



Revision Number: 005.0

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1. PRODUCT AND COMPANY IDENTIFICATION

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|----------------------------|--|-----------------------------|--|
| Product name: | LOCTITE HYDX 97SC 3C 0.81MM H known as 97SC Hydro-X 3C Cored Wire | IDH number: | 732997 |
| Product type: | Solder Wire | Item number: | MM01950 |
| 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.

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

PICTOGRAM(S)



Precautionary Statements

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| Prevention: | Avoid breathing dust or fumes. Wash affected area thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. 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 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. |

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* |
|-----------------------------|------------|-------------|
| Tin | 7440-31-5 | 90 - 100 |
| Silver | 7440-22-4 | 1 - 5 |
| Polyethylene glycol MW 4000 | 25322-68-3 | 1 - 5 |
| Copper Metal | 7440-50-8 | 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

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| Inhalation: | Move to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention. |
| Skin contact: | Remove contaminated clothing and footwear. Immediately flush skin with plenty of water (using soap, if available). If symptoms develop and persist, get medical attention. Wash clothing before reuse. |
| Eye contact: | Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention. |
| Ingestion: | DO NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If symptoms develop and persist, get medical attention. |
| Symptoms: | See Section 11. |

5. FIRE FIGHTING MEASURES

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| Extinguishing media: | Water spray (fog), foam, dry chemical or carbon dioxide. Do not use high volume water jet. |
| Special firefighting procedures: | Wear a self-contained breathing apparatus with a full face piece operated in pressure-demand or other positive pressure mode. Do not use water on fires where molten metal is present. |
| Unusual fire or explosion hazards: | In case of fire, keep containers cool with water spray. |
| Hazardous combustion products: | Oxides of carbon. Oxides of Metals in Section 3. High temperatures may produce heavy metal dust, fumes or vapours. The flux medium 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.

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| Environmental precautions: | Do not allow product to enter sewer or waterways. |
| Clean-up methods: | Ensure adequate ventilation. Wear suitable protective clothing, gloves and eye/face protection. Scrape up spilled material and place in a closed container for disposal. |

7. HANDLING AND STORAGE

Handling: Use only in well-ventilated areas. Wear suitable protective clothing, gloves and eye/face protection. Avoid contact with eyes, skin and clothing. When using, do not eat, drink or smoke. Wash thoroughly after handling.

Storage: For safe storage, store between 15 °C (59°F) and 30 °C (86°F)
Keep in a cool, well ventilated area.

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.

| Hazardous Component(s) | ACGIH TLV | OSHA PEL | AIHA WEEL | OTHER |
|-----------------------------|---|---|---------------------------|-------|
| Tin | 2 mg/m3 TWA | 2 mg/m3 PEL (as Sn) | None | None |
| Silver | 0.1 mg/m3 TWA Dust and fume. | 0.01 mg/m3 PEL (as Ag) | None | None |
| Polyethylene glycol MW 4000 | None | None | 10 mg/m3 TWA Particulate. | None |
| Copper Metal | 0.2 mg/m3 TWA (as Cu) Fume. 1 mg/m3 TWA (as Cu) Dust and mist. | 1 mg/m3 PEL (as Cu) Dust and mist. 0.1 mg/m3 PEL (as Cu) Fume. | None | None |

Engineering controls: Provide adequate local exhaust ventilation to maintain worker exposure below exposure limits. Use adequate ventilation to remove molten vapors or fumes.

Respiratory protection: Use an organic vapor respirator for concentrations exceeding the Occupational Exposure Limit.

Eye/face protection: Safety goggles or safety glasses with side shields.

Skin protection: Heat and chemical resistant gloves.

9. PHYSICAL AND CHEMICAL PROPERTIES

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| Physical state: | Solid |
| Color: | Gray |
| 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: | Not available. |
| Flash point: | Product is a solid. |
| Flammable/Explosive limits - lower: | Not available. |
| Flammable/Explosive limits - upper: | Not available. |
| Autoignition temperature: | Not available. |
| Flammability: | Not applicable |
| Evaporation rate: | Not available. |
| Solubility in water: | Insoluble |
| Partition coefficient (n-octanol/water): | Not available. |
| VOC content: | Negligible |
| Viscosity: | Not available. |
| Decomposition temperature: | Not available. |

10. STABILITY AND REACTIVITY

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|--|--|
| 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 3. Formaldehyde. Thermal decomposition can lead to release of irritating gases and vapors. |
| Incompatible materials: | Strong oxidizing agents. Strong acids and strong bases. |
| 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

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| Inhalation: | Inhalation of processing fumes may be harmful. Excessive exposure to tin fumes or dust may cause Stannosis, a chronic respiratory disease resulting in reduced lung capacity and benign tumors. 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. |
| Skin contact: | Causes skin irritation. May cause allergic skin reaction. 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. |

| Hazardous Component(s) | LD50s and LC50s | Immediate and Delayed Health Effects |
|-----------------------------|--|--|
| Tin | None | Gastrointestinal, Irritant, Kidney, Liver, Lung, Nervous System |
| Silver | Oral LD50 (Rat) = > 5,000 mg/kg Dermal LD50 (Rat) = > 2,000 mg/kg | Allergen, Eyes, Irritant, Respiratory, Skin |
| Polyethylene glycol MW 4000 | None | Irritant |
| Copper Metal | None | Allergen, Blood, Central nervous system, Developmental, Gastrointestinal, Immune system, Irritant, Kidney, Liver, Mutagen, Sensory, Skin |

| Hazardous Component(s) | NTP Carcinogen | IARC Carcinogen | OSHA Carcinogen (Specifically Regulated) |
|-----------------------------|----------------|-----------------|---|
| Tin | No | No | No |
| Silver | No | No | No |
| Polyethylene glycol MW 4000 | No | No | No |
| Copper Metal | 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. Do not dispose of in an uncontrolled manner.

Hazardous waste number: 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

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: 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: 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: New Safety Data Sheet format.

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