



Safety Data Sheet

LOCTITE 620 RETAINING COMPOUND known as Loctite(R)
620 Retaining Compo

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SDS No. : 153472
V001.4
Date of issue: 25.05.2020

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

Product name: LOCTITE 620 RETAINING COMPOUND known as Loctite(R) 620 Retaining Compo

Intended use: Anaerobic 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>Route of Exposure</u>	<u>Target organ</u>
Acute toxicity	Category 2	Inhalation	
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		
Chronic hazards to the aquatic environment	Category 3		

Hazard pictogram:



Signal word: Danger

Hazard statement(s):	H317 May cause an allergic skin reaction. H319 Causes serious eye irritation. H330 Fatal if inhaled. H335 May cause respiratory irritation. H412 Harmful to aquatic life with long lasting effects.
Precautionary Statement(s):	
Prevention:	P260 Do not breathe 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 protective gloves, eye protection, and face protection. P284 [In case of inadequate ventilation] wear respiratory protection.
Response:	P302+P352 IF ON SKIN: Wash with plenty of water. P304+P340+P310 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or physician. 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. 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.

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).

Section 3. Composition / information on ingredients

General chemical description: Mixture

Identity of ingredients:

Chemical ingredients	CAS-No.	Proportion
1,1'-(1,3-phenylene)bis-1H-pyrrole-2,5-dione	3006-93-7	10- < 30 %
Methacrylic acid, monoester with propane-1,2-diol	27813-02-1	1- < 10 %
α , α -dimethylbenzyl hydroperoxide	80-15-9	1- < 3 %
Silica, amorphous, fumed, crystal-free	112945-52-5	< 10 %
maleic acid	110-16-7	< 1 %
non hazardous ingredients~		50 %

Section 4. First aid measures

Ingestion:	Rinse mouth, do not induce vomiting, consult a doctor.
Skin:	Rinse with running water and soap. Seek medical advice.

Eyes:	Rinse immediately with plenty of running water (for 10 minutes). Seek medical attention if necessary.
Inhalation:	Move to fresh air. If symptoms persist, seek medical advice.
First Aid facilities:	Eye wash Normal washroom facilities

Section 5. Fire fighting measures

Suitable extinguishing media:	Carbon dioxide, foam, powder
Combustion behaviour:	Non flammable product (flash point is greater than 100°C (CC))
Decomposition products in case of fire:	Oxides of carbon, oxides of nitrogen, irritating organic vapors.
Special protective equipment for fire-fighters:	Wear self-contained breathing apparatus and full protective clothing, such as turn-out gear.

Section 6. Accidental release measures

Personal precautions:	Wear protective equipment. Ensure adequate ventilation. Avoid skin and eye contact.
Environmental precautions:	Do not allow product to enter sewer or waterways.
Clean-up methods:	Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Scrape up spilled material and place in a closed container for disposal.

Section 7. Handling and storage

Precautions for safe handling:	See advice in section 8 Use only in well-ventilated areas. Prolonged or repeated skin contact should be avoided to minimise any risk of sensitisation. Avoid breathing vapors or mists of this product.
Conditions for safe storage:	Store in a cool, well-ventilated place. Store protected from heat influence. cool and dry, in tightly closed containers

Section 8. Exposure controls / personal protection

National exposure standards:

Ingredient [Regulated substance]	form of exposure	TWA (ppm)	TWA (mg/m ³)	Peak Limit. (ppm)	Peak Limit. (mg/m ³)	STEL (ppm)	STEL (mg/m ³)
OIL MIST, REFINED MINERAL 64742-52-5			5				
SILICA, AMORPHOUS: FUMED SILICA (RESPIRABLE DUST) 112945-52-5	Respirable dust.		2				

FUMED SILICA (RESPIRABLE DUST) 112945-52-5	Respirable dust.		2				
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Engineering controls:	Ensure good ventilation/extraction.
Eye protection:	Wear protective glasses.
Skin protection:	Protective clothing that covers arms and legs. Use of Butyl or Nitrile Rubber gloves is recommended.
Respiratory protection:	Use only in well-ventilated areas. 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:	green liquid
Odor:	characteristic
Specific gravity:	1.1
Flash point:	> 93.3 °C (> 199.94 °F)
(Tagliabue closed cup)	
Density:	1.16 g/cm ³
Solubility in water:	Slightly soluble

Section 10. Stability and reactivity

Stability:	Stable under normal conditions of temperature and pressure.
Conditions to avoid:	Excessive heat.
Incompatible materials:	Reducing agents. Strong acids and oxidizing agents. Oxygen scavengers. Strong alkalis.
Hazardous decomposition products:	Oxides of carbon. Irritating organic vapours.

Section 11. Toxicological information

Health Effects:**Ingestion:**

May cause gastrointestinal tract irritation if swallowed.

Skin:

May cause allergic skin reaction.

Eyes:

Contact with this product may cause severe eye irritation.

Inhalation:

May cause respiratory tract irritation.

Acute toxicity:

Hazardous components CAS-No.	Value type	Value	Route of application	Exposure time	Species	Method
1,1'-(1,3-phenylene)bis- 1H-pyrrole-2,5-dione 3006-93-7	Acute toxicity estimate (ATE) LD50 LC50	500 mg/kg > 300 - 2,000 mg/kg 0.055 mg/l	oral oral inhalation	4 h	rat rat	Expert judgement OECD Guideline 423 (Acute Oral toxicity) OECD Guideline 403 (Acute Inhalation Toxicity)
Methacrylic acid, monoester with propane- 1,2-diol 27813-02-1	LD50 LD50	> 2,000 mg/kg > 5,000 mg/kg	oral dermal		rat rabbit	OECD Guideline 401 (Acute Oral Toxicity) not specified
α , α -dimethylbenzyl hydroperoxide 80-15-9	LD50 LD50 Acute toxicity estimate (ATE)	382 mg/kg 530 - 1,060 mg/kg 1,100 mg/kg	oral dermal dermal		rat rat	other guideline: other guideline: Expert judgement
Silica, amorphous, fumed, crystal-free 112945-52-5	LD50 LC50 LD50	> 5,000 mg/kg > 58.8 mg/l > 2,000 mg/kg	oral inhalation dermal	4 h	rat rat rabbit	OECD Guideline 401 (Acute Oral Toxicity) OECD Guideline 403 (Acute Inhalation Toxicity) OECD Guideline 402 (Acute Dermal Toxicity)
maleic acid 110-16-7	LD50 LD50	708 mg/kg 1,560 mg/kg	oral dermal		rat rabbit	not specified not specified

Skin corrosion/irritation:

Hazardous components CAS-No.	Result	Exposure time	Species	Method
1,1'-(1,3-phenylene)bis- 1H-pyrrole-2,5-dione 3006-93-7	not corrosive	60 min	Human, EpiDermTM SIT (EPI- 200), Reconstructe d Human Epidermis (RHE)	OECD Guideline 431 (In Vitro Skin Corrosion: Reconstructed Human Epidermis (RHE) Test Method)
1,1'-(1,3-phenylene)bis- 1H-pyrrole-2,5-dione 3006-93-7	not irritating	60 min	Human, EpiDermTM SIT (EPI- 200), Reconstructe d Human Epidermis (RHE)	OECD Guideline 439 (In Vitro Skin Irritation: Reconstructed Human Epidermis (RHE) Test Method)
Methacrylic acid, monoester with propane- 1,2-diol 27813-02-1	not irritating	24 h	rabbit	Draize Test
α , α -dimethylbenzyl hydroperoxide 80-15-9	corrosive		rabbit	Draize Test
Silica, amorphous, fumed, crystal-free 112945-52-5	not irritating		rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
maleic acid 110-16-7	irritating	24 h	human	Patch Test

Serious eye damage/irritation:

Hazardous components CAS-No.	Result	Exposure time	Species	Method
1,1'-(1,3-phenylene)bis- 1H-pyrrole-2,5-dione 3006-93-7	not irritating		Bovine, cornea, in vitro test	OECD Guideline 437 (BCOP)
Methacrylic acid, monoester with propane- 1,2-diol 27813-02-1	irritating		rabbit	Draize Test
Silica, amorphous, fumed, crystal-free 112945-52-5	not irritating		rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)
maleic acid 110-16-7	highly irritating		rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)

Respiratory or skin sensitization:

Hazardous components CAS-No.	Result	Test type	Species	Method
1,1'-(1,3-phenylene)bis- 1H-pyrrole-2,5-dione 3006-93-7	not 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	Mouse local lymphnode assay (LLNA)	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
1,1'-(1,3-phenylene)bis- 1H-pyrrole-2,5-dione 3006-93-7	negative negative negative	bacterial reverse mutation assay (e.g Ames test) in vitro mammalian chromosome aberration test mammalian cell gene mutation assay	with and without with and without with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay) OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test) OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)
Methacrylic acid, monoester with propane- 1,2-diol 27813-02-1	negative negative	bacterial reverse mutation assay (e.g Ames test) mammalian cell gene mutation assay	with and without with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay) OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)
Methacrylic acid, monoester with propane- 1,2-diol 27813-02-1	negative	oral: gavage		rat	OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test)
α , α -dimethylbenzyl hydroperoxide 80-15-9	positive	bacterial reverse mutation assay (e.g Ames test)	without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
α , α -dimethylbenzyl hydroperoxide 80-15-9	negative	dermal		mouse	not specified
Silica, amorphous, fumed, crystal-free 112945-52-5	negative negative negative	bacterial reverse mutation assay (e.g Ames test) mammalian cell gene mutation assay in vitro mammalian chromosome aberration test	with and without with and without with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay) OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test) 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)

Repeated dose toxicity:

Hazardous components CAS-No.	Result	Route of application	Exposure time / Frequency of treatment	Species	Method
1,1'-(1,3-phenylene)bis- 1H-pyrrole-2,5-dione 3006-93-7	NOAEL=15 mg/kg	oral: gavage	42-52 ddaily	rat	OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)
Methacrylic acid, monoester with propane- 1,2-diol 27813-02-1	NOAEL=300 mg/kg	oral: gavage		rat	OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)
α , α -dimethylbenzyl hydroperoxide 80-15-9		inhalation: aerosol	6 h/d5 d/w	rat	not specified
Silica, amorphous, fumed, crystal-free 112945-52-5	NOAEL=< 0.046 mg/l	inhalation	14 days6 hours/day, 5 days/week	rat	not specified
Silica, amorphous, fumed, crystal-free 112945-52-5	NOAEL=> 4,500 mg/kg	oral: feed	13 weeksdaily, continous	rat	
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)

Section 12. Ecological information

General ecological information:Do not empty into drains / surface water / ground water.
Harmful to aquatic organisms.**Toxicity:**

Hazardous components CAS-No.	Value type	Value	Acute Toxicity Study	Exposure time	Species	Method
1,1'-(1,3-phenylene)bis-1H-pyrrole-2,5-dione 3006-93-7	EC50	31.6 mg/l	Daphnia	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
1,1'-(1,3-phenylene)bis-1H-pyrrole-2,5-dione 3006-93-7	ErC50	67.898 mg/l	Algae	72 h	Desmodesmus subspicatus	OECD Guideline 201 (Alga, Growth Inhibition Test)
1,1'-(1,3-phenylene)bis-1H-pyrrole-2,5-dione 3006-93-7	EC10	0.308 mg/l	Algae	72 h	Desmodesmus subspicatus	OECD Guideline 201 (Alga, Growth Inhibition Test)
Methacrylic acid, monoester with propane-1,2-diol 27813-02-1	LC50	493 mg/l	Fish	48 h	Leuciscus idus melanotus	DIN 38412-15
Methacrylic acid, monoester with propane-1,2-diol 27813-02-1	EC50	> 143 mg/l	Daphnia	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Methacrylic acid, monoester with propane-1,2-diol 27813-02-1	EC50	> 97.2 mg/l	Algae	72 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
Methacrylic acid, monoester with propane-1,2-diol 27813-02-1	NOEC	> 97.2 mg/l	Algae	72 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
Methacrylic acid, monoester with propane-1,2-diol 27813-02-1	EC10	1,140 mg/l	Bacteria	16 h		not specified
α , α -dimethylbenzyl hydroperoxide 80-15-9	LC50	3.9 mg/l	Fish	96 h	Oncorhynchus mykiss	OECD Guideline 203 (Fish, Acute Toxicity Test)
α , α -dimethylbenzyl hydroperoxide 80-15-9	EC50	18 mg/l	Daphnia	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
α , α -dimethylbenzyl hydroperoxide 80-15-9	ErC50	3.1 mg/l	Algae	72 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
α , α -dimethylbenzyl hydroperoxide 80-15-9	EC10	70 mg/l	Bacteria	30 min		not specified
Silica, amorphous, fumed, crystal-free 112945-52-5	LC50	> 10,000 mg/l	Fish	96 h	Brachydanio rerio (new name: Danio rerio)	OECD Guideline 203 (Fish, Acute Toxicity Test)
Silica, amorphous, fumed, crystal-free 112945-52-5	EL50	> 1,000 mg/l	Daphnia	24 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Silica, amorphous, fumed, crystal-free 112945-52-5	NOELR	10,000 mg/l	Algae	72 h	Desmodesmus subspicatus	OECD Guideline 201 (Alga, Growth Inhibition Test)
Silica, amorphous, fumed, crystal-free 112945-52-5	EL50	> 10,000 mg/l	Algae	72 h	Desmodesmus subspicatus	OECD Guideline 201 (Alga, Growth Inhibition Test)
Silica, amorphous, fumed, crystal-free 112945-52-5	EC0	10,000 mg/l	Bacteria	30 min	Pseudomonas putida	DIN 38412, part 27 (Bacterial oxygen consumption 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

maleic acid 110-16-7	EC50	74.35 mg/l	Algae	72 h	Pseudokirchneriella subcapitata	Test) OECD Guideline 201 (Alga, Growth Inhibition Test)
maleic acid 110-16-7	EC10	11.8 mg/l	Algae	72 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
maleic acid 110-16-7	EC10	44.6 mg/l	Bacteria	18 h	Pseudomonas putida	DIN 38412, part 8 (Pseudomonas Zellvermehrungshe mm-Test)

Persistence and degradability:

Hazardous components CAS-No.	Result	Route of application	Degradability	Method
1,1'-(1,3-phenylene)bis-1H-pyrrole-2,5-dione 3006-93-7	not readily biodegradable.	not specified	0 - < 60 %	OECD Guideline 303 A (Simulation Test Aerobic Sewage Treatment. A: Activated Sludge Units)
1,1'-(1,3-phenylene)bis-1H-pyrrole-2,5-dione 3006-93-7	not readily biodegradable.	aerobic	0 %	OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)
Methacrylic acid, monoester with propane-1,2-diol 27813-02-1	readily biodegradable	aerobic	94.2 %	OECD Guideline 301 E (Ready biodegradability: Modified OECD Screening Test)
α , α -dimethylbenzyl hydroperoxide 80-15-9		no data	0 %	OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test)
maleic acid 110-16-7	readily biodegradable	aerobic	97.08 %	OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test)

Bioaccumulative potential / Mobility in soil:

Hazardous components CAS-No.	LogPow	Bioconcentration factor (BCF)	Exposure time	Species	Temperature	Method
1,1'-(1,3-phenylene)bis-1H-pyrrole-2,5-dione 3006-93-7	0.67				24 °C	OECD Guideline 117 (Partition Coefficient (n-octanol / water), HPLC Method)
Methacrylic acid, monoester with propane-1,2-diol 27813-02-1	0.97				20 °C	not specified
α , α -dimethylbenzyl hydroperoxide 80-15-9		9.1		calculation		OECD Guideline 305 (Bioconcentration: Flow-through Fish Test)
α , α -dimethylbenzyl hydroperoxide 80-15-9	2.16					not specified
Silica, amorphous, fumed, crystal-free 112945-52-5	0.53					QSAR (Quantitative Structure Activity Relationship)
maleic acid 110-16-7	-1.3				20 °C	OECD Guideline 107 (Partition Coefficient (n-octanol / water), Shake Flask Method)

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).

Marine transport IMDG:

Not dangerous goods

Air transport IATA:

Not dangerous goods

Section 15. Regulatory information

SUSMP Poisons Schedule

None

Section 16. Other information

Abbreviations/acronyms:

CAS: Chemical Abstracts Service
GHS: Globally Harmonized System
LD 50: Lethal Dose 50%
LC 50: Lethal Concentration 50%
OECD: Organization for Economic Cooperation and Development
IATA-DGR: International Air Transport Association – Dangerous Goods Regulations
IMDG: International Maritime Dangerous Goods code
ADGC - Australian Dangerous Goods Code

Reason for issue:

Reviewed SDS. Reissued with new date. involved chapters: 2,3,7,15,16

Date of previous issue:

28.05.2015

Disclaimer:

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