



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

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Loctite 278 250ml PL,RU,HU,CZ

sds no. : 173002
V005.1

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1. Identification of the substance/mixture and of the company/undertaking

Product identifier:

Loctite 278 250ml PL,RU,HU,CZ

Relevant identified uses of the substance or mixture and uses advised against:

Intended use:

Adhesive

Details of the supplier of the safety data sheet:

Henkel Limited
2 Bishop Square Business Park
AL109EY Herfordshire Hatfield

Great Britain

Phone: +44 1606 593933

Fax-no.: +44 1606 863762

ua-productsafety.uk@uk.henkel.com

Emergency telephone number:

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

2. Hazards identification

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.

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 Avoid contact with skin.
- 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 Wear suitable gloves.
- S39 Wear eye/face protection.

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:

- Hydroxypropyl methacrylate,
- Methacryloyloxyethyl succinate,
- Maleic acid

Other hazards:

- None if used properly.

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.	EINECS REACH-Reg No.	content	Classification
(octahydro-4,7-methano-1H-indenediyl)bis(methylene) bismethacrylate 43048-08-4	256-062-6	> 10- < 20 %	Serious eye irritation 2 H319 Specific target organ toxicity - single exposure 3 H335 Skin irritation 2 H315
Cumene hydroperoxide 80-15-9	201-254-7	> 0,5- < 2 %	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 H314
2-Hydroxyethyl methacrylate 868-77-9	212-782-2	> 0,1- < 0,9 %	Serious eye irritation 2 H319 Skin irritation 2 H315 Skin sensitizer 1 H317
Maleic acid 110-16-7	203-742-5	> 0,1- < 0,5 %	Acute toxicity 4; Oral H302 Serious eye irritation 2 H319 Specific target organ toxicity - single exposure 3 H335 Skin irritation 2 H315 Skin sensitizer 1 H317
Cumene 98-82-8	202-704-5	> 0,1- < 0,5 %	Flammable liquids 3 H226 Aspiration hazard 1 H304 Specific target organ toxicity - single exposure 3 H335 Chronic hazards to the aquatic environment 2 H411

Only dangerous ingredients for which a CLP classification is already available are displayed in this table.
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 CAS-No.	EINECS REACH-Reg No.	content	Classification
(octahydro-4,7-methano-1H-indenediyl)bis(methylene) bismethacrylate 43048-08-4	256-062-6	> 10 - < 20 %	Xi - Irritant; R36/37/38
Hydroxypropyl methacrylate 27813-02-1	248-666-3	> 5 - < 10 %	Xi - Irritant; R36, R43
Methacryloyloxyethyl succinate 20882-04-6	244-096-4	> 5 - < 10 %	Xi - Irritant; R38, R41, R43
Cumene hydroperoxide 80-15-9	201-254-7	> 0,5 - < 2 %	T - Toxic; R23 Xn - Harmful; R21/22, R48/20/22 O - Oxidizing; R7 C - Corrosive; R34 N - Dangerous for the environment; R51, R53
2-Hydroxyethyl methacrylate 868-77-9	212-782-2	> 0,1 - < 0,9 %	Xi - Irritant; R36/38 R43
Benzenamine, N,N,4-trimethyl-, N-oxide 825-85-4		> 0,1 - < 0,9 %	Xi - Irritant; R43 Mutagen category 3.; Xn - Harmful; R68
Tributyl amine 102-82-9	203-058-7	> 0,1 - < 0,5 %	Xn - Harmful; R22 T - Toxic; R23/24 Xi - Irritant; R38 N - Dangerous for the environment; R51/53
Maleic acid 110-16-7	203-742-5	> 0,1 - < 0,5 %	Xn - Harmful; R22 Xi - Irritant; R36/37/38 R43
Cumene 98-82-8	202-704-5	> 0,1 - < 0,5 %	R10 Xn - Harmful; R65 Xi - Irritant; R37 N - Dangerous for the environment; R51, R53

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.

4. First aid measures**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.

Most important symptoms and effects, both acute and delayed:

SKIN: Rash, Urticaria.

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

SKIN: Redness, inflammation.

EYE: Irritation, conjunctivitis.

Indication of any immediate medical attention and special treatment needed:

See section: Description of first aid measures

5. Firefighting measures

Extinguishing media:

Suitable extinguishing media:

Carbon dioxide, foam, powder

Extinguishing media which must not be used for safety reasons:

None known

Special hazards arising from the substance or mixture:

In the event of a fire, carbon monoxide (CO) and carbon dioxide (CO₂) can be released.

In case of fire, keep containers cool with water spray.

Advice for firefighters:

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

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures:

Avoid skin and eye contact.

Environmental precautions:

Do not let product enter drains.

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.

Reference to other sections:

See advice in chapter 8

7. Handling and storage

Precautions for safe handling:

Use only in well-ventilated areas.

Avoid skin and eye contact.

Prolonged or repeated skin contact should be avoided

Hygiene measures:

Good industrial hygiene practices should be observed.

Wash hands before work breaks and after finishing work.

Do not eat, drink or smoke while working.

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.

Specific end use(s):

Adhesive

8. Exposure controls/personal protection

Control parameters:

Valid for
Great Britain

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

Exposure controls:

Respiratory protection:

Use only in well-ventilated areas.

Hand protection:

Avoid skin-contact.

Chemical-resistant protective gloves (EN 374).

Suitable materials for short-term contact or splashes (recommended: at least protection index 2, corresponding to > 30

minutes permeation time as per EN 374):

nitrile rubber (NBR; >= 0.4 mm thickness)

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

nitrile rubber (NBR; >= 0.4 mm thickness)

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

Eye protection:

Wear protective glasses.

Skin protection:

Wear suitable protective clothing.

9. Physical and chemical properties

Information on basic physical and chemical properties:

Appearance	liquid Green
Odor	characteristic
pH	No data available.
Initial boiling point	No data available.
Flash point	> 100 °C (> 212 °F)
Decomposition temperature	No data available.
Vapour pressure	No data available.
Density (20 °C (68 °F))	1,1 - 1,14 g/cm ³
Bulk density	No data available.
Viscosity	No data available.
Viscosity (kinematic)	No data available.
Explosive properties	No data available.
Solubility (qualitative)	Insoluble

(Solvent: Water)	
Solidification temperature	No data available.
Melting point	No data available.
Flammability	No data available.
Auto-ignition temperature	No data available.
Explosive limits	No data available.
Partition coefficient: n-octanol/water	No data available.
Evaporation rate	No data available.
Vapor density	No data available.
Oxidising properties	No data available.

Other information:

No data available.

10. Stability and reactivity**Reactivity:**

Reacts with strong oxidants.

Possibility of hazardous reactions:

See section reactivity

Conditions to avoid:

Stable

Incompatible materials:

None if used properly.

Hazardous decomposition products:

carbon oxides.

May produce fumes when heated to decomposition. Fumes may contain carbon monoxide and other toxic fumes.

11. Toxicological information**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:

Irritating to the skin.

Eye irritation:

Risk of serious damage to eyes

Sensitizing:

May cause sensitization by skin contact.

Acute toxicity:

Hazardous components CAS-No.	Value type	Value	Route of application	Exposure time	Species	Method
Benzenamine, N,N,4- trimethyl-, N-oxide 825-85-4	LD50	> 2.000 mg/kg	oral		rat	OECD Guideline 401 (Acute Oral Toxicity)
Tributyl amine 102-82-9	LD50	320 mg/kg	oral		mouse	

Skin corrosion/irritation:

Hazardous components CAS-No.	Result	Exposure time	Species	Method
Benzenamine, N,N,4-trimethyl-, N-oxide 825-85-4	slightly irritating	4 h	rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)

Serious eye damage/irritation:

Hazardous components CAS-No.	Result	Exposure time	Species	Method
Benzenamine, N,N,4-trimethyl-, N-oxide 825-85-4	not irritating	24 h	rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)

Respiratory or skin sensitization:

Hazardous components CAS-No.	Result	Test type	Species	Method
Benzenamine, N,N,4-trimethyl-, N-oxide 825-85-4	sensitising	Guinea pig maximisation test	guinea pig	OECD Guideline 406 (Skin Sensitisation)
Benzenamine, N,N,4-trimethyl-, N-oxide 825-85-4	not sensitising	Buehler test	guinea pig	OECD Guideline 406 (Skin Sensitisation)

Germ cell mutagenicity:

Hazardous components CAS-No.	Result	Type of study / Route of administration	Metabolic activation / Exposure time	Species	Method
2-Hydroxyethyl methacrylate 868-77-9	negative positive	bacterial forward mutation assay in vitro mammalian chromosome aberration test	with and without with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay) OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test)
Benzenamine, N,N,4-trimethyl-, N-oxide 825-85-4	positive	bacterial forward mutation assay	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
Benzenamine, N,N,4-trimethyl-, N-oxide 825-85-4	positive positive	oral: feed oral: feed		mouse mouse	OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test) OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test)

12. Ecological information

General ecological information:

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

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.

Ecotoxicity:

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

Mobility:

Cured adhesives are immobile.

Persistence and Biodegradability:

The product is not biodegradable.

Toxicity:

Hazardous components CAS-No.	Value type	Value	Acute Toxicity Study	Exposure time	Species	Method
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 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)
2-Hydroxyethyl methacrylate 868-77-9	LC50	227 mg/l	Fish	96 h	Pimephales promelas	OECD Guideline 203 (Fish, Acute Toxicity Test)
2-Hydroxyethyl methacrylate 868-77-9	EC50	380 mg/l	Daphnia	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
2-Hydroxyethyl methacrylate 868-77-9	EC50	345 mg/l	Algae	72 h	Selenastrum capricornutum (new name: Pseudokirchnerella subcapitata)	OECD Guideline 201 (Alga, Growth Inhibition Test)
Benzenamine, N,N,4- trimethyl-, N-oxide 825-85-4	LC50	460 mg/l	Fish	96 h	Brachydanio rerio (new name: Danio rerio)	
Tributyl amine 102-82-9	LC50	60,2 mg/l	Fish	48 h	Leuciscus idus	
Tributyl amine 102-82-9	EC50	18 mg/l	Daphnia	24 h	Daphnia sp.	
Tributyl amine 102-82-9	EC50	8,215 mg/l	Algae	72 h	Scenedesmus subspicatus (new name: Desmodesmus subspicatus)	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 98-82-8	LC50	4,8 mg/l	Fish	96 h	Oncorhynchus mykiss	OECD Guideline 203 (Fish, Acute Toxicity Test)
Cumene 98-82-8	EC50	4 mg/l	Daphnia	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Cumene 98-82-8	EC50	2,6 mg/l	Algae	72 h	Selenastrum capricornutum (new name: Pseudokirchnerella subcapitata)	OECD Guideline 201 (Alga, Growth Inhibition Test)

Persistence and degradability:

Hazardous components CAS-No.	Result	Route of application	Degradability	Method
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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)
2-Hydroxyethyl methacrylate 868-77-9	readily biodegradable	aerobic	98 %	OECD Guideline 301 E (Ready biodegradability: Modified OECD Screening Test)
Benzenamine, N,N,4-trimethyl-, N-oxide 825-85-4		aerobic	0 - 3 %	EU Method C.4-E (Determination of the "Ready" Biodegradability Closed Bottle Test)
Tributyl amine 102-82-9		aerobic	< 10 %	OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I))
Maleic acid 110-16-7	readily biodegradable	aerobic	87 - 88 %	EU Method C.4-E (Determination of the "Ready" Biodegradability Closed Bottle Test)
Cumene 98-82-8		aerobic	86 %	

Bioaccumulative potential / Mobility in soil:

Hazardous components CAS-No.	LogKow	Bioconcentration factor (BCF)	Exposure time	Species	Temperature	Method
Hydroxypropyl methacrylate 27813-02-1	0,97					
Cumene hydroperoxide 80-15-9		9,1				OECD Guideline 305 (Bioconcentration: Flow-through Fish Test)
Cumene hydroperoxide 80-15-9	2,16					
Tributyl amine 102-82-9	4,46					
Maleic acid 110-16-7	-0,48					
Cumene 98-82-8		35,5		Carassius auratus		OECD Guideline 305 (Bioconcentration: Flow-through Fish Test)
Cumene 98-82-8	3,55				23 °C	OECD Guideline 107 (Partition Coefficient (n-octanol / water), Shake Flask Method)

13. Disposal considerations**Waste treatment methods:**

Product disposal:

Dispose of in accordance with local and national regulations.

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

14. Transport information**General information:**

Not hazardous according to RID, ADR, ADN, IMDG, IATA-DGR.

15. Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture:

VOC content < 3 %
(1999/13/EC)

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 Toxic by inhalation and in contact with skin.
R34 Causes burns.
R36 Irritating to eyes.
R36/37/38 Irritating to eyes, respiratory system and skin.
R36/38 Irritating to eyes 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 Toxic to aquatic organisms.
R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R53 May cause long-term adverse effects in the aquatic environment.
R65 Harmful: may cause lung damage if swallowed.
R68 Possible risk of irreversible effects.
R7 May cause fire.

H226 Flammable liquid and vapour.
H242 Heating may cause a fire.
H302 Harmful if swallowed.
H304 May be fatal if swallowed and enters airways.
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.
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.

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 its subsequent amendments, and Commission Directive 1999/45/EC.