



Safety Data Sheet

Loctite High Strength Threadlocker

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SDS No. : 153641

V001.4

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

Product name: Loctite High Strength Threadlocker

Intended use: Anaerobic thread sealant

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

Skin sensitizer

Hazard Category

Category 1

Hazard pictogram:



Signal word:

Warning

Hazard statement(s):

H317 May cause an allergic skin reaction.

Precautionary Statement(s):

Prevention:

P261 Avoid breathing dust.
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 water.
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
P362+P364 Take off contaminated clothing and wash it before reuse.

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
Thixatrol plus		10- < 30 %
Silica, amorphous, fumed, crystal-free	112945-52-5	< 10 %
Ethene, homopolymer	9002-88-4	< 10 %
α , α -dimethylbenzyl hydroperoxide	80-15-9	< 1 %
N,N-Diethyl-p-toluidine	613-48-9	< 10 %
N-methyl-2-pyrrolidone	872-50-4	< 0.3 %
N,N-dimethyl-o-toluidine	609-72-3	< 10 %

Section 4. First aid measures

Ingestion:	Do not induce vomiting. Have victim rinse mouth thoroughly with water. Seek medical advice.
Skin:	Rinse with running water and soap. Seek medical advice.
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:	Normal washroom facilities Eye wash
Medical attention and special treatment:	Treat symptomatically and supportively.

Section 5. Fire fighting measures

Suitable extinguishing media:	Carbon dioxide, foam, powder Fine water spray
Improper extinguishing media:	None known
Decomposition products in case of fire:	Thermal decomposition may release toxic and/or hazardous gases. carbon monoxide Carbon dioxide. Oxides of nitrogen. Oxides of sulfur.
Particular danger in case of fire:	In case of fire, keep containers cool with water spray.
Special protective equipment for fire-fighters:	Wear full protective clothing. Fire fighters should wear positive pressure self-contained breathing apparatus (SCBA).

Section 6. Accidental release measures

Personal precautions:	Avoid skin and eye contact. Ensure adequate ventilation. Wear protective equipment.
Environmental precautions:	Waste disposal with the approval of the responsible local authority.
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. Gloves and safety glasses should be worn Prolonged or repeated skin contact should be avoided to minimise any risk of sensitisation.
Conditions for safe storage:	Ensure good ventilation/extraction. Store in a cool, well-ventilated place. 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 [Regulated substance]	form of exposure	TWA (ppm)	TWA (mg/m3)	Peak Limit. (ppm)	Peak Limit. (mg/m3)	STEL (ppm)	STEL (mg/m3)
CUMENE 98-82-8						75	375
CUMENE 98-82-8		25	125				
NUISANCE DUSTS, INHALABLE DUST 9002-88-4	Inhalable dust.		10				
1-METHYL-2-PYRROLIDONE 872-50-4						75	309
1-METHYL-2-PYRROLIDONE 872-50-4		25	103				

Engineering controls:	No specific ventilation requirements noted, but forced ventilation may still be required if concentrations exceed occupational exposure limits.
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.
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 wax
Odor:	mild
Specific gravity:	1.0687
Boiling point:	> 149 °C (> 300.2 °F)
Vapor pressure: (; 20 °C (68 °F))	< 6.67 mbar
Density:	1.07 g/cm ³
Solubility in water:	Insoluble
VOC content: (2010/75/EC)	< 3 %

Section 10. Stability and reactivity

Stability:	Stable under normal conditions of temperature and pressure.
Conditions to avoid:	Keep away from heat, ignition sources and incompatible materials.
Incompatible materials:	Strong oxidizing agents.
Hazardous decomposition products:	Thermal decomposition can lead to release of irritating gases and vapors. carbon monoxide Carbon dioxide. Oxides of sulfur. Oxides of nitrogen.
Hazardous polymerization:	None under normal processing. Polymerization may occur at elevated temperature or in the presence of incompatible materials.
Hazardous polymerization:	Will not occur.

Section 11. Toxicological information

Health Effects:**Ingestion:**

May cause gastrointestinal disturbances such as headache nausea, vomiting, abdominal pain, and diarrhea, with delayed effects of skin redness and peeling.

Skin:

May cause an allergic skin reaction.

May cause mild skin irritation.

Eyes:

Can cause moderate eye irritation.

Inhalation:

May cause respiratory tract irritation.

Inhalation of product mist may cause mucous membrane irritation.

Chronic effects:

N-methyl-2-pyrrolidone Damage to the skin, irritation to the mucous membranes.
872-50-4:

Acute toxicity:

Hazardous components CAS-No.	Value type	Value	Route of application	Exposure time	Species	Method
Thixatrol plus	LD50	> 2,000 mg/kg	oral		rat	not specified
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)
Ethene, homopolymer 9002-88-4	Acute toxicity estimate (ATE) Acute toxicity estimate (ATE) Acute toxicity estimate (ATE)	> 5,000 mg/kg > 5 mg/l > 5,000 mg/kg	oral inhalation dermal			Expert judgement Expert judgement Expert judgement
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
N-methyl-2-pyrrolidone 872-50-4	LD50 LC50 LD50	4,150 mg/kg > 5.1 mg/l > 5,000 mg/kg	oral inhalation dermal	4 h	rat rat rat	OECD Guideline 401 (Acute Oral Toxicity) OECD Guideline 403 (Acute Inhalation Toxicity) OECD Guideline 402 (Acute Dermal Toxicity)

Skin corrosion/irritation:

Hazardous components CAS-No.	Result	Exposure time	Species	Method
Silica, amorphous, fumed, crystal-free 112945-52-5	not irritating		rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
α , α -dimethylbenzyl hydroperoxide 80-15-9	corrosive		rabbit	Draize Test
N-methyl-2-pyrrolidone 872-50-4	irritating	24 h	rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
N-methyl-2-pyrrolidone 872-50-4	moderately irritating		human	not specified

Serious eye damage/irritation:

Hazardous components CAS-No.	Result	Exposure time	Species	Method
Silica, amorphous, fumed, crystal-free 112945-52-5	not irritating		rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)
Ethene, homopolymer 9002-88-4	not irritating	24 h	rabbit	FDA Guideline
N-methyl-2-pyrrolidone 872-50-4	irritating		rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)

Respiratory or skin sensitization:

Hazardous components CAS-No.	Result	Test type	Species	Method
Ethene, homopolymer 9002-88-4	not sensitising	Mouse local lymphnode assay (LLNA)	mouse	OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay)
N-methyl-2-pyrrolidone 872-50-4	not 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
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)
Ethene, homopolymer 9002-88-4	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		Ames 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
N-methyl-2-pyrrolidone 872-50-4	negative negative negative	DNA damage and repair assay, unscheduled DNA synthesis in mammalian cells in vitro bacterial reverse mutation assay (e.g Ames test) mammalian cell gene mutation assay	without with and without with and without		OECD Guideline 482 (Genetic Toxicology: DNA Damage and Repair, Unscheduled DNA Synthesis in Mammalian Cells In Vitro) OECD Guideline 471 (Bacterial Reverse Mutation Assay) OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)
N-methyl-2-pyrrolidone 872-50-4	negative negative	oral: gavage oral: gavage		mouse hamster, Chinese	OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test) OECD Guideline 475 (Mammalian Bone Marrow Chromosome Aberration Test)

Repeated dose toxicity:

Hazardous components CAS-No.	Result	Route of application	Exposure time / Frequency of treatment	Species	Method
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	
α , α -dimethylbenzyl hydroperoxide 80-15-9		inhalation: aerosol	6 h/d5 d/w	rat	not specified
N-methyl-2-pyrrolidone 872-50-4	NOAEL=0.5 mg/l	inhalation	90 days6 hrs/day, 5 days/wk	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., In the cured state contribution of this product to Environmental Hazards is insignificant in comparison to articles in which it is used.

Toxicity:

Hazardous components CAS-No.	Value type	Value	Acute Toxicity Study	Exposure time	Species	Method
Thixatrol plus	LC50	> 0.2 mg/l	Fish	96 h	carp	not specified
Thixatrol plus	EL50	15.63 - 250 mg/l	Daphnia	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Thixatrol plus	EC50	0.005 mg/l	Algae	72 h	Skeletonema costatum	ISO 10253:2006 (Marine algal growth inhibition test)
Thixatrol plus	NOEC	0.003 mg/l	Algae	72 h	Skeletonema costatum	ISO 10253:2006 (Marine algal growth inhibition test)
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)
Ethene, homopolymer 9002-88-4	LC50	> 100 mg/l	Fish	96 h	Leuciscus idus	OECD Guideline 203 (Fish, Acute Toxicity Test)
Ethene, homopolymer 9002-88-4	EC0	> 1,000 mg/l	Bacteria	3 h	not specified	OECD Guideline 209 (Activated Sludge, Respiration Inhibition 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
N-methyl-2-pyrrolidone 872-50-4	LC50	4,000 mg/l	Fish	96 h	Leuciscus idus	DIN 38412-15
N-methyl-2-pyrrolidone 872-50-4	EC50	4,897 mg/l	Daphnia	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
N-methyl-2-pyrrolidone	EC50	> 500 mg/l	Algae	72 h	Scenedesmus subspicatus (new	DIN 38412-09

872-50-4 N,N-dimethyl-o-toluidine 609-72-3	LC 50	46 mg/l	Fish	96 h	name: Desmodesmus subspicatus) Fathead minnow (Pimephales promelas)
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Persistence and degradability:

Hazardous components CAS-No.	Result	Route of application	Degradability	Method
Thixatrol plus	not readily biodegradable.	aerobic	69.3 %	OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test)
Ethene, homopolymer 9002-88-4	not readily biodegradable.	aerobic	1 %	ISO 10708 (BODIS-Test)
α , α -dimethylbenzyl hydroperoxide 80-15-9	not readily biodegradable.	aerobic	3 %	OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test)
N-methyl-2-pyrrolidone 872-50-4	inherently biodegradable	aerobic	> 90 %	OECD Guideline 302 B (Inherent biodegradability: Zahn-Wellens/EMPA Test)
N-methyl-2-pyrrolidone 872-50-4	readily biodegradable	aerobic	92 %	OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I))

Bioaccumulative potential / Mobility in soil:

Hazardous components CAS-No.	LogPow	Bioconcentration factor (BCF)	Exposure time	Species	Temperature	Method
Thixatrol plus	5.4 - 6.6				25 °C	EU Method A.8 (Partition Coefficient)
Silica, amorphous, fumed, crystal-free 112945-52-5	0.53					QSAR (Quantitative Structure Activity Relationship)
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)
N-methyl-2-pyrrolidone 872-50-4	-0.46				25 °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:

- ADGC - Australian Dangerous Goods Code
- ASCC - Australian Safety and Compensation Council
- STEL - Short term exposure limit
- TWA - Time weighted average
- AIIC - Australian Inventory of Industrial Chemicals (AIIC)
- AICIS - Australian Industrial Chemicals Introduction Scheme

Disclaimer:

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