

MSDS ATTACHMENT

PLEASE ATTACH THIS COMPLETED SHEET TO THE MSDS FOR :

PRODUCT :

LOCTITE SI 5699

DATE :

(MSDS date)

17.06.2019

1. Manufacturer/Supplier :

PPS industries Limited
86 Hugo Johnston Drive, Auckland
New Zealand
P.O.Box 12823, Penrose, Auckland 1642
Phone : 64 9 579-1001
Facsimile : 64 9 579-9497
Emergency Phone : 0800 657-894
Website: www.ppsindustries.co.nz

Emergency Information :

National Poison Centre 0800 764-766
Chemcall 24/7 Emergency Response Service : 0800 243-622

13. Disposal Considerations :

Product

Recommendation - Consult local or national regulations to ensure proper disposal.

Packaging

Disposal must be made according to official regulations.

16. Other Information :

Employers should use this information only as a supplement to other information gathered by them, and should make independent judgement of suitability of this information to ensure proper use and protect the health and safety of employees. This information is furnished without warranty, and any use of the product not in conformance with this Material Safety Data Sheet, or in combination with any other product or process, is the responsibility of the user.



Safety Data Sheet

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LOCTITE SI 5699

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V001.1

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printing date: 09.06.2023

SECTION 1 IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product name: LOCTITE SI 5699

Intended use: Silicone sealant

Supplier:

Henkel New Zealand Ltd
2 Allens Rd
Auckland, 2013
New Zealand

Phone: +64 (9) 272-6710

Emergency information: 24 HOUR EMERGENCY CONTACT NUMBER 0800 243 622

SECTION 2 HAZARDS IDENTIFICATION

Classification of the substance or mixture

Not Classified as Dangerous Goods according to NZS 5433: 2012 and the Land Transport Rule: Dangerous Goods 2005.

GHS Classification:

Hazard Class

Serious eye damage/eye irritation
Skin sensitizer

Hazard Category

Category 1
Category 1

Hazard pictogram:



Signal word:

Danger

Hazard statement(s): H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.

Precautionary Statement(s):

Prevention: P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P272 Contaminated work clothing should not be allowed out of the workplace.
P280 Wear protective gloves, eye protection, and 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 do. Continue rinsing. Get immediate medical advice/attention.
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
P363 Wash contaminated clothing before reuse.

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
Butan-2-one O,O',O''-(vinylsilyldiyl)trioxime	2224-33-1	3- < 10 %
Octamethylcyclotetrasiloxane	556-67-2	< 3 %
Butan-2-one O,O',O'',O'''-silanetetrayltetraoxime	34206-40-1	< 1 %
non hazardous ingredients~		60- < 100 %

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:

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

Melting point / freezing point: Not available.
Specific gravity: 1.5
Boiling point: > 200 °C (> 392 °F)
Flash point: > 93 °C (> 199.4 °F)
Vapor pressure: < 5 mm hg

Vapor density: Heavier than air.
Density: 1.5 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
Butan-2-one O,O',O'',O'''-(vinylsilylidyne)trioxime 2224-33-1	LD50	> 2,000 mg/kg	oral	4 h	rat	OECD Guideline 425 (Acute Oral Toxicity: Up-and-Down Procedure) OECD Guideline 402 (Acute Dermal Toxicity) equivalent or similar to OECD Guideline 401 (Acute Oral Toxicity) OECD Guideline 403 (Acute Inhalation Toxicity) equivalent or similar to OECD Guideline 402 (Acute Dermal Toxicity)
	LD50	> 2,009 mg/kg	dermal		rat	
Octamethylcyclotetrasiloxane 556-67-2	LD50	> 4,800 mg/kg	oral		rat	
	LC50	36 mg/l	inhalation		rat	
	LD50	> 2,375 mg/kg	dermal		rat	
Butan-2-one O,O',O'',O'''-silanetetrayl(tetraoxime) 34206-40-1	LD50	2,463 mg/kg	oral		rat	
	LD50	> 2,000 mg/kg	dermal	rat		

Skin corrosion/irritation:

Hazardous components CAS-No.	Result	Exposure time	Species	Method
Octamethylcyclotetrasiloxane 556-67-2	not irritating		rabbit	equivalent or similar to OECD Guideline 404 (Acute Dermal Irritation / Corrosion)

Serious eye damage/irritation:

Hazardous components CAS-No.	Result	Exposure time	Species	Method
Octamethylcyclotetrasiloxane 556-67-2	not irritating		rabbit	equivalent or similar to OECD Guideline 405 (Acute Eye Irritation / Corrosion)
Butan-2-one O,O',O'',O'''-silanetetrayltetraoxime 34206-40-1	irritating	1 h	rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)

Respiratory or skin sensitization:

Hazardous components CAS-No.	Result	Test type	Species	Method
Butan-2-one O,O',O''-(vinylsilylidyne)trioxime 2224-33-1	Sensitizing	Guinea pig maximisation test	guinea pig	OECD Guideline 406 (Skin Sensitisation)
Octamethylcyclotetrasiloxane 556-67-2	not sensitising	Guinea pig maximisation test	guinea pig	OECD Guideline 406 (Skin Sensitisation)
Butan-2-one O,O',O'',O'''-silanetetrayltetraoxime 34206-40-1	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
Butan-2-one O,O',O''-(vinylsilylidyne)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''-(vinylsilylidyne)trioxime 2224-33-1	negative	intraperitoneal		mouse	OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test)
Octamethylcyclotetrasiloxane 556-67-2	negative negative negative	bacterial gene mutation assay 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) equivalent or similar to OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test) equivalent or similar to OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)
Octamethylcyclotetrasiloxane 556-67-2	negative negative	inhalation oral: gavage		rat rat	equivalent or similar to OECD Guideline 475 (Mammalian Bone Marrow Chromosome Aberration Test) equivalent or similar to OECD Guideline 478 (Genetic Toxicology: Rodent Dominant Lethal Test)

Repeated dose toxicity:

Hazardous components CAS-No.	Result	Route of application	Exposure time / Frequency of treatment	Species	Method
Butan-2-one O,O',O''- (vinylsilyldiyl)trioxime 2224-33-1	NOAEL=10 mg/kg	oral: gavage		rat	OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)
Octamethylcyclotetrasilox ane 556-67-2	LOAEL=35 ppm	inhalation	6 h nose only inhalation5 days/week for 13 weeks	rat	OECD Guideline 412 (Repeated Dose Inhalation Toxicity: 28/14-Day)
Octamethylcyclotetrasilox ane 556-67-2	NOAEL=960 mg/kg	dermal	3 w5 d/w	rabbit	equivalent or similar to OECD Guideline 410 (Repeated Dose Dermal Toxicity: 21/28-Day Study)
Butan-2-one O,O',O'',O'''- silanetetrayltetraoxime 34206-40-1	NOAEL=25 mg/kg	oral: drinking water	90 ddaily: ad libitum	rat	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., Cured Loctite products are typical polymers and do not pose any immediate environmental hazards.

Toxicity:

Hazardous components CAS-No.	Value type	Value	Acute Toxicity Study	Exposure time	Species	Method
Butan-2-one O,O',O''-(vinylsilylidine)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''-(vinylsilylidine)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''-(vinylsilylidine)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''-(vinylsilylidine)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''-(vinylsilylidine)trioxime 2224-33-1	NOEC	30 mg/l	Algae	72 h	Selenastrum capricornutum (new name: Pseudokirchneriella subcapitata)	OECD Guideline 201 (Alga, Growth Inhibition Test)
Octamethylcyclotetrasiloxane 556-67-2	NOEC	0.0044 mg/l	Fish	93 d	Salmo gairdneri (new name: Oncorhynchus mykiss)	other guideline:
Octamethylcyclotetrasiloxane 556-67-2	NOEC	< 0.022 mg/l	Algae	96 h	Selenastrum capricornutum (new name: Pseudokirchneriella subcapitata)	EPA OTS 797.1050 (Algal Toxicity, Tiers I and II)
Butan-2-one O,O',O'',O'''-silanetetrayltetraoxime 34206-40-1	LC50	843 mg/l	Fish	96 h	Pimephales promelas	OECD Guideline 203 (Fish, Acute Toxicity Test)
Butan-2-one O,O',O'',O'''-silanetetrayltetraoxime 34206-40-1	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'',O'''-silanetetrayltetraoxime 34206-40-1	EC50	201 mg/l	Daphnia	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Butan-2-one O,O',O'',O'''-silanetetrayltetraoxime 34206-40-1	EC50	16 mg/l	Algae	72 h	Selenastrum capricornutum (new name: Pseudokirchneriella subcapitata)	OECD Guideline 201 (Alga, Growth Inhibition Test)
Butan-2-one O,O',O'',O'''-silanetetrayltetraoxime 34206-40-1	NOEC	2.6 mg/l	Algae	72 h	Selenastrum capricornutum (new name: Pseudokirchneriella subcapitata)	OECD Guideline 201 (Alga, Growth Inhibition Test)

Persistence and degradability:

Hazardous components CAS-No.	Result	Route of application	Degradability	Method
Butan-2-one O,O',O''-(vinylsilylidine)trioxime 2224-33-1	not readily biodegradable.	aerobic	26 %	OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I))
Octamethylcyclotetrasiloxane 556-67-2	not readily biodegradable.	aerobic	3.7 %	OECD Guideline 310 (Ready Biodegradability CO2 in Sealed Vessels (Headspace Test))
Butan-2-one O,O',O'',O'''-silanetetrayltetraoxime 34206-40-1	not readily biodegradable.	aerobic	28 %	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
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Octamethylcyclotetrasiloxane 556-67-2		12,400	28 d	Pimephales promelas		EPA OTS 797.1520 (Fish Bioconcentration Test- Rainbow Trout)
Octamethylcyclotetrasiloxane 556-67-2	6.488				25.1 °C	OECD Guideline 123 (Partition Coefficient (1- Octanol / Water), Slow- Stirring 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

Dangerous Goods information:

Not Classified as Dangerous Goods according to NZS 5433: 2012 and the Land Transport Rule: Dangerous Goods 2005.

Marine transport IMDG:

Not dangerous goods

Air transport IATA:

Not dangerous goods

SECTION 15. REGULATORY INFORMATION

HSNO Approval Number: Group standard 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: 2,15

Date of previous issue: 16.06.2014

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