

LOCTITE 4031

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

Page 1 of 11

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

1.1. Product identifier

LOCTITE 4031

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 Ireland

Operations and Research Limited Tallaght Business Park, Whitestown

24 Dublin

Ireland

Phone: +353 (0353) 1 404 6444

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

SDSinfo.Adhesive@henkel.com

1.4. Emergency telephone number

00353 14046280

National Poisons Information Centre: Members of Public: +353 (1) 809 2166. (8.00 a.m. to 10.00 p.m. 7 days a week) Healthcare Professionals: +353 (1) 809 2566 (24-hour service)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

The substance or mixture is not hazardous according to Regulation (EC) No 1272/2008 (CLP).

2.2. Label elements

Label elements (CLP):

The substance or mixture is not hazardous according to Regulation (EC) No 1272/2008 (CLP).

Supplemental information Safety data sheet available on request. Cyanoacrylate. Danger. Bonds skin and eyes in

seconds. Keep out of the reach of children.

2.3. Other hazards

None if used properly.

Following substances are present in a concentration \geq the concentration limit for depiction in Section 3 and fulfill the criteria for PBT/vPvB, or were identified as endocrine disruptor (ED):

This mixture does not contain any substances in a concentration \geq the concentration limit for depiction in Section 3 that are assessed to be a PBT, vPvB or ED.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

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

Hazardous components CAS-No. EC Number REACH-Reg No.	Concentration	Classification	Specific Conc. Limits, M- factors and ATEs	Add. Information
Bis(2-hydroxy-3-tert-butyl-5- methylphenyl)methane 119-47-1 204-327-1 01-2119496065-33	0,1-< 0,3 %	Repr. 1B, H360F		SVHC

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:

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.

Eve contact:

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

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

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

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

Ingestion:

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

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

Prolonged or repeated contact may cause skin irritation.

Prolonged or repeated contact may cause eye irritation.

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 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

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

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

Ireland

None

Occupational Exposure Limits

Valid for

Great Britain

None

Predicted No-Effect Concentration (PNEC):

Name on list	Environmental Compartment	1	Value				Remarks
			mg/l	ppm	mg/kg	others	
Bis(2-hydroxy-3-tert-butyl-5-methylphenyl)methane	oral				10 mg/kg		
119-47-1							

Derived No-Effect Level (DNEL):

Name on list	Application Area	Route of Exposure	Health Effect	Exposure Time	Value	Remarks
Bis(2-hydroxy-3-tert-butyl-5- methylphenyl)methane 119-47-1	Workers	inhalation	Long term exposure - systemic effects		1,25 mg/m3	
Bis(2-hydroxy-3-tert-butyl-5- methylphenyl)methane 119-47-1	Workers	inhalation	Acute/short term exposure - systemic effects		6,25 mg/m3	
Bis(2-hydroxy-3-tert-butyl-5- methylphenyl)methane 119-47-1	Workers	dermal	Long term exposure - systemic effects		0,36 mg/kg	
Bis(2-hydroxy-3-tert-butyl-5- methylphenyl)methane 119-47-1	Workers	dermal	Acute/short term exposure - systemic effects		1,8 mg/kg	
Bis(2-hydroxy-3-tert-butyl-5- methylphenyl)methane 119-47-1	General population	inhalation	Long term exposure - systemic effects		0,22 mg/m3	
Bis(2-hydroxy-3-tert-butyl-5- methylphenyl)methane 119-47-1	General population	inhalation	Acute/short term exposure - systemic effects		1,1 mg/m3	
Bis(2-hydroxy-3-tert-butyl-5- methylphenyl)methane 119-47-1	General population	dermal	Long term exposure - systemic effects		0,13 mg/kg	
Bis(2-hydroxy-3-tert-butyl-5- methylphenyl)methane 119-47-1	General population	dermal	Acute/short term exposure - systemic effects		0,65 mg/kg	
Bis(2-hydroxy-3-tert-butyl-5- methylphenyl)methane 119-47-1	General population	oral	Long term exposure - systemic effects		0,13 mg/kg	
Bis(2-hydroxy-3-tert-butyl-5- methylphenyl)methane 119-47-1	General population	oral	Acute/short term exposure - systemic effects		0,65 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

Hand protection:

Chemical-resistant protective gloves (EN 374).

Suitable materials for short-term contact or splashes (recommended: at least protection index 2, corresponding to > 30 minutes permeation time as per EN 374):

nitrile rubber (NBR; >= 0.4 mm thickness)

Suitable materials for longer, direct contact (recommended: protection index 6, corresponding to > 480 minutes permeation time as per EN 374):

nitrile rubber (NBR; >= 0.4 mm thickness)

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

Polyethylene or polypropylene gloves are recommended when using large volumes.

Do not use PVC, rubber or nylon gloves.

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

Eye protection:

Safety glasses with sideshields or chemical safety goggles should be worn if there is a risk of splashing.

Protective eye equipment should conform to EN166.

Skin protection:

Wear suitable protective clothing.

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

Advices to personal protection equipment:

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

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state liquid
Delivery form liquid
Colour colourless
Odor None

 $\begin{array}{lll} \mbox{Melting point} & \mbox{Currently under determination} \\ \mbox{Initial boiling point} & > 149 \ ^{\circ}\mbox{C} \ (> 300.2 \ ^{\circ}\mbox{F})\mbox{None} \\ \mbox{Currently under determination} \\ \mbox{Explosive limits} & \mbox{Currently under determination} \\ \mbox{Flash point} & 80 - 93 \ ^{\circ}\mbox{C} \ (176 - 199.4 \ ^{\circ}\mbox{F}) \\ \mbox{Auto-ignition temperature} & \mbox{Currently under determination} \\ \mbox{Decomposition temperature} & \mbox{Currently under determination} \\ \mbox{Currently under determinati$

pH Not applicable

(20 °C (68 °F))

Viscosity (kinematic) Currently under determination

Viscosity, dynamic 1.100,0 - 1.650,0 mPa.s LCT STM 10; Viscosity Brookfield

(Brookfield; Instrument: LVF; 25 °C (77 °F);

speed of rotation: 12 min-1; Spindle No: 2)

Solubility (qualitative) Polymerises in presence of water.

(Solvent: Water)

Partition coefficient: n-octanol/water Currently under determination

 $\begin{array}{lll} \mbox{Vapour pressure} & <0.2 \mbox{ mm hg} \\ \mbox{Vapour pressure} & <0.3 \mbox{ mbar} \\ \mbox{Vapour pressure} & <700 \mbox{ mbar} \end{array}$

(50 °C (122 °F))

Density 1,1 g/cm3

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Relative vapour density: Currently under determination
Particle characteristics Currently under determination

9.2. Other information

Other information not applicable for this product

SECTION 10: Stability and reactivity

10.1. Reactivity

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

10.2. Chemical stability

Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

See section reactivity

10.4. Conditions to avoid

Stable under normal conditions of storage and use.

10.5. Incompatible materials

See section reactivity.

10.6. Hazardous decomposition products

None if used for intended purpose.

SECTION 11: Toxicological information

General toxicological information:

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

Prolonged exposure to high concentrations of vapours may lead to chronic effects in sensitive individuals

In dry atmosphere with < 50% humidity, vapours may irritate the eyes and respiratory system

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

Acute oral toxicity:

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

Hazardous substances	Value	Value	Species	Method
CAS-No.	type			
Bis(2-hydroxy-3-tert-	LD50	> 10.000 mg/kg	rat	not specified
butyl-5-				_
methylphenyl)methane				
119-47-1				

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			
Bis(2-hydroxy-3-tert-	LD50	> 10.000 mg/kg	rat	not specified
butyl-5-				
methylphenyl)methane				
119-47-1				

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

No substance data available.

Serious eye damage/irritation:

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

No substance data available.

Respiratory or skin sensitization:

No data available.

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
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)

Carcinogenicity

No data available.

Reproductive toxicity:

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

Hazardous substances	Result / Value	Test type	Route of	Species	Method
CAS-No.			application		
Bis(2-hydroxy-3-tert- butyl-5- methylphenyl)methane 119-47-1	NOAEL P 12,5 mg/kg	screening	oral: gavage	rat	OECD Guideline 421 (Reproduction / Developmental Toxicity Screening Test)

STOT-single exposure:

No data available.

STOT-repeated exposure::

No data available.

Aspiration hazard:

No data available.

11.2 Information on other hazards

not applicable

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-	LC50	Toxicity > Water	96 h	Oryzias latipes	OECD Guideline 203 (Fish,
methylphenyl)methane		solubility			Acute Toxicity Test)
119-47-1					

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	Toxicity > Water	48 h	Daphnia magna	OECD Guideline 202
methylphenyl)methane		solubility			(Daphnia sp. Acute
119-47-1					Immobilisation Test)

Chronic toxicity to aquatic invertebrates

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

GLG N	Value type	Value	Exposure time	Species	Method
Bis(2-hydroxy-3-tert-butyl-5- methylphenyl)methane		Toxicity > Water solubility	21 d	- T	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-	EC50	Toxicity > Water	72 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga,
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)	

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-	EC50	Toxicity > Water	3 h	activated sludge	OECD Guideline 209
methylphenyl)methane		solubility		_	(Activated Sludge,
119-47-1					Respiration Inhibition Test)

12.2. Persistence and degradability

Hazardous substances	Result	Test type	Degradability	Exposure	Method
CAS-No.				time	
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))

12.3. Bioaccumulative potential

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)

12.4. Mobility in soil

Hazardous substances CAS-No.	LogPow	Temperature	Method
Bis(2-hydroxy-3-tert-butyl-5-	6,25	20 °C	OECD Guideline 107 (Partition Coefficient (n-octanol / water), Shake
methylphenyl)methane			Flask Method)
119-47-1			

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		

12.6. Endocrine disrupting properties

not applicable

12.7. Other adverse effects

No data available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product disposal:

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 10 Waste adhesives and sealants other than those mentioned in 08 04 09.

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

SECTION 14: Transport information

14.1. UN number or ID number

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

14.2. UN proper shipping name

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

14.3. Transport hazard class(es)

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

14.4. Packing group

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

14.5. Environmental hazards

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

14.6. Special precautions for user

ADR not applicable

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

14.7. Maritime transport in bulk according to IMO instruments

not applicable

SECTION 15: Regulatory information

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

Ozone Depleting Substance (ODS) (Regulation (EC) No 1005/2009): Not applicable Prior Informed Consent (PIC) (Regulation (EU) No 649/2012): Not applicable Persistent organic pollutants (Regulation (EU) 2019/1021): Not applicable

VOC content <3 %

(2010/75/EC)

15.2. Chemical safety assessment

A chemical safety assessment has not been carried out.

SECTION 16: Other information

The labelling of the product is indicated in Section 2. The full text of all abbreviations indicated by codes in this safety data sheet are as follows: H360F May damage fertility.

ED: Substance identified as having endocrine disrupting properties

EU OEL: Substance with a Union workplace exposure limit
EU EXPLD 1: Substance listed in Annex I, Reg (EC) No. 2019/1148
EU EXPLD 2 Substance listed in Annex II, Reg (EC) No. 2019/1148
SVHC: Substance of very high concern (REACH Candidate List)
PBT: Substance fulfilling persistent, bioaccumulative and toxic criteria

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

bioaccumulative criteria

vPvB: Substance fulfilling very persistent and very bioaccumulative criteria

Further information:

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