Safety Data Sheet in compliance with Indian Manufacture, Storage and Import of Hazardous Chemical (Amendment) Rules, 2000

LOCTITE SI 5699 known as LOCTITE 5699 300ML SILICONE

SDS No. : 152852
V001.6
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SECTION 1: Identification of the substance/mixture and of the company/undertaking

Product identifier
LOCTITE SI 5699 known as LOCTITE 5699 300ML SILICONE
Material: 1266339

Relevant identified uses of the substance or mixture and uses advised against
Intended use:
Silicone

Identification of manufacturer, importer or distributor:
Henkel Adhesives Tech. India Pvt Ltd.
L&T Seawoods, Grand Central 401, B Wing, 4th Floor, Tower 1
Seawoods
400706 Navi Mumbai, Maharashtra

India

Phone: +91 022-7130-1112
Fax-no.: +91 022-7130-1400

Emergency telephone number
IN HAT: +91 9272203768

In case of any emergency call Poison Information Centre, JSS Hospital, Mysore: 24x7 Helpline No: +916363539153/ Toll Free No: 18004250207/ Mobile: +91 9901218640.

SECTION 2: Hazards identification

Classification of the substance or mixture

Classification (DPD):
Xi - Irritant
R43 May cause sensitisation by skin contact.

Label elements

Label elements (DPD):

Risk phrases:
R43 May cause sensitisation by skin contact.

Safety phrases:
S22 Do not breathe dust.
S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S36/37 Wear suitable protective clothing and gloves.
S60 This material and its container must be disposed of as hazardous waste.

SECTION 3: Composition/information on ingredients

Declaration of ingredients according to DPD (EC) No 1999/45:

Hazardous components CAS-No.	EC Number	content	Classification
Vinyl oximinosilane 2224-33-1	218-747-8	>= 1 - <= 20 %	Xn - Harmful; R48/22 Xi - Irritant; R41, R43
aluminium powder (stabilised) 7429-90-5	231-072-3	>= 0,01 - <= 10 %	F - Highly flammable; R11, R15
Butan-2-one O,O',O",O'"-silanetetrayltetraoxime 34206-40-1	251-882-0	>= 0,01 - <= 5 %	F - Highly flammable; R11 Xi - Irritant; R36, R43 Xn - Harmful; R48/22
Iron 7439-89-6	231-096-4	>= 0,01 - <= 5 %	F - Highly flammable; R11

For full text of the R-Phrases indicated by codes see section 16 'Other Information'.
Substances without classification may have community workplace exposure limits available.

Section 4. First aid measures

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

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

Eye contact: Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.
Get medical attention.

Ingestion: Keep individual calm.
Do not induce vomiting.
Get medical attention.

Symptoms/effects, acute and delayed: Skin disorders.

Section 5. Fire fighting measures

Suitable extinguishing media: Dry chemical.
Carbon dioxide.
foam

Specific hazards arising from the chemical: None

Special protection equipment and precautions for firefighters: Wear self contained breathing apparatus.

Hazardous combustion products: Oxides of carbon.
Oxides of silicon.
Formaldehyde.

Section 6. Accidental release measures

Personal precautions: Avoid contact with skin and eyes.
Ensure adequate ventilation.
Wear protective equipment.

Environmental precautions: Do not empty into drains / surface water / ground water.

Clean-up methods: Scrape up as much material as possible.
Maintain good ventilation for large spills.
Store in a partly filled, closed container until disposal.

SECTION 7: Handling and storage

Precautions for safe handling

Prevent contact with eyes, skin and clothing. Do not breathe vapor and mist. Wash thoroughly after handling.
Do not handle contact lenses until all sealant has been removed from hands. Residual sealant may transfer to lenses and cause eye irritation.

Conditions for safe storage, including any incompatibilities

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

Section 8. Exposure controls / personal protection

Ingredient [Regulated substance]	Value type	ppm	mg/m³	Remarks

Respiratory protection: An approved mask or respirator fitted with an organic vapour cartridge should be worn if the product is used in a poorly ventilated area
Ensure adequate ventilation.
Filter type: A

Hand protection: Chemical-resistant protective gloves (EN 374).
Suitable materials for short-term contact or splashes (recommended: at least protection index 2, corresponding to > 30 minutes permeation time as per EN 374):
nitrile rubber (NBR; >= 0.4 mm thickness)
Suitable materials for longer, direct contact (recommended: protection index 6, corresponding to > 480 minutes permeation time as per EN 374):
nitrile rubber (NBR; >= 0.4 mm thickness)
This information is based on literature references and on information provided by glove manufacturers, or is derived by analogy with similar substances. Please note that in practice the working life of chemical-resistant protective gloves may be considerably shorter than the permeation time determined in accordance with EN 374 as a result of the many influencing factors (e.g. temperature). If signs of wear and tear are noticed then the gloves should be replaced.

Eye protection: Safety glasses with sideshields or chemical safety goggles should be worn if there is a risk of splashing.

Body protection: Wear suitable protective clothing.

Engineering controls: Ensure good ventilation/extraction.

Hygienic measures: Good industrial hygiene practices should be observed. Wash hands before work breaks and after finishing work.

SECTION 9: Physical and chemical properties

Appearance:	Gray paste
Odor:	mild
Odor threshold (CA):	No data available.
pH:	Not applicableNot applicable
Melting point / freezing point:	Not available.
Specific gravity:	1,5
Boiling point:	> 200 °C (> 392 °F)
Flash point:	> 93 °C (> 199.4 °F)
Evaporation rate:	No data available.
Flammability (solid, gas):	No data available.
Lower explosive limit:	Not applicable
Upper explosive limit:	Not applicable
Vapor pressure:	< 5 mm hg
Vapor density:	Heavier than air.
Density:	1,5 g/cm3
Solubility:	Solvent: Water, Polymerises 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:	3,31 % 49,65 g/l

Section 10. Stability and reactivity

Reactivity/Incompatible materials:	Acids and bases. Oxidizing agents. Polymerizes on contact with water.
	None if used properly.
Chemical stability:	Stable under recommended storage conditions.
Possibility of hazardous reactions:	Will not occur.
Conditions to avoid:	Avoid contact with acids and oxidizing agents. High temperatures. Moisture.
Hazardous decomposition products:	Oxides of silicon. Oxides of carbon. Methyl ethyl ketoxime formed during cure. Formaldehyde.

SECTION 11: Toxicological information

Information on toxicological effects

General toxicological information:
No experimental toxicological data on the preparation as such is available.

Acute oral toxicity:

Hazardous components CAS-No.	Value type	Value	Route of application	Exposure time	Species	Method
Vinyl oximinosilane 2224-33-1	LD50	> 2.000 mg/kg	oral		rat	OECD Guideline 425 (Acute Oral Toxicity: Up-and-Down Procedure)

Vinyl oximinosilane 2224-33-1	Acute toxicity estimate (ATE)	2.500 mg/kg				Expert judgement
aluminium powder (stabilised) 7429-90-5	LD50	> 15.900 mg/kg	oral		rat	OECD Guideline 401 (Acute Oral Toxicity)
Butan-2-one O,O',O",O"'-silanetetrayltetraoxime 34206-40-1	LD50	2.463 mg/kg	oral		rat	OECD Guideline 401 (Acute Oral Toxicity)
Iron 7439-89-6	LD50	98.600 mg/kg	oral		rat	OECD Guideline 401 (Acute Oral Toxicity)

Acute inhalative toxicity:

Hazardous components CAS-No.	Value type	Value	Route of application	Exposure time	Species	Method
aluminium powder (stabilised) 7429-90-5	LC50	> 5 mg/l	inhalation	4 h	rat	not specified

Acute dermal toxicity:

Hazardous components CAS-No.	Value type	Value	Route of application	Exposure time	Species	Method
Vinyl oximinosilane 2224-33-1	LD50	> 2.009 mg/kg	dermal		rat	OECD Guideline 402 (Acute Dermal Toxicity)
Butan-2-one O,O',O",O"'-silanetetrayltetraoxime 34206-40-1	LD50	> 2.000 mg/kg	dermal		rat	OECD Guideline 402 (Acute Dermal Toxicity)

Skin corrosion/irritation:

Hazardous components CAS-No.	Result	Exposure time	Species	Method
Vinyl oximinosilane 2224-33-1	not irritating	4 h	rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
aluminium powder (stabilised) 7429-90-5	not irritating	24 h	rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
Iron 7439-89-6	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
aluminium powder (stabilised) 7429-90-5	not irritating		rabbit	FDA Guideline
Butan-2-one O,O',O",O"'-silanetetrayltetraoxime 34206-40-1	irritating	1 h	rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)
Iron 7439-89-6	not irritating		rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)

Respiratory or skin sensitization:

Hazardous components CAS-No.	Result	Test type	Species	Method
Vinyl oximinosilane 2224-33-1	Sensitizing	Guinea pig maximisation test	guinea pig	OECD Guideline 406 (Skin Sensitisation)
aluminium powder (stabilised) 7429-90-5	not sensitising	Draize Test	guinea pig	Draize Test
Butan-2-one O,O',O",O"'-silanetetrayltetraoxime 34206-40-1	sensitising	Guinea pig maximisation test	guinea pig	OECD Guideline 406 (Skin Sensitisation)
Iron 7439-89-6	not sensitising	Maurer optimisation test	guinea pig	not specified

Germ cell mutagenicity:

Hazardous components CAS-No.	Result	Type of study / Route of administration	Metabolic activation / Exposure time	Species	Method
Vinyl oximinosilane 2224-33-1	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
Vinyl oximinosilane 2224-33-1	negative	intraperitoneal		mouse	OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test)
aluminium powder (stabilised) 7429-90-5	positive	in vitro mammalian cell micronucleus test	without		OECD Guideline 487 (In vitro Mammalian Cell Micronucleus Test)
	positive	in vitro mammalian chromosome aberration test	without		OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test)
	negative	mammalian cell gene mutation assay	with and without		OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)
aluminium powder (stabilised) 7429-90-5	negative	oral: gavage		rat	OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test)
	ambiguous	oral: gavage		rat	OECD Guideline 475 (Mammalian Bone Marrow Chromosome Aberration Test)
Iron 7439-89-6	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
	negative	mammalian cell gene mutation assay	with and without		OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)

Repeated dose toxicity

Hazardous components CAS-No.	Result	Route of application	Exposure time / Frequency of treatment	Species	Method
Vinyl oximinosilane 2224-33-1	LOAEL=40 mg/kg	oral: gavage	13 w5 d/week	rat	EPA OPPTS 870.3100 (90-Day Oral Toxicity in Rodents)
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.

Toxicity

Ecotoxicity:
Do not empty into drains / surface water / ground water.
It is expected to be non hazardous to aquatic species.

Hazardous components CAS-No.	Value type	Value	Acute Toxicity Study	Exposure time	Species	Method
Vinyl oximinosilane 2224-33-1	LC50	> 560 mg/l	Fish	96 h	Brachydanio rerio (new name: Danio rerio)	OECD Guideline 203 (Fish, Acute Toxicity Test)
	NOEC	50 mg/l	Fish	14 d	Oryzias latipes	OECD Guideline 204 (Fish, Prolonged Toxicity Test: 14-day Study)
Vinyl oximinosilane 2224-33-1	EC50	201 mg/l	Daphnia	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Vinyl oximinosilane 2224-33-1	EC50	94 mg/l	Algae	72 h	Selenastrum capricornutum (new name: Pseudokirchneriella subcapitata)	OECD Guideline 201 (Alga, Growth Inhibition Test)
	NOEC	30 mg/l	Algae	72 h	Selenastrum capricornutum (new name: Pseudokirchneriella subcapitata)	OECD Guideline 201 (Alga, Growth Inhibition Test)
Vinyl oximinosilane 2224-33-1	NOEC	> 100 mg/l	chronic Daphnia	21 d	Daphnia magna	OECD 211 (Daphnia magna, Reproduction Test)
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)
	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)
	NOEC	2,6 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	> 100 mg/l	chronic Daphnia	21 d	Daphnia magna	OECD 211 (Daphnia magna, Reproduction Test)
Iron 7439-89-6	LC50	Toxicity > Water solubility	Fish	96 h	Cyprinus carpio	OECD Guideline 203 (Fish, Acute Toxicity Test)
Iron 7439-89-6	EC50	Toxicity > Water solubility	Daphnia	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)

Persistence and degradability

Persistence and Biodegradability:
The product is not biodegradable.

Hazardous components CAS-No.	Result	Route of application	Degradability	Method

Vinyl oximinosilane 2224-33-1	not readily biodegradable.	aerobic	26 %	OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I))
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

Mobility:
Cured adhesives are immobile.

Bioaccumulative potential:
Does not bioaccumulate.

Results of PBT and vPvB assessment

Hazardous components CAS-No.	**PBT/vPvB**
Vinyl oximinosilane 2224-33-1	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
aluminium powder (stabilised) 7429-90-5	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
Butan-2-one O,O',O",O"'-silanetetrayltetraoxime 34206-40-1	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
Iron 7439-89-6	According to Annex XIII of regulation (EC) 1907/2006 a PBT and vPvB assessment shall not be conducted for inorganic substances.

Section 13. Disposal considerations

Waste disposal of product: Dispose of in accordance with local and national regulations.

Disposal for uncleaned package: Disposal must be made according to official regulations.

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. Regulations - classification and identification

Vinyl oximinosilane	OECD. Program to investigate the potential hazards of high production volume chemicals (HPV), including decisions on the need for further work.
aluminium powder (stabilised)	India. List of Hazardous Chemicals (Manufacture, Storage and Import of Hazardous Chemical Rules, Schedule I (Part II)) Wassenaar Arrangement, Munitions List, Energetic Materials (ML8) Wassenaar Arrangement, Munitions List, Energetic Materials (ML8) MTCR (Missile Technology Control Regime) Annex, Category II, Item 4: Propellants & Chemicals
Iron	Wassenaar Arrangement, Munitions List, Energetic Materials (ML8)

SECTION 16: Other information

The labelling of the product is indicated in Section 2. The full text
of all abbreviations indicated by codes in this safety data sheet are as follows:

R11 Highly flammable.
R15 Contact with water liberates extremely flammable gases.
R36 Irritating to eyes.
R41 Risk of serious damage to eyes.
R43 May cause sensitisation by skin contact.
R48/22 Harmful: danger of serious damage to health by prolonged exposure if swallowed.

Further information:
Dear Customer,
Henkel is committed to creating a sustainable future by promoting opportunities along the entire value chain. If you would like to contribute by switching from a paper to the electronic version of SDS, please contact the local Customer Service representative. We recommend to use a non-personal email address (e.g. SDS@your_company.com).

Relevant changes in this safety data sheet are indicated by vertical lines at the left margin in the body of this document. Corresponding text is displayed in a different color on shadowed fields.

Disclaimer:

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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