



Safety Data Sheet

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LOCTITE SI 595 CL FLANGE SEALANT known as 595 FLANGE
SEALANT 300ML

SDS No. : 168445
V001.7

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

Product name:

LOCTITE SI 595 CL FLANGE SEALANT known as 595 FLANGE SEALANT 300ML

Other means of identification:

LOCTITE SI 595 CR300MLENLOCTITE SI 595 CR300MLEN

Product code:

IDH231565

Recommended use of the chemical and restrictions on use

Intended use:

Silicone

Identification of manufacturer, importer or distributor

Manufacturer: Henkel Loctite (China) Co. Ltd, No. 90 Zhu Jiang Road, Yantai Economic, Technological Development Zone, 264006 Shangdong Province, China Tel: +86-535-6399803 Fax: +86-535-6371999

Importer: Henkel Thailand Ltd The Offices at Centralworld, 35th Floor, 999/9 Rama 1 Rd, Kwang Patumwan, Khet Patumwan, Bangkok 10330, Thailand. Phone : +6622098000 Fax : +6622098008

E-mail address of person responsible for Safety Data Sheet:

ap-ua-psra.sea@henkel.com

Emergency information:

FOR EMERGENCIES ONLY (Spill, major leak, Fire, Exposure, or Accident). Call CHEMTREC: +1 703-741-5970

Section 2. Hazards identification

GHS Classification:

Hazard Class

Skin corrosion/irritation

Serious eye damage/eye irritation

Hazard Category

Category 2

Category 1

GHS label elements:

Hazard pictogram:



Signal word:

Danger

Hazard statement:

H315 Causes skin irritation.
H318 Causes serious eye damage.

Precaution:

Prevention:

P264 Wash hands thoroughly after handling.
P280 Wear protective gloves/protective clothing/eye protection/face protection.

Response:

P302+P352 IF ON SKIN: Wash with plenty of water.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P332+P313 If skin irritation occurs: Get medical advice/attention.
P363 Wash contaminated clothing before reuse.

Section 3. Composition / information on ingredients

Substance or Mixture:

Mixture

Declaration of hazardous chemical:

Hazard component CAS-No.	Content	GHS Classification
Silicon dioxide 7631-86-9	10- 30 %	
Triacetoxethylsilane 17689-77-9	1- 10 %	Acute toxicity 4; Oral H302 Skin corrosion/irritation 1 H314 Serious eye damage/eye irritation 1 H318
Methylsilanetriyl triacetate 4253-34-3	1- 10 %	Acute toxicity 4; Oral H302 Skin corrosion/irritation 1 H314 Serious eye damage/eye irritation 1 H318

Section 4. First aid measures

Inhalation:

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

Skin contact:

Wipe off paste with paper towel or cloth.
Wash with soap and water.

Eye contact:

Rinse thoroughly with plenty of water, also under the eyelids.
If eye irritation persists, consult a specialist.

Ingestion:

Do not induce vomiting.
If a person feels unwell or symptoms of skin irritation appear, consult a physician.

Section 5. Fire fighting measures

Suitable extinguishing media:

Foam, dry chemical or carbon dioxide.

Special protection equipment and precautions for firefighters:

Wear self-contained breathing apparatus.

Wear full protective clothing.

Hazardous combustion products:

Formaldehyde.

Silica mist.

Acrid smoke and fumes.

Section 6. Accidental release measures

Personal precautions:

Avoid skin and eye contact.

Wear protective equipment.

Ensure adequate ventilation.

See advice in section 8

Environmental precautions:

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

Clean-up methods:

Scrape up as much material as possible.

Spilled material will solidify.

Store in a partly filled, closed container until disposal.

Maintain good ventilation for large spills.

Dispose of contaminated material as waste according to Section 13.

Section 7. Handling and storage

Handling:

Avoid contact with eyes, skin and clothing.

Do not handle contact lenses until all sealant has been removed from hands. Residual sealant may transfer to lenses and cause eye irritation.

Storage:

Store in a dry place.

Store below 90°C (195°F).

Keep container tightly sealed.

Section 8. Exposure controls / personal protection

Components with specific control parameters for workplace:

Silicon dioxide 7631-86-9	Value type	Time Weighted Average (TWA):
	mg/m³	6
Particles (insoluble or poorly soluble) not otherwise specified, respirable particles 7631-86-9	Value type	Time Weighted Average (TWA):
	mg/m³	3
	Remarks	ACGIH
Particles (insoluble or poorly soluble) not otherwise specified, inhalable particles 7631-86-9	Value type	Time Weighted Average (TWA):
	mg/m³	10
	Remarks	ACGIH

Respiratory protection:

Use NIOSH approved respirator if there is potential to exceed exposure limit(s).

Eye protection:

Safety goggles or safety glasses with side shields.
Protective eye equipment should conform to EN166.

Body protection:

Chemical resistant, impermeable gloves.
Protective clothing should conform to EN 14605 for liquid splashes or to EN 13982 for dusts.

Engineering controls:

Provide local and general exhaust ventilation to effectively remove and prevent buildup of any vapors or mists generated from the handling of this product.

Hygienic measures:

Wash hands before work breaks and after finishing work.
Do not eat, drink or smoke while working.
Take off contaminated clothing and wash before reuse.

Section 9. Physical and chemical properties

Appearance:	Translucent paste
Odor:	Acetic acid
Odor threshold (CA):	No data available.
pH:	No data available.
Melting point / freezing point:	No data available.
Specific gravity:	1.01
Boiling point:	No data available.
Flash point:	> 93 °C (> 199.4 °F)
(Tagliabue closed cup)	
Evaporation rate:	No data available.
Flammability (solid, gas):	No data available.
Lower explosive limit:	4 % (V) (acetic acid)
Upper explosive limit:	19.9 % (V) (acetic acid)
Vapor pressure:	< 10 mm hg
(; 20 °C (68 °F))	
Vapor density:	Heavier than air.
Density:	No data available.
Solubility:	Not soluble. Polymerizes in presence of water.
Partition coefficient: n-octanol/water:	No data available.

Auto ignition: No data available.
Decomposition temperature: No data available.
Viscosity: No data available.
VOC content: 4.7 % 47.47 g/l

Section 10. Stability and reactivity

Reactivity/Incompatible materials:

Acids.
 Bases.
 Oxidizing agents.
 Water.

Chemical stability:

Stable under recommended storage conditions.

Possibility of hazardous reactions:

Will not occur.

Conditions to avoid:

Prolonged heating at temperatures above 150 °C.
 Exposure to moisture.

Hazardous decomposition products:

Acetic acid is liberated slowly upon contact with moisture.
 Formaldehyde.

Section 11. Toxicological information

Oral toxicity: Acute toxicity estimate (ATE) : > 2,000 mg/kg
 Method: Calculation method

Symptoms of Overexposure: None known.

Acute oral toxicity:

Silicon dioxide 7631-86-9	Value type	LD50
	Value	> 5,000 mg/kg
	Species	rat
	Method	OECD Guideline 401 (Acute Oral Toxicity)
Triacetoxethylsilane 17689-77-9	Value type	LD50
	Value	1,460 mg/kg
	Species	rat
	Method	OECD Guideline 401 (Acute Oral Toxicity)
Methylsilanetriyl triacetate 4253-34-3	Value type	LD50
	Value	1,600 mg/kg
	Species	rat
	Method	OECD Guideline 401 (Acute Oral Toxicity)

Acute inhalative toxicity:

Silicon dioxide 7631-86-9	Value type	LC50
	Value	> 2.08 mg/l
	Exposure time	4 h
	Species	rat
	Method	OECD Guideline 403 (Acute Inhalation Toxicity)

Acute dermal toxicity:

Silicon dioxide 7631-86-9	Value type	LD50
	Value	> 5,000 mg/kg
	Species	rabbit
	Method	not specified

Skin corrosion/irritation:

Silicon dioxide 7631-86-9	Result	not irritating
	Exposure time	4 h
	Species	rabbit
	Method	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
Triacetoxyethylsilane 17689-77-9	Result	Category 1B (corrosive)
	Exposure time	3 min
	Species	rabbit
	Method	equivalent or similar to OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
Methylsilanetriyl triacetate 4253-34-3	Result	corrosive
	Exposure time	4 h
	Species	rabbit
	Method	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)

Serious eye damage/irritation:

Silicon dioxide 7631-86-9	Result	not irritating
	Exposure time	
	Species	rabbit
	Method	OECD Guideline 405 (Acute Eye Irritation / Corrosion)
Methylsilanetriyl triacetate 4253-34-3	Result	Category 1 (irreversible effects on the eye)
	Exposure time	
	Species	rabbit
	Method	OECD Guideline 405 (Acute Eye Irritation / Corrosion)

Respiratory or skin sensitization:

Triacetoxyethylsilane 17689-77-9	Result	not sensitising
	Test type	Guinea pig maximisation test
	Species	guinea pig
	Method	OECD Guideline 406 (Skin Sensitisation)
Methylsilanetriyl triacetate 4253-34-3	Result	not sensitising
	Test type	Guinea pig maximisation test
	Species	guinea pig
	Method	OECD Guideline 406 (Skin Sensitisation)

Germ cell mutagenicity:

Silicon dioxide 7631-86-9	Result	negative
	Type of study / Route of administration	bacterial reverse mutation assay (e.g Ames test)
	Metabolic activation / Exposure time	with and without
	Method	OECD Guideline 471 (Bacterial Reverse Mutation Assay)
Silicon dioxide 7631-86-9	Result	negative
	Type of study / Route of administration	mammalian cell gene mutation assay
	Metabolic activation / Exposure time	with and without
	Method	OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)
Silicon dioxide 7631-86-9	Result	negative
	Type of study / Route of administration	in vitro mammalian chromosome aberration test
	Metabolic activation / Exposure time	with and without
	Method	OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test)
Silicon dioxide 7631-86-9	Result	negative
	Type of study / Route of administration	inhalation
	Metabolic activation / Exposure time	
	Species	rat
	Method	not specified
Triacetoxyethylsilane 17689-77-9	Result	negative
	Type of study / Route of administration	bacterial reverse mutation assay (e.g Ames test)
	Metabolic activation / Exposure time	with and without
	Method	OECD Guideline 471 (Bacterial Reverse Mutation Assay)
Triacetoxyethylsilane 17689-77-9	Result	negative
	Type of study / Route of administration	in vitro mammalian chromosome aberration test
	Metabolic activation / Exposure time	with and without
	Method	OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test)
Triacetoxyethylsilane 17689-77-9	Result	negative
	Type of study / Route of administration	mammalian cell gene mutation assay
	Metabolic activation / Exposure time	with and without
	Method	OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)
Methylsilanetriyl triacetate 4253-34-3	Result	negative
	Type of study / Route of administration	bacterial reverse mutation assay (e.g Ames test)
	Metabolic activation / Exposure time	with and without
	Method	OECD Guideline 471 (Bacterial Reverse Mutation Assay)
Methylsilanetriyl triacetate 4253-34-3	Result	negative
	Type of study / Route of administration	in vitro mammalian chromosome aberration test
	Metabolic activation / Exposure time	with and without
	Method	OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test)
Methylsilanetriyl triacetate 4253-34-3	Result	negative
	Type of study / Route of administration	mammalian cell gene mutation assay
	Metabolic activation / Exposure time	with and without
	Method	OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)

Repeated dose toxicity:

Silicon dioxide 7631-86-9	Result	NOAEL=> 4,000 - 4,500 mg/kg
	Route of application	oral: feed
	Exposure time / Frequency of treatment	13 weeksdaily
	Species	rat
	Method	equivalent or similar to OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)
Silicon dioxide 7631-86-9	Result	NOAEL=1.3 mg/m3
	Route of application	inhalation
	Exposure time / Frequency of treatment	13 w6 h/d, 5 d/w
	Species	rat
	Method	equivalent or similar to OECD Guideline 413 (Subchronic Inhalation Toxicity: 90-Day)
Methylsilanetriyl triacetate 4253-34-3	Result	NOAEL=50 mg/kg
	Route of application	oral: gavage
	Exposure time / Frequency of treatment	28-51 ddaily
	Species	rat
	Method	OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)

Section 12. Ecological information

General ecological information:

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

Toxicity:

Silicon dioxide 7631-86-9	Value type	LC50
	Value	> 10,000 mg/l
	Acute Toxicity Study	Fish
	Exposure time	96 h
	Species	Brachydanio rerio (new name: Danio rerio)
	Method	OECD Guideline 203 (Fish, Acute Toxicity Test)
Silicon dioxide 7631-86-9	Value type	EL50
	Value	> 1,000 mg/l
	Acute Toxicity Study	Daphnia
	Exposure time	24 h
	Species	Daphnia magna
	Method	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Silicon dioxide 7631-86-9	Value type	NOELR
	Value	10,000 mg/l
	Acute Toxicity Study	Algae
	Exposure time	72 h
	Species	Desmodesmus subspicatus
	Method	OECD Guideline 201 (Alga, Growth Inhibition Test)
	Value type	EL50
	Value	> 10,000 mg/l
	Acute Toxicity Study	Algae
	Exposure time	72 h
	Species	Desmodesmus subspicatus
	Method	OECD Guideline 201 (Alga, Growth Inhibition Test)
Silicon dioxide 7631-86-9	Value type	EC0
	Value	10,000 mg/l
	Acute Toxicity Study	Bacteria
	Exposure time	30 min
	Species	Pseudomonas putida
	Method	DIN 38412, part 27 (Bacterial oxygen consumption test)
Triacetoxyethylsilane 17689-77-9	Value type	LC50
	Value	251 mg/l
	Acute Toxicity Study	Fish
	Exposure time	96 h
	Species	Brachydanio rerio (new name: Danio rerio)
	Method	OECD Guideline 203 (Fish, Acute Toxicity Test)
Triacetoxyethylsilane 17689-77-9	Value type	EC50
	Value	168.7 mg/l
	Acute Toxicity Study	Daphnia
	Exposure time	48 h

	Species	Daphnia magna
	Method	EU Method C.2 (Acute Toxicity for Daphnia)
Triacetoxyethylsilane 17689-77-9	Value type	EC50
	Value	> 1,562.5 mg/l
	Acute Toxicity Study	Algae
	Exposure time	72 h
	Species	Pseudokirchneriella subcapitata
	Method	OECD Guideline 201 (Alga, Growth Inhibition Test)
	Value type	NOEC
	Value	40 mg/l
	Acute Toxicity Study	Algae
	Exposure time	72 h
	Species	Pseudokirchneriella subcapitata
	Method	OECD Guideline 201 (Alga, Growth Inhibition Test)
Methylsilanetriyl triacetate 4253-34-3	Value type	LC50
	Value	> 110 mg/l
	Acute Toxicity Study	Fish
	Exposure time	96 h
	Species	Oncorhynchus mykiss
	Method	OECD Guideline 203 (Fish, Acute Toxicity Test)

Persistence and degradability:

Triacetoxyethylsilane 17689-77-9	Result	readily biodegradable
	Route of application	aerobic
	Degradability	74 %
	Method	EU Method C.4-A (Determination of the "Ready" Biodegradability Dissolved Organic Carbon (DOC) Die-Away Test)

Bioaccumulative potential / Mobility in soil:

Silicon dioxide 7631-86-9	LogPow	0.53
	Temperature	
	Method	QSAR (Quantitative Structure Activity Relationship)
Triacetoxyethylsilane 17689-77-9	LogPow	0.74
	Temperature	
	Method	not specified

Section 13. Disposal considerations

Product

Method of disposal:

Dispose of in accordance with local and national regulations.

Packaging

Disposal of uncleaned packages:

Packaging that cannot be cleaned are to be disposed of in the same manner as the product.

Section 14. Transport information

Road transport ADR:

Not dangerous goods

Railroad transport RID:

Not dangerous goods

Inland water transport ADN:

Not dangerous goods

Marine transport IMDG:

Not dangerous goods

Air transport IATA:
Not dangerous goods

Section 15. Regulatory information

Regulatory Information:

Ministry of Industry Notice. The system to classify and communicate the hazard of hazardous material, BE. 2555

Global inventory status:

Regulatory list	Notification
TSCA	yes
DSL	yes
KECI (KR)	yes
ENCS (JP)	yes
ISHL (JP)	yes
IECSC	yes
AICS	yes
NZIOC	yes
TCSI	yes
PICCS (PH)	yes
CH INV	yes
EINECS	yes

Section 16. Other information

Disclaimer:

This Safety Data Sheet has been generated based on Ministry of Industry Notice. The system to classify and communicate the hazard of hazardous material, BE. 2555 only. No warranty or representation of any kind is given with respect to the substantive or export laws of any other jurisdiction or country. Please confirm that the information provided herein conforms to the substantive export or other law of any other jurisdiction prior to export. Please contact Henkel Product Safety and Regulatory Affairs for additional assistance. This information is based on our current level of knowledge and relates to the product in the state in which it is delivered. It is intended to describe our products from the point of view of safety requirements and is not intended to guarantee any particular properties.

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