

# Safety Data Sheet according to Regulation (EC) No1907/2006

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SDS No.: 453681

V004.1

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Category 3

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LOCTITE 248 LOCTITE 248 known as LOCTITE 248 19G EN/DE known as LOCTITE 248 19G EN/DE

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

#### 1.1. Product identifier

LOCTITE 248 LOCTITE 248 known as LOCTITE 248 19G EN/DE known as LOCTITE 248 19G EN/DE

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

Intended use:

Adhesive

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

Henkel Ltd

Wood Lane End

HP2 4RQ Hemel Hempstead

Great Britain

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

ua-productsafety.uk@uk.henkel.com

#### 1.4. Emergency telephone number

24 Hours Emergency Tel: +44 (0)1442 278497

#### **SECTION 2: Hazards identification**

#### 2.1. Classification of the substance or mixture

#### Classification (CLP):

Chronic hazards to the aquatic environment

H412 Harmful to aquatic life with long lasting effects.

#### Classification (DPD):

Dangerous for the environment

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

# 2.2. Label elements

#### Label elements (CLP):

**Hazard statement:** H412 Harmful to aquatic life with long lasting effects.

**Precautionary statement:** 

P273 Avoid release to the environment.

Prevention

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#### Label elements (DPD):

Risk phrases:

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

Safety phrases

S61 Avoid release to the environment. Refer to special instructions/Safety data sheets.

# 2.3. Other hazards

None if used properly.

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

# General chemical description:

Anaerobic Sealant

# 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-< 0,9 %	Acute toxicity 4; Dermal H312 Specific target organ toxicity - repeated exposure 2 H373 Acute toxicity 4; Oral H302 Organic peroxides E H242 Acute toxicity 3; Inhalation H331 Skin corrosion 1B H314 Chronic hazards to the aquatic environment 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	>= 2,5-< 10 %	Serious eye irritation 2 H319 Chronic hazards to the aquatic environment 2 H411
Acetic acid, 2-phenylhydrazide 114-83-0	204-055-3	>= 0,1-< 0,9 %	Acute toxicity 3; Oral H301 Acute toxicity 4; Dermal H312 Skin irritation 2; Dermal H315 Serious eye irritation 2 H319 Acute toxicity 4; Inhalation H332 Specific target organ toxicity - single exposure 3; Inhalation H335 Carcinogenicity 2 H351
N,N-dimethyl-o-toluidine 609-72-3	210-199-8	>= 0,1-< 1%	Specific target organ toxicity - repeated exposure 2 H373 Chronic hazards to the aquatic environment 3 H412 Acute toxicity 3; Inhalation H331 Acute toxicity 3; Dermal H311 Acute toxicity 3; Oral H301
1,4-Naphthalenedione 130-15-4	204-977-6	>= 0,01-< 0,1 %	Acute toxicity 3; Oral H301 Skin irritation 2; Dermal H315 Skin sensitizer 1; Dermal H317 Serious eye irritation 2 H319 Acute toxicity 1; Inhalation H330 Specific target organ toxicity - single exposure 3; Inhalation H335 Acute hazards to the aquatic environment 1 H400 Chronic hazards to the aquatic environment 1 H410 M factor: 10

#### Declaration of ingredients according to DPD (EC) No 1999/45:

Hazardous components	EC Number	content	Classification
CAS-No.	REACH-Reg No.		
Cumene hydroperoxide	201-254-7	>= 0,25 -< 0,9 %	T - Toxic; R23
80-15-9			Xn - Harmful; R21/22, R48/20/22
			C - Corrosive; R34
			O - Oxidizing; R7
			N - Dangerous for the environment; R51/53
2-[[2,2-bis[[(1-	302-434-9	>= 2,5 -< 10 %	N - Dangerous for the environment; R51/53
oxoallyl)oxy]methyl]butoxy]methyl]-2-	01-2119977121-41		
ethyl-1,3-propanediyl diacrylate			
94108-97-1			
N,N-dimethyl-o-toluidine	210-199-8	>= 0,1 -< 1 %	T - Toxic; R23/24/25
609-72-3			R33
			R52/53
Cumene	202-704-5	>= 0,1 - < 0,25 %	R10
98-82-8			Xn - Harmful; R65
			Xi - Irritant; R37
			N - Dangerous for the environment; R51/53
1,4-Naphthalenedione	204-977-6	>= 0,01 -< 0,1 %	T+ - Very toxic; R25, R26
130-15-4			Xi - Irritant; R36/37/38, R43
			N - Dangerous for the environment; R50/53

For full text of the R-Phrases indicated by codes see section 16 'Other Information'. Substances without classification may have community workplace exposure limits available.

# **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.

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

Prolonged or repeated contact may cause skin irritation.

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

#### 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.

#### 6.2. Environmental precautions

Waste disposal with the approval of the responsible local authority.

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.

Avoid skin and eye contact.

Prolonged or repeated skin contact should be avoided to minimise any risk of sensitisation.

#### Hygiene measures:

Good industrial hygiene practices should be observed.

Do not eat, drink or smoke while working.

Wash hands before work breaks and after finishing work.

#### 7.2. Conditions for safe storage, including any incompatibilities

Store in original containers at 8-21°C (46.4-69.8°F) and do not return residual materials to containers as contamination may reduce the shelf life of the bulk product.

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

Adhesive

# **SECTION 8: Exposure controls/personal protection**

# 8.1. Control parameters

# **Occupational Exposure Limits**

Valid for

Great Britain

Ingredient	ppm	mg/m <sup>3</sup>	Туре	Category	Remarks
SILICA, AMORPHOUS, INHALABLE		6	Time Weighted Average		EH40 WEL
DUST			(TWA):		
112945-52-5					
SILICA, AMORPHOUS, RESPIRABLE		2,4	Time Weighted Average		EH40 WEL
DUST			(TWA):		
112945-52-5					
CUMENE	50	250	Short Term Exposure		EH40 WEL
98-82-8			Limit (STEL):		
CUMENE			Skin designation:	Can be absorbed through the	EH40 WEL
98-82-8				skin.	
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):		

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

Name on list	Environmental Compartment	Exposure period	Value				Remarks
			mg/l	ppm	mg/kg	others	
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	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	

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

Name on list	Application	Route of	Health Effect	Exposure	Value	Remarks
	Area	Exposure		Time		
2-[[2,2-Bis[[(1-oxoallyl)oxy]methyl]butoxy]methyl]-2-ethyl-1,3-propanediyl diacrylate 94108-97-1	worker	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	worker	Dermal	Long term exposure - systemic effects		1,67 mg/kg	

#### **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;  $\geq$  0.4 mm thickness)

Suitable materials for longer, direct contact (recommended: protection index 6, corresponding to > 480 minutes permeation time as per EN 374):

nitrile rubber (NBR; >= 0.4 mm thickness)

This information is based on literature references and on information provided by glove manufacturers, or is derived by analogy with similar substances. Please note that in practice the working life of chemical-resistant protective gloves may be considerably shorter than the permeation time determined in accordance with EN 374 as a result of the many influencing factors (e.g. temperature). If signs of wear and tear are noticed then the gloves should be replaced.

#### Eye protection:

Wear protective glasses.

#### Skin protection:

Wear suitable protective clothing.

#### **SECTION 9: Physical and chemical properties**

# 9.1. Information on basic physical and chemical properties

Appearance solid, paste blue Odor characteristic

Odour threshold No data available / Not applicable

pН Not applicable

Initial boiling point No data available / Not applicable

Product is a solid. Flash point

Decomposition temperature No data available / Not applicable Vapour pressure No data available / Not applicable

Density 1,1 g/cm3

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

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Solubility (qualitative) Slight

(Solvent: Water)

Solidification temperature No data available / Not applicable Melting point No data available / Not applicable Flammability No data available / Not applicable No data available / Not applicable Auto-ignition temperature Explosive limits No data available / Not applicable No data available / Not applicable Partition coefficient: n-octanol/water No data available / Not applicable Evaporation rate 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

Strong oxidizing agents.

Free radical initiators.

#### 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

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 1272/2008/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:**

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

#### Eye irritation:

May cause mild irritation to the eyes.

#### 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	
2-[[2,2-bis[[(1- oxoallyl)oxy]methyl]buto xy]methyl]-2-ethyl-1,3- propanediyl diacrylate 94108-97-1	LD50	> 5.000 mg/kg	oral		rat	OECD Guideline 401 (Acute Oral Toxicity)

#### Skin corrosion/irritation:

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

# Germ cell mutagenicity:

Hazardous components	Result	Type of study /	Metabolic	Species	Method
CAS-No.		Route of	activation /		
		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	
80-15-9					

# **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 1272/2008/EC. 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.

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

#### 12.2. Persistence and degradability

#### Persistence and Biodegradability:

The product is not biodegradable.

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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	LogKow		Exposure	Species	Temperature	Method
CAS-No.		factor (BCF)	time			
Cumene hydroperoxide		9,1		calculation		OECD Guideline 305
80-15-9						(Bioconcentration: Flow-
						through Fish Test)
Cumene hydroperoxide	2,16					unough Fish Test)
80-15-9	2,10					
80-15-9						
Acetic acid, 2-	0,74					
phenylhydrazide						
114-83-0						
1,4-Naphthalenedione	1,71					
130-15-4						

#### 12.5. Results of PBT and vPvB assessment

Hazardous components CAS-No.	PBT/vPvB
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	

#### 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

#### **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 < 3 % (1999/13/EC)

#### 15.2. Chemical safety assessment

A chemical safety assessment has not been carried out.

#### **SECTION 16: Other information**

The labelling of the product is indicated in Section 2. The full text

of all abbreviations indicated by codes in this safety data sheet are as follows:

R10 Flammable.

R21/22 Harmful in contact with skin and if swallowed.

R23 Toxic by inhalation.

R23/24/25 Toxic by inhalation, in contact with skin and if swallowed.

R25 Toxic if swallowed.

R26 Very toxic by inhalation.

R33 Danger of cumulative effects.

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.

R52/53 Harmful 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.

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.

H332 Harmful 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.

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.