

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

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SDS No.: 572854

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

1.1. Product identifier

LOCTITE HY 4070 CR11G

LOCTITE HY 4070 CR11G

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

HP24RQ Hemel Hempstead

Great Britain

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

ua-productsafety.uk@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-cy anoacry late

Signal word: Warning

Hazard statement: H315 Causes skin irritation.

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

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

Disposal

Response

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:

Cyanoacry late Adhesive

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

Hazardous components	EC Number	content	Classification
CAS-No.	REACH-Reg No.		
Ethyl 2-cyanoacrylate	230-391-5	50- 100 %	Eye Irrit. 2
7085-85-0	01-2119527766-29		H319
			STOT SE 3
			H335
			Skin Irrit. 2
			H315
Bis(2-hydroxy-3-tert-butyl-5-	204-327-1	0,1-< 1 %	Repr. 2
methylphenyl)methane	01-2119496065-33		H361
119-47-1			
Hydroquinone	204-617-8	0,01-< 0,1 %	Aquatic Acute 1
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 \mathbf{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:

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 cyanoacry late 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.

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.

Wear protective equipment.

Ensure adequate ventilation.

6.2. Environmental precautions

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

6.3. Methods and material for containment and cleaning up

Dispose of contaminated material as waste according to Section 13.

Do not use cloths for moppingup. 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

Avoid skin and eye contact.

See advice in section 8

Ventilation (low level) is recommended when using large volumes

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

Hy giene 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 enduse(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 ³	V I	Shortterm exposure limit category/Remarks	Regulatorylist
Ethyl 2-cyanoacrylate 7085-85-0 [ETHYL CYANOACRYLATE]	0,3	1,5	Short Term Exposure Limit (STEL):	15 minutes	EH40 WEL
Hydroquinone 123-31-9 [HYDROQUINONE]		0,5	Time Weighted Average (TWA):		EH40 WEL

Occupational Exposure Limits

Valid for

Ireland

In gre dient [Regulated substance]	ppm	mg/m ³	Value type	Shortterm exposure limit category/Remarks	Regulatorylist
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
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	En vironmental Compartment	Exposure period	Value				Remarks
			mg/l	ppm	mg/kg	others	
6,6'-di-tert-Butyl-2,2'-methylenedi-p-cresol	aqua		0,0068				
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						
	(STP)						
6,6'-di-tert-Butyl-2,2'-methylenedi-p-cresol	sediment				102 mg/kg		
119-47-1	(freshwater)						
6,6'-di-tert-Butyl-2,2'-methylenedi-p-cresol	sediment				10,2 mg/kg		
119-47-1	(marine water)						
6,6'-di-tert-Butyl-2,2'-methylenedi-p-cresol	Soil				20,4 mg/kg		
119-47-1							
6,6'-di-tert-Butyl-2,2'-methylenedi-p-cresol	oral				10 mg/kg		
119-47-1							
Hydroquinone	aqua		0,00057				
123-31-9	(freshwater)		mg/l				
Hydroquinone	aqua (marine		0,000057				
123-31-9	water)		mg/l				
Hydroquinone	sediment				0,0049		
123-31-9	(freshwater)				mg/kg		
Hydroquinone	sediment				0,00049		
123-31-9	(marine water)				mg/kg		
Hydroquinone	aqua		0,00134				
123-31-9	(intermittent		mg/l				
	releases)		1				
Hydroquinone	Soil				0,00064		
123-31-9					mg/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	
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 - systemic effects		0,6 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.

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

Appearance gel

gel

Clear, colourless

Odor irritating

Odour threshold No data available / Not applicable

pH Not available.

pH Mixture reacts with water.

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
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
Bulk density
No data available / Not applicable
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
Decomposition temperature
No data available / Not applicable

Viscosity No data available / Not applicable

Viscosity (kinematic)

Explosive 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

None if used for intended purpose.

SECTION 11: Toxicological information

General toxicological information:

Cyanoacry lates 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- but y1-5- met hylphenyl)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)

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	OECD Guideline 402 (Acute Dermal Toxicity)
Bis(2-hydroxy-3-tert- buty1-5- 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)

Acute inhalative toxicity:

No data available.

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 CAS-No.	Result	Exposure time	Species	Method
Ethyl 2-cyanoacrylate 7085-85-0	slightly irritating	24 h	rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
Hydroquinone 123-31-9	not irritating	24 h	rabbit	Weight of evidence

Serious eye damage/irritation:

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

Hazardous substances	Result	Exposure	Species	Method
CAS-No.		time		
Ethyl 2-cyanoacrylate	irritating	72 h	rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)
7085-85-0				

Respiratory or skin sensitization:

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

Hazardous substances CAS-No.	Result	Test type	Species	Method
Ethyl 2-cyanoacrylate 7085-85-0	not sensitising		guinea pig	not specified
Hydroquinone 123-31-9	sensitising	Guinea pig maximisation test	guinea pig	equivalent or similar to OECD Guideline 406 (Skin Sensitisation)
Hydroquinone 123-31-9	sensitising	Mouse local lymphnode assay (LLNA)	mouse	equivalent or similar to OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay)

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	negative	bacterial reverse			OECD Guideline 471
7085-85-0		mutation assay (e.g Ames test)			(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- buty1-5- 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)
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

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
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	Result / Value	Test type	Route of	Species	Method
CAS-No.			application		
Bis(2-hydroxy-3-tert-	NOAEL P 12,5 mg/kg	screening	oral: gavage	rat	OECD Guideline 421
but y1-5-					(Reproduction /
methylphenyl)methane					Developmental Toxicity
119-47-1					Screening Test)
Hydroquinone	NOAEL P 15 mg/kg	Two	oral: gavage	rat	EPA OTS 798.4700
123-31-9		generation			(Reproduction and Fertility
	NOAEL F1 150 mg/kg	study			Effects)
	NOAEL F2 150 mg/kg				

$STOT\text{-}single\ exposure:$

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	Species	Method
			treatment		
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)

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 CAS-No.	Value	Value	Exposure time	Species	Method
Bis(2-hydroxy-3-tert-butyl-5-methylphenyl)methane 119-47-1	LC50	Toxicity>Water solubility		1	OECD Guideline 203 (Fish, Acute Toxicity Test)
Hydroquinone 123-31-9	LC50	0,638 mg/l	96 h	,	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
Bis(2-hydroxy-3-tert-butyl-5-methylphenyl)methane 119-47-1		Γoxicity > 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)

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				
Bis(2-hydroxy-3-tert-butyl-5-methylphenyl)methane		Γoxicity > Water solubilit v			OECD 211 (Daphnia magna, Reproduction Test)
119-47-1		, , , , , , , , , , , , , , , , , , , ,			g, <u>-</u> ,
Hydroquinone	NOEC	0,0057 mg/l	21 d	Daphnia magna	OECD 211 (Daphnia
123-31-9					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-	EC50	Toxicity>Water	72 h	Pseudokirchneriella subcapitata	
methylphenyl)methane		solubility		(reported as Selenastrum	Growth Inhibition Test)
119-47-1				capricornutum)	
Bis(2-hydroxy-3-tert-butyl-5-	NOEC	Toxicity>Water	72 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga,
methylphenyl)methane		solubility		(reported as Selenastrum	Growth Inhibition Test)
119-47-1				capricornutum)	
Hydroquinone	EC50	0,335 mg/l	72 h	Selenastrum capricomutum	OECD Guideline 201 (Alga,
123-31-9				(new name: Pseudokirchneriella	Growth Inhibition Test)
				subcapitata)	·

Toxicity to microorganisms

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

Haz ardous 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)
Hydroquinone	EC 50	0,038 mg/l	30 min		not specified
123-31-9		-			_

12.2. Persistence and degradability

Hazardous substances	Result	Test type	Degradability	Exposure	Method
CAS-No.				time	
Ethyl 2-cyanoacrylate	not readily biodegradable.	aerobic	57 %	28 d	OECD Guideline 301 D (Ready
7085-85-0					Biodegradability: Closed Bottle
					Test)
Bis(2-hydroxy-3-tert-butyl-5-	under test conditions no	aerobic	0 %	28 d	OECD Guideline 301 C (Ready
methylphenyl)methane	biodegradation observed				Biodegradability: Modified MITI
119-47-1					Test (I))
Hydroquinone	readily biodegradable	aerobic	75 - 81 %	30 d	EU Method C.4-E (Determination
123-31-9					of the "Ready"
					BiodegradabilityClosed Bottle
					Test)

12.3. Bioaccumulative potential

Hazardous substances	Bioconcentratio	Exposure time	Tempe rature	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)

12.4. Mobility in soil

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)
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.	
Ethyl 2-cyanoacrylate	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very
7085-85-0	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.

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.

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

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

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 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

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

VOC content (2010/75/EC)

< 3 %

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.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H318 Causes serious eye damage.

H319 Causes serious eye irritation.

H335 May cause respiratory irritation.

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.

Further information:

This Safety Data Sheet has been produced for sales from Henkel to parties purchasing from Henkel, is based on Regulation (EC) No 1907/2006 and provides information in accordance with applicable regulations of the European Union only. In that respect, no statement, warranty or representation of any kind is given as to compliance with any statutory laws or regulations of any other jurisdiction or territory other than the European Union. When exporting to territories other than the European Union, please consult with the respective Safety Data Sheet of the concerned territory to ensure compliance or liaise with Henkel's Product Safety and Regulatory Affairs Department (ua-productsafety.de@henkel.com) prior to export to other territories than the European Union.

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,

Henkel is committed to creating a sustainable future by promoting opportunities along the entire value chain. If you would like to contribute by switching from a paper to the electronic version of SDS, please contact the local Customer Service representative. We recommend to use a non-personal email address (e.g. SDS@your_company.com).

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-cy anoacry late can be downloaded under the following link: https://mysds.henkel.com/index.html#/appSelection



Safety Data Sheet according to (EC) No 1907/2006 as amended Page 1 of 14

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Replaces version from: 20.01.2021

LOCTITE HY 4070 CR11G

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

1.1. Product identifier

LOCTITE HY 4070 CR11G

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

HP24RQ Hemel Hempstead

Great Britain

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

ua-productsafety.uk@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

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 Hexanediol dimethacrylate

Signal word: Warning

Hazard statement: H315 Causes skin irritation.

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

H412 Harmful to aquatic life with long lasting effects.

Supplemental information Contains: 3,4,5,6-tetrahy drophthalic 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

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

Precautionary statement: P261 Avoid breathing vapors.

Prevention P273 Avoid release to the environment.

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	01-2120760621-59		H335
			Aquatic Chronic 3
			H412
			Skin Irrit. 2
			H315
			Eye Irrit. 2
			H319
3,4,5,6-tetrahydrophthalic anhydride	219-374-3	0,1-< 1 %	Eye Dam. 1
2426-02-0			H318
			Resp. Sens. 1
			H334
			Aquatic Chronic 3
			H412
			Skin Sens. 1
			H317
Hydroquinone	204-617-8	0,01-< 0,1 %	Aquatic Acute 1
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.

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:

water, carbon dioxide, foam, powder

Extinguishing media which must not be used for safety reasons:

High pressure waterjet

5.2. Special hazards arising from the substance or mixture

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

Wear protective equipment.

Ensure adequate ventilation.

Keep away from sources of ignition.

6.2. Environmental precautions

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

6.3. Methods and material for containment and cleaning up

Dispose of contaminated material as waste according to Section 13.

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

Avoid skin and eye contact.

See advice in section 8

Hy giene 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

Ensure good ventilation/extraction.

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 ³	Value type	Shortterm exposure limit category / Remarks	Regulatorylist
Hydroquinone		0,5	Time Weighted Average		EH40 WEL
123-31-9			(TWA):		
[HYDROQUINONE]					

Occupational Exposure Limits

Valid for

Ireland

In gre dient [Regulated substance]	ppm	mg/m ³	Value type	Short term exposure limit	Regulatory list
				category/Remarks	
Hydroquinone		0,5	Time Weighted Average		IR_OEL
123-31-9			(TWA):		
[HYDROQUINONE]					

Predicted No-Effect Concentration (PNEC):

Name on list	En vi ronmental Compartment						Remarks	
	•	•	mg/l	ppm	mg/kg	others		
1,6-hexanediyl bismethacrylate	aqua		0,00488					
6606-59-3	(freshwater)		mg/l					
1,6-hexanediyl bismethacrylate	aqua (marine		0,000488					
6606-59-3	water)		mg/l					
1,6-hexanediyl bismethacrylate	aqua		0,045 mg/l					
6606-59-3	(intermittent							
	releases)							
1,6-hexanediyl bismethacrylate	sediment				0,262			
6606-59-3	(freshwater)				mg/kg			
1,6-hexanediyl bismethacrylate	aqua (marine				0,026			
6606-59-3	water)				mg/kg			
1,6-hexanediyl bismethacrylate	Soil				0,05 mg/kg			
6606-59-3								
1,6-hexanediyl bismethacrylate	Sewage		800 mg/l					
6606-59-3	treatment plant							
Hydroquinone	aqua		0,00057					
123-31-9	(freshwater)		mg/l					
Hydroquinone	aqua (marine		0,000057					
123-31-9	water)		mg/l					
Hydroquinone	sediment				0,0049			
123-31-9	(freshwater)				mg/kg			
Hydroquinone	sediment				0,00049			
123-31-9	(marine water)				mg/kg			
Hydroquinone	aqua		0,00134					
123-31-9	(intermittent		mg/l					
	releases)							
Hydroquinone	Soil				0,00064			
123-31-9					mg/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
1,6-hexanediyl bismethacrylate 6606-59-3	Workers	inhalation	Long term exposure - systemic effects		14,5 mg/m3	
1,6-hexanediyl bismethacrylate 6606-59-3	Workers	dermal	Long term exposure - systemic effects		4,2 mg/kg	
1,6-hexanediyl bismethacrylate 6606-59-3	General population	inhalation	Long term exposure - systemic effects		4,3 mg/m3	
1,6-hexanediyl bismethacrylate 6606-59-3	General population	oral	Long term exposure - systemic effects		2,5 mg/kg	
1,6-hexanediyl bismethacrylate 6606-59-3	General population	dermal	Long term exposure - systemic effects		2,5 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 - systemic effects		0,6 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

colourless to yellowish

Odor characteristic

Odour threshold No data available / Not applicable

pH 7

Melting point No data available / Not applicable Solidification temperature No data available / Not applicable No data available / Not applicable Initial boiling point 110 °C (230 °F); no method Flash point Evaporation rate No data available / Not applicable Flammability No data available / Not applicable No data available / Not applicable Explosive limits Vapour pressure No data available / Not applicable Relative vapour density: No data available / Not applicable

Density 0,98 - 1,1 g/cm3

()

Bulk density No data available / Not applicable Solubility No data available / Not applicable Solubility (qualitative) No data available / Not applicable Partition coefficient: n-octanol/water No data available / Not applicable No data available / Not applicable Auto-ignition temperature No data available / Not applicable Decomposition temperature Viscosity No data available / Not applicable Viscosity (kinematic) No data available / Not applicable No data available / Not applicable Explosive properties Oxidising properties No data available / Not applicable

9.2. Other information

No data available / Not applicable

SECTION 10: Stability and reactivity

10.1. Reactivity

Reacts with strong oxidants.

Acids.

Reducing agents.

Strong bases.

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. Hydrocarbons nitrogen oxides

Rapid polymerisation may generate excessive heat and pressure.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute oral toxicity:

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

Hazardous substances	Value	Value	Species	Method
CAS-No.	type			
Hexanediol	LD50	> 2.000 mg/kg	rat	OECD Guideline 423 (Acute Oral toxicity)
dimethacrylate				
6606-59-3				
Hydroquinone	LD50	367 mg/kg	rat	OECD Guideline 401 (Acute Oral Toxicity)
123-31-9				

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
Hydroquinone 123-31-9	LD50	> 2.000 mg/kg	rabbit	OECD Guideline 402 (Acute Dermal Toxicity)

Acute inhalative toxicity:

No data available.

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		
Hydroquinone	not irritating	24 h	rabbit	Weight of evidence
123-31-9				

Serious eye damage/irritation:

No data available.

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.				
Hexanediol	not sensitising	Mouse local lymphnode	mouse	OECD Guideline 429 (Skin Sensitisation:
dimethacrylate		assay (LLNA)		Local Lymph Node Assay)
6606-59-3				
Hexanediol	not sensitising	Guinea pig maximisation	guinea pig	Magnusson and Kligman Method
dimethacrylate		test		
6606-59-3				
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)

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
Hexanediol dimethacrylate 6606-59-3	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
Hexanediol dimethacrylate 6606-59-3	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)
Hexanediol dimethacrylate 6606-59-3	negative	oral: gavage		mouse	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)

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
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
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	Result / Value	Route of	Exposure time /	Species	Method
CAS-No.		application	Frequency of		
			treatment		
Hexanediol	NOAEL 300 mg/kg	oral: gavage	5 weeks (male), 8	rat	OECD Guideline 422
dimethacrylate			weeks (fem.)		(Combined Repeated
6606-59-3			daily		Dose Toxicity Study with
					the Reproduction /
					Developmental Toxicity
					Screening Test)
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)

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				
Hexanediol dimethacrylate	LC50	4,5 mg/l	96 h	Danio rerio	OECD Guideline 203 (Fish,
6606-59-3					Acute Toxicity Test)
Hexanediol dimethacrylate	NOEC	0,138 mg/l	32 d	Pimephales promelas	OECD Guideline 210 (fish
6606-59-3					early lite stage toxicity test)
Hydroquinone	LC50	0,638 mg/l	96 h	Oncorhynchus mykiss	OECD Guideline 203 (Fish,
123-31-9					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				
Hexanediol dimethacrylate	EC50	11,2 mg/l	48 h	Daphnia magna	QSAR (Quantitative
6606-59-3					Structure Activity
					Relationship)
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	Value	Value	Exposure ti	ime Species	Method
CAS-No.	type				
Hexanediol dimethacrylate	NOEC	0,488 mg/l	21 d	Daphnia magna	QSAR (Quantitative
6606-59-3					Structure Activity
					Relationship)
Hydroquinone	NOEC	0,0057 mg/l	21 d	Daphnia magna	OECD 211 (Daphnia
123-31-9					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	Value	Exposure time	Species	Method
Hexanediol dimethacrylate 6606-59-3	EC50	5,33 mg/l	72 h		QSAR (Quantitative Structure Activity Relationship)
Hexanediol dimethacrylate 6606-59-3	NOEC	1,11 mg/l	72 h		QSAR (Quantitative Structure Activity Relationship)
Hydroquinone 123-31-9	EC50	0,335 mg/l		Selenastrum capricomutum (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				
Hexanediol dimethacrylate 6606-59-3	EC0	800 mg/l	16 h	1	ISO 10712: Determination of the inhibitory effect of water constituents on bacteria (Pseudomonas cell inhibition test)
Hydroquinone 123-31-9	EC 50	0,038 mg/l	30 min		not specified

12.2. Persistence and degradability

Hazardous substances CAS-No.	Result	Test type	Degradability	Exposure time	Method
Hexanediol dimethacrylate 6606-59-3	readily biodegradable	aerobic	91,1 %	28 d	OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)
Hydroquinone 123-31-9	readily biodegradable	aerobic	75 - 81 %	30 d	EU Method C.4-E (Determination of the "Ready" Biodegradability Closed Bottle Test)

12.3. Bioaccumulative potential

No data available.

12.4. Mobility in soil

Hazardous substances	LogPow	Temperature	Method
CAS-No.		_	
Hexanediol dimethacrylate	4,08		OECD Guideline 117 (Partition Coefficient (n-octanol/water), HPLC
6606-59-3			Method)
Hydroquinone	0,59		EU Method A.8 (Partition Coefficient)
123-31-9			

12.5. Results of PBT and vPvB assessment

Hazardous substances	PBT/ vPvB
CAS-No.	
Hexanediol dimethacrylate	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very
6606-59-3	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:

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

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

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

(2010/75/EC)

VOC content < 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:

- H302 Harmful if swallowed.
- 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.
- H341 Suspected of causing genetic defects.
- H351 Suspected of causing cancer.
- 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:

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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.