



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

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LOCTITE 3703 known as Loctite 3703 10ml EFD for ST EN

SDS No. : 175054
V010.0

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

1.1. Product identifier

LOCTITE 3703 known as Loctite 3703 10ml EFD for ST EN

Contains:

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

1.3. Details of the supplier of the safety data sheet

Henkel Ltd
Wood Lane End
HP2 4RQ Hemel Hempstead

Great Britain

Phone: +44 1442 278000
Fax-no.: +44 1442 278071

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 (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:



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: Prevention

P261 Avoid breathing vapours.
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.

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

SECTION 3: Composition/information on ingredients

3.2. Mixtures

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 01-2119957862-25	20- 40 %	Skin Irrit. 2 H315 Eye Irrit. 2 H319 STOT SE 3 H335 Skin Sens. 1B H317 Aquatic Acute 1 H400 Aquatic Chronic 1 H410
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
Ethanone, 2,2-dimethoxy-1,2-diphenyl- 24650-42-8	246-386-6	1- < 5 %	Aquatic Chronic 1 H410 Aquatic Acute 1 H400
[3-(2,3- Epoxypropoxy)propyl]trimethoxysilane 2530-83-8	219-784-2 01-2119513212-58	1- < 3 %	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
2-Hydroxyethyl acrylate 818-61-1	212-454-9 01-2119459345-34	0,02- < 0,2 %	Acute Tox. 3; Dermal H311 Skin Corr. 1B H314 Skin Sens. 1 H317 Aquatic Acute 1 H400

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

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation:

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

Skin contact:

Rinse with running water and soap. Apply replenishing cream. Change all contaminated clothing. If necessary, see a dermatologist.

Eye contact:

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.
Seek medical attention from a specialist.

Ingestion:

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

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

SKIN: Redness, inflammation.

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

SKIN: Rash, Urticaria.

INGESTION: Nausea, vomiting, diarrhea, abdominal pain.

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.

Ensure adequate ventilation.

Wear protective equipment.

6.2. Environmental precautions

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

6.3. Methods and material for containment and cleaning up

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

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

Dispose of contaminated material as waste according to Section 13.

6.4. Reference to other sections

See advice in section 8

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Avoid skin and eye contact.

Extract when the product is heated.

Ventilation will remove any ozone that may be produced by the ultra violet lamp

See advice in section 8

Do not spray onto flame or red-hot objects.

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

- Store in sealed original container.
- Store in a cool, well-ventilated place.
- Refer to Technical Data Sheet

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational Exposure Limits

Valid for
Great Britain

None

Occupational Exposure Limits

Valid for
Ireland

None

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)					0,00092 mg/L	
Isobornyl acrylate 5888-33-5	aqua (marine water)					0,000092 mg/L	
Isobornyl acrylate 5888-33-5	sewage treatment plant (STP)					2 mg/L	
Isobornyl acrylate 5888-33-5	aqua (intermittent releases)					0,00704 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		
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)				0,0509 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						
[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		
Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide 75980-60-8	aqua (freshwater)					0,00353 mg/L	
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	sediment (marine water)				0,029 mg/kg		

75980-60-8							
Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide 75980-60-8	soil				0,0557 mg/kg		
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						

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	
Isobornyl acrylate 5888-33-5	General population	oral	Long term exposure - systemic effects		0,83 mg/kg	
Isobornyl acrylate 5888-33-5	General population	dermal	Long term exposure - systemic effects		0,83 mg/kg	
N,N-Dimethylacrylamide 2680-03-7	Workers	dermal	Long term exposure - systemic effects		357 µg/kg	
N,N-Dimethylacrylamide 2680-03-7	Workers	inhalation	Long term exposure - systemic effects		0,207 mg/m3	
N,N-Dimethylacrylamide 2680-03-7	General population	oral	Long term exposure - systemic effects		14,7 µg/kg	
N,N-Dimethylacrylamide 2680-03-7	General population	dermal	Long term exposure - systemic effects		179 µg/kg	
N,N-Dimethylacrylamide 2680-03-7	General population	inhalation	Long term exposure - systemic effects		0,0512 mg/m3	
[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	
Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide 75980-60-8	Workers	Inhalation	Long term exposure - systemic effects		3,5 mg/m3	
Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide 75980-60-8	Workers	dermal	Long term exposure - systemic effects		1 mg/kg	
2-Hydroxyethyl acrylate 818-61-1	Workers	inhalation	Long term exposure - local effects		2,4 mg/m3	
2-Hydroxyethyl acrylate 818-61-1	General population	inhalation	Long term exposure - local effects		1,2 mg/m3	

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**

Appearance	paste transparent beige, up to, white
Odor	mild
Odour threshold	No data available / Not applicable
pH	Not applicable
Initial boiling point	> 93 °C (> 199.4 °F)
Flash point	77,8 °C (172.04 °F); Tagliabue closed cup
Decomposition temperature	No data available / Not applicable
Vapour pressure	No data available / Not applicable
Density	1,12 g/cm ³
(20 °C (68 °F))	
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)	Not miscible or difficult to mix
(20 °C (68 °F); Solvent: Water)	
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

Reacts with oxidants, acids and lyes

Polymerization may occur at elevated temperature or in the presence of incompatible materials.

May occur when exposed to high heat or ultraviolet radiation.

Rapid polymerization may generate excessive heat and pressure.

10.2. Chemical stability

Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

See section reactivity

10.4. Conditions to avoid

Protect from direct sunlight.

Danger of decomposition if exposed to heat.

Avoid contact with acids and oxidizing agents.

10.5. Incompatible materials

See section reactivity.

10.6. Hazardous decomposition products

Irritating organic vapours.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

General toxicological information:

The mixture is classified based on the available hazard information for the ingredients as defined in the classification criteria for mixtures for each hazard class or differentiation in Annex I to Regulation (EC) No 1272/2008. Relevant available health/ecological information for the substances listed under Section 3 is provided in the following.

STOT-single exposure:

May cause respiratory irritation.

Oral toxicity:

Harmful if swallowed.

Skin irritation:

Causes skin irritation.

Eye irritation:

Causes serious eye damage.

Sensitizing:

May cause an allergic skin reaction.

Acute oral toxicity:

Hazardous components CAS-No.	Value type	Value	Route of application	Exposure time	Species	Method
Isobornyl acrylate 5888-33-5	LD50	4.350 mg/kg	oral		rat	not specified
2-Propenamide, N,N- dimethyl- 2680-03-7	LD50	> 215 - 464 mg/kg	oral		rat	OECD Guideline 401 (Acute Oral Toxicity)
Ethanone, 2,2-dimethoxy- 1,2-diphenyl- 24650-42-8	LD50	> 5.000 mg/kg	oral		rat	not specified
[3-(2,3- Epoxypropoxy)propyl]tri methoxysilane 2530-83-8	LD50	8.025 mg/kg	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	OECD Guideline 401 (Acute Oral Toxicity)

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	aerosol	4 h	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	not specified
2-Propenamide, N,N- dimethyl- 2680-03-7	LD50	500 mg/kg	dermal		rat	not specified
Ethanone, 2,2-dimethoxy- 1,2-diphenyl- 24650-42-8	LD50	> 5.000 mg/kg	dermal		rat	not specified
[3-(2,3- Epoxypropoxy)propyl]tri methoxysilane 2530-83-8	LD50	4.250 mg/kg	dermal		rabbit	OECD Guideline 402 (Acute Dermal Toxicity)
Diphenyl-2,4,6- trimethylbenzoyl phosphine oxide 75980-60-8	LD50	> 2.000 mg/kg	dermal		rat	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)
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

Serious eye damage/irritation:

Hazardous components 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	highly irritating	20 s	rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)
Diphenyl-2,4,6-trimethylbenzoyl phosphine oxide 75980-60-8	not irritating		rabbit	not specified

Respiratory or skin sensitization:

Hazardous components 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)
2-Hydroxyethyl acrylate 818-61-1	sensitising	Mouse local lymphnode assay (LLNA)	mouse	not specified

Germ cell mutagenicity:

Hazardous components CAS-No.	Result	Type of study / Route of administration	Metabolic activation / Exposure time	Species	Method
[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)
[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)
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)
	negative	in vitro mammalian chromosome aberration test	with and without		OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test)
	negative	mammalian cell gene mutation assay	with and without		OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)
2-Hydroxyethyl acrylate 818-61-1	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		not specified
2-Hydroxyethyl acrylate 818-61-1	negative	oral: gavage		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)
Diphenyl-2,4,6-trimethylbenzoyl phosphine oxide 75980-60-8	NOAEL=100 mg/kg	oral: gavage	3 m5 d/w	rat	OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)

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

The mixture is classified based on the available hazard information for the ingredients as defined in the classification criteria for mixtures for each hazard class or differentiation in Annex I to Regulation (EC) No 1272/2008. Relevant available health/ecological information for the substances listed under Section 3 is provided in the following.

12.1. Toxicity**Ecotoxicity:**

Very toxic to aquatic life with long lasting effects.

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

Hazardous components CAS-No.	Value type	Value	Acute Toxicity Study	Exposure time	Species	Method
Isobornyl acrylate 5888-33-5	LC50	0,704 mg/l	Fish	96 h	Danio rerio	OECD Guideline 203 (Fish, Acute Toxicity Test)
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	NOEC	0,405 mg/l	Algae	72 h	Pseudokirchnerella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
	EC50	1,98 mg/l	Algae	72 h	Pseudokirchnerella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
Isobornyl acrylate 5888-33-5	NOEC	0,092 mg/l	chronic Daphnia	21 d	Daphnia magna	OECD 211 (Daphnia magna, Reproduction Test)
2-Propenamide, N,N- dimethyl- 2680-03-7	LC50	> 120 mg/l	Fish	96 h	Oncorhynchus mykiss	OECD Guideline 203 (Fish, Acute Toxicity Test)
2-Propenamide, N,N- dimethyl- 2680-03-7	EC50	> 120 mg/l	Daphnia	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
2-Propenamide, N,N- dimethyl- 2680-03-7	EC50	> 400 mg/l	Algae	72 h	Pseudokirchnerella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
	NOEC	50 mg/l	Algae	72 h	Pseudokirchnerella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
2-Propenamide, N,N- dimethyl- 2680-03-7	EC50	> 1.000 mg/l	Bacteria	3 h	activated sludge, domestic	OECD Guideline 209 (Activated Sludge, Respiration Inhibition Test)
Ethanone, 2,2-dimethoxy-1,2- diphenyl- 24650-42-8	LC50	7,2 mg/l	Fish	96 h	Oncorhynchus mykiss	OECD Guideline 203 (Fish, Acute Toxicity Test)
Ethanone, 2,2-dimethoxy-1,2- diphenyl- 24650-42-8	EC50	26 mg/l	Daphnia	24 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Ethanone, 2,2-dimethoxy-1,2- diphenyl- 24650-42-8	EC50	0,17 mg/l	Algae	72 h	Scenedesmus sp.	OECD Guideline 201 (Alga, Growth Inhibition Test)
Ethanone, 2,2-dimethoxy-1,2- diphenyl- 24650-42-8	EC 50	> 100 mg/l	Bacteria	3 h		OECD Guideline 209 (Activated Sludge, Respiration Inhibition Test)
[3-(2,3- Epoxypropoxy)propyl]trimeth oxysilane 2530-83-8	LC50	55 mg/l	Fish	96 h	Cyprinus carpio	EU Method C.1 (Acute Toxicity for Fish)
[3-(2,3- Epoxypropoxy)propyl]trimeth oxysilane 2530-83-8	LC50	324 mg/l	Daphnia	48 h	Simocephalus vetulus	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
[3-(2,3- Epoxypropoxy)propyl]trimeth oxysilane 2530-83-8	ErC50	119 mg/l	Algae	7 d	Anabaena flos-aquae	OECD Guideline 201 (Alga, Growth Inhibition Test)
	EC10	40 mg/l	Algae	7 d	Anabaena flos-aquae	OECD Guideline 201 (Alga, Growth Inhibition Test)
[3-(2,3- Epoxypropoxy)propyl]trimeth oxysilane 2530-83-8	EC10	1.550 mg/l	Bacteria	5 h		not specified
[3-(2,3- Epoxypropoxy)propyl]trimeth oxysilane 2530-83-8	NOEC	>= 100 mg/l	chronic Daphnia	21 d	Daphnia magna	OECD 211 (Daphnia magna, Reproduction Test)
Diphenyl-2,4,6-	LC50	> 1 - 10 mg/l	Fish	48 h	Oryzias latipes	OECD Guideline

trimethylbenzoyl phosphine oxide 75980-60-8 Diphenyl-2,4,6-trimethylbenzoyl phosphine oxide 75980-60-8	EC50	> 10 - 100 mg/l	Daphnia	48 h	Daphnia magna	203 (Fish, Acute Toxicity Test) 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)
Diphenyl-2,4,6-trimethylbenzoyl phosphine oxide 75980-60-8	EC 50	> 1.000 mg/l	Bacteria	30 min		OECD Guideline 209 (Activated Sludge, Respiration Inhibition Test)
2-Hydroxyethyl acrylate 818-61-1	LC50	4,8 mg/l	Fish	96 h	Pimephales promelas	OECD Guideline 203 (Fish, Acute Toxicity Test)
2-Hydroxyethyl acrylate 818-61-1	EC50	0,78 mg/l	Daphnia	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
2-Hydroxyethyl acrylate 818-61-1	EC50	6 mg/l	Algae	72 h	Pseudokirchnerella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
	NOEC	1 mg/l	Algae	72 h	Pseudokirchnerella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
2-Hydroxyethyl acrylate 818-61-1	EC10	> 100 mg/l	Bacteria	72 h	activated sludge, domestic	other guideline:
2-Hydroxyethyl acrylate 818-61-1	NOEC	0,86 mg/l	chronic Daphnia	21 d	Daphnia magna	OECD 211 (Daphnia magna, Reproduction 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-Propenamide, N,N-dimethyl- 2680-03-7	Not readily biodegradable.	aerobic	0 %	OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I))
[3-(2,3-Epoxypropoxy)propyl]trimethoxysilane 2530-83-8	Not readily biodegradable.	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)
2-Hydroxyethyl acrylate 818-61-1	readily biodegradable	aerobic	79 - 80 %	OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test)

12.3. Bioaccumulative potential / 12.4. Mobility in soil

Mobility:

Cured adhesives are immobile.

Bioaccumulative potential:

No data available.

Hazardous components CAS-No.	LogPow	Bioconcentration factor (BCF)	Exposure time	Species	Temperature	Method
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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)
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

Hazardous components 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.
2-Hydroxyethyl acrylate 818-61-1	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

Product disposal:

Collection and delivery to recycling enterprise or other registered elimination institution.

Disposal of in accordance with local and national regulations.

Disposal of uncleaned packages:

Disposal must be made according to official regulations.

Use packages for recycling only when totally empty.

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. (Isobornyl acrylate)
RID	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Isobornyl acrylate)
ADN	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
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	UN 1845, carbon dioxide, solid, as a coolant (does not apply for Germany, Sweden, France, Belgium, UK) Tunnelcode: (E)
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 < 3 %
(2010/75/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:

H301 Toxic if swallowed.
H311 Toxic 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.
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.

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.

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.