

**LOCTITE 242** 

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

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SDS No.: 173036

V005.0 Revision: 21.10.2016

printing date: 07.12.2017

Replaces version from: 04.02.2016

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

# 1.1. Product identifier

LOCTITE 242

#### **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

Adhesives

Wood Lane End

HP2 4RQ Hemel Hempstead

Great Britain

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

ua-products a fety.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

Chronic hazards to the aquatic environment Category 3

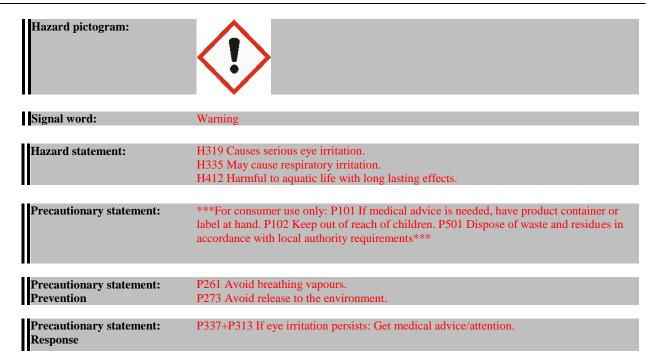
H412 Harmful to aquatic life with long lasting effects.

## 2.2. Label elements

# Label elements (CLP):

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#### 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

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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
Cumene hydroperoxide 80-15-9	201-254-7	1-< 2,5 %	Acute Tox. 4; Dermal 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 613-48-9	210-345-0	0,1-< 1 %	Acute Tox. 3; Oral H301 Acute Tox. 3; Dermal H311 Acute Tox. 3; Inhalation H331 STOT RE 2 H373 Aquatic Chronic 3 H412
1,4-Naphthalenedione 130-15-4	204-977-6	0,01-< 0,1 %	Acute Tox. 3; Oral H301 Skin Irrit. 2; Dermal H315 Skin Sens. 1; Dermal H317 Eye Irrit. 2 H319 Acute Tox. 1; Inhalation H330 STOT SE 3; Inhalation H335 Aquatic Acute 1 H400 Aquatic Chronic 1 H410 M factor (Acute Aquat Tox): 10 M factor (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:

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.

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

Causes serious eye irritation.

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**

#### 5.1. Extinguishing media

# Suitable extinguishing media:

Carbon dioxide, foam, powder

#### 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.

Oxides of carbon, oxides of nitrogen, irritating organic vapors.

#### 5.3. Advice for firefighters

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

# **SECTION 6: Accidental release measures**

## 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 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

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.

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# 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
Propane-1,2-diol 57-55-6 [PROPANE-1,2-DIOL, PARTICULATES]		10	Time Weighted Average (TWA):		EH40 WEL
Propane-1,2-diol 57-55-6 [PROPANE-1,2-DIOL, TOTAL VAPOUR AND PARTICULATES]	150	474	Time Weighted Average (TWA):		EH40 WEL

# **Occupational Exposure Limits**

Valid for

Ireland

Ingredient [Regulated substance]	ppm	mg/m³	Value type		Regulatory list
				category / Remarks	
Propane-1,2-diol		10	Time Weighted Average		IR_OEL
57-55-6			(TWA):		
[PROPANE-1,2-DIOL, PARTICULATES]					
Propane-1,2-diol	150	470	Time Weighted Average		IR_OEL
57-55-6			(TWA):		
[PROPANE-1,2-DIOL, TOTAL (VAPOUR					
AND PARTICULATES)]					

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

Name on list	<b>Environmental</b> <b>Compartment</b>	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		

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

Name on list	Application	Route of		I	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:

Wear protective glasses.

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 blue
Odor characteristic

Odour threshold No data available / Not applicable

pH 3 - 6

Initial boiling point  $> 149 \,^{\circ}\text{C} (> 300.2 \,^{\circ}\text{F})$ Flash point  $> 100 \,^{\circ}\text{C} (> 212 \,^{\circ}\text{F})$  MSDS-No.: 173036 LOCTITE 242 Page 7 of 11

< 300 mbar

1,08 g/cm3

Miscible

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Decomposition temperature No data available / Not applicable

Vapour pressure < 0,1 mm hg

(25 °C (77 °F)) Vapour pressure

(50 °C (122 °F))

Density

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)

(Solvent: Acetone)

Solidification temperature No data available / Not applicable No data available / Not applicable Melting point No data available / Not applicable Flammability 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 No data available / Not applicable Vapor density Oxidising properties No data available / Not applicable

#### 9.2. Other information

No data available / Not applicable

# **SECTION 10: Stability and reactivity**

#### 10.1. Reactivity

Reacts with strong oxidants.

#### 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

Irritating organic vapours.

Oxides of carbon.

# **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.

#### Oral toxicity:

This material is considered to have low toxicity if swallowed.

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#### Skin irritation:

Prolonged or repeated contact may cause skin irritation.

# Eye irritation:

Causes serious eye irritation.

# Acute oral toxicity:

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

#### Acute dermal toxicity:

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

#### Skin corrosion/irritation:

Hazardous components CAS-No.	Result	Exposure time	Species	Method
Cumene hydroperoxide	corrosive		rabbit	Draize Test
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	not specified

# Repeated dose toxicity

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

# **SECTION 12: Ecological information**

#### General ecological information:

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

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.

Harmful to aquatic life with long lasting effects.

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Hazardous components CAS-No.	Value type	Value	Acute Toxicity Study	Exposure time	Species	Method
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 hydroperoxide 80-15-9	EC10	70 mg/l	Bacteria	30 min		not specified
1,4-Naphthalenedione 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 CAS-No.	Result	Route of application	Degradability	Method
Cumene hydroperoxide 80-15-9		no data	0 %	OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test)
1,4-Naphthalenedione 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 CAS-No.	LogPow	Bioconcentration factor (BCF)	Exposure time	Species	Temperature	Method
Cumene hydroperoxide 80-15-9 Cumene hydroperoxide 80-15-9	2,16	9,1		calculation		OECD Guideline 305 (Bioconcentration: Flow- through Fish Test) not specified
1,4-Naphthalenedione 130-15-4	1,71					not specified

# 12.5. Results of PBT and vPvB assessment

Hazardous components	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

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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

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 (2010/75/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:

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.