



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

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LOCTITE ECCOBOND UV 9052 known as HYSOL XUV-9052
(30g)

SDS No. : 506709
V003.0

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Replaces version from: 07.03.2017

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

1.1. Product identifier

LOCTITE ECCOBOND UV 9052 known as HYSOL XUV-9052 (30g)

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 AG & Co. KGaA

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40589 Düsseldorf

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1.4. Emergency telephone number

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

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (CLP):

Skin irritation	Category 2
H315 Causes skin irritation.	
Serious eye 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	
Chronic hazards to the aquatic environment	Category 2
H411 Toxic to aquatic life with long lasting effects.	

2.2. Label elements

Label elements (CLP):

Hazard pictogram:**Contains**

Hexane, 1,6-diisocyanato-, homopolymer, V=2750-4250 mPas/23

Mix of 2-hydroxyethyl acrylate and aliphatic isocyanate

Isobornyl acrylate

2-Propenamide, N,N-dimethyl-

Diphenyl-2,4,6-trimethylbenzoyl phosphine oxide

Triphenyl phosphite

Signal word:

Danger

Hazard statement:

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H318 Causes serious eye damage.

H335 May cause respiratory irritation.

H411 Toxic to aquatic life with long lasting effects.

Supplemental information

EUH204 Contains isocyanates. May produce an allergic reaction.

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.

P333+P313 If skin irritation or rash occurs: Get medical advice/attention.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

2.3. Other hazards

None if used properly.

Care should be taken during the cure of these products by UV radiation to avoid exposure of the skin and especially of the eyes to direct or reflected UV radiation as long term effects could be harmful.

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

SECTION 3: Composition/information on ingredients**3.2. Mixtures**

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

Hazardous components CAS-No.	EC Number REACH-Reg No.	content	Classification
Mix of 2-hydroxyethyl acrylate and aliphatic isocyanate 264888-31-5		25- 50 %	Aquatic Chronic 3 H412 Skin Sens. 1 H317
Hexane, 1,6-diisocyanato-, homopolymer, V=2750-4250 mPas/23 28182-81-2	500-060-2 01-2119485796-17	20- 40 %	Acute Tox. 4 H332 STOT SE 3 H335 Skin Sens. 1 H317
Isobornyl acrylate 5888-33-5	227-561-6 01-2119957862-25	10- 20 %	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	1- < 10 %	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 01-2120000336-73	1- < 5 %	Aquatic Chronic 1 H410 Aquatic Acute 1 H400
Diphenyl-2,4,6-trimethylbenzoyl phosphine oxide 75980-60-8	278-355-8 01-2119972295-29	0,25- < 2,5 %	Repr. 2 H361f Aquatic Chronic 2 H411 Skin Sens. 1B H317
2-Hydroxy-2-methylpropiophenone 7473-98-5	231-272-0 01-2119472306-39	0,25- < 2,5 %	Aquatic Chronic 3 H412 Acute Tox. 4; Oral H302
p-Toluenesulphonyl isocyanate 4083-64-1	223-810-8 01-2119980050-47	0,1- < 1 %	Eye Irrit. 2 H319 STOT SE 3 H335 Skin Irrit. 2 H315 Resp. Sens. 1 H334
Triphenyl phosphite 101-02-0	202-908-4 01-2119511213-58	0,1- < 1 %	Acute Tox. 4 H302 Eye Irrit. 2 H319 Skin Irrit. 2 H315 STOT RE 2 H373 Skin Sens. 1A H317 Aquatic Acute 1 H400 Aquatic Chronic 1 H410

**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.

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

SKIN: Redness, inflammation.

SKIN: Rash, Urticaria.

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

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

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.

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

Isocyanate vapors

Hydrogen cyanide.

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 contact with skin and eyes.

Wear protective equipment.

Ensure adequate ventilation.

Remove 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

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.

Do not inhale vapors and fumes.

See advice in section 8

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

Hygiene measures:

Good industrial hygiene practices should be observed.

Wash hands before work breaks and after finishing work.

Do not eat, drink or smoke while working.

7.2. Conditions for safe storage, including any incompatibilities

Ensure good ventilation/extraction.

Keep container tightly sealed.

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
Germany

Ingredient [Regulated substance]	ppm	mg/m ³	Value type	Short term exposure limit category / Remarks	Regulatory list
Silicon dioxide 7631-86-9		4	Exposure limit(s):	If the AGW and BGW values are complied with, there should be no risk of reproductive damage (see Number 2.7).	TRGS 900

Predicted No-Effect Concentration (PNEC):

Name on list	Environmental Compartment	Exposure period	Value				Remarks
			mg/l	ppm	mg/kg	others	
Hexane, 1,6-diisocyanato-, homopolymer 28182-81-2	aqua (freshwater)		0,127 mg/l				
Hexane, 1,6-diisocyanato-, homopolymer 28182-81-2	aqua (marine water)		0,0127 mg/l				
Hexane, 1,6-diisocyanato-, homopolymer 28182-81-2	aqua (intermittent releases)		1,27 mg/l				
Hexane, 1,6-diisocyanato-, homopolymer 28182-81-2	sediment (freshwater)				266700 mg/kg		
Hexane, 1,6-diisocyanato-, homopolymer 28182-81-2	sediment (marine water)				26670 mg/kg		
Hexane, 1,6-diisocyanato-, homopolymer 28182-81-2	Soil				53182 mg/kg		
Hexane, 1,6-diisocyanato-, homopolymer 28182-81-2	sewage treatment plant (STP)		38,28 mg/l				
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		
Isobornyl acrylate 5888-33-5	Air						
Isobornyl acrylate 5888-33-5	Predator						
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						
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	aqua (intermittent releases)		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	Soil				1,64 mg/kg		

24650-42-8							
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 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		
2-Hydroxy-2-methylpropiophenone 7473-98-5	aqua (freshwater)		0,00195 mg/l				
2-Hydroxy-2-methylpropiophenone 7473-98-5	aqua (marine water)		0,000195 mg/l				
2-Hydroxy-2-methylpropiophenone 7473-98-5	aqua (intermittent releases)		0,0195 mg/l				
2-Hydroxy-2-methylpropiophenone 7473-98-5	sediment (freshwater)				0,00514 mg/kg		
2-Hydroxy-2-methylpropiophenone 7473-98-5	sediment (marine water)				0,000514 mg/kg		
2-Hydroxy-2-methylpropiophenone 7473-98-5	Soil				0,000674 mg/kg		
2-Hydroxy-2-methylpropiophenone 7473-98-5	sewage treatment plant (STP)		45 mg/l				

Derived No-Effect Level (DNEL):

Name on list	Application Area	Route of Exposure	Health Effect	Exposure Time	Value	Remarks
Hexane, 1,6-diisocyanato-, homopolymer 28182-81-2	Workers	Inhalation	Acute/short term exposure - local effects		1 mg/m ³	
Hexane, 1,6-diisocyanato-, homopolymer 28182-81-2	Workers	Inhalation	Long term exposure - local effects		0,5 mg/m ³	
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		0,357 mg/kg 357 µg/kg bw/day	
N,N-Dimethylacrylamide 2680-03-7	Workers	inhalation	Long term exposure - systemic effects		0,207 mg/m ³	
N,N-Dimethylacrylamide 2680-03-7	General population	oral	Long term exposure - systemic effects		0,0147 mg/kg 14,7 µg/kg bw/day	
N,N-Dimethylacrylamide 2680-03-7	General population	dermal	Long term exposure - systemic effects		0,179 mg/kg 179 µg/kg bw/day	
N,N-Dimethylacrylamide 2680-03-7	General population	inhalation	Long term exposure - systemic effects		0,051 mg/m ³	
Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide 75980-60-8	Workers	inhalation	Long term exposure - systemic effects		3,5 mg/m ³	
Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide 75980-60-8	Workers	dermal	Long term exposure - systemic effects		1 mg/kg	
2-Hydroxy-2-methylpropiophenone 7473-98-5	Workers	Inhalation	Acute/short term exposure - systemic effects		3,5 mg/m ³	
2-Hydroxy-2-methylpropiophenone 7473-98-5	Workers	Inhalation	Long term exposure - systemic effects		3,5 mg/m ³	
2-Hydroxy-2-methylpropiophenone 7473-98-5	Workers	dermal	Long term exposure - systemic effects		1,25 mg/kg	

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; \geq 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; \geq 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 blue
Odor	Slight
Odour threshold	No data available / Not applicable
pH	No data available / Not applicable
Melting point	No data available / Not applicable
Solidification temperature	No data available / Not applicable
Initial boiling point	No data available / Not applicable
Flash point	> 93 °C (> 199.4 °F)
Evaporation rate	No data available / Not applicable
Flammability	No data available / Not applicable
Explosive limits	No data available / Not applicable
Vapour pressure	No data available / Not applicable
Relative vapour density:	No data available / Not applicable
Density	1,1 g/cm ³
()	
Bulk density	No data available / Not applicable
Solubility	No data available / Not applicable
Solubility (qualitative)	Insoluble
(Solvent: Water)	
Partition coefficient: n-octanol/water	No data available / Not applicable
Auto-ignition temperature	No data available / Not applicable
Decomposition temperature	No data available / Not applicable
Viscosity	1,1 mPa.s
()	
Viscosity (kinematic)	No data available / Not applicable
Explosive properties	No data available / Not applicable
Oxidising properties	No data available / Not applicable

9.2. Other information

No data available / Not applicable

SECTION 10: Stability and reactivity

10.1. Reactivity

Water

Reacts with alcohols and amines.

Reacts with oxidants, acids and lyes

Reaction with some curing agents may produce an exothermic reaction which in large masses could cause runaway polymerization.

10.2. Chemical stability

Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

See section reactivity

10.4. Conditions to avoid

No decomposition if stored and applied as directed.

Protect from direct sunlight.

Avoid contact with acids and oxidizing agents.

10.5. Incompatible materials

See section reactivity.

10.6. Hazardous decomposition products

Hydrocarbons

carbon oxides.

nitrogen oxides

Hydrogen cyanide.

Isocyanate vapors

Rapid polymerisation may generate excessive heat and pressure.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute oral toxicity:

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

Hazardous substances CAS-No.	Value type	Value	Species	Method
Hexane, 1,6-diisocyanato-, homopolymer, V=2750-4250 mPas/23 28182-81-2	LD50	> 2.500 mg/kg	rat	OECD Guideline 423 (Acute Oral toxicity)
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	OECD Guideline 401 (Acute Oral Toxicity)
Ethanone, 2,2-dimethoxy-1,2-diphenyl- 24650-42-8	LD50	> 5.000 mg/kg	rat	not specified
Diphenyl-2,4,6-trimethylbenzoyl phosphine oxide 75980-60-8	LD50	> 5.000 mg/kg	rat	OECD Guideline 401 (Acute Oral Toxicity)
2-Hydroxy-2-methylpropiophenone 7473-98-5	LD50	1.694 mg/kg	rat	OECD Guideline 401 (Acute Oral Toxicity)
p-Toluenesulphonyl isocyanate 4083-64-1	LD50	2.600 mg/kg	rat	not specified
Triphenyl phosphite 101-02-0	LD50	1.590 mg/kg	rat	OECD Guideline 401 (Acute Oral Toxicity)

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
Hexane, 1,6-diisocyanato-, homopolymer, V=2750-4250 mPas/23 28182-81-2	LD50	> 2.000 mg/kg	rat	OECD Guideline 402 (Acute Dermal Toxicity)
Isobornyl acrylate 5888-33-5	LD50	> 3.000 mg/kg	rabbit	other guideline:
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
Diphenyl-2,4,6-trimethylbenzoyl phosphine oxide 75980-60-8	LD50	> 2.000 mg/kg	rat	OECD Guideline 402 (Acute Dermal Toxicity)
2-Hydroxy-2-methylpropiophenone 7473-98-5	LD50	6.929 mg/kg	rat	OECD Guideline 402 (Acute Dermal Toxicity)
Triphenyl phosphite 101-02-0	LD50	> 2.000 - < 5.000 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
Hexane, 1,6-diisocyanato-, homopolymer, V=2750-4250 mPas/23 28182-81-2	Acute toxicity estimate (ATE)	1,5 mg/l	dust/mist			Expert judgement
Triphenyl phosphite 101-02-0	LC50	> 6,7 mg/l	dust/mist	1 h	rat	equivalent or similar to OECD Guideline 403 (Acute Inhalation Toxicity)

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)
Diphenyl-2,4,6-trimethylbenzoyl phosphine oxide 75980-60-8	not irritating	24 h	rabbit	not specified
2-Hydroxy-2-methylpropiophenone 7473-98-5	not irritating	24 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)
Diphenyl-2,4,6-trimethylbenzoyl phosphine oxide 75980-60-8	not irritating		rabbit	not specified
2-Hydroxy-2-methylpropiophenone 7473-98-5	not irritating		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)
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-Hydroxy-2-methylpropiophenone 7473-98-5	not sensitising	Guinea pig maximisation test	guinea pig	OECD Guideline 406 (Skin Sensitisation)
Triphenyl phosphite 101-02-0	sensitising	Mouse local lymphnode assay (LLNA)	mouse	OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay)
Triphenyl phosphite 101-02-0	sensitising	Guinea pig maximisation test	guinea pig	EPA OPPTS 870.2600 (Skin Sensitisation)

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	mammalian cell gene mutation assay	with and without		OECD Guideline 473 (In vitro Mammalian Chromosome Aberration 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)
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)
2-Hydroxy-2- methylpropiophenone 7473-98-5	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
2-Hydroxy-2- methylpropiophenone 7473-98-5	negative	in vitro mammalian chromosome aberration test	with and without		OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test)
2-Hydroxy-2- methylpropiophenone 7473-98-5	negative	mammalian cell gene mutation assay	with and without		OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)
p-Toluenesulphonyl isocyanate 4083-64-1	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		not specified
p-Toluenesulphonyl isocyanate 4083-64-1	negative	in vitro mammalian chromosome aberration test	with and without		not specified

Carcinogenicity

No data available.

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		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)
p-Toluenesulphonyl isocyanate 4083-64-1	NOAEL F1 300 mg/kg	one-generation study	oral: gavage	rat	OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)

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)
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)
2-Hydroxy-2-methylpropiophenone 7473-98-5	NOAEL 50 mg/kg	oral: gavage	92-93 d daily	rat	OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)
Triphenyl phosphite 101-02-0	NOAEL 15 mg/kg	oral: gavage	16 weeks daily	rat	equivalent or similar to OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reprod./Develop. Tox. Screening Test)

Aspiration hazard:

No data available.

SECTION 12: Ecological information

General ecological information:

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

12.1. Toxicity

Toxicity (Fish):

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

Hazardous substances CAS-No.	Value type	Value	Exposure time	Species	Method
Mix of 2-hydroxyethyl acrylate and aliphatic isocyanate 264888-31-5	LC50	> 100 mg/l	96 h	Brachydanio rerio (new name: Danio rerio)	OECD Guideline 203 (Fish, Acute Toxicity Test)
Hexane, 1,6-diisocyanato-, homopolymer, V=2750-4250 mPas/23 28182-81-2	LC50	> 100 mg/l	96 h	Brachydanio rerio (new name: Danio rerio)	OECD Guideline 203 (Fish, Acute Toxicity Test)
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)
Diphenyl-2,4,6-trimethylbenzoyl phosphine oxide 75980-60-8	LC50	> 1 - 10 mg/l	48 h	Oryzias latipes	OECD Guideline 203 (Fish, Acute Toxicity Test)
2-Hydroxy-2-methylpropiophenone 7473-98-5	LC50	160 mg/l	48 h	Leuciscus idus	OECD Guideline 203 (Fish, Acute Toxicity Test)
p-Toluenesulphonyl isocyanate 4083-64-1	LC50	597 mg/l	96 h	Brachydanio rerio (new name: Danio rerio)	OECD Guideline 203 (Fish, Acute Toxicity Test)
Triphenyl phosphite 101-02-0	LC50	> 16 mg/l	96 h	Brachydanio rerio (new name: Danio rerio)	OECD Guideline 203 (Fish, Acute Toxicity Test)

Toxicity (Daphnia):

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

Hazardous substances CAS-No.	Value type	Value	Exposure time	Species	Method
Mix of 2-hydroxyethyl acrylate and aliphatic isocyanate 264888-31-5	EC50	58 mg/l	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Hexane, 1,6-diisocyanato-, homopolymer, V=2750-4250 mPas/23 28182-81-2	EC50	> 100 mg/l	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
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)
Diphenyl-2,4,6-trimethylbenzoyl phosphine oxide 75980-60-8	EC50	> 10 - 100 mg/l	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
2-Hydroxy-2-methylpropiophenone 7473-98-5	EC50	> 119 mg/l	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Triphenyl phosphite 101-02-0	EC50	> 1 - 5 mg/l	48 h	Daphnia sp.	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)

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

Hazardous substances CAS-No.	Value type	Value	Exposure time	Species	Method
Mix of 2-hydroxyethyl acrylate and aliphatic isocyanate 264888-31-5	EC50	> 100 mg/l	72 h	Scenedesmus subspicatus (new name: Desmodesmus subspicatus)	OECD Guideline 201 (Alga, Growth Inhibition Test)
Hexane, 1,6-diisocyanato-, homopolymer, V=2750-4250 mPas/23 28182-81-2	EC50	> 1.000 mg/l	72 h	Scenedesmus subspicatus (new name: Desmodesmus subspicatus)	OECD Guideline 201 (Alga, Growth Inhibition Test)
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)
Diphenyl-2,4,6-trimethylbenzoyl phosphine oxide 75980-60-8	EC50	> 10 - 100 mg/l	72 h		OECD Guideline 201 (Alga, Growth Inhibition Test)
2-Hydroxy-2-methylpropiophenone 7473-98-5	EC50	1,95 mg/l	72 h	Desmodesmus subspicatus	OECD Guideline 201 (Alga, Growth Inhibition Test)
2-Hydroxy-2-methylpropiophenone 7473-98-5	NOEC	0,194 mg/l	72 h	Desmodesmus subspicatus	OECD Guideline 201 (Alga, Growth Inhibition Test)

Toxicity to microorganisms

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

Hazardous substances CAS-No.	Value type	Value	Exposure time	Species	Method
Hexane, 1,6-diisocyanato-, homopolymer, V=2750-4250 mPas/23 28182-81-2	EC 50	> 1.000 mg/l	3 h		OECD Guideline 209 (Activated Sludge, Respiration Inhibition Test)
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)
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)
2-Hydroxy-2-methylpropiophenone 7473-98-5	EC 50	3 mg/l	3 h		OECD Guideline 209 (Activated Sludge, Respiration Inhibition Test)
p-Toluenesulphonyl isocyanate 4083-64-1	EC 50	2.511 mg/l			OECD Guideline 209 (Activated Sludge, Respiration Inhibition Test)
Triphenyl phosphite 101-02-0	EC 50	> 100 mg/l	3 h		OECD Guideline 209 (Activated Sludge, Respiration Inhibition Test)

12.2. Persistence and degradability

The product is not biodegradable.

Hazardous substances CAS-No.	Result	Test type	Degradability	Exposure time	Method
Mix of 2-hydroxyethyl acrylate and aliphatic isocyanate 264888-31-5	not readily biodegradable.	aerobic	> 0 - < 60 %	28 d	OECD 301 A - F
Hexane, 1,6-diisocyanato-, homopolymer, V=2750-4250 mPas/23 28182-81-2		aerobic	0 %	28 d	OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I))
Isobornyl acrylate 5888-33-5	not readily biodegradable.	aerobic	57 %	28 d	OECD Guideline 310 (Ready Biodegradability CO ₂ 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))
Diphenyl-2,4,6-trimethylbenzoyl phosphine oxide 75980-60-8			< 20 %	28 d	OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)
2-Hydroxy-2-methylpropiophenone 7473-98-5	readily biodegradable	aerobic	90 %	28 d	OECD Guideline 301 B (Ready Biodegradability: CO ₂ Evolution Test)
p-Toluenesulphonyl isocyanate 4083-64-1	readily biodegradable		98 %	28 d	OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)

12.3. Bioaccumulative potential

No data available.

Hazardous substances CAS-No.	Bioconcentration factor (BCF)	Exposure time	Temperature	Species	Method
Hexane, 1,6-diisocyanato-, homopolymer, V=2750-4250 mPas/23 28182-81-2	3,2			calculation	OECD Guideline 305 (Bioconcentration: Flow-through Fish Test)
Isobornyl acrylate 5888-33-5	37	56 h	24 °C	Danio rerio	OECD Guideline 305 (Bioconcentration: Flow-through Fish Test)

12.4. Mobility in soil

Cured adhesives are immobile.

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
2-Hydroxy-2-methylpropiophenone 7473-98-5	1,62	25 °C	OECD Guideline 107 (Partition Coefficient (n-octanol / water), Shake Flask Method)

12.5. Results of PBT and vPvB assessment

Hazardous substances CAS-No.	PBT / vPvB
Hexane, 1,6-diisocyanato-, homopolymer, V=2750-4250 mPas/23 28182-81-2	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
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.
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-Hydroxy-2-methylpropiophenone 7473-98-5	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:

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
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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. (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)
ADN	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
ADN	9
IMDG	9
IATA	9

14.4. Packing group

ADR	III
RID	III
ADN	III
IMDG	III
IATA	III

14.5. Environmental hazards

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

14.6. Special precautions for user

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

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

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

not applicable

SECTION 15: Regulatory information**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

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

15.2. Chemical safety assessment

A chemical safety assessment has not been carried out.

National regulations/information (Germany):

WGK: WGK = 2, significantly water endangering mixture. Classification according to the mixture rules in German AwSV regulation annex 1, number 5.2 from 18. April 2017.

Storage class according to TRGS 510: 10

SECTION 16: Other information

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

H301 Toxic if swallowed.
H302 Harmful if swallowed.
H311 Toxic in contact with skin.
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.
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335 May cause respiratory irritation.
H361f Suspected of damaging fertility.
H373 May cause damage to organs through prolonged or repeated exposure.
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:

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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.

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.