

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

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SDS No.: 325053

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LOCTITE AA 330/7386 known as Loctite 330/7386 Multibond Kit

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

### 1.1. Product identifier

LOCTITE AA 330/7386 known as Loctite 330/7386 Multibond Kit

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

Intended use:

Activator

#### 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@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):

Flammable liquids Category 2

H225 Highly flammable liquid and vapor.

Acute toxicity Category 4

H302 Harmful if swallowed. Route of Exposure: Oral

Skin irritation Category 2

H315 Causes skin irritation.

Serious eye irritation Category 2

H319 Causes serious eye irritation.

Specific target organ toxicity - single exposure Category 3

H336 May cause drowsiness or dizziness.

Target organ: Central nervous system

Aspiration hazard Category 1

H304 May be fatal if swallowed and enters airways.

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 Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics

Diethyl-phenyl-propyl-dihydropyridine

Propan-2-ol

Signal word: Danger

**Hazard statement:** H225 Highly flammable liquid and vapor.

H302 Harmful if swallowed.

H304 May be fatal if swallowed and enters airways.

H315 Causes skin irritation. H319 Causes serious eye irritation. H336 May cause drowsiness or dizziness.

H411 Toxic to aquatic life with long lasting effects.

**Precautionary statement:** "\*\*\*For consumer use only: P101 If medical advice is needed, have product

container or label at hand. P102 Keep out of reach of children. P501 Dispose of

contents/container in accordance with national regulation.\*\*\*

**Precautionary statement:** 

Prevention

Response

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources.

No smoking.

P261 Avoid breathing vapors.

P273 Avoid release to the environment.

**Precautionary statement:** 

P301+P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor. P302+P352 IF ON SKIN: Wash with plenty of soap and water.

P331 Do NOT induce vomiting.

P337+P313 If eye irritation persists: Get medical advice/attention.

**Precautionary statement:** 

Storage

P403+P235 Store in a well-ventilated place. Keep cool.

### 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:

Solvent based activator.

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

Hazardous components	EC Number	content	Classification
CAS-No.	REACH-Reg No.		
Hydrocarbons, C7, n-alkanes, isoalkanes,	265-151-9	50- < 75 %	Asp. Tox. 1
cyclics	01-2119475515-33		H304
64742-49-0			Skin Irrit. 2
			H315
			Flam. Liq. 2
			H225
			STOT SE 3
			H336
			Aquatic Chronic 2
			H411
Diethyl-phenyl-propyl-dihydropyridine	252-091-3	25-< 50 %	Acute Tox. 4; Oral
34562-31-7			H302
			Acute Tox. 4; Dermal
			H312
			Skin Irrit. 2; Dermal
			H315
			Eye Irrit. 2
			H319
			Aquatic Chronic 4
			H413
Propan-2-ol	200-661-7	10-< 25 %	Flam. Liq. 2
67-63-0	01-2119457558-25		H225
			Eye Irrit. 2
			H319
			STOT SE 3
			H336

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.

Seek medical advice.

Skin contact:

Rinse with running water and soap.

Obtain medical attention if irritation persists.

Eve contact:

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

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

EYE: Irritation, conjunctivitis.

SKIN: Redness, inflammation.

INGESTION: Nausea, vomiting, diarrhea, abdominal pain.

ASPIRATION: Coughing, shortness of breath, nausea. Delayed effect: bronchopneumonia or pulmonary oedema

Vapors may cause drowsiness and dizziness.

#### 4.3. Indication of any immediate medical attention and special treatment needed

Swallowing may cause irritation of mouth, throat and digestive tract, diarrhea and vomiting

Do not induce vomiting.

Seek medical attention from a specialist.

See section: Description of first aid measures

### **SECTION 5: Firefighting measures**

#### 5.1. Extinguishing media

### Suitable extinguishing media:

Foam, extinguishing powder, carbon dioxide.

#### Extinguishing media which must not be used for safety reasons:

High pressure waterjet

#### 5.2. Special hazards arising from the substance or mixture

In the event of a fire, carbon monoxide (CO), carbon dioxide (CO2) and nitrogen oxides (NOx) can be released.

Vapours may accumulate in low or confined areas, travel considerable distance to source of ignition, and flash back.

#### 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

Keep away from sources of ignition - no smoking.

Vapours should be extracted to avoid inhalation.

Use only in well-ventilated areas.

Avoid skin and eye contact.

See advice in section 8

#### Hygiene measures:

Wash hands before work breaks and after finishing work.

Do not eat, drink or smoke while working.

Good industrial hygiene practices should be observed.

### 7.2. Conditions for safe storage, including any incompatibilities

Store in a cool, dry place.

Do not store near sources of heat or ignition, or reactive materials.

Refer to Technical Data Sheet

### 7.3. Specific end use(s)

Activator

# **SECTION 8: Exposure controls/personal protection**

### 8.1. Control parameters

## **Occupational Exposure Limits**

Valid for

Great Britain

Ingredient [Regulated substance]	ppm	mg/m <sup>3</sup>	Value type	Short term exposure limit category / Remarks	Regulatory list
Propan-2-ol 67-63-0 [PROPAN-2-OL]	400	999	Time Weighted Average (TWA):		EH40 WEL
Propan-2-ol 67-63-0 [PROPAN-2-OL]	500	1.250	Short Term Exposure Limit (STEL):	15 minutes	EH40 WEL

### **Occupational Exposure Limits**

Valid for

Ireland

Ingredient [Regulated substance]	ppm	mg/m <sup>3</sup>	Value type	Short term exposure limit category / Remarks	Regulatory list
Propan-2-ol 67-63-0 [ISOPROPYL ALCOHOL]	200		Time Weighted Average (TWA):		IR_OEL
Propan-2-ol 67-63-0 [ISOPROPYL ALCOHOL]			Skin designation:	Can be absorbed through the skin.	IR_OEL
Propan-2-ol 67-63-0 [ISOPROPYL ALCOHOL]	400		Short Term Exposure Limit (STEL):	15 minutes	IR_OEL

### **Predicted No-Effect Concentration (PNEC):**

Name on list	Environmental		Value	Value			Remarks
	Compartment	perioa	mg/l	ppm	mg/kg	others	
Propan-2-ol 67-63-0	aqua (freshwater)		140,9 mg/l				
Propan-2-ol 67-63-0	aqua (marine water)		140,9 mg/l				
Propan-2-ol 67-63-0	sediment (freshwater)				552 mg/kg		
Propan-2-ol 67-63-0	sediment (marine water)				552 mg/kg		
Propan-2-ol 67-63-0	Soil				28 mg/kg		
Propan-2-ol 67-63-0	aqua (intermittent releases)		140,9 mg/l				
Propan-2-ol 67-63-0	sewage treatment plant (STP)		2251 mg/l				
Propan-2-ol 67-63-0	oral				160 mg/kg		

#### **Derived No-Effect Level (DNEL):**

Name on list	Application Area	Route of Exposure	Health Effect	Exposure Time	Value	Remarks
Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics 64742-49-0	Workers	dermal	Long term exposure - systemic effects		300 mg/kg	
Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics 64742-49-0	Workers	Inhalation	Long term exposure - systemic effects		2085 mg/m3	
Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics 64742-49-0	General population	dermal	Long term exposure - systemic effects		149 mg/kg	
Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics 64742-49-0	General population	oral	Long term exposure - systemic effects		149 mg/kg	
Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics 64742-49-0	General population	Inhalation	Long term exposure - systemic effects		447 mg/m3	
Propan-2-ol 67-63-0	Workers	dermal	Long term exposure - systemic effects		888 mg/kg	
Propan-2-ol 67-63-0	Workers	inhalation	Long term exposure - systemic effects		500 mg/m3	
Propan-2-ol 67-63-0	General population	dermal	Long term exposure - systemic effects		319 mg/kg	
Propan-2-ol 67-63-0	General population	inhalation	Long term exposure - systemic effects		89 mg/m3	
Propan-2-ol 67-63-0	General population	oral	Long term exposure - systemic effects		26 mg/kg	

#### **Biological Exposure Indices:**

None

## 8.2. Exposure controls:

Engineering controls:

Ensure good ventilation/extraction.

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 liquid liquid

yellow, Amber, greenish

Odor characteristic

Odour threshold No data available / Not applicable

pH Not applicable

Melting point No data available / Not applicable Solidification temperature No data available / Not applicable

Initial boiling point 82 °C (179.6 °F) Flash point 5 °C (23 °F)

Evaporation rate No data available / Not applicable Flammability No data available / Not applicable

Explosive limits

 $\begin{array}{c} \text{lower} & 0.6 \ \%(\text{V}) \\ \text{upper} & 12 \ \%(\text{V}) \\ \text{Vapour pressure} & 43 \ \text{hPa} \end{array}$ 

(20 °C (68 °F))

Relative vapour density: No data available / Not applicable

Density 0,791 g/cm<sup>3</sup>

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Bulk density No data available / Not applicable Solubility No data available / Not applicable

Solubility (qualitative) Insoluble

Partition coefficient: n-octanol/water

Auto-ignition temperature

Decomposition temperature

Viscosity

No data available / Not applicable
Viscosity (kinematic)

No data available / Not applicable
Explosive properties

No data available / Not applicable
Oxidising properties

No data available / Not applicable
No data available / Not applicable

#### 9.2. Other information

No data available / Not applicable

### **SECTION 10: Stability and reactivity**

### 10.1. Reactivity

Strong oxidizing 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. Heat, flames, sparks and other sources of ignition.

#### 10.5. Incompatible materials

See section reactivity.

#### 10.6. Hazardous decomposition products

None if used for intended purpose.

## **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	Value	Species	Method
	type			
Hydrocarbons, C7, n-	LD50	> 5.840 mg/kg	rat	not specified
alkanes, isoalkanes,				
cyclics				
64742-49-0				
Propan-2-ol	LD50	5.840 mg/kg	rat	equivalent or similar to OECD Guideline 401 (Acute Oral
67-63-0				Toxicity)

#### Acute dermal toxicity:

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

Hazardous substances	Value	Value	Species	Method
CAS-No.	type			
Hydrocarbons, C7, n-	LD50	> 2.800 mg/kg	rat	equivalent or similar to OECD Guideline 402 (Acute
alkanes, isoalkanes,				Dermal Toxicity)
cyclics				
64742-49-0				
Propan-2-ol	LD50	12.870 mg/kg	rabbit	OECD Guideline 402 (Acute Dermal Toxicity)
67-63-0				

### Acute inhalative toxicity:

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

Hazardous substances	Value	Value	Test atmosphere	Exposure	Species	Method
CAS-No.	type			time		
Hydrocarbons, C7, n- alkanes, isoalkanes, cyclics 64742-49-0	LC50	> 23,3 mg/l	vapour	4 h	rat	equivalent or similar to OECD Guideline 403 (Acute Inhalation Toxicity)
Propan-2-ol 67-63-0	LC50	72,6 mg/l		4 h	rat	not specified

#### Skin corrosion/irritation:

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

Hazardous substances	Result	Exposure	Species	Method
CAS-No.		time		
Hydrocarbons, C7, n-	irritating	4 h	rabbit	equivalent or similar to OECD Guideline 404 (Acute
alkanes, isoalkanes,				Dermal Irritation / Corrosion)
cyclics				
64742-49-0				
Diethyl-phenyl-propyl-	irritating			Expert judgement
dihydropyridine				
34562-31-7				
Propan-2-ol	slightly	4 h	rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
67-63-0	irritating			

### Serious eye damage/irritation:

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

Hazardous substances	Result	Exposure	Species	Method
CAS-No.		time		
Hydrocarbons, C7, n-	not irritating		rabbit	other guideline:
alkanes, isoalkanes,				
cyclics				
64742-49-0				
Diethyl-phenyl-propyl-	irritating			Expert judgement
dihydropyridine				
34562-31-7				
Propan-2-ol	Category II		rabbit	equivalent or similar to OECD Guideline 405 (Acute Eye
67-63-0				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	Result	Test type	Species	Method
CAS-No.				
Hydrocarbons, C7, n-	not sensitising	Guinea pig maximisation	guinea pig	OECD Guideline 406 (Skin Sensitisation)
alkanes, isoalkanes,		test		
cyclics				
64742-49-0				
Propan-2-ol	not sensitising	Buehler test	guinea pig	OECD Guideline 406 (Skin Sensitisation)
67-63-0				

### Germ cell mutagenicity:

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

Hazardous substances	Result	Type of study /	Metabolic	Species	Method
CAS-No.		Route of	activation /		
		administration	Exposure time		
Propan-2-ol	negative	bacterial reverse	with and without		equivalent or similar to OECD
67-63-0		mutation assay (e.g			Guideline 471 (Bacterial
		Ames test)			Reverse Mutation Assay)
Propan-2-ol	negative	mammalian cell	with and without		equivalent or similar to OECD
67-63-0		gene mutation assay			Guideline 476 (In vitro
					Mammalian Cell Gene
					Mutation Test)
Propan-2-ol	negative	intraperitoneal		mouse	equivalent or similar to OECD
67-63-0		•			Guideline 474 (Mammalian
					Erythrocyte Micronucleus
					Test)

## Carcinogenicity

Hazardous components CAS-No.	Result	Route of application	Exposure time / Frequency of treatment	Species	Sex	Method
Propan-2-ol		inhalation:	104 w	rat	male/female	OECD Guideline 451
67-63-0		vapour	6 h/d, 5 d/w			(Carcinogenicity
						Studies)

## Reproductive toxicity:

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

Hazardous substances	Result / Value	Test type	Route of	Species	Method
CAS-No.			application		
Propan-2-ol 67-63-0	NOAEL P 853 mg/kg	One generation study	oral: drinking water	rat	equivalent or similar to OECD Guideline 415 (One- Generation Reproduction Toxicity Study)
Propan-2-ol 67-63-0	NOAEL P 500 mg/kg NOAEL F1 1.000 mg/kg	Two generation study	oral: gavage	rat	equivalent or similar to OECD Guideline 416 (Two- Generation Reproduction Toxicity Study)

### STOT-single exposure:

No data available.

## STOT-repeated exposure::

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Result / Value	Route of application	Exposure time / Frequency of treatment	Species	Method
Propan-2-ol		inhalation:	at least 104 w	rat	OECD Guideline 451
67-63-0		vapour	6 h/d, 5 d/w		(Carcinogenicity Studies)

### **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	Value	Value	Exposure time	Species	Method
CAS-No.	type				
Hydrocarbons, C7, n-alkanes,	LC50	> 13,4 mg/l	96 h	Oncorhynchus mykiss	OECD Guideline 203 (Fish,
isoalkanes, cyclics					Acute Toxicity Test)
64742-49-0					_
Propan-2-ol	LC50	> 9.640 - 10.000 mg/l	96 h	Pimephales promelas	OECD Guideline 203 (Fish,
67-63-0					Acute Toxicity Test)

#### Toxicity (Daphnia):

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

Hazardous substances	Value	Value	Exposure time	Species	Method
CAS-No.	type				
Hydrocarbons, C7, n-alkanes,	EL50	3 mg/l	48 h	Daphnia magna	OECD Guideline 202
isoalkanes, cyclics					(Daphnia sp. Acute
64742-49-0					Immobilisation Test)

#### Chronic toxicity to aquatic invertebrates

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

Hazardous substances	Value	Value	Exposure time	Species	Method
CAS-No.	type				
Hydrocarbons, C7, n-alkanes,	NOEC	1 mg/l	21 d	Daphnia magna	OECD 211 (Daphnia
isoalkanes, cyclics					magna, Reproduction Test)
64742-49-0					
Propan-2-ol	NOEC	30 mg/l	21 d	Daphnia magna	OECD 211 (Daphnia
67-63-0		-			magna, Reproduction Test)

#### Toxicity (Algae):

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

Hazardous substances	Value	Value	Exposure time	Species	Method
CAS-No.	type				
Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics 64742-49-0	EL50	29 mg/l	96 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics 64742-49-0	NOELR	6,3 mg/l	96 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
Propan-2-ol 67-63-0	EC50	> 1.000 mg/l	96 h		OECD Guideline 201 (Alga, Growth Inhibition Test)
Propan-2-ol 67-63-0	NOEC	1.000 mg/l	96 h		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	Value	Value	Exposure time	Species	Method
CAS-No.	type				
Propan-2-ol	EC50	> 1.000 mg/l	3 h	activated sludge	OECD Guideline 209
67-63-0					(Activated Sludge,
					Respiration Inhibition Test)

#### 12.2. Persistence and degradability

No data available.

Hazardous substances	Result	Test type	Degradability	Exposure	Method
CAS-No.				time	
Hydrocarbons, C7, n-alkanes,	readily biodegradable	aerobic	> 81 - 98 %	28 d	OECD Guideline 301 F (Ready
isoalkanes, cyclics					Biodegradability: Manometric
64742-49-0					Respirometry Test)
Propan-2-ol	readily biodegradable	aerobic	70 - 84 %	30 d	EU Method C.4-E (Determination
67-63-0					of the "Ready"
					BiodegradabilityClosed Bottle
					Test)

#### 12.3. Bioaccumulative potential

No data available.

#### 12.4. Mobility in soil

The product evaporates readily.

Hazardous substances CAS-No.	LogPow	Temperature	Method
Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics 64742-49-0	4,66		EU Method A.8 (Partition Coefficient)
Propan-2-ol 67-63-0	0,05		OECD Guideline 107 (Partition Coefficient (n-octanol / water), Shake Flask Method)

#### 12.5. Results of PBT and vPvB assessment

Hazardous substances	PBT / vPvB
CAS-No.	
Propan-2-ol	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very
67-63-0	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.

Disposal must be made according to official regulations.

Waste code

14 06 03 - other solvents and solvent mixtures

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	1993
RID	1993
ADN	1993
IMDG	1993
IATA	1993

## 14.2. UN proper shipping name

ADR	FLAMMABLE LIQUID, N.O.S. (Heptanes, Isopropanol)
RID	FLAMMABLE LIQUID, N.O.S. (Heptanes, Isopropanol)
ADN	FLAMMABLE LIQUID, N.O.S. (Heptanes, Isopropanol)
IMDG	FLAMMABLE LIQUID, N.O.S. (Heptanes, Isopropanol)
IATA	Flammable liquid, n.o.s. (Heptanes, Isopropanol)

#### 14.3. Transport hazard class(es)

ADR	3
RID	3
ADN	3
IMDG	3
IATA	3

### 14.4. Packing group

ADR	II
RID	II
ADN	II
IMDG	II
IATA	II

### 14.5. Environmental hazards

ADR	Environmentally Hazardous
RID	Environmentally Hazardous
ADN	Environmentally Hazardous
IMDG	Marine pollutant

IMDG Marine pollutant IATA not applicable

### 14.6. Special precautions for user

ADR	Special provision 640D
	Tunnelcode: (D/E)
RID	Special provision 640D
ADN	Special provision 640D
IMDG	not applicable
IATA	not applicable

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

not applicable

# **SECTION 15: Regulatory information**

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

VOC content (2010/75/EC)

100 %

#### 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:

H225 Highly flammable liquid and vapor.

H302 Harmful if swallowed.

H304 May be fatal if swallowed and enters airways.

H312 Harmful in contact with skin.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H336 May cause drowsiness or dizziness.

H411 Toxic to aquatic life with long lasting effects.

H413 May cause long lasting harmful effects to aquatic life.

#### **Further information:**

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

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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.



# Safety Data Sheet according to (EC) No 1907/2006 as amended Page 1 of 26

SDS No.: 416828

V001.0

Revision: 28.09.2020

printing date: 24.03.2021

Replaces version from: 19.06.2019

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

#### 1.1. Product identifier

LOCTITE AA 330/7386 known as Loctite 330/7386 Multibond Kit

LOCTITE AA 330/7386 known as Loctite 330/7386 Multibond Kit

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

Intended use:

Acrylic Adhesive

#### 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@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):

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.

Toxic to reproduction Category 1B

H360D May damage the unborn child.

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 3

H412 Harmful to aquatic life with long lasting effects.

#### 2.2. Label elements

### Label elements (CLP):

Hazard pictogram:



Contains Tetrahydrofurfuryl methacrylate

methacrylic acid

2-Ethylhexyl methacrylate

1-Methyltrimethylene dimethacrylate

reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular

weight≤700)

Signal word: Danger

**Hazard statement:** H315 Causes skin irritation.

H318 Causes serious eye damage.

H317 May cause an allergic skin reaction. H335 May cause respiratory irritation. H360D May damage the unborn child.

H412 Harmful to aquatic life with long lasting effects.

**Supplemental information** For use in industrial installations only.

Restricted to professional users.

**Precautionary statement:** 

Prevention

P201 Obtain special instructions before use.

P261 Avoid breathing vapors.

P273 Avoid release to the environment.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

**Precautionary statement:** 

Response

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove

contact lenses, if present and easy to do. Continue rinsing. P302+P352 IF ON SKIN: Wash with plenty of soap and water.

P302+P352 IF ON SKIN: Wash with plenty of soap and water.
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.

P308+P313 IF exposed or concerned: Get medical advice/attention.

#### 2.3. Other hazards

Non corrosive to skin in accordance with the in vitro test method, B40 skin corrosion - Human skin model assay, equivalent to test method OECD 431 or based on analogy to similar products tested.

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
Tetrahydrofurfuryl methacrylate 2455-24-5	219-529-5 01-2120748481-53	25- 50 %	Skin Sens. 1 H317 Repr. 1B H360D Aquatic Chronic 3 H412
methacrylic acid 79-41-4	201-204-4 01-2119463884-26	5- < 10 %	Acute Tox. 4; Oral H302 Acute Tox. 3; Dermal H311 Acute Tox. 4; Inhalation H332 Skin Corr. 1A H314 Eye Dam. 1 H318 STOT SE 3 H335
2-Ethylhexyl methacrylate 688-84-6	211-708-6 01-2119490166-35	5- < 10 %	Skin Sens. 1B H317 STOT SE 3 H335 Skin Irrit. 2 H315 Eye Irrit. 2 H319 Aquatic Chronic 3 H412
1-Methyltrimethylene dimethacrylate 1189-08-8	214-711-0 01-2119969461-31	1-< 5 %	Skin Sens. 1B H317
reaction product: bisphenol-A- (epichlorhydrin); epoxy resin (number average molecular weight≤700) 25068-38-6	01-2119456619-26	0,1-< 1 %	Skin Irrit. 2 H315 Skin Sens. 1 H317 Eye Irrit. 2 H319 Aquatic Chronic 2 H411
Butyl hydroxytoluene 128-37-0	204-881-4 01-2119480433-40 01-2119555270-46 01-2119565113-46	0,1-< 1 %	Aquatic Acute 1 H400 Aquatic Chronic 1 H410
Cumene hydroperoxide 80-15-9	201-254-7 01-2119475796-19	0,1-< 1 %	Acute Tox. 4; Dermal H312 STOT RE 2 H373 Acute Tox. 4; Oral H302 Org. Perox. E H242 Acute Tox. 3; Inhalation H331 Aquatic Chronic 2 H411 Skin Corr. 1B H314
Tetrahydrofurfuryl alcohol 97-99-4	202-625-6	0,1-< 0,3 %	Eye Irrit. 2 H319 Repr. 1B H360
1,1,2-trichloroethane 79-00-5  Hydroquinone	201-166-9	0,1-< 1 %	Carc. 2 H351 Acute Tox. 4; Dermal H312 Acute Tox. 4; Oral H302 Acute Tox. 4; Inhalation H332 Aquatic Acute 1
riyaroquinone	4U4-U1/-0	0,01-< 0,1 %	Aquatic Acute I

123-31-9	01-2119524016-51	H400
		Aquatic Chronic 1
		H410
		Carc. 2
		H351
		Muta. 2
		H341
		Acute Tox. 4; Oral
		H302
		Eye Dam. 1
		H318
		Skin Sens. 1
		H317
		M factor (Acute Aquat Tox): 10

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.

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

SKIN: Rash, Urticaria.

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:

None known

### 5.2. Special hazards arising from the substance or mixture

In the event of a fire, carbon monoxide (CO), carbon dioxide (CO2) and nitrogen oxides (NOx) can be released.

#### 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

Ensure adequate ventilation.

Avoid contact with skin and eyes.

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.

Wash spillage site thoroughly with soap and water or detergent solution.

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

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.

See advice in section 8

### Hygiene measures:

Do not eat, drink or smoke while working.

Wash hands before work breaks and after finishing work.

Good industrial hygiene practices should be observed.

#### 7.2. Conditions for safe storage, including any incompatibilities

Refer to Technical Data Sheet

#### 7.3. Specific end use(s)

Acrylic Adhesive

# SECTION 8: Exposure controls/personal protection

## 8.1. Control parameters

### **Occupational Exposure Limits**

Valid for

Great Britain

Ingredient [Regulated substance]	ppm	mg/m <sup>3</sup>	Value type	Short term exposure limit category / Remarks	Regulatory list
Methacrylic acid 79-41-4 [METHACRYLIC ACID]	20	72	Time Weighted Average (TWA):		EH40 WEL
Methacrylic acid 79-41-4 [METHACRYLIC ACID]	40	143	Short Term Exposure Limit (STEL):	15 minutes	EH40 WEL
2,6-di-tert-Butyl-p-cresol 128-37-0 [2,6-DI-TERT-BUTYL-P-CRESOL]		10	Time Weighted Average (TWA):		EH40 WEL
Hydroquinone 123-31-9 [HYDROQUINONE]		0,5	Time Weighted Average (TWA):		EH40 WEL

## **Occupational Exposure Limits**

Valid for

Ireland

Ingredient [Regulated substance]	ppm	mg/m <sup>3</sup>	Value type	Short term exposure limit category / Remarks	Regulatory list
Methacrylic acid 79-41-4 [METHACRYLIC ACID]	20	70	Time Weighted Average (TWA):		IR_OEL
Methacrylic acid 79-41-4 [METHACRYLIC ACID]	40	140	Short Term Exposure Limit (STEL):	15 minutes	IR_OEL
2,6-di-tert-Butyl-p-cresol 128-37-0 [2,6-DITERTIARY-BUTYL-PARA- CRESOL]		2	Time Weighted Average (TWA):		IR_OEL
1,1,2-Trichloroethane 79-00-5 [1,1,2-TRICHLOROETHANE]	10	45	Time Weighted Average (TWA):		IR_OEL
1,1,2-Trichloroethane 79-00-5 [1,1,2-TRICHLOROETHANE]			Skin designation:	Can be absorbed through the skin.	IR_OEL
Hydroquinone 123-31-9 [HYDROQUINONE]		0,5	Time Weighted Average (TWA):		IR_OEL

# $\label{eq:predicted} \textbf{Predicted No-Effect Concentration (PNEC):}$

Name on list	Environmental   Compartment	Exposure period	Value			Remarks	
		F	mg/l	ppm	mg/kg	others	
Tetrahydrofurfuryl methacrylate 2455-24-5	aqua (freshwater)		0,347 mg/l				
Tetrahydrofurfuryl methacrylate 2455-24-5	aqua (marine water)		0,035 mg/l				
Tetrahydrofurfuryl methacrylate 2455-24-5	sewage treatment plant (STP)		15,8 mg/l				
Tetrahydrofurfuryl methacrylate 2455-24-5	sediment (freshwater)				2,12 mg/kg		
Tetrahydrofurfuryl methacrylate 2455-24-5	sediment (marine water)				0,212 mg/kg		
Tetrahydrofurfuryl methacrylate 2455-24-5	aqua (intermittent releases)		0,347 mg/l		ilig/kg		
Tetrahydrofurfuryl methacrylate 2455-24-5	Soil				0,221 mg/kg		
methacrylic acid 79-41-4	aqua (freshwater)		0,82 mg/l				
methacrylic acid 79-41-4	aqua (marine water)		0,82 mg/l				
methacrylic acid 79-41-4	sewage treatment plant (STP)		10 mg/l				
methacrylic acid 79-41-4	aqua (intermittent releases)		0,82 mg/l				
methacrylic acid 79-41-4	Soil				1,2 mg/kg		
reaction product: bisphenol-A- (epichlorhydrin) 25068-38-6	aqua (freshwater)		0,006 mg/l				
reaction product: bisphenol-A- (epichlorhydrin) 25068-38-6	aqua (marine water)		0,001 mg/l				
reaction product: bisphenol-A- (epichlorhydrin) 25068-38-6	sewage treatment plant (STP)		10 mg/l				
reaction product: bisphenol-A- (epichlorhydrin) 25068-38-6	sediment (freshwater)				0,341 mg/kg		
reaction product: bisphenol-A- (epichlorhydrin) 25068-38-6	sediment (marine water)				0,034 mg/kg		
reaction product: bisphenol-A- (epichlorhydrin) 25068-38-6	Soil				0,065 mg/kg		
reaction product: bisphenol-A- (epichlorhydrin) 25068-38-6	oral				11 mg/kg		
reaction product: bisphenol-A- (epichlorhydrin) 25068-38-6	aqua (intermittent releases)		0,018 mg/l				
reaction product: bisphenol-A- (epichlorhydrin) 25068-38-6	marine water - intermittent		0,002 mg/l				
2,6-Di-tert-butyl-p-cresol 128-37-0	aqua (freshwater)		0,000199 mg/l				
2,6-Di-tert-butyl-p-cresol 128-37-0	aqua (marine water)		0,00002 mg/l				
2,6-Di-tert-butyl-p-cresol 128-37-0	sewage treatment plant (STP)		0,17 mg/l				
2,6-Di-tert-butyl-p-cresol 128-37-0	sediment (freshwater)				0,0996 mg/kg		
2,6-Di-tert-butyl-p-cresol 128-37-0	sediment (marine water)				0,00996 mg/kg		
2,6-Di-tert-butyl-p-cresol	Soil	•			0,04769		

128-37-0	1 1	I I	mg/kg	
2,6-Di-tert-butyl-p-cresol	oral		8,33 mg/kg	
128-37-0				
2,6-Di-tert-butyl-p-cresol 128-37-0	aqua (intermittent releases)	0,00199 mg/l		
2,6-Di-tert-butyl-p-cresol 128-37-0	Air			no hazard identified
.alpha.,.alphaDimethylbenzyl hydroperoxide 80-15-9	aqua (freshwater)	0,0031 mg/l		
.alpha.,.alphaDimethylbenzyl hydroperoxide 80-15-9	aqua (marine water)	0,00031 mg/l		
.alpha.,.alphaDimethylbenzyl hydroperoxide 80-15-9	aqua (intermittent releases)	0,031 mg/l		
.alpha.,.alphaDimethylbenzyl hydroperoxide 80-15-9	Sewage treatment plant	0,35 mg/l		
.alpha.,.alphaDimethylbenzyl hydroperoxide 80-15-9	sediment (freshwater)		0,023 mg/kg	
.alpha.,.alphaDimethylbenzyl hydroperoxide 80-15-9	sediment (marine water)		0,0023 mg/kg	
.alpha.,.alphaDimethylbenzyl hydroperoxide 80-15-9	Soil		0,0029 mg/kg	
Tetrahydrofurfuryl alcohol 97-99-4	aqua (freshwater)	1,9 mg/l		
Tetrahydrofurfuryl alcohol 97-99-4	aqua (intermittent releases)	0,917 mg/l		
Tetrahydrofurfuryl alcohol 97-99-4	aqua (marine water)	0,19 mg/l		
Tetrahydrofurfuryl alcohol 97-99-4	sewage treatment plant (STP)	10 mg/l		
Tetrahydrofurfuryl alcohol 97-99-4	sediment (freshwater)		8,6 mg/kg	
Tetrahydrofurfuryl alcohol 97-99-4	sediment (marine water)		0,86 mg/kg	
Tetrahydrofurfuryl alcohol 97-99-4	Soil		0,6 mg/kg	
Hydroquinone 123-31-9	aqua (freshwater)	0,00057 mg/l		
Hydroquinone 123-31-9	aqua (marine water)	0,000057 mg/l		
Hydroquinone 123-31-9	sediment (freshwater)		0,0049 mg/kg	
Hydroquinone 123-31-9	sediment (marine water)		0,00049 mg/kg	
Hydroquinone 123-31-9	aqua (intermittent releases)	0,00134 mg/l		
Hydroquinone 123-31-9	Soil		0,00064 mg/kg	
Hydroquinone 123-31-9	sewage treatment plant (STP)	0,71 mg/l		

# **Derived No-Effect Level (DNEL):**

Name on list	Application Area	Route of Exposure	Health Effect	Exposure Time	Value	Remarks
Tetrahydrofurfuryl methacrylate 2455-24-5	Workers	inhalation	Long term exposure - systemic effects		3,53 mg/m3	
Tetrahydrofurfuryl methacrylate 2455-24-5	Workers	dermal	Long term exposure - systemic effects		1 mg/kg	
Tetrahydrofurfuryl methacrylate 2455-24-5	General population	inhalation	Long term exposure - systemic effects		0,87 mg/m3	
Tetrahydrofurfuryl methacrylate 2455-24-5	General population	dermal	Long term exposure - systemic effects		0,5 mg/kg	
Tetrahydrofurfuryl methacrylate 2455-24-5	General population	oral	Long term exposure - systemic effects		0,5 mg/kg	
methacrylic acid 79-41-4	Workers	Inhalation	Long term exposure - local effects		88 mg/m3	
methacrylic acid 79-41-4	Workers	Inhalation	Long term exposure - systemic effects		29,6 mg/m3	
methacrylic acid 79-41-4	Workers	dermal	Long term exposure - systemic effects		4,25 mg/kg	
methacrylic acid 79-41-4	General population	Inhalation	Long term exposure - local effects		6,55 mg/m3	
methacrylic acid 79-41-4	General population	Inhalation	Long term exposure - systemic effects		6,3 mg/m3	
methacrylic acid 79-41-4	General population	dermal	Long term exposure - systemic effects		2,55 mg/kg	
2-Ethylhexyl methacrylate 688-84-6	worker	dermal	Long term exposure - systemic effects		5 mg/kg	
1-Methyltrimethylene dimethacrylate 1189-08-8	Workers	inhalation	Long term exposure - systemic effects		14,5 mg/m3	
1-Methyltrimethylene dimethacrylate 1189-08-8	Workers	dermal	Long term exposure - systemic effects		4,2 mg/kg	
reaction product: bisphenol-A- (epichlorhydrin) 25068-38-6	Workers	dermal	Acute/short term exposure - systemic effects		8,33 mg/kg	
reaction product: bisphenol-A- (epichlorhydrin) 25068-38-6	Workers	Inhalation	Acute/short term exposure - systemic effects		12,25 mg/m3	
reaction product: bisphenol-A- (epichlorhydrin) 25068-38-6	Workers	dermal	Long term exposure - systemic effects		8,33 mg/kg	
reaction product: bisphenol-A- (epichlorhydrin) 25068-38-6	Workers	Inhalation	Long term exposure - systemic effects		12,25 mg/m3	
reaction product: bisphenol-A- (epichlorhydrin) 25068-38-6	General population	dermal	Acute/short term exposure - systemic effects		3,571 mg/kg	
reaction product: bisphenol-A- (epichlorhydrin) 25068-38-6	General population	dermal	Long term exposure - systemic effects		3,571 mg/kg	
reaction product: bisphenol-A- (epichlorhydrin) 25068-38-6	General population	oral	Acute/short term exposure - systemic effects		0,75 mg/kg	
reaction product: bisphenol-A- (epichlorhydrin) 25068-38-6	General population	oral	Long term exposure - systemic effects		0,75 mg/kg	
reaction product: bisphenol-A- (epichlorhydrin)	General population	inhalation	Acute/short term exposure -		0,75 mg/m3	

25068-38-6	1	ĺ	systemic effects	1	
reaction product: bisphenol-A-	General	inhalation	Long term	0,75 mg/m3	
(epichlorhydrin)	population		exposure -		
25068-38-6	1		systemic effects		
2,6-Di-tert-butyl-p-cresol	Workers	inhalation	Long term	3,5 mg/m3	no hazard identified
128-37-0			exposure -		
			systemic effects		
2,6-Di-tert-butyl-p-cresol	Workers	dermal	Long term	0,5 mg/kg	no hazard identified
128-37-0			exposure -	, , ,	
			systemic effects		
2,6-Di-tert-butyl-p-cresol	General	inhalation	Long term	0,86 mg/m3	no hazard identified
128-37-0	population		exposure -		
			systemic effects		
2,6-Di-tert-butyl-p-cresol	General	dermal	Long term	0,25 mg/kg	no hazard identified
128-37-0	population		exposure -		
			systemic effects		
2,6-Di-tert-butyl-p-cresol	General	oral	Long term	0,25 mg/kg	no hazard identified
128-37-0	population		exposure -		
			systemic effects		
.alpha.,.alphaDimethylbenzyl	Workers	inhalation	Long term	6 mg/m3	
hydroperoxide			exposure -		
80-15-9			systemic effects		
Tetrahydrofurfuryl alcohol	Workers	inhalation	Long term	1,4 mg/m3	
97-99-4			exposure -		
<u> </u>			systemic effects		
Tetrahydrofurfuryl alcohol	Workers	inhalation	Acute/short term	1,4 mg/m3	
97-99-4			exposure -		
			systemic effects		
Tetrahydrofurfuryl alcohol	Workers	dermal	Long term	0,35 mg/kg	
97-99-4			exposure -		
			systemic effects		
Tetrahydrofurfuryl alcohol	Workers	dermal	Acute/short term	0,35 mg/kg	
97-99-4			exposure -		
			systemic effects		
Tetrahydrofurfuryl alcohol	General	inhalation	Long term	0,25 mg/m3	
97-99-4	population		exposure -		
			systemic effects		
Tetrahydrofurfuryl alcohol	General	inhalation	Acute/short term	0,25 mg/m3	
97-99-4	population		exposure -		
			systemic effects		
Tetrahydrofurfuryl alcohol	General	dermal	Long term	0,175 mg/kg	
97-99-4	population		exposure -		
			systemic effects		
Tetrahydrofurfuryl alcohol	General	dermal	Acute/short term	0,175 mg/kg	
97-99-4	population		exposure -		
			systemic effects		
Tetrahydrofurfuryl alcohol	General	oral	Long term	0,175 mg/kg	
97-99-4	population		exposure -		
			systemic effects		
Tetrahydrofurfuryl alcohol	General	oral	Acute/short term	0,175 mg/kg	
97-99-4	population		exposure -		
			systemic effects		
Hydroquinone	Workers	dermal	Long term	3,33 mg/kg	
123-31-9			exposure -		
			systemic effects		
Hydroquinone	Workers	inhalation	Long term	2,1 mg/m3	
123-31-9			exposure -		
			systemic effects		
Hydroquinone	General	dermal	Long term	1,66 mg/kg	
123-31-9	population		exposure -		
			systemic effects		
Hydroquinone	General	inhalation	Long term	1,05 mg/m3	
123-31-9	population		exposure -	, 6	
	r r		systemic effects		
Hydroquinone	General	oral	Long term	0,6 mg/kg	
nyuloquillolle					
123-31-9	population	orur	exposure -	17. 8.8	

#### **Biological Exposure Indices:**

None

#### 8.2. Exposure controls:

Engineering controls:

Ensure good ventilation/extraction.

#### 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; >= 0.4 mm thickness)

This information is based on literature references and on information provided by glove manufacturers, or is derived by analogy with similar substances. Please note that in practice the working life of chemical-resistant protective gloves may be considerably shorter than the permeation time determined in accordance with EN 374 as a result of the many influencing factors (e.g. temperature). If signs of wear and tear are noticed then the gloves should be replaced.

#### Eye protection:

Safety glasses with sideshields or chemical safety goggles should be worn if there is a risk of splashing. Protective eye equipment should conform to EN166.

#### Skin protection:

Wear suitable protective clothing.

Protective clothing should conform to EN 14605 for liquid splashes or to EN 13982 for dusts.

Advices to personal protection equipment:

The information provided on personal protective equipment is for guidance purposes only. A full risk assessment should be conducted prior to using this product to determine the appropriate personal protective equipment to suit local conditions. Personal protective equipment should conform to the relevant EN standard.

### **SECTION 9: Physical and chemical properties**

### 9.1. Information on basic physical and chemical properties

Appearance liquid yellow Odor Acrylic

Odour threshold No data available / Not applicable

pH 10

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Melting point

No data available / Not applicable

Solidification temperature

Initial boiling point

No data available / Not applicable

No data available / Not applicable

No data available / Not applicable

Flash point

Sa °C (181.4 °F); Tagliabue closed cup

Evaporation rate

No data available / Not applicable

Flammability

No data available / Not applicable

Explosive limits

No data available / Not applicable

Vapour pressure < 4 mbar Vapour pressure < 700 mbar (50 °C (122 °F))

Relative vapour density: No data available / Not applicable

Density 1,05 g/cm<sup>3</sup>

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Bulk density

No data available / Not applicable
Solubility

No data available / Not applicable

Solubility (qualitative) Slight

(Solvent: Water)

Partition coefficient: n-octanol/water

Auto-ignition temperature

Decomposition temperature

No data available / Not applicable
No data available / Not applicable
Viscosity

No data available / Not applicable
Viscosity (kinematic)

No data available / Not applicable
Explosive properties

No data available / Not applicable
Oxidising properties

No data available / Not applicable
No data available / Not applicable

#### 9.2. Other information

No data available / Not applicable

# **SECTION 10: Stability and reactivity**

### 10.1. Reactivity

Reaction with strong oxidants.

### 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.

### 10.5. Incompatible materials

See section reactivity.

### 10.6. Hazardous decomposition products

carbon oxides.

# **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	Value	Species	Method
Tetrahydrofurfuryl methacrylate 2455-24-5	LD50	3.945 mg/kg	rat	OECD Guideline 401 (Acute Oral Toxicity)
methacrylic acid 79-41-4	LD50	1.320 mg/kg	rat	equivalent or similar to OECD Guideline 401 (Acute Oral Toxicity)
2-Ethylhexyl methacrylate 688-84-6	LD0	> 2.000 mg/kg	rat	OECD Guideline 401 (Acute Oral Toxicity)
2-Ethylhexyl methacrylate 688-84-6	LD50	> 2.000 mg/kg	rat	OECD Guideline 401 (Acute Oral Toxicity)
1-Methyltrimethylene dimethacrylate 1189-08-8	LD50	> 5.000 mg/kg	rat	not specified
reaction product: bisphenol-A- (epichlorhydrin); epoxy resin (number average molecular weight≤700) 25068-38-6	LD50	> 2.000 mg/kg	rat	OECD Guideline 420 (Acute Oral Toxicity)
Butyl hydroxytoluene 128-37-0	LD50	> 6.000 mg/kg	rat	OECD Guideline 401 (Acute Oral Toxicity)
Cumene hydroperoxide 80-15-9	LD50	382 mg/kg	rat	other guideline:
Tetrahydrofurfuryl alcohol 97-99-4	LD50	> 2.000 mg/kg	rat	OECD Guideline 423 (Acute Oral toxicity)
Hydroquinone 123-31-9	LD50	367 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	Value	Value	Species	Method
CAS-No.	type			
methacrylic acid	LD50	500 - 1.000	rabbit	Dermal Toxicity Screening
79-41-4		mg/kg		
methacrylic acid	Acute	500 mg/kg		Expert judgement
79-41-4	toxicity			
	estimate			
	(ATE)			
2-Ethylhexyl methacrylate 688-84-6	LD50	> 20.000 mg/kg	rat	not specified
1-Methyltrimethylene dimethacrylate 1189-08-8	LD50	> 3.000 mg/kg	rabbit	not specified
reaction product: bisphenol-A- (epichlorhydrin); epoxy resin (number average molecular weight≤700) 25068-38-6	LD50	> 2.000 mg/kg	rat	OECD Guideline 402 (Acute Dermal Toxicity)
Butyl hydroxytoluene 128-37-0	LD50	> 2.000 mg/kg	rat	OECD Guideline 402 (Acute Dermal Toxicity)
Cumene hydroperoxide	LD50	530 - 1.060	rat	other guideline:
80-15-9		mg/kg		
Cumene hydroperoxide	Acute	1.100 mg/kg		Expert judgement
80-15-9	toxicity			
	estimate			
	(ATE)			
Hydroquinone 123-31-9	LD50	> 2.000 mg/kg	rabbit	OECD Guideline 402 (Acute Dermal Toxicity)

### Acute inhalative toxicity:

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

Hazardous substances	Value	Value	Test atmosphere	Exposure	Species	Method
CAS-No.	type			time		
methacrylic acid	LC50	> 3,6 mg/l	dust/mist	4 h	rat	OECD Guideline 403 (Acute
79-41-4						Inhalation Toxicity)
methacrylic acid	Acute	3,61 mg/l				Expert judgement
79-41-4	toxicity					
	estimate					
	(ATE)					

#### Skin corrosion/irritation:

Non corrosive to skin in accordance with the in vitro test method, B40 skin corrosion - Human skin model assay, equivalent to test method OECD 431 or based on analogy to similar products tested.

Hazardous substances CAS-No.	Result	Exposure time	Species	Method
Tetrahydrofurfuryl methacrylate 2455-24-5	not irritating	24 h	rabbit	Draize Test
methacrylic acid 79-41-4	corrosive	3 min	rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
reaction product: bisphenol-A- (epichlorhydrin); epoxy resin (number average molecular weight≤700) 25068-38-6	moderately irritating	24 h	rabbit	Draize Test
Butyl hydroxytoluene 128-37-0	not irritating	4 h	rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
Cumene hydroperoxide 80-15-9	corrosive		rabbit	Draize Test
Tetrahydrofurfuryl alcohol 97-99-4	not irritating	4 h	rabbit	EPA OPP 81-5 (Acute Dermal Irritation)
Hydroquinone 123-31-9	not irritating	24 h	rabbit	Weight of evidence

## Serious eye damage/irritation:

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

Hazardous substances	Result	Exposure	Species	Method
CAS-No.		time		
Tetrahydrofurfuryl	not irritating		rabbit	Draize Test
methacrylate				
2455-24-5				
methacrylic acid	corrosive		rabbit	Draize Test
79-41-4				
reaction product:	not irritating		rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)
bisphenol-A-				
(epichlorhydrin); epoxy				
resin (number average				
molecular weight≤700)				
25068-38-6				
Butyl hydroxytoluene	slightly		rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)
128-37-0	irritating			
Tetrahydrofurfuryl	irritating		rabbit	EPA OPP 81-4 (Acute Eye Irritation)
alcohol				
97-99-4				

## ${\bf Respiratory\ or\ skin\ sensitization:}$

Hazardous substances	Result	Test type	Species	Method
CAS-No.	.,	D ( I T)	1	.0. 1
Tetrahydrofurfuryl	sensitising	Patch-Test	human	not specified
methacrylate 2455-24-5				
	•,• •	D: (11 (11)		'C' 1
Tetrahydrofurfuryl	sensitising	Direct peptide reactivity	cysteine and	not specified
methacrylate		assay (DPRA)	lysine, in	
2455-24-5		1- 11	chemico test	
methacrylic acid	not sensitising	Buehler test	guinea pig	equivalent or similar to OECD Guideline
79-41-4				406 (Skin Sensitisation)
2-Ethylhexyl methacrylate	sensitising	Guinea pig maximisation	guinea pig	Magnusson and Kligman Method
688-84-6		test		
1-Methyltrimethylene	sensitising	Mouse local lymphnode	mouse	OECD Guideline 429 (Skin Sensitisation:
dimethacrylate		assay (LLNA)		Local Lymph Node Assay)
1189-08-8				
reaction product:	sensitising	Mouse local lymphnode	mouse	OECD Guideline 429 (Skin Sensitisation:
bisphenol-A-		assay (LLNA)		Local Lymph Node Assay)
(epichlorhydrin); epoxy				
resin (number average				
molecular weight≤700)				
25068-38-6				
Butyl hydroxytoluene	not sensitising	Draize Test	guinea pig	Draize Test
128-37-0				
Tetrahydrofurfuryl	not sensitising	Mouse local lymphnode	mouse	OECD Guideline 429 (Skin Sensitisation:
alcohol		assay (LLNA)		Local Lymph Node Assay)
97-99-4		,		, in the same state of the sam
Hydroquinone	sensitising	Guinea pig maximisation	guinea pig	equivalent or similar to OECD Guideline
123-31-9		test	8	406 (Skin Sensitisation)
Hydroquinone	sensitising	Mouse local lymphnode	mouse	equivalent or similar to OECD Guideline
123-31-9		assay (LLNA)		429 (Skin Sensitisation: Local Lymph
				Node Assay)

# Germ cell mutagenicity:

Hazardous substances CAS-No.	Result	Type of study / Route of administration	Metabolic activation / Exposure time	Species	Method
methacrylic acid	negative	bacterial reverse	with and without		equivalent or similar to OECD
79-41-4	negative	mutation assay (e.g Ames test)	with and without		Guideline 471 (Bacterial Reverse Mutation Assay)
2-Ethylhexyl methacrylate 688-84-6	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
reaction product: bisphenol-A- (epichlorhydrin); epoxy resin (number average	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 472 (Genetic Toxicology: Escherichia coli, Reverse Mutation Assay)
molecular weight≤700) 25068-38-6					
Butyl hydroxytoluene 128-37-0	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		not specified
Butyl hydroxytoluene 128-37-0	negative	in vitro mammalian chromosome aberration test	with and without		not specified
Butyl hydroxytoluene 128-37-0	negative	mammalian cell gene mutation assay	with		not specified
Cumene hydroperoxide 80-15-9	positive	bacterial reverse mutation assay (e.g Ames test)	without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
Tetrahydrofurfuryl alcohol 97-99-4	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
Tetrahydrofurfuryl alcohol 97-99-4	negative	in vitro mammalian chromosome aberration test	with and without		OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test)
Tetrahydrofurfuryl alcohol 97-99-4	negative	mammalian cell gene mutation assay	with and without		OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)
Hydroquinone 123-31-9	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		equivalent or similar to OECD Guideline 471 (Bacterial Reverse Mutation Assay)
Hydroquinone 123-31-9	negative	in vitro mammalian chromosome aberration test	with and without		OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test)
Hydroquinone 123-31-9	positive	mammalian cell gene mutation assay	with and without		OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)
methacrylic acid 79-41-4	negative	inhalation		mouse	equivalent or similar to OECD Guideline 478 (Genetic Toxicology: Rodent Dominant Lethal Test)
methacrylic acid 79-41-4	negative	oral: gavage		mouse	equivalent or similar to OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test)
reaction product: bisphenol-A- (epichlorhydrin); epoxy resin (number average molecular weight≤700) 25068-38-6	negative	oral: gavage		mouse	not specified
Butyl hydroxytoluene 128-37-0	negative	oral: feed		rat	not specified
Cumene hydroperoxide 80-15-9	negative	dermal		mouse	not specified
Hydroquinone 123-31-9	positive	intraperitoneal		mouse	equivalent or similar to OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test)
Hydroquinone 123-31-9	negative	oral: gavage		rat	equivalent or similar to OECD Guideline 478 (Genetic Toxicology: Rodent Dominant

				Lethal Test)
Hydroquinone 123-31-9	positive	intraperitoneal	mouse	equivalent or similar to OECD Guideline 483 (Mammalian
				Spermatogonial Chromosome
				Aberration Test)

# Carcinogenicity

Hazardous components CAS-No.	Result	Route of application	Exposure time / Frequency of treatment	Species	Sex	Method
methacrylic acid 79-41-4	not carcinogenic	inhalation	2 y	mouse	male/female	OECD Guideline 451 (Carcinogenicity Studies)
reaction product: bisphenol-A- (epichlorhydrin); epoxy resin (number average molecular weight≤700) 25068-38-6	not carcinogenic	dermal	2 y daily	mouse	male	OECD Guideline 453 (Combined Chronic Toxicity / Carcinogenicity Studies)
reaction product: bisphenol-A- (epichlorhydrin); epoxy resin (number average molecular weight≤700) 25068-38-6	not carcinogenic	oral: gavage	2 y daily	rat	male/female	OECD Guideline 453 (Combined Chronic Toxicity / Carcinogenicity Studies)
Butyl hydroxytoluene 128-37-0		oral: feed	2 y daily	rat	male	
Hydroquinone 123-31-9	carcinogenic	oral: gavage	103 w 5 d/w	rat	male/female	equivalent or similar OECD Guideline 453 (Combined Chronic Toxicity / Carcinogenicity Studies)
Hydroquinone 123-31-9	carcinogenic	oral: gavage	103 w 5 d/w	mouse	female	equivalent or similar OECD Guideline 453 (Combined Chronic Toxicity / Carcinogenicity Studies)

# Reproductive toxicity:

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Result / Value	Test type	Route of application	Species	Method
Tetrahydrofurfuryl methacrylate 2455-24-5	NOAEL P 300 mg/kg	screening	oral: gavage	rat	OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)
methacrylic acid 79-41-4	NOAEL P 50 mg/kg NOAEL F1 400 mg/kg NOAEL F2 400 mg/kg	Two generation study	oral: gavage	rat	OECD Guideline 416 (Two-Generation Reproduction Toxicity Study)
reaction product: bisphenol-A- (epichlorhydrin); epoxy resin (number average molecular weight≤700) 25068-38-6	NOAEL P >= $50 \text{ mg/kg}$ NOAEL F1 >= $750 \text{ mg/kg}$ NOAEL F2 >= $750 \text{ mg/kg}$	Two generation study	oral: gavage	rat	OECD Guideline 416 (Two-Generation Reproduction Toxicity Study)
Butyl hydroxytoluene 128-37-0	NOAEL P 500 mg/kg	Two generation study	oral: feed	rat	not specified
Hydroquinone 123-31-9	NOAEL P 15 mg/kg NOAEL F1 150 mg/kg NOAEL F2 150 mg/kg	Two generation study	oral: gavage	rat	EPA OTS 798.4700 (Reproduction and Fertility Effects)

## 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
Tetrahydrofurfuryl methacrylate 2455-24-5	NOAEL 300 mg/kg	oral: gavage	29 d yes, concurrent vehicle	rat	OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)
methacrylic acid 79-41-4		inhalation	90 d 6 h/d, 5 d/w	rat	OECD Guideline 413 (Subchronic Inhalation Toxicity: 90-Day)
reaction product: bisphenol-A- (epichlorhydrin); epoxy resin (number average molecular weight≤700) 25068-38-6	NOAEL 50 mg/kg	oral: gavage	14 w daily	rat	OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)
Butyl hydroxytoluene 128-37-0	NOAEL 25 mg/kg	oral: feed	daily	rat	not specified
Cumene hydroperoxide 80-15-9		inhalation: aerosol	6 h/d 5 d/w	rat	not specified
Tetrahydrofurfuryl alcohol 97-99-4	NOAEL 500 ppm	oral: feed	91-93 d daily	rat	not specified
Tetrahydrofurfuryl alcohol 97-99-4	NOAEL 1000 ppm	oral: feed	91-93 d daily	rat	not specified
Hydroquinone 123-31-9	NOAEL 50 mg/kg	oral: gavage	13 w 5 d/w	rat	not specified
Hydroquinone 123-31-9	NOAEL 73,9 mg/kg	dermal	13 w 6 h/d, 5 d/w	rat	equivalent or similar to OECD Guideline 411 (Subchronic Dermal Toxicity: 90-Day Study)

## 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	Value	Value	Exposure time	Species	Method
CAS-No.	type		_	1	
Tetrahydrofurfuryl methacrylate 2455-24-5	LC50	34,7 mg/l	96 h	Pimephales promelas	OECD Guideline 203 (Fish, Acute Toxicity Test)
methacrylic acid 79-41-4	LC50	85 mg/l	96 h	Salmo gairdneri (new name: Oncorhynchus mykiss)	EPA OTS 797.1400 (Fish Acute Toxicity Test)
2-Ethylhexyl methacrylate 688-84-6	LC50	2,78 mg/l	96 h	Oryzias latipes	OECD Guideline 203 (Fish, Acute Toxicity Test)
1-Methyltrimethylene dimethacrylate 1189-08-8	LC50	32,5 mg/l	48 h		DIN 38412-15
reaction product: bisphenol-A- (epichlorhydrin); epoxy resin (number average molecular weight≤700) 25068-38-6	LC50	1,75 mg/l	96 h	Oncorhynchus mykiss	OECD Guideline 203 (Fish, Acute Toxicity Test)
Butyl hydroxytoluene 128-37-0	LC50	Toxicity > Water solubility	96 h	Brachydanio rerio (new name: Danio rerio)	EU Method C.1 (Acute Toxicity for Fish)
Butyl hydroxytoluene 128-37-0	NOEC	0,053 mg/l	30 d	Oryzias latipes	OECD Guideline 210 (fish early lite stage toxicity test)
Cumene hydroperoxide 80-15-9	LC50	3,9 mg/l	96 h	Oncorhynchus mykiss	OECD Guideline 203 (Fish, Acute Toxicity Test)
Tetrahydrofurfuryl alcohol 97-99-4	LC50	> 101 mg/l	96 h	Oryzias latipes	OECD Guideline 203 (Fish, Acute Toxicity Test)
1,1,2-trichloroethane 79-00-5	LC50	136 mg/l	96 h	Pimephales promelas	OECD Guideline 203 (Fish, Acute Toxicity Test)
Hydroquinone 123-31-9	LC50	0,638 mg/l	96 h	Oncorhynchus mykiss	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	Value	Value	Exposure time	Species	Method
CAS-No. methacrylic acid 79-41-4	EC50	> 130 mg/l	48 h	Daphnia magna	EPA OTS 797.1300 (Aquatic Invertebrate Acute Toxicity Test, Freshwater Daphnids)
2-Ethylhexyl methacrylate 688-84-6	EC50	4,56 mg/l	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
reaction product: bisphenol-A- (epichlorhydrin); epoxy resin (number average molecular weight≤700) 25068-38-6	EC50	1,7 mg/l	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Butyl hydroxytoluene 128-37-0	EC50	0,48 mg/l	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Cumene hydroperoxide 80-15-9	EC50	18 mg/l	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
1,1,2-trichloroethane 79-00-5	EC50	160 mg/l	48 h	Daphnia magna	other guideline:
Hydroquinone 123-31-9	EC50	0,134 mg/l	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)

### Chronic toxicity to aquatic invertebrates

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

Hazardous substances	Value	Value	Exposure time	Species	Method
CAS-No.	type				
Tetrahydrofurfuryl methacrylate 2455-24-5	NOEC	37,2 mg/l	21 d	Daphnia magna	OECD 211 (Daphnia magna, Reproduction Test)
2-Ethylhexyl methacrylate 688-84-6	NOEC	0,105 mg/l	21 d	Daphnia magna	OECD 211 (Daphnia magna, Reproduction Test)
1-Methyltrimethylene dimethacrylate 1189-08-8	NOEC	5,09 mg/l	21 d	Daphnia magna	OECD 211 (Daphnia magna, Reproduction Test)
reaction product: bisphenol-A- (epichlorhydrin); epoxy resin (number average molecular weight≤700) 25068-38-6	NOEC	0,3 mg/l	21 d	Daphnia magna	OECD 211 (Daphnia magna, Reproduction Test)
Butyl hydroxytoluene 128-37-0	NOEC	0,069 mg/l	21 d	Daphnia magna	OECD 211 (Daphnia magna, Reproduction Test)
Hydroquinone 123-31-9	NOEC	0,0057 mg/l	21 d	Daphnia magna	OECD 211 (Daphnia magna, Reproduction Test)

**Toxicity (Algae):** 

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

Hazardous substances CAS-No.	Value type	Value	Exposure time	Species	Method
Tetrahydrofurfuryl methacrylate 2455-24-5	EC50	> 100 mg/l	72 h	Desmodesmus subspicatus	OECD Guideline 201 (Alga, Growth Inhibition Test)
Tetrahydrofurfuryl methacrylate 2455-24-5	NOEC	> 100 mg/l	72 h	Desmodesmus subspicatus	OECD Guideline 201 (Alga, Growth Inhibition Test)
methacrylic acid 79-41-4	NOEC	8,2 mg/l	72 h	Selenastrum capricornutum (new name: Pseudokirchneriella subcapitata)	,
methacrylic acid 79-41-4	EC50	45 mg/l	72 h	Selenastrum capricornutum (new name: Pseudokirchneriella subcapitata)	OECD Guideline 201 (Alga, Growth Inhibition Test)
2-Ethylhexyl methacrylate 688-84-6	EC50	7,68 mg/l	72 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
2-Ethylhexyl methacrylate 688-84-6	NOEC	0,28 mg/l	72 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
1-Methyltrimethylene dimethacrylate 1189-08-8	EC50	9,79 mg/l	72 h	Desmodesmus subspicatus	OECD Guideline 201 (Alga, Growth Inhibition Test)
1-Methyltrimethylene dimethacrylate 1189-08-8	NOEC	2,11 mg/l	72 h	Desmodesmus subspicatus	OECD Guideline 201 (Alga, Growth Inhibition Test)
reaction product: bisphenol-A- (epichlorhydrin); epoxy resin (number average molecular weight≤700) 25068-38-6	EC50	> 11 mg/l	72 h	Scenedesmus capricornutum	OECD Guideline 201 (Alga, Growth Inhibition Test)
reaction product: bisphenol-A- (epichlorhydrin); epoxy resin (number average molecular weight≤700) 25068-38-6	NOEC	4,2 mg/l	72 h	Scenedesmus capricornutum	OECD Guideline 201 (Alga, Growth Inhibition Test)
Butyl hydroxytoluene 128-37-0	EC50	Toxicity > Water solubility	72 h	Desmodesmus subspicatus (reported as Scenedesmus subspicatus)	EU Method C.3 (Algal Inhibition test)
Butyl hydroxytoluene 128-37-0	EC10	0,4 mg/l	72 h	Desmodesmus subspicatus (reported as Scenedesmus subspicatus)	EU Method C.3 (Algal Inhibition test)
Cumene hydroperoxide 80-15-9	ErC50	3,1 mg/l	72 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
1,1,2-trichloroethane 79-00-5	EC50	213 mg/l	72 h	Scenedesmus subspicatus (new name: Desmodesmus subspicatus)	OECD Guideline 201 (Alga, Growth Inhibition Test)
Hydroquinone 123-31-9	EC50	0,335 mg/l	72 h	Selenastrum capricornutum (new name: Pseudokirchneriella subcapitata)	OECD Guideline 201 (Alga, Growth Inhibition Test)

## Toxicity to microorganisms

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

Hazardous substances	Value	Value	Exposure time	Species	Method
CAS-No.	type				
methacrylic acid	EC10	100 mg/l	17 h		not specified
1-Methyltrimethylene dimethacrylate 1189-08-8	NOEC	20 mg/l	28 d	activated sludge, domestic	not specified
reaction product: bisphenol-A- (epichlorhydrin); epoxy resin (number average molecular weight≤700) 25068-38-6	IC50	> 100 mg/l	3 h	activated sludge, industrial	other guideline:
Butyl hydroxytoluene 128-37-0	EC50	Toxicity > Water solubility	3 h	activated sludge	OECD Guideline 209 (Activated Sludge, Respiration Inhibition Test)
Cumene hydroperoxide 80-15-9	EC10	70 mg/l	30 min		not specified
Hydroquinone 123-31-9	EC 50	0,038 mg/l	30 min		not specified

## 12.2. Persistence and degradability

The product is not biodegradable.

Hazardous substances CAS-No.	Result	Test type	Degradability	Exposure time	Method
Tetrahydrofurfuryl methacrylate 2455-24-5	not readily biodegradable.	aerobic	75 %	28 d	OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)
methacrylic acid 79-41-4	inherently biodegradable	aerobic	100 %	14 d	OECD Guideline 302 B (Inherent biodegradability: Zahn- Wellens/EMPA Test)
methacrylic acid 79-41-4	readily biodegradable	aerobic	86 %	28 d	OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)
2-Ethylhexyl methacrylate 688-84-6	readily biodegradable	aerobic	88 %	28 d	OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I))
1-Methyltrimethylene dimethacrylate 1189-08-8	readily biodegradable	aerobic	84 %	28 d	OECD Guideline 310 (Ready BiodegradabilityCO2 in Sealed Vessels (Headspace Test)
reaction product: bisphenol-A- (epichlorhydrin); epoxy resin (number average molecular weight≤700) 25068-38-6	not readily biodegradable.	aerobic	5 %	28 d	OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)
Butyl hydroxytoluene 128-37-0	not readily biodegradable.	aerobic	4,5 %	28 d	OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I))
Butyl hydroxytoluene 128-37-0	not inherently biodegradable	aerobic	5,2 - 5,6 %	35 d	OECD Guideline 302 C (Inherent Biodegradability: Modified MITI Test (II))
Cumene hydroperoxide 80-15-9		no data	0 %	28 d	OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test)
Tetrahydrofurfuryl alcohol 97-99-4	readily biodegradable	aerobic	92 %	28 d	OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I))
1,1,2-trichloroethane 79-00-5	not readily biodegradable.	aerobic	5 %	28 day	OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I))
Hydroquinone 123-31-9	readily biodegradable	aerobic	75 - 81 %	30 d	EU Method C.4-E (Determination of the "Ready" BiodegradabilityClosed Bottle Test)

## ${\bf 12.3.\ Bioaccumulative\ potential}$

Hazardous substances CAS-No.	Bioconcentratio n factor (BCF)	Exposure time	Temperature	Species	Method
2-Ethylhexyl methacrylate 688-84-6	37	56 h	24 °C	Danio rerio	OECD Guideline 305 (Bioconcentration: Flow-through Fish Test)
Butyl hydroxytoluene 128-37-0	330 - 1.800	56 d		Cyprinus carpio	OECD Guideline 305 C (Bioaccumulation: Test for the Degree of Bioconcentration in Fish)
Cumene hydroperoxide 80-15-9	9,1			calculation	OECD Guideline 305 (Bioconcentration: Flow-through Fish Test)
1,1,2-trichloroethane 79-00-5	2	14 d		Lepomis macrochirus	other guideline:

## 12.4. Mobility in soil

Cured adhesives are immobile.

Hazardous substances CAS-No.	LogPow	Temperature	Method
Tetrahydrofurfuryl methacrylate 2455-24-5	1,76		EU Method A.8 (Partition Coefficient)
methacrylic acid 79-41-4	0,93	22 °C	OECD Guideline 107 (Partition Coefficient (n-octanol / water), Shake Flask Method)
2-Ethylhexyl methacrylate 688-84-6	4,95	20 °C	OECD Guideline 107 (Partition Coefficient (n-octanol / water), Shake Flask Method)
reaction product: bisphenol-A- (epichlorhydrin); epoxy resin (number average molecular weight≤700) 25068-38-6	3,242	25 °C	EU Method A.8 (Partition Coefficient)
Butyl hydroxytoluene 128-37-0	5,1		OECD Guideline 107 (Partition Coefficient (n-octanol / water), Shake Flask Method)
Cumene hydroperoxide 80-15-9	2,16		not specified
Tetrahydrofurfuryl alcohol 97-99-4	-0,14	24,7 °C	OECD Guideline 107 (Partition Coefficient (n-octanol / water), Shake Flask Method)
1,1,2-trichloroethane 79-00-5	> 2,05 - < 2,49	20 °C	QSAR (Quantitative Structure Activity Relationship)
Hydroquinone 123-31-9	0,59		EU Method A.8 (Partition Coefficient)

#### 12.5. Results of PBT and vPvB assessment

Hazardous substances	PBT / vPvB
CAS-No.	
Tetrahydrofurfuryl methacrylate	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very
2455-24-5	Bioaccumulative (vPvB) criteria.
methacrylic acid	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very
79-41-4	Bioaccumulative (vPvB) criteria.
2-Ethylhexyl methacrylate	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very
688-84-6	Bioaccumulative (vPvB) criteria.
1-Methyltrimethylene dimethacrylate	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very
1189-08-8	Bioaccumulative (vPvB) criteria.
reaction product: bisphenol-A-(epichlorhydrin);	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very
epoxy resin (number average molecular	Bioaccumulative (vPvB) criteria.
weight≤700)	
25068-38-6	
Butyl hydroxytoluene	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very
128-37-0	Bioaccumulative (vPvB) criteria.
Cumene hydroperoxide	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very
80-15-9	Bioaccumulative (vPvB) criteria.
Hydroquinone	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very
123-31-9	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.

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

#### Disposal of uncleaned packages:

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

#### Waste code

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

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

## **SECTION 14: Transport information**

### 14.1. UN number

ADR	Not dangerous goods
RID	Not dangerous goods
ADN	Not dangerous goods
IMDG	Not dangerous goods
IATA	Not dangerous goods

### 14.2. UN proper shipping name

ADR	Not dangerous goods
RID	Not dangerous goods
ADN	Not dangerous goods
IMDG	Not dangerous goods
IATA	Not dangerous goods

### 14.3. Transport hazard class(es)

ADR	Not dangerous goods
RID	Not dangerous goods
ADN	Not dangerous goods
IMDG	Not dangerous goods
IATA	Not dangerous goods

### 14.4. Packing group

ADR	Not dangerous goods
RID	Not dangerous goods
ADN	Not dangerous goods
IMDG	Not dangerous goods
IATA	Not dangerous goods

### 14.5. Environmental hazards

ADR	not applicable
RID	not applicable
ADN	not applicable
IMDG	not applicable
IATA	not applicable

### 14.6. Special precautions for user

ADR	not applicable
RID	not applicable
ADN	not applicable
IMDG	not applicable
IATA	not applicable

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

not applicable

# **SECTION 15: Regulatory information**

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

VOC content (2010/75/EC)

#### 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:

- H242 Heating may cause a fire.
- H302 Harmful if swallowed.
- H311 Toxic in contact with skin.
- H312 Harmful in contact with skin.
- H314 Causes severe skin burns and eye damage.
- H315 Causes skin irritation.
- H317 May cause an allergic skin reaction.
- H318 Causes serious eye damage.
- H319 Causes serious eye irritation.
- H331 Toxic if inhaled.
- H332 Harmful if inhaled.
- H335 May cause respiratory irritation.
- H341 Suspected of causing genetic defects.
- H351 Suspected of causing cancer.
- H360 May damage fertility or the unborn child.
- H360D May damage the unborn child.
- 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.

#### Dear Customer,

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