

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

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LOCTITE 586

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

## 1.1. Product identifier

LOCTITE 586

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

Intended use: Threadlocker

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

Henkel AG & Co. KGaA

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Germany

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# 1.4. Emergency telephone number

The Henkel information service also provides an around-the-clock telephone service on phone no.+49-(0)211-797-3350 for exceptional cases.

## **SECTION 2: Hazards identification**

#### 2.1. Classification of the substance or mixture

## Classification (CLP):

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

Cumene hydroperoxide

Warning Signal word:

**Hazard statement:** H319 Causes serious eye irritation.

H335 May cause respiratory irritation.

H412 Harmful to aquatic life with long lasting effects.

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

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.

P273 Avoid release to the environment. Prevention

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

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

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

Hazardous components	EC Number	content	Classification
CAS-No.	REACH-Reg No.		
Cumene hydroperoxide	201-254-7	1-< 3 %	Acute Tox. 4; Dermal
80-15-9	01-2119475796-19		H312
			STOT RE 2
			H373
			Acute Tox. 4; Oral
			H302
			Org. Perox. E
			H242
			Acute Tox. 3; Inhalation
			H331
			Aquatic Chronic 2
			H411
			Skin Corr. 1B
			H314
N,N-Diethyl-p-toluidine	210-345-0	0,1-< 1 %	Acute Tox. 3; Oral
613-48-9			H301
			Acute Tox. 3; Dermal
			H311
			Acute Tox. 3; Inhalation
			H331
			STOT RE 2
			H373
			Aquatic Chronic 3
			H412
N,N-dimethyl-o-toluidine	210-199-8	0,1-< 1 %	Acute Tox. 3; Inhalation
609-72-3			H331
			Acute Tox. 3; Dermal
			H311
			Acute Tox. 3; Oral
			H301
			STOT RE 2
			H373
			Aquatic Chronic 3
			H412

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

EYE: Irritation, conjunctivitis.

Prolonged or repeated contact may cause skin irritation.

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:

High pressure waterjet

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

In case of fire, keep containers cool with water spray.

#### 5.3. Advice for firefighters

Wear self-contained breathing apparatus and full protective clothing, such as turn-out gear.

#### **Additional information:**

In case of fire, keep containers cool with water spray.

## **SECTION 6: Accidental release measures**

#### 6.1. Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation.

Wear protective equipment.

Avoid contact with skin and eyes.

## 6.2. Environmental precautions

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

## 6.3. Methods and material for containment and cleaning up

For small spills wipe up with paper towel and place in container for disposal.

For large spills absorb onto inert absorbent material and place in sealed container for disposal.

Dispose of contaminated material as waste according to Section 13.

#### 6.4. Reference to other sections

See advice in section 8

# **SECTION 7: Handling and storage**

#### 7.1. Precautions for safe handling

Avoid skin and eye contact.

See advice in section 8

Prolonged or repeated skin contact should be avoided to minimise any risk of sensitisation.

Use only in well-ventilated areas.

## 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)

Threadlocker

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

#### 8.1. Control parameters

## **Occupational Exposure Limits**

Valid for

Germany

None

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

Name on list	Environmental	•	Value				Remarks
	Compartment	period	mg/l	ppm	mg/kg	others	
.alpha.,.alphaDimethylbenzyl hydroperoxide 80-15-9	aqua (freshwater)		0,0031 mg/l				
.alpha.,.alphaDimethylbenzyl hydroperoxide 80-15-9	aqua (marine water)		0,00031 mg/l				
.alpha.,.alphaDimethylbenzyl hydroperoxide 80-15-9	aqua (intermittent releases)		0,031 mg/l				
.alphaalphaDimethylbenzyl hydroperoxide 80-15-9	Sewage treatment plant		0,35 mg/l				
.alphaalphaDimethylbenzyl hydroperoxide 80-15-9	sediment (freshwater)				0,023 mg/kg		
.alphaalphaDimethylbenzyl hydroperoxide 80-15-9	sediment (marine water)				0,0023 mg/kg		
.alpha.,.alphaDimethylbenzyl hydroperoxide 80-15-9	Soil				0,0029 mg/kg		

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

Name on list	Application	Route of	Health Effect	Exposure	Value	Remarks
	Area	Exposure		Time		
.alpha.,.alphaDimethylbenzyl	Workers	inhalation	Long term		6 mg/m3	
hydroperoxide			exposure -			
80-15-9			systemic effects			

#### **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; >= 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 red

Odor characteristic

Odour threshold No data available / Not applicable

pH 3 - 6

Melting point No data available / Not applicable

Solidification temperature No data available / Not applicable

Initial boiling point Not determined Flash point  $> 100 \,^{\circ}\text{C} (> 212 \,^{\circ}\text{F})$ 

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

Vapour pressure < 1 mm hg

Relative vapour density: No data available / Not applicable

Density 1,08 g/cm<sup>3</sup>

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Bulk density

No data available / Not applicable
Solubility

No data available / Not applicable

Solubility (qualitative) Not miscible

(Solvent: Water)

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 4.000 - 6.000 mPa.s

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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

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

## 10.5. Incompatible materials

See section reactivity.

#### 10.6. Hazardous decomposition products

Irritating organic vapours.

## **SECTION 11: Toxicological information**

#### General toxicological information:

Prolonged or repeated contact may cause skin irritation.

## 11.1. Information on toxicological effects

#### Acute oral toxicity:

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

Hazardous substances CAS-No.	Value type	Value	Species	Method
Cumene hydroperoxide 80-15-9	LD50	382 mg/kg	rat	other guideline:

## 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			
Cumene hydroperoxide	LD50	530 - 1.060	rat	other guideline:
80-15-9		mg/kg		
Cumene hydroperoxide	Acute	1.100 mg/kg		Expert judgement
80-15-9	toxicity			
	estimate			
	(ATE)			

## 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		
Cumene hydroperoxide	corrosive		rabbit	Draize Test
80-15-9				

## Serious eye damage/irritation:

No 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	Metabolic activation /	Species	Method
		administration	Exposure time		
Cumene hydroperoxide	positive	bacterial reverse	without		OECD Guideline 471
80-15-9		mutation assay (e.g			(Bacterial Reverse Mutation
		Ames test)			Assay)

## Carcinogenicity

No data available.

## Reproductive toxicity:

No data available.

## STOT-single exposure:

No data available.

## STOT-repeated exposure::

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

Hazardous substances CAS-No.	Result / Value	Route of application	Exposure time / Frequency of treatment	Species	Method
Cumene hydroperoxide		inhalation:	6 h/d	rat	not specified
80-15-9		aerosol	5 d/w		

## **Aspiration hazard:**

No data available.

## **SECTION 12: Ecological information**

#### **General ecological information:**

Cured Loctite products are typical polymers and do not pose any immediate environmental hazards.

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				
Cumene hydroperoxide	LC50	3,9 mg/l	96 h	Oncorhynchus mykiss	OECD Guideline 203 (Fish,
80-15-9					Acute Toxicity Test)
N,N-dimethyl-o-toluidine	LC 50	46 mg/l	96 h	Fathead minnow (Pimephales	
609-72-3				promelas)	

## **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
Cumene hydroperoxide	EC50	18 mg/l	48 h	Daphnia magna	OECD Guideline 202
80-15-9					(Daphnia sp. Acute
					Immobilisation Test)

# Chronic toxicity to aquatic invertebrates

No data available.

# **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				
Cumene hydroperoxide	ErC50	3,1 mg/l	72 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga,
80-15-9					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		_		
Cumene hydroperoxide	EC10	70 mg/l	30 min		not specified
80-15-9					

#### 12.2. Persistence and degradability

The product is not biodegradable.

Hazardous substances	Result	Test type	Degradability	Exposure	Method
CAS-No.				time	
Cumene hydroperoxide		no data	0 %	28 d	OECD Guideline 301 B (Ready
80-15-9					Biodegradability: CO2 Evolution
					Test)

## 12.3. Bioaccumulative potential

Hazardous substances CAS-No.	Bioconcentratio n factor (BCF)	Exposure time	Temperature	Species	Method
Cumene hydroperoxide	9,1			calculation	OECD Guideline 305
80-15-9					(Bioconcentration: Flow-through
					Fish Test)

#### 12.4. Mobility in soil

Cured adhesives are immobile.

Hazardous substances CAS-No.	LogPow	Temperature	Method
Cumene hydroperoxide 80-15-9	2,16		not specified

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

Hazardous substances CAS-No.	PBT / vPvB
Cumene hydroperoxide	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very
80-15-9	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.

Disposal of uncleaned packages:

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

Waste code

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

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

# **SECTION 14: Transport information**

## 14.1. UN number

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

# 14.2. UN proper shipping name

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

## 14.3. Transport hazard class(es)

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

# 14.4. Packing group

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

## 14.5. Environmental hazards

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

#### 14.6. Special precautions for user

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

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

not applicable

# **SECTION 15: Regulatory information**

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

VOC content (2010/75/EC)

## < 5 %

## 15.2. Chemical safety assessment

A chemical safety assessment has not been carried out.

#### National regulations/information (Germany):

WGK: WGK 2: significantly water endangering (Ordinance on facilities for handling

substances that are hazardous to water (AwSV) ) Classification according to AwSV, Annex 1 (5.2)

Storage class according to TRGS 510: 10

# **SECTION 16: Other information**

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

H242 Heating may cause a fire.

H301 Toxic if swallowed.

H302 Harmful if swallowed.

H311 Toxic in contact with skin.

H312 Harmful in contact with skin.

H314 Causes severe skin burns and eye damage.

H331 Toxic if inhaled.

H373 May cause damage to organs through prolonged or repeated exposure.

H411 Toxic to aquatic life with long lasting effects.

H412 Harmful to aquatic life with long lasting effects.

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