



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

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LOCTITE 248

SDS No. : 153639
V007.0

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Replaces version from: 01.02.2016

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

1.1. Product identifier

LOCTITE 248

Contains:

Cumene hydroperoxide

A mixture of: N,N'-Ethane-1,2-diylbis(decanamide); 12-Hydroxy-N-[2-[1-oxydecyl)amino]ethyl]octadecanamide; N,N'-Ethane-1,2-diylbis(1

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 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):

Serious eye irritation	Category 2
H319 Causes serious eye irritation.	
Skin sensitizer	Category 1
H317 May cause an allergic skin reaction.	
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):

Hazard pictogram:



Signal word:

Warning

Hazard statement:

H317 May cause an allergic skin reaction.
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 mist/vapours.
P273 Avoid release to the environment.
P280 Wear protective gloves.

**Precautionary statement:
Response**

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

Methacrylate resin based threadlocker

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

Hazardous components CAS-No.	EC Number REACH-Reg No.	content	Classification
A mixture of: N,N'-Ethane-1,2-diylbis(decanamide); 12-Hydroxy-N-[2-[1-oxydecyl)amino]ethyl]octadecanamide; N,N'-Ethane-1,2-diylbis(1	430-050-2	10- 20 %	Skin Sens. 1 H317 Aquatic Chronic 2 H411
Ethane-1,2-diol 107-21-1	203-473-3 01-2119456816-28	1- < 3 %	Acute Tox. 4; Oral H302 STOT RE 2; Oral H373
Cumene hydroperoxide 80-15-9	201-254-7	1- < 3 %	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-Methyl-2-pyrrolidone 872-50-4	212-828-1 01-2119472430-46	0,1- < 1 %	Repr. 1B H360D Eye Irrit. 2 H319 STOT SE 3 H335 Skin Irrit. 2 H315 ===== EU. REACH Candidate List of Substances of Very High Concern for Authorization (SVHC)
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.

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

EYE: Irritation, conjunctivitis.

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

SKIN: Rash, Urticaria.

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 (NO_x) can be released.

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

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.

Ensure adequate ventilation.

6.2. Environmental precautions

Waste disposal with the approval of the responsible local authority.

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

6.3. Methods and material for containment and cleaning up

Scrape up as much material as possible.

Sweep up spilled material. Avoid creating dust.

Store in a partly filled, closed container until 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.

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.

Refer to Technical Data Sheet

7.3. Specific end use(s)

Anaerobic Adhesive

SECTION 8: Exposure controls/personal protection

8.1. Control parameters**Occupational Exposure Limits**Valid for
Great Britain

Ingredient [Regulated substance]	ppm	mg/m ³	Value type	Short term exposure limit category / Remarks	Regulatory list
Silicon dioxide 112945-52-5 [SILICA, AMORPHOUS, INHALABLE DUST]		6	Time Weighted Average (TWA):		EH40 WEL
Silicon dioxide 112945-52-5 [SILICA, AMORPHOUS, RESPIRABLE DUST]		2,4	Time Weighted Average (TWA):		EH40 WEL
Ethane-1,2-diol 107-21-1 [ETHANE-1,2-DIOL, PARTICULATE]		10	Time Weighted Average (TWA):		EH40 WEL
Ethane-1,2-diol 107-21-1 [ETHANE-1,2-DIOL, VAPOUR]	20	52	Time Weighted Average (TWA):		EH40 WEL
Ethane-1,2-diol 107-21-1 [ETHANE-1,2-DIOL, PARTICULATE]			Skin designation:	Can be absorbed through the skin.	EH40 WEL
Ethane-1,2-diol 107-21-1 [ETHANE-1,2-DIOL, VAPOUR]			Skin designation:	Can be absorbed through the skin.	EH40 WEL
Ethane-1,2-diol 107-21-1 [ETHANE-1,2-DIOL, VAPOUR]	40	104	Short Term Exposure Limit (STEL):		EH40 WEL
Ethane-1,2-diol 107-21-1 [ETHYLENE GLYCOL]	40	104	Short Term Exposure Limit (STEL):	Indicative	ECLTV
Ethane-1,2-diol 107-21-1 [ETHYLENE GLYCOL]	20	52	Time Weighted Average (TWA):	Indicative	ECLTV
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
1-Methyl-2-pyrrolidone 872-50-4 [N-METHYL-2-PYRROLIDONE]	20	80	Short Term Exposure Limit (STEL):		EH40 WEL
1-Methyl-2-pyrrolidone 872-50-4 [N-METHYL-2-PYRROLIDONE]	10	40	Time Weighted Average (TWA):		EH40 WEL
1-Methyl-2-pyrrolidone 872-50-4 [N-METHYL-2-PYRROLIDONE]			Skin designation:	Can be absorbed through the skin.	EH40 WEL
1-Methyl-2-pyrrolidone 872-50-4 [N-METHYL-2-PYRROLIDONE]	10	40	Time Weighted Average (TWA):	Indicative	ECLTV
1-Methyl-2-pyrrolidone 872-50-4 [N-METHYL-2-PYRROLIDONE]	20	80	Short Term Exposure Limit (STEL):	Indicative	ECLTV
1-Methyl-2-pyrrolidone 872-50-4 [N-METHYL-2-PYRROLIDONE]			Skin designation:	Can be absorbed through the skin.	ECLTV

Occupational Exposure LimitsValid for
Ireland

Ingredient [Regulated substance]	ppm	mg/m ³	Value type	Short term exposure limit category / Remarks	Regulatory list
Silicon dioxide		6	Time Weighted Average		IR_OEL

112945-52-5 [SILICA, AMORPHOUS, TOTAL INHALABLE DUST]			(TWA):		
Silicon dioxide 112945-52-5 [SILICA, AMORPHOUS, RESPIRABLE DUST]		2,4	Time Weighted Average (TWA):		IR_OEL
Ethane-1,2-diol 107-21-1 [ETHANE-1,2-DIOL, PARTICULATE]			Skin designation:	Can be absorbed through the skin.	IR_OEL
Ethane-1,2-diol 107-21-1 [ETHANE-1,2-DIOL, VAPOUR]			Skin designation:	Can be absorbed through the skin.	IR_OEL
Ethane-1,2-diol 107-21-1 [ETHANE-1,2-DIOL, VAPOUR]	40	104	Short Term Exposure Limit (STEL):	Indicative OELV	IR_OEL
Ethane-1,2-diol 107-21-1 [ETHANE-1,2-DIOL, VAPOUR]	20	52	Time Weighted Average (TWA):	Indicative OELV	IR_OEL
Ethane-1,2-diol 107-21-1 [ETHANE-1,2-DIOL, PARTICULATE]		10	Time Weighted Average (TWA):	Indicative OELV	IR_OEL
Ethane-1,2-diol 107-21-1 [ETHYLENE GLYCOL]	40	104	Short Term Exposure Limit (STEL):	Indicative	ECTLV
Ethane-1,2-diol 107-21-1 [ETHYLENE GLYCOL]	20	52	Time Weighted Average (TWA):	Indicative	ECTLV
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
1-Methyl-2-pyrrolidone 872-50-4 [1-METHYL-2-PYRROLIDONE]	10	40	Time Weighted Average (TWA):	Indicative OELV	IR_OEL
1-Methyl-2-pyrrolidone 872-50-4 [1-METHYL-2-PYRROLIDONE]			Skin designation:	Can be absorbed through the skin.	IR_OEL
1-Methyl-2-pyrrolidone 872-50-4 [1-METHYL-2-PYRROLIDONE]	20	80	Short Term Exposure Limit (STEL):	Indicative OELV	IR_OEL
1-Methyl-2-pyrrolidone 872-50-4 [N-METHYL-2-PYRROLIDONE]	10	40	Time Weighted Average (TWA):	Indicative	ECTLV
1-Methyl-2-pyrrolidone 872-50-4 [N-METHYL-2-PYRROLIDONE]	20	80	Short Term Exposure Limit (STEL):	Indicative	ECTLV
1-Methyl-2-pyrrolidone 872-50-4 [N-METHYL-2-PYRROLIDONE]			Skin designation:	Can be absorbed through the skin.	ECTLV

Predicted No-Effect Concentration (PNEC):

Name on list	Environmental Compartment	Exposure period	Value				Remarks
			mg/l	ppm	mg/kg	others	
Ethane-1,2-diol 107-21-1	aqua (freshwater)					10 mg/L	
Ethane-1,2-diol 107-21-1	aqua (marine water)					1 mg/L	
Ethane-1,2-diol 107-21-1	sediment (freshwater)				20,9 mg/kg		
Ethane-1,2-diol 107-21-1	sewage treatment plant (STP)					199,5 mg/L	
Ethane-1,2-diol 107-21-1	aqua (intermittent releases)					10 mg/L	
Ethane-1,2-diol 107-21-1	soil				1,53 mg/kg		
.alpha.,.alpha.-Dimethylbenzyl hydroperoxide 80-15-9	aqua (freshwater)					0,0031 mg/L	
.alpha.,.alpha.-Dimethylbenzyl hydroperoxide 80-15-9	aqua (marine water)					0,00031 mg/L	
.alpha.,.alpha.-Dimethylbenzyl hydroperoxide 80-15-9	aqua (intermittent releases)					0,031 mg/L	
.alpha.,.alpha.-Dimethylbenzyl hydroperoxide 80-15-9	Sewage treatment plant					0,35 mg/L	
.alpha.,.alpha.-Dimethylbenzyl hydroperoxide 80-15-9	sediment (freshwater)				0,023 mg/kg		
.alpha.,.alpha.-Dimethylbenzyl hydroperoxide 80-15-9	sediment (marine water)				0,0023 mg/kg		
.alpha.,.alpha.-Dimethylbenzyl hydroperoxide 80-15-9	soil				0,0029 mg/kg		
1-Methyl-2-pyrrolidone 872-50-4	aqua (freshwater)					0,25 mg/L	
1-Methyl-2-pyrrolidone 872-50-4	aqua (marine water)					0,025 mg/L	
1-Methyl-2-pyrrolidone 872-50-4	aqua (intermittent releases)					5 mg/L	
1-Methyl-2-pyrrolidone 872-50-4	sediment (freshwater)				0,805 mg/kg		
1-Methyl-2-pyrrolidone 872-50-4	soil				0,138 mg/kg		
1-Methyl-2-pyrrolidone 872-50-4	sewage treatment plant (STP)					10 mg/L	
1-Methyl-2-pyrrolidone 872-50-4	oral				0,00167 mg/kg		
1-Methyl-2-pyrrolidone 872-50-4	sediment (marine water)				0,0805 mg/kg		

Derived No-Effect Level (DNEL):

Name on list	Application Area	Route of Exposure	Health Effect	Exposure Time	Value	Remarks
Ethane-1,2-diol 107-21-1	Workers	dermal	Long term exposure - systemic effects		106 mg/kg bw/day	
Ethane-1,2-diol 107-21-1	Workers	inhalation	Long term exposure - local effects		35 mg/m ³	
Ethane-1,2-diol 107-21-1	General population	dermal	Long term exposure - systemic effects		53 mg/kg bw/day	
Ethane-1,2-diol 107-21-1	General population	inhalation	Long term exposure - local effects		7 mg/m ³	
.alpha.,.alpha.-Dimethylbenzyl hydroperoxide 80-15-9	Workers	inhalation	Long term exposure - systemic effects		6 mg/m ³	
1-Methyl-2-pyrrolidone 872-50-4	Workers	dermal	Acute/short term exposure - systemic effects		208 mg/kg bw/day	
1-Methyl-2-pyrrolidone 872-50-4	Workers	Inhalation	Acute/short term exposure - systemic effects		80 mg/m ³	
1-Methyl-2-pyrrolidone 872-50-4	Workers	dermal	Long term exposure - systemic effects		19,8 mg/kg bw/day	
1-Methyl-2-pyrrolidone 872-50-4	Workers	Inhalation	Long term exposure - systemic effects		40 mg/m ³	
1-Methyl-2-pyrrolidone 872-50-4	General population	dermal	Acute/short term exposure - systemic effects		125 mg/kg bw/day	
1-Methyl-2-pyrrolidone 872-50-4	General population	Inhalation	Acute/short term exposure - systemic effects		80 mg/m ³	
1-Methyl-2-pyrrolidone 872-50-4	General population	oral	Acute/short term exposure - systemic effects		26 mg/kg bw/day	
1-Methyl-2-pyrrolidone 872-50-4	General population	dermal	Long term exposure - systemic effects		11,9 mg/kg bw/day	
1-Methyl-2-pyrrolidone 872-50-4	General population	Inhalation	Long term exposure - systemic effects		12,5 mg/m ³	
1-Methyl-2-pyrrolidone 872-50-4	General population	oral	Long term exposure - systemic effects		6,3 mg/kg bw/day	

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	solid blue
Odor	characteristic
Odour threshold	No data available / Not applicable
pH	Not applicable
Initial boiling point	> 150,0 °C (> 302 °F)
Flash point	> 100 °C (> 212 °F)
Decomposition temperature	No data available / Not applicable
Vapour pressure (25,0 °C (77 °F))	< 6,66 mbar
Density (ρ)	1,1000 g/cm ³
Bulk density	No data available / Not applicable
Viscosity	No data available / Not applicable
Viscosity (kinematic)	No data available / Not applicable
Explosive properties	No data available / Not applicable
Solubility (qualitative) (Solvent: Water)	Slight
Solubility (qualitative) (Solvent: Acetone)	Not determined
Solidification temperature	No data available / Not applicable
Melting point	No data available / Not applicable
Flammability	No data available / Not applicable
Auto-ignition temperature	No data available / Not applicable
Explosive limits	No data available / Not applicable
Partition coefficient: n-octanol/water	No data available / Not applicable
Evaporation rate	No data available / Not applicable
Vapor density	No data available / Not applicable
Oxidising properties	No data available / Not applicable

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

Stable under normal conditions of storage and use.

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 (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:

May cause irritation to the digestive tract.

Skin irritation:

Prolonged or repeated contact may cause skin irritation.

Eye irritation:

Causes serious eye irritation.

Sensitizing:

May cause an allergic skin reaction.

Acute oral toxicity:

Hazardous components CAS-No.	Value type	Value	Route of application	Exposure time	Species	Method
Ethane-1,2-diol 107-21-1	Acute toxicity estimate (ATE)	500 mg/kg	oral			Expert judgement
Ethane-1,2-diol 107-21-1	LD50	7.712 mg/kg			rat	not specified
Cumene hydroperoxide 80-15-9	LD50	550 mg/kg	oral		rat	not specified
1-Methyl-2-pyrrolidone 872-50-4	LD50	4.150 mg/kg	oral		rat	OECD Guideline 401 (Acute Oral Toxicity)
1,4-Naphthalenedione 130-15-4	LD50	190 mg/kg	oral		rat	not specified

Acute inhalative toxicity:

Hazardous components CAS-No.	Value type	Value	Route of application	Exposure time	Species	Method
1-Methyl-2-pyrrolidone 872-50-4	LC50	> 5,1 mg/l	aerosol	4 h	rat	OECD Guideline 403 (Acute Inhalation Toxicity)

Acute dermal toxicity:

Hazardous components CAS-No.	Value type	Value	Route of application	Exposure time	Species	Method
Ethane-1,2-diol 107-21-1	LD50	10.600 mg/kg	dermal		rabbit	not specified
Cumene hydroperoxide 80-15-9	LD50	1.200 - 1.520 mg/kg	dermal			not specified
1-Methyl-2-pyrrolidone 872-50-4	LD50	> 5.000 mg/kg	dermal		rat	OECD Guideline 402 (Acute Dermal Toxicity)

Skin corrosion/irritation:

Hazardous components CAS-No.	Result	Exposure time	Species	Method
Ethane-1,2-diol 107-21-1	not irritating	20 h	rabbit	BASF Test
Cumene hydroperoxide 80-15-9	corrosive		rabbit	Draize Test
1-Methyl-2-pyrrolidone 872-50-4	irritating	24 h	rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
1-Methyl-2-pyrrolidone 872-50-4	moderately irritating		human	not specified

Serious eye damage/irritation:

Hazardous components CAS-No.	Result	Exposure time	Species	Method
Ethane-1,2-diol 107-21-1	not irritating		rabbit	BASF Test
1-Methyl-2-pyrrolidone 872-50-4	irritating		rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)

Respiratory or skin sensitization:

Hazardous components CAS-No.	Result	Test type	Species	Method
Ethane-1,2-diol 107-21-1	not sensitising	Guinea pig maximisation test	guinea pig	OECD Guideline 406 (Skin Sensitisation)
1-Methyl-2-pyrrolidone 872-50-4	not sensitising	Mouse local lymph node assay (LLNA)	mouse	OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay)

Germ cell mutagenicity:

Hazardous components CAS-No.	Result	Type of study / Route of administration	Metabolic activation / Exposure time	Species	Method
Ethane-1,2-diol 107-21-1	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
Ethane-1,2-diol 107-21-1	negative	oral: feed		rat	Chromosome Aberration Test
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
1-Methyl-2-pyrrolidone 872-50-4	negative	DNA damage and repair assay, unscheduled DNA synthesis in mammalian cells in vitro	without		OECD Guideline 482 (Genetic Toxicology: DNA Damage and Repair, Unscheduled DNA Synthesis in Mammalian Cells In Vitro)
	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
	negative	mammalian cell gene mutation assay	with and without		OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)
1-Methyl-2-pyrrolidone 872-50-4	negative	oral: gavage		mouse	OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test)
	negative	oral: gavage		hamster, Chinese	OECD Guideline 475 (Mammalian Bone Marrow Chromosome Aberration Test)

Repeated dose toxicity

Hazardous components CAS-No.	Result	Route of application	Exposure time / Frequency of treatment	Species	Method
Ethane-1,2-diol 107-21-1	NOAEL=150 mg/kg	oral: feed	16 wdaily	rat	OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)
Cumene hydroperoxide 80-15-9		inhalation: aerosol	6 h/d5 d/w	rat	not specified
1-Methyl-2-pyrrolidone 872-50-4	NOAEL=0,5 mg/l	inhalation	90 days6 hrs/day, 5 days/wk	rat	OECD Guideline 413 (Subchronic Inhalation Toxicity: 90-Day)

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.
Harmful to aquatic life with long lasting effects.

Hazardous components CAS-No.	Value type	Value	Acute Toxicity Study	Exposure time	Species	Method
Ethane-1,2-diol 107-21-1	NOEC	15.380 mg/l	Fish	28 d	Oryzias latipes	OECD Guideline 204 (Fish, Prolonged Toxicity Test: 14-day Study)
	LC50	72.860 mg/l	Fish	96 h	Pimephales promelas	OECD Guideline 203 (Fish, Acute Toxicity Test)
Ethane-1,2-diol 107-21-1	EC50	34.400 mg/l	Daphnia	48 h	Ceriodaphnia sp.	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Ethane-1,2-diol 107-21-1	EC50	> 20.000 mg/l	Algae		Microcystis aeruginosa	OECD Guideline 201 (Alga, Growth Inhibition Test) not specified
Ethane-1,2-diol 107-21-1	EC0	> 10.000 mg/l	Bacteria	16 h		
Ethane-1,2-diol 107-21-1	NOEC	8.590 mg/l	chronic Daphnia	7 d	Ceriodaphnia sp.	OECD 211 (Daphnia magna, Reproduction Test)
Cumene hydroperoxide 80-15-9	LC50	3,9 mg/l	Fish	96 h	Oncorhynchus mykiss	OECD Guideline 203 (Fish, Acute Toxicity Test)
Cumene hydroperoxide 80-15-9	EC50	18 mg/l	Daphnia	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Cumene hydroperoxide 80-15-9	ErC50	3,1 mg/l	Algae	72 h	Pseudokirchnerella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test) not specified
Cumene hydroperoxide 80-15-9	EC10	70 mg/l	Bacteria	30 min		
1-Methyl-2-pyrrolidone 872-50-4	LC50	4.000 mg/l	Fish	96 h	Leuciscus idus	DIN 38412-15
1-Methyl-2-pyrrolidone 872-50-4	EC50	4.897 mg/l	Daphnia	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
1-Methyl-2-pyrrolidone 872-50-4	EC50	> 500 mg/l	Algae	72 h	Scenedesmus subspicatus (new name: Desmodesmus subspicatus)	DIN 38412-09
1-Methyl-2-pyrrolidone 872-50-4	NOEC	12,5 mg/l	chronic Daphnia	21 d	Daphnia magna	OECD 211 (Daphnia magna, Reproduction Test)
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
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Ethane-1,2-diol 107-21-1	readily biodegradable	aerobic	83 - 96 %	OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I))
Cumene hydroperoxide 80-15-9		no data	0 %	OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test)
1-Methyl-2-pyrrolidone 872-50-4	inherently biodegradable	aerobic	> 90 %	OECD Guideline 302 B (Inherent biodegradability: Zahn-Wellens/EMPA Test)
	readily biodegradable	aerobic	92 %	OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I))
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
Ethane-1,2-diol 107-21-1	-1,36					not specified
Cumene hydroperoxide 80-15-9		9,1		calculation		OECD Guideline 305 (Bioconcentration: Flow- through Fish Test) not specified
Cumene hydroperoxide 80-15-9	2,16					
1-Methyl-2-pyrrolidone 872-50-4	-0,46				25 °C	OECD Guideline 107 (Partition Coefficient (n- octanol / water), Shake Flask Method)
1,4-Naphthalenedione 130-15-4	1,71					not specified

12.5. Results of PBT and vPvB assessment

Hazardous components CAS-No.	PBT/vPvB
Ethane-1,2-diol 107-21-1	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
Cumene hydroperoxide 80-15-9	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
1-Methyl-2-pyrrolidone 872-50-4	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very 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

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.

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 < 3 %
(2010/75/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:

- 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.
- H360D May damage the unborn child.
- 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.

Safety phrases:

- S25 Avoid contact with eyes.
- S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
- S51 Use only in well-ventilated areas.

Additional labeling:

For consumer use only: S2 Keep out of the reach of children.
S46 If swallowed, seek medical advice immediately and show this container or label.

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.