Safety Data Sheet

Loctite 577

MSDS-No. : 168431
V001.3
Date of issue: 25.02.2015

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

Product name: Loctite 577

Intended use: Anaerobic Sealant

Supplier:
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Emergency information: 24 HOUR EMERGENCY CONTACT NUMBER 03 9724 6556

Section 2. Hazards identification

Classification of the substance or mixture
Hazardous according to the criteria of Safe Work Australia.

GHS Classification:

Hazard Class	Hazard Category	Target organ
Skin sensitizer	Category 1	
Target Organ Systemic Toxicant - Single exposure	Category 3	respiratory tract irritation
Serious Eye Damage/Eye Irritation	Category 2	
Skin corrosion/irritation	Category 2	

Hazard pictogram:

Signal word: Warning

Hazard statement(s):	H317 May cause an allergic skin reaction. H335 May cause respiratory irritation. H315 Causes skin irritation. H319 Causes serious eye irritation.
Precautionary Statement(s):	
Prevention:	P261 Avoid breathing dust/fume/gas/mist/vapours/spray. P264 Wash hands thoroughly after handling. P271 Use only outdoors or in a well-ventilated area. P272 Contaminated work clothing should not be allowed out of the workplace. P280 Wear protective gloves.
Response:	P302+P352 IF ON SKIN: Wash with plenty of soap and water. 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 remove. Continue rinsing. P312 Call a poison control center or physician if you feel unwell. P333+P313 If skin irritation or rash occurs: Get medical advice/attention. P337+P313 If eye irritation persists: Get medical attention. P362 Take off contaminated clothing. P363 Wash contaminated clothing before reuse.
Storage:	P403+P233 Store in a well-ventilated place. Keep container tightly closed. P405 Store locked up.
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.

Classification of material Xi - Irritant

Risk phrases:
R43 May cause sensitisation by skin contact.
R36/37/38 Irritating to eyes, respiratory system and skin.

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:	Substance
General chemical description:	Mixture
Type of preparation:	Anaerobic Sealant

Identity of ingredients:

Chemical ingredients	CAS-No.	Proportion
Lauryl methacrylate	142-90-5	< 10 %
Hexadecyl methacrylate	2495-27-4	< 5 %
Tetradecyl methacrylate	2549-53-3	< 5 %
Acetic acid, 2-phenylhydrazide	114-83-0	< 1 %
Maleic acid	110-16-7	< 1 %
Cumene hydroperoxide	80-15-9	< 0.5 %
non hazardous ingredients~		60- <= 100 %

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.

Unsuitable materials with product: plastic

Section 8. Exposure controls / personal protection

National exposure standards:

Ingredient	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: Provide adequate local exhaust ventilation to maintain worker exposure below exposure limits.

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: dark yellow
paste

Odor: mild

pH: 3 - 6

Specific gravity: 1.15 - 1.2

Boiling point: > 149 °C (> 300.2 °F)

Flash point: > 100 °C (> 212 °F)
(Pensky Martens closed cup)

Vapor pressure: < 5 mm hg
(; 27 °C (80.6 °F))

Density: 1.15 - 1.20 g/cm3

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: Causes skin irritation.
Contact with liquid may produce severe skin irritation including redness and inflammation.
May cause allergic skin reaction.

Eyes: Causes serious eye irritation.
Symptoms may include severe irritation, pain, tearing, blurred vision.

Inhalation: This product is irritating to the respiratory system.
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
Maleic acid 110-16-7	LD50 LD50	708 mg/kg 1,560 mg/kg	oral dermal		rat rabbit	
Cumene hydroperoxide 80-15-9	LD50	550 mg/kg	oral		rat	

Skin corrosion/irritation:

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

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	

Repeated dose toxicity:

Hazardous components CAS-No.	Result	Route of application	Exposure time / Frequency of treatment	Species	Method
Cumene hydroperoxide 80-15-9		inhalation: aerosol	6 h/d5 d/w	rat	

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
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)
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)

Persistence and degradability:

Hazardous components CAS-No.	Result	Route of application	Degradability	Method
Maleic acid 110-16-7	readily biodegradable	aerobic	97.08 %	OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test)
Cumene hydroperoxide 80-15-9		no data	0 %	OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test)

Bioaccumulative potential / Mobility in soil:

Hazardous components CAS-No.	LogKow	Bioconcentration factor (BCF)	Exposure time	Species	Temperature	Method
Acetic acid, 2-phenylhydrazide 114-83-0	0.74					
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					

Section 13. Disposal considerations

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

Recommended cleanser: Solvent naphtha

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

Section 16. Other information

Abbreviations/acronyms:	ASCC - Australian Safety and Compensation Council STEL - Short term exposure limit TWA - Time weighted average IMDG: International Maritime Dangerous Goods code IATA-DGR: International Air Transport Association – Dangerous Goods Regulations
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Disclaimer:

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