



Revision Number: 004.0

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**1. PRODUCT AND COMPANY IDENTIFICATION**

**Product name:** LOCTITE SI 593 BK AE known as 593 RTV Black 190ml AE  
**Product type:** Silicone sealant  
**Restriction of Use:** None identified  
**Company address:** Henkel Corporation  
 One Henkel Way  
 Rocky Hill, Connecticut 06067

**IDH number:** 743519  
**Item number:** 40464  
**Region:** United States  
**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**

**WARNING:** CONTENTS UNDER PRESSURE.  
 CAUSES SKIN IRRITATION.  
 MAY CAUSE AN ALLERGIC SKIN REACTION.  
 CAUSES SERIOUS EYE IRRITATION. CONTAINS GAS UNDER PRESSURE;  
 MAY EXPLODE IF HEATED.

| HAZARD CLASS         | HAZARD CATEGORY |
|----------------------|-----------------|
| SKIN IRRITATION      | 2               |
| EYE IRRITATION       | 2A              |
| SKIN SENSITIZATION   | 1               |
| GASES UNDER PRESSURE | Liq. Gas        |

**PICTOGRAM(S)**



**Precautionary Statements**

**Prevention:** Avoid breathing vapors, mist, or spray. Wash thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Wear eye and face protection. Wear protective gloves.

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

**Storage:** Protect from sunlight. Store in a well-ventilated place.

**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* |
|--|-------------|-------------|
| Distillates (petroleum), hydrotreated middle | Proprietary | 5 - 10      |
| Silicon dioxide                              | 7631-86-9   | 5 - 10      |
| Norflurane                                   | 811-97-2    | 5 - 10      |
| Silicone Resin                               | Proprietary | 1 - 5       |
| Substituted Silane                           | Proprietary | 1 - 5       |
| Acetic acid                                  | 64-19-7     | 0.1 - 1     |

\* Exact percentage is a trade secret. Concentration range is provided to assist users in providing appropriate protections.

### 4. FIRST AID MEASURES

|                            |   |
|----------------------------|---|
| <b>Inhalation:</b>         | Move to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. If symptoms develop and persist, get medical attention. |
| <b>Skin contact:</b>       | Wipe off paste with paper towel or cloth. Wash with soap and water. If skin irritation persists, call a physician.  |
| <b>Eye contact:</b>        | Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If eye irritation persists, consult a specialist.                        |
| <b>Ingestion:</b>          | Do not induce vomiting. If a person feels unwell or symptoms of skin irritation appear, consult a physician.  |
| <b>Symptoms:</b>           | See Section 11.   |
| <b>Notes to physician:</b> | Treat symptomatically.  |

### 5. FIRE FIGHTING MEASURES

|   |   |
|---|---|
| <b>Extinguishing media:</b>               | Water spray (fog), foam, dry chemical or carbon dioxide.              |
| <b>Special firefighting procedures:</b>   | Wear full protective clothing. Prevent inhalation of fumes and gases. |
| <b>Unusual fire or explosion hazards:</b> | Cool aerosol containers with jet of water. Containers may explode.    |
| <b>Hazardous combustion products:</b>     | Acrid smoke and fumes. 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.

|                                   |   |
|-----------------------------------|---|
| <b>Environmental precautions:</b> | Do not allow material to contaminate ground water system.   |
| <b>Clean-up methods:</b>          | Maintain good ventilation for large spills. Scrape up as much material as possible. Spilled material will solidify. Store in a closed container until ready for disposal. |

## 7. HANDLING AND STORAGE

- Handling:** Use only with adequate ventilation. 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.
- Storage:** Keep in a cool, well ventilated area away from heat, sparks and open flame. Keep container tightly closed until ready for use.

For information on product shelf life contact Henkel Customer Service at (800) 243-4874.

## 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<br>Inhalable fraction. | 5 mg/m3 PEL Mist.             | None                        | None                                |
| Silicon dioxide                              | 6 mg/m3 TWA                        | 20 MPPCF TWA<br>0.8 mg/m3 TWA | None                        | 3 mg/m3 TWA<br>Respirable fraction. |
| Norflurane                                   | None                               | None                          | 1,000 ppm (4,240 mg/m3) TWA | None                                |
| Silicone Resin                               | None                               | None                          | None                        | None                                |
| Substituted Silane                           | None                               | None                          | None                        | None                                |
| Acetic acid                                  | 15 ppm STEL<br>10 ppm TWA          | 10 ppm (25 mg/m3) PEL         | 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.
- 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:** Aerosol, Paste  
**Color:** Black  
**Odor:** Acetic acid  
**Odor threshold:** Not available.  
**pH:** Not available.  
**Vapor pressure:** < 10 mm hg (20 °C (68°F))  
**Boiling point/range:** Not available.  
**Melting point/ range:** Not available.  
**Specific gravity:** 1.01 at 20 °C (68°F) Base only  
**Vapor density:** Heavier than air.  
**Flash point:** > 93 °C (> 199.4 °F) Tagliabue closed cup; This product exhibits no flashback when tested for flame extension.  
**Flammable/Explosive limits - lower:** 4 % (acetic acid)  
**Flammable/Explosive limits - upper:** 19.9 % (acetic acid)  
**Autoignition temperature:** Not available.  
**Evaporation rate:** Slower than ether.  
**Solubility in water:** Insoluble  
**Partition coefficient (n-octanol/water):** Not available.  
**VOC content:** < 4 %; < 40 g/l  
**Viscosity:** Not available.  
**Decomposition temperature:** Not available.

## 10. STABILITY AND REACTIVITY

|  |  |
|--|--|
| <b>Stability:</b>                        | Stable   |
| <b>Hazardous reactions:</b>              | Will not occur.  |
| <b>Hazardous decomposition products:</b> | Acetic acid is liberated slowly upon contact with moisture. Formaldehyde. Oxides of carbon. Oxides of silicon. |
| <b>Incompatible materials:</b>           | Acids. Bases. Oxidizing agents. Water.   |
| <b>Reactivity:</b>                       | Not available.   |
| <b>Conditions to avoid:</b>              | Prolonged heating at temperatures above 150 °C. Exposure to moisture.  |

## 11. TOXICOLOGICAL INFORMATION

**Product toxicity data:** Henkel is not aware of any toxicity data on the specific mixture of chemical components contained in this product.

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

### Potential Health Effects/Symptoms

|                      |  |
|----------------------|--|
| <b>Inhalation:</b>   | Acetic acid produced during cure may irritate eyes, nose and throat. 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. |
| <b>Skin contact:</b> | Causes skin irritation. May cause allergic skin reaction.  |
| <b>Eye contact:</b>  | Causes serious eye irritation.   |
| <b>Ingestion:</b>    | Not expected under normal conditions of use. Not expected to be harmful by ingestion.  |

| 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   | Nuisance dust  |
| Norflurane                                   | None   | Cardiac, Central nervous system, Irritant, Respiratory, Skin                 |
| Silicone Resin                               | None   | Irritant   |
| Substituted Silane                           | None   | Irritant, Allergen   |
| Acetic acid                                  | Oral LD50 (RABBIT) = 1,200 mg/kg<br>Oral LD50 (RAT) = 3.53 g/kg<br>Oral LD50 (RAT) = 3.31 g/kg<br>Dermal LD50 (RABBIT) = 1,060 mg/kg<br>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                                       |
| Norflurane                                   | No             | No              | No                                       |
| Silicone Resin                               | No             | No              | No                                       |
| Substituted Silane                           | No             | No              | 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:** Aerosols  
**Hazard class or division:** 2.2  
**Identification number:** UN 1950  
**Packing group:** None

### International Air Transportation (ICAO/IATA)

**Proper shipping name:** Aerosols, non-flammable  
**Hazard class or division:** 2.2  
**Identification number:** UN 1950  
**Packing group:** None

### Water Transportation (IMO/IMDG)

**Proper shipping name:** AEROSOLS  
**Hazard class or division:** 2.2  
**Identification number:** UN 1950  
**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

**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/NDL 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: New Safety Data Sheet format.

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