organ toxicity - single exposure 3 H335 Skin irritation 2 H315 Serious eye irritation 2 H319 Chronic hazards to the aquatic environment 2 H411
Acrylic acid 79-10-7	201-177-9 01-2119452449-31	1- < 5 %	Flammable liquids 3 H226 Acute toxicity 4; Oral H302 Acute toxicity 4; Dermal H312 Skin corrosion 1A H314 Acute toxicity 4; Inhalation H332 Specific target organ toxicity - single exposure 3 H335 Acute hazards to the aquatic environment 1 H400 Chronic hazards to the aquatic environment 1 H410
Hydroxypropyl methacrylate 27813-02-1	248-666-3 01-2119490226-37	1- 5 %	Skin sensitizer 1; Dermal H317 Serious eye irritation 2 H319
[3-(2,3- Epoxypropoxy)propyl]trimethoxysilane 2530-83-8	219-784-2 01-2119513212-58	1- 3 %	Serious eye damage/eye irritation 1 H318 Chronic hazards to the aquatic environment 3 H412
Diphenyl-2,4,6-trimethylbenzoyl phosphine oxide 75980-60-8	278-355-8 01-2119972295-29	>= 1- < 2,5 %	Toxic to reproduction 2 H361f Chronic hazards to the aquatic environment 2 H411 Skin sensitizer 1B H317

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

Declaration of ingredients according to DPD (EC) No 1999/45:

Hazardous components CAS-No.	EC Number REACH-Reg No.	content	Classification
Isobornyl acrylate 5888-33-5	227-561-6	>= 25 - 30 %	Xi - Irritant; R36/37/38 N - Dangerous for the environment; R51/53
2-Hydroxyethyl methacrylate 868-77-9	212-782-2 01-2119490169-29	10 - 20 %	Xi - Irritant; R36/38 R43
Isobornyl methacrylate 7534-94-3	231-403-1	>= 2,5 - 10 %	N - Dangerous for the environment; R51/53 Xi - Irritant; R36/37/38
Acrylic acid 79-10-7	201-177-9 01-2119452449-31	1 - < 5 %	R10 C - Corrosive; R35 N - Dangerous for the environment; R50 Xn - Harmful; R20/21/22
Hydroxypropyl methacrylate 27813-02-1	248-666-3 01-2119490226-37	1 - 5 %	Xi - Irritant; R36, R43
[3-(2,3-Epoxypropoxypropyl)trimethoxysilane 2530-83-8	219-784-2 01-2119513212-58	1 - 3 %	Xi - Irritant; R41
Diphenyl-2,4,6-trimethylbenzoyl phosphine oxide 75980-60-8	278-355-8 01-2119972295-29	>= 1 - < 2,5 %	N - Dangerous for the environment; R51/53 Toxic for reproduction - category 3.; Xn - Harmful; R62 Xi - Irritant; R43

For full text of the R-Phrases indicated by codes see section 16 'Other Information'.
Substances without classification may have community workplace exposure limits available.

SECTION 4: First aid measures**4.1. Description of first aid measures****Inhalation:**

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

Skin contact:

Rinse with running water and soap.
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.

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

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:

None known

5.2. Special hazards arising from the substance or mixture

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

5.3. Advice for firefighters

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

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Avoid skin and eye contact.

6.2. Environmental precautions

Do not let product enter drains.

6.3. Methods and material for containment and cleaning up

For small spills wipe up with paper towel and place in container for disposal.
For large spills absorb onto inert absorbent material and place in sealed container for disposal.

6.4. Reference to other sections

See advice in section 8

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Use only in well-ventilated areas.
Avoid skin and eye contact.
Prolonged or repeated skin contact should be avoided to minimise any risk of sensitisation.

Hygiene measures:

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

7.2. Conditions for safe storage, including any incompatibilities

Store in original containers at 8-21°C (46.4-69.8°F) and do not return residual materials to containers as contamination may reduce the shelf life of the bulk product.

7.3. Specific end use(s)

Acrylics

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational Exposure Limits

Valid for
Great Britain

None

Predicted No-Effect Concentration (PNEC):

Name on list	Environmental Compartment	Exposure period	Value				Remarks
			mg/l	ppm	mg/kg	others	
2-Hydroxyethyl methacrylate 868-77-9	aqua (freshwater)					0,482 mg/L	
2-Hydroxyethyl methacrylate 868-77-9	aqua (marine water)					0,482 mg/L	
2-Hydroxyethyl methacrylate 868-77-9	STP					10 mg/L	
2-Hydroxyethyl methacrylate 868-77-9	aqua (intermittent releases)					1 mg/L	
2-Hydroxyethyl methacrylate 868-77-9	sediment (freshwater)					3,79 mg/kg	
2-Hydroxyethyl methacrylate 868-77-9	sediment (marine water)					3,79 mg/kg	
2-Hydroxyethyl methacrylate 868-77-9	soil					0,476 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	aqua (intermittent releases)					0,0013 mg/L	
Acrylic acid 79-10-7	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					0,0023 mg/kg	
Methacrylic acid, monoester with propane- 1,2-diol 27813-02-1	aqua (freshwater)					0,904 mg/L	
Methacrylic acid, monoester with propane- 1,2-diol 27813-02-1	aqua (marine water)					0,904 mg/L	
Methacrylic acid, monoester with propane- 1,2-diol 27813-02-1	STP					10 mg/L	
Methacrylic acid, monoester with propane- 1,2-diol 27813-02-1	aqua (intermittent releases)					0,972 mg/L	
Methacrylic acid, monoester with propane- 1,2-diol 27813-02-1	sediment (freshwater)					6,28 mg/kg	
Methacrylic acid, monoester with propane- 1,2-diol 27813-02-1	sediment (marine water)					6,28 mg/kg	
Methacrylic acid, monoester with propane- 1,2-diol 27813-02-1	soil					0,727 mg/kg	
[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	STP					10 mg/L	
Diphenyl(2,4,6-trimethylbenzoyl)phosphine	aqua					0,00353 mg/L	

oxide 75980-60-8	(freshwater)						
Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide 75980-60-8	aqua (marine water)					0,000353 mg/L	
Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide 75980-60-8	aqua (intermittent releases)					0,0353 mg/L	
Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide 75980-60-8	sediment (freshwater)				0,29 mg/kg		
Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide 75980-60-8	sediment (marine water)				0,029 mg/kg		
Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide 75980-60-8	soil				0,0557 mg/kg		

Derived No-Effect Level (DNEL):

Name on list	Application Area	Route of Exposure	Health Effect	Exposure Time	Value	Remarks
2-Hydroxyethyl methacrylate 868-77-9	worker	Dermal	Long term exposure - systemic effects		1,3 mg/kg bw/day	
2-Hydroxyethyl methacrylate 868-77-9	worker	inhalation	Long term exposure - systemic effects		4,9 mg/m3	
2-Hydroxyethyl methacrylate 868-77-9	general population	Dermal	Long term exposure - systemic effects		0,83 mg/kg bw/day	
2-Hydroxyethyl methacrylate 868-77-9	general population	inhalation	Long term exposure - systemic effects		2,9 mg/m3	
2-Hydroxyethyl methacrylate 868-77-9	general population	oral	Long term exposure - systemic effects		0,83 mg/kg bw/day	
Acrylic acid 79-10-7	worker	inhalation	Long term exposure - local effects		30 mg/m3	
Acrylic acid 79-10-7	worker	inhalation	Acute/short term exposure - local effects		30 mg/m3	
Acrylic acid 79-10-7	worker	Dermal	Acute/short term exposure - local effects		1 mg/cm2	
Methacrylic acid, monoester with propane-1,2-diol 27813-02-1	worker	Dermal	Long term exposure - systemic effects		4,2 mg/kg bw/day	
Methacrylic acid, monoester with propane-1,2-diol 27813-02-1	worker	inhalation	Long term exposure - systemic effects		14,7 mg/m3	
Methacrylic acid, monoester with propane-1,2-diol 27813-02-1	general population	Dermal	Long term exposure - systemic effects		2,5 mg/kg bw/day	
Methacrylic acid, monoester with propane-1,2-diol 27813-02-1	general population	inhalation	Long term exposure - systemic effects		8,8 mg/m3	
Methacrylic acid, monoester with propane-1,2-diol 27813-02-1	general population	oral	Long term exposure - systemic effects		2,5 mg/kg bw/day	
[3-(2,3-Epoxypropoxy)propyl]trimethoxysilane 2530-83-8	worker	Dermal	Acute/short term exposure - systemic effects		21 mg/kg bw/day	
[3-(2,3-Epoxypropoxy)propyl]trimethoxysilane 2530-83-8	worker	inhalation	Acute/short term exposure - systemic effects		147 mg/m3	
[3-(2,3-Epoxypropoxy)propyl]trimethoxysilane 2530-83-8	worker	Dermal	Long term exposure - systemic effects		21 mg/kg bw/day	
[3-(2,3-Epoxypropoxy)propyl]trimethoxysilane 2530-83-8	worker	inhalation	Long term exposure - systemic effects		147 mg/m3	
Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide 75980-60-8	worker	inhalation	Long term exposure - systemic effects		3,5 mg/m3	
Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide 75980-60-8	worker	Dermal	Long term exposure - systemic effects		1 mg/kg	
Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide 75980-60-8	worker		Long term exposure - systemic effects			

Biological Exposure Indices:
None

8.2. Exposure controls:

Respiratory protection:
Suitable breathing mask when there is inadequate ventilation.
Suitable respiratory protection:
Filter type: A

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:
Wear protective glasses.

Skin protection:
Wear suitable protective clothing.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	liquid white
Odor	irritating
Odour threshold	No data available / Not applicable
pH	Not determined
Initial boiling point	> 140 °C (> 284 °F)
Flash point	87,8 °C (190.04 °F)
Decomposition temperature	No data available / Not applicable
Vapour pressure (24 °C (75.2 °F))	< 13 mbar
Density (ρ)	1,024 g/cm ³
Bulk density	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
Solubility (qualitative) (Solvent: Water)	Slight
Solubility (qualitative) (Solvent: Acetone)	Not determined
Solidification temperature	No data available / Not applicable
Melting point	No data available / Not applicable
Flammability	No data available / Not applicable
Auto-ignition temperature	No data available / Not applicable
Explosive limits	No data available / Not applicable
Partition coefficient: n-octanol/water	No data available / Not applicable
Evaporation rate	No data available / Not applicable
Vapor density	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 reducing agents.

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.

10.5. Incompatible materials

None if used properly.

10.6. Hazardous decomposition products

carbon oxides.

SECTION 11: Toxicological information**11.1. Information on toxicological effects****General toxicological information:**

The preparation is classified based on the conventional method outlined in Article 6(1)(a) of Directive 1999/45/EC. Relevant available health/ecological information for the substances listed under Section 3 is provided in the following.

Oral toxicity:

May cause irritation to the digestive tract.

Inhalative toxicity:

Irritating to respiratory system

Skin irritation:

It is irritating and sensitising to the skin

Eye irritation:

Risk of serious damage to eyes

Acute oral toxicity:

Hazardous components CAS-No.	Value type	Value	Route of application	Exposure time	Species	Method
Isobornyl acrylate 5888-33-5	LD50	2.300 - 4.000 mg/kg	oral		rat	
[3-(2,3- Epoxypropoxy)propyl]tri methoxysilane 2530-83-8	LD50		oral		rat	OECD Guideline 401 (Acute Oral Toxicity)
Diphenyl-2,4,6- trimethylbenzoyl phosphine oxide 75980-60-8	LD50	> 5.000 mg/kg	oral		rat	

Acute inhalative toxicity:

Hazardous components CAS-No.	Value type	Value	Route of application	Exposure time	Species	Method
[3-(2,3- Epoxypropoxy)propyl]tri methoxysilane 2530-83-8	LC50	> 5,3 mg/l	inhalation		rat	OECD Guideline 403 (Acute Inhalation Toxicity)

Acute dermal toxicity:

Hazardous components CAS-No.	Value type	Value	Route of application	Exposure time	Species	Method
Isobornyl acrylate 5888-33-5	LD50	> 5.000 mg/kg	dermal		rabbit	
[3-(2,3- Epoxypropoxy)propyl]tri methoxysilane 2530-83-8	LD50		dermal		rabbit	OECD Guideline 402 (Acute Dermal Toxicity)

Skin corrosion/irritation:

Hazardous components CAS-No.	Result	Exposure time	Species	Method
Isobornyl acrylate 5888-33-5	irritating		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)

Serious eye damage/irritation:

Hazardous components CAS-No.	Result	Exposure time	Species	Method
[3-(2,3- Epoxypropoxy)propyl]tri methoxysilane 2530-83-8	highly irritating		rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)

Respiratory or skin sensitization:

Hazardous components CAS-No.	Result	Test type	Species	Method
[3-(2,3- Epoxypropoxy)propyl]tri methoxysilane 2530-83-8	not sensitising	Buehler test	guinea pig	OECD Guideline 406 (Skin Sensitisation)

Germ cell mutagenicity:

Hazardous components CAS-No.	Result	Type of study / Route of administration	Metabolic activation / Exposure time	Species	Method
2-Hydroxyethyl methacrylate 868-77-9	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
	positive	in vitro mammalian chromosome aberration test	with and without		OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test)
Acrylic acid 79-10-7	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		
[3-(2,3- Epoxypropoxy)propyl]tri methoxysilane 2530-83-8	A Mutagenic potential cannot be excluded.	mammalian cell gene mutation assay	with and without		OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)
[3-(2,3- Epoxypropoxy)propyl]tri methoxysilane 2530-83-8	A Mutagenic potential cannot be excluded.			mouse	OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test)

Repeated dose toxicity

Hazardous components CAS-No.	Result	Route of application	Exposure time / Frequency of treatment	Species	Method
[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)

SECTION 12: Ecological information**General ecological information:**

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

The preparation is classified based on the conventional method outlined in Article 6(1)(a) of Directive 1999/45/EC. Relevant available health/ecological information for the substances listed under Section 3 is provided in the following.

12.1. Toxicity**Ecotoxicity:**

Toxic to aquatic organisms

May cause long-term adverse effects in the aquatic environment.

Hazardous components CAS-No.	Value type	Value	Acute Toxicity Study	Exposure time	Species	Method
Isobornyl acrylate 5888-33-5	EC50	1 mg/l	Daphnia	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Isobornyl acrylate 5888-33-5	IC50	4,2 mg/l	Algae	72 h	Pseudokirchnerella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
	NOEC	1,87 mg/l	Algae	72 h	Pseudokirchnerella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
2-Hydroxyethyl methacrylate 868-77-9	LC50	227 mg/l	Fish	96 h	Pimephales promelas	OECD Guideline 203 (Fish, Acute Toxicity Test)
2-Hydroxyethyl methacrylate 868-77-9	EC50	380 mg/l	Daphnia	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
2-Hydroxyethyl methacrylate 868-77-9	EC50	345 mg/l	Algae	72 h	Selenastrum capricornutum (new name: Pseudokirchnerella subcapitata)	OECD Guideline 201 (Alga, Growth Inhibition Test)
	NOEC	160 mg/l	Algae	72 h	Selenastrum capricornutum (new name: Pseudokirchnerella subcapitata)	OECD Guideline 201 (Alga, Growth Inhibition Test)
2-Hydroxyethyl methacrylate 868-77-9	NOEC	24,1 mg/l	chronic Daphnia	21 d	Daphnia magna	OECD 211 (Daphnia magna, Reproduction Test)
Isobornyl methacrylate 7534-94-3	LC50	1,79 mg/l	Fish	96 h		OECD Guideline 203 (Fish, Acute Toxicity Test)
Isobornyl methacrylate 7534-94-3	EC50	1,1 mg/l	Daphnia	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Isobornyl methacrylate 7534-94-3	EC50	2,66 mg/l	Algae	96 h	Pseudokirchnerella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
Acrylic acid 79-10-7	LC50	27 mg/l	Fish	96 h	Salmo gairdneri (new name: Oncorhynchus mykiss)	OECD Guideline 203 (Fish, Acute Toxicity Test)
Acrylic acid 79-10-7	EC50	47 mg/l	Daphnia	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Acrylic acid 79-10-7	EC50	0,13 mg/l	Algae	72 h	Scenedesmus subspicatus (new name: Desmodesmus subspicatus)	OECD Guideline 201 (Alga, Growth Inhibition Test)
	NOEC	0,008 mg/l	Algae	72 h	Scenedesmus subspicatus (new name: Desmodesmus subspicatus)	OECD Guideline 201 (Alga, Growth Inhibition Test)
Acrylic acid 79-10-7	NOEC	19 mg/l	chronic Daphnia	21 d	Daphnia magna	OECD 211 (Daphnia magna, Reproduction Test)
Hydroxypropyl methacrylate 27813-02-1	LC50	493 mg/l	Fish	48 h	Leuciscus idus melanotus	
[3-(2,3-Epoxypropoxy)propyl]trimethoxysilane 2530-83-8	LC50	55 mg/l	Fish	96 h	Cyprinus carpio	OECD Guideline 203 (Fish, Acute Toxicity Test)
	EC50	473 mg/l	Daphnia	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
[3-(2,3-Epoxypropoxy)propyl]trimethoxysilane 2530-83-8	NOEC	53 mg/l	Algae	72 h	Scenedesmus subspicatus (new name: Desmodesmus subspicatus)	OECD Guideline 201 (Alga, Growth Inhibition Test)
	EC50	255 mg/l	Algae	72 h	Scenedesmus subspicatus (new name: Desmodesmus subspicatus)	OECD Guideline 201 (Alga, Growth Inhibition Test)
[3-(2,3-	NOEC	100 mg/l	chronic	21 d	Daphnia magna	OECD 211

Epoxypropoxypropyl]trimethoxysilane 2530-83-8	LC50	1 - 10 mg/l	Daphnia			(Daphnia magna, Reproduction Test)
Diphenyl-2,4,6-trimethylbenzoyl phosphine oxide 75980-60-8	EC50	10 - 100 mg/l	Fish	48 h	Oryzias latipes	OECD Guideline 203 (Fish, Acute Toxicity Test)
Diphenyl-2,4,6-trimethylbenzoyl phosphine oxide 75980-60-8	EC50	10 - 100 mg/l	Daphnia	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Diphenyl-2,4,6-trimethylbenzoyl phosphine oxide 75980-60-8	EC50	10 - 100 mg/l	Algae	72 h		OECD Guideline 201 (Alga, Growth Inhibition Test)

12.2. Persistence and degradability

Persistence and Biodegradability:

The product is not biodegradable.

Hazardous components CAS-No.	Result	Route of application	Degradability	Method
Isobornyl acrylate 5888-33-5		no data	72,9 %	OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)
2-Hydroxyethyl methacrylate 868-77-9	readily biodegradable	aerobic	92 - 100 %	OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I))
Isobornyl methacrylate 7534-94-3			26,8 %	OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)
Acrylic acid 79-10-7	readily biodegradable	aerobic	81 %	OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)
Hydroxypropyl methacrylate 27813-02-1	readily biodegradable	aerobic	94,2 %	OECD Guideline 301 E (Ready biodegradability: Modified OECD Screening Test)
[3-(2,3-Epoxypropoxy)propyl]trimethoxysilane 2530-83-8		aerobic	37 %	OECD Guideline 301 A (new version) (Ready Biodegradability: DOC Die Away Test)
Diphenyl-2,4,6-trimethylbenzoyl phosphine oxide 75980-60-8			< 20 %	OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)

12.3. Bioaccumulative potential / 12.4. Mobility in soil

Mobility:

Cured adhesives are immobile.

Bioaccumulative potential:

No data available.

Hazardous components CAS-No.	LogKow	Bioconcentration factor (BCF)	Exposure time	Species	Temperature	Method
Isobornyl acrylate 5888-33-5	4,21					OECD Guideline 107 (Partition Coefficient (n-octanol / water), Shake Flask Method)
Isobornyl methacrylate 7534-94-3	5,09					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)
Hydroxypropyl methacrylate 27813-02-1	0,97					

12.5. Results of PBT and vPvB assessment

Hazardous components CAS-No.	PBT/vPvB
2-Hydroxyethyl methacrylate 868-77-9	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
Acrylic acid 79-10-7	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
Hydroxypropyl methacrylate 27813-02-1	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
[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.

12.6. Other adverse effects

No data available.

SECTION 13: Disposal considerations**13.1. Waste treatment methods**

Product disposal:

Dispose of in accordance with local and national regulations.

Contribution of this product to waste is very insignificant in comparison to article in which it is used

Disposal of uncleaned packages:

Only well-emptied containers with dried or cured product residues and without solvent vapors can be recycled.

Waste code

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

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

ADR	3082
RID	3082
ADNR	3082
IMDG	3082
IATA	3082

14.2. UN proper shipping name

ADR	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Isobornyl acrylate)
RID	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Isobornyl acrylate)
ADNR	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Isobornyl acrylate)
IMDG	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Isobornyl acrylate)
IATA	Environmentally hazardous substance, liquid, n.o.s. (Isobornyl acrylate)

14.3. Transport hazard class(es)

ADR	9
RID	9
ADNR	9
IMDG	9
IATA	9

14.4. Packaging group

ADR	III
RID	III
ADNR	III
IMDG	III
IATA	III

14.5. Environmental hazards

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

14.6. Special precautions for user

ADR	not applicable Tunnelcode: (E)
RID	not applicable
ADNR	not applicable
IMDG	not applicable
IATA	not applicable

14.7. Transport in bulk according to Annex II of MARPOL 73/78 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 < 5,00 %
(1999/13/EC)

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:

R10 Flammable.
R20/21/22 Harmful by inhalation, in contact with skin and if swallowed.
R35 Causes severe burns.
R36 Irritating to eyes.
R36/37/38 Irritating to eyes, respiratory system and skin.
R36/38 Irritating to eyes and skin.
R41 Risk of serious damage to eyes.
R43 May cause sensitisation by skin contact.
R50 Very toxic to aquatic organisms.
R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R62 Possible risk of impaired fertility.
H226 Flammable liquid and vapor.
H302 Harmful if swallowed.
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.

Further information:

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