



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

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Loctite 248

sds no. : 153639
V003.0

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1. Identification of the substance/mixture and of the company/undertaking

Product identifier:

Loctite 248

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

Intended use:

Anaerobic

Details of the supplier of the safety data sheet:

Henkel Limited

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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

2. Hazards identification

Classification of the substance or mixture:

Classification (DPD):

Xi - Irritant

R36/37 Irritating to eyes and respiratory system.

Label elements (DPD):

Xi - Irritant



Risk phrases:

R36/37 Irritating to eyes and respiratory system.

Safety phrases:

S25 Avoid contact with eyes.

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

S51 Use only in well-ventilated areas.

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.

Other hazards:

None if used properly.

3. Composition/information on ingredients

General chemical description:

Methacrylate resin based threadlocker

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

| Hazardous components CAS-No. | EC Number REACH-Reg No. | content | Classification |
|------------------------------------|----------------------------|----------------|---|
| Ethane-1,2-diol 107-21-1 | 203-473-3 | > 1- < 3 % | Acute toxicity 4; Oral H302 |
| Cumene hydroperoxide 80-15-9 | 201-254-7 | > 1- < 2,5 % | 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 |
| 1-Methyl-2-pyrrolidone 872-50-4 | 212-828-1 | > 0,1- < 0,5 % | Toxic to reproduction 1B H360D Serious eye irritation 2 H319 Specific target organ toxicity - single exposure 3 H335 Skin irritation 2 H315 |
| Cumene 98-82-8 | 202-704-5 | > 0,1- < 0,5 % | 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 |
|------------------------------------|----------------------------|-----------------|---|
| Ethane-1,2-diol 107-21-1 | 203-473-3 | > 1 - < 3 % | Xn - Harmful; R22 |
| Cumene hydroperoxide 80-15-9 | 201-254-7 | > 1 - < 2,5 % | T - Toxic; R23 Xn - Harmful; R21/22, R48/20/22 O - Oxidizing; R7 C - Corrosive; R34 N - Dangerous for the environment; R51, R53 |
| 1-Methyl-2-pyrrolidone 872-50-4 | 212-828-1 | > 0,1 - < 0,5 % | Toxic for reproduction - category 2.; R61 Xi - Irritant; R36/37/38 |
| Cumene 98-82-8 | 202-704-5 | > 0,1 - < 0,5 % | 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.

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:

EYE: Irritation, conjunctivitis.

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

Indication of any immediate medical attention and special treatment needed:

See section: Description of first aid measures

5. Firefighting measures

Extinguishing media:

Suitable extinguishing media:

Carbon dioxide, foam, powder

Extinguishing media which must not be used for safety reasons:

None known

Special hazards arising from the substance or mixture:

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

Advice for firefighters:

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

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures:

Avoid skin and eye contact.

Environmental precautions:

Waste disposal with the approval of the responsible local authority.

Reference to other sections:

See advice in chapter 8

7. Handling and storage

Precautions for safe handling:

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

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.

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

8. Exposure controls/personal protection

Control parameters:
Valid for
Great Britain

| Ingredient | ppm | mg/m ³ | Type | Category | Remarks |
|--|-----|-------------------|-----------------------------------|-----------------------------------|----------|
| ETHYLENE GLYCOL 107-21-1 | | | Skin designation: | Can be absorbed through the skin. | ECTLV |
| ETHANE-1,2-DIOL, VAPOUR 107-21-1 | 40 | 104 | Short Term Exposure Limit (STEL): | | EH40 WEL |
| ETHANE-1,2-DIOL, PARTICULATE 107-21-1 | | | Skin designation: | Can be absorbed through the skin. | EH40 WEL |
| ETHANE-1,2-DIOL, VAPOUR 107-21-1 | | | Skin designation: | Can be absorbed through the skin. | EH40 WEL |
| ETHANE-1,2-DIOL, PARTICULATE 107-21-1 | | 10 | Time Weighted Average (TWA): | | EH40 WEL |
| ETHANE-1,2-DIOL, VAPOUR 107-21-1 | 20 | 52 | Time Weighted Average (TWA): | | EH40 WEL |
| ETHYLENE GLYCOL 107-21-1 | 20 | 52 | Time Weighted Average (TWA): | Indicative | ECTLV |
| ETHYLENE GLYCOL 107-21-1 | 40 | 104 | Short Term Exposure Limit (STEL): | Indicative | ECTLV |
| 1-METHYL-2-PYRROLIDONE 872-50-4 | 75 | 309 | Short Term Exposure Limit (STEL): | | EH40 WEL |
| 1-METHYL-2-PYRROLIDONE 872-50-4 | | | Skin designation: | Can be absorbed through the skin. | EH40 WEL |
| 1-METHYL-2-PYRROLIDONE 872-50-4 | 25 | 103 | Time Weighted Average (TWA): | | EH40 WEL |
| N-METHYL-2-PYRROLIDONE 872-50-4 | 10 | 40 | Time Weighted Average (TWA): | Indicative | ECTLV |
| N-METHYL-2-PYRROLIDONE 872-50-4 | 20 | 80 | Short Term Exposure Limit (STEL): | Indicative | ECTLV |
| N-METHYL-2-PYRROLIDONE 872-50-4 | | | Skin designation: | Can be absorbed through the skin. | ECTLV |
| 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.

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:

Wear protective glasses.

Skin protection:

Wear suitable protective clothing.

9. Physical and chemical properties

Information on basic physical and chemical properties:

| | |
|--|------------------------------------|
| Appearance | solid blue |
| Odor | characteristic |
| pH | not applicable |
| Initial boiling point | > 150,0 °C (> 302 °F) |
| Flash point | > 100 °C (> 212 °F) |
| Decomposition temperature | No data available / Not applicable |
| Vapour pressure (25,0 °C (77 °F)) | < 6,66 mbar |
| Density (ρ) | 1,1000 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 |
| Solubility (qualitative) (Solvent: Acetone) | Not determined |
| 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 |

Other information:

No data available / Not applicable

10. Stability and reactivity

Reactivity:

Strong oxidizing agents.

Free radical initiators.

Possibility of hazardous reactions:

See section reactivity

Conditions to avoid:

Stable under normal conditions of storage and use.

Incompatible materials:

None if used properly.

Hazardous decomposition products:

Oxides of carbon.

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.

Oral toxicity:

May cause irritation to the digestive tract.

Inhalative toxicity:

Irritating to respiratory system

Skin irritation:

Although it is not a common sensitizer there may be a risk of sensitization on prolonged or repeated contact with damaged skin

Eye irritation:

Irritating to eyes.

Acute toxicity:

| Hazardous components CAS-No. | Value type | Value | Route of application | Exposure time | Species | Method |
|------------------------------------|--------------|---------------------------|----------------------|---------------|------------|--|
| Ethane-1,2-diol 107-21-1 | LD50 | > 2.000 mg/kg | oral | | rat | EU Method B.1 (Acute Toxicity (Oral)) |
| 1-Methyl-2-pyrrolidone 872-50-4 | LD50 LC50 | 5.010 mg/kg > 5,1 mg/l | oral inhalation | 4 h | rat rat | OECD Guideline 403 (Acute Inhalation Toxicity) |

Skin corrosion/irritation:

| Hazardous components CAS-No. | Result | Exposure time | Species | Method |
|------------------------------------|-----------------------|---------------|---------|--------|
| 1-Methyl-2-pyrrolidone 872-50-4 | slightly irritating | | rabbit | |
| 1-Methyl-2-pyrrolidone 872-50-4 | moderately irritating | | human | |

Serious eye damage/irritation:

| Hazardous components CAS-No. | Result | Exposure time | Species | Method |
|------------------------------------|----------------|---------------|---------|--------|
| 1-Methyl-2-pyrrolidone 872-50-4 | not irritating | | rabbit | |

Germ cell mutagenicity:

| Hazardous components CAS-No. | Result | Type of study / Route of administration | Metabolic activation / Exposure time | Species | Method |
|------------------------------|----------|---|--------------------------------------|---------|--------|
| Ethane-1,2-diol 107-21-1 | negative | bacterial forward mutation assay | with and without | | |

Repeated dose toxicity

| Hazardous components CAS-No. | Result | Route of application | Exposure time / Frequency of treatment | Species | Method |
|------------------------------------|----------------|-------------------------|--|---------|---|
| 1-Methyl-2-pyrrolidone 872-50-4 | NOAEL=0,5 mg/l | inhalation | 90 days 6 hrs/day, 5 days/wk | rat | OECD Guideline 413 (Subchronic Inhalation Toxicity: 90-Day) |

12. Ecological information**General ecological information:**

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

In the cured state contribution of this product to Environmental Hazards is insignificant in comparison to articles in which it is used.

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:

No data available for the product.

Toxicity:

| Hazardous components CAS-No. | Value type | Value | Acute Toxicity Study | Exposure time | Species | Method |
|------------------------------------|------------|---------------|----------------------|---------------|--|--|
| Ethane-1,2-diol 107-21-1 | LC50 | 72.860 mg/l | Fish | 96 h | Pimephales promelas | OECD Guideline 203 (Fish, Acute Toxicity Test) |
| | NOEC | 15.380 mg/l | Fish | 28 d | Oryzias latipes | OECD Guideline 204 (Fish, Prolonged Toxicity Test: 14-day Study) |
| Ethane-1,2-diol 107-21-1 | EC50 | 34.400 mg/l | Daphnia | 48 h | Ceriodaphnia sp. | OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test) |
| Ethane-1,2-diol 107-21-1 | EC50 | > 20.000 mg/l | Algae | | Microcystis aeruginosa | OECD Guideline 201 (Alga, Growth Inhibition 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) |
| 1-Methyl-2-pyrrolidone 872-50-4 | LC50 | 4.000 mg/l | Fish | 96 h | Leuciscus idus | |
| 1-Methyl-2-pyrrolidone 872-50-4 | EC50 | 4.897 mg/l | Daphnia | 48 h | Daphnia magna | OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test) |
| 1-Methyl-2-pyrrolidone 872-50-4 | EC50 | > 500 mg/l | Algae | 72 h | Scenedesmus subspicatus (new name: Desmodesmus subspicatus) | |
| 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 |
|------------------------------------|-----------------------|----------------------|---------------|---|
| Ethane-1,2-diol 107-21-1 | readily biodegradable | aerobic | 83 - 96 % | OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I)) |
| Cumene hydroperoxide 80-15-9 | | | 18 % | OECD Guideline 301 E (Ready biodegradability: Modified OECD Screening Test) |
| 1-Methyl-2-pyrrolidone 872-50-4 | | aerobic | 99 % | 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 |
|------------------------------|--------|-------------------------------|---------------|---------|-------------|--------|
|------------------------------|--------|-------------------------------|---------------|---------|-------------|--------|

| | | | | | | |
|------------------------------------|-------|------|--|-------------------|-------|---|
| Ethane-1,2-diol 107-21-1 | -1,36 | | | | | |
| Cumene hydroperoxide 80-15-9 | | 9,1 | | | | OECD Guideline 305 (Bioconcentration: Flow-through Fish Test) |
| Cumene hydroperoxide 80-15-9 | 2,16 | | | | | |
| 1-Methyl-2-pyrrolidone 872-50-4 | -0,11 | | | | | |
| 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) |

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.

Disposal must be made according to official regulations.

Waste code

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

14. Transport information

General information:

Not hazardous according to RID, ADR, ADNR, IMDG, IATA-DGR.

15. Regulatory information

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

VOC content < 3 %
(1999/13/EC)

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.
- R22 Harmful if swallowed.
- R23 Toxic by inhalation.
- R34 Causes burns.
- R36/37/38 Irritating to eyes, respiratory system and skin.
- R37 Irritating to respiratory system.
- R48/20/22 Harmful: danger of serious damage to health by prolonged exposure through inhalation and if swallowed.
- R51 Toxic to aquatic organisms.
- R53 May cause long-term adverse effects in the aquatic environment.
- R61 May cause harm to the unborn child.
- 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.
- H315 Causes skin irritation.
- H319 Causes serious eye irritation.
- H331 Toxic if inhaled.
- H335 May cause respiratory irritation.
- H360D May damage the unborn child.
- 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.