



Safety Data Sheet

LOCTITE SI 587 BL FLANGE SEALANT known as 587 Blue
Silicone 300ml

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SDS No. : 153776

V001.3

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

Product name: LOCTITE SI 587 BL FLANGE SEALANT known as 587 Blue Silicone 300ml

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 03 9724 6556

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>
Serious eye damage/eye irritation	Category 1
Skin sensitizer	Category 1
Carcinogenicity	Category 1B
Target Organ Systemic Toxicant - Single exposure	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
Limestone	1317-65-3	30- < 60 %
Silane, dichlorodimethyl-, reaction products with silica	68611-44-9	< 10 %
Butan-2-one O,O',O''-(vinylsilylydyne)trioxime	2224-33-1	3- < 10 %
2-butanone oxime	96-29-7	1- < 3 %
non hazardous ingredients~		30- <= 60 %

Section 4. First aid measures

- Ingestion:** Do not induce vomiting.
Seek medical advice.
- Skin:** Rinse with running water and soap.
Obtain medical attention if irritation persists.

Eyes: Rinse immediately with plenty of running water (for 10 minutes). Seek medical attention if necessary.

Inhalation: Move to fresh air. If symptoms persist, seek medical advice.

First Aid facilities: Eye wash and safety shower

Section 5. Fire fighting measures

Suitable extinguishing media: Carbon dioxide, foam, powder

Decomposition products in case of fire: Formaldehyde
Silica fume
Oxides of carbon.
Acrid smoke and fumes.

Special protective equipment for fire-fighters: Wear self-contained breathing apparatus and full protective clothing, such as turn-out gear.

Section 6. Accidental release measures

Personal precautions: Avoid contact with skin and eyes.

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 a cool, well-ventilated place.
Never allow product to get in contact with water during storage

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)
Nuisance dusts, inhalable dust 1317-65-3	Inhalable dust.		10				
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:	Provide adequate local exhaust ventilation to maintain worker exposure below exposure limits.
Eye protection:	Wear protective glasses.
Skin protection:	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:	blue paste
Odor:	mild
Specific gravity:	1.31
Flash point: (Tagliabue closed cup)	> 93 °C (> 199.4 °F)
Vapor pressure: (; 20 °C (68 °F))	< 6.5 mbar
Density:	1.31 g/cm ³
VOC content (2004/42/EC)	0 % (VOCV 814.018 VOC regulation CH)

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.
Incompatible materials:	Acids. Bases. Oxidizing agents. Polymerizes on contact with water.
Hazardous decomposition products:	Oxides of carbon. Oxides of silicon. Formaldehyde Methyl ethyl ketoxime formed during cure.

Section 11. Toxicological information

Health Effects:

Ingestion:

May be harmful if swallowed.
Not expected under normal conditions of use.

Skin:

Repeated or prolonged skin contact may result in allergic sensitization.
Prolonged or repeated contact with uncured sealant may cause skin irritation.

Eyes:

Causes serious eye damage.

Inhalation:

Inhalation of vapors from uncured sealant may cause respiratory tract irritation.
When heated to temperatures exceeding 300° F (150° C) in the presence of air, silicones may form formaldehyde vapors. Formaldehyde is a potential cancer hazard and a known skin and respiratory sensitizer. Vapors irritate the eyes, nose and throat. Safe handling conditions may be maintained by keeping formaldehyde vapor concentrations below the OSHA permissible limit.

Acute toxicity:

Hazardous components CAS-No.	Value type	Value	Route of application	Exposure time	Species	Method
Limestone 1317-65-3	LD50	> 5,000 mg/kg	oral		rat	not specified
	LD50	> 5,000 mg/kg	dermal		rat	not specified
Silane, dichlorodimethyl-, reaction products with silica 68611-44-9	LD50	> 5,000 mg/kg	oral		rat	not specified
	LD50	> 2,000 mg/kg	dermal		rat	not specified
Butan-2-one O,O',O''- (vinylsilylidine)trioxime 2224-33-1	LD50	> 2,000 mg/kg	oral		rat	OECD Guideline 425 (Acute Oral Toxicity: Up-and-Down Procedure) Expert judgement OECD Guideline 402 (Acute Dermal Toxicity)
	Acute toxicity estimate (ATE)	2,500 mg/kg	oral		rat	
	LD50	> 2,009 mg/kg	dermal			
2-butanone oxime 96-29-7	Acute toxicity estimate (ATE)	100 mg/kg	oral			Expert judgement Expert judgement
	Acute toxicity estimate (ATE)	1,100 mg/kg	dermal			

Skin corrosion/irritation:

Hazardous components CAS-No.	Result	Exposure time	Species	Method
Limestone 1317-65-3	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
Butan-2-one O,O',O''- (vinylsilylidine)trioxime 2224-33-1	not irritating	4 h	rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)

Serious eye damage/irritation:

Hazardous components CAS-No.	Result	Exposure time	Species	Method
Limestone 1317-65-3	not irritating		rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)
Silane, dichlorodimethyl-, reaction products with silica 68611-44-9	not irritating		rabbit	not specified
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
Limestone 1317-65-3	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
Butan-2-one O,O',O''- (vinylsilyldiyl)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)

Germ cell mutagenicity:

Hazardous components CAS-No.	Result	Type of study / Route of administration	Metabolic activation / Exposure time	Species	Method
Limestone 1317-65-3	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)
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
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)

Repeated dose toxicity:

Hazardous components CAS-No.	Result	Route of application	Exposure time / Frequency of treatment	Species	Method
Limestone 1317-65-3	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)
Silane, dichlorodimethyl-, reaction products with silica 68611-44-9	NOAEL=500 mg/kg	oral: feed	5-8 wdaily	rat	not specified
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)

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:

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

Toxicity:

Hazardous components CAS-No.	Value type	Value	Acute Toxicity Study	Exposure time	Species	Method
Limestone 1317-65-3	LC50	> 10,000 mg/l	Fish	96 h	not specified	OECD Guideline 203 (Fish, Acute Toxicity Test)
Limestone 1317-65-3	EC50	> 1,000 mg/l	Daphnia	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Limestone 1317-65-3	EC50	> 200 mg/l	Algae	72 h	not specified	OECD Guideline 201 (Alga, Growth Inhibition Test)
Limestone 1317-65-3	EC50	> 1,000 mg/l	Bacteria	3 h	activated sludge of a predominantly domestic sewage	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)
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)

Persistence and degradability:

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

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
ASCC - Australian Safety and Compensation Council
SUSMP - Standard for the Uniform Medicines of Medicines and Poisons
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: 2,15,16

Date of previous issue:

02.03.2011

Disclaimer:

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