



Safety Data Sheet

LOCTITE SI 5900

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SDS No. : 152855

V001.5

Date of issue: 10.02.2022

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

Product name: LOCTITE SI 5900

Intended use: 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

Serious eye damage/eye irritation

Skin sensitizer

Carcinogenicity

Target Organ Systemic Toxicant -

Single exposure

Hazard Category

Category 1

Category 1

Category 1B

Category 2

Hazard pictogram:



Signal word:

Danger

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. 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.

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
Type of preparation: Silicone sealant

Identity of ingredients:

Chemical ingredients	CAS-No.	Proportion
Calcium carbonate	471-34-1	30- < 60 %
Butan-2-one O,O',O''-(vinylsilyldiyl)trioxime	2224-33-1	3- < 10 %
2-butanone oxime	96-29-7	1- < 3 %
Carbon black - Nano	1333-86-4	< 10 %
Silane, dichlorodimethyl-, reaction products with silica	68611-44-9	< 10 %
non hazardous ingredients~		30- <= 60 %

Section 4. First aid measures

Ingestion: Do not induce vomiting.
Have victim rinse mouth thoroughly with water.
Get medical attention.

Skin: Immediately flush skin with plenty of water (using soap, if available).
Remove contaminated clothing and footwear.
Wash clothing before reuse.
Get medical attention.

Eyes:	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Immediate medical treatment necessary.
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:	Foam, dry chemical or carbon dioxide.
Decomposition products in case of fire:	Thermal decomposition can lead to release of irritating gases and vapors. Oxides of carbon. Silicon compounds.
Particular danger in case of fire:	Do not expose to direct heat.
Special protective equipment for fire-fighters:	Wear self-contained breathing apparatus and full protective clothing, such as turn-out gear.
Additional fire fighting advice:	In case of fire, keep containers cool with water spray. Collect contaminated fire fighting water separately. It must not enter drains.

Section 6. Accidental release measures

Personal precautions:	Avoid contact with skin and eyes. Wear protective equipment. See advice in section 8
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:	Avoid contact with eyes, skin and clothing. Wash thoroughly after handling. For operations where eye or face contact could occur, provide safety shower and eyewash fountain.
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. Keep container tightly sealed.

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)
CALCIUM CARBONATE 471-34-1	Inhalable dust.		10				
CARBON BLACK 1333-86-4			3				
Nuisance dusts, inhalable dust 68611-44-9	Inhalable dust.		10				
Fumed silica (respirable dust) 68611-44-9	Respirable dust.		2				
Silica, Amorphous: Fumed silica (respirable dust) 68611-44-9	Respirable dust.		2				

Engineering controls:

Ensure good ventilation/suction at the workplace.

Eye protection:

Wear protective glasses.

Skin protection:

Wear suitable protective clothing.
Suitable protective gloves.
Use of Butyl or Nitrile Rubber gloves 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:	black paste
Odor:	mild
Specific gravity:	1.31
Flash point: (Tagliabue closed cup)	> 93 °C (> 199.4 °F)
Vapor pressure: (; 20 °C (68 °F))	< 5 mm hg
Density:	1.31 g/cm3
Solubility in water:	Polymerises in presence of water.
Auto ignition:	The substance or mixture is not classified as pyrophoric.
Decomposition temperature:	
VOC content (2004/42/EC)	2 % (VOCV 814.018 VOC regulation CH)

Section 10. Stability and reactivity**Conditions to avoid:**

Store away from incompatible materials.
Keep away from heat, spark and flame.

Incompatible materials: Polymerises in presence of water.

Hazardous decomposition products: Thermal decomposition can lead to release of irritating gases and vapors.

Oxides of carbon.
Oxides of nitrogen.

Section 11. Toxicological information

Health Effects:

Ingestion:

Skin:

Eyes:

Inhalation:

May cause irritation to the gastrointestinal tract, mouth and mucous membranes.

May cause mild skin irritation.

Repeated or prolonged contact can result in drying of skin.

May cause allergic skin reaction.

Causes serious eye damage.

Contact with the eyes may cause moderate to severe eye injury. Eye contact may result in corneal injury. Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva.

May cause irritation to nose and throat.

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''-(vinylsilylidyne)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)
2-butanone oxime 96-29-7	Acute toxicity estimate (ATE) Acute toxicity estimate (ATE)	100 mg/kg 1,100 mg/kg	oral dermal			Expert judgement Expert judgement
Carbon black - Nano 1333-86-4	LD50 LC50	> 8,000 mg/kg	oral inhalation	4 h	rat rat	OECD Guideline 401 (Acute Oral Toxicity) not specified
Silane, dichlorodimethyl-, reaction products with silica 68611-44-9	LD50 LD50	> 5,000 mg/kg > 2,000 mg/kg	oral dermal		rat rat	not specified not specified

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''- (vinylsilylidene)trioxime 2224-33-1	not irritating	4 h	rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
Carbon black - Nano 1333-86-4	not irritating	4 h	rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
Silane, dichlorodimethyl-, reaction products with silica 68611-44-9	not irritating	4 h	rabbit	not specified

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)
2-butanone oxime 96-29-7	Category 1 (irreversible effects on the eye)		rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)
Carbon black - Nano 1333-86-4	not irritating		rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)
Silane, dichlorodimethyl-, reaction products with silica 68611-44-9	not irritating		rabbit	not specified

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''- (vinylsilylidene)trioxime 2224-33-1	Sensitizing	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)
Carbon black - Nano 1333-86-4	not sensitising	Mouse local lymphnode assay (LLNA)	mouse	OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay)
Silane, dichlorodimethyl-, reaction products with silica 68611-44-9	not sensitising	Patch-Test	human	human repeat insult patch test

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)
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)
Carbon black - Nano 1333-86-4	negative negative negative negative	bacterial reverse mutation assay (e.g Ames test) mammalian cell gene mutation assay sister chromatid exchange assay in mammalian cells in vitro mammalian cell micronucleus test mammalian cell gene mutation assay	with and without 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 479 (Genetic Toxicology: In Vitro Sister Chromatid Exchange Assay in Mammalian Cells) OECD Guideline 487 (In vitro Mammalian Cell Micronucleus Test) OECD Guideline 490 (In Vitro Mammalian Cell Gene Mutation Tests Using the Thymidine Kinase Gene)
Carbon black - Nano 1333-86-4	negative	inhalation		rat	OECD Guideline 489 (In Vivo Mammalian Alkaline Comet Assay)
Silane, dichlorodimethyl-, reaction products with silica 68611-44-9	negative negative	bacterial reverse mutation assay (e.g Ames test) in vitro mammalian chromosome aberration test	with and without with and without		Ames Test Chromosome Aberration Test

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''- (vinylsilyldyne)trioxime 2224-33-1	LOAEL=40 mg/kg	oral: gavage	13 w5 d/week	rat	EPA OPPTS 870.3100 (90- Day Oral Toxicity in Rodents)
2-butanone oxime 96-29-7	LOAEL=40 mg/kg	oral: gavage	13 w5 d/week	rat	EPA OPPTS 870.3100 (90- Day Oral Toxicity in Rodents)
Carbon black - Nano 1333-86-4	NOAEL=> 1,000 mg/kg	oral: gavage	90 ddaily	rat	OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)
Carbon black - Nano 1333-86-4	NOAEL=1 mg/m3	inhalation	13 w6 h/d, 5 d/w	rat	not specified
Silane, dichlorodimethyl-, reaction products with silica 68611-44-9	NOAEL=500 mg/kg	oral: feed	5-8 wdaily	rat	not specified

Section 12. Ecological information

General ecological information: Do not empty into drains / surface water / ground water.

Ecotoxicity: Harmful to aquatic life.

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)
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)
Carbon black - Nano 1333-86-4	LC50	Toxicity > Water solubility	Fish	96 h	Danio rerio	OECD Guideline 203 (Fish, Acute Toxicity Test)
Carbon black - Nano 1333-86-4	EC50	Toxicity > Water solubility	Daphnia	24 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Carbon black - Nano 1333-86-4	EC50	Toxicity > Water solubility	Algae	72 h	Desmodesmus subspicatus	OECD Guideline 201 (Alga, Growth

Carbon black - Nano 1333-86-4	EC10	Toxicity > Water solubility	Algae	72 h	Desmodesmus subspicatus	Inhibition Test) OECD Guideline 201 (Alga, Growth Inhibition Test)
Carbon black - Nano 1333-86-4	EC0	Toxicity > Water solubility	Bacteria	3 h	activated sludge, domestic	OECD Guideline 209 (Activated Sludge, Respiration Inhibition Test)
Silane, dichlorodimethyl-, reaction products with silica 68611-44-9	LC50	> 10,000 mg/l	Fish	96 h	Brachydanio rerio (new name: Danio rerio)	OECD Guideline 203 (Fish, Acute Toxicity Test)
Silane, dichlorodimethyl-, reaction products with silica 68611-44-9	EC50	> 10,000 mg/l	Daphnia	24 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)

Persistence and degradability:

Hazardous components CAS-No.	Result	Route of application	Degradability	Method
Butan-2-one O,O',O''- (vinylsilyldiene)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:**

Do not empty into drains / surface water / ground water.
Collection and delivery to recycling enterprise or other registered elimination institution.

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
IMDG: International Maritime Dangerous Goods code
IATA-DGR: International Air Transport Association – Dangerous Goods Regulations
STEL - Short term exposure limit
TWA - Time weighted average
AIIC - Australian Inventory of Industrial Chemicals (AIIC)
AICIS - Australian Industrial Chemicals Introduction Scheme

Reason for issue: Reviewed MSDS. Reissued with new date. involved chapters: 1 - 16

Date of previous issue: 24.01.2017

Disclaimer:

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