



Revision Number: 008.1

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1. PRODUCT AND COMPANY IDENTIFICATION

Product name:	LOCTITE SI 593 BK KNOWN AS LOCTITE 593 SILICONE SEALER	IDH number:	193996
Product type:	Sealant	Item number:	59330
Restriction of Use:	None identified	Region:	United States
Company address:	Henkel Corporation One Henkel Way Rocky Hill, Connecticut 06067	Contact information:	Telephone: (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: CAUSES SKIN IRRITATION.
CAUSES SERIOUS EYE DAMAGE.

HAZARD CLASS	HAZARD CATEGORY
SKIN IRRITATION	2
SERIOUS EYE DAMAGE	1

PICTOGRAM(S)



Precautionary Statements

Prevention:	Wash affected area thoroughly after handling. Wear protective gloves, eye protection, 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 skin irritation occurs: Get medical attention. Take off contaminated clothing.
Storage:	Not prescribed
Disposal:	Not prescribed

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*
Distillates (petroleum), hydrotreated middle	64742-46-7	5 - 10
Silicon dioxide	7631-86-9	5 - 10
Methylsilanetriyl triacetate	4253-34-3	1 - 5

Triacetoxyethylsilane	17689-77-9	1 - 5
Carbon black	1333-86-4	1 - 5
Acetic acid	64-19-7	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:	Move to fresh air. 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:	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If adverse health effects develop seek medical attention.
Ingestion:	Do not induce vomiting. In case of adverse health effects seek medical advice.
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.
Unusual fire or explosion hazards:	Closed containers may rupture (due to build up of pressure) when exposed to extreme heat.
Hazardous combustion products:	Oxides of carbon. Oxides of silicon. Formaldehyde. Acrid smoke and fumes.

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

7. HANDLING AND STORAGE

Handling:	Do not get in eyes. Avoid contact with eyes, skin and clothing. Do not get on skin or 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:	Keep container closed. Store in a dry area below 90° F.

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
Distillates (petroleum), hydrotreated middle	5 mg/m3 TWA Inhalable fraction.	5 mg/m3 PEL Mist. 100 ppm (400 mg/m3) PEL	None	None
Silicon dioxide	6 mg/m3 TWA	20 MPPCF TWA 0.8 mg/m3 TWA	None	3 mg/m3 TWA Respirable fraction.
Methylsilanetriyl triacetate	None	None	None	None
Triacetoxyethylsilane	None	None	None	None
Carbon black	3 mg/m3 TWA Inhalable fraction.	3.5 mg/m3 PEL	None	None
Acetic acid	15 ppm STEL 10 ppm TWA	10 ppm (25 mg/m3) PEL	None	None

Engineering controls:	Ensure adequate ventilation, especially in confined areas.
Respiratory protection:	No personal respiratory protective equipment normally required. 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:	Acetic acid
Odor threshold:	Not available.
pH:	Not determined
Vapor pressure:	< 10 mm hg (68 °F (20°C))
Boiling point/range:	Not available.
Melting point/ range:	Not available.
Specific gravity:	1.01 at 20 °C (68°F)
Vapor density:	Heavier than air.
Flash point:	> 93 °C (> 199.4 °F)
Flammable/Explosive limits - lower:	4 % (acetic acid)
Flammable/Explosive limits - upper:	19.9 % (acetic acid)
Autoignition temperature:	Not available.
Flammability:	Not applicable
Evaporation rate:	Not available.
Solubility in water:	Not soluble. Polymerizes in presence of water.
Partition coefficient (n-octanol/water):	Not available.
VOC content:	< 3 %; 30 g/l
Viscosity:	Not available.
Decomposition temperature:	Not available.

10. STABILITY AND REACTIVITY

Stability:	Stable at normal conditions.
Hazardous reactions:	None under normal processing.
Hazardous decomposition products:	Acetic acid is liberated slowly upon contact with moisture. Oxides of carbon. Oxides of silicon. Formaldehyde. Irritating vapors.
Incompatible materials:	Bases. Acids. Oxidizing agents. Water
Reactivity:	Not available.
Conditions to avoid:	Exposure to moisture. Prolonged heating at temperatures above 150 °C.

11. TOXICOLOGICAL INFORMATION

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

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. Acetic acid produced during cure may irritate eyes, nose and throat.
Skin contact:	Causes skin irritation.
Eye contact:	Causes serious eye damage.
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
Distillates (petroleum), hydrotreated middle	None	Irritant
Silicon dioxide	Oral LD50 (Rat) = > 22,500 mg/kg Oral LD50 (Mouse) = > 15,000 mg/kg	Nuisance dust
Methylsilanetriyl triacetate	None	Irritant, Allergen
Triacetoxethylsilane	None	No Target Organs
Carbon black	Oral LD50 (Rat) = > 8,000 mg/kg	Respiratory, Some evidence of carcinogenicity
Acetic acid	Oral LD50 (Rabbit) = 1,200 mg/kg Oral LD50 (Mouse) = 4,960 mg/kg Oral LD50 (Rat) = 3.53 g/kg Oral LD50 (Rat) = 3.31 g/kg Dermal LD50 (Rabbit) = 1,060 mg/kg Inhalation LC50 (Rat, 4 h) = 11.4 mg/l	Allergen, Corrosive, Eyes, Gastrointestinal, Immune system, Irritant, Kidney

Hazardous Component(s)	NTP Carcinogen	IARC Carcinogen	OSHA Carcinogen (Specifically Regulated)
Distillates (petroleum), hydrotreated middle	No	No	No
Silicon dioxide	No	No	No
Methylsilanetriyl triacetate	No	No	No
Triacetoxethylsilane	No	No	No
Carbon black	No	Group 2B	No
Acetic acid	No	No	No

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. Cured rubber can be incinerated or landfilled following EPA and local regulations.

Hazardous waste number: Not a RCRA hazardous waste.

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

15. REGULATORY INFORMATION

United States Regulatory Information

TSCA 8 (b) Inventory Status: All components are listed or are exempt from listing on the Toxic Substances Control Act 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.

Canada Regulatory Information

CEPA DSL/NDSL Status: All components are listed on or are exempt from listing on the Canadian Domestic Substances List.

16. OTHER INFORMATION

This safety data sheet contains changes from the previous version in sections: 3, 5, 10

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