

Safety Data Sheet



Revision Number: 007.0

Issue date: 07/27/2022

1. PRODUCT AND COMPANY IDENTIFICATION

Product name: LOCTITE SI 5999 known as 5999
Flange Sealant Grey High
Product type/use: Silicone
Restriction of Use: None identified
Company address:
Henkel Corporation
One Henkel Way
Rocky Hill, Connecticut 06067

IDH number: 233100
Item number: 28298
Region: United States
Contact information:
Telephone: +1 (860) 571-5100
MEDICAL EMERGENCY Phone: Poison Control Center
1-877-671-4608 (toll free) or 1-303-592-1711
TRANSPORT EMERGENCY Phone: CHEMTREC
1-800-424-9300 (toll free) or 1-703-527-3887
Internet: www.henkelna.com

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

DANGER: MAY CAUSE AN ALLERGIC SKIN REACTION.
CAUSES SERIOUS EYE IRRITATION.
MAY CAUSE CANCER.
MAY CAUSE DAMAGE TO ORGANS THROUGH PROLONGED OR
REPEATED EXPOSURE.

HAZARD CLASS	HAZARD CATEGORY
EYE IRRITATION	2A
SKIN SENSITIZATION	1
CARCINOGENICITY	1A
SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE	2

PICTOGRAM(S)



Precautionary Statements

Prevention: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe dust or fumes. Wash affected area thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Wear protective gloves, clothing, eye and face protection.

Response: IF ON SKIN: Wash with plenty of water. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. IF exposed or concerned: Get medical attention. If skin irritation or rash occurs: Get medical attention. If eye irritation persists: Get medical attention. Wash contaminated clothing before reuse.

Storage: Store locked up.

Disposal: Dispose of contents and/or container according to Federal, State/Provincial and local governmental regulations.

Classification complies with OSHA Hazard Communication Standard (29 CFR 1910.1200) and is consistent with the provisions of the United Nations Globally Harmonized System of Classification and Labeling of Chemicals (GHS).

See Section 11 for additional toxicological information.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous Component(s)	CAS Number	Percentage*
Calcium carbonate	471-34-1	10 - 30

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Butan-2-one O,O',O"- (vinylsilylidyne)trioxime	2224-33-1	1 - 5
Silica, amorphous, treated	68909-20-6	1 - 5
2-butanone oxime	96-29-7	1 - 5
Aluminum	7429-90-5	0.1 - 1
Quartz (SiO ₂), <1% respirable	14808-60-7	0.1 - 1

* Exact percentages may vary or are trade secret. Concentration range is provided to assist users in providing appropriate protections.

4. FIRST AID MEASURES

Inhalation:	If not breathing, give artificial respiration. If breathing is difficult, oxygen should be administered by qualified personnel. Move to fresh air. If symptoms persist, seek medical advice.
Skin contact:	Wipe off paste with paper towel or cloth. Rinse with running water and soap. Remove contaminated clothing and shoes. Seek medical attention immediately. Wash contaminated clothing before reuse. Thoroughly clean shoes before reuse.
Eye contact:	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.
Ingestion:	DO NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Seek medical attention immediately.
Symptoms:	See Section 11.

5. FIRE FIGHTING MEASURES

Extinguishing media:	Foam, dry chemical or carbon dioxide.
Special firefighting procedures:	Wear self-contained breathing apparatus and full protective clothing, such as turn-out gear. Prevent inhalation of fumes and gases.
Unusual fire or explosion hazards:	Closed containers may rupture (due to build up of pressure) when exposed to extreme heat. In case of fire, keep containers cool with water spray.
Hazardous combustion products:	Oxides of carbon. Oxides of silicon. Formaldehyde. Irritating organic vapours.

6. ACCIDENTAL RELEASE MEASURES

Use personal protection recommended in Section 8, isolate the hazard area and deny entry to unnecessary and unprotected personnel.

Environmental precautions:	Do not allow product to enter sewer or waterways.
Clean-up methods:	Ensure adequate ventilation. Wear appropriate personal protective equipment. Refer to Section 8 "Exposure Controls / Personal Protection" prior to clean up. Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Scrape up spilled material and place in a closed container for disposal.

7. HANDLING AND STORAGE

Handling:

Use only in well-ventilated areas. Use only in area provided with appropriate exhaust ventilation. Vapours should be extracted to avoid inhalation. Prevent contact with eyes, skin and clothing. Do not breathe vapor and mist. Wash thoroughly after handling. Wear suitable protective clothing, gloves and eye/face protection. Refer to Section 8. Do not wear contact lenses. Do not handle contact lenses until all sealant has been removed from hands. Residual sealant may transfer to lenses and cause eye irritation. Keep container closed.

Storage:

For safe storage, store between 8 °C (46.4 °F) and 28 °C (82.4 °F). Keep in a cool, well ventilated area away from heat, sparks and open flame. Keep container tightly closed until ready for use. Store in a dry area below 90° F.

For information on product shelf life, please review labels on container or check the Technical Data Sheet.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Employers should complete an assessment of all workplaces to determine the need for, and selection of, proper exposure controls and protective equipment for each task performed.

Hazardous Component(s)	ACGIH TLV	OSHA PEL	AIHA WEEL	OTHER
Calcium carbonate	3 mg/m3 TWA Respirable particles. 10 mg/m3 TWA Inhalable particles.	5 mg/m3 PEL Respirable fraction. 15 mg/m3 PEL Total dust. 5 mg/m3 PEL Respirable fraction. 15 mg/m3 TWA Total dust. 50 MPPCF TWA Total dust. 15 MPPCF TWA Respirable fraction. 5 mg/m3 TWA Respirable fraction.	None	None
Butan-2-one O,O',O''-(vinylsilylidyne)trioxime	None	None	None	None
Silica, amorphous, treated	10 mg/m3 TWA Inhalable dust.	6 mg/m3 TWA	None	None
2-butanone oxime	None	None	10 ppm (36 mg/m3) TWA (Skin sensitizer.)	None
Aluminum	1 mg/m3 TWA Respirable fraction.	15 mg/m3 PEL (as Al) Total dust. 5 mg/m3 PEL (as Al) Respirable fraction. 15 MPPCF TWA Respirable fraction. 50 MPPCF TWA Total dust. 5 mg/m3 TWA Respirable fraction. 15 mg/m3 TWA Total dust.	None	None
Quartz (SiO ₂), <1% respirable	0.025 mg/m3 TWA Respirable fraction.	0.05 mg/m3 TWA (Respirable dust.) (Respirable dust.) 0.025 mg/m3 OSHA_ACT (Respirable dust.) 0.05 mg/m3 PEL Respirable dust. 2.4 MPPCF TWA Respirable. 0.1 mg/m3 TWA Respirable.	None	None

Engineering controls:	Provide adequate local exhaust ventilation to maintain worker exposure below exposure limits.
Respiratory protection:	Use NIOSH approved respirator if there is potential to exceed exposure limit(s).
Eye/face protection:	Safety goggles or safety glasses with side shields. Full face protection should be used if the potential for splashing or spraying of product exists. Safety showers and eye wash stations should be available.
Skin protection:	Use chemical resistant, impermeable clothing including gloves and either an apron or body suit to prevent skin contact.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state:	Paste
Color:	Gray
Odor:	Mild
Odor threshold:	Not available.
pH:	7 - 9
Vapor pressure:	< 5 mm hg < 6.67 hPa (20 °C (68°F))
Boiling point/range:	> 200 °C (> 392°F)
Melting point/ range:	> 400 °C (> 752°F)
Specific gravity:	1.5 at 20 °C (68°F)
Vapor density:	Not applicable, Product is a solid.
Flash point:	Not applicable
Flammable/Explosive limits - lower:	Not available.
Flammable/Explosive limits - upper:	Not available.
Autoignition temperature:	Not available.
Flammability:	The product is not flammable.
Evaporation rate:	Not available.
Solubility in water:	Polymerises in presence of water.
Partition coefficient (n-octanol/water):	Not available.
VOC content:	4.16 %; 59.55 g/l
Viscosity:	Not available.
Decomposition temperature:	> 100 °C

10. STABILITY AND REACTIVITY

Stability:	Stable at normal conditions.
Hazardous reactions:	None under normal processing.
Hazardous decomposition products:	Formaldehyde. Methyl ethyl ketoxime formed during cure. Oxides of silicon. Oxides of carbon. Irritating fumes.
Incompatible materials:	Polymerizes on contact with water. Oxidizing agents. Acids and bases. Amines.
Reactivity:	Not available.
Conditions to avoid:	Keep away from heat, ignition sources and incompatible materials. Protect from direct sunlight. Moisture.

11. TOXICOLOGICAL INFORMATION

Relevant routes of exposure:	Skin, Inhalation, Eyes, Ingestion
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Potential Health Effects/Symptoms

Inhalation:	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. Inhalation of vapors from uncured sealant may cause respiratory tract irritation. Can cause central nervous system effects like dizziness, drowsiness, headache, and nausea. Abrasion of cured material such as by sanding or grinding could release respirable particles of silica quartz, a cancer hazard by inhalation. Normal use of this product causes no such release.
Skin contact:	May cause skin irritation. May cause allergic skin reaction.
Eye contact:	Causes serious eye irritation.
Ingestion:	Not expected under normal conditions of use. May cause gastrointestinal tract irritation if swallowed.

Hazardous Component(s)	LD50s and LC50s	Immediate and Delayed Health Effects
Calcium carbonate	Oral LD50 (Rat) = 6,450 mg/kg Oral LD50 (Mouse) = 6,450 mg/kg Inhalation LC50 (Rat, 4 h) = > 3 mg/l	Nuisance dust
Butan-2-one O,O',O''-(vinylsilyldiyl)trioxime	None	Irritant, Allergen
Silica, amorphous, treated	None	No Target Organs
2-butanone oxime	Inhalation LC50 (Rat, 4 h) = > 4.83 mg/l	Allergen, Blood, Central nervous system, Eyes, Irritant, Some evidence of carcinogenicity
Aluminum	Inhalation LC50 (Rat, 4 h) = > 0.888 mg/l Inhalation LC50 (Rat, 4 h) = > 2.3 mg/l	Central nervous system, Irritant, Lung
Quartz (SiO ₂), <1% respirable	None	Immune system, Lung, Some evidence of carcinogenicity

Hazardous Component(s)	NTP Carcinogen	IARC Carcinogen	OSHA Carcinogen (Specifically Regulated)
Calcium carbonate	No	No	No
Butan-2-one O,O',O''-(vinylsilyldiyl)trioxime	No	No	No
Silica, amorphous, treated	No	No	No
2-butanone oxime	No	No	No
Aluminum	No	No	No
Quartz (SiO ₂), <1% respirable	Known To Be Human Carcinogen.	Group 1	Yes

12. ECOLOGICAL INFORMATION

Ecological information: Not available.

13. DISPOSAL CONSIDERATIONS

Information provided is for unused product only.

Recommended method of disposal: Follow all local, state, federal and provincial regulations for disposal.

14. TRANSPORT INFORMATION

The transport information provided in this section only applies to the material/formulation itself, and is not specific to any package/configuration.

U.S. Department of Transportation Ground (49 CFR)

Proper shipping name:	Not regulated
Hazard class or division:	None
Identification number:	None
Packing group:	None

International Air Transportation (ICAO/IATA)

Proper shipping name:	Not regulated
Hazard class or division:	None
Identification number:	None
Packing group:	None

Water Transportation (IMO/IMDG)

Proper shipping name:	Not regulated
Hazard class or division:	None
Identification number:	None
Packing group:	None

Exceptions:	None
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15. REGULATORY INFORMATION

United States Regulatory Information

TSCA 8 (b) Inventory Status:	All components are listed as active or are exempt from listing on the Toxic Substances Control Act (TSCA) inventory.
TSCA 12 (b) Export Notification:	None above reporting de minimis
CERCLA/SARA Section 302 EHS:	None above reporting de minimis.
CERCLA/SARA Section 311/312:	Immediate Health, Delayed Health
CERCLA/SARA Section 313:	None above reporting de minimis.
California Proposition 65:	This product contains a chemical known in the State of California to cause cancer. This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

Canada Regulatory Information

CEPA DSL/NDSL Status:	Contains one or more components listed on the Non-Domestic Substances List. All other components are listed on or are exempt from listing on the Domestic Substances List. Components listed on the NDSL must be tracked by all Canadian Importers of Record as required by Environment Canada. They may be imported into Canada in limited quantities. Please contact Regulatory Affairs for additional details. All components are listed on or are exempt from listing on the Canadian Domestic Substances List.
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16. OTHER INFORMATION

This safety data sheet contains changes from the previous version in sections: 2,9

Prepared by: Product Safety and Regulatory Affairs

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