1. PRODUCT AND COMPANY IDENTIFICATION

Product name: LOCTITE SI 598 BK known as Loctite(R) 598 Black High Perf
IDH number: 234609
Product type: Silicone
Item number: 59830
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

WARNING: CAUSES SKIN IRRITATION.
MAY CAUSE AN ALLERGIC SKIN REACTION.
CAUSES SERIOUS EYE IRRITATION.
HARMFUL IF INHALED.

<table>
<thead>
<tr>
<th>HAZARD CLASS</th>
<th>HAZARD CATEGORY</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACUTE TOXICITY INHALATION</td>
<td>4</td>
</tr>
<tr>
<td>SKIN IRRITATION</td>
<td>2</td>
</tr>
<tr>
<td>EYE IRRITATION</td>
<td>2A</td>
</tr>
<tr>
<td>SKIN SENSITIZATION</td>
<td>1</td>
</tr>
</tbody>
</table>

PICTOGRAM(S)

Precautionary Statements

Prevention:
Avoid breathing dust or fumes. Wash thoroughly after handling. Use only outdoors or in a well-ventilated area. 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 INHALED: Remove person to fresh air and keep comfortable for breathing.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to remove. Continue rinsing. Call a poison control center or physician if you feel unwell. If skin irritation or rash occurs: Get medical attention. If eye irritation persists: Get medical attention. Take off contaminated clothing.

Storage:
Not prescribed

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


See Section 11 for additional toxicological information.
3. COMPOSITION / INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Hazardous Component(s)</th>
<th>CAS Number</th>
<th>Percentage*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Limestone</td>
<td>1317-65-3</td>
<td>30 - 60</td>
</tr>
<tr>
<td>Silicone Resin</td>
<td>Proprietary</td>
<td>10 - 30</td>
</tr>
<tr>
<td>Oximino silane</td>
<td>Proprietary</td>
<td>1 - 5</td>
</tr>
<tr>
<td>Butanone oxime</td>
<td>96-29-7</td>
<td>1 - 5</td>
</tr>
<tr>
<td>Carbon black</td>
<td>1333-86-4</td>
<td>0.1 - 1</td>
</tr>
<tr>
<td>Aluminum</td>
<td>7429-90-5</td>
<td>0.1 - 1</td>
</tr>
<tr>
<td>Octadecanoic acid</td>
<td>57-11-4</td>
<td>0.1 - 1</td>
</tr>
<tr>
<td>Reactive Silane</td>
<td>Proprietary</td>
<td>0.1 - 1</td>
</tr>
<tr>
<td>White mineral oil (petroleum), highly refined</td>
<td>8042-47-5</td>
<td>0.1 - 1</td>
</tr>
<tr>
<td>Quartz (SiO2)</td>
<td>14808-60-7</td>
<td>0 - 0.1</td>
</tr>
</tbody>
</table>

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

4. FIRST AID MEASURES

**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:**
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. Prevent inhalation of fumes and gases.

**Unusual fire or explosion hazards:**
None

**Hazardous combustion products:**

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:**
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. Do not handle contact lenses until all sealant has been removed from hands. Residual sealant may transfer to lenses and cause eye irritation.

Storage: For safe storage, store between 0 °C (32°F) and 32 °C (89.6 °F). Store in a dry area below 90° F. Keep container closed.

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.

<table>
<thead>
<tr>
<th>Hazardous Component(s)</th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
<th>AIHA WEEL</th>
<th>OTHER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Limestone</td>
<td>10 mg/m³ TWA Total dust.</td>
<td>5 mg/m³ PEL Respirable fraction. 15 mg/m³ PEL Total dust.</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>Silicone Resin</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>Oximino silane</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>Butanone oxime</td>
<td>None</td>
<td>None</td>
<td>10 ppm (36 mg/m³) TWA (Skin sensitizer)</td>
<td>None</td>
</tr>
<tr>
<td>Carbon black</td>
<td>3 mg/m³ TWA Inhalable fraction.</td>
<td>3.5 mg/m³ PEL</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>Aluminum</td>
<td>1 mg/m³ TWA Respirable fraction.</td>
<td>5 mg/m³ PEL (as Al) Respirable dust. 15 mg/m³ PEL (as Al) Total dust.</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>Octadecanoic acid</td>
<td>10 mg/m³ TWA</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>Reactive Silane</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>White mineral oil (petroleum), highly refined</td>
<td>5 mg/m³ TWA Inhalable fraction.</td>
<td>5 mg/m³ TWA mist 5 mg/m³ PEL Mist.</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>Quartz (SiO2)</td>
<td>0.025 mg/m³ TWA Respirable fraction.</td>
<td>2.4 MPPCF TWA Respirable. 0.1 mg/m³ TWA Respirable. 0.3 mg/m³ TWA Total dust.</td>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>

Engineering controls: Provide adequate local exhaust ventilation to maintain worker exposure below exposure limits.

Respiratory protection: Use a NIOSH approved air-purifying respirator if the potential to exceed established exposure limits exists.

Eye/face protection: Safety goggles or safety glasses with side shields. Safety showers and eye wash stations should be available.

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
Odor threshold: Not available.
PH: Not applicable
Vapor pressure: < 5 mm hg (20 °C (68°F))
Boiling point/range: Not applicable
10. STABILITY AND REACTIVITY

Stability: Stable at normal conditions.

Hazardous reactions: None under normal processing.


Reactivity: Not available.

Conditions to avoid: Exposure to moisture.

11. TOXICOLOGICAL INFORMATION

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

**Inhalation:** Inhalation of vapors or mists of the product may be irritating to the respiratory system. 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. The silane is a skin and eye irritant and prolonged contact may cause eye and skin burns. The low concentration makes such overexposure unlikely and minimizes its affect on health and safety. Harmful if inhaled.

**Skin contact:** Causes skin irritation. May cause allergic skin reaction.

**Eye contact:** Causes serious eye irritation.

**Ingestion:** May be harmful if swallowed. Not expected under normal conditions of use.

<table>
<thead>
<tr>
<th>Hazardous Component(s)</th>
<th>LD50s and LC50s</th>
<th>Immediate and Delayed Health Effects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Limestone</td>
<td>None</td>
<td>Nuisance dust</td>
</tr>
<tr>
<td>Silicone Resin</td>
<td>None</td>
<td>Irritant</td>
</tr>
<tr>
<td>Oximino silane</td>
<td>None</td>
<td>Allergen, Blood, Central nervous system, Eyes, Irritant, Some evidence of carcinogenicity</td>
</tr>
<tr>
<td>Butanone oxime</td>
<td>None</td>
<td>Respiratory, Some evidence of carcinogenicity</td>
</tr>
<tr>
<td>Carbon black</td>
<td>Oral LD50 (RAT) = &gt; 8,000 mg/kg</td>
<td>Central nervous system, Irritant, Lung</td>
</tr>
<tr>
<td>Aluminum</td>
<td>None</td>
<td>Irritant, Allergen</td>
</tr>
<tr>
<td>Octadecanoic acid</td>
<td>Oral LD50 (RAT) = 4.6 g/kg</td>
<td>Irritant</td>
</tr>
<tr>
<td>Reactive Silane</td>
<td>None</td>
<td>Irritant, Allergen</td>
</tr>
<tr>
<td>White mineral oil (petroleum), highly refined</td>
<td>None</td>
<td>Irritant</td>
</tr>
<tr>
<td>Quartz (SiO2)</td>
<td>None</td>
<td>Immune system, Lung, Some evidence of carcinogenicity</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Hazardous Component(s)</th>
<th>NTP Carcinogen</th>
<th>IARC Carcinogen</th>
<th>OSHA Carcinogen (Specifically Regulated)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Limestone</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Silicone Resin</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Oximino silane</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Butanone oxime</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Carbon black</td>
<td>No</td>
<td>Group 2B</td>
<td>No</td>
</tr>
<tr>
<td>Aluminum</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Octadecanoic acid</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Reactive Silane</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>White mineral oil (petroleum), highly refined</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Quartz (SiO2)</td>
<td>Known To Be Human Carcinogen.</td>
<td>Group 1</td>
<td>No</td>
</tr>
</tbody>
</table>

12. ECOLOGICAL INFORMATION

Ecological information: Not available.
13. DISPOSAL CONSIDERATIONS

Information provided is for unused product only.

Recommended method of 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
- Exceptions: 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. 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: 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.

Prepared by: Lou Fabrizio, Regulatory Affairs Specialist

Issue date: 08/28/2014
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