

**Material Safety Data Sheet**

MSDS Date : 1/7/99

MSDS No: 7047

Multicore Solders, Inc.  
1751 Jay Eli Drive  
Richardson, TX 75081

**Identity:**

Date Printed : 1/8/99

Preparer: Robert Gilbert  
Information: 972-238-1224  
IN THE EVENT OF CHEMICAL  
EMERGENCIES INVOLVING A  
SPILL, LEAK, FIRE, EXPOSURE,  
OR ACCIDENT INVOLVING  
CHEMICALS CALL: 800-424-9300

Sn63 (Sn63Pb37) CRYSTAL 502 2%
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Sn63 (Sn63Pb37) CRYSTAL 502 3%
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**Transportation Requirements:**

D.O.T. Hazard Class: N/A  
D.O.T. Proper Shipping Name: N/A

UN/NA Code: N/A  
D.O.T. Label Required: N/A  
Packing Group: N/A

N.F.P.A. /Health: 2  
Reactivity: 0  
Fire: 0

**Section I (Hazardous Ingredients / Identity Information)**

Hazardous Components	CAS. Number	OSHA Pel	ACGIH TLV	SARA 313 Percent
Lead	7439-92-1	0.05 mg/m <sup>3</sup>	0.05 mg/m <sup>3</sup>	35-40
Tin	7440-31-5	2 mg/m <sup>3</sup>	2 mg/m <sup>3</sup>	60-65

Rosin core solder decomposition products as resin acids colophony	8050-09-7	Sensitizer. Reduce exposure as low as possible.	1-3
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**Section II (Physical / Chemical Characteristics)**

Boiling Point: N/A  
Vapor Density (Air=1): N/A  
Evaporation Rate (Butyl Acetate=1): N/A  
Solubility in Water: Insoluble.  
Appearance and Odor: Gray metal with neutral odor.

Specific Gravity: (Water = 1) @ 25° C: 8  
Vapor Pressure (mm Hg.): N/A  
Percent Volatile By Volume: N/A  
Melting Point: 183 °C

**Section III (Fire and Explosion Hazard Data)**

Flash Point (Method Used) N/A  
Extinguishing Media: Carbon Dioxide, Dry Chemical, Foam  
Flammable Limits: LEL: N/A UEL: N/A

**Special Fire Fighting Procedures:** Use full body protective clothing and full face piece, self-contained breathing apparatus operated in a positive-pressure mode.

**Unusual Fire and Explosion Hazards:** Do not use water on fires where molten metal is present. High temperatures may produce heavy metal fumes, dust and or vapor.

**Section IV (Reactivity Data)**

**Stability:** Unstable? No Stable? Yes

**Incompatibility (Materials to Avoid):** Strong Oxidizers

**Hazardous Decomposition or By-products:**

High temperatures may produce heavy metal fumes, dust and or vapors.

**Hazardous Polymerization:**

May Occur? No Will Not Occur? Yes

**Conditions to Avoid:** None Known

NL - Not Listed N/A - Not Applicable

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Section V	(Health Hazard Data)
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**Routes of Entry:**

Inhalation? Yes    Skin? No    Ingestion? Yes    Other: None

**Health Hazards (Acute and Chronic)**

Acute: Weakness, vomiting, loss of appetite, convulsions, stupor and possibly coma.

Chronic: Weakness, insomnia, hypertension, slight irritation of the eyes, headache, possible paralysis. Chronic overexposure to lead may result in damage to blood-forming, nervous, urinary and reproductive system.

*California Proposition 65 Warning!* This product contains a chemical known to the state of California to cause cancer, and that may cause birth defects or other reproductive harm.

**Carcinogenicity:** NTP? No    IARC Monographs? Yes    OSHA Regulated? No    Other? No

Formaldehyde formed during the decomposition of rosin flux is listed as a suspected human carcinogen by ACGIH.

Lead listed by IARC as 2B.

**Signs and Symptoms of Exposure:**

Dust, vapor and or fumes may be irritating to skin, eyes and respiratory system.

**Medical Conditions Generally Aggravated by Exposure:**

Note to physicians: Lead and its inorganic compounds are neurotoxins which may produce neuropathy. Rosin is an allergen.

**Emergency First Aid Procedures**

**Eyes:** Flush with copious quantities of water. Get medical attention.

**Skin:** Wash with soap and water.

**Inhalation:** Remove from exposure. Get medical attention if experiencing effects of overexposure.

**Ingestion:** Get immediate medical attention.

Section VI	(Precautions for Safe Handling and Use)
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**Steps to be Taken in Case Material is Released or Spilled:**

Particulate matter should be stored in dry containers for later disposal. Dust material should be vacuumed or wet swept. Do not use compressed air or dry sweeping as a means of cleaning.

**Waste Disposal Method:**

Dispose of in accordance with local, state and federal regulations. Consult a licensed hazardous waste company.

**Precautions to be Taken in Handling and Storing:**

Wash hands with soap and water after handling solder. Store in dry area. Avoid skin contact. Avoid breathing smoke during soldering. Shelf life of 10 years if stored in a dry area at room temperature.

**Other Precautions:** None known.

Section VII	(Control Measures)
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**Respiratory Protection (Specify Type):**

As specified by 29 CFR 1910.1025 (F) if exposure exceeds PEL.

**Ventilation:**

Local exhaust : Remove smoke from breathing area.	Special: None needed
Mechanical (General): Adequate	Other: None needed.

**Protective Gloves:** Impervious

**Eye Protection:** Face shield or safety glasses

**Other Protective Clothing or Equipment:**

Personal clothing and shoes should be protected from contamination. Eye wash station.

**Work/Hygenic Practices:**

Do not eat, drink or smoke in work areas. Wash hands thoroughly before eating or smoking.