

**LOCTITE 262** 

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

Page 1 of 12

SDS No.: 153483

V004.0 Revision: 16.11.2016

printing date: 21.11.2016

Replaces version from: 14.10.2016

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

## 1.1. Product identifier

**LOCTITE 262** 

#### **Contains:**

Cumene hydroperoxide

#### 1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use:

Anaerobic Adhesive

## 1.3. Details of the supplier of the safety data sheet

Henkel AG & Co. KGaA

Henkelstr. 67

40589 Düsseldorf

Germany

Phone: +49 211 797 0 Fax-no.: +49 211 798 2009

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

Chronic hazards to the aquatic environment Category 3

H412 Harmful to aquatic life with long lasting effects.

#### 2.2. Label elements

## Label elements (CLP):



MSDS-No.: 153483 LOCTITE 262 Page 2 of 12

V004.0

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 waste and residues in accordance with local authority requirements***
Precautionary statement: Prevention	P261 Avoid breathing vapours. P273 Avoid release to the environment.
Precautionary statement: Response	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

MSDS-No.: 153483 LOCTITE 262 Page 3 of 12

V004.0

## 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	0,25-< 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	0,25-< 2,5 %	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.

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.

MSDS-No.: 153483 LOCTITE 262 Page 4 of 12

V004.0

## 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**

#### 5.1. Extinguishing media

## Suitable extinguishing media:

Carbon dioxide, foam, powder

## 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 (CO2) and nitrogen oxides (NOx) 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

Avoid contact with skin and eyes.

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.

#### 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:

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.

#### 7.3. Specific end use(s)

Anaerobic Adhesive

MSDS-No.: 153483 LOCTITE 262 Page 5 of 12

V004.0

# **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
Ethene, homopolymer 9002-88-4 [DUST, INHALABLE DUST]		10	Time Weighted Average (TWA):		EH40 WEL
Ethene, homopolymer 9002-88-4 [DUST, RESPIRABLE DUST]		4	Time Weighted Average (TWA):		EH40 WEL
Cumene 98-82-8 [CUMENE]	50	250	Short Term Exposure Limit (STEL):		EH40 WEL
Cumene 98-82-8 [CUMENE]			Skin designation:	Can be absorbed through the skin.	EH40 WEL
Cumene 98-82-8 [CUMENE]	25	125	Time Weighted Average (TWA):		EH40 WEL
Cumene 98-82-8 [CUMENE]	50	250	Short Term Exposure Limit (STEL):	Indicative	ECTLV
Cumene 98-82-8 [CUMENE]	20	100	Time Weighted Average (TWA):	Indicative	ECTLV

# **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
Ethene, homopolymer 9002-88-4 [DUSTS, NON-SPECIFIC, RESPIRABLE]		4	Time Weighted Average (TWA):		IR_OEL
Ethene, homopolymer 9002-88-4 [DUSTS, NON-SPECIFIC, TOTAL INHALABLE]		10	Time Weighted Average (TWA):		IR_OEL
Cumene 98-82-8 [ISOPROPYL BENZENE]	20	100	Time Weighted Average (TWA):	Indicative OELV	IR_OEL
Cumene 98-82-8 [ISOPROPYL BENZENE]	50	250	Short Term Exposure Limit (STEL):	Indicative OELV	IR_OEL
Cumene 98-82-8 [ISOPROPYL BENZENE]			Skin designation:	Can be absorbed through the skin.	IR_OEL
Cumene 98-82-8 [CUMENE]	50	250	Short Term Exposure Limit (STEL):	Indicative	ECTLV
Cumene 98-82-8 [CUMENE]	20	100	Time Weighted Average (TWA):	Indicative	ECTLV

MSDS-No.: 153483 LOCTITE 262 Page 6 of 12

V004.0

## **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	Health Effect	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.

MSDS-No.: 153483 LOCTITE 262 Page 7 of 12

V004.0

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

liquid red

Odor characteristic

Odour threshold No data available / Not applicable

pH Not applicable Initial boiling point > 150 °C (> 302 °F)

Flash point > 93,3 °C (> 199.94 °F); Tagliabue closed cup

Decomposition temperature No data available / Not applicable

Vapour pressure < 0,1300000 mbar

(20,0 °C (68 °F))

Vapour pressure < 300 mbar

(50 °C (122 °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) Slight

(Solvent: Water)

Solubility (qualitative) Partially soluble

(Solvent: Acetone)

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

#### 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

MSDS-No.: 153483 LOCTITE 262 Page 8 of 12

V004.0

## 10.4. Conditions to avoid

Stable under normal conditions of storage and use.

## 10.5. Incompatible materials

See section reactivity.

## **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.

May cause irritation to the digestive tract.

#### Skin irritation:

Prolonged or repeated contact may cause skin irritation.

#### Eye irritation:

Causes serious eye irritation.

## 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	not specified
80-15-9						
1,4-Naphthalenedione	LD50	190 mg/kg	oral		rat	not specified
130-15-4						

## 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 80-15-9	corrosive		rabbit	Draize Test

## Germ cell mutagenicity:

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

MSDS-No.: 153483 LOCTITE 262 Page 9 of 12

V004.0

## 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:

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:**

Harmful to aquatic life with long lasting effects.

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

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
Cumene hydroperoxide 80-15-9	ErC50	3,1 mg/l	Algae	72 h	Pseudokirchnerella subcapitata	Test) 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 for the product.

Hazardous components	LogPow Bioconcentration	Exposure	Species	Temperature	Method
CAS-No.	factor (BCF)	time			

MSDS-No.: 153483 LOCTITE 262 Page 10 of 12

V004.0

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

Product disposal:

Dispose of in accordance with local and national regulations.

Collection and delivery to recycling enterprise or other registered elimination institution.

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.

MSDS-No.: 153483 LOCTITE 262 Page 11 of 12

V004.0

## **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

< 3 %

VOC content (2010/75/EC)

## 15.2. Chemical safety assessment

A chemical safety assessment has not been carried out.

MSDS-No.: 153483 LOCTITE 262 Page 12 of 12

V004.0

## **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.

#### Label elements (DPD):

#### Xi - Irritant



#### Risk phrases:

R36/37 Irritating to eyes and respiratory system.

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

## 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.

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.

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.



**LOCTITE 243** 

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

Page 1 of 19

SDS No.: 316211

V009.2

Revision: 14.12.2015

printing date: 03.02.2016

Replaces version from: 19.06.2015

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

## 1.1. Product identifier

LOCTITE 243

#### **Contains:**

Tetramethylene dimethacrylate Maleic acid

Acetic acid, 2-phenylhydrazide

# 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 AG & Co. KGaA

Henkelstr. 67

40589 Düsseldorf

Germany

Phone: +49 211 797 0 Fax-no.: +49 211 798 2009

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):**

Skin sensitizer Category 1

H317 May cause an allergic skin reaction.

Chronic hazards to the aquatic environment Category 2

H411 Toxic to aquatic life with long lasting effects.

## 2.2. Label elements

## Label elements (CLP):

## Hazard pictogram:



MSDS-No.: 316211 LOCTITE 243 Page 2 of 19

V009.2

Signal word: Warning

**Hazard statement:** H317 May cause an allergic skin reaction.

H411 Toxic 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 waste and residues in

accordance with local authority requirements\*\*\*

**Precautionary statement:** P273 Avoid release to the environment.

**Prevention** P280 Wear protective gloves.

**Precautionary statement:** 

Response

P333+P313 If skin irritation or rash occurs: Get medical advice/attention.

#### 2.3. Other hazards

None if used properly.

# **SECTION 3: Composition/information on ingredients**

#### 3.2. Mixtures

## General chemical description:

Anaerobic adhesive

MSDS-No.: 316211 LOCTITE 243 Page 3 of 19

V009.2

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

Hazardous components CAS-No.	EC Number REACH-Reg No.	content	Classification
Tetramethylene dimethacrylate 2082-81-7	218-218-1 01-2119967415-30	25- 50 %	Skin Sens. 1B H317
2,4,6-Triallyloxy-s-triazine 101-37-1	202-936-7 01-2119489756-17	5-< 10 %	Acute Tox. 4; Oral H302 Aquatic Chronic 2 H411
2-[[2,2-bis[[(1- oxoallyl)oxy]methyl]butoxy]methyl]-2- ethyl-1,3-propanediyl diacrylate 94108-97-1	302-434-9 01-2119977121-41	1-< 5 %	Eye Irrit. 2 H319 Aquatic Chronic 2 H411
Fatty acid amide	484-050-2 01-0000020228-74	0,25-< 2,5 %	Aquatic Acute 1 H400 Aquatic Chronic 1 H410 M factor: 10 M factor (Chron Aquat Tox): 10
Cumene hydroperoxide 80-15-9	201-254-7	0,1-< 1 %	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
Acetic acid, 2-phenylhydrazide 114-83-0	204-055-3	0,1-< 1 %	Acute Tox. 3; Oral H301 Skin Irrit. 2 H315 Skin Sens. 1 H317 Eye Irrit. 2 H319 STOT SE 3; Inhalation H335 Carc. 2 H351
Maleic acid 110-16-7	203-742-5 01-2119488705-25	0,1-< 1 %	Acute Tox. 4; Oral H302 Acute Tox. 4; Dermal H312 Skin Irrit. 2 H315 Skin Sens. 1 H317 Eye Irrit. 2 H319 STOT SE 3 H335
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

MSDS-No.: 316211 LOCTITE 243 Page 4 of 19

V009.2

	H400
	Aquatic Chronic 1
	H410
	M factor: 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.

Eve 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

SKIN: Rash, Urticaria.

Prolonged or repeated contact may cause eye 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

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), carbon dioxide (CO2) and nitrogen oxides (NOx) 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

Avoid skin and eye contact.

Ensure adequate ventilation.

#### 6.2. Environmental precautions

Do not let product enter drains.

MSDS-No.: 316211 LOCTITE 243 Page 5 of 19

V009.2

#### 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

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

MSDS-No.: 316211 LOCTITE 243 Page 6 of 19

V009.2

# **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
Cumene 98-82-8 [CUMENE]	50	250	Short Term Exposure Limit (STEL):		EH40 WEL
Cumene 98-82-8 [CUMENE]			Skin designation:	Can be absorbed through the skin.	EH40 WEL
Cumene 98-82-8 [CUMENE]	25	125	Time Weighted Average (TWA):		EH40 WEL
Cumene 98-82-8 [CUMENE]	50	250	Short Term Exposure Limit (STEL):	Indicative	ECTLV
Cumene 98-82-8 [CUMENE]	20	100	Time Weighted Average (TWA):	Indicative	ECTLV

# **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
Propane-1,2-diol 57-55-6 [PROPANE-1,2-DIOL, PARTICULATES]		10	Time Weighted Average (TWA):	eacegory / Remarks	IR_OEL
Propane-1,2-diol 57-55-6 [PROPANE-1,2-DIOL, TOTAL (VAPOUR AND PARTICULATES)]	150	470	Time Weighted Average (TWA):		IR_OEL
Cumene 98-82-8 [ISOPROPYL BENZENE]	20	100	Time Weighted Average (TWA):	Indicative OELV	IR_OEL
Cumene 98-82-8 [ISOPROPYL BENZENE]	50	250	Short Term Exposure Limit (STEL):	Indicative OELV	IR_OEL
Cumene 98-82-8 [ISOPROPYL BENZENE]			Skin designation:	Can be absorbed through the skin.	IR_OEL
Cumene 98-82-8 [CUMENE]	50	250	Short Term Exposure Limit (STEL):	Indicative	ECTLV
Cumene 98-82-8 [CUMENE]	20	100	Time Weighted Average (TWA):	Indicative	ECTLV

MSDS-No.: 316211 LOCTITE 243 Page 7 of 19

V009.2

# $\label{eq:predicted} \textbf{Predicted No-Effect Concentration (PNEC):}$

Name on list	Environmental Compartment	Exposure period	Value				Remarks
			mg/l	ppm	mg/kg	others	
2,4,6-Triallyloxy-1,3,5-triazine 101-37-1	aqua (freshwater)					0,00705 mg/L	
2,4,6-Triallyloxy-1,3,5-triazine 101-37-1	aqua (marine water)					0,0007 mg/L	
2,4,6-Triallyloxy-1,3,5-triazine 101-37-1	aqua (intermittent releases)					0,0705 mg/L	
2,4,6-Triallyloxy-1,3,5-triazine 101-37-1	sediment (freshwater)				0,1729 mg/kg		
2,4,6-Triallyloxy-1,3,5-triazine 101-37-1	sediment (marine water)				0,01729 mg/kg		
2,4,6-Triallyloxy-1,3,5-triazine 101-37-1	soil				0,057 mg/kg		
2,4,6-Triallyloxy-1,3,5-triazine 101-37-1	sewage treatment plant (STP)					10 mg/L	
2,4,6-Triallyloxy-1,3,5-triazine 101-37-1	oral				0,119 mg/kg		
2-[[2,2-Bis[[(1- oxoallyl)oxy]methyl]butoxy]methyl]-2- ethyl-1,3-propanediyl diacrylate 94108-97-1	aqua (freshwater)					0,0012 mg/L	
2-[[2,2-Bis[[(1- oxoallyl)oxy]methyl]butoxy]methyl]-2- ethyl-1,3-propanediyl diacrylate 94108-97-1	soil				0,098 mg/kg		
2-[[2,2-Bis[[(1- oxoallyl)oxy]methyl]butoxy]methyl]-2- ethyl-1,3-propanediyl diacrylate 94108-97-1	sediment (marine water)				0,0493 mg/kg		
2-[[2,2-Bis[[(1- oxoallyl)oxy]methyl]butoxy]methyl]-2- ethyl-1,3-propanediyl diacrylate 94108-97-1	sediment (freshwater)				0,493 mg/kg		
2-[[2,2-Bis[[(1- oxoallyl)oxy]methyl]butoxy]methyl]-2- ethyl-1,3-propanediyl diacrylate 94108-97-1	sewage treatment plant (STP)					100 mg/L	
2-[[2,2-Bis[[(1- oxoallyl)oxy]methyl]butoxy]methyl]-2- ethyl-1,3-propanediyl diacrylate 94108-97-1	aqua (intermittent releases)					0,012 mg/L	
2-[[2,2-Bis[[(1- oxoallyl)oxy]methyl]butoxy]methyl]-2- ethyl-1,3-propanediyl diacrylate 94108-97-1	aqua (marine water)					0,00012 mg/L	
Fatty acid amide	aqua (freshwater)					0,000146 mg/L	
Fatty acid amide	aqua (marine water)					0,0146 g/L	
Fatty acid amide	aqua (intermittent releases)					0,00025 mg/L	
Fatty acid amide	sediment (marine water)				5,554 mg/kg		
Fatty acid amide	aqua (freshwater)				55,54 mg/kg		
Fatty acid amide	soil				66,576 mg/kg		
Fatty acid amide	sewage treatment plant (STP)				<i>b</i> ••• <i>b</i>	10 mg/L	
Maleic acid 110-16-7	aqua (freshwater)					0,1 mg/L	
Maleic acid 110-16-7	aqua (intermittent releases)					0,4281 mg/L	
Maleic acid 110-16-7	sediment (freshwater)				0,334 mg/kg		
Maleic acid	sewage					44,6 mg/L	

MSDS-No.: 316211 LOCTITE 243 Page 8 of 19

V009.2

110-16-7	treatment plant (STP)				
Maleic acid 110-16-7	aqua (marine water)			0,01 mg/L	
Maleic acid 110-16-7	sediment (marine water)		),0334 ng/kg		
Maleic acid 110-16-7	soil		),0415 ng/kg		

MSDS-No.: 316211 LOCTITE 243 Page 9 of 19

V009.2

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

Name on list	Application Area	Route of Exposure	Health Effect	Exposure Time	Value	Remarks
Tetramethylene dimethacrylate 2082-81-7	Workers	dermal	Long term exposure -		4,2 mg/kg bw/day	
Tetramethylene dimethacrylate 2082-81-7	Workers	inhalation	systemic effects  Long term exposure - systemic effects		14,5 mg/m3	
2,4,6-Triallyloxy-1,3,5-triazine 101-37-1	Workers	inhalation	Acute/short term exposure - systemic effects		134,4 mg/m3	
2,4,6-Triallyloxy-1,3,5-triazine 101-37-1	Workers	dermal	Long term exposure - systemic effects		1,5 mg/kg bw/day	
2,4,6-Triallyloxy-1,3,5-triazine 101-37-1	Workers	inhalation	Long term exposure - systemic effects		2,12 mg/m3	
2-[[2,2-Bis[[(1- oxoallyl)oxy]methyl]butoxy]methyl]-2- ethyl-1,3-propanediyl diacrylate 94108-97-1	Workers	Inhalation	Long term exposure - systemic effects		5,88 mg/m3	
2-[[2,2-Bis[[(1- oxoallyl)oxy]methyl]butoxy]methyl]-2- ethyl-1,3-propanediyl diacrylate 94108-97-1	Workers	dermal	Long term exposure - systemic effects		1,67 mg/kg	
Fatty acid amide	general population	oral	Long term exposure - systemic effects		8,3 mg/kg bw/day	
Fatty acid amide	general population	dermal	Long term exposure - systemic effects		8,3 mg/kg bw/day	
Fatty acid amide	Workers	dermal	Long term exposure - systemic effects		14 mg/kg bw/day	
Fatty acid amide	general population	inhalation	Long term exposure - systemic effects		2,9 mg/m3	
Fatty acid amide	Workers	inhalation	Long term exposure - systemic effects		9,8 mg/m3	
Maleic acid 110-16-7	Workers	dermal	Acute/short term exposure - local effects		0,55 mg/cm2	
Maleic acid 110-16-7	Workers	dermal	Long term exposure - local effects		0,04 mg/cm2	
Maleic acid 110-16-7	Workers	dermal	Acute/short term exposure - systemic effects		58 mg/kg bw/day	
Maleic acid 110-16-7	Workers	dermal	Long term exposure - systemic effects		3,3 mg/kg bw/day	
Maleic acid 110-16-7	Workers	inhalation	Acute/short term exposure - local effects		3 mg/m3	
Maleic acid 110-16-7	Workers	inhalation	Long term exposure - systemic effects		3 mg/m3	
Maleic acid 110-16-7	Workers	inhalation	Long term exposure - local effects		3 mg/m3	
Maleic acid 110-16-7	Workers	inhalation	Acute/short term exposure - systemic effects		3 mg/m3	

MSDS-No.: 316211 LOCTITE 243 Page 10 of 19

V009.2

#### **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 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))

Vapour pressure < 300 mbar

(50 °C (122 °F))

Density 1,15 - 1,20 g/cm3

()

Bulk density
No data available / Not applicable
Viscosity
No data available / Not applicable
Viscosity (kinematic)
No data available / Not applicable

MSDS-No.: 316211 LOCTITE 243 Page 11 of 19

Soluble

V009.2

Explosive properties No data available / Not applicable

Solubility (qualitative) Insoluble (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 No data available / Not applicable Explosive limits No data available / Not applicable Partition coefficient: n-octanol/water No data available / Not applicable Evaporation rate Vapor density No data available / Not applicable No data available / Not applicable Oxidising properties

#### 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

No decomposition if used according to specifications.

#### 10.5. Incompatible materials

See section reactivity

## 10.6. Hazardous decomposition products

carbon oxides.

## **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.

#### Oral toxicity:

May cause irritation to the digestive tract.

#### Skin irritation:

Prolonged or repeated contact may cause skin irritation.

## Eye irritation:

Prolonged or repeated contact may cause eye irritation.

## **Sensitizing:**

May cause an allergic skin reaction.

MSDS-No.: 316211 LOCTITE 243 Page 12 of 19

V009.2

# Acute oral toxicity:

Hazardous components	Value	Value	Route of	Exposure	Species	Method
CAS-No.	type		application	time		
Tetramethylene	LD50	10.120 mg/kg	oral		rat	
dimethacrylate						
2082-81-7						
2,4,6-Triallyloxy-s-	LD50	753 mg/kg	oral		rat	OECD Guideline 401 (Acute
triazine						Oral Toxicity)
101-37-1						
2-[[2,2-bis[[(1-	LD50	> 5.000 mg/kg	oral		rat	OECD Guideline 401 (Acute
oxoallyl)oxy]methyl]buto						Oral Toxicity)
xy]methyl]-2-ethyl-1,3-						
propanediyl diacrylate						
94108-97-1						
Fatty acid amide	LD50	> 2.000 mg/kg	oral		rat	
Cumene hydroperoxide	LD50	550 mg/kg	oral		rat	
80-15-9						
Maleic acid	LD50	708 mg/kg	oral		rat	
110-16-7						

## Acute inhalative toxicity:

Hazardous components	Value	Value	Route of	Exposure	Species	Method
CAS-No.	type		application	time		

## Acute dermal toxicity:

Hazardous components CAS-No.	Value type	Value	Route of application	Exposure time	Species	Method
Fatty acid amide	LD50	> 2.000 mg/kg	dermal		rat	
Maleic acid 110-16-7	LD50	1.560 mg/kg	dermal		rabbit	

## Skin corrosion/irritation:

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

## Serious eye damage/irritation:

Hazardous components CAS-No.	Result	Exposure time	Species	Method
2-[[2,2-bis[[(1- oxoallyl)oxy]methyl]buto xy]methyl]-2-ethyl-1,3- propanediyl diacrylate 94108-97-1	Category II		rabbit	EU Method B.5 (Acute Toxicity: Eye Irritation / Corrosion)

# ${\bf Respiratory\ or\ skin\ sensitization:}$

Hazardous components CAS-No.	Result	Test type	Species	Method
Tetramethylene dimethacrylate 2082-81-7	sensitising	Mouse local lymphnod	mouse	OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay)
		e assay (LLNA)		

MSDS-No.: 316211 LOCTITE 243 Page 13 of 19

V009.2

## Germ cell mutagenicity:

Hazardous components	Result	Type of study /	Metabolic	Species	Method
CAS-No.		Route of	activation /		
		administration	Exposure time		
Tetramethylene	negative	in vitro mammalian	with and without		OECD Guideline 476 (In vitro
dimethacrylate		chromosome			Mammalian Cell Gene
2082-81-7		aberration test			Mutation Test)
	negative	bacterial reverse	with and without		OECD Guideline 471
		mutation assay (e.g			(Bacterial Reverse Mutation
		Ames test)			Assay)
	positive	in vitro mammalian	with and without		OECD Guideline 473 (In vitro
		chromosome			Mammalian Chromosome
		aberration test			Aberration Test)
Cumene hydroperoxide	positive	bacterial reverse	without		OECD Guideline 471
80-15-9		mutation assay (e.g			(Bacterial Reverse Mutation
		Ames test)			Assay)
Cumene hydroperoxide	negative	dermal		mouse	
80-15-9					

## Repeated dose toxicity

Hazardous components CAS-No.	Result	Route of application	Exposure time / Frequency of treatment	Species	Method
Cumene hydroperoxide		inhalation:	6 h/d5 d/w	rat	
80-15-9		aerosol			

# **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.

MSDS-No.: 316211 LOCTITE 243 Page 14 of 19

V009.2

Hazardous components CAS-No.	Value type	Value	Acute Toxicity Study	Exposure time	Species	Method
Tetramethylene dimethacrylate 2082-81-7	LC50	32,5 mg/l	Fish	48 h		DIN 38412-15
2,4,6-Triallyloxy-s-triazine 101-37-1	LC50	4,36 mg/l	Fish	96 h	Oncorhynchus mykiss	OECD Guideline 203 (Fish, Acute
2,4,6-Triallyloxy-s-triazine 101-37-1	EC50	19,4 mg/l	Daphnia	48 h	Daphnia magna	Toxicity Test) OECD Guideline 202 (Daphnia sp. Acute Immobilisation
2,4,6-Triallyloxy-s-triazine 101-37-1	EC0	5 mg/l	Bacteria	3 h		Test) OECD Guideline 209 (Activated Sludge, Respiration Inhibition Test)
2-[[2,2-bis[[(1- oxoallyl)oxy]methyl]butoxy] methyl]-2-ethyl-1,3- propanediyl diacrylate 94108-97-1	LC50	1,2 mg/l	Fish	96 h	Cyprinus carpio	OECD Guideline 203 (Fish, Acute Toxicity Test)
2-[[2,2-bis[[(1- oxoallyl)oxy]methyl]butoxy] methyl]-2-ethyl-1,3- propanediyl diacrylate	EC50	> 10 mg/l	Daphnia	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation
94108-97-1 2-[[2,2-bis[[(1- oxoallyl)oxy]methyl]butoxy] methyl]-2-ethyl-1,3- propanediyl diacrylate 94108-97-1	EC50	> 12 mg/l	Algae	72 h	Pseudokirchnerella subcapitata	Test) OECD Guideline 201 (Alga, Growth Inhibition Test)
7.530 27. 5	NOEC	< 0,35 mg/l	Algae	72 h	Pseudokirchnerella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
Fatty acid amide	NOEC	> 0,024 mg/l	Fish	96 h	Cyprinus carpio	OECD Guideline 203 (Fish, Acute
Fatty acid amide	NOEC	> 0,024 mg/l	Daphnia	48 h	Daphnia magna	Toxicity Test) OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Fatty acid amide	EC50	0,025 mg/l	Algae	72 h		OECD Guideline 201 (Alga, Growth Inhibition Test)
	NOEC	0,0073 mg/l	Algae	72 h		OECD Guideline 201 (Alga, Growth
Cumene hydroperoxide 80-15-9	LC50	3,9 mg/l	Fish	96 h	Oncorhynchus mykiss	Inhibition Test) OECD Guideline 203 (Fish, Acute
Cumene hydroperoxide 80-15-9	EC50	18 mg/l	Daphnia	48 h	Daphnia magna	Toxicity Test) OECD Guideline 202 (Daphnia sp. Acute Immobilisation
Cumene hydroperoxide 80-15-9	ErC50	3,1 mg/l	Algae	72 h	Pseudokirchnerella subcapitata	Test) OECD Guideline 201 (Alga, Growth Inhibition Test)
Cumene hydroperoxide 80-15-9	EC10	70 mg/l	Bacteria	30 min		,
Maleic acid 110-16-7	LC50	> 245 mg/l	Fish	48 h	Leuciscus idus	DIN 38412-15
Maleic acid 110-16-7	EC50	42,81 mg/l	Daphnia	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute
1,4-Naphthalenedione 130-15-4	EC50	0,011 mg/l	Algae	72 h	Dunaliella bioculata	Immobilisation Test) OECD Guideline 201 (Alga, Growth Inhibition Test)

MSDS-No.: 316211 LOCTITE 243 Page 15 of 19

V009.2

# 12.2. Persistence and degradability

# Persistence and Biodegradability:

The product is not biodegradable.

Hazardous components CAS-No.	Result	Route of application	Degradability	Method
Tetramethylene dimethacrylate 2082-81-7	readily biodegradable	aerobic	84 %	OECD Guideline 310 (Ready BiodegradabilityCO2 in Sealed Vessels (Headspace Test)
2,4,6-Triallyloxy-s-triazine 101-37-1		aerobic	7 - 9 %	OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test)
2-[[2,2-bis[[(1- oxoallyl)oxy]methyl]butoxy] methyl]-2-ethyl-1,3- propanediyl diacrylate 94108-97-1		aerobic	4 - 14 %	OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test)
Fatty acid amide		aerobic	7 %	
Cumene hydroperoxide 80-15-9		no data	0 %	OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test)
Maleic acid 110-16-7	readily biodegradable	aerobic	97,08 %	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	LogKow	Bioconcentration	Exposure	Species	Temperature	Method
CAS-No.		factor (BCF)	time			
Tetramethylene	3,1					OECD Guideline 117
dimethacrylate						(Partition Coefficient (n-
2082-81-7						octanol / water), HPLC
						Method)
2,4,6-Triallyloxy-s-triazine	2,8				20 °C	
101-37-1						
2-[[2,2-bis[[(1-	4,14				30 °C	OECD Guideline 117
oxoallyl)oxy]methyl]butoxy]						(Partition Coefficient (n-
methyl]-2-ethyl-1,3-						octanol / water), HPLC
propanediyl diacrylate						Method)
94108-97-1						
Cumene hydroperoxide		9,1		calculation		OECD Guideline 305
80-15-9						(Bioconcentration: Flow-
						through Fish Test)
Cumene hydroperoxide	2,16					
80-15-9						
Acetic acid, 2-	0,74					
phenylhydrazide						
114-83-0						
Maleic acid	-1,3				20 °C	OECD Guideline 107
110-16-7						(Partition Coefficient (n-
						octanol / water), Shake
						Flask Method)
1,4-Naphthalenedione	1,71					
130-15-4						

# 12.5. Results of PBT and vPvB assessment

Hazardous components	PBT/vPvB
CAS-No.	

MSDS-No.: 316211 LOCTITE 243 Page 16 of 19

V009.2

Tetramethylene dimethacrylate 2082-81-7	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
2,4,6-Triallyloxy-s-triazine	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very
101-37-1	Bioaccumulative (vPvB) criteria.
2-[[2,2-bis[[(1-	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very
oxoallyl)oxy]methyl]butoxy]methyl]-2-ethyl-	Bioaccumulative (vPvB) criteria.
1,3-propanediyl diacrylate	
94108-97-1	
Maleic acid	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very
110-16-7	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

MSDS-No.: 316211 **LOCTITE 243** Page 17 of 19

V009.2

## **SECTION 14: Transport information**

#### 14.1. **UN** number

ADR	3082
RID	3082
ADN	3082
IMDG	3082
IATA	3082

#### 14.2. UN proper shipping name

**ADR** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Fatty acid

amide)

RID ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Fatty acid

ADN ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Fatty acid amide)

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Fatty acid **IMDG** 

amide)

IATA Environmentally hazardous substance, liquid, n.o.s. (Fatty acid amide)

#### 14.3. Transport hazard class(es)

9 ADR 9 RID 9 ADN **IMDG** 9 9 IATA

#### 14.4. Packing group

ADR Ш RID Ш ADN Ш **IMDG** Ш **IATA** Ш

#### 14.5. **Environmental hazards**

ADR not applicable RID not applicable ADN not applicable **IMDG** Marine pollutant not applicable **IATA** 

#### Special precautions for user 14.6.

**ADR** not applicable Tunnelcode: (E) RID not applicable not applicable ADN **IMDG** not applicable not applicable IATA

#### 14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

not applicable

## **SECTION 15: Regulatory information**

MSDS-No.: 316211 LOCTITE 243 Page 18 of 19

V009.2

#### 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.

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.

H351 Suspected of causing cancer.

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.

### Label elements (DPD):

Xi - Irritant

N - Dangerous for the environment





### Risk phrases:

R43 May cause sensitisation by skin contact.

R51/53 Toxic 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,

Tetramethylene dimethacrylate

MSDS-No.: 316211 LOCTITE 243 Page 19 of 19

V009.2

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.