



Safety Data Sheet

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LOCTITE SI 5699

SDS No. : 152852

V001.2

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SECTION 1 IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product name: LOCTITE SI 5699

Intended use: Silicone sealant

Supplier:
Henkel New Zealand Ltd
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East Tamaki
Auckland, 2013
New Zealand
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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).

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

GHS Classification:

<u>Hazard Class</u>	<u>Hazard Category</u>
Serious eye damage/eye irritation	Category 1
Skin sensitizer	Category 1
Carcinogenicity	Category 1B
Target Organ Systemic Toxicant - Single exposure	Category 2

Hazard pictogram:



Hazard statement(s):	H317 May cause an allergic skin reaction. H318 Causes serious eye damage. H350 May cause cancer. H371 May cause damage to organs.
Precautionary Statement(s):	
Prevention:	P201 Obtain special instructions before use. P202 Do not handle until all safety precautions have been read and understood. P260 Do not breathe dust or fumes. P264 Wash hands thoroughly after handling. P270 Do not eat, drink or smoke when using this product. P272 Contaminated work clothing should not be allowed out of the workplace. P280 Wear protective gloves/protective clothing/eye protection/face protection.
Response:	P302+P352 IF ON SKIN: Wash with plenty of water. P305+P351+P338+P315 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to remove. Continue rinsing. Get immediate medical advice/attention. P308+P311 IF exposed or concerned: Call a POISON CENTER/doctor. P333+P313 If skin irritation or rash occurs: Get medical advice/attention. P362+P364 Take off contaminated clothing and wash it before reuse.
Storage:	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: Silicone sealant

Identity of ingredients:

Chemical ingredients	CAS-No.	Proportion
Calcium carbonate	471-34-1	20- < 30 %
Butan-2-one O,O',O''-(vinylsilyldiyl)trioxime	2224-33-1	3- < 10 %
Silanamine, 1,1,1-trimethyl-N-(trimethylsilyl)-, hydrolysis products with silica	68909-20-6	1- < 10 %
2-butanone oxime	96-29-7	1- < 3 %
non hazardous ingredients~		30- <= 60 %

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:	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Seek medical advice.
Inhalation:	Move to fresh air. If symptoms persist, seek medical advice.
First Aid facilities:	Eye wash and safety shower Normal washroom facilities
Medical attention and special treatment:	Treat symptomatically.

SECTION 5. FIRE FIGHTING MEASURES

- Suitable extinguishing media:** Dry chemical.
Carbon dioxide.
foam
- Decomposition products in case of fire:** Thermal decomposition can lead to release of irritating gases and vapors.
Carbon monoxide.
Carbon dioxide.
Oxides of silicon.
Formaldehyde.
- Special protective equipment for fire-fighters:** Fire fighters should wear positive pressure self-contained breathing apparatus (SCBA).
Wear full protective clothing.

SECTION 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions:** Avoid contact with skin and eyes.
Wear protective equipment.
- Environmental precautions:** Do not let product enter drains.
- Clean-up methods:** Scrape up as much material as possible.
Ensure adequate ventilation.
Store in a partly filled, closed container until disposal.

SECTION 7. HANDLING AND STORAGE

- Precautions for safe handling:** Use only in well-ventilated areas.
Vapours should be extracted to avoid inhalation.
Wear protective equipment.
- Conditions for safe storage:** Store only in the original container.
Store in a cool, well-ventilated place.

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)
Calcium carbonate; Marble 471-34-1			10	-	-	-

Biological Exposure Indices:

None

Engineering controls:	Provide adequate local exhaust ventilation to maintain worker exposure below 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. 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:	grey paste
Odor:	odourless
pH:	Not applicable, Product is non-soluble (in water).
Melting point / freezing point:	Not applicable, Determination technically not possible
Specific gravity:	1.5
Boiling point:	> 200 °C (> 392 °F)
Flash point:	> 93 °C (> 199.4 °F)
Vapor pressure:	< 5 mm hg
(; 50 °C (122 °F)no method / method unknown; 50 °C (122 °F))	< 5 mm hg < 666.6 Pa < 700 mbar
Vapor density:	Heavier than air.
Density:	1.44 - 1.49 g/cm3
Solubility in water:	Polymerises in presence of water.

SECTION 10. STABILITY AND REACTIVITY

Stability:	Stable under normal conditions of temperature and pressure.
Conditions to avoid:	Exposure to air or moisture over prolonged periods. Avoid temperatures above 150°C (302°F).
Incompatible materials:	Acids and bases. Oxidizing agents. Polymerizes on contact with water.
Hazardous decomposition products:	Thermal decomposition can lead to release of irritating gases and vapors. Carbon monoxide. Carbon dioxide. Oxides of silicon. Formaldehyde Methyl ethyl ketoxime formed during cure. Methanol is liberated slowly upon exposure to moisture.

SECTION 11 TOXICOLOGICAL INFORMATION**Health Effects:****Ingestion:**

Ingestion can cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Skin:

May cause mild skin irritation.

Symptoms may include redness, edema, drying, defatting and cracking of the skin.

May cause skin sensitization.

Eyes:

Causes serious eye irritation.

Symptoms may include stinging, tearing, redness, swelling, and blurred vision.

Inhalation:

Inhalation of vapors or mists of the product may be irritating to the respiratory system.

Acute toxicity:

Hazardous components CAS-No.	Value type	Value	Route of application	Exposure time	Species	Method
Calcium carbonate 471-34-1	LD50 LC50 LD50	> 2,000 mg/kg > 3 mg/l > 2,000 mg/kg	oral inhalation dermal	4 h	rat rat rat	OECD Guideline 420 (Acute Oral Toxicity) OECD Guideline 403 (Acute Inhalation Toxicity) OECD Guideline 402 (Acute Dermal Toxicity)
Butan-2-one O,O',O''-(vinylsilyldiyl)trioxime 2224-33-1	LD50 Acute toxicity estimate (ATE) LD50	> 2,000 mg/kg 2,500 mg/kg > 2,009 mg/kg	oral oral dermal		rat rat	OECD Guideline 425 (Acute Oral Toxicity: Up-and-Down Procedure) Expert judgement OECD Guideline 402 (Acute Dermal Toxicity)
Silanamine, 1,1,1-trimethyl-N-(trimethylsilyl)-, hydrolysis products with silica 68909-20-6	LD50 Acute toxicity estimate (ATE) LD50 Acute toxicity estimate (ATE) LD50 Acute toxicity estimate (ATE)	> 5,000 mg/kg > 5,000 mg/kg > 5.01 mg/l > 5.01 mg/l > 5,000 mg/kg > 5,000 mg/kg	oral oral inhalation inhalation dermal dermal	4 h	rat rat rabbit	OECD Guideline 401 (Acute Oral Toxicity) Expert judgement OECD Guideline 436 (Acute Inhalation Toxicity: Acute Toxic Class (ATC) Method) Expert judgement not specified Expert judgement
2-butanone oxime 96-29-7	Acute toxicity estimate (ATE) LC50 Acute toxicity estimate (ATE)	100 mg/kg > 20 mg/l 1,100 mg/kg	oral inhalation dermal	4 h	not specified	Expert judgement not specified Expert judgement

Skin corrosion/irritation:

Hazardous components CAS-No.	Result	Exposure time	Species	Method
Calcium carbonate 471-34-1	not irritating	4 h	rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
Butan-2-one O,O',O''-(vinylsilyldiyl)trioxime 2224-33-1	not irritating	4 h	rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
Silanamine, 1,1,1-trimethyl-N-(trimethylsilyl)-, hydrolysis products with silica 68909-20-6	not irritating		rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)

Serious eye damage/irritation:

Hazardous components CAS-No.	Result	Exposure time	Species	Method
Calcium carbonate 471-34-1	not irritating		rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)
Butan-2-one O,O',O''- (vinylsilyldiyl)trioxime 2224-33-1	irritating or corrosive		rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)
Silanamine, 1,1,1- trimethyl-N- (trimethylsilyl)-, hydrolysis products with silica 68909-20-6	not irritating		rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)
2-butanone oxime 96-29-7	Category 1 (irreversible effects on the eye)		rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)

Respiratory or skin sensitization:

Hazardous components CAS-No.	Result	Test type	Species	Method
Calcium carbonate 471-34-1	not sensitising	Mouse local lymphnode assay (LLNA)	mouse	OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay)
Butan-2-one O,O',O''- (vinylsilyldiyl)trioxime 2224-33-1	sensitising	Guinea pig maximisation test	guinea pig	equivalent or similar to OECD Guideline 406 (Skin Sensitisation)
Silanamine, 1,1,1- trimethyl-N- (trimethylsilyl)-, hydrolysis products with silica 68909-20-6	not sensitising	Guinea pig maximisation test	guinea pig	OECD Guideline 406 (Skin Sensitisation)
2-butanone oxime 96-29-7	sensitising	Guinea pig maximisation 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
Calcium carbonate 471-34-1	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 with and 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)
Butan-2-one O,O',O''- (vinylsilyldiyl)trioxime 2224-33-1	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
Butan-2-one O,O',O''- (vinylsilyldiyl)trioxime 2224-33-1	negative	intraperitoneal		mouse	OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test)
Silanamine, 1,1,1- trimethyl-N- (trimethylsilyl)-, hydrolysis products with silica 68909-20-6	negative negative negative	bacterial reverse mutation assay (e.g Ames test) in vitro mammalian chromosome aberration test mammalian cell gene mutation assay			OECD Guideline 471 (Bacterial Reverse Mutation Assay) OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test) OECD Guideline 490 (In Vitro Mammalian Cell Gene Mutation Tests Using the Thymidine Kinase Gene)
Silanamine, 1,1,1- trimethyl-N- (trimethylsilyl)-, hydrolysis products with silica 68909-20-6	negative	oral: gavage		rat	OECD Guideline 475 (Mammalian Bone Marrow Chromosome Aberration Test)
2-butanone oxime 96-29-7	negative negative negative	bacterial reverse mutation assay (e.g Ames test) mammalian cell gene mutation assay DNA damage and repair assay, unscheduled DNA synthesis in mammalian cells in vitro	with and without with		EPA OPPTS 870.5265 (The Salmonella typhimurium Bacterial Reverse Mutation Test) OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test) OECD Guideline 482 (Genetic Toxicology: DNA Damage and Repair, Unscheduled DNA Synthesis in Mammalian Cells In Vitro)
2-butanone oxime 96-29-7	negative negative	oral: gavage oral: feed		rat Drosophila melanogaster	EPA OPPTS 870.5385 (In Vivo Mammalian Cytogenetic Tests: Bone Marrow Chromosomal Analysis) EPA OPPTS 870.5385 (In Vivo Mammalian Cytogenetic Tests: Bone Marrow Chromosomal Analysis)

Repeated dose toxicity:

Hazardous components CAS-No.	Result	Route of application	Exposure time / Frequency of treatment	Species	Method
Calcium carbonate 471-34-1	NOAEL=1,000 mg/kg	oral: gavage	48 ddaily	rat	OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)
Butan-2-one O,O',O''- (vinylsilylidyne)trioxime 2224-33-1	LOAEL=25 mg/kg	oral: gavage	13 w5 d/week	rat	equivalent or similar to OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)
Silanamine, 1,1,1- trimethyl-N- (trimethylsilyl)-, hydrolysis products with silica 68909-20-6	NOAEL=491.5 mg/kg	oral: feed	6 monthsdaily	rat	not specified
Silanamine, 1,1,1- trimethyl-N- (trimethylsilyl)-, hydrolysis products with silica 68909-20-6	NOAEL=0.01 mg/kg	inhalation: dust	12 months6 h/d, 5 d/wk	rat	not specified
Silanamine, 1,1,1- trimethyl-N- (trimethylsilyl)-, hydrolysis products with silica 68909-20-6	NOAEL=0.01 mg/kg	inhalation: dust	12 months6 h/d, 5 d/wk	monkey	not specified
2-butanone oxime 96-29-7	LOAEL=25 mg/kg	oral: gavage	13 w5 d/week	rat	equivalent or similar to OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)

SECTION 12. ECOLOGICAL INFORMATION**General ecological information:**

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

Ecotoxicity:**Chronic aquatic toxicity:**

This product has no known eco-toxicological effects.

Toxicity:

Hazardous components CAS-No.	Value type	Value	Acute Toxicity Study	Exposure time	Species	Method
Calcium carbonate 471-34-1	LC50	Toxicity > Water solubility	Fish	96 h	Oncorhynchus mykiss	OECD Guideline 203 (Fish, Acute Toxicity Test)
Calcium carbonate 471-34-1	EC50	Toxicity > Water solubility	Daphnia	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Calcium carbonate 471-34-1	EC50	Toxicity > Water solubility	Algae	72 h	Desmodesmus subspicatus	OECD Guideline 201 (Alga, Growth Inhibition Test)
Calcium carbonate 471-34-1	NOEC	14 mg/l	Algae	72 h	Desmodesmus subspicatus	OECD Guideline 201 (Alga, Growth Inhibition Test)
Calcium carbonate 471-34-1	EC50	Toxicity > Water solubility	Bacteria	3 h	activated sludge of a predominantly domestic sewage	OECD Guideline 209 (Activated Sludge, Respiration Inhibition Test)
Butan-2-one O,O',O''- (vinylsilylidyne)trioxime 2224-33-1	LC50	> 560 mg/l	Fish	96 h	Brachydanio rerio (new name: Danio rerio)	OECD Guideline 203 (Fish, Acute Toxicity Test)
Butan-2-one O,O',O''- (vinylsilylidyne)trioxime 2224-33-1	NOEC	50 mg/l	Fish	14 d	Oryzias latipes	OECD Guideline 204 (Fish, Prolonged Toxicity Test: 14-day Study)
Butan-2-one O,O',O''- (vinylsilylidyne)trioxime 2224-33-1	EC50	201 mg/l	Daphnia	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Butan-2-one O,O',O''- (vinylsilylidyne)trioxime 2224-33-1	EC50	94 mg/l	Algae	72 h	Selenastrum capricornutum (new name: Pseudokirchneriella subcapitata)	OECD Guideline 201 (Alga, Growth Inhibition Test)
Butan-2-one O,O',O''- (vinylsilylidyne)trioxime 2224-33-1	NOEC	30 mg/l	Algae	72 h	Selenastrum capricornutum (new name: Pseudokirchneriella subcapitata)	OECD Guideline 201 (Alga, Growth Inhibition Test)
Silanamine, 1,1,1-trimethyl-N- (trimethylsilyl)-, hydrolysis products with silica 68909-20-6	LC50	> 10,000 mg/l	Fish	96 h	Brachydanio rerio (new name: Danio rerio)	OECD Guideline 203 (Fish, Acute Toxicity Test)
Silanamine, 1,1,1-trimethyl-N- (trimethylsilyl)-, hydrolysis products with silica 68909-20-6	EC50	> 1,000 mg/l	Daphnia	24 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Silanamine, 1,1,1-trimethyl-N- (trimethylsilyl)-, hydrolysis products with silica 68909-20-6	EC50	> 173.1 mg/l	Algae	72 h	Desmodesmus subspicatus	OECD Guideline 201 (Alga, Growth Inhibition Test)
Silanamine, 1,1,1-trimethyl-N- (trimethylsilyl)-, hydrolysis products with silica 68909-20-6	NOEC	173.1 mg/l	Algae	72 h	Desmodesmus subspicatus	OECD Guideline 201 (Alga, Growth Inhibition Test)
Silanamine, 1,1,1-trimethyl-N- (trimethylsilyl)-, hydrolysis products with silica 68909-20-6	EC50	> 2,500 mg/l	Bacteria	3 h	activated sludge of a predominantly domestic sewage	OECD Guideline 209 (Activated Sludge, Respiration Inhibition Test)
2-butanone oxime 96-29-7	LC50	320 - 1,000 mg/l	Fish	96 h	Leuciscus idus	DIN 38412-15
2-butanone oxime 96-29-7	NOEC	50 mg/l	Fish	14 d	Oryzias latipes	OECD Guideline 204 (Fish, Prolonged Toxicity Test: 14-day Study)
2-butanone oxime 96-29-7	EC50	> 500 mg/l	Daphnia	48 h	Daphnia magna	EU Method C.2 (Acute Toxicity for Daphnia)
2-butanone oxime 96-29-7	EC50	11.8 mg/l	Algae	72 h	Scenedesmus capricornutum	OECD Guideline 201 (Alga, Growth Inhibition Test)

2-butanone oxime 96-29-7	NOEC	2.56 mg/l	Algae	72 h	Scenedesmus capricornutum	OECD Guideline 201 (Alga, Growth Inhibition Test)
2-butanone oxime 96-29-7	EC10	177 mg/l	Bacteria	17 h		DIN 38412, part 8 (Pseudomonas Zellvermehrungshe mm-Test)

Persistence and degradability:

Hazardous components CAS-No.	Result	Route of application	Degradability	Method
Butan-2-one O,O',O''-(vinylsilylidyne)trioxime 2224-33-1	not readily biodegradable.	aerobic	26 %	OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I))
2-butanone oxime 96-29-7	inherently biodegradable	aerobic	70 %	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
Calcium carbonate 471-34-1	-2.12					not specified
2-butanone oxime 96-29-7		0.5 - 0.6	42 d	Oryzias latipes	25 °C	OECD Guideline 305 C (Bioaccumulation: Test for the Degree of Bioconcentration in Fish)
2-butanone oxime 96-29-7	0.65				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.
Contribution of this product to waste is very insignificant in comparison to article in which it is used

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

HSNO Approval Number: HSR002670

NZIoC: Compliant for NZIoC

SECTION 16. OTHER INFORMATION

Abbreviations/acronyms: 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: 17.07.2019

Disclaimer:

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