



Safety Data Sheet

Page 1 of 9

LOCTITE 577 TB250ML AU

SDS No. : 541371

V001.0

Date of issue: 19.10.2016

Section 1. Identification of the substance/preparation and of the company/undertaking

Product name: LOCTITE 577 TB250ML AU

Intended use: Anaerobic Sealant

Supplier:

Henkel Australia Pty Ltd
135-141 Canterbury Road
Kilsyth, Victoria, 3137
Australia

Phone: +61 (3) 9724 6444

Emergency information: 24 HOUR EMERGENCY CONTACT NUMBER: 1800 032 379

Section 2. Hazards identification

Classification of the substance or mixture

Hazardous according to the criteria of Safe Work Australia.

GHS Classification:

Hazard Class

Skin sensitizer
Acute hazards to the aquatic environment

Hazard Category

Category 1
Category 3

Hazard pictogram:



Signal word:

Warning

Hazard statement(s):

H317 May cause an allergic skin reaction.
H402 Harmful to aquatic life.

Precautionary Statement(s):

Prevention:

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P272 Contaminated work clothing should not be allowed out of the workplace.
P273 Avoid release to the environment.
P280 Wear protective gloves.

Response:

P302+P352 IF ON SKIN: Wash with plenty of water.
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
P363 Wash contaminated clothing before reuse.

Disposal:

P501 Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations.

Classification of material Xi - Irritant

Risk phrases:

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.

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

S46 If swallowed, seek medical advice immediately and show this container or label.

Dangerous Goods information:

Not classified as Dangerous Goods according to the criteria of the Australian Code for the Transport of Dangerous Goods by Road and Rail (ADG Code).

Signal word:

HAZARDOUS

Section 3. Composition / information on ingredients**General chemical description:** Mixture
Type of preparation: Anaerobic Sealant**Identity of ingredients:**

Chemical ingredients	CAS-No.	Proportion
Tetramethylene dimethacrylate	2082-81-7	10- 20 %
2,2'-Ethylenedioxydiethyl dimethacrylate	109-16-0	5- < 10 %
Acetic acid, 2-phenylhydrazide	114-83-0	0.1- < 1 %
Maleic acid	110-16-7	0.1- < 1 %
Cumene hydroperoxide	80-15-9	0.1- < 0.5 %
non hazardous ingredients~		30- < 60 %
Propane-1,2-diol	57-55-6	0.1- < 1 %

Section 4. First aid measures

Ingestion: Do not induce vomiting.
Have victim rinse mouth thoroughly with water.
Seek medical advice, symptomatic treatment.

Skin: Rinse with running water and soap.
Remove contaminated clothing and footwear.
If skin irritation persists, call a physician.

Eyes: Wash with plenty of water immediately and continue for several minutes, holding eyelid open. Consult a doctor.

Inhalation: Move to fresh air. If symptoms persist, seek medical advice.

First Aid facilities: Eye wash
Normal washroom facilities

Medical attention and special treatment: Treat symptomatically.

Section 5. Fire fighting measures

- Suitable extinguishing media:** Carbon dioxide, foam, powder
- Improper extinguishing media:** Water spray jet
- Decomposition products in case of fire::** Thermal decomposition may release toxic and/or hazardous gases.
Carbon dioxide.
carbon monoxide
Irritating fumes.
- Particular danger in case of fire::** In case of fire, keep containers cool with water spray.
- Special protective equipment for fire-fighters:** Fire fighters should wear positive pressure self-contained breathing apparatus (SCBA).
Wear full protective clothing.

Section 6. Accidental release measures

- Personal precautions:** Avoid skin and eye contact.
Ensure adequate ventilation.
Wear adequate personal protective clothing and equipment.
Keep unnecessary personnel away.
- Environmental precautions:** Do not allow spill to enter sewage systems or open bodies of water.
- 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.

Section 7. Handling and storage

- Precautions for safe handling:** Use only in well-ventilated areas.
Avoid breathing vapors or mists of this product.
Avoid skin and eye contact.
Wear suitable protective clothing, safety glasses and gloves.
- Conditions for safe 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

National exposure standards:

Ingredient [Regulated substance]	form of exposure	TWA (ppm)	TWA (mg/m3)	Peak Limit. (ppm)	Peak Limit. (mg/m3)	STEL (ppm)	STEL (mg/m3)
PROPANE-1,2-DIOL: PARTICULATES ONLY 57-55-6	Particulate.		10	-	-	-	-
PROPANE-1,2-DIOL: TOTAL (VAPOUR & PARTICULATES) 57-55-6	Total vapour and particulates.	150	474	-	-	-	-

Engineering controls:	Ensure good ventilation/extraction.
Eye protection:	Safety goggles or safety glasses with side shields.
Skin protection:	Use impermeable gloves and protective clothing as necessary to prevent skin contact. Neoprene gloves. Butyl rubber gloves. Natural rubber gloves.
Respiratory protection:	If inhalation risk exists, wear a respirator or air supplied mask complying with the requirements of AS/NZS 1715 and AS/NZS 1716.

Section 9. Physical and chemical properties

Appearance:	yellow high viscosity
Odor:	Mild
Flash point: (no method)	> 93 °C (> 199.4 °F)
Density:	1.15 - 1.2 g/cm ³
Solubility in water:	Not miscible

Section 10. Stability and reactivity

Conditions to avoid:	Extremes of temperature.
Incompatible materials:	Reacts with strong oxidants. Will attack some forms of plastic, rubber, and coatings.
Hazardous decomposition products:	Irritating and/or toxic fumes and gases may be emitted upon the product's decomposition. carbon monoxide carbon dioxide
Hazardous polymerization:	Will not occur.

Section 11. Toxicological information

Health Effects:**Ingestion:**

Ingestion can cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Skin:

May cause allergic skin reaction.

May cause mild skin irritation.

Eyes:

May cause mild irritation

Inhalation:

Inhalation of product mist may cause irritation of the nose, throat, and respiratory tract.

Acute toxicity:

Hazardous components CAS-No.	Value type	Value	Route of application	Exposure time	Species	Method
Tetramethylene dimethacrylate 2082-81-7	LD50	10,120 mg/kg	oral		rat	not specified
2,2'-Ethylenedioxydiethyl dimethacrylate 109-16-0	LD50	10,837 mg/kg	oral		rat	not specified
Maleic acid 110-16-7	LD50	708 mg/kg	oral		rat	not specified
	LD50	1,560 mg/kg	dermal		rabbit	not specified
Cumene hydroperoxide 80-15-9	LD50	550 mg/kg	oral		rat	not specified
	LD50	1,200 - 1,520 mg/kg	dermal			not specified
Propane-1,2-diol 57-55-6	LD50	22,000 mg/kg	oral		rat	not specified
	LC0	317.042 mg/l	inhalation	2 h	rabbit	not specified
	LD50	> 2,000 mg/kg	dermal		rabbit	not specified

Skin corrosion/irritation:

Hazardous components CAS-No.	Result	Exposure time	Species	Method
Maleic acid 110-16-7	irritating	24 h	human	Patch Test
Cumene hydroperoxide 80-15-9	corrosive		rabbit	Draize Test
Propane-1,2-diol 57-55-6	not irritating	4 h	rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)

Serious eye damage/irritation:

Hazardous components CAS-No.	Result	Exposure time	Species	Method
2,2'-Ethylenedioxydiethyl dimethacrylate 109-16-0	slightly irritating	24 h	rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)
Maleic acid 110-16-7	highly irritating		rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)
Propane-1,2-diol 57-55-6	not irritating		rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)

Respiratory or skin sensitization:

Hazardous components CAS-No.	Result	Test type	Species	Method
Tetramethylene dimethacrylate 2082-81-7	sensitising	Mouse local lymphnode assay (LLNA)	mouse	OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay)
Maleic acid 110-16-7	sensitising	Mouse local lymphnode assay (LLNA)	mouse	OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay)
Maleic acid 110-16-7	sensitising	Guinea pig maximisation test	guinea pig	OECD Guideline 406 (Skin Sensitisation)
Propane-1,2-diol 57-55-6	not sensitising	Guinea pig maximisation 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
Tetramethylene dimethacrylate 2082-81-7	negative negative positive	in vitro mammalian chromosome aberration test bacterial reverse mutation assay (e.g Ames test) in vitro mammalian chromosome aberration test	with and without with and without with and without		OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test) OECD Guideline 471 (Bacterial Reverse Mutation Assay) OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test)
Maleic acid 110-16-7	negative negative	bacterial reverse mutation assay (e.g Ames test) mammalian cell gene mutation assay	no data with and without		Ames Test OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation 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
Propane-1,2-diol 57-55-6	negative negative negative	bacterial reverse mutation assay (e.g Ames test) bacterial reverse mutation assay (e.g Ames test) in vitro mammalian chromosome aberration test	without with and without with and without		Ames Test Ames Test OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test)
Propane-1,2-diol 57-55-6	negative negative negative	oral: gavage intraperitoneal oral: gavage		rat mouse rat	not specified not specified not specified

Repeated dose toxicity:

Hazardous components CAS-No.	Result	Route of application	Exposure time / Frequency of treatment	Species	Method
Maleic acid 110-16-7	NOAEL=>= 40 mg/kg	oral: feed	90 ddaily	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
Propane-1,2-diol 57-55-6	NOAEL=1,700 mg/kg	oral: feed	2 yearsdaily	rat	not specified

Section 12. Ecological information

General ecological information:

Do not empty into drains / surface water / ground water., Cured Loctite products are typical polymers and do not pose any immediate environmental hazards.

Toxicity:

Hazardous components CAS-No.	Value type	Value	Acute Toxicity Study	Exposure time	Species	Method
Tetramethylene dimethacrylate 2082-81-7	LC50	32.5 mg/l	Fish	48 h		DIN 38412-15
Tetramethylene dimethacrylate 2082-81-7	EC50	9.79 mg/l	Algae	72 h	Desmodesmus subspicatus	OECD Guideline 201 (Alga, Growth Inhibition Test)
Tetramethylene dimethacrylate 2082-81-7	NOEC	2.11 mg/l	Algae	72 h	Desmodesmus subspicatus	OECD Guideline 201 (Alga, Growth Inhibition Test)
Tetramethylene dimethacrylate 2082-81-7	NOEC	20 mg/l	Bacteria	28 d	activated sludge, domestic	not specified
2,2'-Ethylenedioxydiethyl dimethacrylate 109-16-0	LC50	16.4 mg/l	Fish	96 h		OECD Guideline 203 (Fish, Acute Toxicity Test)
Maleic acid 110-16-7	LC50	> 245 mg/l	Fish	48 h	Leuciscus idus	DIN 38412-15
Maleic acid 110-16-7	EC50	42.81 mg/l	Daphnia	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Maleic acid 110-16-7	EC50	74.35 mg/l	Algae	72 h	Pseudokirchnerella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition 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)
Cumene hydroperoxide 80-15-9	EC10	70 mg/l	Bacteria	30 min		not specified
Propane-1,2-diol 57-55-6	LC50	> 10,000 mg/l	Fish	48 h	Leuciscus idus	DIN 38412-15
Propane-1,2-diol 57-55-6	EC50	34,400 mg/l	Daphnia	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Propane-1,2-diol 57-55-6	EC50	19,000 mg/l	Algae	14 d	Selenastrum capricornutum (new name: Pseudokirchnerella subcapitata)	OECD Guideline 201 (Alga, Growth Inhibition Test)
Propane-1,2-diol 57-55-6	NOEC	15,000 mg/l	Algae	14 d	Selenastrum capricornutum (new name: Pseudokirchnerella subcapitata)	OECD Guideline 201 (Alga, Growth Inhibition Test)
Propane-1,2-diol 57-55-6	EC50	> 1,000 mg/l	Bacteria	3 h	activated sludge	OECD Guideline 209 (Activated Sludge, Respiration Inhibition Test)

Persistence and degradability:

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

Tetramethylene dimethacrylate 2082-81-7	readily biodegradable	aerobic	84 %	OECD Guideline 310 (Ready Biodegradability CO ₂ in Sealed Vessels (Headspace Test))
2,2'-Ethylenedioxydiethyl dimethacrylate 109-16-0	readily biodegradable		85 %	OECD Guideline 301 B (Ready Biodegradability: CO ₂ Evolution Test)
Maleic acid 110-16-7	readily biodegradable	aerobic	97.08 %	OECD Guideline 301 B (Ready Biodegradability: CO ₂ Evolution Test)
Cumene hydroperoxide 80-15-9		no data	0 %	OECD Guideline 301 B (Ready Biodegradability: CO ₂ Evolution Test)
Propane-1,2-diol 57-55-6	not inherently biodegradable	aerobic	60 %	OECD Guideline 302 B (Inherent biodegradability: Zahn-Wellens/EMPA Test)
Propane-1,2-diol 57-55-6	readily biodegradable	aerobic	> 70 %	OECD Guideline 301 A (new version) (Ready Biodegradability: DOC Die Away Test)

Bioaccumulative potential / Mobility in soil:

Hazardous components CAS-No.	LogPow	Bioconcentration factor (BCF)	Exposure time	Species	Temperature	Method
Tetramethylene dimethacrylate 2082-81-7	3.1					OECD Guideline 117 (Partition Coefficient (n-octanol / water), HPLC Method)
2,2'-Ethylenedioxydiethyl dimethacrylate 109-16-0	1.88					not specified
Acetic acid, 2-phenylhydrazide 114-83-0	0.74					not specified
Maleic acid 110-16-7	-1.3				20 °C	OECD Guideline 107 (Partition Coefficient (n-octanol / water), Shake Flask Method)
Cumene hydroperoxide 80-15-9		9.1		calculation		OECD Guideline 305 (Bioconcentration: Flow-through Fish Test)
Cumene hydroperoxide 80-15-9	2.16					not specified
Propane-1,2-diol 57-55-6	-0.92					EU Method A.8 (Partition Coefficient)

Section 13. Disposal considerations

Waste disposal of product: Dispose of in accordance with local and national regulations.

Disposal for uncleaned package: 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.

Section 14. Transport information**Road and Rail Transport:**

Dangerous Goods information: Not classified as Dangerous Goods according to the criteria of the Australian Code for the Transport of Dangerous Goods by Road and Rail (ADG Code).

General information:

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

Section 15. Regulatory information

SUSMP Poisons Schedule	None
AICS:	All components are listed or are exempt from listing on the Australian Inventory of Chemical Substances (AICS).

Section 16. Other information

Abbreviations/acronyms:	STEL - Short term exposure limit TWA - Time weighted average IMDG: International Maritime Dangerous Goods code IATA-DGR: International Air Transport Association – Dangerous Goods Regulations
Reason for issue:	First issue. involved chapters: 1-16
Date of previous issue:	25.02.2015
Disclaimer:	<p>The percentage weight (% w/w) of ingredients is not to be taken as a specification guaranteed by Henkel Australia Pty. Limited, but only as an approximate guide to the content of hazardous ingredients in the material. The information contained herein does not constitute a guarantee by Henkel Australia Pty. Limited concerning the properties of the material. The information contained in the Safety Data Sheet is offered in good faith and has been developed from what is believed to be accurate and reliable sources. The information is offered without warranty, representation, inducement or licence and Henkel Australia Pty. Limited assumes no legal responsibility for reliance upon same. Henkel Australia Pty. Limited disclaims any liability for loss, injury or damage incurred in connection with the use of the material or its associated Safety Data Sheet. This information is not to be construed as a representation that the material is suitable for any particular purpose or use except those conditions and warranties implied by either Commonwealth or State statutes. Customers are encouraged to make their own enquiries as to the material's characteristics and, where appropriate, to conduct their own tests in the specific context of the material's intended use.</p>