SHUK ENGINEERING DISTRIBUTORS LTD



LOCTITE SF 7471

Henkel

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SECTION 1 IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product name:

LOCTITE SF 7471 Activator

Intended use:

Supplier:

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

SECTION 2 HAZARDS IDENTIFICATION

Classification of the substance or mixture

Classified as hazardous under the New Zealand Hazardous Substances and New Organisms Act (HSNO). Classified as Dangerous Goods under the Land Transport Rule: Dangerous Goods 2005.

GHS Classification:

Hazard Class	Hazard Category
Flammable liquids	Category 2
Serious eye irritation	Category 2A
Skin sensitizer	Category 1
Target Organ Systemic Toxicant -	Category 3
Single exposure	
Acute hazards to the aquatic environment	Category 3
Chronic hazards to the aquatic environment	Category 3

<u>Target organ</u>

Central nervous system

Hazard pictogram:



Signal word:

Hazard statement(s):	H225 Highly flammable liquid and vapour. H317 May cause an allergic skin reaction. H319 Causes serious eye irritation.
	H336 May cause drowsiness or dizziness.
	H412 Harmful to aquatic life with long lasting effects.
	Repeated exposure may cause skin dryness or cracking.
Precautionary Statement(s):	
Prevention:	P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources.
	No smoking.
	P233 Keep container tightly closed.
	P240 Ground and bond container and receiving equipment.
	P241 Use explosion-proof electrical/ventilating/lighting equipment.
	P242 Use non-sparking tools.
	P243 Take action to prevent static discharges.
	P261 Avoid breathing mist/vapours.
	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/protective clothing/eye protection/face protection.
Desarran	
Response:	P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing.
	Rinse skin with water [or shower].
	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.
	P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
	P337+P313 If eye irritation persists: Get medical advice/attention.
	P362+P364 Take off contaminated clothing and wash it before reuse.
	P302+P304 Take on containinated clothing and wash it before redse. P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to
	extinguish.
Storage	5
Storage:	P403+P233 Store in a well-ventilated place. Keep container tightly closed.
	P403+P235 Store in a well-ventilated place. Keep cool.
	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 solvent

Type of preparation:

solvent Primer, containing solvents

Identity of ingredients:

Chemical ingredients	CAS-No.	Proportion
acetone	67-64-1	70-< 90 %
Propan-2-ol	67-63-0	10- < 20 %
2,2'-[(4-methylphenyl)imino]bisethanol	3077-12-1	1-< 3 %
benzothiazole-2-thiol	149-30-4	0.1-< 1 %

S	ECTION 4 FIRST AID MEASURES
Ingestion:	Rinse mouth, do not induce vomiting, consult a doctor.
Skin:	Rinse with running water and soap. Remove contaminated clothing and footwear. Seek medical advice.
Eyes:	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get immediate medical attention.
Inhalation:	Move to fresh air. If symptoms persist, seek medical advice.
First Aid facilities:	Eye wash
SEC	TION 5. FIRE FIGHTING MEASURES
Suitable extinguishing media:	Alcohol-resistant foam.
Improper extinguishing media:	Water jet (solvent-containing product).
Combustion behaviour:	Solvent containing flammable product. In case of fire toxic gases are released.
Decomposition products in case of fire:	Oxides of carbon, oxides of nitrogen, irritating organic vapors.
Particular danger in case of fire:	Vapors are heavier than air and may travel along the ground or be moved by ventilation and subsequently ignited by heat, pilot lights or other ignition sources at locations distant from the material handling point.
Special protective equipment for fire-fighters:	Wear self-contained breathing apparatus and full protective clothing, such as turn-out ge
Additional fire fighting advice:	In case of fire, keep containers cool with water spray.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions:	Avoid skin and eye contact. Ensure adequate ventilation. See advice in section 8
Environmental precautions:	Do not let product enter drains.
Clean-up methods:	Eliminate all ignition sources (flames, hot surfaces, and sources of electrical, static or frictional sparks). Dike and contain spill with inert material (e.g. sand, earth). Transfer liquids to covered metal containers for recovery or disposal, or remove with inert absorbent. Use only non-sparking tools. Place absorbent diking materials in covered metal containers for disposal. Prevent contamination of sewers, streams and groundwater with spilled material or used absorbent.

SECTION 7. HANDLING AND STORAGE

Precautions for safe handling:	Use only in well-ventilated areas. Vapours should be extracted to avoid inhalation.
	Keep away from sources of ignition - no smoking. Avoid contact with eyes, skin and clothing.

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)
ACETONE 67-64-1		500	1,185	-	-	-
ACETONE		-	-	-	1,000	2,375
ISOPROPYL ALCOHOL 67-63-0		400	983	-	-	-
ISOPROPYL ALCOHOL		-	-	-	500	1,230

Biological Exposure Indices:

Ingredient [Regulated substance]	Parameters	Biological specimen	Sampling time		Basis of biol. exposure index	 Additional Information
Acetone	acetone	Urine	Sampling time: End of	50 mg/l	NZ BEI	
67-64-1			shift.	-		
[ACETONE]						

Ingredient [Regulated substance]	Parameters	Biological specimen	Sampling time		Basis of biol. exposure index	 Additional Information
Acetone 67-64-1	acetone	Urine	Sampling time: End of shift.	80 mg/l	DE BGW	
Propan-2-ol 67-63-0	acetone	Blood	Sampling time: End of shift.	25 mg/l	DE BGW	
Propan-2-ol 67-63-0 [2-PROPANOL]	acetone	Urine	Sampling time: End of shift.	25 mg/l	DE BGW	

Engineering controls:	Use local ventilation if general ventilation is insufficient to maintain vapor concentration below established exposure limits.
Eye protection:	Wear protective glasses.
Skin protection:	Wear suitable protective clothing. 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. Solvent resistant gloves such as Viton, poly (vinyl alcohol), or equivalent 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:

Odor: pH:(Concentration: 100 % product) Melting point / freezing point: Specific gravity: Boiling point:

Amber to yellowish liquid Acetone 5 - 6 Not applicable, Product is a liquid 0.7953 56 °C (132.8 °F)

Flash point:	-8 °C (17.6 °F)
-	Estimated
Lower explosive limit:	2.6 %(V)
Upper explosive limit:	12.8 %(V)
Vapor pressure:	172 mm hg
(; 20 °C (68 °F))	
Vapor density:	2
Density:	0.795 g/cm3
Solubility in water:	Miscible
Auto ignition:	Not applicable
Decomposition temperature:	
VOC content (2010/75/EC)	97.6 % (VOCV 814.018 VOC regulation CH)

SECTION 10. STABILITY AND REACTIVITY

Stability:	Stable under normal conditions of temperature and pressure.
Conditions to avoid:	Avoid excessive heat and ignition sources. Avoid static discharge.
Incompatible materials:	Reaction with strong acids. Reacts with strong oxidants.
Hazardous decomposition products:	Upon decomposition, this product emits carbon monoxide, carbon dioxide and/or low molecular weight hydrocarbons.
Hazardous polymerization:	Will not occur.

SECTION 11 TOXICOLOGICAL INFORMATION

Ingestion:	Ingestion may affect the digestive tract, respiratory and cardiovascular systems, and the liver and
	kidneys.
Skin:	Solvent action can dry and defat the skin, causing the skin to crack, leading to dermatitis.
	May cause skin sensitization.
Eyes:	Vapors may irritate eyes. Contact with eyes will cause irritation.
Inhalation:	May cause respiratory tract irritation.
	Excessive inhalation of this material causes headache, dizziness, nausea and incoordination.

Acute toxicity:

Hazardous components	Value	Value	Route of	Exposure	Species	Method
CAS-No.	type		application	time		
acetone	LD50	5,800 mg/kg	oral		rat	not specified
67-64-1	LC50	76 mg/l	inhalation	4 h	rat	not specified
	LD50	> 15,688 mg/kg	dermal		rabbit	Draize Test
Propan-2-ol	LD50	5,840 mg/kg	oral		rat	equivalent or similar to OECD
67-63-0	LD50	12,870 mg/kg			rabbit	Guideline 401 (Acute Oral
			dermal			Toxicity)
						OECD Guideline 402 (Acute
						Dermal Toxicity)
2,2'-[(4-	LD50	959 mg/kg	oral		rat	equivalent or similar to OECD
methylphenyl)imino]biset	LD50	> 2,000 mg/kg			rat	Guideline 401 (Acute Oral
hanol			dermal			Toxicity)
3077-12-1						OECD Guideline 402 (Acute
						Dermal Toxicity)
benzothiazole-2-thiol	LD50	2,830 mg/kg	oral		rat	not specified
149-30-4	LC50	> 1,270 mg/l	inhalation	4 h	rat	not specified
	LD50	> 7,940 mg/kg	dermal		rabbit	not specified

Skin corrosion/irritation:

Hazardous components CAS-No.	Result	Exposure time	Species	Method
acetone 67-64-1	not irritating		guinea pig	not specified
Propan-2-ol 67-63-0	slightly irritating	4 h	rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
2,2'-[(4- methylphenyl)imino]biset hanol 3077-12-1	not irritating	24 h	rabbit	not specified

Serious eye damage/irritation:

Hazardous components CAS-No.	Result	Exposure time	Species	Method
acetone 67-64-1	irritating		rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)
Propan-2-ol 67-63-0	Category II		rabbit	equivalent or similar to OECD Guideline 405 (Acute Eye Irritation / Corrosion)
2,2'-[(4- methylphenyl)imino]biset hanol 3077-12-1	Category 1 (irreversible effects on the eye)		rabbit	equivalent or similar to OECD Guideline 405 (Acute Eye Irritation / Corrosion)

Respiratory or skin sensitization:

Hazardous components CAS-No.	Result	Test type	Species	Method
acetone 67-64-1	not sensitising	Guinea pig maximisat ion test	guinea pig	not specified
Propan-2-ol 67-63-0	not sensitising	Buehler test	guinea pig	OECD Guideline 406 (Skin Sensitisation)
2,2'-[(4- methylphenyl)imino]biset hanol 3077-12-1	sensitising	Mouse local lymphnod e assay (LLNA)	mouse	OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay)
benzothiazole-2-thiol 149-30-4	sensitising	Buehler test	guinea pig	OECD Guideline 406 (Skin Sensitisation)
benzothiazole-2-thiol 149-30-4	sensitising	Guinea pig maximisat ion test	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
acetone 67-64-1	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 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)
acetone 67-64-1	negative	oral: drinking water		mouse	not specified
Propan-2-ol 67-63-0	negative negative	bacterial reverse mutation assay (e.g Ames test) mammalian cell gene mutation assay	with and without with and without		equivalent or similar to OECD Guideline 471 (Bacterial Reverse Mutation Assay) equivalent or similar to OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)
Propan-2-ol 67-63-0	negative	intraperitoneal		mouse	equivalent or similar to OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test)
benzothiazole-2-thiol 149-30-4	negative	intraperitoneal		mouse	Micronucleus assay

Repeated dose toxicity:

Hazardous components CAS-No.	Result	Route of application	Exposure time / Frequency of treatment	Species	Method
acetone 67-64-1	NOAEL=900 mg/kg	oral: drinking water	13 wdaily	rat	OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)
Propan-2-ol 67-63-0		inhalation: vapour	at least 104 w6 h/d, 5 d/w	rat	OECD Guideline 451 (Carcinogenicity Studies)
benzothiazole-2-thiol 149-30-4	NOAEL=375 mg/kg	oral: gavage	13 weeks5 days/week	rat	not specified
benzothiazole-2-thiol 149-30-4	LOAEL=750 mg/kg	oral: gavage	13 weeks5 days/week	rat	not specified

SECTION 12. ECOLOGICAL INFORMATION

General ecological information:

Do not empty into drains / surface water / ground water.

Ecotoxicity:

H412 Harmful to aquatic life with long lasting effects.

Toxicity:

Hazardous components CAS-No.	Value type	Value	Acute Toxicity Study	Exposure time	Species	Method
acetone 67-64-1	LC50	8,120 mg/l	Fish	96 h	Pimephales promelas	OECD Guideline 203 (Fish, Acute
acetone 67-64-1	EC50	8,800 mg/l	Daphnia	48 h	Daphnia pulex	Toxicity Test) OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
acetone 67-64-1	NOEC	530 mg/l	Algae	8 d	Microcystis aeruginosa	DIN 38412-09
acetone 67-64-1	EC10	1,000 mg/l	Bacteria	30 min	Pseudomonas putida	DIN 38412, part 2 (Bacterial oxygen consumption test
Propan-2-ol 67-63-0	LC50	> 9,640 - 10,000 mg/l	Fish	96 h	Pimephales promelas	OECD Guideline 203 (Fish, Acute Toxicity Test)
Propan-2-ol 67-63-0	EC50	> 1,000 mg/l	Algae	96 h	Scenedesmus subspicatus (new name: Desmodesmus subspicatus)	OECD Guideling 201 (Alga, Growt Inhibition Test)
Propan-2-ol 67-63-0	NOEC	1,000 mg/l	Algae	96 h	Scenedesmus subspicatus (new name: Desmodesmus	OECD Guideling 201 (Alga, Growt Inhibition Test)
Propan-2-ol 67-63-0	EC50	> 1,000 mg/l	Bacteria	3 h	subspicatus) activated sludge	OECD Guideline 209 (Activated Sludge, Respiratio
2,2'-[(4- methylphenyl)imino]bisethano l	LC50	> 100 mg/l	Fish	96 h	Cyprinus carpio	Inhibition Test) OECD Guideline 203 (Fish, Acute Toxicity Test)
3077-12-1 2,2'-[(4- methylphenyl)imino]bisethano 1 3077-12-1	EC50	48 mg/l	Daphnia	48 h	Daphnia magna	OECD Guidelind 202 (Daphnia sp Acute Immobilisation
2,2'-[(4- methylphenyl)imino]bisethano l	EC50	> 100 mg/l	Algae	72 h	Pseudokirchneriella subcapitata	Test) OECD Guideline 201 (Alga, Grown Inhibition Test)
3077-12-1 2,2'-[(4- methylphenyl)imino]bisethano l	NOEC	100 mg/l	Algae	72 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Grown Inhibition Test)
3077-12-1 2,2'-[(4- methylphenyl)imino]bisethano l	EC50	> 1,000 mg/l	Bacteria	3 h	activated sludge of a predominantly domestic sewage	OECD Guidelin 209 (Activated Sludge, Respiratio
3077-12-1 benzothiazole-2-thiol 149-30-4	LC50	0.73 mg/l	Fish	96 h	Oncorhynchus mykiss	Inhibition Test) OECD Guideline 203 (Fish, Acute
benzothiazole-2-thiol 149-30-4	NOEC	0.041 mg/l	Fish	89 d	Oncorhynchus mykiss	Toxicity Test) other guideline:
benzothiazole-2-thiol 149-30-4	EC50	0.71 mg/l	Daphnia	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp Acute Immobilisation Test)
benzothiazole-2-thiol 149-30-4	EC50	0.5 mg/l	Algae	72 h	Pseudokirchneriella subcapitata (reported as Raphidocelis subcapitata)	OECD Guideline 201 (Alga, Grown Inhibition Test)
benzothiazole-2-thiol 149-30-4	NOEC	0.066 mg/l	Algae	72 h	Pseudokirchneriella subcapitata (reported as Raphidocelis subcapitata)	OECD Guideline 201 (Alga, Grown Inhibition Test)
benzothiazole-2-thiol 149-30-4	EC50	3,301 mg/l	Bacteria	3 h	activated sludge	OECD Guideling 209 (Activated Sludge, Respiratio

Hazardous components CAS-No.	Result	Route of application	Degradability	Method
acetone 67-64-1	readily biodegradable	aerobic	81 - 92 %	EU Method C.4-E (Determination of the "Ready" BiodegradabilityClosed Bottle Test)
Propan-2-ol 67-63-0	readily biodegradable	aerobic	70 - 84 %	EU Method C.4-E (Determination of the "Ready" BiodegradabilityClosed Bottle Test)
2,2'-[(4- methylphenyl)imino]bisethano l 3077-12-1	not readily biodegradable.	aerobic	1.5 %	OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test)
benzothiazole-2-thiol 149-30-4		aerobic	2.5 %	OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I))

Bioaccumulative potential / Mobility in soil:

Hazardous components	LogPow	Bioconcentration	Exposure	Species	Temperature	Method
CAS-No.		factor (BCF)	time			
acetone	-0.24					OECD Guideline 107
67-64-1						(Partition Coefficient (n-
						octanol / water), Shake
						Flask Method)
Propan-2-ol	0.05					OECD Guideline 107
67-63-0						(Partition Coefficient (n-
						octanol / water), Shake
						Flask Method)
2,2'-[(4-	2				35 °C	OECD Guideline 117
methylphenyl)imino]bisethano						(Partition Coefficient (n-
1						octanol / water), HPLC
3077-12-1						Method)
benzothiazole-2-thiol		< 8	6 Weeks	Cyprinus carpio		other guideline:
149-30-4				•• •		-
benzothiazole-2-thiol	2.34 -					not specified
149-30-4	2.5					

SECTION 13. DISPOSAL CONSIDERATIONS

Waste disposal of product:

Dispose of in accordance with local and national regulations. Can be incinerated, when in compliance with local regulations Collection and delivery to recycling enterprise or other registered elimination institution.

Disposal for uncleaned package:

Disposal must be made according to official regulations.

SECTION 14. TRANSPORT INFORMATION

Dangerous Goods information:

Land Transport:

Classified as Dangerous Goods under the Land Transport Rule: Dangerous Goods 2005.

Land Transport:

UN no.: Proper shipping name: Class or division: Packing group: Hazchem code: Marine transport IMDG:	1993 FLAMMABLE LIQUID, N.O.S. (Acetone,Isopropanol) 3 II .3YE
UN no.: Proper shipping name: Class or division: Packing group: EmS: Seawater pollutant:	1993 FLAMMABLE LIQUID, N.O.S. (Acetone,Isopropanol) 3 II F-E ,S-E
Air transport IATA:	
UN no.: Proper shipping name: Class or division: Packing group: Packing instructions (passenger) Packing instructions (cargo)	1993 Flammable liquid, n.o.s. (Acetone,Isopropanol) 3 II 353 364

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 HSR002662
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 GHS: Globally Harmonized System CAS: Chemical Abstracts Service 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:	24.08.2018
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