1. PRODUCT AND COMPANY IDENTIFICATION

Product name: LOCTITE C 511 97SC 3C 0.38MM G
known as 97SC C511 3C 0.38MM 0.25KG AM
IDH number: 796037
Product type: Solder Wire
Restriction of Use: None identified
Company address:
Henkel Corporation
One Henkel Way
Rocky Hill, Connecticut 06067

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

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

HAZARD CLASS HAZARD CATEGORY
SKIN IRRITATION 2
EYE IRRITATION 2A
SKIN SENSITIZATION 1

PICTOGRAM(S)

Precautionary Statements

Prevention: Avoid breathing dust or fumes. 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: 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

IDH number: 796037 Product name: LOCTITE C 511 97SC 3C 0.38MM G known as 97SC C511 3C 0.38MM 0.25KG AM
4. FIRST AID MEASURES

**Inhalation:** Move to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. If symptoms develop and persist, get medical attention.

**Skin contact:** Remove contaminated clothing and footwear. Wash with soap and water. Wash clothing before reuse. If a person feels unwell or symptoms of skin irritation appear, consult a physician.

**Eye contact:** Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.

**Ingestion:** Induce vomiting as directed by medical personnel if person is conscious. Get immediate medical attention.

**Symptoms:** See Section 11.

5. FIRE FIGHTING MEASURES

**Extinguishing media:** Water spray (fog), foam, dry chemical or carbon dioxide.

**Special firefighting procedures:** Wear self-contained breathing apparatus and full protective clothing, such as turn-out gear. Do not use water on fires where molten metal is present.

**Unusual fire or explosion hazards:** None

**Hazardous combustion products:** High temperatures may produce heavy metal dust, fumes or vapors. The flux will give rise to irritating 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:** Scrape up spilled material and place in a closed container for disposal.

7. HANDLING AND STORAGE

**Handling:** Use only in well-ventilated areas. Avoid skin and eye contact. When using do not eat, drink or smoke. Wash hands before breaks and immediately after handling the product.

**Storage:** Keep container tightly closed and in a cool, well-ventilated place away from incompatible materials.

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.

<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>Tin</td>
<td>2 mg/m³ TWA</td>
<td>2 mg/m³ PEL (as Sn)</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>Silver</td>
<td>0.1 mg/m³ TWA Dust and fume.</td>
<td>0.01 mg/m³ PEL (as Ag)</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>Copper Metal</td>
<td>0.2 mg/m³ TWA (as Cu) Fume. 1 mg/m³ TWA (as Cu) Dust and mist.</td>
<td>1 mg/m³ PEL (as Cu) Dust and mist. 0.1 mg/m³ PEL (as Cu) Fume.</td>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>

Engineering controls: Use adequate ventilation to remove molten vapors or fumes.

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: | Cored Wire |
| Color:          | Gray, Metallic |
| Odor:           | None |
| Odor threshold: | Not available. |
| pH:             | Not available. |
| Vapor pressure: | Negligible vapor pressure at ambient temperatures. |
| Boiling point/range: | Not available. |
| Melting point/ range: | 217 °C (422.6 °F) (solder alloy) |
| Specific gravity: | 7.5 |
| Vapor density:  | Heavier than air. |
| Flash point:    | None |
| Flammable/Explosive limits - lower: | Not available. |
| Flammable/Explosive limits - upper: | Not available. |
| Autoignition temperature: | Not available. |
| Evaporation rate: | Not available. |
| Solubility in water: | Insoluble |
| Partition coefficient (n-octanol/water): | Not available. |
| VOC content:    | Zero |
| Viscosity:      | Not available. |
| 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: Oxides of carbon. Oxides of Metals in Section 2. Formaldehyde


Reactivity: Not available.

Conditions to avoid: Solder alloy will react with concentrated nitric acid to produce toxic fumes of nitrogen oxides.
11. TOXICOLOGICAL INFORMATION

Relevant routes of exposure: Skin, Inhalation, Eyes

Potential Health Effects/Symptoms

**Inhalation:** Fumes evolved at soldering temperatures will irritate the nose, throat and lungs. Excessive inhalation of fumes from many metals can produce an acute reaction known as "metal fume fever". Symptoms consist of chills and fever (very similar to and easily confused with flu symptoms) which come on a few hours after large exposures. Inhalation of processing fumes may be harmful.

**Skin contact:** Causes skin irritation. May cause allergic skin reaction. Prolonged or repeated skin contact may cause irritation, skin sensitization and argyria (a non-toxic, cosmetic blue-gray discoloration of the skin and mucous membranes that is irreversible).

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

**Ingestion:** May cause gastrointestinal tract irritation if swallowed.

<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>Tin</td>
<td>None</td>
<td>Gastrointestinal, Irritant, Kidney, Liver, Lung, Nervous System</td>
</tr>
<tr>
<td>Silver</td>
<td>Oral LD50 (RAT) = &gt; 5,000 mg/kg Dermal LD50 (RAT) = &gt; 2,000 mg/kg</td>
<td>Allergen, Eyes, Irritant, Respiratory, Skin</td>
</tr>
<tr>
<td>Copper Metal</td>
<td>None</td>
<td>Allergen, Blood, Central nervous system, Developmental, Gastrointestinal, Immune system, Irritant, Kidney, Liver, Mutagen, Sensory, Skin</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>Tin</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Silver</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Copper Metal</td>
<td>No</td>
<td>No</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:** Follow all local, state, federal and provincial regulations for disposal.

**Hazardous waste number:** This product contains a component or components identified as hazardous under 40 CFR 261.24. D011. Silver.

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
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: This product contains the following toxic chemicals subject to the reporting requirements of section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 (40 CFR 372). Silver (CAS# 7440-22-4).

California Proposition 65: No California Proposition 65 listed chemicals are known to be present.

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.

16. OTHER INFORMATION

This safety data sheet contains changes from the previous version in sections: New Safety Data Sheet format.

Prepared by: Michele Oltra, Regulatory Affairs Specialist

Issue date: 03/31/2015

DISCLAIMER: The data contained herein are furnished for information only and are believed to be reliable. However, Henkel Corporation and its affiliates (“Henkel”) does not assume responsibility for any results obtained by persons over whose methods Henkel has no control. It is the user’s responsibility to determine the suitability of Henkel’s products or any production methods mentioned herein for a particular purpose, and to adopt such precautions as may be advisable for the protection of property and persons against any hazards that may be involved in the handling and use of any Henkel’s products. In light of the foregoing, Henkel specifically disclaims all warranties, express or implied, including warranties of merchantability and fitness for a particular purpose, arising from sale or use of Henkel’s products. Henkel further disclaims any liability for consequential or incidental damages of any kind, including lost profits.