

Revision Date: 06/27/2008

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### 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

<b>Product name:</b> 63/37 C502 3C 0.56MM 0.5KG AM (0.022)	<b>Item No. :</b> MM00975 / IDH No. 386851
<b>Product type:</b> Solder Wire	<b>Region:</b> United States
<b>Company address:</b> Henkel Corporation 15051 East Don Julian Road Industry, California 91746	<b>Contact Information:</b> Telephone: 626.968.6511 Emergency Telephone: 860.571.5100 Internet: www.electronics.henkel.us

### 2. COMPOSITION/INFORMATION ON INGREDIENTS

<u>Hazardous components</u>	<u>%</u>	<u>ACGIH TLV</u>	<u>OSHA PEL</u>	<u>OTHER</u>
Tin 7440-31-5	60-100	2 mg/m <sup>3</sup> TWA 2 mg/m <sup>3</sup> TWA except Tin hydride	2 mg/m <sup>3</sup> TWA as Sn 2 mg/m <sup>3</sup> TWA	None
Lead 7439-92-1	30-60	0.05 mg/m <sup>3</sup> TWA	30 µg/m <sup>3</sup> Action Level as Pb. Poison - see 29 CFR 1910.1025 50 µg/m <sup>3</sup> TWA as Pb 50 µg/m <sup>3</sup> PEL as Pb	None
Modified Resin Proprietary	1-5	None	None	None

### 3. HAZARDS IDENTIFICATION

#### EMERGENCY OVERVIEW

**Physical state:** Paste  
**Color:** Grey Metallic  
**Odor:** Sweet

**HMIS:**

**HEALTH:** 3\*  
**FLAMMABILITY:** 1  
**PHYSICAL HAZARD:** 0  
**Personal Protection:** See Section 8

**DANGER:** FUMES EVOLVED DURING SOLDERING WILL IRRITATE THE EYES NOSE AND THROAT  
POSSIBLE CANCER HAZARD.  
HARMFUL IF SWALLOWED, ABSORBED THROUGH SKIN OR INHALED.

**Relevant routes of exposure:** Skin, Inhalation, Eyes

**Potential Health Effects**

**Inhalation:** Lead is a cumulative poison and continuous exposure to small amounts over time can raise the body's content to toxic levels. 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:** Harmful if absorbed through skin. 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:** Contact with eyes will cause irritation.

**Ingestion:** Not expected under normal conditions of use. Lead is a cumulative poison and continuous exposure to small amounts over time can raise the body's content to toxic levels.

**Existing conditions aggravated by exposure:** Repeated or prolonged exposure to lead and its compounds may produce general health deterioration by an accumulation in one or more human organs.

**See Section 11 for additional toxicological information.**

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## 4. FIRST AID MEASURES

<b>Inhalation:</b>	Remove to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get medical attention immediately.
<b>Skin contact:</b>	Wash with soap and water. Remove contaminated clothing and shoes. Wash clothing before reuse. If a person feels unwell or symptoms of skin irritation appear, consult a physician.
<b>Eye contact:</b>	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.
<b>Ingestion:</b>	Get medical attention immediately. Induce vomiting as directed by medical personnel if person is conscious.

## 5. FIRE-FIGHTING MEASURES

<b>Flash point:</b>	Does not flash.
<b>Autoignition temperature:</b>	Not applicable
<b>Flammable/Explosive limits-lower %:</b>	Not applicable
<b>Flammable/Explosive limits-upper %:</b>	Not applicable
<b>Extinguishing media:</b>	Foam, dry chemical or carbon dioxide.
<b>Special fire fighting procedures:</b>	Fire fighters should wear positive pressure self-contained breathing apparatus (SCBA). Do not use water on fires where molten metal is present. High temperatures may produce heavy metal fumes, dust and vapor.
<b>Unusual fire or explosion hazards:</b>	May liberate large quantities of dense, foul-smelling smoke which may contain unidentified toxic gasses.
<b>Hazardous combustion products:</b>	Oxides of carbon. Oxides of Metals in Section 2. The flux medium will give rise to irritating fumes. Thermal oxidation may result in the formation of formaldehyde. Formaldehyde is a potential cancer hazard and a known skin and respiratory sensitizer. Vapors irritate the eyes, nose and throat.

## 6. ACCIDENTAL RELEASE MEASURES

<b>Environmental precautions:</b>	Do not let product enter drains.
<b>Clean-up methods:</b>	Scrape up spilled material and place in sealed container for disposal.

## 7. HANDLING AND STORAGE

<b>Handling:</b>	Avoid contact with molten material. Avoid contact with eyes, skin and clothing. Do not wear contact lenses. Wash thoroughly after handling.
<b>Storage:</b>	Store in original container until ready to use.
<b>Incompatible products:</b>	Oxidizing agents. Strong acids or bases.

For information on product shelf life contact Henkel Customer Service at (800) 243-4874.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

<b>Engineering controls:</b>	Use local ventilation if general ventilation is insufficient to maintain vapor concentration below established exposure limits.
<b>Respiratory protection:</b>	Use NIOSH approved respirator if there is potential to exceed exposure limit(s).
<b>Skin protection:</b>	Use impermeable gloves and protective clothing as necessary to prevent skin contact.
<b>Eye/face protection:</b>	Safety goggles or safety glasses with side shields.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Physical state:</b>	Paste
<b>Color:</b>	Grey Metallic
<b>Odor:</b>	Sweet
<b>Vapor pressure:</b>	negligible vapor pressure at ambient temperatures
<b>pH:</b>	Not applicable
<b>Boiling point/range:</b>	Not determined
<b>Melting point/range:</b>	183°C (361°F) (solder alloy)
<b>Specific gravity:</b>	8.4
<b>Vapor density:</b>	Not applicable
<b>Evaporation rate:</b>	Not available
<b>Solubility in water:</b>	Insoluble.
<b>Partition coefficient (n-octanol/water):</b>	Not determined
<b>VOC content:</b>	Zero

## 10. STABILITY AND REACTIVITY

<b>Stability:</b>	Stable.
<b>Hazardous polymerization:</b>	Will not occur.
<b>Hazardous decomposition products:</b>	Oxides of carbon. Oxides of Metals in Section 2. Formaldehyde.
<b>Incompatibility:</b>	Acids and bases. Oxidizing agents.
<b>Conditions to avoid:</b>	Avoid contact with acids and oxidizing agents.

## 11. TOXICOLOGICAL INFORMATION

### Carcinogen Status

Hazardous components	NTP Carcinogen	IARC Carcinogen	OSHA Carcinogen
Tin 7440-31-5	No	No	No
Lead 7439-92-1	Suspect Carcinogen	Group 2B	Yes
Modified Resin Proprietary	No	No	No

### Literature Referenced Target Organ & Other Health Effects

Hazardous components	Health Effects/Target Organs
Tin 7440-31-5	Nervous System, Lung, Liver, Kidney, Irritant, Gastrointestinal
Lead 7439-92-1	Thyroid, Some evidence of carcinogenicity, Skin, Reproductive, Nervous System, Muscle, Liver, Kidney, Gastrointestinal, Eyes, Developmental, Blood, Behavioral
Modified Resin Proprietary	No Records

## 12. ECOLOGICAL INFORMATION

<b>Ecological information:</b>	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, groundwater, 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.
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## 13. DISPOSAL CONSIDERATIONS

Information provided is for unused product only.

**Recommended method of disposal:** Dispose of in accordance with Federal, State and local regulations. Do not dispose of in an uncontrolled manner.

**EPA hazardous waste number:** D008 Lead

## 14. TRANSPORT INFORMATION

### 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/MDG):

**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.

**CERCLA/SARA Section 302 EHS:** None above reporting de minimus.  
**CERCLA/SARA Section 311/312:** Immediate Health Hazard, Delayed Health Hazard  
**CERCLA/SARA 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). Lead (CAS# 7439-92-1).

**California Proposition 65:** This product contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm.

### Canada Regulatory Information

**CEPA DSL/NDSL Status:** Contains one or more components listed on the Non-Domestic Substances list.  
**WHMIS hazard class:** D.2.A, D.2.B

## 16. OTHER INFORMATION

This material safety data sheet contains changes from the previous version in sections: 2,3,4,5,6,8,10

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