Safety Data Sheet

LOCTITE 542

SDS No. : 168433
V002.4
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Section 1. Identification of the substance/preparation and of the company/undertaking

Product name: LOCTITE 542

Other means of identification: LOCTITE 542 BO 10ML PL/RU/HU/CZ
Product code: IDH246608
Recommended use of the chemical and restrictions on use

Intended use: Anaerobic Sealant

Identification of manufacturer, importer or distributor
Importer: Henkel Malaysia Sdn Bhd 46th Floor, Menara TM, Jalan Pantai Baharu, 59200 Kuala Lumpur, Malaysia. Phone :+ 603 22461000 Fax : + 60322461188

E-mail address of person responsible for Safety Data Sheet: ap-ua-psra.sea@henkel.com

Emergency information: FOR EMERGENCIES ONLY (Spill, major leak, Fire, Exposure, or Accident). Call CHEMTREC: +1 703-741-5970

Section 2. Hazards identification

GHS Classification:

Hazard Class	Hazard Category	Target organ
Serious eye damage/eye irritation	Category 2	
Specific target organ toxicity - single exposure	Category 3	respiratory tract irritation
Chronic hazards to the aquatic environment	Category 3	

GHS label elements:

Hazard pictogram:

Signal word: Warning

Hazard statement:
H319 Causes serious eye irritation.
H335 May cause respiratory irritation.
H412 Harmful to aquatic life with long lasting effects.

Precaution:

Prevention:
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P264 Wash hands thoroughly after handling.
P273 Avoid release to the environment.
P280 Wear eye protection/face protection.

Response:
P304+P340+P312 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or physician if you feel unwell.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313 If eye irritation persists: Get medical advice/attention.

Storage:
P403+P233 Store in a well-ventilated place. Keep container tightly closed.

Disposal:
P501 Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

Section 3. Composition / information on ingredients

Substance or Mixture:
Mixture

Declaration of hazardous chemical:

Hazard component CAS-No.	Content	GHS Classification
Cumene hydroperoxide 80-15-9	1- 10 %	Organic peroxides E H242 Acute toxicity 4; Oral H302 Acute toxicity 3; Inhalation H331 Acute toxicity 4; Dermal H312 Skin corrosion/irritation 1B H314 Specific target organ toxicity - repeated exposure 2 H373 Chronic hazards to the aquatic environment 2 H411
N,N-Diethyl-p-toluidine 613-48-9	0.1- 1 %	Acute toxicity 3; Oral H301 Acute toxicity 3; Inhalation H331 Acute toxicity 3; Dermal H311 Specific target organ toxicity - repeated exposure 2 H373 Chronic hazards to the aquatic environment 3 H412
N,N-dimethyl-o-toluidine 609-72-3	0.1- 1 %	Acute toxicity 3; Oral H301 Acute toxicity 3; Inhalation H331 Acute toxicity 3; Dermal H311 Specific target organ toxicity - repeated exposure 2 H373 Chronic hazards to the aquatic environment 3 H412
Methyl methacrylate 80-62-6	0.1- 1 %	Flammable liquids 2 H225 Skin corrosion/irritation 2 H315 Skin sensitizer 1 H317 Specific target organ toxicity - single exposure 3 H335
1,4-Naphthalenedione 130-15-4	< 0.1 %	Acute toxicity 3; Oral H301 Acute toxicity 1; Inhalation H330 Skin corrosion/irritation 2; Dermal H315 Serious eye damage/eye irritation 2 H319 Skin sensitizer 1; Dermal H317 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

Section 4. 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 if necessary.
Ingestion:	Rinse out mouth, drink 1-2 glasses of water, do not induce vomiting.
Indication of immediate medical attention and special treatment needed:	See section: Description of first aid measures

Section 5. Fire fighting measures

Suitable extinguishing media:	Carbon dioxide, foam, powder
Specific hazards arising from the chemical:	In the event of a fire, carbon monoxide (CO) and carbon dioxide (CO2) can be released.
Special protection equipment and precautions for firefighters:	Wear self-contained breathing apparatus and full protective clothing, such as turn-out gear.
Additional fire fighting advice:	In case of fire, keep containers cool with water spray.

Section 6. Accidental release measures

Personal precautions:	Avoid skin and eye contact. Ensure adequate ventilation. See advice in section 8
Environmental precautions:	Do not let product enter drains.
Clean-up methods:	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. Dispose of contaminated material as waste according to Section 13.

Section 7. Handling and storage

Handling:	Use only in well-ventilated areas. Prolonged or repeated skin contact should be avoided to minimise any risk of sensitisation.
Storage:	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.

Section 8. Exposure controls / personal protection

Components with specific control parameters for workplace:

METHYL METHACRYLATE 80-62-6	**Value type**	Time Weighted Average (TWA):
	ppm	50
	Remarks	ACGIH
METHYL METHACRYLATE 80-62-6	**Value type**	Time Weighted Average (TWA):
	ppm	100
	mg/m³	410
	Remarks	MY OEL
METHYL METHACRYLATE 80-62-6	**Value type**	Short Term Exposure Limit (STEL):
	ppm	100
	Remarks	ACGIH

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 (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:
Wear protective glasses.
Protective eye equipment should conform to EN166.

Body protection:
Wear suitable protective clothing.
Protective clothing should conform to EN 14605 for liquid splashes or to EN 13982 for dusts.

Engineering controls:
Ensure good ventilation/extraction.

Hygienic measures:
Wash hands before work breaks and after finishing work. Do not eat, drink or smoke while working. Good industrial hygiene practices should be observed.

Section 9. Physical and chemical properties

Appearance: brown
liquid
Odor: characteristic
Odor threshold (CA): No data available.
pH: 3 - 6
Melting point / freezing point: No data available.

Specific gravity:	1.08
Boiling point:	> 149 °C (> 300.2 °F)
Flash point:	> 100 °C (> 212 °F)
Evaporation rate:	Not available.
Flammability (solid, gas):	No data available.
Lower explosive limit:	No data available.
Upper explosive limit:	No data available.
Vapor pressure: (no method; 50 °C (122 °F))	< 300 mbar
Vapor density:	Not available.
Density:	1.08 g/cm3
Solubility:	No data available.
Partition coefficient: n-octanol/water:	No data available.
Auto ignition:	No data available.
Decomposition temperature:	No data available.
Viscosity:	No data available.
VOC content: (2010/75/EC)	< 5 %

Section 10. Stability and reactivity

Reactivity/Incompatible materials:	Reaction with strong acids. Reacts with strong oxidants.
Chemical stability:	Stable under recommended storage conditions.
Conditions to avoid:	Stable
Hazardous decomposition products:	Irritating organic vapours. Oxides of carbon. Sulphur oxides nitrogen oxides

Section 11. Toxicological information

Oral toxicity:	Acute toxicity estimate (ATE) : > 2,000 mg/kg Method: Calculation method
Inhalative toxicity:	Acute toxicity estimate (ATE) : > 20 mg/l Exposure time: 4 h Test atmosphere: Vapor. Method: Calculation method
Dermal toxicity:	Acute toxicity estimate (ATE) : > 2,000 mg/kg Method: Calculation method

Health Effects:

Ingestion:	May cause gastrointestinal tract irritation if swallowed.
Skin:	Prolonged contact with skin, particularly damaged skin, may cause sensitization or dermatitis in sensitive individuals.
Eyes:	Causes serious eye irritation.
Inhalation:	May cause respiratory irritation.
Symptoms of Overexposure**:**	EYE: Irritation, conjunctivitis. RESPIRATORY: Irritation, coughing, shortness of breath, chest tightness. Prolonged or repeated contact may cause skin irritation.

Acute oral toxicity:

Cumene hydroperoxide 80-15-9	Value type	LD50
	Value	550 mg/kg
	Species	rat
	Method	not specified
1,4-Naphthalenedione 130-15-4	Value type	LD50
	Value	190 mg/kg
	Species	rat
	Method	not specified

Acute dermal toxicity:

Cumene hydroperoxide 80-15-9	Value type	LD50
	Value	1,200 - 1,520 mg/kg
	Species	
	Method	not specified

Skin corrosion/irritation:

Cumene hydroperoxide 80-15-9	Result	corrosive
	Exposure time	
	Species	rabbit
	Method	Draize Test

Respiratory or skin sensitization:

Methyl methacrylate 80-62-6	Result	sensitising
	Test type	Mouse local lymphnode assay (LLNA)
	Species	mouse
	Method	OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay)

Germ cell mutagenicity:

Cumene hydroperoxide 80-15-9	Result	positive
	Type of study / Route of administration	bacterial reverse mutation assay (e.g Ames test)
	Metabolic activation / Exposure time	without
	Method	OECD Guideline 471 (Bacterial Reverse Mutation Assay)
Cumene hydroperoxide 80-15-9	Result	negative
	Type of study / Route of administration	dermal
	Metabolic activation / Exposure time	
	Species	mouse
	Method	not specified
Methyl methacrylate 80-62-6	Result	negative
	Type of study / Route of administration	bacterial reverse mutation assay (e.g Ames test)
	Metabolic activation / Exposure time	with and without
	Method	not specified

Repeated dose toxicity:

Cumene hydroperoxide 80-15-9	Result	
	Route of application	inhalation: aerosol
	Exposure time / Frequency of treatment	6 h/d5 d/w
	Species	rat
	Method	not specified
Methyl methacrylate 80-62-6	Result	LOAEL=2000 ppm
	Route of application	inhalation
	Exposure time / Frequency of treatment	14 weeks6 hrs/day, 5 days/wk
	Species	mouse
	Method	Dose Range Finding Study
Methyl methacrylate 80-62-6	Result	NOAEL=1000 ppm
	Route of application	inhalation
	Exposure time / Frequency of treatment	14 weeks6 hrs/day, 5 days/wk
	Species	mouse
	Method	Dose Range Finding Study

Section 12. Ecological information

General ecological information: Cured Loctite products are typical polymers and do not pose any immediate environmental hazards.

Ecotoxicity: Harmful to aquatic life with long lasting effects., Do not empty into drains / surface water / ground water.

Toxicity:

Cumene hydroperoxide 80-15-9	Value type	LC50
	Value	3.9 mg/l
	Acute Toxicity Study	Fish
	Exposure time	96 h
	Species	Oncorhynchus mykiss
	Method	OECD Guideline 203 (Fish, Acute Toxicity Test)
Cumene hydroperoxide 80-15-9	Value type	EC 50
	Value	7 mg/l
	Acute Toxicity Study	Daphnia
	Exposure time	24 h
	Species	Water flea (Daphnia magna)
	Method	
	Value type	EC50
	Value	18 mg/l
	Acute Toxicity Study	Daphnia
	Exposure time	48 h
	Species	Daphnia magna
	Method	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Cumene hydroperoxide 80-15-9	Value type	ErC50
	Value	3.1 mg/l
	Acute Toxicity Study	Algae
	Exposure time	72 h
	Species	Pseudokirchneriella subcapitata
	Method	OECD Guideline 201 (Alga, Growth Inhibition Test)
Cumene hydroperoxide 80-15-9	Value type	EC10
	Value	70 mg/l
	Acute Toxicity Study	Bacteria
	Exposure time	30 min
	Species	
	Method	not specified
N,N-dimethyl-o-toluidine 609-72-3	Value type	LC 50
	Value	46 mg/l
	Acute Toxicity Study	Fish
	Exposure time	96 h
	Species	Fathead minnow (Pimephales promelas)
	Method	
Methyl methacrylate 80-62-6	Value type	LC50
	Value	350 mg/l
	Acute Toxicity Study	Fish

	Exposure time	
	Species	Leuciscus idus
	Method	OECD Guideline 203 (Fish, Acute Toxicity Test)
Methyl methacrylate 80-62-6	Value type	EC50
	Value	69 mg/l
	Acute Toxicity Study	Daphnia
	Exposure time	48 h
	Species	Daphnia magna
	Method	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Methyl methacrylate 80-62-6	Value type	EC50
	Value	170 mg/l
	Acute Toxicity Study	Algae
	Exposure time	4 d
	Species	Selenastrum capricornutum (new name: Pseudokirchneriella subcapitata)
	Method	OECD Guideline 201 (Alga, Growth Inhibition Test)
	Value type	NOEC
	Value	100 mg/l
	Acute Toxicity Study	Algae
	Exposure time	4 d
	Species	Selenastrum capricornutum (new name: Pseudokirchneriella subcapitata)
	Method	OECD Guideline 201 (Alga, Growth Inhibition Test)
Methyl methacrylate 80-62-6	Value type	EC0
	Value	100 mg/l
	Acute Toxicity Study	Bacteria
	Exposure time	30 min
	Species	
	Method	not specified
1,4-Naphthalenedione 130-15-4	Value type	EC50
	Value	0.011 mg/l
	Acute Toxicity Study	Algae
	Exposure time	72 h
	Species	Dunaliella bioculata
	Method	OECD Guideline 201 (Alga, Growth Inhibition Test)

Persistence and degradability:

Cumene hydroperoxide 80-15-9	Result	
	Route of application	no data
	Degradability	0 %
	Method	OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test)
Methyl methacrylate 80-62-6	Result	readily biodegradable
	Route of application	aerobic
	Degradability	95 %
	Method	EU Method C.4-B (Determination of the "Ready" BiodegradabilityModified OECD Screening Test)
1,4-Naphthalenedione 130-15-4	Result	
	Route of application	no data
	Degradability	0 - 60 %
	Method	OECD 301 A - F

Bioaccumulative potential / Mobility in soil:

Cumene hydroperoxide 80-15-9	Bioconcentration factor (BCF)	9.1
	Exposure time	
	Species	calculation
	Temperature	
	Method	OECD Guideline 305 (Bioconcentration: Flow-through Fish Test)
Cumene hydroperoxide 80-15-9	LogPow	2.16
	Temperature	
	Method	not specified
Methyl methacrylate 80-62-6	LogPow	1.38
	Temperature	
	Method	not specified
1,4-Naphthalenedione 130-15-4	LogPow	1.71
	Temperature	
	Method	not specified

Section 13. Disposal considerations

Product

Method of 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

Packaging

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.

Section 14. Transport information

Road transport ADR:
Not dangerous goods

Railroad transport RID:
Not dangerous goods

Inland water transport ADN:
Not dangerous goods

Marine transport IMDG:
Not dangerous goods

Air transport IATA:
Not dangerous goods

Section 15. Regulatory information

Regulatory Information: Occupational Safety and Health (Classification, Labelling and Safety Data Sheet of Hazardous Chemicals) Regulations 2013 [P.U.(A) 310/213]
Industry Code of Practice on Chemicals Classification and Hazard Communication

Global inventory status:

Regulatory list	Notification
TSCA	yes
NDSL	yes
ENCS (JP)	yes
KECI (KR)	yes
IECSC	yes
ISHL (JP)	yes

Section 16. Other information

Disclaimer: 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.