



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

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Loctite 510

sds no. : 153499
V003.5

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

Product identifier:

Loctite 510

Relevant identified uses of the substance or mixture and uses advised against:

Intended use:
Anaerobic Sealant

Details of the supplier of the safety data sheet:

Henkel Limited
2 Bishop Square Business Park
AL109EY Herfordshire Hatfield

Great Britain

Phone: +44 1606 593933
Fax-no.: +44 1606 863762

ua-productsafety.uk@uk.henkel.com

Emergency telephone number:

24 Hours Emergency Tel: +44 (0)1442 278497

SECTION 2: Hazards identification

Classification of the substance or mixture:

Classification (DPD):

Xi - Irritant
R36/37 Irritating to eyes and respiratory system.
Sensitizing
R43 May cause sensitisation by skin contact.
N - Dangerous for the environment
R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Label elements (DPD):

N - Dangerous for the environment

Xi - Irritant



Risk phrases:

R36/37 Irritating to eyes and respiratory system.

R43 May cause sensitisation by skin contact.

R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Safety phrases:

S23 Do not breathe vapour.

S24 Avoid contact with skin.

S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S37 Wear suitable gloves.

S51 Use only in well-ventilated areas.

S61 Avoid release to the environment. Refer to special instructions/Safety data sheets.

Additional labeling:

For consumer use only: S2 Keep out of the reach of children

S46 If swallowed, seek medical advice immediately and show this container or label.

Contains:

1,1'-(methylenedi-p-phenylene)bismaleimide

Other hazards:

This product contains a solid compound, which in powder form is classified as toxic by inhalation. The product is not labelled accordingly as such exposure can be excluded under normal and foreseeable conditions. In the case that the product is used divergently under formation of aerosols, measures have to be observed to exclude inhalational exposure.

SECTION 3: Composition/information on ingredients

General chemical description:

Anaerobic Sealant

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

Hazardous components CAS-No.	EC Number REACH-Reg No.	content	Classification
Cumene hydroperoxide 80-15-9	201-254-7	> 1 - <= 3 %	Acute toxicity 4; Dermal H312 Specific target organ toxicity - repeated exposure 2 H373 Acute toxicity 3; Inhalation H331 Acute toxicity 4; Oral H302 Organic peroxides E H242 Chronic hazards to the aquatic environment 2 H411 Skin corrosion 1B H314
Cumene 98-82-8	202-704-5	> 0,1 - <= 1 %	Flammable liquids 3 H226 Aspiration hazard 1 H304 Specific target organ toxicity - single exposure 3 H335 Chronic hazards to the aquatic environment 2 H411

Only dangerous ingredients for which a CLP classification is already available are displayed in this table.
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.

Declaration of ingredients according to DPD (EC) No 1999/45:

Hazardous components CAS-No.	EC Number REACH-Reg No.	content	Classification
1,1'-(methylenedi-p-phenylene)bismaleimide 13676-54-5	237-163-4	> 5 - <= 10 %	T - Toxic; R23 Xi - Irritant; R36/37/38, R43 N - Dangerous for the environment; R50/53
Cumene hydroperoxide 80-15-9	201-254-7	> 1 - <= 3 %	T - Toxic; R23 Xn - Harmful; R21/22, R48/20/22 O - Oxidizing; R7 C - Corrosive; R34 N - Dangerous for the environment; R51, R53
Cumene 98-82-8	202-704-5	> 0,1 - <= 1 %	R10 Xn - Harmful; R65 Xi - Irritant; R37 N - Dangerous for the environment; R51, R53

For full text of the R-Phrases indicated by codes see section 16 'Other Information'.
Substances without classification may have community workplace exposure limits available.

SECTION 4: First aid measures**Description of first aid measures:****Inhalation:**

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

Skin contact:

Rinse with running water and soap.
Seek medical advice.

Eye contact:

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

Ingestion:

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

Most important symptoms and effects, both acute and delayed:

May cause sensitization by skin contact.

Indication of any immediate medical attention and special treatment needed:

See section: Description of first aid measures

SECTION 5: Firefighting measures

Extinguishing media:

Suitable extinguishing media:

Carbon dioxide, foam, powder

Special hazards arising from the substance or mixture:

Do not expose to direct heat.

Advice for firefighters:

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

Additional information:

Do not inhale vapors and fumes.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures:

Avoid skin and eye contact.
Ensure adequate ventilation.
See advice in chapter 8

Environmental precautions:

Do not let product enter drains.

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.

SECTION 7: Handling and storage

Precautions for safe handling:

Use only in well-ventilated areas.
Prolonged or repeated skin contact should be avoided to minimise any risk of sensitisation.

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.

Conditions for safe storage, including any incompatibilities:

Store in original containers at 8-21°C (46.4-69.8°F) and do not return residual materials to containers as contamination may reduce the shelf life of the bulk product.

Specific end use(s):

Anaerobic Sealant

SECTION 8: Exposure controls/personal protection

Control parameters:

Valid for
Great Britain

Ingredient	ppm	mg/m ³	Type	Category	Remarks
CUMENE 98-82-8	25	125	Time Weighted Average (TWA):		EH40 WEL
CUMENE 98-82-8	50	250	Short Term Exposure Limit (STEL):		EH40 WEL
CUMENE 98-82-8			Skin designation:	Can be absorbed through the skin.	EH40 WEL
CUMENE 98-82-8			Skin designation:	Can be absorbed through the skin.	ECTLV
CUMENE 98-82-8	50	250	Short Term Exposure Limit (STEL):	Indicative	ECTLV
CUMENE 98-82-8	20	100	Time Weighted Average (TWA):	Indicative	ECTLV

Exposure controls:

Respiratory protection:

Use only in well-ventilated areas.
Filter type: A

Hand protection:

Chemical-resistant protective gloves (EN 374).
Suitable materials for short-term contact or splashes (recommended: at least protection index 2, corresponding to > 30 minutes permeation time as per EN 374):
nitrile rubber (NBR; \geq 0.4 mm thickness)
Suitable materials for longer, direct contact (recommended: protection index 6, corresponding to > 480 minutes permeation time as per EN 374):
nitrile rubber (NBR; \geq 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:

Wear protective glasses.

Skin protection:

Wear suitable protective clothing.

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties:

Appearance	gel
	gel
	pink
Odor	Mild
pH	not applicable
Initial boiling point	> 150 °C (> 302 °F)
Flash point	> 100 °C (> 212 °F)
Decomposition temperature	No data available / Not applicable
Vapour pressure (27 °C (80.6 °F))	< 5 mm hg
Density ()	1,178 g/cm ³
Bulk density	No data available / Not applicable
Viscosity	No data available / Not applicable
Viscosity (kinematic)	No data available / Not applicable

Explosive properties	No data available / Not applicable
Solubility (qualitative) (Solvent: Water)	Slight
Solidification temperature	No data available / Not applicable
Melting point	No data available / Not applicable
Flammability	No data available / Not applicable
Auto-ignition temperature	No data available / Not applicable
Explosive limits	No data available / Not applicable
Partition coefficient: n-octanol/water	No data available / Not applicable
Evaporation rate	No data available / Not applicable
Vapor density	Not available
Oxidising properties	No data available / Not applicable

Other information:

No data available / Not applicable

SECTION 10: Stability and reactivity**Reactivity:**

Reaction with strong acids.
Reacts with strong oxidants.

Chemical stability:

Stable under recommended storage conditions.

Possibility of hazardous reactions:

See section reactivity

Conditions to avoid:

Stable

Incompatible materials:

None if used properly.

Hazardous decomposition products:

Irritating organic vapours.
carbon oxides.
Sulphur oxides
nitrogen oxides

SECTION 11: Toxicological information**General toxicological information:**

The preparation is classified based on the conventional method outlined in Article 6(1)(a) of Directive 1999/45/EC. Relevant available health/ecological information for the substances listed under Section 3 is provided in the following.

Inhalative toxicity:

Irritating to respiratory system

Skin irritation:

May cause sensitization by skin contact.

Eye irritation:

Irritating to eyes.

Acute toxicity:

Hazardous components CAS-No.	Value type	Value	Route of application	Exposure time	Species	Method
Cumene hydroperoxide 80-15-9	LD50	550 mg/kg	oral	4 h	rat	
	LC50	220 ppm	inhalation		rat	
	LD50	500 mg/kg	dermal		rat	

Skin corrosion/irritation:

Hazardous components CAS-No.	Result	Exposure time	Species	Method
1,1'-(methylenedi-p-phenylene)bismaleimide 13676-54-5	irritating			
Cumene hydroperoxide 80-15-9	corrosive		rabbit	

Serious eye damage/irritation:

Hazardous components CAS-No.	Result	Exposure time	Species	Method
1,1'-(methylenedi-p-phenylene)bismaleimide 13676-54-5	not irritating			

Respiratory or skin sensitization:

Hazardous components CAS-No.	Result	Test type	Species	Method
1,1'-(methylenedi-p-phenylene)bismaleimide 13676-54-5	sensitising			

Germ cell mutagenicity:

Hazardous components CAS-No.	Result	Type of study / Route of administration	Metabolic activation / Exposure time	Species	Method
Cumene hydroperoxide 80-15-9	positive	bacterial reverse mutation assay (e.g Ames test)	without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
Cumene hydroperoxide 80-15-9	negative	dermal		mouse	

SECTION 12: Ecological information**General ecological information:**

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

Precautions required with respect to Environmental Hazards of articles in which this product is used should be considered.

The preparation is classified based on the conventional method outlined in Article 6(1)(a) of Directive 1999/45/EC. Relevant available health/ecological information for the substances listed under Section 3 is provided in the following.

Ecotoxicity:

Toxic to aquatic organisms

May cause long-term adverse effects in the aquatic environment.

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

Mobility:

Cured adhesives are immobile.

Toxicity:

Hazardous components CAS-No.	Value type	Value	Acute Toxicity Study	Exposure time	Species	Method
1,1'-(methylenedi-p-phenylene)bismaleimide 13676-54-5	LC50	0,91 mg/l	Fish	96 h	Carassius sp.	OECD Guideline 203 (Fish, Acute Toxicity Test)
Cumene hydroperoxide 80-15-9	LC50	3,9 mg/l	Fish	96 h	Oncorhynchus mykiss	OECD Guideline 203 (Fish, Acute Toxicity Test)
Cumene hydroperoxide 80-15-9	EC50	18 mg/l	Daphnia	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Cumene hydroperoxide 80-15-9	ErC50	3,1 mg/l	Algae	72 h	Pseudokirchnerella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
Cumene 98-82-8	LC50	4,8 mg/l	Fish	96 h	Oncorhynchus mykiss	OECD Guideline 203 (Fish, Acute Toxicity Test)
Cumene 98-82-8	EC50	4 mg/l	Daphnia	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Cumene 98-82-8	EC50	2,6 mg/l	Algae	72 h	Selenastrum capricornutum (new name: Pseudokirchnerella subcapitata)	OECD Guideline 201 (Alga, Growth Inhibition Test)

Persistence and degradability:

Hazardous components CAS-No.	Result	Route of application	Degradability	Method
1,1'-(methylenedi-p-phenylene)bismaleimide 13676-54-5		aerobic	0 %	
Cumene hydroperoxide 80-15-9			18 %	OECD Guideline 301 E (Ready biodegradability: Modified OECD Screening Test)
Cumene 98-82-8		aerobic	86 %	

Bioaccumulative potential / Mobility in soil:

Hazardous components CAS-No.	LogKow	Bioconcentration factor (BCF)	Exposure time	Species	Temperature	Method
Cumene hydroperoxide 80-15-9		9,1				OECD Guideline 305 (Bioconcentration: Flow-through Fish Test)
Cumene hydroperoxide 80-15-9	2,16					
Cumene 98-82-8		35,5		Carassius auratus		OECD Guideline 305 (Bioconcentration: Flow-through Fish Test)
Cumene 98-82-8	3,55				23 °C	OECD Guideline 107 (Partition Coefficient (n-octanol / water), Shake Flask Method)

SECTION 13: Disposal considerations**Waste treatment methods:**

Product disposal:

Dispose of in accordance with local and national regulations.
Contribution of this product to waste is very insignificant in comparison to article in which it is used

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

SECTION 14: Transport information**Road transport ADR:**

Class: 9
Packaging group: III
Classification code: M6
Hazard ident. number: 90
UN no.: 3082
Label: 9
Technical name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,
N.O.S. (Diphenylmethane Bismaleimide)
Tunnelcode: (E)

Railroad transport RID:

Class: 9
Packaging group: III
Classification code: M6
Hazard ident. number: 90
UN no.: 3082
Label: 9
Technical name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,
N.O.S. (Diphenylmethane Bismaleimide)
Tunnelcode:

Inland water transport ADN:

Class: 9
Packaging group: III
Classification code: M6
Hazard ident. number: 90
UN no.: 3082
Label: 9
Technical name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,
N.O.S. (Diphenylmethane Bismaleimide)

Marine transport IMDG:

Class: 9
Packaging group: III
UN no.: 3082
Label: 9
EmS: F-A ,S-F
Seawater pollutant: Marine pollutant
Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,
N.O.S. (Diphenylmethane Bismaleimide)

Air transport IATA:

Class:	9
Packaging group:	III
Packaging instructions (passenger)	964
Packaging instructions (cargo)	964
UN no.:	3082
Label:	9
Proper shipping name:	Environmentally hazardous substance, liquid, n.o.s. (Diphenylmethane Bismaleimide)

SECTION 15: Regulatory information**Safety, health and environmental regulations/legislation specific for the substance or mixture:**

VOC content (2004/42/EC)	< 3 % (As defined in the Council Directive 2004/42/EC)
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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:

- R10 Flammable.
- R21/22 Harmful in contact with skin and if swallowed.
- R23 Toxic by inhalation.
- R34 Causes burns.
- R36/37/38 Irritating to eyes, respiratory system and skin.
- R37 Irritating to respiratory system.
- R43 May cause sensitisation by skin contact.
- R48/20/22 Harmful: danger of serious damage to health by prolonged exposure through inhalation and if swallowed.
- R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
- R51 Toxic to aquatic organisms.
- R53 May cause long-term adverse effects in the aquatic environment.
- R65 Harmful: may cause lung damage if swallowed.
- R7 May cause fire.

- H226 Flammable liquid and vapour.
- H242 Heating may cause a fire.
- H302 Harmful if swallowed.
- H304 May be fatal if swallowed and enters airways.
- H312 Harmful in contact with skin.
- H314 Causes severe skin burns and eye damage.
- H331 Toxic if inhaled.
- H335 May cause respiratory irritation.
- H373 May cause damage to organs through prolonged or repeated exposure.
- H411 Toxic to aquatic life with long lasting effects.

Further information:

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

This safety data sheet was prepared in accordance with Council Directive 67/548/EEC and its subsequent amendments, and Commission Directive 1999/45/EC.