



Revision Number: 003.0

Issue date: 04/02/2015

**1. PRODUCT AND COMPANY IDENTIFICATION**

<b>Product name:</b>	<b>LOCTITE WS 300 97SCT3V LU known as MULTICORE 97SC WS300 T3 V 500gS</b>	<b>IDH number:</b>	1354250
<b>Product type:</b>	Solder Paste	<b>Item number:</b>	M00732
<b>Restriction of Use:</b>	None identified	<b>Region:</b>	United States
<b>Company address:</b>	<b>Contact information:</b>		
Henkel Electronic Materials LLC	Telephone: +1 (888) 943-6535		
14000 Jamboree Road	MEDICAL EMERGENCY Phone: Poison Control Center		
Irvine, CA 92606	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.henkel.com/electronics		

**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**

<b>Prevention:</b>	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.
<b>Response:</b>	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.
<b>Storage:</b>	Not prescribed
<b>Disposal:</b>	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	60 - 100
Silver	7440-22-4	1 - 5
Diethylene glycol monobutyl ether	112-34-5	1 - 5
Amine	Proprietary	1 - 5
Copper	7440-50-8	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>	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.
<b>Eye contact:</b>	Immediately flush eyes with plenty of water for at least 15 minutes. If eye irritation persists, consult a specialist.
<b>Ingestion:</b>	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.
<b>Symptoms:</b>	See Section 11.

#### 5. FIRE FIGHTING MEASURES

<b>Extinguishing media:</b>	Water spray (fog), foam, dry chemical or carbon dioxide. Do not use water on molten metal.
<b>Special firefighting procedures:</b>	Wear self-contained breathing apparatus.
<b>Unusual fire or explosion hazards:</b>	In case of fire, keep containers cool with water spray.
<b>Hazardous combustion products:</b>	High temperatures may produce heavy metal dust, fumes or vapours. The flux medium will give rise to irritating fumes. Oxides of Metals in Section 2. Oxides of carbon. Formaldehyde.

#### 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 let product enter drains.
<b>Clean-up methods:</b>	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 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.

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
Diethylene glycol monobutyl ether	10 ppm TWA Inhalable fraction and vapor.	None	None	50 ppm TWA 75 ppm STEL
Amine	None	None	None	None
Copper	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:** 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:** Disposable rubber or plastic gloves.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

- Physical state:** Solid, Paste
- Color:** Gray
- Odor:** Mild
- Odor threshold:** Not available.
- pH:** Not available.
- Vapor pressure:** Not available.
- Boiling point/range:** Not available.
- Melting point/ range:** 217 °C (422.6 °F)
- Specific gravity:** 4.5
- Vapor density:** Not available.
- Flash point:** 101 °C (213.8 °F) ; Estimated
- 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:** < 5 g/l (calculated)
- Viscosity:** Not available.
- Decomposition temperature:** Not available.

## 10. STABILITY AND REACTIVITY

<b>Stability:</b>	Stable under normal conditions of storage and use.
<b>Hazardous reactions:</b>	Will not occur.
<b>Hazardous decomposition products:</b>	Oxides of carbon. Oxides of Metals in Section 2. Formaldehyde.
<b>Incompatible materials:</b>	Oxidizing agents. Solder alloy will react with concentrated nitric acid to produce toxic fumes of nitrogen oxides. Acids and bases.
<b>Reactivity:</b>	Not available.
<b>Conditions to avoid:</b>	Avoid contact with acids and oxidizing agents. 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

<b>Inhalation:</b>	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.
<b>Skin contact:</b>	Causes skin irritation. May cause allergic skin reaction.
<b>Eye contact:</b>	Causes serious eye irritation.
<b>Ingestion:</b>	Not a relevant route of exposure.

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
Diethylene glycol monobutyl ether	Oral LD50 (RABBIT) = 2,200 mg/kg Oral LD50 (RAT) = 4,500 mg/kg Oral LD50 (RAT) = 5,660 mg/kg Oral LD50 (RAT) = 7,292 mg/kg Oral LD50 (RAT) = 6,600 mg/kg Oral LD50 (RAT) = 6,560 mg/kg Dermal LD50 (RABBIT) = 2,700 mg/kg Dermal LD50 (RABBIT) = 4,120 mg/kg	Blood, Central nervous system, Irritant, Kidney
Amine	None	No Records
Copper	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
Diethylene glycol monobutyl ether	No	No	No
Amine	No	No	No
Copper	No	No	No

## 12. ECOLOGICAL INFORMATION

**Ecological information:**

No specific studies have been conducted by Henkel on the ecotoxicity or environmental fate of this material; however, commonly available data on the material indicate that uncontrolled releases to soil, ground water, or surface waters could entail acute and/or chronic ecological effects, depending on the quantity and concentration of such releases. Releases of volatile components to the atmosphere are not believed to entail significant ecological consequences provided such releases are within the exposure levels set forth in this document. Accordingly, all appropriate measures should be taken to avoid uncontrolled releases to the environment, and any spills or other uncontrolled releases which may occur should be contained and cleaned up immediately in accordance with Section 6.

## 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:** 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). Diethylene glycol monobutyl ether (CAS# 112-34-5).

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

**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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**Issue date:** 04/02/2015

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