



Safety Data Sheet

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LOCTITE 518 IND 6ML AU

SDS No. : 544621

V001.0

Date of issue: 17.10.2016

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

Product name: LOCTITE 518 IND 6ML AU

Intended use: Adhesive

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:

<u>Hazard Class</u>	<u>Hazard Category</u>	<u>Target organ</u>
Skin irritation	Category 2	
Serious eye irritation	Category 2A	
Skin sensitizer	Category 1	
Target Organ Systemic Toxicant - Single exposure	Category 3	respiratory tract irritation
Acute hazards to the aquatic environment	Category 3	

Hazard pictogram:



Signal word:

Warning

Hazard statement(s):	H315 Causes skin irritation. H317 May cause an allergic skin reaction. H319 Causes serious eye irritation. H335 May cause respiratory irritation. H402 Harmful to aquatic life.
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. P273 Avoid release to the environment. P280 Wear eye protection/face protection. P280 Wear protective gloves.
Response:	P302+P352 IF ON SKIN: Wash with plenty of 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 do. Continue rinsing. P333+P313 If skin irritation or rash occurs: Get medical advice/attention. P337+P313 If eye irritation persists: Get medical advice/attention. P362 Take off contaminated clothing.
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.

Classification of material Xi - Irritant

Risk phrases:

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

Identity of ingredients:

Chemical ingredients	CAS-No.	Proportion
3,3,5 Trimethylcyclohexyl methacrylate	7779-31-9	10- < 20 %
2-Hydroxyethyl methacrylate	868-77-9	1- < 10 %
3-[2-(Methacryloyloxy)ethoxycarbonyl]propionic acid	20882-04-6	0.1- < 0.5 %
Acetic acid, 2-phenylhydrazide	114-83-0	0.1- < 1 %
2-Propenoic acid, 2-carboxyethyl ester	24615-84-7	0.1- < 1 %
Acrylic acid	79-10-7	0.1- < 0.5 %
Methacrylic acid	79-41-4	0.1- < 0.5 %
Propane-1,2-diol	57-55-6	0.1- <= 0.5 %
non hazardous ingredients~		30- <= 60 %

Section 4. First aid measures

Ingestion:	Rinse mouth, do not induce vomiting, consult a doctor.
Skin:	Immediately wash skin thoroughly with soap and water. Seek medical advice.
Eyes:	Immediately flush eyes with plenty of water for at least 15 minutes. Immediate medical treatment necessary.
Inhalation:	Move to fresh air, consult doctor if complaint persists.
First Aid facilities:	Eye wash and safety shower Normal washroom facilities
Medical attention and special treatment:	Treat symptomatically.

Section 5. Fire fighting measures

Suitable extinguishing media:	Foam, dry chemical or carbon dioxide.
Decomposition products in case of fire::	Thermal decomposition can lead to release of irritating gases and vapors. Carbon monoxide. Carbon dioxide.
Special protective equipment for fire-fighters:	Wear full protective clothing. Fire fighters should wear positive pressure self-contained breathing apparatus (SCBA).
Additional fire fighting advice:	In case of fire, keep containers cool with water spray. Collect contaminated fire fighting water separately. It must not enter drains.

Section 6. Accidental release measures

Personal precautions:	Remove sources of ignition. Avoid skin and eye contact. Wear protective equipment. Ensure adequate ventilation.
Environmental precautions:	Do not empty into drains / surface water / ground water.
Clean-up methods:	Refer to Section 8 "Exposure Controls / Personal Protection" prior to clean up. Absorb spill with inert material. Shovel material into appropriate container for disposal. Dispose of contaminated material as waste according to Section 13.

Section 7. Handling and storage

Precautions for safe handling:	See advice in section 8 Use only in well-ventilated areas. Avoid skin and eye contact. Wear protective equipment.
Conditions for safe storage:	Store between 50°F and 80°F. (10° and 27°C) Keep in a cool, well ventilated area away from heat, sparks and open flame. Keep container tightly closed until ready for use. Store below 100°F (38°C).

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	-	-	-	-
ACRYLIC ACID 79-10-7		2	5.9	-	-	-	-
METHACRYLIC ACID 79-41-4		20	70	-	-	-	-

Engineering controls: Provide local and general exhaust ventilation to effectively remove and prevent buildup of any vapors or mists generated from the handling of this product.

Eye protection: For eye protection, use tightly fitted safety goggles and a face-shield

Skin protection: Use of an impervious apron is recommended.
Suitable protective gloves.

Recommended gloves include butyl rubber and neoprene.

Please note that in practice the working life of chemical resistant gloves may be considerably reduced as a result of many influencing factors (e.g. temperature). Suitable risk assessment should be carried out by the end user. If signs of wear and tear are noticed then the gloves should be replaced.

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:	red liquid
Odor:	mild
Boiling point:	> 150 °C (> 302 °F)
Flash point: (no method)	> 100 °C (> 212 °F)
Density:	1.1 g/cm ³
Solubility in water:	Not miscible

Section 10. Stability and reactivity

Stability:	Stable under normal conditions of temperature and pressure.
Conditions to avoid:	Excessive heat.
Incompatible materials:	Oxidizing agents. Aldehydes. Reducing agents. Reaction with strong acids.
Hazardous decomposition products:	Thermal decomposition can lead to release of irritating gases and vapors. Carbon monoxide. Carbon dioxide.

Section 11. Toxicological information

Health Effects:

Ingestion:

May cause gastrointestinal disturbances.
Ingestion of large quantities may cause gastrointestinal irritation with nausea, vomiting and diarrhea.

Skin:

Causes skin irritation.
Symptoms may include redness, edema, drying, defatting and cracking of the skin.
May cause skin sensitization.

Eyes:

Causes serious eye damage.
Contact with the eyes may cause moderate to severe eye injury. Eye contact may result in corneal injury. Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva.

Inhalation:

This product is irritating to the respiratory system.
Inhalation of vapors or mists of the product may be irritating to the respiratory system.

Acute toxicity:

Hazardous components CAS-No.	Value type	Value	Route of application	Exposure time	Species	Method
2-Hydroxyethyl methacrylate 868-77-9	LD50	> 3,000 mg/kg	dermal		rabbit	not specified
3-[2-(Methacryloyloxy)ethoxy carbonyl]propionic acid 20882-04-6	LD50	> 2,000 mg/kg	oral		rat	OECD Guideline 423 (Acute Oral toxicity)
Acrylic acid 79-10-7	LD50 LC50 Acute toxicity estimate (ATE) Acute toxicity estimate (ATE) LD50	1,500 mg/kg > 5.1 mg/l 11 mg/l 1,100 mg/kg > 2,000 mg/kg	oral inhalation inhalation dermal dermal	4 h	rat rat rabbit	BASF Test OECD Guideline 403 (Acute Inhalation Toxicity) Expert judgement Expert judgement OECD Guideline 402 (Acute Dermal Toxicity)
Methacrylic acid 79-41-4	LD50 LC50 Acute toxicity estimate (ATE) LD50	1,320 mg/kg > 3.6 mg/l 500 mg/kg 500 - 1,000 mg/kg	oral inhalation dermal dermal	4 h	rat rat rabbit	OECD Guideline 401 (Acute Oral Toxicity) OECD Guideline 403 (Acute Inhalation Toxicity) Expert judgement Dermal Toxicity Screening
Propane-1,2-diol 57-55-6	LD50 LC0 LD50	22,000 mg/kg 317.042 mg/l > 2,000 mg/kg	oral inhalation dermal	2 h	rat rabbit rabbit	not specified not specified not specified

Skin corrosion/irritation:

Hazardous components CAS-No.	Result	Exposure time	Species	Method
3-[2-(Methacryloyloxy)ethoxy carbonyl]propionic acid 20882-04-6	not irritating	0.25 h	Human, EPISKIIN™ Reconstituted Human Epidermis model	OECD Guideline 439 (In Vitro Skin Irritation: Reconstructed Human Epidermis (RHE) Test Method)
3-[2-(Methacryloyloxy)ethoxy carbonyl]propionic acid 20882-04-6	Not Classified	4 h	Human, EPISKIIN™ Reconstituted Human Epidermis model	OECD Guideline 431 (In Vitro Skin Corrosion: Reconstructed Human Epidermis (RHE) Test Method)
Acrylic acid 79-10-7	highly corrosive	3 min	rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
Methacrylic acid 79-41-4	Category 1A (corrosive)	4 h	rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
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
Acrylic acid 79-10-7	corrosive	21 d	rabbit	BASF Test
Methacrylic acid 79-41-4	Category I		rabbit	Draize Test
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
Acrylic acid 79-10-7	not sensitising	Skin painting test	guinea pig	not specified
Methacrylic acid 79-41-4	not sensitising	Buehler test	guinea pig	OECD Guideline 406 (Skin Sensitisation)
Propane-1,2-diol 57-55-6	not sensitising	Guinea pig maximisa- tion 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 reverse mutation assay (e.g Ames test) 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)
3-[2- (Methacryloyloxy)ethoxy carbonyl]propionic acid 20882-04-6	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
Acrylic acid 79-10-7	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		not specified
Methacrylic acid 79-41-4	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
Methacrylic acid 79-41-4	negative	inhalation		mouse	OECD Guideline 478 (Genetic Toxicology: Rodent Dominant Lethal Test)
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
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.

Toxicity:

Hazardous components CAS-No.	Value type	Value	Acute Toxicity Study	Exposure time	Species	Method
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)
2-Hydroxyethyl methacrylate 868-77-9	NOEC	160 mg/l	Algae	72 h	Selenastrum capricornutum (new name: Pseudokirchnerella subcapitata)	OECD Guideline 201 (Alga, Growth Inhibition Test)
2-Hydroxyethyl methacrylate 868-77-9	EC0	> 3,000 mg/l	Bacteria	16 h		not specified
3-[2- (Methacryloyloxy)ethoxycarb onyl]propionic acid 20882-04-6	EC50	> 515.4 mg/l	Daphnia	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
3-[2- (Methacryloyloxy)ethoxycarb onyl]propionic acid 20882-04-6	EC50	> 312 mg/l	Algae	72 h	Pseudokirchnerella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
Acrylic acid 79-10-7	LC50	27 mg/l	Fish	96 h	Salmo gairdneri (new name: Oncorhynchus mykiss)	EPA OTS 797.1400 (Fish Acute Toxicity Test)
Acrylic acid 79-10-7	EC10	0.03 mg/l	Algae	72 h	Scenedesmus subspicatus (new name: Desmodesmus subspicatus)	OECD Guideline 201 (Alga, Growth Inhibition Test)
Acrylic acid 79-10-7	EC50	0.13 mg/l	Algae	72 h	Scenedesmus subspicatus (new name: Desmodesmus subspicatus)	OECD Guideline 201 (Alga, Growth Inhibition Test)
Acrylic acid 79-10-7	EC10	41 mg/l	Bacteria	16 h		not specified
Methacrylic acid 79-41-4	LC50	85 mg/l	Fish	96 h	Salmo gairdneri (new name: Oncorhynchus mykiss)	EPA OTS 797.1400 (Fish Acute Toxicity Test)
Methacrylic acid 79-41-4	EC50	> 130 mg/l	Daphnia	48 h	Daphnia magna	EPA OTS 797.1300 (Aquatic Invertebrate Acute Toxicity Test, Freshwater Daphnids)
Methacrylic acid 79-41-4	NOEC	8.2 mg/l	Algae	72 h	Selenastrum capricornutum (new name: Pseudokirchnerella subcapitata)	OECD Guideline 201 (Alga, Growth Inhibition Test)
Methacrylic acid 79-41-4	EC50	45 mg/l	Algae	72 h	Selenastrum capricornutum (new name: Pseudokirchnerella subcapitata)	OECD Guideline 201 (Alga, Growth Inhibition Test)
Methacrylic acid 79-41-4	EC10	100 mg/l	Bacteria	17 h		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)
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Persistence and degradability:

Hazardous components CAS-No.	Result	Route of application	Degradability	Method
2-Hydroxyethyl methacrylate 868-77-9	readily biodegradable	aerobic	92 - 100 %	OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I))
3-[2-(Methacryloyloxy)ethoxycarbonyl]propionic acid 20882-04-6	readily biodegradable, but failing 10-day window	aerobic	80 %	OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)
Acrylic acid 79-10-7	readily biodegradable	aerobic	81 %	OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)
Acrylic acid 79-10-7	inherently biodegradable	aerobic	100 %	OECD Guideline 302 B (Inherent biodegradability: Zahn-Wellens/EMPA Test)
Methacrylic acid 79-41-4	inherently biodegradable	aerobic	100 %	OECD Guideline 302 B (Inherent biodegradability: Zahn-Wellens/EMPA Test)
Methacrylic acid 79-41-4	readily biodegradable	aerobic	86 %	OECD Guideline 301 D (Ready Biodegradability: Closed Bottle 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
3-[2-(Methacryloyloxy)ethoxycarbonyl]propionic acid 20882-04-6	0.783				23 °C	EU Method A.8 (Partition Coefficient)
Acetic acid, 2-phenylhydrazide 114-83-0	0.74					not specified
Acrylic acid 79-10-7		3.16				not specified
Acrylic acid 79-10-7	0.46				25 °C	OECD Guideline 107 (Partition Coefficient (n-octanol / water), Shake Flask Method)
Methacrylic acid 79-41-4	0.93				22 °C	OECD Guideline 107 (Partition Coefficient (n-octanol / water), Shake Flask Method)
Propane-1,2-diol 57-55-6	-0.92					EU Method A.8 (Partition Coefficient)

Section 13. Disposal considerations

Waste disposal of product: Waste incineration or disposal with the approval of the responsible local authority.

Disposal for uncleaned package: Collection and delivery to recycling enterprise or other registered elimination institution.

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: ADGC - Australian Dangerous Goods Code
IMDG: International Maritime Dangerous Goods code
IATA-DGR: International Air Transport Association – Dangerous Goods Regulations
STEL - Short term exposure limit
TWA - Time weighted average

Reason for issue: First issue. involved chapters: 1-16

Disclaimer:

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