Safety Data Sheet

LOCTITE 5770 HIGH TEMPERATURE THREAD SEALAN
known as LOCTITE® 5770™ THREAD SEALANT

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SECTION 1 IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product name: LOCTITE 5770 HIGH TEMPERATURE THREAD SEALAN known as LOCTITE® 5770™ THREAD SEALANT

Intended use: Anaerobic Sealant

Supplier:

Henkel New Zealand Ltd
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New Zealand
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Emergency Telephone for Chemical Accidents: 24 HOUR EMERGENCY CONTACT NUMBER 0800 243 622

SECTION 2 HAZARDS IDENTIFICATION

Classification of the substance or mixture
Not classified as hazardous under the New Zealand Hazardous Substances and New Organisms Act (HSNO).
Not Classified as Dangerous Goods according to NZS 5433: 2012 and the Land Transport Rule: Dangerous Goods 2005.

GHS Classification:

No classification required.

SECTION 3 COMPOSITION/INFORMATION ON INGREDIENTS

General chemical description: Mixture
Type of preparation: Anaerobic thread sealant

Identity of ingredients:

Chemical ingredients	CAS-No.	Proportion
Calcium fluoride	7789-75-5	20- < 30 %
Ethene, homopolymer	9002-88-4	20- < 30 %
Silica, amorphous, fumed, cryst.-free	112945-52-5	1- < 10 %
α, α-dimethylbenzyl hydroperoxide	80-15-9	0.1- < 1 %
N,N-Diethyl-p-toluidine	613-48-9	0.1- < 1 %
non hazardous ingredients~		30- <= 60 %

SECTION 4 FIRST AID MEASURES

Ingestion:	Do not induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention.
Skin:	Immediately flush skin with plenty of water (using soap, if available). Remove contaminated clothing and footwear. Get medical attention. Wash clothing before reuse.
Eyes:	Check for and remove any contact lenses. Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.
Inhalation:	Move to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get medical attention.
First Aid facilities:	Eye wash Normal washroom facilities
Medical attention and special treatment:	Treat symptomatically and supportively.

SECTION 5. FIRE FIGHTING MEASURES

Suitable extinguishing media:	Water spray (fog), foam, dry chemical or carbon dioxide.
Decomposition products in case of fire:	Oxides of carbon. Irritating organic vapours.
Special protective equipment for fire-fighters:	Wear self-contained breathing apparatus and full protective clothing, such as turn-out gear. In case of fire, keep containers cool with water spray.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Environmental precautions:	Do not allow product to enter sewer or waterways.
Clean-up methods:	Remove all sources of ignition. Evacuate and ventilate spill area; dike spill to prevent entry into water system; wear full protective equipment during clean-up. Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Scrape up as much material as possible. Store in a partly filled, closed container until disposal. Refer to Section 8 "Exposure Controls / Personal Protection" prior to clean up.

SECTION 7. HANDLING AND STORAGE

Precautions for safe handling:

Keep container closed.
Use only with adequate ventilation.
Prevent contact with eyes, skin and clothing. Do not breathe vapor and mist. Wash thoroughly after handling.
Refer to 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.

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)
FLUORIDES, AS F 7789-75-5			2.5	-	-	-
FLUORIDES, AS F			2.5	-	-	-
PARTICULATES NOT OTHERWISE CLASSIFIED, RESPIRABLE DUST 9002-88-4	Respirable dust.		3	-	-	-
PARTICULATES NOT OTHERWISE CLASSIFIED, INHALABLE DUST	Inhalable dust.		10	-	-	-
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	-	-	-

Biological Exposure Indices:

Ingredient [Regulated substance]	Parameters	Biological specimen	Sampling time	Conc.	Basis of biol. exposure index	Remark	Additional Information
Calcium fluoride 7789-75-5 [Fluorides]	Fluoride	Urine	Sampling time: End of shift.	3 mg/l	NZ BEI	The BEI is not applicable to non-metal fluorides and organic fluoride-containing compounds. As dietary and environmental factors can vary the fluoride body concentrations, repeated measurements are necessary. Biological levels of fluorides are indicators	
Calcium fluoride 7789-75-5 [Fluorides]	Fluoride	Urine	Sampling time: Prior to shift.	2 mg/l	NZ BEI	The BEI is not applicable to non-metal fluorides and organic fluoride-containing compounds. As dietary and environment	

						al factors can vary the fluoride body concentrations, repeated measurements are necessary. Biological levels of fluorides are indicators	

Ingredient [Regulated substance]	Parameters	Biological specimen	Sampling time	Conc.	Basis of biol. exposure index	Remark	Additional Information
Calcium fluoride 7789-75-5 [Inorganic fluorine compounds (fluorides)]	Fluoride	Urine	Sampling time: End of shift.	4.0 mg/l	DE BGW		

Engineering controls: Provide adequate local exhaust ventilation to maintain worker exposure below exposure limits.

Eye protection: Safety goggles or safety glasses with side shields.
Full face protection should be used if the potential for splashing or spraying of product exists.
Safety showers and eye wash stations should be available.

Skin protection: Use chemical resistant, impermeable clothing including gloves and either an apron or body suit to prevent skin contact.

Butyl rubber gloves.

Natural rubber gloves.

Neoprene 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: Off white
paste
Odor: mild
Specific gravity: 1.2717
Flash point: Does not flash.
Vapor pressure: < 5 mm hg
(; 27 °C (80.6 °F))
Density: 1.27 g/cm3
Solubility in water: Slight

SECTION 10. STABILITY AND REACTIVITY

Stability: Stable under normal conditions of temperature and pressure.

Conditions to avoid:	Store away from incompatible materials.
Incompatible materials:	Oxidizers.
Hazardous decomposition products:	Oxides of carbon. Irritating organic vapours.
Hazardous polymerization:	Will not occur.

SECTION 11 TOXICOLOGICAL INFORMATION

Health Effects:

Ingestion: May cause gastrointestinal tract irritation if swallowed.
Skin: May cause mild skin irritation.
Eyes: May cause mild irritation
Inhalation: Inhalation of vapors or mists of the product may be irritating to the respiratory system.
Target organ(s): Respiratory

Aggravated med. condition: Eye, skin, and respiratory disorders.

Acute toxicity:

Hazardous components CAS-No.	Value type	Value	Route of application	Exposure time	Species	Method
Calcium fluoride 7789-75-5	LD50 LC50 LD50	> 2,000 mg/kg > 5.07 mg/l > 2,000 mg/kg	oral inhalation dermal	4 h	rat rat rat	OECD Guideline 423 (Acute Oral toxicity) OECD Guideline 403 (Acute Inhalation Toxicity) EPA OPP 81-2 (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	4 h		Expert judgement Expert judgement Expert judgement
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
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

Skin corrosion/irritation:

Hazardous components CAS-No.	Result	Exposure time	Species	Method
Calcium fluoride 7789-75-5	not irritating		rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
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
N,N-Diethyl-p-toluidine 613-48-9	irritating	4 h	rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)

Serious eye damage/irritation:

Hazardous components CAS-No.	Result	Exposure time	Species	Method
Calcium fluoride 7789-75-5	not irritating		rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)
Ethene, homopolymer 9002-88-4	not irritating	24 h	rabbit	FDA Guideline
Silica, amorphous, fumed, cryst.-free 112945-52-5	not irritating		rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)

Respiratory or skin sensitization:

Hazardous components CAS-No.	Result	Test type	Species	Method
Calcium fluoride 7789-75-5	not sensitising	Mouse local lymphnode assay (LLNA)	mouse	OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay)
Ethene, homopolymer 9002-88-4	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
Calcium fluoride 7789-75-5	negative negative negative	in vitro mammalian chromosome aberration test bacterial reverse mutation assay (e.g Ames test)	with and without with and without with and without		OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test) OECD Guideline 471 (Bacterial Reverse Mutation Assay) OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)
Ethene, homopolymer 9002-88-4	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		Ames Test
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

Repeated dose toxicity:

Hazardous components CAS-No.	Result	Route of application	Exposure time / Frequency of treatment	Species	Method
Calcium fluoride 7789-75-5		inhalation: aerosol	28 d6 hours/day, 5 days/week	rat	OECD Guideline 412 (Repeated Dose Inhalation Toxicity: 28/14-Day)
α, α-dimethylbenzyl hydroperoxide 80-15-9		inhalation: aerosol	6 h/d5 d/w	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
Calcium fluoride 7789-75-5	LC50	104.7 mg/l	Fish	96 h	Oncorhynchus mykiss	other guideline:
Calcium fluoride 7789-75-5	NOEC	7.43 mg/l	Fish	21 d	Oncorhynchus mykiss	other guideline:
Calcium fluoride 7789-75-5	EC50	199 mg/l	Daphnia	48 h	Daphnia magna	other guideline:
Calcium fluoride 7789-75-5	EC10	280 mg/l	Algae	72 h	Scenedesmus subspicatus (new name: Desmodesmus subspicatus)	DIN 38412-09
Calcium fluoride 7789-75-5	EC50	850 mg/l	Algae	72 h	Scenedesmus subspicatus (new name: Desmodesmus subspicatus)	DIN 38412-09
Calcium fluoride 7789-75-5	EC0	231 mg/l	Bacteria	16 h		not specified
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)
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
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)
N,N-Diethyl-p-toluidine 613-48-9	EC50	23.69 mg/l	Algae	72 h	Raphidocelis subcapitata (new name: Pseudokirchneriella subcapitata)	OECD Guideline 201 (Alga, Growth Inhibition Test)

Persistence and degradability:

Hazardous components CAS-No.	Result	Route of application	Degradability	Method

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,N-Diethyl-p-toluidine 613-48-9	not readily biodegradable.	not specified	1 %	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
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,N-Diethyl-p-toluidine 613-48-9	3.7					QSAR (Quantitative Structure Activity Relationship)

SECTION 13. DISPOSAL CONSIDERATIONS

Waste disposal of product: Do not empty into drains / surface water / ground water.
Dispose of as hazardous waste in compliance 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

Marine transport IMDG:
Not dangerous goods

Air transport IATA:
Not dangerous goods

SECTION 15. REGULATORY INFORMATION

New Zealand regulatory information:
Not classified as hazardous under the New Zealand Hazardous Substances and New Organisms Act (HSNO).

HSNO Approval Number: Group standard not applicable

NZIoC: All components are listed or are exempt from listing on the New Zealand Inventory of Chemicals (NZIoC)

SECTION 16. OTHER INFORMATION

Abbreviations/acronyms:

STEL - Short term exposure limit
TWA - Time weighted average
HSNO - Hazardous Substances and New Organisms
IMDG: International Maritime Dangerous Goods code
IATA-DGR: International Air Transport Association – Dangerous Goods Regulations

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Disclaimer:

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