

**LOCTITE 382** 

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

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SDS No.: 153623

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

## 1.1. Product identifier

LOCTITE 382

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

Intended use:

Adhesive

## 1.3. Details of the supplier of the safety data sheet

Henkel Ltd

Adhesives

Wood Lane End

HP2 4RQ Hemel Hempstead

Great Britain

Phone:

+44 (1442) 278000

SDSinfo.Adhesive@henkel.com

For Safety Data Sheet updates please visit our website https://mysds.henkel.com/index.html#/appSelection or www.henkel-adhesives.com.

### 1.4. Emergency telephone number

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 irritation Category 2

H319 Causes serious eye irritation.

Specific target organ toxicity - single exposure Category 3

H335 May cause respiratory irritation.

Target organ: respiratory tract irritation

#### 2.2. Label elements

## Label elements (CLP):

Hazard pictogram:



Contains Ethyl 2-cyanoacrylate

Signal word: Warning

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

H319 Causes serious eye irritation. H335 May cause respiratory irritation.

Supplemental information Contains: phthalic anhydride; maleic anhydride May produce an allergic reaction.

Cyanoacrylate. Danger. Bonds skin and eyes in seconds. Keep out of the reach of

children.

**Precautionary statement:** P261 Avoid breathing vapors.

**Prevention** P280 Wear protective gloves/eye protection.

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

contact lenses, if present and easy to do. Continue rinsing.

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

**Precautionary statement:** 

**Disposal** 

Response

P501 Dispose of contents/container in accordance with national regulation.

# 2.3. Other hazards

None if used properly.

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

Following substances are present in a concentration >= 0.1% and fulfill the criteria for PBT/vPvB, or were identified as endocrine disruptor (ED):

This mixture does not contain any substances in concentration  $\geq$  the concentration limit that are assessed to be a PBT, vPvB or ED.

# **SECTION 3: Composition/information on ingredients**

### 3.2. Mixtures

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

Hazardous components CAS-No. EC Number REACH-Reg No.	Concentration	Classification	Specific Conc. Limits, M- factors and ATEs	Add. Information
Ethyl 2-cyanoacrylate 7085-85-0 230-391-5 01-2119527766-29	50- 100 %	Eye Irrit. 2, H319 STOT SE 3, H335 Skin Irrit. 2, H315	STOT SE 3; H335; C >= 10 %	
phthalic anhydride 85-44-9 201-607-5 01-2119457017-41	0,1-< 1 %	Eye Dam. 1, H318 Skin Irrit. 2, H315 STOT SE 3, H335 Acute Tox. 4, Oral, H302 Skin Sens. 1, H317 Resp. Sens. 1, H334		
Bis(2-hydroxy-3-tert-butyl-5- methylphenyl)methane 119-47-1 204-327-1 01-2119496065-33	0,1-< 0,3 %	Repr. 1B, H360F		SVHC
Hydroquinone 123-31-9 204-617-8 01-2119524016-51	0,01-< 0,1 %	Aquatic Acute 1, 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 acute = 10 M chronic = 1 M acute = 10	
maleic anhydride 108-31-6 203-571-6 01-2119472428-31	0,0001-< 0,001 % (1 ppm-<10 ppm)	STOT RE 1, Inhalation, H372 Acute Tox. 4, Oral, H302 Skin Sens. 1A, H317 Resp. Sens. 1, H334 Eye Dam. 1, H318 Skin Corr. 1B, H314	Skin Sens. 1A; H317; C >= 0,001 %	

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, consult doctor if complaint persists.

#### Skin contact:

If lips are accidentally stuck together apply warm water to the lips and encourage maximum wetting and pressure from saliva inside the mouth.

Peel or roll lips apart. Do not try to pull the lips apart with direct opposing action.

Cyanoacrylates give off heat on solidification. In rare cases a large drop will generate enough heat to cause a burn.

Burns should be treated normally after the adhesive has been removed from the skin.

Do not pull bonded skin apart. It may be gently peeled apart using a blunt object such as a spoon, preferably after soaking in warm soapy water.

# Eye contact:

If the eye is bonded closed, release eyelashes with warm water by covering with wet pad.

Keep eye covered until debonding is complete, usually within 1-3 days.

Cyanoacrylate will bond to eye protein and will cause periods of weeping which will help to debond the adhesive.

Do not force eye open. Medical advice should be sought in case solid particles of cyanoacrylate trapped behind the eyelid cause any abrasive damage.

#### Ingestion

Ensure that breathing passages are not obstructed. The product will polymerise immediately in the mouth making it almost impossible to swallow. Saliva will slowly separate the solidified product from the mouth (several hours).

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

EYE: Irritation, conjunctivitis.

SKIN: Redness, inflammation.

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:

Foam, extinguishing powder, carbon dioxide.

Fine water spray

## 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. Irritating organic vapours.

### 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

Do not use cloths for mopping up. Flood with water to complete polymerization and scrape off the floor. Cured material can be disposed of as non-hazardous waste.

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

Ventilation (low level) is recommended when using large volumes

Avoid skin and eye contact.

Use of dispensing equipment is recommended to minimise the risk of skin or eye contact

See advice in section 8

### Hygiene measures:

Wash hands before work breaks and after finishing work.

Do not eat, drink or smoke while working.

Good industrial hygiene practices should be observed.

# 7.2. Conditions for safe storage, including any incompatibilities

Refer to Technical Data Sheet

# 7.3. Specific end use(s)

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
Ethyl 2-cyanoacrylate 7085-85-0 [ETHYL CYANOACRYLATE]	0,3	1,5	Short Term Exposure Limit (STEL):	15 minutes	EH40 WEL
Phthalic anhydride 85-44-9 [PHTHALIC ANHYDRIDE]		4	Time Weighted Average (TWA):		EH40 WEL
Phthalic anhydride 85-44-9 [PHTHALIC ANHYDRIDE]		12	Short Term Exposure Limit (STEL):	15 minutes	EH40 WEL
Hydroquinone 123-31-9 [HYDROQUINONE]		0,5	Time Weighted Average (TWA):		EH40 WEL
Maleic anhydride 108-31-6 [MALEIC ANHYDRIDE]		1	Time Weighted Average (TWA):		EH40 WEL
Maleic anhydride 108-31-6 [MALEIC ANHYDRIDE]		3	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
Ethyl 2-cyanoacrylate 7085-85-0 [ETHYL 2-CYANOACRYLATE; ETHYL CYANOACRYLATE]	1		Short Term Exposure Limit (STEL):	15 minutes	IR_OEL
Ethyl 2-cyanoacrylate 7085-85-0 [ETHYL 2-CYANOACRYLATE; ETHYL CYANOACRYLATE]	0,2		Time Weighted Average (TWA):		IR_OEL
Phthalic anhydride 85-44-9 [PHTHALIC ANHYDRIDE]	1		Time Weighted Average (TWA):		IR_OEL
Phthalic anhydride 85-44-9 [PHTHALIC ANHYDRIDE]		12	Short Term Exposure Limit (STEL):	15 minutes	IR_OEL
Hydroquinone 123-31-9 [HYDROQUINONE]		0,5	Time Weighted Average (TWA):		IR_OEL
Maleic anhydride 108-31-6 [MALEIC ANHYDRIDE]	0,01		Time Weighted Average (TWA):		IR_OEL

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

Name on list	Environmental Compartment	Exposure period	Value	Value			Remarks
	•		mg/l	ppm	mg/kg	others	
phthalic anhydride 85-44-9	Soil				0,173		
phthalic anhydride	sewage		10 mg/l		mg/kg		
85-44-9	treatment plant		10 mg/1				
	(STP)						
phthalic anhydride	sediment				3,8 mg/kg		
85-44-9 phthalic anhydride	(freshwater) sediment				0,38 mg/kg		
85-44-9	(marine water)				0,36 Hig/kg		
phthalic anhydride	aqua (marine		0,1 mg/l				
85-44-9	water)						
phthalic anhydride 85-44-9	aqua (intermittent		5,6 mg/l				
85-44-9	releases)						
phthalic anhydride	aqua		1 mg/l				
85-44-9	(freshwater)						
Bis(2-hydroxy-3-tert-butyl-5-	aqua		0,0068				
methylphenyl)methane 119-47-1	(freshwater)		mg/l				
Bis(2-hydroxy-3-tert-butyl-5-	aqua (marine		0,00068				
methylphenyl)methane	water)		mg/l				
119-47-1							
Bis(2-hydroxy-3-tert-butyl-5-	aqua		0,048 mg/l				
methylphenyl)methane 119-47-1	(intermittent releases)						
Bis(2-hydroxy-3-tert-butyl-5-	sewage		100 mg/l				
methylphenyl)methane	treatment plant		100 mg/1				
119-47-1	(STP)						
Bis(2-hydroxy-3-tert-butyl-5-	sediment				102 mg/kg		
methylphenyl)methane 119-47-1	(freshwater)						
Bis(2-hydroxy-3-tert-butyl-5-	sediment				10,2 mg/kg		
methylphenyl)methane	(marine water)				10,2 mg/kg		
119-47-1	,						
Bis(2-hydroxy-3-tert-butyl-5-	Soil				20,4 mg/kg		
methylphenyl)methane 119-47-1							
Bis(2-hydroxy-3-tert-butyl-5-	oral				10 mg/kg		
methylphenyl)methane					10 1119/119		
119-47-1							
Hydroquinone	aqua		0,00057				
123-31-9 Hydroquinone	(freshwater) aqua (marine		mg/l 0,000057				
123-31-9	water)		mg/l				
Hydroquinone	sediment		8		0,0049		
123-31-9	(freshwater)				mg/kg		
Hydroquinone 123-31-9	sediment				0,00049		
Hydroquinone	(marine water) aqua		0,00134		mg/kg		
123-31-9	(intermittent		mg/l				
	releases)		Ŭ				
Hydroquinone	Soil				0,00064		
123-31-9 Hydroquinone	sowoo:		0,71 mg/l		mg/kg		
Hydroquinone 123-31-9	sewage treatment plant		0, / 1 mg/1				
	(STP)						
maleic anhydride	aqua		0,038 mg/l				
108-31-6	(freshwater)		0.004 "				
maleic anhydride 108-31-6	aqua (marine water)		0,004 mg/l				
maleic anhydride	Soil				0,037		
108-31-6		<u> </u>			mg/kg	<u> </u>	
maleic anhydride	sediment				0,296		
108-31-6	(freshwater)	1			mg/kg		
maleic anhydride 108-31-6	sediment (marine water)				0,03 mg/kg		
maleic anhydride	sewage		44,6 mg/l				
108-31-6	treatment plant		,				
	(STP)						

maleic anhydride 108-31-6	Freshwater - intermittent	0,379 mg/l		
maleic anhydride 108-31-6	Marine water - intermittent	0,038 mg/l		

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

Name on list	Application Area	Route of Exposure	Health Effect	Exposure Time	Value	Remarks
Ethyl 2-cyanoacrylate 7085-85-0	Workers	Inhalation	Long term exposure - local effects		9,25 mg/m3	
Ethyl 2-cyanoacrylate 7085-85-0	Workers	Inhalation	Long term exposure - systemic effects		9,25 mg/m3	
Ethyl 2-cyanoacrylate 7085-85-0	General population	Inhalation	Long term exposure - local effects		9,25 mg/m3	
Ethyl 2-cyanoacrylate 7085-85-0	General population	Inhalation	Long term exposure - systemic effects		9,25 mg/m3	
phthalic anhydride 85-44-9	Workers	inhalation	Long term exposure - systemic effects		32,2 mg/m3	
phthalic anhydride 85-44-9	Workers	dermal	Long term exposure - systemic effects		10 mg/kg	
phthalic anhydride 85-44-9	General population	inhalation	Long term exposure - systemic effects		8,6 mg/m3	
phthalic anhydride 85-44-9	General population	dermal	Long term exposure - systemic effects		5 mg/kg	
phthalic anhydride 85-44-9	General population	oral	Long term exposure - systemic effects		5 mg/kg	
Bis(2-hydroxy-3-tert-butyl-5- methylphenyl)methane 119-47-1	Workers	dermal	Acute/short term exposure - systemic effects		3,175 mg/kg	
Bis(2-hydroxy-3-tert-butyl-5- methylphenyl)methane 119-47-1	Workers	inhalation	Acute/short term exposure - systemic effects		22,4 mg/m3	
Bis(2-hydroxy-3-tert-butyl-5- methylphenyl)methane 119-47-1	Workers	dermal	Long term exposure - systemic effects		0,635 mg/kg	
Bis(2-hydroxy-3-tert-butyl-5- methylphenyl)methane 119-47-1	Workers	inhalation	Long term exposure - systemic effects		4,48 mg/m3	
Bis(2-hydroxy-3-tert-butyl-5- methylphenyl)methane 119-47-1	General population	dermal	Acute/short term exposure - systemic effects		1,59 mg/kg	
Bis(2-hydroxy-3-tert-butyl-5- methylphenyl)methane 119-47-1	General population	inhalation	Acute/short term exposure - systemic effects		5,5 mg/m3	
Bis(2-hydroxy-3-tert-butyl-5- methylphenyl)methane 119-47-1	General population	oral	Acute/short term exposure - systemic effects		1,59 mg/kg	
Bis(2-hydroxy-3-tert-butyl-5- methylphenyl)methane 119-47-1	General population	dermal	Long term exposure - systemic effects		0,318 mg/kg	
Bis(2-hydroxy-3-tert-butyl-5- methylphenyl)methane 119-47-1	General population	inhalation	Long term exposure - systemic effects		1,1 mg/m3	
Bis(2-hydroxy-3-tert-butyl-5- methylphenyl)methane 119-47-1	General population	oral	Long term exposure - systemic effects		0,318 mg/kg	
Hydroquinone 123-31-9	Workers	dermal	Long term exposure - systemic effects		3,33 mg/kg	
Hydroquinone 123-31-9	Workers	inhalation	Long term exposure - systemic effects		2,1 mg/m3	
Hydroquinone 123-31-9	General population	dermal	Long term exposure - systemic effects		1,66 mg/kg	
Hydroquinone 123-31-9	General population	inhalation	Long term exposure - systemic effects		1,05 mg/m3	
Hydroquinone 123-31-9	General population	oral	Long term exposure -		0,6 mg/kg	

maleic anhydride 108-31-6	Workers	inhalation	systemic effects Acute/short term exposure - systemic effects	0,2 mg/m3	
maleic anhydride 108-31-6	Workers	inhalation	Acute/short term exposure - local effects	0,2 mg/m3	
maleic anhydride 108-31-6	Workers	inhalation	Long term exposure - systemic effects	0,081 mg/m3	
maleic anhydride 108-31-6	Workers	inhalation	Long term exposure - local effects	0,081 mg/m3	

#### **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.

Polyethylene or polypropylene gloves are recommended when using large volumes.

Do not use PVC, rubber or nylon gloves.

Please note that in practice the working life of chemical resistant gloves may be considerably reduced as a result of many influencing factors (e.g. temperature). Suitable risk assessment should be carried out by the end user. 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

Physical state liquid Delivery form gel Colour clear Odor irritating

Not applicable, Product is a liquid Melting point

< -25 °C (< -13 °F) Solidification temperature > 149 °C (> 300.2 °F) Initial boiling point Flammability The product is not flammable.

Not applicable, The product is not flammable. **Explosive limits** 

80 - 93 °C (176 - 199.4 °F); None Flash point

485 °C (905 °F) Auto-ignition temperature

Not applicable, Substance/mixture is not self-reactive, no Decomposition temperature

organic peroxide and does not decompose under foreseen

conditions of use

Polymerises in presence of water.

рΗ Not applicable, Product reacts with water.

> 20,5 mm2/s Viscosity (kinematic)

(40 °C (104 °F); )

(20 °C (68 °F); Solvent: Water)

Solubility (qualitative)

Solubility (qualitative) Soluble

(20 °C (68 °F); Solvent: Acetone)

Partition coefficient: n-octanol/water Not applicable

Mixture < 0.5 mm hg

(25 °C (77 °F)) Vapour pressure < 700 mbar;no method

(50 °C (122 °F))

Vapour pressure

Density 1,1 g/cm3 None

(20 °C (68 °F))

3 Relative vapour density:

(20 °C)

Particle characteristics Not applicable Product is a liquid

#### 9.2. Other information

Other information not applicable for this product

# **SECTION 10: Stability and reactivity**

#### 10.1. Reactivity

Rapid exothermic polymerization will occur in the presence of water, amines, alkalis and alcohols.

### 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

None if used for intended purpose.

# **SECTION 11: Toxicological information**

## General toxicological information:

Cyanoacrylates are considered to have relatively low toxicity. Acute oral LD50 is >5000mg/kg (rat). It is almost impossible to swallow as it rapidly polymerises in the mouth.

Prolonged exposure to high concentrations of vapours may lead to chronic effects in sensitive individuals In dry atmosphere with < 50% humidity, vapours may irritate the eyes and respiratory system

## 1.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

## Acute oral toxicity:

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

Hazardous substances CAS-No.	Value type	Value	Species	Method
Ethyl 2-cyanoacrylate 7085-85-0	LD50	> 5.000 mg/kg	rat	equivalent or similar to OECD Guideline 423 (Acute Oral toxicity)
phthalic anhydride 85-44-9	LD50	1.530 mg/kg	rat	not specified
Bis(2-hydroxy-3-tert- butyl-5- methylphenyl)methane 119-47-1	LD50	> 10.000 mg/kg	rat	not specified
Hydroquinone 123-31-9	LD50	367 mg/kg	rat	OECD Guideline 401 (Acute Oral Toxicity)
maleic anhydride 108-31-6	LD50	1.090 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
Ethyl 2-cyanoacrylate 7085-85-0	LD50	> 2.000 mg/kg	rabbit	equivalent or similar to OECD Guideline 402 (Acute Dermal Toxicity)
phthalic anhydride 85-44-9	LD50	> 3.160 mg/kg	rabbit	not specified
Bis(2-hydroxy-3-tert- butyl-5- methylphenyl)methane 119-47-1	LD50	> 10.000 mg/kg	rat	not specified
Hydroquinone 123-31-9	LD50	> 2.000 mg/kg	rabbit	OECD Guideline 402 (Acute Dermal Toxicity)
maleic anhydride 108-31-6	LD50	2.620 mg/kg	rabbit	not specified

# 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		
phthalic anhydride	LC50	> 2,14 mg/l	dust/mist	4 h	rat	OECD Guideline 403 (Acute
85-44-9						Inhalation Toxicity)

# Skin corrosion/irritation:

Bonds skin in seconds. Considered to be of low toxicity: acute dermal LD50 (rabbit)>2000mg/kg Due to polymerisation at the skin surface allergic reaction is unlikely to occur

Hazardous substances	Result	Exposure	Species	Method
CAS-No.		time		
Ethyl 2-cyanoacrylate	slightly	24 h	rabbit	equivalent or similar to OECD Guideline 404 (Acute
7085-85-0	irritating			Dermal Irritation / Corrosion)
phthalic anhydride	moderately	24 h	rabbit	not specified
85-44-9	irritating			
Hydroquinone	not irritating	24 h	rabbit	Weight of evidence
123-31-9				
maleic anhydride	highly		rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
108-31-6	irritating			

## Serious eye damage/irritation:

Liquid product will bond eyelids. In a dry atmosphere (RH<50%) vapours may cause irritation and lachrymatory effect

Hazardous substances CAS-No.	Result	Exposure time	Species	Method
Ethyl 2-cyanoacrylate 7085-85-0	irritating		rabbit	equivalent or similar to OECD Guideline 405 (Acute Eye Irritation / Corrosion)
phthalic anhydride 85-44-9	Category 1 (irreversible effects on the eye)		rabbit	not specified
maleic anhydride 108-31-6	corrosive		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	Result	Test type	Species	Method
Ethyl 2-cyanoacrylate	not sensitising	Skin sensitisation	guinea pig	not specified
7085-85-0				•
phthalic anhydride 85-44-9	sensitising	Guinea pig maximisation	guinea pig	equivalent or similar to OECD Guideline
phthalic anhydride	sensitising	Mouse local lymphnode	mouso	406 (Skin Sensitisation) equivalent or similar to OECD Guideline
85-44-9	sensitising	assay (LLNA)	mouse	429 (Skin Sensitisation: Local Lymph
		, ,		Node Assay)
Hydroquinone	sensitising	Guinea pig maximisation	guinea pig	equivalent or similar to OECD Guideline
123-31-9		test		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)
maleic anhydride	sensitising	Guinea pig maximisation	guinea pig	OECD Guideline 406 (Skin Sensitisation)
108-31-6		test		

# 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	Metabolic activation /	Species	Method
CIID I (0)		administration	Exposure time		
Ethyl 2-cyanoacrylate 7085-85-0	negative	bacterial reverse mutation assay (e.g	with and without		equivalent or similar to OECD Guideline 471 (Bacterial
		Ames test)			Reverse Mutation Assay)
Ethyl 2-cyanoacrylate 7085-85-0	negative	in vitro mammalian chromosome	with and without		OECD Guideline 473 (In vitro Mammalian Chromosome
7003 03 0		aberration test			Aberration Test)
Ethyl 2-cyanoacrylate 7085-85-0	negative	mammalian cell gene mutation assay	with and without		OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)
phthalic anhydride 85-44-9	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
phthalic anhydride 85-44-9	negative	in vitro mammalian chromosome aberration test	with and without		Chromosome Aberration Test
phthalic anhydride 85-44-9	negative	mammalian cell gene mutation assay	with and without		OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)
phthalic anhydride 85-44-9	negative	sister chromatid exchange assay in mammalian cells	with and without		DNA damage and repair assay, UDS in mammalian cells
Bis(2-hydroxy-3-tert- butyl-5- methylphenyl)methane 119-47-1	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
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)
maleic anhydride 108-31-6	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
phthalic anhydride 85-44-9	negative	intraperitoneal		mouse	equivalent or similar to OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test)
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)
maleic anhydride 108-31-6	negative	inhalation		rat	OECD Guideline 475 (Mammalian Bone Marrow Chromosome Aberration Test)

# Carcinogenicity

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

Hazardous components CAS-No.	Result	Route of application	Exposure time / Frequency	Species	Sex	Method
			of treatment			
phthalic anhydride 85-44-9	not carcinogenic	oral: feed	105 w daily	rat	male/female	not specified
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
Bis(2-hydroxy-3-tert- butyl-5- methylphenyl)methane 119-47-1	NOAEL P 12,5 mg/kg	screening	oral: gavage	rat	OECD Guideline 421 (Reproduction / Developmental Toxicity Screening Test)
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)
maleic anhydride 108-31-6	NOAEL P 55 mg/kg NOAEL F1 55 mg/kg	Two generation study	oral: gavage	rat	OECD Guideline 416 (Two- Generation Reproduction Toxicity Study)

# STOT-single exposure:

No data available.

# STOT-repeated exposure::

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

Hazardous substances	Result / Value	Route of	Exposure time /	Species	Method
CAS-No.		application	Frequency of		
			treatment		
phthalic anhydride	NOAEL 500 mg/kg	oral: feed	105 w	rat	not specified
85-44-9			daily		
Hydroquinone	NOAEL 50 mg/kg	oral: gavage	13 w	rat	not specified
123-31-9			5 d/w		
Hydroquinone	NOAEL 73,9 mg/kg	dermal	13 w	rat	equivalent or similar to
123-31-9			6 h/d, 5 d/w		OECD Guideline 411
					(Subchronic Dermal
					Toxicity: 90-Day Study)
maleic anhydride	NOAEL 40 mg/kg	oral: feed	90 d	rat	not specified
108-31-6			daily		

# Aspiration hazard:

No data available.

### 11.2 Information on other hazards

not applicable

# **SECTION 12: Ecological information**

## General ecological information:

Biological and Chemical Oxygen Demands (BOD and COD) are insignificant. 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				
phthalic anhydride 85-44-9	LC50	313 mg/l	48 h	Leuciscus idus	DIN 38412-15
phthalic anhydride 85-44-9	NOEC	10 mg/l	60 d	no data	OECD Guideline 210 (fish early lite stage toxicity test)
Bis(2-hydroxy-3-tert-butyl-5-methylphenyl)methane 119-47-1	LC50	Toxicity > Water solubility	96 h	Oryzias latipes	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)
maleic anhydride 108-31-6	LC50	115 mg/l			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
phthalic anhydride 85-44-9	EC50	> 640 mg/l	48 h	Daphnia magna	other guideline:
Bis(2-hydroxy-3-tert-butyl-5-methylphenyl)methane 119-47-1	EC50	Toxicity > Water solubility	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Hydroquinone 123-31-9	EC50	0,134 mg/l	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
maleic anhydride 108-31-6	EC50	42,81 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				
phthalic anhydride	NOEC	16 mg/l	21 d	Daphnia magna	OECD 211 (Daphnia
85-44-9					magna, Reproduction Test)
Bis(2-hydroxy-3-tert-butyl-5-methylphenyl)methane 119-47-1	NOEC	Toxicity > Water solubility	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	Value	Value	Exposure time	Species	Method
CAS-No.	type				
phthalic anhydride 85-44-9	EC50	> 100 mg/l	72 h	not specified	OECD Guideline 201 (Alga, Growth Inhibition Test)
phthalic anhydride 85-44-9	NOEC	100 mg/l	72 h	not specified	OECD Guideline 201 (Alga, Growth Inhibition Test)
Bis(2-hydroxy-3-tert-butyl-5-methylphenyl)methane 119-47-1	EC50	Toxicity > Water solubility	72 h	Pseudokirchneriella subcapitata (reported as Selenastrum capricornutum)	OECD Guideline 201 (Alga, Growth Inhibition Test)
Bis(2-hydroxy-3-tert-butyl-5-methylphenyl)methane 119-47-1	NOEC	Toxicity > Water solubility	72 h	Pseudokirchneriella subcapitata (reported as Selenastrum capricornutum)	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)
maleic anhydride 108-31-6	EC50	29 mg/l	72 h	Scenedesmus subspicatus (new name: Desmodesmus subspicatus)	OECD Guideline 201 (Alga, Growth Inhibition Test)
maleic anhydride 108-31-6	EC10	23 mg/l	72 h	Scenedesmus subspicatus (new name: 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
phthalic anhydride 85-44-9	EC50	> 1.000 mg/l	3 h	activated sludge	ISO 8192 (Test for Inhibition of Oxygen Consumption by Activated Sludge)
Bis(2-hydroxy-3-tert-butyl-5-methylphenyl)methane 119-47-1	EC50	Toxicity > Water solubility	3 h	activated sludge	OECD Guideline 209 (Activated Sludge, Respiration Inhibition Test)
Hydroquinone 123-31-9	EC 50	0,038 mg/l	30 min		not specified
maleic anhydride 108-31-6	EC0	> 10.000 mg/l	30 min		not specified

# 12.2. Persistence and degradability

No data available for the product.

Hazardous substances	Result	Test type	Degradability	Exposure	Method
CAS-No.				time	
Ethyl 2-cyanoacrylate 7085-85-0	not readily biodegradable.	aerobic	57 %	28 d	OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)
phthalic anhydride 85-44-9	readily biodegradable	aerobic	85,2 %	14 d	OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I))
Bis(2-hydroxy-3-tert-butyl-5-methylphenyl)methane 119-47-1	under test conditions no biodegradation observed	aerobic	0 %	28 d	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)
maleic anhydride 108-31-6	readily biodegradable	aerobic	98 %	7 d	OECD Guideline 301 E (Ready biodegradability: Modified OECD Screening Test)

# 12.3. Bioaccumulative potential

Hazardous substances CAS-No.	Bioconcentratio n factor (BCF)	Exposure time	Temperature	Species	Method
Bis(2-hydroxy-3-tert-butyl-5-	320 - 780	60 d		Cyprinus carpio	OECD Guideline 305 E
methylphenyl)methane					(Bioaccumulation: Flow-through
119-47-1					Fish Test)

### 12.4. Mobility in soil

Cured adhesives are immobile.

Hazardous substances CAS-No.	LogPow	Temperature	Method
Ethyl 2-cyanoacrylate 7085-85-0	0,776	22 °C	EU Method A.8 (Partition Coefficient)
phthalic anhydride 85-44-9	1,6		EU Method A.8 (Partition Coefficient)
Bis(2-hydroxy-3-tert-butyl-5-methylphenyl)methane 119-47-1	6,25	20 °C	OECD Guideline 107 (Partition Coefficient (n-octanol / water), Shake Flask Method)
Hydroquinone 123-31-9	0,59		EU Method A.8 (Partition Coefficient)
maleic anhydride 108-31-6	1,62		not specified

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

Hazardous substances	PBT / vPvB	
CAS-No.		
Ethyl 2-cyanoacrylate	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very	
7085-85-0	Bioaccumulative (vPvB) criteria.	
phthalic anhydride	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very	
85-44-9	Bioaccumulative (vPvB) criteria.	
Bis(2-hydroxy-3-tert-butyl-5-	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very	
methylphenyl)methane	Bioaccumulative (vPvB) criteria.	
119-47-1		
Hydroquinone	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very	
123-31-9	Bioaccumulative (vPvB) criteria.	
maleic anhydride	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very	
108-31-6	Bioaccumulative (vPvB) criteria.	

### 12.6. Endocrine disrupting properties

not applicable

## 12.7. Other adverse effects

No data available.

# **SECTION 13: Disposal considerations**

## 13.1. Waste treatment methods

Product disposal:

Cured adhesive: Dispose of as water insoluble non-toxic solid chemical in authorised landfill or incinerate under controlled conditions.

Dispose of in accordance with local and national regulations.

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

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.

Disposal must be made according to official regulations.

### Waste code

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

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

# **SECTION 14: Transport information**

#### 14.1. UN number or ID number

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

IATA 3334

## 14.2. UN proper shipping name

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

IATA Aviation regulated liquid, n.o.s. (Cyanoacrylate ester)

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

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

IATA 9

## 14.4. Packing group

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

IATA III

### 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 Primary packs containing less than 500ml are unregulated by this mode of transport

and may be shipped unrestricted.

## 14.7. Maritime transport in bulk according to IMO instruments

not applicable

# **SECTION 15: Regulatory information**

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

Ozone Depleting Substance (ODS) (Regulation (EC) No 1005/2009): Prior Informed Consent (PIC) (Regulation (EU) No 649/2012): Persistent organic pollutants (Regulation (EU) 2019/1021):

Not applicable Not applicable Not applicable

Persistent organic pollutants (Regulation (
VOC content

OC content (2010/75/EC)

#### 15.2. Chemical safety assessment

A chemical safety assessment has 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:

H302 Harmful if swallowed.

H314 Causes severe skin burns and eye damage.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H318 Causes serious eve damage.

H319 Causes serious eye irritation.

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

H335 May cause respiratory irritation.

H341 Suspected of causing genetic defects.

H351 Suspected of causing cancer.

H360F May damage fertility.

H372 Causes damage to organs through prolonged or repeated exposure.

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

ED: Substance identified as having endocrine disrupting properties

EU OEL:

Substance with a Union workplace exposure limit

EU EXPLD 1:

Substance listed in Annex I, Reg (EC) No. 2019/1148

EU EXPLD 2

Substance listed in Annex II, Reg (EC) No. 2019/1148

SVHC:

Substance of very high concern (REACH Candidate List)

PBT:

Substance fulfilling persistent, bioaccumulative and toxic criteria

PBT/vPvB: Substance fulfilling persistent, bioaccumulative and toxic plus very persistent and very

bioaccumulative criteria

vPvB: Substance fulfilling very persistent and very bioaccumulative criteria

### **Further information:**

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### **Annex - Exposure Scenarios:**

Exposure Scenarios for ethyl 2-cyanoacrylate can be downloaded under the following link: https://mysds.henkel.com/index.html#/appSelection