



Revision Number: 009.0

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1. IDENTIFICATION

Product name: LOCTITE SI 5970 known as LOCTITE® 5970™ FLANGE SEALANT
Product type/Recommended use: Silicone sealant
Restriction of Use: None identified
Company address: Henkel Corporation
 One Henkel Way
 Rocky Hill, Connecticut 06067

IDH number: 660095
Item number: 39246
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
 MEDICAL EMERGENCY Phone: Poison Control Center
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 TRANSPORT EMERGENCY Phone: CHEMTREC
 1-800-424-9300 (toll free) or 1-703-527-3887
 Internet: www.henkelna.com

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

WARNING: H317 - MAY CAUSE AN ALLERGIC SKIN REACTION.
 H319 - CAUSES SERIOUS EYE IRRITATION.

HAZARD CLASS	HAZARD CATEGORY
EYE IRRITATION	2A
SKIN SENSITIZATION	1

PICTOGRAM(S)



Precautionary Statements

Prevention: P261 - Avoid breathing mist/vapours.
 P264 - Wash affected area thoroughly after handling.
 P272 - Contaminated work clothing should not be allowed out of the workplace.
 P280 - Wear protective gloves, eye protection, and 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.
 P333+P313 - If skin irritation or rash occurs: Get medical attention.
 P337+P313 - If eye irritation persists: Get medical attention.
 P362+P364 - Take off contaminated clothing and wash it before reuse.

Storage: Not prescribed
Disposal: P501 - Dispose of contents and/or container according to Federal, State/Provincial and local governmental regulations.

Other hazards Not available.

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	Weight %*
Limestone	1317-65-3	30 - 60
Calcium carbonate	471-34-1	5 - 10
	Proprietary	1 - 5
Carbon black - Nano	1333-86-4	1 - 5
1,1,1,3,3,3-Hexamethyldisilazane	999-97-3	1 - 5
3-aminopropyltriethoxysilane	919-30-2	0.1 - 1
Quartz (SiO ₂)	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

First Aid Measures by likely routes of exposure

Inhalation:	Move to fresh air in case of accidental inhalation of vapours or decomposition products. If symptoms develop and persist, get medical attention.
Skin contact:	Wipe off paste with paper towel or cloth. Wash with soap and water. If skin irritation persists, call a physician.
Eye contact:	In case of contact with the eyes, rinse immediately with plenty of water for 15 minutes, and seek immediate medical attention.
Ingestion:	Prevent vomiting if possible. Get medical attention.
Most important symptoms and effects (acute and delayed):	The most important known symptoms and effects, both acute and delayed, are described in Section 11: Toxicological Information.
Indication of any immediate medical attention / special treatment needed:	Not available.

5. FIRE FIGHTING MEASURES

Extinguishing media:	Foam, dry chemical or carbon dioxide.
Improper extinguishing agents:	Not available.
Special firefighting procedures:	Prevent inhalation of fumes and gases.
Unusual fire or explosion hazards:	None
Hazardous combustion products:	Oxides of carbon. Oxides of silicon. Irritating organic vapours. Formaldehyde

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 material to contaminate ground water system.
Clean-up methods:	Scrape up as much material as possible. Maintain good ventilation for large spills. Place scrap material in a well ventilated area and allow to cure to rubber.

7. HANDLING AND STORAGE

Handling: Prevent contact with eyes, skin and clothing. Do not breathe vapor and mist.
Wash thoroughly after handling.

Storage: For safe storage, store between 8 °C (46.4 °F) and 28 °C (82.4 °F)
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
Limestone	10 mg/m3 TWA Inhalable particles. 3 mg/m3 TWA Respirable particles. 10 mg/m3 TWA Total dust.	5 mg/m3 PEL Respirable fraction. 15 mg/m3 PEL Total dust. 5 mg/m3 TWA Respirable fraction. 50 MPPCF TWA Total dust. 15 mg/m3 TWA Total dust. 15 MPPCF TWA Respirable fraction.	None	None
Calcium carbonate	3 mg/m3 TWA Respirable particles. 10 mg/m3 TWA Inhalable particles.	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. 15 mg/m3 PEL Total dust. 5 mg/m3 PEL Respirable fraction.	None	None
Silane, dichlorodimethyl-, reaction products with silica	3 mg/m3 TWA Respirable particles. 10 mg/m3 TWA Inhalable particles.	0.8 mg/m3 TWA 20 MPPCF TWA 50 MPPCF TWA Total dust. 15 mg/m3 TWA Total dust. 5 mg/m3 TWA Respirable fraction. 15 MPPCF TWA Respirable fraction.	None	None
Carbon black - Nano	3 mg/m3 TWA Inhalable fraction.	3.5 mg/m3 PEL 5 mg/m3 TWA Respirable fraction. 50 MPPCF TWA Total dust. 15 MPPCF TWA Respirable fraction. 15 mg/m3 TWA Total dust.	None	None
1,1,1,3,3,3-Hexamethyldisilazane	None	None	10 ppm TWA 50 ppm STEL	None
Quartz (SiO ₂)	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:

Ensure adequate ventilation, especially in confined areas.

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.
Skin protection:	Use impermeable gloves and protective clothing as necessary to prevent skin contact.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state:	Paste
Color:	Black
Odor:	Mild, Alcohol
Odor threshold:	Not available.
pH:	Not applicable, Product is non-soluble (in water).
Vapor pressure:	< 5 mm hg (25 °C (77°F))
Boiling point/range:	> 100 °C (> 212°F)
Melting point/ range:	Not applicable, Product is a liquid
Density/Relative density:	1.4
Relative vapor density:	> 1 20 °C
Flash point:	> 100 °C (> 212°F)
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:	Polymerises in presence of water. Water
Partition coefficient n-octanol/water (logarithmic value):	Not available.
VOC content:	2.7 %; 37.8 g/l
Dynamic viscosity:	Not available.
Kinematic viscosity:	> 20.5 mm ² /s
Particle characteristics:	Not applicable, Product is a liquid
Decomposition temperature:	Not available.

10. STABILITY AND REACTIVITY

Stability:	Stable under normal conditions of storage and use.
Hazardous reactions:	Will not occur.
Hazardous decomposition products:	Formaldehyde Oxides of silicon. Thermal decomposition can lead to release of irritating gases and vapors. Methanol is liberated slowly upon exposure to moisture.
Incompatible materials:	Acids. Bases. Oxidizing agents.
Reactivity:	Not available.
Conditions to avoid:	Exposure to moisture.

11. TOXICOLOGICAL INFORMATION

Likely routes of exposure:	Skin, Inhalation, Eyes, Ingestion
Likely routes of exposure:	Skin, Inhalation, Eyes, Ingestion

Potential Health Effects/Symptoms

Inhalation:	May cause respiratory tract irritation. 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.
Inhalation:	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. May cause respiratory tract irritation.
Skin contact:	May cause allergic skin reaction. May cause skin irritation.
Skin contact:	May cause allergic skin reaction.
Eye contact:	Causes serious eye irritation.
Eye contact:	Causes serious eye irritation.
Ingestion:	May cause gastrointestinal tract irritation if swallowed.
Ingestion:	May cause gastrointestinal tract irritation if swallowed. Not expected under normal conditions of use.

Hazardous Component(s)	LD50s and LC50s
Limestone	None
Calcium carbonate	Oral LD50 (Rat) = 6,450 mg/kg Oral LD50 (Mouse) = 6,450 mg/kg Inhalation LC50 (Rat, 4 h) = > 3 mg/l
Carbon black - Nano	None
1,1,1,3,3,3-Hexamethyldisilazane	Oral LD50 (Rat) = > 8,000 mg/kg Oral LD50 (Rat) = 847 mg/kg Oral LD50 (Rabbit) = 1,100 mg/kg Oral LD50 (Mouse) = 850 mg/kg Inhalation LC50 (Rat, 4 h) = 8,700 mg/m ³ Inhalation LC50 (Rat, 4 h) = 10.3 mg/l
3-aminopropyltriethoxysilane	Inhalation LC50 (Rat, 4 h) = > 7.35 mg/l
Quartz (SiO ₂)	None

Hazardous Component(s)	Immediate Health Effects	Delayed Health Effects	Chronic Health Effects
Limestone	Nuisance dust		
Calcium carbonate	Nuisance dust		
Carbon black - Nano			
1,1,1,3,3,3-Hexamethyldisilazane	Irritant		
3-aminopropyltriethoxysilane	Irritant	Allergen	
Quartz (SiO ₂)			Immune system Lung Some evidence of carcinogenicity

Hazardous Component(s)	NTP Carcinogen	IARC Carcinogen	OSHA Carcinogen (Specifically Regulated)
Limestone	No	No	No
Calcium carbonate	No	No	No
	No	No	No
Carbon black - Nano	Known To Be Human Carcinogen.	Group 2B	No
1,1,1,3,3,3-Hexamethyldisilazane	No	No	No
3-aminopropyltriethoxysilane	No	No	No
Quartz (SiO ₂)	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 packaging.

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

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:	Please refer to the GHS classification in Section 2
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.
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16. OTHER INFORMATION

This safety data sheet contains changes from the previous version in sections: 2, 3, 8, 11, 13, 15

Prepared by: Product Safety and Regulatory Affairs

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