

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

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sds no.: 153465 V003.3

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272 Threadlocker High Strength

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

1.1. Product identifier

272 Threadlocker High Strength

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 Limited Technologies House Wood Lane End

HP2 4RQ Hemel Hempstead

Great Britain

Phone: +44 (0)1442 278000 +44 (0)1442 278071 Fax-no.:

ua-productsafety.uk@uk.henkel.com

1.4. Emergency telephone number

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

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (DPD):

Sensitizing

R43 May cause sensitisation by skin contact.

Xi - Irritant

R41 Risk of serious damage to eyes.

R37/38 Irritating to respiratory system and skin.

2.2. Label elements

Label elements (DPD):

Xi - Irritant



Risk phrases:

R37/38 Irritating to respiratory system and skin.

R41 Risk of serious damage to eyes.

R43 May cause sensitisation by skin contact.

Safety phrases:

S24/25 Avoid contact with skin and eyes.

S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S28 After contact with skin, wash immediately with plenty of water and soap.

S37/39 Wear suitable gloves and eye/face protection.

S51 Use only in well-ventilated areas.

Contains:

N,N-(m-phenylene)dimaleimide, Hydroxypropyl methacrylate, Maleic acid

2.3. Other hazards

This product contains a solid compound, which in powder form is classified as very toxic by inhalation. The product is not labelled accordingly as such exposure can be excluded under normal and foreseeable conditions. In the case that the product is used divergently under formation of aerosols, measures have to be observed to exclude inhalational exposure.

SECTION 3: Composition/information on ingredients

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
N,N-(m-phenylene)dimaleimide 3006-93-7	221-112-8	> 10-< 20 %	Skin irritation 2; Dermal H315 Skin sensitizer 1; Dermal H317 Serious eye damage/eye irritation 1
			H318 Acute toxicity 2; Inhalation H330
Hydroxypropyl methacrylate 27813-02-1	248-666-3 01-2119490226-37	> 1-< 5 %	Skin sensitizer 1; Dermal H317 Serious eye irritation 2 H319
Cumene hydroperoxide 80-15-9	201-254-7	> 1-< 2,5 %	Acute toxicity 4; Dermal H312 Specific target organ toxicity - repeated exposure 2 H373 Acute toxicity 3; Inhalation H331 Acute toxicity 4; Oral H302 Organic peroxides E H242 Chronic hazards to the aquatic environment 2 H411 Skin corrosion 1B
Maleic acid 110-16-7	203-742-5	> 0,1-< 0,9 %	H314 Acute toxicity 4; Oral H302 Serious eye irritation 2 H319 Specific target organ toxicity - single exposure 3 H335 Skin irritation 2 H315
Cumene 98-82-8	202-704-5	> 0-< 0,9 %	Skin sensitizer 1 H317 Flammable liquids 3 H226 Aspiration hazard 1 H304 Specific target organ toxicity - single exposure 3 H335 Chronic hazards to the aquatic environment 2 H411
N,N-dimethyl-o-toluidine 609-72-3	210-199-8	> 0,1-< 0,5 %	Acute toxicity 3; Inhalation H331 Acute toxicity 3; Dermal H311 Acute toxicity 3; Oral H301 Specific target organ toxicity - repeated exposure 2 H373 Chronic hazards to the aquatic environment 3 H412

For full text of the H - statements and other abbreviations see section 16 "Other information". Substances without classification may have community workplace exposure limits available.

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

Hazardous components	EC Number	content	Classification
CAS-No.	REACH-Reg No.		
N,N-(m-phenylene)dimaleimide	221-112-8	> 10 - < 20 %	T+ - Very toxic; R26
3006-93-7			Xi - Irritant; R38
			Xi - Irritant; R41
			Xi - Irritant; R43
Hydroxypropyl methacrylate	248-666-3	> 1 - < 5 %	Xi - Irritant; R36, R43
27813-02-1	01-2119490226-37		
Cumene hydroperoxide	201-254-7	> 1 - < 2,5 %	T - Toxic; R23
80-15-9			Xn - Harmful; R21/22, R48/20/22
			O - Oxidizing; R7
			C - Corrosive; R34
			N - Dangerous for the environment; R51/53
Maleic acid	203-742-5	> 0,1 - < 0,9 %	Xn - Harmful; R22
110-16-7			Xi - Irritant; R36/37/38
			R43
Cumene	202-704-5	> 0 - < 0,9 %	R10
98-82-8			Xn - Harmful; R65
			Xi - Irritant; R37
			N - Dangerous for the environment; R51/53
N,N-dimethyl-o-toluidine	210-199-8	> 0,1 - < 0,5 %	T - Toxic; R23/24/25
609-72-3			R33
			R52/53

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.

Seek medical advice.

Eye contact:

Rinse immediately with plenty of running water (for 10 minutes). Seek medical attention if necessary.

Ingestion:

Rinse out mouth, drink 1-2 glasses of water, do not induce vomiting.

Seek medical advice.

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

EYE: Irritation, conjunctivitis.

SKIN: Redness, inflammation.

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

Combustion behaviour:

Non flammable product (flash point is greater than 100°C (CC))

5.1. Extinguishing media

Suitable extinguishing media:

Carbon dioxide, foam, powder

5.2. Special hazards arising from the substance or mixture

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.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Avoid skin and eye contact.

6.2. Environmental precautions

Do not let product enter drains.

6.3. Methods and material for containment and cleaning up

For small spills wipe up with paper towel and place in container for disposal.

For large spills absorb onto inert absorbent material and place in sealed container for disposal.

Conditions to avoid on disposal:

No information.

6.4. Reference to other sections

See advice in chapter 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.

7.2. Conditions for safe storage, including any incompatibilities

Store in original containers at $8-21^{\circ}\text{C}$ ($46.4-69.8^{\circ}\text{F}$) 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

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SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational Exposure Limits

Valid for

Great Britain

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

Biological Exposure Indices:

None

8.2. Exposure controls:

Respiratory protection:

Use only in well-ventilated areas.

An approved mask or respirator fitted with an organic vapour cartridge should be worn if the product is used in a poorly ventilated area

Filter type: A

Hand protection:

Chemical-resistant protective gloves (EN 374).

Suitable materials for short-term contact or splashes (recommended: at least protection index 2, corresponding to > 30 minutes permeation time as per EN 374):

nitrile rubber (NBR; \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 Orange-red characteristic

Odor

3 - 6 pН

Initial boiling point Not determined

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

Decomposition temperature No data available / Not applicable

Vapour pressure < 0,13 mbar

(25 °C (77 °F))

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

Solubility (qualitative) Slight

(Solvent: Water)
Solubility (qualitative)
Pa

lubility (qualitative) Partially miscible (Solvent: Acetone)

Solidification temperature No data available / Not applicable Melting point No data available / Not applicable Flammability No data available / Not applicable Auto-ignition temperature No data available / Not applicable 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 No data available / Not applicable Oxidising properties

9.2. Other information

No data available / Not applicable

SECTION 10: Stability and reactivity

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. No decomposition if stored and applied as directed.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

General toxicological information:

The preparation is classified based on the conventional method outlined in Article 6(1)(a) of Directive 1999/45/EC. Relevant available health/ecological information for the substances listed under Section 3 is provided in the following.

Oral toxicity:

May cause irritation to the digestive tract.

Inhalative toxicity:

Irritating to respiratory system

Skin irritation:

It is irritating and sensitising to the skin

Eye irritation:

The product may cause serious eye damage. Avoid eye contact.

Acute toxicity:

Hazardous components CAS-No.	Value type	Value	Route of application	Exposure time	Species	Method
Cumene hydroperoxide	LD50	550 mg/kg	oral		rat	
80-15-9	LC50	220 ppm	inhalation	4 h	rat	
Į.	LD50	500 mg/kg	dermal		rat	

Skin corrosion/irritation:

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

Germ cell mutagenicity:

Hazardous components CAS-No.	Result	Type of study / Route of administration	Metabolic activation / Exposure time	Species	Method
Cumene hydroperoxide 80-15-9	positive	bacterial reverse mutation assay (e.g Ames test)	without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
Cumene hydroperoxide 80-15-9	negative	dermal		mouse	

SECTION 12: Ecological information

General ecological information:

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

Biodegradable product of low ecotoxicity.

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

Biological and Chemical Oxygen Demands (BOD and COD) are insignificant.

The preparation is classified based on the conventional method outlined in Article 6(1)(a) of Directive 1999/45/EC. Relevant available health/ecological information for the substances listed under Section 3 is provided in the following.

12.1. Toxicity

Hazardous components CAS-No.	Value type	Value	Acute Toxicity	Exposure time	Species	Method
			Study			
Hydroxypropyl methacrylate 27813-02-1	LC50	493 mg/l	Fish	48 h	Leuciscus idus melanotus	
Cumene hydroperoxide 80-15-9	LC50	3,9 mg/l	Fish	96 h	Oncorhynchus mykiss	OECD Guideline 203 (Fish, Acute
Cumene hydroperoxide	EC50	18 mg/l	Daphnia	48 h	Daphnia magna	Toxicity Test) OECD Guideline
80-15-9	Leso	10 mg/1	Барина	10 11	Вирини нидии	202 (Daphnia sp. Acute
						Immobilisation Test)
Cumene hydroperoxide 80-15-9	ErC50	3,1 mg/l	Algae	72 h	Pseudokirchnerella subcapitata	OECD Guideline 201 (Alga, Growth
						Inhibition Test)
Maleic acid 110-16-7	LC50	> 245 mg/l	Fish	48 h	Leuciscus idus	
Maleic acid 110-16-7	EC50	245 mg/l	Daphnia	24 h	Daphnia magna	
Cumene	LC50	4,8 mg/l	Fish	96 h	Oncorhynchus mykiss	OECD Guideline
98-82-8						203 (Fish, Acute Toxicity Test)
Cumene	EC50	4 mg/l	Daphnia	48 h	Daphnia magna	OECD Guideline
98-82-8			_			202 (Daphnia sp.
						Acute
						Immobilisation Test)
Cumene	EC50	2,6 mg/l	Algae	72 h	Selenastrum capricornutum	OECD Guideline
98-82-8					(new name: Pseudokirchnerella	201 (Alga, Growth
					subcapitata)	Inhibition Test)

12.2. Persistence and degradability

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

Hydroxypropyl methacrylate 27813-02-1	readily biodegradable	aerobic	94,2 %	OECD Guideline 301 E (Ready biodegradability: Modified OECD Screening Test)
Cumene hydroperoxide 80-15-9			18 %	OECD Guideline 301 E (Ready biodegradability: Modified OECD Screening Test)
Maleic acid 110-16-7	readily biodegradable	aerobic	87 - 88 %	EU Method C.4-E (Determination of the "Ready" BiodegradabilityClosed Bottle Test)
Cumene 98-82-8		aerobic	86 %	

12.3. Bioaccumulative potential / 12.4. Mobility in soil

Hazardous components	LogKow	Bioconcentration	Exposure	Species	Temperature	Method
CAS-No.		factor (BCF)	time			
Hydroxypropyl methacrylate 27813-02-1	0,97					
Cumene hydroperoxide 80-15-9		9,1		calculation		OECD Guideline 305 (Bioconcentration: Flow- through Fish Test)
Cumene hydroperoxide 80-15-9	2,16					-
Maleic acid 110-16-7	-0,48					
Cumene 98-82-8 Cumene 98-82-8	3,55	35,5		Carassius auratus	23 °C	OECD Guideline 305 (Bioconcentration: Flow- through Fish Test) OECD Guideline 107 (Partition Coefficient (n- octanol / water), Shake Flask Method)

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 (1999/13/EC)

< 3 %

15.2. Chemical safety assessment

A chemical safety assessment has not been carried out.

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SECTION 16: Other information

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

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

R10 Flammable.

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

R22 Harmful if swallowed.

R23 Toxic by inhalation.

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

R26 Very toxic by inhalation.

R33 Danger of cumulative effects.

R34 Causes burns.

R36 Irritating to eyes.

R36/37/38 Irritating to eyes, respiratory system and skin.

R37 Irritating to respiratory system.

R38 Irritating to skin.

R41 Risk of serious damage to eyes.

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.

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.

H226 Flammable liquid and vapour.

H242 Heating may cause a fire.

H301 Toxic if swallowed.

H302 Harmful if swallowed.

H304 May be fatal if swallowed and enters airways.

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.

H318 Causes serious eye damage.

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.

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.

This safety data sheet was prepared in accordance with Council Directive 67/548/EEC and it's subsequent amendments, and Commission Directive 1999/45/EC.