Safety Data Sheet

LOCTITE 222 LOW STRENGTH THREADLOCKER known as Loctite 222 10ML AU

SDS No. : 153481
V001.2
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SECTION 1 IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product name: LOCTITE 222 LOW STRENGTH THREADLOCKER known as Loctite 222 10ML AU

Intended use: Anaerobic Sealant

Supplier:

Henkel New Zealand Ltd
2 Allens Rd
East Tamaki
Auckland, 2013
New Zealand
Phone: +64 (9) 272-6710

Emergency Telephone for Chemical Accidents: 24 HOUR EMERGENCY CONTACT NUMBER 0800 243 622

SECTION 2 HAZARDS IDENTIFICATION

Classification of the substance or mixture
Classified as hazardous under the New Zealand Hazardous Substances and New Organisms Act (HSNO).
Not classified as Dangerous Goods under the Land Transport Rule: Dangerous Goods 2005.

GHS Classification:

Hazard Class	Hazard Category	Target organ
Serious eye irritation	Category 2A	
Target Organ Systemic Toxicant - Single exposure	Category 3	respiratory tract irritation
Acute hazards to the aquatic environment	Category 2	

Hazard pictogram:

Signal word: Warning

Hazard statement(s): H319 Causes serious eye irritation.
H335 May cause respiratory irritation.
H401 Toxic to aquatic life.

Precautionary Statement(s):

Prevention: P261 Avoid breathing mist/vapours.
P264 Wash hands thoroughly after handling.
P271 Use only outdoors or in a well-ventilated area.
P273 Avoid release to the environment.
P280 Wear eye protection/face protection.

Response: 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.
P337+P313 If eye irritation persists: Get medical advice/attention.

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.

SECTION 3 COMPOSITION/INFORMATION ON INGREDIENTS

General chemical description: Mixture
Type of preparation: Methacrylate resin based threadlocker

Identity of ingredients:

Chemical ingredients	CAS-No.	Proportion
Silica, amorphous, fumed, cryst.-free	112945-52-5	1- < 10 %
α, α-dimethylbenzyl hydroperoxide	80-15-9	1- < 3 %
Propane-1,2-diol	57-55-6	1- < 10 %
N,N-Diethyl-p-toluidine	613-48-9	0.1- < 1 %
methacrylic acid	79-41-4	0.1- < 1 %
non hazardous ingredients~		60- <= 100 %

SECTION 4 FIRST AID MEASURES

Ingestion: Rinse mouth, do not induce vomiting, consult a doctor.

Skin: Wash skin with water
In case of adverse health effects seek medical advice.

Eyes: Flush eyes with plenty of water for at least 5 minutes. If irritation persists seek medical attention.

Inhalation: Should not be a problem as product is of low volatility. However, if feeling unwell remove patient to fresh air.

First Aid facilities: Eye wash
Normal washroom facilities

SECTION 5. FIRE FIGHTING MEASURES

Suitable extinguishing media: Foam, dry chemical or carbon dioxide.

Decomposition products in case of fire: Oxides of carbon, oxides of nitrogen, irritating organic vapors.
Oxides of sulfur.

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.

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: Avoid contact with eyes, skin and clothing.
Avoid breathing vapors or mists of this product.
Wash thoroughly after handling.
Use only with adequate ventilation.
See advice in section 8

Conditions for safe storage: Keep in a cool, well ventilated area away from heat, sparks and open flame. Keep container tightly closed until ready for use.
Store in original container until ready to use.

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Workplace exposure standards:

Ingredient [Regulated substance]	form of exposure	TWA (ppm)	TWA (mg/m3)	Ceiling	STEL (ppm)	STEL (mg/m3)
Particulates not otherwise classified, respirable dust Respirable dust (not otherwise classified) 112945-52-5	Respirable dust.		3	-	-	-
Particulates not otherwise classified, inhalable dust Inhalable dust (not otherwise classified)	Inhalable dust.		10	-	-	-
PROPANE-1,2-DIOL, PARTICULATES ONLY 57-55-6	Particulate.		10	-	-	-
PROPANE-1,2-DIOL, VAPOUR & PARTICULATES	Vapor and particulates.	150	474	-	-	-
METHACRYLIC ACID 79-41-4		20	70	-	-	-

Biological Exposure Indices:
None

Engineering controls:	No specific ventilation requirements noted, but forced ventilation may still be required if concentrations exceed occupational 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:	Purple Liquid
Odor:	mild
Specific gravity:	1.05
Boiling point:	> 149.0 °C (> 300.2 °F)
Flash point:	> 93.3 °C (> 199.94 °F)
(Tagliabue closed cup)	
Density:	1.0800 g/cm3
Solubility in water:	Slightly soluble

SECTION 10. STABILITY AND REACTIVITY

Conditions to avoid:	See "Handling and Storage" (Section 7) and "Incompatibility" (Section 10).
Incompatible materials:	Strong alkalis. Reducing agents. Strong oxidizing agents. Acids.
Hazardous decomposition products:	Irritating and toxic gases or fumes may be released during a fire. Oxides of sulfur. Oxides of nitrogen. Oxides of carbon.
Hazardous polymerization:	Will not occur.

SECTION 11 TOXICOLOGICAL INFORMATION

Health Effects:

Ingestion: May cause mild gastrointestinal irritation with nausea, vomiting, diarrhea and abdominal pain.
Skin: May cause mild skin irritation.
Eyes: Contact with eyes will cause irritation.
Inhalation: May cause respiratory tract irritation.

Acute toxicity:

Hazardous components CAS-No.	Value type	Value	Route of application	Exposure time	Species	Method
Silica, amorphous, fumed, cryst.-free 112945-52-5	LD50 LC0 LD50	> 5,000 mg/kg 0.139 mg/l > 2,000 mg/kg	oral inhalation dermal	4 h	rat rat rabbit	OECD Guideline 401 (Acute Oral Toxicity) not specified OECD Guideline 402 (Acute Dermal Toxicity)
α, α-dimethylbenzyl hydroperoxide 80-15-9	LD50 LC50 Acute toxicity estimate (ATE)	382 mg/kg 1.370 mg/l 1,100 mg/kg	oral inhalation dermal	4 h	rat rat	other guideline: not specified Expert judgement
Propane-1,2-diol 57-55-6	LD50 LC50 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
N,N-Diethyl-p-toluidine 613-48-9	Acute toxicity estimate (ATE) Acute toxicity estimate (ATE) Acute toxicity estimate (ATE)	100 mg/kg 3 mg/l 300 mg/kg	oral inhalation dermal			Expert judgement Expert judgement Expert judgement
methacrylic acid 79-41-4	LD50 LC50 Acute toxicity estimate (ATE) LD50 Acute toxicity estimate (ATE)	1,320 mg/kg > 3.6 mg/l 3.61 mg/l 500 - 1,000 mg/kg 500 mg/kg	oral inhalation inhalation dermal dermal	4 h	rat rat rabbit	equivalent or similar to OECD Guideline 401 (Acute Oral Toxicity) OECD Guideline 403 (Acute Inhalation Toxicity) Expert judgement Dermal Toxicity Screening Expert judgement

Skin corrosion/irritation:

Hazardous components CAS-No.	Result	Exposure time	Species	Method
Silica, amorphous, fumed, cryst.-free 112945-52-5	not irritating	4 h	rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
α, α-dimethylbenzyl 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)
N,N-Diethyl-p-toluidine 613-48-9	irritating	4 h	rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
methacrylic acid 79-41-4	corrosive	3 min	rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)

Serious eye damage/irritation:

Hazardous components CAS-No.	Result	Exposure time	Species	Method
Silica, amorphous, fumed, cryst.-free 112945-52-5	not 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)
methacrylic acid 79-41-4	corrosive		rabbit	Draize Test

Respiratory or skin sensitization:

Hazardous components CAS-No.	Result	Test type	Species	Method
Propane-1,2-diol 57-55-6	not sensitising	Guinea pig maximisation test	guinea pig	equivalent or similar to OECD Guideline 406 (Skin Sensitisation)
methacrylic acid 79-41-4	not sensitising	Buehler test	guinea pig	equivalent or similar to 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
Silica, amorphous, fumed, cryst.-free 112945-52-5	negative negative negative	bacterial reverse mutation assay (e.g Ames test) in vitro mammalian chromosome aberration test DNA damage and repair assay, unscheduled DNA synthesis in mammalian cells in vitro			not specified not specified not specified
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
Propane-1,2-diol 57-55-6	negative negative	bacterial reverse mutation assay (e.g Ames test) in vitro mammalian chromosome aberration test	without with and without		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
methacrylic acid 79-41-4	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		equivalent or similar to OECD Guideline 471 (Bacterial Reverse Mutation Assay)
methacrylic acid 79-41-4	negative negative	inhalation oral: gavage		mouse mouse	equivalent or similar to OECD Guideline 478 (Genetic Toxicology: Rodent Dominant Lethal Test) equivalent or similar to OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test)

Repeated dose toxicity:

Hazardous components CAS-No.	Result	Route of application	Exposure time / Frequency of treatment	Species	Method
α, α-dimethylbenzyl 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
Propane-1,2-diol 57-55-6	NOAEL=1000 mg/m3	inhalation	90 d6 h/d, 5 d/w	rat	not specified
methacrylic acid 79-41-4		inhalation	90 d6 h/d, 5 d/w	rat	OECD Guideline 413 (Subchronic Inhalation Toxicity: 90-Day)

SECTION 12. ECOLOGICAL INFORMATION

General ecological information: Do not empty into drains / surface water / ground water.

Ecotoxicity: H401 Toxic to aquatic life.

Toxicity:

Hazardous components CAS-No.	Value type	Value	Acute Toxicity Study	Exposure time	Species	Method
Silica, amorphous, fumed, cryst.-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)
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	18.84 mg/l	Daphnia	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
α, α-dimethylbenzyl hydroperoxide 80-15-9	EC50	3.1 mg/l	Algae	72 h	Desmodesmus subspicatus (reported as Scenedesmus subspicatus)	OECD Guideline 201 (Alga, Growth Inhibition Test)
α, α-dimethylbenzyl hydroperoxide 80-15-9	NOEC	1 mg/l	Algae	72 h	Desmodesmus subspicatus (reported as Scenedesmus subspicatus)	OECD Guideline 201 (Alga, Growth Inhibition Test)
α, α-dimethylbenzyl hydroperoxide 80-15-9	EC10	70 mg/l	Bacteria	30 min	not specified	not specified
Propane-1,2-diol 57-55-6	LC50	51,600 mg/l	Fish	96 h	Oncorhynchus mykiss	OECD Guideline 203 (Fish, Acute Toxicity Test)
Propane-1,2-diol 57-55-6	EC50	18,340 mg/l	Daphnia	48 h	Ceriodaphnia dubia	other guideline:
Propane-1,2-diol 57-55-6	EC50	24,200 mg/l	Algae	72 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
Propane-1,2-diol 57-55-6	NOEC	15,000 mg/l	Algae	14 d	Pseudokirchneriella 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)
N,N-Diethyl-p-toluidine 613-48-9	LC50	78.62 mg/l	Fish	96 h	Danio rerio	OECD Guideline 203 (Fish, Acute Toxicity Test)
N,N-Diethyl-p-toluidine 613-48-9	EC50	10.34 mg/l	Daphnia	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
N,N-Diethyl-p-toluidine 613-48-9	EC50	7.42 mg/l	Algae	72 h	Desmodesmus subspicatus	OECD Guideline 201 (Alga, Growth Inhibition Test)
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	NOEC	10 mg/l	Fish	35 d	Danio rerio	OECD Guideline 210 (fish early lite stage 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: Pseudokirchneriella subcapitata)	OECD Guideline 201 (Alga, Growth Inhibition Test)
methacrylic acid 79-41-4	EC50	45 mg/l	Algae	72 h	Selenastrum capricornutum (new name: Pseudokirchneriella subcapitata)	OECD Guideline 201 (Alga, Growth Inhibition Test)
methacrylic acid	EC10	100 mg/l	Bacteria	17 h	Pseudomonas putida	DIN 38412, part 8

79-41-4						(Pseudomonas Zellvermehrungshemm-Test)

Persistence and degradability:

Hazardous components CAS-No.	Result	Route of application	Degradability	Method
α, α-dimethylbenzyl hydroperoxide 80-15-9	not readily biodegradable.	aerobic	3 %	OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test)
Propane-1,2-diol 57-55-6	readily biodegradable	aerobic	> 81.7 - 100 %	OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)
N,N-Diethyl-p-toluidine 613-48-9	not readily biodegradable.	not specified	1 %	OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I))
methacrylic acid 79-41-4	readily biodegradable	aerobic	86 %	OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)
methacrylic acid 79-41-4	inherently biodegradable	aerobic	100 %	OECD Guideline 302 B (Inherent biodegradability: Zahn-Wellens/EMPA Test)

Bioaccumulative potential / Mobility in soil:

Hazardous components CAS-No.	LogPow	Bioconcentration factor (BCF)	Exposure time	Species	Temperature	Method
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	1.6				25 °C	OECD Guideline 117 (Partition Coefficient (n-octanol / water), HPLC Method)
Propane-1,2-diol 57-55-6	-1.07				20.5 °C	EU Method A.8 (Partition Coefficient)
N,N-Diethyl-p-toluidine 613-48-9	3.7					QSAR (Quantitative Structure Activity Relationship)
methacrylic acid 79-41-4	0.93				22 °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

Dangerous Goods information:

Land Transport:
Not classified as Dangerous Goods under the Land Transport Rule: Dangerous Goods 2005.

Marine transport IMDG:
Not dangerous goods

Air transport IATA:
Not dangerous goods

SECTION 15. REGULATORY INFORMATION

New Zealand regulatory information:
Classified as hazardous under the New Zealand Hazardous Substances and New Organisms Act (HSNO).

HSNO Approval Number:	Group standard HSR002670
Site and Storage:	Refer to the site and storage requirements for this Group Standard.
NZIoC:	Compliant for NZIOC

SECTION 16. OTHER INFORMATION

Abbreviations/acronyms:	HSNO - Hazardous Substances and New Organisms TWA - Time weighted average STEL - Short term exposure limit IMDG: International Maritime Dangerous Goods code IATA-DGR: International Air Transport Association – Dangerous Goods Regulations
Reason for issue:	Reviewed SDS. Reissued with new date. involved chapters: 1-16

Date of previous issue: 11.01.2019

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