



Safety Data Sheet

LOCTITE SI 5331 WH TB100ML EN/D

Page 1 of 9

SDS No. : 152750

V001.4

Date of issue: 11.08.2021

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

Product name: LOCTITE SI 5331 WH TB100ML EN/D

Intended use: Silicone 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:

<u>Hazard Class</u>	<u>Hazard Category</u>	<u>Target organ</u>
Skin irritation	Category 2	
Serious eye damage/eye irritation	Category 1	
Target Organ Systemic Toxicant - Repeated exposure	Category 2	Lung
Chronic hazards to the aquatic environment	Category 3	

Hazard pictogram:



Signal word:

Danger

Hazard statement(s):	H315 Causes skin irritation. H318 Causes serious eye damage. H373 May cause damage to organs through prolonged or repeated exposure. H412 Harmful to aquatic life with long lasting effects.
Precautionary Statement(s):	
Prevention:	P260 Do not breathe dust/fume/gas/mist/vapours/spray. P264 Wash hands thoroughly after handling. P273 Avoid release to the environment. 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 remove. Continue rinsing. Get immediate medical advice/attention. P314 Get medical advice/attention if you feel unwell. P332+P313 If skin irritation occurs: Get medical advice/attention. P362 Take off contaminated clothing.
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: Acetoxy curing silicone

Identity of ingredients:

Chemical ingredients	CAS-No.	Proportion
Silica, amorphous, fumed, cryst.-free	112945-52-5	10- < 30 %
Quartz (SiO ₂) respirable particulates (RCS) >=10%	14808-60-7	1- < 10 %
Methylsilanetriyl triacetate	4253-34-3	3- < 5 %
octamethylcyclotetrasiloxane	556-67-2	< 3 %
non hazardous ingredients~		60- <= 100 %

Section 4. First aid measures

Ingestion:	Do not induce vomiting. 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. 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:	Carbon dioxide, foam, powder Fine water spray
Improper extinguishing media:	None known
Decomposition products in case of fire:	Formaldehyde carbon oxides. Silica fume.
Particular danger in case of fire:	None
Special protective equipment for fire-fighters:	Wear self-contained breathing apparatus.
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. Ensure adequate ventilation.
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.
Conditions for safe storage:	Store in sealed original container protected against moisture. Store in a cool, well-ventilated place. Do not store together with food or other consumables (coffee, tea, tobacco, etc.).

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)
SILICA, AMORPHOUS: FUMED SILICA (RESPIRABLE DUST) 112945-52-5	Respirable dust.		2				
FUMED SILICA (RESPIRABLE DUST) 112945-52-5	Respirable dust.		2				
Nuisance dusts, inhalable dust 112945-52-5	Inhalable dust.		10				
SILICA, CRYSTALLINE: QUARTZ (RESPIRABLE DUST) 14808-60-7	Respirable dust.		0.05				

QUARTZ (RESPIRABLE DUST) 14808-60-7	Respirable dust.		0.05				
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Engineering controls:	Ensure good ventilation/suction at the workplace.
Eye protection:	Wear chemical goggles and face shield.
Skin protection:	Wear protective equipment. Nitrile rubber gloves should be worn. 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:	white liquid
Odor:	Acetic acid
Flash point:	> 100 °C (> 212 °F)
Vapor density:	Heavier than air
Density:	1.14 g/cm ³
Solubility in water:	Polymerises in presence of water.
VOC content: (2010/75/EC)	< 5 %

Section 10. Stability and reactivity

Stability:	Stable under recommended storage conditions.
Conditions to avoid:	Stable under normal conditions of storage and use.
Incompatible materials:	Strong oxidizing agents. Polymerises in presence of water.
Hazardous decomposition products:	At higher temperatures (>150°C) may release formaldehyde (traces). Acetic acid is liberated slowly upon contact with moisture.

Section 11. Toxicological information

Health Effects:**Ingestion:** Ingestion of large amounts may produce gastrointestinal disturbances including irritation, nausea, and diarrhea.**Skin:** Irritating to skin.

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

Eyes: 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.

Inhalation: May cause irritation to nose and throat.**Acute toxicity:**

Hazardous components CAS-No.	Value type	Value	Route of application	Exposure time	Species	Method
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)
Quartz (SiO ₂) respirable particulates (RCS) >=10% 14808-60-7	LD50 LD50	> 22,500 mg/kg > 5,000 mg/kg	oral dermal		rat rat	not specified not specified
Methylsilanetriyl triacetate 4253-34-3	LD50	1,600 mg/kg	oral		rat	OECD Guideline 401 (Acute Oral Toxicity)
octamethylcyclotetrasiloxane 556-67-2	LD50 LC50 LD50	> 4,800 mg/kg 36 mg/l > 2,375 mg/kg	oral inhalation dermal	4 h	rat rat rat	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)

Skin corrosion/irritation:

Hazardous components CAS-No.	Result	Exposure time	Species	Method
Silica, amorphous, fumed, cryst.-free 112945-52-5	not irritating	4 h	rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
Methylsilanetriyl triacetate 4253-34-3	corrosive	4 h	rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
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
Silica, amorphous, fumed, cryst.-free 112945-52-5	not irritating		rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)
Methylsilanetriyl triacetate 4253-34-3	Category 1 (irreversible effects on the eye)		rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)
octamethylcyclotetrasiloxane 556-67-2	not irritating		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
Methylsilanetriyl triacetate 4253-34-3	not sensitising	Guinea pig maximisa- tion test	guinea pig	OECD Guideline 406 (Skin Sensitisation)
octamethylcyclotetrasilox- ane 556-67-2	not sensitising	Guinea pig maximisa- tion 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
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
Methylsilanetriyl triacetate 4253-34-3	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)
octamethylcyclotetrasilox- ane 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)
octamethylcyclotetrasilox- ane 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
Methylsilanetriyl triacetate 4253-34-3	NOAEL=50 mg/kg	oral: gavage	28-51 ddaily	rat	OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)
octamethylcyclotetrasiloxane 556-67-2	LOAEL=35 ppm	inhalation	6 h nose only inhalation 5 days/week for 13 weeks	rat	OECD Guideline 412 (Repeated Dose Inhalation Toxicity: 28/14-Day)
octamethylcyclotetrasiloxane 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)

Section 12. Ecological information**General ecological information:**

Cured Loctite products are typical polymers and do not pose any immediate environmental hazards., Precautions required with respect to Environmental Hazards of articles in which this product is used should be considered.

Ecotoxicity:

Harmful to aquatic life.

Toxicity:

Hazardous components CAS-No.	Value type	Value	Acute Toxicity Study	Exposure time	Species	Method
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)
Methylsilanetriyl triacetate 4253-34-3	LC50	> 110 mg/l	Fish	96 h	Oncorhynchus mykiss	OECD Guideline 203 (Fish, Acute Toxicity Test)
octamethylcyclotetrasiloxane 556-67-2	NOEC	0.0044 mg/l	Fish	93 d	Salmo gairdneri (new name: Oncorhynchus mykiss)	EPA OPPTS 797.1600 (Fish Early Life Stage Toxicity Test)
octamethylcyclotetrasiloxane 556-67-2	LC50	Toxicity > Water solubility	Fish	96 h	Oncorhynchus mykiss	EPA OTS 797.1400 (Fish Acute Toxicity Test)
octamethylcyclotetrasiloxane 556-67-2	EC50	Toxicity > Water solubility	Daphnia	48 h	Daphnia magna	EPA OTS 797.1300 (Aquatic Invertebrate Acute Toxicity Test, Freshwater Daphnids)
octamethylcyclotetrasiloxane 556-67-2	EC50	Toxicity > Water solubility	Algae	96 h	Selenastrum capricornutum (new name: Pseudokirchneriella subcapitata)	EPA OTS 797.1050 (Algal Toxicity, Tiers I and II)
octamethylcyclotetrasiloxane 556-67-2	EC10	0.022 mg/l	Algae	96 h	Selenastrum capricornutum (new name: Pseudokirchneriella subcapitata)	EPA OTS 797.1050 (Algal Toxicity, Tiers I and II)
octamethylcyclotetrasiloxane 556-67-2	EC50	Toxicity > Water solubility	Bacteria	3 h	activated sludge	ISO 8192 (Test for Inhibition of Oxygen Consumption by Activated Sludge)

Persistence and degradability:

Hazardous components CAS-No.	Result	Route of application	Degradability	Method
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octamethylcyclotetrasiloxane 556-67-2	not readily biodegradable.	aerobic	3.7 %	OECD Guideline 310 (Ready Biodegradability CO ₂ in Sealed Vessels (Headspace Test))
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Bioaccumulative potential / Mobility in soil:

Hazardous components CAS-No.	LogPow	Bioconcentration factor (BCF)	Exposure time	Species	Temperature	Method
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.
Small amounts of cured or dried product residues can be disposed of as household waste or as industrial waste similar to household waste.
- 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
IATA-DGR: International Air Transport Association – Dangerous Goods Regulations
IMDG: International Maritime Dangerous Goods code
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

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