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## 1. PRODUCT AND COMPANY IDENTIFICATION

<b>Product name:</b>	<b>LOCTITE SI 593 BK AE known as 593 RTV Black 190ml AE</b>	<b>IDH number:</b>	743519
<b>Product type:</b>	Silicone sealant	<b>Item number:</b>	40464
<b>Restriction of Use:</b>	None identified	<b>Region:</b>	United States
<b>Company address:</b>	<b>Contact information:</b>		
Henkel Corporation	Telephone: (860) 571-5100		
One Henkel Way	MEDICAL EMERGENCY Phone: Poison Control Center		
Rocky Hill, Connecticut 06067	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:** CONTAINS GAS UNDER PRESSURE; MAY EXPLODE IF HEATED.  
CAUSES SKIN IRRITATION.  
CAUSES SERIOUS EYE DAMAGE.

HAZARD CLASS	HAZARD CATEGORY
GASES UNDER PRESSURE	Compr. Gas
SKIN IRRITATION	2
SERIOUS EYE DAMAGE	1

### PICTOGRAM(S)



### Precautionary Statements

<b>Prevention:</b>	Wash affected area thoroughly after handling. Wear protective gloves, eye protection, and face protection.
<b>Response:</b>	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.
<b>Storage:</b>	Protect from sunlight. Store in a well-ventilated place.
<b>Disposal:</b>	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*
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Distillates (petroleum), hydrotreated middle	64742-46-7	5 - 10
Silicon dioxide	7631-86-9	5 - 10
Norflurane	811-97-2	5 - 10
Methylsilanetriyl triacetate	4253-34-3	1 - 5
Triacetoxymethylsilane	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

<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

<b>Handling:</b>	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.
<b>Storage:</b>	Keep in a cool, well ventilated area away from heat, sparks and open flame. Keep container tightly closed until ready for use.

## 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.	None	None
Silicon dioxide	6 mg/m3 TWA	20 MPPCF TWA 0.8 mg/m3 TWA	None	3 mg/m3 TWA Respirable fraction.
Norflurane	None	None	1,000 ppm (4,240 mg/m3) TWA	None
Methylsilanetriyl triacetate	None	None	None	None
Triacetoxethylsilane	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:

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.

### Flammability:

Not applicable

### 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

<b>Product toxicity data:</b>	Henkel is not aware of any toxicity data on the specific mixture of chemical components contained in this product.
<b>Relevant routes of exposure:</b>	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.
<b>Eye contact:</b>	Causes serious eye damage.
<b>Ingestion:</b>	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
Norflurane	None	Cardiac, Central nervous system, Irritant, Respiratory, Skin
Methylsilanetriyl triacetate	None	Irritant, Allergen
Triacetoxyethylsilane	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
Norflurane	No	No	No
Methylsilanetriyl triacetate	No	No	No
Triacetoxyethylsilane	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:** 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, Delayed Health, Pressure  
**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: 2, 3, 11

**Prepared by:** Product Safety and Regulatory Affairs

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