

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

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sds no.: 316211 V005.0

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Loctite 243

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

1.1. Product identifier

Loctite 243

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 Ireland

Operations and Research Limited

Tallaght Business Park

Dublin 24

Ireland

Phone: +353 (14046444) Fax-no.: +353 (14519926)

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 (DPD):

Dangerous for the environment

R52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Sensitizing

R43 May cause sensitisation by skin contact.

2.2. Label elements

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Label elements (DPD):

Xi - Irritant



Risk phrases:

R43 May cause sensitisation by skin contact.

R52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Safety phrases:

S24 Avoid contact with skin.

S37 Wear suitable gloves.

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:

Maleic acid

2.3. Other hazards

None if used properly.

SECTION 3: Composition/information on ingredients

General chemical description:

Anaerobic adhesive

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

| Hazardous components CAS-No. | EC Number REACH-Reg No. | content | Classification |
|--|----------------------------|-----------------|--|
| 2,4,6-Triallyloxy-s-triazine 101-37-1 | 202-936-7 | >= 2,5-< 10 % | Acute toxicity 4; Oral H302 |
| | | | Chronic hazards to the aquatic environment 2 H411 |
| Undecanoic acid, 11-amino-, homopolymer 25587-80-8 | 01-0000020228-74 | >= 0,25-< 2,5 % | Acute hazards to the aquatic environment 1 H400 |
| | | | Chronic hazards to the aquatic environment 1 H410 |
| Cumene hydroperoxide 80-15-9 | 201-254-7 | >= 0,1-< 0,9 % | 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 |
| Maleic acid | 203-742-5 | >= 0,1-< 0,5 % | Acute toxicity 4; Oral |
| 110-16-7 | | | H302 Acute toxicity 4; Dermal |
| | | | H312 |
| | | | Skin irritation 2 |
| | | | H315 Skin sensitizer 1 |
| | | | H317 |
| | | | Serious eye irritation 2 |
| | | | H319 |
| | | | Specific target organ toxicity - single exposure 3 |
| | | | H335 |
| Cumene | 202-704-5 | >= 0,05-< 0,5 % | Flammable liquids 3 |
| 98-82-8 | | | H226 Aspiration hazard 1 |
| | | | H304 |
| | | | Specific target organ toxicity - single |
| | | | exposure 3 |
| | | | H335 |
| | | | Chronic hazards to the aquatic environment 2 H411 |

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 | EC Number | content | Classification |
|------------------------------|------------------|------------------|---|
| CAS-No. | REACH-Reg No. | | |
| 2,4,6-Triallyloxy-s-triazine | 202-936-7 | >= 2,5 -< 10 % | Xn - Harmful; R22 |
| 101-37-1 | | | N - Dangerous for the environment; R51/53 |
| Undecanoic acid, 11-amino-, | 01-0000020228-74 | >= 0,25 -< 2,5 % | N - Dangerous for the environment; R50/53 |
| homopolymer | | | |
| 25587-80-8 | | | |
| Cumene hydroperoxide | 201-254-7 | >= 0,1 -< 0,9 % | T - Toxic; R23 |
| 80-15-9 | | | Xn - Harmful; R21/22, R48/20/22 |
| | | | O - Oxidizing; R7 |
| | | | C - Corrosive; R34 |
| | | | N - Dangerous for the environment; R51/53 |
| Maleic acid | 203-742-5 | >= 0,1 -< 0,5 % | Xn - Harmful; R21/22 |
| 110-16-7 | | | Xi - Irritant; R36/37/38, R43 |
| Cumene | 202-704-5 | >= 0,05 -< 0,5 % | R10 |
| 98-82-8 | | | Xn - Harmful; R65 |
| | | | Xi - Irritant; R37 |
| | | | N - Dangerous for the environment; R51/53 |

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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.

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.

4.2. Most important symptoms and effects, both acute and delayed

SKIN: Redness, inflammation.

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

Fine water spray

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) and carbon dioxide (CO2) can be released.

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.

SECTION 6: Accidental release measures

${\bf 6.1.} \ Personal \ precautions, \ protective \ equipment \ and \ emergency \ procedures$

Avoid skin and eye contact.

Ensure adequate ventilation.

6.2. Environmental precautions

Do not let product enter drains.

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 chapter 8

SECTION 7: Handling and storage

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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.

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

Ensure good ventilation/extraction.

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.

Do not store together with food or other consumables (coffee, tea, tobacco, etc.).

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

Biological Exposure Indices:

None

8.2. Exposure controls:

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

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.

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Eye protection:

Wear protective glasses.

Skin protection:

Wear suitable protective clothing.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance liquid

blue

Odor characteristic

Odour threshold No data available / Not applicable

pH No data available / Not applicable

Initial boiling point > 70 °C (> 158 °F) Flash point > 110 °C (> 230 °F)

Decomposition temperature No data available / Not applicable

Vapour pressure 1,7 mbar

(25 °C (77 °F))

Density

No data available / Not applicable
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) Insoluble

(Solvent: Water)

Solubility (qualitative) Soluble

(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 No data available / Not applicable Explosive limits 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

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

10.5. Incompatible materials

None if used properly.

10.6. Hazardous decomposition products

carbon oxides.

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SECTION 11: Toxicological information

11.1. Information on toxicological effects

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.

Skin irritation:

Prolonged or repeated contact may cause skin irritation.

Eye irritation:

May cause mild irritation to the eyes.

Sensitizing:

May cause sensitization by skin contact.

Acute oral toxicity:

| Hazardous components CAS-No. | Value type | Value | Route of application | Exposure time | Species | Method |
|------------------------------|---------------|-----------|----------------------|---------------|---------|--------|
| Cumene hydroperoxide | LD50 | 550 mg/kg | oral | | rat | |
| 80-15-9 | | | | | | |

Skin corrosion/irritation:

| Hazardous components CAS-No. | Result | Exposure time | Species | Method |
|------------------------------|-----------|---------------|---------|--------|
| Cumene hydroperoxide | corrosive | | rabbit | |
| 80-15-9 | | | | |

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:

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

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.

12.1. Toxicity

Ecotoxicity:

Harmful to aquatic organisms.

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

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| Hazardous components CAS-No. | Value type | Value | Acute Toxicity Study | Exposure time | Species | Method |
|--|---------------|--------------|----------------------------|---------------|--|--|
| 2,4,6-Triallyloxy-s-triazine 101-37-1 | LC50 | 4,36 mg/l | Fish | 96 h | Oncorhynchus mykiss | OECD Guideline 203 (Fish, Acute Toxicity Test) |
| 2,4,6-Triallyloxy-s-triazine 101-37-1 | EC50 | 19,4 mg/l | Daphnia | 48 h | Daphnia magna | OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test) |
| Undecanoic acid, 11-amino-, homopolymer 25587-80-8 | NOEC | > 0,024 mg/l | Fish | 96 h | | OECD Guideline 203 (Fish, Acute Toxicity Test) |
| Undecanoic acid, 11-amino-, homopolymer 25587-80-8 | NOEC | > 0,024 mg/l | Daphnia | 48 h | Daphnia magna | OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test) |
| Undecanoic acid, 11-amino-, homopolymer 25587-80-8 | EC50 | 0,025 mg/l | Algae | 72 h | | 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) |
| Maleic acid 110-16-7 | LC50 | > 245 mg/l | Fish | 48 h | Leuciscus idus | , |
| Maleic acid 110-16-7 | EC50 | 245 mg/l | Daphnia | 24 h | Daphnia magna | |
| 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) |

12.2. Persistence and degradability

Persistence and Biodegradability: The product is not biodegradable.

| Hazardous components | Result | Route of | Degradability | Method |
|----------------------|--------|-------------|---------------|--------|
| CAS-No. | | application | | |

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| 2,4,6-Triallyloxy-s-triazine 101-37-1 | | aerobic | 7 - 9 % | OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test) |
|--|-----------------------|---------|-----------|--|
| Undecanoic acid, 11-amino-, homopolymer 25587-80-8 | | no data | 7 % | |
| Cumene hydroperoxide 80-15-9 | | | 18 % | OECD Guideline 301 E (Ready biodegradability: Modified OECD Screening Test) |
| Maleic acid 110-16-7 | readily biodegradable | aerobic | 87 - 88 % | EU Method C.4-E (Determination of the "Ready" BiodegradabilityClosed Bottle Test) |
| Cumene 98-82-8 | | aerobic | 86 % | |

12.3. Bioaccumulative potential / 12.4. Mobility in soil

Mobility:

Cured adhesives are immobile.

| Hazardous components CAS-No. | LogKow | Bioconcentration factor (BCF) | Exposure time | Species | Temperature | Method |
|--|--------|----------------------------------|------------------|-------------------|-------------|---|
| 2,4,6-Triallyloxy-s-triazine 101-37-1 | 2,8 | ractor (BCF) | ume | | 20 °C | |
| Cumene hydroperoxide 80-15-9 | | 9,1 | | calculation | | OECD Guideline 305 (Bioconcentration: Flow- through Fish Test) |
| Cumene hydroperoxide 80-15-9 | 2,16 | | | | | |
| Maleic acid 110-16-7 | -0,48 | | | | | |
| Cumene 98-82-8 Cumene 98-82-8 | 3,55 | 35,5 | | Carassius auratus | 23 °C | OECD Guideline 305 (Bioconcentration: Flow-through Fish Test) OECD Guideline 107 (Partition Coefficient (noctanol / water), Shake |
| | | | | | | Flask Method) |

12.5. Results of PBT and vPvB assessment

No data available.

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

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SECTION 14: Transport information

14.1. UN number

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

14.2. UN proper shipping name

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

14.3. Transport hazard class(es)

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

14.4. Packaging group

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

14.5. Environmental hazards

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

14.6. Special precautions for user

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

14.7. Transport in bulk according to Annex II of MARPOL 73/78 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 (1999/13/EC) < 3 %

15.2. Chemical safety assessment

A chemical safety assessment has not been carried out.

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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.

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.

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.

R51/53 Toxic to aquatic organisms, 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 vapor.

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.

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

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.

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.