

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

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SDS No.: 572854

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LOCTITE HY 4070 CR11G EN/DE

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

## 1.1. Product identifier

LOCTITE HY 4070 CR11G EN/DE

#### **Contains:**

Ethyl 2-cyanoacrylate

## 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

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## 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:



Signal word: Warning

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

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

Supplemental information EUH202 Cyanoacrylate. Danger. Bonds skin and eyes in seconds. Keep out of the reach of

children.

Contains Methyl acrylate. May produce an allergic reaction.

**Precautionary statement:** P2

Prevention

P261 Avoid breathing vapours. P280 Wear protective gloves/eye 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.

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

**Precautionary statement:** 

Disposal

P501 Dispose of waste and residues in accordance with local authority requirements.

#### 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:

Cyanoacrylate Adhesive

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

Hazardous components CAS-No.	EC Number REACH-Reg No.	content	Classification
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
Bis(2-hydroxy-3-tert-butyl-5- methylphenyl)methane 119-47-1	204-327-1 01-2119496065-33	0,1-< 1 %	Repr. 2 H361
Methyl acrylate 96-33-3	202-500-6 01-2119459302-44	0,1-< 1 %	Acute Tox. 4; Oral H302 Acute Tox. 4; Dermal H312 Flam. Liq. 2 H225 STOT SE 3 H335 Eye Irrit. 2 H319 Skin Irrit. 2 H315 Skin Sens. 1 H317 Acute Tox. 3; Inhalation H331 Aquatic Chronic 3 H412
Hydroquinone 123-31-9	204-617-8 01-2119524016-51	0,01-< 0,1 %	Aquatic Acute 1

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:

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.

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.

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.

Eye contact:

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

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

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

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) and carbon dioxide (CO2) can be released.

#### 5.3. Advice for firefighters

Fire fighters should wear positive pressure self-contained breathing apparatus (SCBA).

#### 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 let product enter drains.

#### 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.

#### 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
Use of dispensing equipment is recommended to minimise the risk of skin or eye contact
See advice in section 8
Avoid skin and eye contact.

## Hygiene measures:

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

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

Ensure good ventilation/extraction. Store in a cool, dry place. 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):		EH40 WEL
Methyl acrylate 96-33-3 [METHYL ACRYLATE]	5	18	Time Weighted Average (TWA):		EH40 WEL
Methyl acrylate 96-33-3 [METHYL ACRYLATE]	10	36	Short Term Exposure Limit (STEL):		EH40 WEL
Methyl acrylate 96-33-3 [METHYLACRYLATE]	5	18	Time Weighted Average (TWA):	Indicative	ECTLV
Methyl acrylate 96-33-3 [METHYLACRYLATE]	10	36	Short Term Exposure Limit (STEL):	Indicative	ECTLV
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
Ethyl 2-cyanoacrylate 7085-85-0 [ETHYL CYANOACRYLATE]	0,2		Time Weighted Average (TWA):		IR_OEL
Methyl acrylate 96-33-3 [METHYLACRYLATE]	5	18	Time Weighted Average (TWA):	Indicative	ECTLV
Methyl acrylate 96-33-3 [METHYLACRYLATE]	10	36	Short Term Exposure Limit (STEL):	Indicative	ECTLV
Methyl acrylate 96-33-3 [METHYL ACRYLATE]	5	18	Time Weighted Average (TWA):	Indicative OELV	IR_OEL
Methyl acrylate 96-33-3 [METHYL ACRYLATE]	10	36	Short Term Exposure Limit (STEL):	Indicative OELV	IR_OEL
Methyl acrylate 96-33-3 [METHYL ACRYLATE]			Skin designation:	Can be absorbed through the skin.	IR_OEL
Hydroquinone 123-31-9 [HYDROQUINONE]		0,5	Time Weighted Average (TWA):		IR_OEL

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

Name on list	Environmental Compartment	Exposure period	Value				Remarks
	•	•	mg/l	ppm	mg/kg	others	
6,6'-di-tert-Butyl-2,2'-methylenedi-p-cresol	aqua		0,0068		0		
119-47-1	(freshwater)		mg/l				
6,6'-di-tert-Butyl-2,2'-methylenedi-p-cresol	aqua (marine		0,00068				
119-47-1	water)		mg/l				
6,6'-di-tert-Butyl-2,2'-methylenedi-p-cresol	aqua		0,048 mg/l				
119-47-1	(intermittent						
	releases)						
6,6'-di-tert-Butyl-2,2'-methylenedi-p-cresol	sewage		100 mg/l				
119-47-1	treatment plant						
C C   1	(STP)				100 //		
6,6'-di-tert-Butyl-2,2'-methylenedi-p-cresol 119-47-1	(freshwater)				102 mg/kg		
6,6'-di-tert-Butyl-2,2'-methylenedi-p-cresol	sediment				10,2 mg/kg		
6,6 -di-tert-Butyi-2,2 -metnyienedi-p-cresoi	(marine water)				10,2 mg/kg		
6,6'-di-tert-Butyl-2,2'-methylenedi-p-cresol	soil				20.4 /1		
6,6 -di-tert-Butyl-2,2 -methylenedi-p-cresol	SOII				20,4 mg/kg		
6,6'-di-tert-Butyl-2,2'-methylenedi-p-cresol	oral				10 mg/kg		
119-47-1	orar				10 mg/kg		
Methyl acrylate	aqua		0,00272				
96-33-3	(freshwater)		mg/l				
Methyl acrylate	agua (marine		0,00027				
96-33-3	water)		mg/l				
Methyl acrylate	aqua		0,011 mg/l				
96-33-3	(intermittent		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,				
	releases)						
Methyl acrylate	sewage		10 mg/l				
96-33-3	treatment plant						
	(STP)						
Methyl acrylate	sediment				0,0115		
96-33-3	(freshwater)				mg/kg		
Methyl acrylate	sediment				0,0115		
96-33-3	(marine water)				mg/kg		
Methyl acrylate	soil				1 mg/kg		
96-33-3	1				0.0011		
Methyl acrylate 96-33-3	oral				0,0011		
Hydroquinone	0.000		0,114 μg/l		mg/kg		
123-31-9	aqua (freshwater)		0,114 μg/1				
Hydroquinone	aqua (marine		0,0114 μg/l				
123-31-9	water)		0,0114 μg/1				
Hydroquinone	sediment		+		0,98 μg/kg		
123-31-9	(freshwater)				ο, σ μ <sub>Ε</sub> / κg		
Hydroquinone	sediment				0,097		
123-31-9	(marine water)				μg/kg		
Hydroquinone	aqua		0,00134		1.5.5		
123-31-9	(intermittent		mg/l				
	releases)						
Hydroquinone	soil				0,129		
123-31-9	<u> </u>				μg/kg		
Hydroquinone	sewage		0,71 mg/l				
123-31-9	treatment plant						
	(STP)						

## **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	
6,6'-di-tert-Butyl-2,2'-methylenedi-p-cresol 119-47-1	Workers	dermal	Acute/short term exposure - systemic effects		3,175 mg/kg	
6,6'-di-tert-Butyl-2,2'-methylenedi-p-cresol 119-47-1	Workers	Inhalation	Acute/short term exposure - systemic effects		22,4 mg/m3	
6,6'-di-tert-Butyl-2,2'-methylenedi-p-cresol 119-47-1	Workers	dermal	Long term exposure - systemic effects		0,635 mg/kg	
6,6'-di-tert-Butyl-2,2'-methylenedi-p-cresol 119-47-1	Workers	Inhalation	Long term exposure - systemic effects		4,48 mg/m3	
6,6'-di-tert-Butyl-2,2'-methylenedi-p-cresol 119-47-1	General population	dermal	Acute/short term exposure - systemic effects		1,59 mg/kg	
6,6'-di-tert-Butyl-2,2'-methylenedi-p-cresol 119-47-1	General population	Inhalation	Acute/short term exposure - systemic effects		5,5 mg/m3	
6,6'-di-tert-Butyl-2,2'-methylenedi-p-cresol 119-47-1	General population	oral	Acute/short term exposure - systemic effects		1,59 mg/kg	
6,6'-di-tert-Butyl-2,2'-methylenedi-p-cresol 119-47-1	General population	dermal	Long term exposure - systemic effects		0,318 mg/kg	
6,6'-di-tert-Butyl-2,2'-methylenedi-p-cresol 119-47-1	General population	Inhalation	Long term exposure - systemic effects		1,1 mg/m3	
6,6'-di-tert-Butyl-2,2'-methylenedi-p-cresol 119-47-1	General population	oral	Long term exposure - systemic effects		0,318 mg/kg	
Methyl acrylate 96-33-3	Workers	inhalation	Long term exposure - local effects		18 mg/m3	
Methyl acrylate 96-33-3	Workers	dermal	Acute/short term exposure - local effects		0,49 mg/cm2	
Methyl acrylate 96-33-3	General population	inhalation	Acute/short term exposure - local effects		2,1 mg/m3	
Hydroquinone 123-31-9	Workers	dermal	Long term exposure - systemic effects		128 mg/kg	
Hydroquinone 123-31-9	Workers	Inhalation	Long term exposure - systemic effects		7 mg/m3	
Hydroquinone 123-31-9	Workers	Inhalation	Long term exposure - local effects		1 mg/m3	
Hydroquinone 123-31-9	General population	dermal	Long term exposure - systemic effects		64 mg/kg	
Hydroquinone 123-31-9	General population	Inhalation	Long term exposure - systemic effects		1,74 mg/m3	
Hydroquinone 123-31-9	General population	Inhalation	Long term exposure - local effects		0,5 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:

The use of chemical resistant gloves such as Nitrile is recommended.

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:

Wear protective glasses.

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 gel

Clear, colourless

Odor irritating

Odour threshold No data available / Not applicable

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

Initial boiling point 149 °C (300.2 °F)

Flash point 80 - 93 °C (176 - 199.4 °F)

Evaporation rate No data available / Not applicable No data available / Not applicable Flammability Explosive limits No data available / Not applicable No data available / Not applicable Vapour pressure Relative vapour density: No data available / Not applicable No data available / Not applicable Density No data available / Not applicable Bulk density No data available / Not applicable Solubility Solubility (qualitative) No data available / Not applicable Partition coefficient: n-octanol/water No data available / Not applicable

Auto-ignition temperature

No data available / Not applicable
Decomposition temperature

No data available / Not applicable
Viscosity

No data available / Not applicable

Viscosity (kinematic) Explosive properties Oxidising properties No data available / Not applicable 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

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

carbon oxides.

## **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

#### 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	Value	Value	Species	Method
CAS-No.	type			
Ethyl 2-cyanoacrylate 7085-85-0	LD50	> 5.000 mg/kg	rat	OECD Guideline 401 (Acute Oral Toxicity)
Bis(2-hydroxy-3-tert- butyl-5- methylphenyl)methane 119-47-1	LD50	> 10.000 mg/kg	rat	not specified
Methyl acrylate 96-33-3	LD50	768 mg/kg	rat	OECD Guideline 401 (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			
Ethyl 2-cyanoacrylate 7085-85-0	LD50	> 2.000 mg/kg	rabbit	OECD Guideline 402 (Acute Dermal Toxicity)
Bis(2-hydroxy-3-tert- butyl-5- methylphenyl)methane 119-47-1	LD50	> 10.000 mg/kg	rat	not specified
Methyl acrylate 96-33-3	LD50	1.250 mg/kg	rabbit	Draize Test

#### Acute inhalative toxicity:

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

Hazardous substances CAS-No.	Value type	Value	Test atmosphere	Exposure time	Species	Method
Methyl acrylate 96-33-3	LC50	6,5 mg/l	vapour	4 h	rat	OECD Guideline 403 (Acute 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 7085-85-0	slightly irritating	24 h	rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
Methyl acrylate 96-33-3	irritating	4 h	rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)

## 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	72 h	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
CAS-No.				
Ethyl 2-cyanoacrylate	not sensitising		guinea pig	not specified
7085-85-0				
Methyl acrylate	sensitising	Mouse local lymphnode	mouse	OECD Guideline 429 (Skin Sensitisation:
96-33-3		assay (LLNA)		Local Lymph Node Assay)
Hydroquinone	sensitising	Guinea pig maximisation	guinea pig	not specified
123-31-9		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 administration	Metabolic activation / Exposure time	Species	Method
Ethyl 2-cyanoacrylate 7085-85-0	negative	bacterial reverse mutation assay (e.g Ames test)	Exposure time		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
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)
Ethyl 2-cyanoacrylate 7085-85-0	negative	in vitro mammalian chromosome aberration test	with and without		OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test)
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		EU Method B.13/14 (Mutagenicity)
Methyl acrylate 96-33-3	negative	inhalation: vapour		mouse	not specified

## 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 of treatment	Species	Sex	Method
Methyl acrylate 96-33-3	not carcinogenic	inhalation: vapour	24 m 6 h/d, 5 d/w	rat	male/female	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-	NOAEL P 12,5 mg/kg	screening	oral: gavage	rat	OECD Guideline 421
butyl-5-					(Reproduction /
methylphenyl)methane					Developmental Toxicity
119-47-1					Screening Test)

## STOT-single exposure:

No data available.

## STOT-repeated exposure::

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

Hazardous substances	Result / Value	Route of	Exposure time /	Species	Method
CAS-No.		application	Frequency of		
			treatment		
Methyl acrylate	NOAEL 23 ppm	inhalation	13 weeks	rat	BASF Test
96-33-3			6 hrs/day, 5 days/wk		
Methyl acrylate	NOAEL 5 mg/kg	oral:	13 w	rat	OECD Guideline 408
96-33-3		drinking	continuous		(Repeated Dose 90-Day
		water			Oral Toxicity in Rodents)
Hydroquinone	NOAEL >= 250  mg/kg	oral: gavage	14 days	rat	OECD Guideline 407
123-31-9			5 days/week. 12		(Repeated Dose 28-Day
			doses		Oral Toxicity in Rodents)

## **Aspiration hazard:**

No data available.

## **SECTION 12: Ecological information**

## General ecological information:

Do not empty into drains / surface water / ground water. Biological and Chemical Oxygen Demands (BOD and COD) are insignificant.

## 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				
Bis(2-hydroxy-3-tert-butyl-5-methylphenyl)methane 119-47-1	LC50			Oryzias latipes	OECD Guideline 203 (Fish, Acute Toxicity Test)
Methyl acrylate 96-33-3	LC50	3,4 mg/l	96 h	Oncorhynchus mykiss	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.	type				
Bis(2-hydroxy-3-tert-butyl-5-	EC50		48 h	Daphnia magna	OECD Guideline 202
methylphenyl)methane					(Daphnia sp. Acute
119-47-1					Immobilisation Test)
Methyl acrylate	EC50	2,6 mg/l	48 h	Daphnia magna	OECD Guideline 202
96-33-3					(Daphnia sp. Acute
					Immobilisation Test)
Hydroquinone	EC50	0,134 mg/l	48 h	Daphnia magna	OECD Guideline 202
123-31-9					(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 CAS-No.	Value type	Value	Exposure time	Species	Method
Bis(2-hydroxy-3-tert-butyl-5-methylphenyl)methane 119-47-1	NOEC			Daphnia magna	OECD 211 (Daphnia magna, Reproduction Test)
Methyl acrylate 96-33-3	NOEC	0,19 mg/l	21 d	Daphnia magna	EPA OTS 797.1330 (Daphnid Chronic Toxicity 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				
Bis(2-hydroxy-3-tert-butyl-5-methylphenyl)methane 119-47-1	EC50		72 h		OECD Guideline 201 (Alga, Growth Inhibition Test)
Bis(2-hydroxy-3-tert-butyl-5-methylphenyl)methane 119-47-1	NOEC		72 h	Pseudokirchneriella subcapitata (reported as Selenastrum capricornutum)	OECD Guideline 201 (Alga, Growth Inhibition Test)
Methyl acrylate 96-33-3	EC50	3,55 mg/l	72 h	Selenastrum capricornutum (new name: Pseudokirchneriella subcapitata)	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				
Bis(2-hydroxy-3-tert-butyl-5-	EC 50	> 10.000 mg/l	3 h		OECD Guideline 209
methylphenyl)methane					(Activated Sludge,
119-47-1					Respiration Inhibition Test)
Methyl acrylate	EC10	> 100 mg/l	72 h		not specified
96-33-3					
Hydroquinone	EC 50	0,038 mg/l	30 min		not specified
123-31-9					

## 12.2. Persistence and degradability

The product is not biodegradable.

Hazardous substances CAS-No.	Result	Test type	Degradability	Exposure time	Method
Ethyl 2-cyanoacrylate 7085-85-0		aerobic	57 %	28 d	OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)
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))
Methyl acrylate 96-33-3	readily biodegradable	aerobic	90 - 100 %	28 d	OECD Guideline 310 (Ready BiodegradabilityCO2 in Sealed Vessels (Headspace Test)
Hydroquinone 123-31-9	readily biodegradable	aerobic	75 - 81 %	30 d	EU Method C.4-E (Determination of the "Ready" BiodegradabilityClosed Bottle Test)

## 12.3. Bioaccumulative potential

No data available for the product.

Hazardous substances	Bioconcentratio	Exposure time	Temperature	Species	Method
CAS-No.	n factor (BCF)				
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)
Methyl acrylate	3,16				not specified
96-33-3					

## 12.4. Mobility in soil

Cured adhesives are immobile.

Hazardous substances	LogPow	Temperature	Method
CAS-No.			
Ethyl 2-cyanoacrylate 7085-85-0	0,776	22 °C	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)
Methyl acrylate 96-33-3	0,739	25 °C	OECD Guideline 107 (Partition Coefficient (n-octanol / water), Shake Flask Method)
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.	
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	
Methyl acrylate	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very
96-33-3	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:

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.

#### 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

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 Not more than 500 ml (each inner package) - Unrestricted

## 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)

< 3 %

#### 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.
- H312 Harmful in contact with skin.
- H315 Causes skin irritation.
- H317 May cause an allergic skin reaction.
- H318 Causes serious eye damage.
- H319 Causes serious eye irritation.
- H331 Toxic if inhaled.
- H335 May cause respiratory irritation.
- H341 Suspected of causing genetic defects.
- H351 Suspected of causing cancer.
- H361 Suspected of damaging fertility or the unborn child.
- H400 Very toxic to aquatic life.
- H410 Very toxic to aquatic life with long lasting effects.
- H412 Harmful to aquatic life with long lasting effects.

#### **Further information:**

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

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.

## **Annex - Exposure Scenarios:**

Exposure Scenarios for ethyl 2-cyanoacrylate can be downloaded under the following link:

http://mymsds.henkel.com/mymsds/.470833..en.ANNEX\_DE.15743123.0.DE.pdf

Alternatively they can be accessed on the internet site www.mymsds.henkel.com by entering number 470833.



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

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SDS No.: 562801 V001.1

Revision: 06.03.2018

printing date: 21.08.2018

Replaces version from: 10.04.2017

LOCTITE HY 4070 CR11G EN/DE

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

#### 1.1. Product identifier

LOCTITE HY 4070 CR11G EN/DE

#### Contains:

Hexanediol dimethacrylate

#### 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 Balti OÜ

Sõbra 56B

51013 Tartu

Estonia

Phone: +372 (7) 305 800 Fax-no.: +372 (7) 305 808

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 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:



Signal word: Warning

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

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

**Supplemental information** Contains 3,4,5,6-tetrahydrophthalic anhydride. May produce an allergic reaction.

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 waste and

residues in accordance with local authority requirements\*\*\*

**Precautionary statement:** 

Prevention

P261 Avoid breathing vapours.

**Precautionary statement:** P302+P352 IF ON SKIN: Wash with plenty of soap and water. **Response** P337+P313 If eye irritation persists: Get medical advice/attention.

#### 2.3. Other hazards

None if used properly.

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

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

#### 3.2. Mixtures

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

Hazardous components CAS-No.	EC Number REACH-Reg No.	content	Classification
Hexanediol dimethacrylate	229-551-7	50- 100 %	STOT SE 3
6606-59-3			H335
			Skin Irrit. 2
			H315
			Eye Irrit. 2
			H319
3,4,5,6-tetrahydrophthalic anhydride 2426-02-0	219-374-3	0,1-< 1 %	Eye Dam. 1
			H318
			Resp. Sens. 1
			H334
			Aquatic Chronic 3
			H412
			Skin Sens. 1
			H317

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

## **SECTION 4: First aid measures**

#### 4.1. Description of first aid measures

Inhalation:

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

Skin contact:

Rinse with running water and soap.

Seek medical advice.

Eye contact:

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

Ingestion:

Rinse out mouth, drink 1-2 glasses of water, do not induce vomiting.

Seek medical advice.

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

SKIN: Redness, inflammation.

EYE: Irritation, conjunctivitis.

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

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

See section: Description of first aid measures

## **SECTION 5: Firefighting measures**

#### 5.1. Extinguishing media

## Suitable extinguishing media:

Carbon dioxide, foam, powder

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

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

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.

#### 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:

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

None

#### **Occupational Exposure Limits**

Valid for

Ireland

None

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

None

#### 8.2. Exposure controls:

Engineering controls:

Ensure good ventilation/extraction.

Respiratory protection:

Use only in well-ventilated areas.

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

liquid colourless to yellowish

Odor characteristic

Odour threshold No data available / Not applicable

pН No data available / Not applicable No data available / Not applicable Melting point Solidification temperature No data available / Not applicable Initial boiling point No data available / Not applicable 110 °C (230 °F); no method Flash point Evaporation rate No data available / Not applicable Flammability No data available / Not applicable Explosive limits No data available / Not applicable Vapour pressure No data available / Not applicable Relative vapour density: No data available / Not applicable Density No data available / Not applicable No data available / Not applicable Bulk density Solubility No data available / Not applicable Solubility (qualitative) No data available / Not applicable Partition coefficient: n-octanol/water No data available / Not applicable Auto-ignition temperature No data available / Not applicable No data available / Not applicable Decomposition temperature No data available / Not applicable Viscosity Viscosity (kinematic) No data available / Not applicable Explosive properties No data available / Not applicable Oxidising properties No data available / Not applicable

#### 9.2. Other information

No data available / Not applicable

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

## 10.1. Reactivity

Reaction with strong acids. Reacts 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.

No data available.

## **SECTION 11: Toxicological information**

11.1. Information on toxicological effects
Acute oral toxicity:
No data available.
A man al montal de de Man
Acute dermal toxicity:
No data available.
Acute inhalative toxicity:
No data available.
Skin corrosion/irritation:
No data available.
Serious eye damage/irritation:
No data available.
Respiratory or skin sensitization:
No data available.
Germ cell mutagenicity:
No data available.
Carcinogenicity
No data available.
Reproductive toxicity:
No data available.
STOT-single exposure:
No data available.
STOT-repeated exposure::

#### **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):**

No data available.

## Toxicity (Daphnia):

No data available.

## Chronic toxicity to aquatic invertebrates

No data available.

## Toxicity (Algae):

No data available.

## Toxicity to microorganisms

No data available.

## 12.2. Persistence and degradability

The product is not biodegradable.

No substance data available.

## 12.3. Bioaccumulative potential

No data available.

No substance data available.

## 12.4. Mobility in soil

Cured adhesives are immobile.

No substance data available.

## 12.5. Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or vPvB.

#### 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.

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

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

Not hazardous according to RID, ADR, ADN, IMDG, IATA-DGR.

#### 14.2. UN proper shipping name

Not hazardous according to RID, ADR, ADN, IMDG, IATA-DGR.

## 14.3. Transport hazard class(es)

Not hazardous according to RID, ADR, ADN, IMDG, IATA-DGR.

## 14.4. Packing group

Not hazardous according to RID, ADR, ADN, IMDG, IATA-DGR.

#### 14.5. Environmental hazards

Not hazardous according to RID, ADR, ADN, IMDG, IATA-DGR.

## 14.6. Special precautions for user

Not hazardous according to RID, ADR, ADN, IMDG, IATA-DGR.

## 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)

< 3,00 %

#### 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:

- H315 Causes skin irritation.
- H317 May cause an allergic skin reaction.
- H318 Causes serious eye damage.
- H319 Causes serious eye irritation.
- H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
- H335 May cause respiratory irritation.
- H412 Harmful to aquatic life with long lasting effects.

#### **Further information:**

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

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.