

Loctite 225

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

Page 1 of 12

SDS No.: 153491

V003.1 Revision: 23.06.2020

printing date: 07.01.2021

Replaces version from: 09.01.2018

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

1.1. Product identifier

Loctite 225

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 Ltd Wood Lane End

HP2 4RQ Hemel Hempstead

Great Britain

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

ua-productsafety.uk@henkel.com

1.4. Emergency telephone number

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

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (CLP):

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

Signal word: Warning

Hazard statement: H319 Causes serious eye irritation.

H335 May cause respiratory irritation.

H412 Harmful to aquatic life with long lasting effects.

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: 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

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 | 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 |

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.

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

Prolonged or repeated contact may cause skin irritation.

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

See section: Description of first aid measures

SECTION 5: Firefighting measures

Combustion behaviour:

Non flammable product (flash point is greater than 100°C (CC))

5.1. Extinguishing media

Suitable extinguishing media:

Foam, extinguishing powder, carbon dioxide.

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. Trace amounts of toxic and/or irritating fumes may be released and the use of breathing apparatus is recommended.

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.

Avoid skin and eye contact.

Wear protective equipment.

6.2. Environmental precautions

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

6.3. Methods and material for containment and cleaning up

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

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

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

Use only in well-ventilated areas.

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

Avoid skin and eye contact.

See advice in section 8

Hygiene measures:

Good industrial hygiene practices should be observed.

Do not eat, drink or smoke while working.

Wash hands before work breaks and after finishing work.

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

Great Britain

| Ingredient [Regulated substance] | ppm | mg/m ³ | Value type | Short term exposure limit | Regulatory list |
|---|-----|-------------------|------------------------------|---------------------------|-----------------|
| | | | | category / Remarks | |
| Silicon dioxide 112945-52-5 | | 6 | Time Weighted Average (TWA): | | EH40 WEL |
| [SILICA, AMORPHOUS, INHALABLE DUST] | | | (TWH). | | |
| Silicon dioxide 112945-52-5 [SILICA, AMORPHOUS, RESPIRABLE DUST] | | 2,4 | Time Weighted Average (TWA): | | EH40 WEL |

Occupational Exposure Limits

Valid for

Ireland

| Ingredient [Regulated substance] | ppm | mg/m ³ | Value type | Short term exposure limit category / Remarks | Regulatory list |
|--|-----|-------------------|------------------------------|--|-----------------|
| Silicon dioxide 112945-52-5 [SILICA, AMORPHOUS, TOTAL INHALABLE DUST] | | 6 | Time Weighted Average (TWA): | | IR_OEL |
| Silicon dioxide 112945-52-5 [SILICA, AMORPHOUS, RESPIRABLE | | 2,4 | Time Weighted Average (TWA): | | IR_OEL |

Predicted No-Effect Concentration (PNEC):

| Name on list | Environmental Compartment | Exposure period | Value | | | | Remarks |
|--|------------------------------------|-----------------|-----------------|-----|-----------------|--------|---------|
| | | | mg/l | ppm | mg/kg | others | |
| .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 | | | | |
| .alpha.,.alphaDimethylbenzyl hydroperoxide 80-15-9 | Sewage treatment plant | | 0,35 mg/l | | | | |
| .alpha.,.alphaDimethylbenzyl hydroperoxide 80-15-9 | sediment (freshwater) | | | | 0,023 mg/kg | | |
| .alpha.,.alphaDimethylbenzyl 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 | | 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:

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 paste brown
Odor characteristic

Odour threshold No data available / Not applicable

pH 3,00 - 6,00

()

Melting point Not available.

Solidification temperature No data available / Not applicable

Initial boiling point > 150 °C (> 302 °F)
Flash point > 100,0 °C (> 212 °F); None
Evaporation rate No data available / Not applicable
Flammability No data available / Not applicable
Explosive limits No data available / Not applicable

Vapour pressure 0,1330000 mbar Vapour pressure < 300 mbar

(50 °C (122 °F))

Relative vapour density: No data available / Not applicable

Density 1,0800 g/cm3

()

Bulk density No data available / Not applicable Solubility No data available / Not applicable

Solubility (qualitative) Not miscible

(Solvent: Water)

Partition coefficient: n-octanol/water
Auto-ignition temperature
Decomposition temperature
Viscosity
No data available / Not applicable
No data available / Not applicable
Not available.

(1500)

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

Peroxides.

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. No decomposition if stored and applied as directed.

10.5. Incompatible materials

See section reactivity.

10.6. Hazardous decomposition products

carbon oxides.

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 CAS-No. | Value type | Value | Species | Method | |
|---------------------------------|-------------------------------|----------------------|---------|------------------|--|
| Cumene hydroperoxide 80-15-9 | LD50 | 530 - 1.060 mg/kg | rat | other guideline: | |
| Cumene hydroperoxide 80-15-9 | Acute toxicity estimate (ATE) | 1.100 mg/kg | | Expert judgement | |

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 CAS-No. | Result | Exposure time | Species | Method |
|------------------------------|-----------|---------------|---------|-------------|
| 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 administration | Metabolic activation / Exposure time | Species | Method |
|------------------------------|----------|---|--|---------|--|
| Cumene hydroperoxide 80-15-9 | positive | bacterial reverse mutation assay (e.g | without | | OECD Guideline 471 (Bacterial Reverse Mutation |
| 00 13 7 | | 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 80-15-9 | | inhalation: aerosol | 6 h/d 5 d/w | rat | not specified |

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 | | | | |
| 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 | Value | Value | Exposure time | Species | Method |
|----------------------|-------|---------|---------------|---------|----------------------|
| CAS-No. | type | | | | |
| 3 | EC50 | 18 mg/l | 48 h | - T | 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 CAS-No. | Value type | Value | Exposure time | Species | Method |
|---------------------------------|---------------|----------|---------------|---------------------------------|---------------------------|
| 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.

| G L G NY | Value type | Value | Exposure time | Species | Method |
|------------------------------|---------------|---------|---------------|---------|---------------|
| Cumene hydroperoxide 80-15-9 | EC10 | 70 mg/l | 30 min | | not specified |

12.2. Persistence and degradability

No data available for the product.

| Hazardous substances CAS-No. | Result | Test type | Degradability | Exposure time | Method |
|---------------------------------|--------|-----------|---------------|------------------|---------------------------------|
| 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 | Bioconcentratio | Exposure time | Temperature | Species | Method |
|----------------------|-----------------|---------------|-------------|-------------|---------------------------------|
| CAS-No. | n factor (BCF) | | | | |
| 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 | PBT / vPvB |
|----------------------|--|
| CAS-No. | |
| 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:

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

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

 $08\ 04\ 10$ 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

| 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 |
|------|----------------|
| ADK | 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)

< 3 %

15.2. Chemical safety assessment

A chemical safety assessment has not been carried out.

SECTION 16: Other information

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

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.

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.