

# LEAD PRODUCTS COMPANY, INC.

## MATERIAL SAFETY DATA SHEET

### SECTION I - PRODUCT IDENTIFICATION & USE

**Product Name:** Lead-Free Solder

**Common Name or Synonyms:** Lead-Free Plumbing Alloy, Non-Lead Solder, or 95/5 Solder.

**Intended Use:** Industrial and Commercial

**Manufacturer / Vendor Information:** Lead Products Company, Inc.    **Phone numbers:** (713) 224 – 9546  
P. O. Box 1341    (800) 433 – 5323  
Houston, TX 77251-1341

### SECTION II - COMPOSITION

INGREDIENTS	CAS NO.	OSHA PEL	ACGIH TLV	APPROX. WT. %
Tin	7440-31-5	2.0 mg/m <sup>3</sup>	2.0 mg/m <sup>3</sup>	93 – 99
Antimony	7440-36-0	0.5 mg/m <sup>3</sup>	0.5 mg/m <sup>3</sup>	0 – 7
Copper (dust & fume)	7440-50-8	1.0 mg/m <sup>3</sup> dust 0.1 mg/m <sup>3</sup> fume	1.0 mg/m <sup>3</sup> dust 0.2 mg/m <sup>3</sup> fume	0 – 6
Silver	7440-22-4	0.01 mg/m <sup>3</sup>	0.1 mg/m <sup>3</sup>	0 – 6

### SECTION III – HAZARDS IDENTIFICATION

**Emergency Overview:** Exposure to the solid form of this product presents few health hazards in itself. However, normal handling or processing of this material may result in the generation of tin, antimony, copper, and/or silver dusts and/or fumes, which may present a potential health hazard.

**Acute Exposure:  
(Severe Short-Term)** Acute overexposure to tin can cause irritation of the eyes, skin, mucous membranes, and respiratory system. Acute overexposure to Antimony can cause upper respiratory tract irritation and systemic Antimony poisoning with symptoms including abdominal cramps, nausea, dizziness, dry throat and various nervous complaints, such as

### SECTION III – HAZARDS IDENTIFICATION (continued)

<b>Acute Exposure: (Severe Short-Term)</b>	sleeplessness, irritability and muscular pains. Repeated skin contact with Antimony may result in dermatitis, and eye contact may cause severe eye irritation. Copper may cause skin and hair discoloration. Inhalation of Copper dust may cause changes in gums and mucous lining of the mouth which is generally attributable to localized tissue effect rather than general toxicity.
<b>Chronic Exposure: (Prolonged)</b>	Chronic overexposure to tin can result in benign pneumoconiosis (stannosis). This form of pneumoconiosis produces progressive x-ray changes of the lungs as long as exposure exists, but there is no distinctive fibrosis, no evidence of disability and no special complicating factors. Chronic overexposure to antimony can lead to liver and kidney damage and central nervous system disorders. Antimony can cause eye and skin irritation, and dermatitis.
<b>Carcinogenicity:</b>	<b>NTP:</b> No <b>IARC:</b> No <b>OSHA:</b> No
<b>Eye:</b>	Dust, vapor and/or fume may cause irritation.
<b>Skin Contact:</b>	Dust, vapor and/or fume may cause irritation.
<b>Skin Absorption:</b>	No known adverse effects.
<b>Inhalation:</b>	Dust, vapor and/or fume may be irritating to the respiratory system.
<b>Ingestion:</b>	No known adverse effects.

### SECTION IV- EMERGENCY AND FIRST AID PROCEDURES

<b>Eye:</b>	Flush well with running water to remove particulate (s). If irritation persists, get medical attention.
<b>Skin Contact:</b>	Follow normal hygiene & first aid procedures - wash with soap and water.
<b>Inhalation:</b>	Remove from exposure. Get medical attention if experiencing effects of overexposure. See Section III.
<b>Ingestion:</b>	Give water; induce vomiting only in a conscious non-convulsing individual; obtain immediate medical attention.

### SECTION V- FIRE AND EXPLOSION HAZARD INFORMATION

<b>Flash point:</b>	Non-flammable
<b>Flammable limits:</b>	Not applicable
<b>Extinguishing media:</b>	Use standard firefighting procedures.
<b>Special fire fighting procedures:</b>	Not applicable.
<b>Unusual fire &amp; explosion hazards:</b>	Not applicable

## SECTION VI – ACCIDENTAL RELEASE MEASURES

- Spill or Leak Procedures:**
- 1) Material in dust form - minimize exposure. Clean-up using dustless methods (e.g., HEPA vacuum). Do not use compressed air.
  - 2) Place in closed labeled containers for recycling or disposal.
  - 3) Keep out of waterways.

Note: Response personnel should wear protective clothing & respiratory protection where dust/fume exposure exists.

**Other Procedures:** For large product users or operations involving large product quantities, we recommend that the purchaser establish a Spill Prevention, Control and Countermeasures (SPCC) Plan. The SPCC Plan should include procedures for proper storage as well as clean-up of spills or leaks. The procedures should conform to safe practices and provide for proper recovery and/or disposal. Depending on the quantity spilled, notification to the National Response Center (800-424-8802) may be required in case of hazardous substances. (See U.S. EPA and U.S. DOT regulations; also various state and local regulations.)

## SECTION VII – HANDLING & STORAGE

**Handling Information:** Practice good housekeeping procedures to prevent dust accumulations. Keep material dry. Avoid storage near incompatible materials (see Section X). Keep product away from children & their environment, feed products, food products and domestic animals.

**Other Precautions:** Special attention is drawn to the U.S. OSHA Respirator Standard (29 CFR 1910.134) should airborne exposures exceed the U.S. OSHA Action Level (AL) or PEL.

## SECTION VIII – EXPOSURE CONTROLS / PERSONAL PROTECTION

**Respiratory Protection:** Respiratory protection is required where airborne exposures exceed U.S. OSHA /ACGIH permissible air concentrations. Respirator selection shall be made in accordance with the U.S. OSHA Respiratory Protection Standard at 29 CFR 1910.134.

**Ventilation:** Good general dilution ventilation or ventilation, as described in “industrial ventilation, a manual of recommended practice”, by the American Conference of Governmental Industrial Hygienists (ACGIH), is recommended in order to maintain exposure levels below the Threshold Limit Values (TLV’s) specified by U.S. OSHA or other local or state regulations.

**Protective Gloves:** Recommended for prolonged contact/heat.

**Eye Protection:** Safety glasses or goggles are recommended where the possibility of getting dust particles in the eyes exists. A face shield is recommended in areas around molten metal.

## SECTION VIII – EXPOSURE CONTROLS / PERSONAL PROTECTION (continued)

**Other Protective Equipment:** Safety equipment should be worn as appropriate for the work environment. Keep work clothing separate from street clothes.

**Work/Hygienic Practices:** Do not permit eating, drinking, or the use of cosmetics or tobacco products while handling or processing material or while in work areas. Practice good personal hygiene procedures. Wash hands and face thoroughly before eating, drinking, applying cosmetics, or using tobacco products. Full protective clothing is to be worn by workers and showering is required before changing into street clothes. Keep work clothing separate from street clothes. Work clothes and equipment should remain in designated areas and never taken home or laundered with personal clothing. Avoid inhalation and ingestion of product, and activities which generate dust or fume. Keep melting temperatures as low as possible to minimize the generation of fumes.

## SECTION IX – PHYSICAL/ CHEMICAL CHARACTERISTICS

<b>Appearance At Normal Conditions:</b>	Silver Gray Metal Wire
<b>Odor At Normal Conditions:</b>	No Detectable Odor
<b>Specific Gravity (H<sub>2</sub>O = 1):</b>	Dependant on alloy composition
<b>Melting Point (Degrees F):</b>	Dependant on alloy composition
<b>Boiling Point (Degrees F):</b>	Dependant on alloy composition
<b>Solubility In Water:</b>	Insoluble
<b>Evaporation Rate</b>	Not Applicable
<b>Vapor Density:</b>	Not Applicable
<b>Vapor Pressure:</b>	Not Applicable
<b>pH:</b>	Not Applicable

## SECTION X – STABILITY & REACTIVITY

<b>Stability:</b>	Stable
<b>Conditions To Avoid:</b>	Not Applicable
<b>Incompatibility:</b>	Strong acids, reducing agents, oxidizers, and halogens. <b>Never mix molten metal with water - it will explode.</b>
<b>Hazardous Decomposition By Products:</b>	Not Applicable
<b>Hazardous Polymerization:</b>	Will not occur

## SECTION XI – DISPOSAL CONSIDERATIONS

**Waste disposal methods:** May have value if recycled. Dispose of toxic substances & hazardous wastes in accordance with all federal, state and/or local disposal or discharge regulations. Under the Resource Conservation and Recovery Act (RCRA), it is the responsibility of the user of the product to determine, at the time of disposal, whether the product falls under the RCRA as a hazardous waste. This is because product uses, transformations, synthesis, mixtures, etc. may cause the resulting end-product to be classified as hazardous.

## SECTION XII – TRANSPORTATION INFORMATION

<b>U.S. DOT Shipping Name:</b>	Not regulated by U.S. DOT as shipped
<b>Hazard Class:</b>	Not Applicable
<b>UN / ID No.</b>	Not Applicable
<b>U.S. DOT Label (s)</b>	Not Applicable

## SECTION XIII – REGULATORY INFORMATION

<b>Federal Drinking Water Standards:</b>	Tin:	Not Established
	Antimony:	0.006 mg/L
	Copper:	1.3 mg/L
	Silver:	Not Established

**EPRA, SARA Title III, Section 313:** Yes, see Title 40 CFR Part 372  
For chemicals subject to reporting requirements (see Section II for percent by weight of each toxic chemical and its associated Chemical Abstract System (CAS) number).

**CERCLA Hazardous Substances:** Yes, see Title 40 CFR Part 302  
Reporting Quantity (RQ)

Tin:	Not Established
Antimony:	5,000 pounds
Copper:	5,000 pounds
Silver:	1 pound

**U.S. DOT:** See Section XII

Lead Products Company, Inc. and its affiliates assume no responsibility for injury to anyone caused by the material if reasonable safety procedures are not adhered to as stipulated in the data sheet. Additionally, Lead Products Company, Inc. assumes no responsibility for injury to anyone caused by abnormal use of the material even if reasonable safety procedures are followed. Furthermore, vendee and third persons assume the risk in their use of the material.

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Prepared by: LPCO

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