Safety Data Sheet

LOCTITE 243 MEDIUM STRENGTH THREADLOCKER known as Loctite 243 10ML AU

MSDS-No. : 316211
V001.4
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Section 1. Identification of the substance/preparation and of the company/undertaking

Product name: LOCTITE 243 MEDIUM STRENGTH THREADLOCKER known as Loctite 243 10ML AU

Intended use: Threadlocker

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	Hazard Category
Skin sensitizer	Category 1
Acute hazards to the aquatic environment	Category 2
Chronic hazards to the aquatic environment	Category 2
Serious eye irritation	Category 2

Hazard pictogram:

Signal word: Warning

Hazard statement(s):
H317 May cause an allergic skin reaction.
H411 Toxic to aquatic life with long lasting effects.
H319 Causes serious eye irritation.

Precautionary Statement(s):
Prevention:
P261 Avoid breathing vapors, mist, or spray.
P272 Contaminated work clothing should not be allowed out of the workplace.
P273 Avoid release to the environment.
P280 Wear protective gloves/eye protection.

Response:
P302+P352 IF ON SKIN: Wash with plenty of water.
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
P362 Take off contaminated clothing.
P363 Wash contaminated clothing before reuse.
P391 Collect spillage.
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.

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:
R36 Irritating to eyes.
R43 May cause sensitisation by skin contact.
R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Safety phrases:
S23 Do not breathe vapour.
S25 Avoid contact with 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.
S51 Use only in well-ventilated areas.

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: Substance
Type of preparation: Methacrylate resin based threadlocker

Identity of ingredients:

Chemical ingredients	CAS-No.	Proportion
Tetramethylene dimethacrylate	2082-81-7	10- < 30 %
2,4,6-Triallyloxy-1,3,5-triazine	101-37-1	1- < 10 %
Propane-1,2-diol	57-55-6	< 2 %
Maleic acid	110-16-7	< 1 %
Acetic acid, 2-phenylhydrazide	114-83-0	< 1 %
non hazardous ingredients~		60 %

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
Medical attention and special treatment:	Treat symptomatically.

Section 5. Fire fighting measures

Suitable extinguishing media:	If product is involved in fire extinguish with dry powder, foam or carbon dioxide.
Decomposition products in case of fire::	In the event of a fire, carbon monoxide (CO), carbon dioxide (CO2) and nitrogen oxides (NOx) can be released. Irritating organic vapours.
Particular danger in case of fire::	None
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:	Avoid skin and eye contact. Ensure adequate ventilation.
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.

Section 7. Handling and storage

Precautions for safe handling:	Use only in well-ventilated areas. Avoid skin and eye contact.
Conditions for safe storage:	Ensure good ventilation/extraction. 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. Store in a cool, well-ventilated place. Do not expose to direct heat. Store in sealed original container.

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/suction at the workplace.

Eye protection: Wear protective glasses.

Skin protection: Wear suitable protective clothing.
The use of chemical resistant gloves such as Nitrile is recommended.

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.

The use of chemical resistant gloves such as Neoprene or Natural Rubber 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: Blue
Liquid
Odor: Characteristic
Flash point: > 93 °C (> 199.4 °F)
Density: 1.09 g/cm3

Section 10. Stability and reactivity

Conditions to avoid: Keep away from heat, spark and flame.

Incompatible materials: Strong acids and oxidizing agents.
Oxygen scavengers.
Strong alkalis.
Reducing agents.
Other polymerization initiators.

Hazardous decomposition products: In case of fire toxic gases can be released.

Irritating vapors.
Oxides of carbon.

Hazardous polymerization: Will not occur.

Section 11. Toxicological information

Health Effects:

Ingestion:	May be harmful if swallowed.
Skin:	May cause skin irritation. May cause skin sensitization.
Eyes:	This product is irritating to the eyes.
Inhalation:	May cause respiratory tract irritation.
Aggrevated med. condition:	Eye, skin, and respiratory disorders.

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	
2,4,6-Triallyloxy-1,3,5-triazine 101-37-1	LD50	753 mg/kg	oral		rat	OECD Guideline 401 (Acute Oral Toxicity)
Propane-1,2-diol 57-55-6	LD50 LD50	> 22,000 mg/kg > 2,000 mg/kg	oral dermal		rat rabbit	
Maleic acid 110-16-7	LD50 LD50	708 mg/kg 1,560 mg/kg	oral dermal		rat rabbit	

Skin corrosion/irritation:

Hazardous components CAS-No.	Result	Exposure time	Species	Method
Propane-1,2-diol 57-55-6	not irritating		rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)

Serious eye damage/irritation:

Hazardous components CAS-No.	Result	Exposure time	Species	Method
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)

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)
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		 OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test)

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 mg/l	inhalation	90 days6 hours/day, 5 days/week	rat	
Propane-1,2-diol 57-55-6	NOAEL=50000 ppm	oral: feed	2 yearsdaily	rat	

Section 12. Ecological information

General ecological information: Do not empty into drains, soil or bodies of water.

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
2,4,6-Triallyloxy-1,3,5-triazine 101-37-1	LC50	4.36 mg/l	Fish	96 h	Oncorhynchus mykiss	OECD Guideline 203 (Fish, Acute Toxicity Test)
2,4,6-Triallyloxy-1,3,5-triazine 101-37-1	EC50	19.4 mg/l	Daphnia	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
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)
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)

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 BiodegradabilityCO2 in Sealed Vessels (Headspace Test)
2,4,6-Triallyloxy-1,3,5-triazine 101-37-1		aerobic	7 - 9 %	OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test)
Propane-1,2-diol 57-55-6	readily biodegradable	aerobic	> 70 %	OECD Guideline 301 A (new version) (Ready Biodegradability: DOC Die Away 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.	LogKow	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)
2,4,6-Triallyloxy-1,3,5-triazine 101-37-1	2.8				20 °C	
Propane-1,2-diol 57-55-6	-0.92					
Maleic acid 110-16-7	-1.3				20 °C	OECD Guideline 107 (Partition Coefficient (n-octanol / water), Shake Flask Method)
Acetic acid, 2-phenylhydrazide 114-83-0	0.74					

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.

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:

UN no.: 3082
Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Fatty acid amide)
Class or division: 9
Packing group: III
EmS: F-A ,S-F
Seawater pollutant: Marine pollutant

Air transport IATA:

UN no.: 3082
Proper shipping name: Environmentally hazardous substance, liquid, n.o.s. (Fatty acid amide)
Class or division: 9
Packing group: III
Packing instructions (passenger) 964
Packing instructions (cargo) 964

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:
ASCC - Australian Safety and Compensation Council
SUSDP - Standard for the Uniform Medicines of Drugs and Poisons
GHS: Globally Harmonized System
IMDG: International Maritime Dangerous Goods code
IATA-DGR: International Air Transport Association – Dangerous Goods Regulations

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Disclaimer:

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