



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

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LOCTITE 271

SDS No. : 173041  
V004.0

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

#### 1.1. Product identifier

LOCTITE 271

#### Contains:

Cumene hydroperoxide

#### 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  
Wood Lane End  
HP2 4RQ Hemel Hempstead

Great Britain

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

ua-productsafety.uk@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       |            |

#### 2.2. Label elements

##### Label elements (CLP):

##### Hazard pictogram:



##### Signal word:

Warning

|  |  |
|--|--|
| <b>Hazard statement:</b>                       | H319 Causes serious eye irritation.<br>H335 May cause respiratory irritation.  |
| <b>Precautionary statement:</b>                | ***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 waste and residues in accordance with local authority requirements*** |
| <b>Precautionary statement:<br/>Prevention</b> | P261 Avoid breathing vapours.  |
| <b>Precautionary statement:<br/>Response</b>   | 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

#### General chemical description:

Anaerobic adhesive

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

| Hazardous components<br>CAS-No.      | EC Number<br>REACH-Reg No. | content        | Classification   |
|--------------------------------------|----------------------------|----------------|--|
| Cumene hydroperoxide<br>80-15-9      | 201-254-7                  | 1- < 2,5 %     | Acute Tox. 4; Dermal<br>H312<br>STOT RE 2<br>H373<br>Acute Tox. 4; Oral<br>H302<br>Org. Perox. E<br>H242<br>Acute Tox. 3; Inhalation<br>H331<br>Aquatic Chronic 2<br>H411<br>Skin Corr. 1B<br>H314   |
| N,N-Diethyl-p-toluidine<br>613-48-9  | 210-345-0                  | 0,1- < 1 %     | Acute Tox. 3; Oral<br>H301<br>Acute Tox. 3; Dermal<br>H311<br>Acute Tox. 3; Inhalation<br>H331<br>STOT RE 2<br>H373<br>Aquatic Chronic 3<br>H412   |
| N,N-dimethyl-o-toluidine<br>609-72-3 | 210-199-8                  | 0,1- < 1 %     | Acute Tox. 3; Inhalation<br>H331<br>Acute Tox. 3; Dermal<br>H311<br>Acute Tox. 3; Oral<br>H301<br>STOT RE 2<br>H373<br>Aquatic Chronic 3<br>H412   |
| 1,4-Naphthalenedione<br>130-15-4     | 204-977-6                  | 100- < 250 PPM | Acute Tox. 3; Oral<br>H301<br>Skin Irrit. 2; Dermal<br>H315<br>Skin Sens. 1; Dermal<br>H317<br>Eye Irrit. 2<br>H319<br>Acute Tox. 1; Inhalation<br>H330<br>STOT SE 3; Inhalation<br>H335<br>Aquatic Acute 1<br>H400<br>Aquatic Chronic 1<br>H410<br>M factor (Acute Aquat Tox): 10 M factor<br>(Chron 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:

Should not be a problem as product is of low volatility. However, if feeling unwell remove patient to fresh air.

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.

#### **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.

##### **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 (CO<sub>2</sub>) and nitrogen oxides (NO<sub>x</sub>) 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**

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**

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**

Use only in well-ventilated areas.

Avoid skin and eye contact.

See advice in section 8

##### **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**

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.

**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 <sup>3</sup> | Value type                        | Short term exposure limit category / Remarks | Regulatory list |
|----------------------------------|-----|-------------------|-----------------------------------|--|-----------------|
| Cumene<br>98-82-8<br>[CUMENE]    | 50  | 250               | Short Term Exposure Limit (STEL): |  | EH40 WEL        |
| Cumene<br>98-82-8<br>[CUMENE]    |     |                   | Skin designation:                 | Can be absorbed through the skin.            | EH40 WEL        |
| Cumene<br>98-82-8<br>[CUMENE]    | 25  | 125               | Time Weighted Average (TWA):      |  | EH40 WEL        |
| Cumene<br>98-82-8<br>[CUMENE]    | 50  | 250               | Short Term Exposure Limit (STEL): | Indicative                                   | ECLTV           |
| Cumene<br>98-82-8<br>[CUMENE]    | 20  | 100               | Time Weighted Average (TWA):      | Indicative                                   | ECLTV           |

**Occupational Exposure Limits**

Valid for  
Ireland

| Ingredient [Regulated substance]         | ppm | mg/m <sup>3</sup> | Value type                        | Short term exposure limit category / Remarks | Regulatory list |
|--|-----|-------------------|-----------------------------------|--|-----------------|
| Cumene<br>98-82-8<br>[ISOPROPYL BENZENE] | 20  | 100               | Time Weighted Average (TWA):      | Indicative OELV                              | IR_OEL          |
| Cumene<br>98-82-8<br>[ISOPROPYL BENZENE] | 50  | 250               | Short Term Exposure Limit (STEL): | Indicative OELV                              | IR_OEL          |
| Cumene<br>98-82-8<br>[ISOPROPYL BENZENE] |     |                   | Skin designation:                 | Can be absorbed through the skin.            | IR_OEL          |
| Cumene<br>98-82-8<br>[CUMENE]            | 50  | 250               | Short Term Exposure Limit (STEL): | Indicative                                   | ECLTV           |
| Cumene<br>98-82-8<br>[CUMENE]            | 20  | 100               | Time Weighted Average (TWA):      | Indicative                                   | ECLTV           |

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

| Name on list  | Environmental Compartment       | Exposure period | Value |     |              |              | Remarks |
|---|---------------------------------|-----------------|-------|-----|--------------|--------------|---------|
|   |                                 |                 | mg/l  | ppm | mg/kg        | others       |         |
| .alpha.,.alpha.-Dimethylbenzyl hydroperoxide<br>80-15-9 | aqua<br>(freshwater)            |                 |       |     |              | 0,0031 mg/L  |         |
| .alpha.,.alpha.-Dimethylbenzyl hydroperoxide<br>80-15-9 | aqua (marine water)             |                 |       |     |              | 0,00031 mg/L |         |
| .alpha.,.alpha.-Dimethylbenzyl hydroperoxide<br>80-15-9 | aqua<br>(intermittent releases) |                 |       |     |              | 0,031 mg/L   |         |
| .alpha.,.alpha.-Dimethylbenzyl hydroperoxide<br>80-15-9 | Sewage treatment plant          |                 |       |     |              | 0,35 mg/L    |         |
| .alpha.,.alpha.-Dimethylbenzyl hydroperoxide<br>80-15-9 | sediment<br>(freshwater)        |                 |       |     | 0,023 mg/kg  |              |         |
| .alpha.,.alpha.-Dimethylbenzyl hydroperoxide<br>80-15-9 | sediment<br>(marine water)      |                 |       |     | 0,0023 mg/kg |              |         |
| .alpha.,.alpha.-Dimethylbenzyl hydroperoxide<br>80-15-9 | soil                            |                 |       |     | 0,0029 mg/kg |              |         |

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

| Name on list  | Application Area | Route of Exposure | Health Effect                         | Exposure Time | Value               | Remarks |
|---|------------------|-------------------|---------------------------------------|---------------|---------------------|---------|
| .alpha.,.alpha.-Dimethylbenzyl hydroperoxide<br>80-15-9 | Workers          | inhalation        | Long term exposure - systemic effects |               | 6 mg/m <sup>3</sup> |         |

**Biological Exposure Indices:**

None

**8.2. Exposure controls:****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 &gt; 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 &gt; 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:**

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<br>liquid<br>red            |
| Odor                                   | characteristic                     |
| Odour threshold                        | No data available / Not applicable |
| pH                                     | 3,00 - 6,00                        |
| ( )                                    |                                    |
| Initial boiling point                  | > 149 °C (> 300.2 °F)              |
| Flash point                            | > 100 °C (> 212 °F)                |
| Decomposition temperature              | No data available / Not applicable |
| Vapour pressure                        | < 300 mbar                         |
| (50 °C (122 °F))                       |                                    |
| Density                                | 1,0800 g/cm <sup>3</sup>           |
| ( )                                    |                                    |
| 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)               | Not miscible                       |
| (Solvent: Water)                       |                                    |
| Solubility (qualitative)               | Miscible                           |
| (Solvent: Acetone)                     |                                    |
| 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                          | No data available / Not applicable |
| Oxidising properties                   | No data available / Not applicable |

**9.2. Other information**

No data available / Not applicable

**SECTION 10: Stability and reactivity****10.1. Reactivity**

None if used properly.

**10.2. Chemical stability**

Stable under recommended storage conditions.

**10.3. Possibility of hazardous reactions**

See section reactivity

**10.4. Conditions to avoid**

No decomposition if used according to specifications.

**10.5. Incompatible materials**

See section reactivity.

**10.6. Hazardous decomposition products**

None if used for intended purpose.

**SECTION 11: Toxicological information****11.1. Information on toxicological effects****General toxicological information:**

The mixture is classified based on the available hazard information for the ingredients as defined in the classification criteria for mixtures for each hazard class or differentiation in Annex I to Regulation (EC) No 1272/2008. Relevant available health/ecological information for the substances listed under Section 3 is provided in the following.

**STOT-single exposure:**

May cause respiratory irritation.

**Skin irritation:**

Prolonged or repeated contact may cause skin irritation.

**Eye irritation:**

Causes serious eye irritation.

**Acute oral toxicity:**

| Hazardous components<br>CAS-No.  | Value<br>type | Value     | Route of<br>application | Exposure<br>time | Species | Method        |
|----------------------------------|---------------|-----------|-------------------------|------------------|---------|---------------|
| Cumene hydroperoxide<br>80-15-9  | LD50          | 550 mg/kg | oral                    |                  | rat     | not specified |
| 1,4-Naphthalenedione<br>130-15-4 | LD50          | 190 mg/kg | oral                    |                  | rat     | not specified |

**Acute dermal toxicity:**

| Hazardous components<br>CAS-No. | Value<br>type | Value                  | Route of<br>application | Exposure<br>time | Species | Method        |
|---------------------------------|---------------|------------------------|-------------------------|------------------|---------|---------------|
| Cumene hydroperoxide<br>80-15-9 | LD50          | 1.200 - 1.520<br>mg/kg | dermal                  |                  |         | not specified |

**Skin corrosion/irritation:**

| Hazardous components<br>CAS-No. | Result    | Exposure<br>time | Species | Method      |
|---------------------------------|-----------|------------------|---------|-------------|
| Cumene hydroperoxide<br>80-15-9 | corrosive |                  | rabbit  | Draize Test |

**Germ cell mutagenicity:**

| Hazardous components<br>CAS-No. | Result   | Type of study /<br>Route of<br>administration          | Metabolic<br>activation /<br>Exposure time | Species | Method  |
|---------------------------------|----------|--|--|---------|---|
| Cumene hydroperoxide<br>80-15-9 | positive | bacterial reverse<br>mutation assay (e.g<br>Ames test) | without                                    |         | OECD Guideline 471<br>(Bacterial Reverse Mutation<br>Assay) |
| Cumene hydroperoxide<br>80-15-9 | negative | dermal   |  | mouse   | not specified   |

**Repeated dose toxicity**

| Hazardous components<br>CAS-No. | Result | Route of<br>application | Exposure time /<br>Frequency of<br>treatment | Species | Method        |
|---------------------------------|--------|-------------------------|--|---------|---------------|
| Cumene hydroperoxide<br>80-15-9 |        | inhalation:<br>aerosol  | 6 h/d5 d/w                                   | rat     | not specified |



## SECTION 12: Ecological information

### General ecological information:

The mixture is classified based on the available hazard information for the ingredients as defined in the classification criteria for mixtures for each hazard class or differentiation in Annex I to Regulation (EC) No 1272/2008. Relevant available health/ecological information for the substances listed under Section 3 is provided in the following.

### 12.1. Toxicity

#### Ecotoxicity:

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

| Hazardous components<br>CAS-No.  | Value<br>type | Value      | Acute<br>Toxicity<br>Study | Exposure<br>time | Species                        | Method   |
|----------------------------------|---------------|------------|----------------------------|------------------|--------------------------------|--|
| Cumene hydroperoxide<br>80-15-9  | LC50          | 3,9 mg/l   | Fish                       | 96 h             | Oncorhynchus mykiss            | OECD Guideline 203 (Fish, Acute Toxicity Test)             |
| Cumene hydroperoxide<br>80-15-9  | EC50          | 18 mg/l    | Daphnia                    | 48 h             | Daphnia magna                  | OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test) |
| Cumene hydroperoxide<br>80-15-9  | ErC50         | 3,1 mg/l   | Algae                      | 72 h             | Pseudokirchnerella subcapitata | OECD Guideline 201 (Alga, Growth Inhibition Test)          |
| Cumene hydroperoxide<br>80-15-9  | EC10          | 70 mg/l    | Bacteria                   | 30 min           |                                |  |
| 1,4-Naphthalenedione<br>130-15-4 | EC50          | 0,011 mg/l | Algae                      | 72 h             | Dunaliella bioculata           | OECD Guideline 201 (Alga, Growth Inhibition Test)          |

### 12.2. Persistence and degradability

#### Persistence and Biodegradability:

The product is not biodegradable.

| Hazardous components<br>CAS-No.  | Result | Route of<br>application | Degradability | Method  |
|----------------------------------|--------|-------------------------|---------------|---|
| Cumene hydroperoxide<br>80-15-9  |        | no data                 | 0 %           | OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test) |
| 1,4-Naphthalenedione<br>130-15-4 |        | no data                 | 0 - 60 %      | OECD 301 A - F  |

### 12.3. Bioaccumulative potential / 12.4. Mobility in soil

#### Mobility:

Cured adhesives are immobile.

#### Bioaccumulative potential:

No data available.

| Hazardous components<br>CAS-No.  | LogPow | Bioconcentration<br>factor (BCF) | Exposure<br>time | Species     | Temperature | Method  |
|----------------------------------|--------|----------------------------------|------------------|-------------|-------------|---|
| Cumene hydroperoxide<br>80-15-9  |        | 9,1                              |                  | calculation |             | OECD Guideline 305 (Bioconcentration: Flow-through Fish Test) not specified |
| Cumene hydroperoxide<br>80-15-9  | 2,16   |                                  |                  |             |             |   |
| 1,4-Naphthalenedione<br>130-15-4 | 1,71   |                                  |                  |             |             | not specified   |

### 12.5. Results of PBT and vPvB assessment

| Hazardous components<br>CAS-No. | PBT/vPvB |
|---------------------------------|----------|
|                                 |          |

|                                 |   |
|---------------------------------|---|
| Cumene hydroperoxide<br>80-15-9 | Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very 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

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.

Disposal must be made according to official regulations.

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**VOC content < 3,00 %  
(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:

- 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.
- H315 Causes skin irritation.
- H317 May cause an allergic skin reaction.
- H319 Causes serious eye irritation.
- H330 Fatal if inhaled.
- H331 Toxic if inhaled.
- H335 May cause respiratory irritation.
- H373 May cause damage to organs through prolonged or repeated exposure.
- H400 Very toxic to aquatic life.
- H410 Very toxic to aquatic life with long lasting effects.
- H411 Toxic to aquatic life with long lasting effects.
- H412 Harmful 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.

**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.**