

## MATERIAL SAFETY DATA SHEET TIN GALVANIZING SOLDER

**Trade Name:** Tin Zinc Lead Multipurpose Solder and Galvanizing Solder  
**Manufacturer:** Weldcote Metals, Inc.  
**Address:** 842 Grove Rd. Kings Mountain, NC 28086  
**Telephone:** 704-739-4115      **Fax:** 704-739-6116      **E-Mail:** [info@weldcotemetals.com](mailto:info@weldcotemetals.com)  
**Emergency:** Chemtrec 1-800-424-9300

Please retain this sheet for your files. Weldcote Metals maintains a file of Material Safety Data Sheets (MSDS) for each alloy produced in compliance with Federal OSHA Hazard Communication Standard (29 CFR 1910.1200) & various right-to-know laws.

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### SECTION I: MATERIAL IDENTIFICATION/COMPONENTS

\*(Hazardous components 1% or greater; Carcinogens 0.1% or greater)

Component	CAS No.	OSHA PEL	ACGIH TLV	Density (lbs./ft <sup>3</sup> ):	%(optional)
Tin (Sn)	7440-31-5	2 mg/m <sup>3</sup>	2 mg/m <sup>3</sup>	.264	30
Zinc (Zn)	7440-66-6	5 mg/m <sup>3</sup>	5 mg/m <sup>3</sup>	.257	20
Lead (Pb)	7439-92-1	.05 mg/m <sup>3</sup>	.15 mg/m <sup>3</sup>	.4094	50

\*This information must be included in all MSDS Sheets that are copied and distributed for this material. No other hazardous material is present in concentrations greater than 1% (0.1% for Carcinogens)

### SECTION II: PHYSICAL/CHEMICAL CHARACTERISTICS

**Boiling point:** NAIF      **Melting Range:** 450-600°F/232-315°C  
**Vapor Pressure (mm Hg):** Lead only: Health effects only >500°C  
**Specific Gravity:** .2661      **Solubility in Water:** 0(solid)  
**Evaporation Rate (Butyl Acetate = 1):** NA      **Vapor Density (AIR = 1):** N/A  
**Appearance and Odor:** Lustrous, silver metal; odorless/various shapes and sizes.

### SECTION III. FIRE AND EXPLOSION HAZARD DATA

**Extinguisher Media:** CO<sub>2</sub> or dry chemical extinguisher.

Do not use water on molten metal.

Large fires may be flooded with water from a distance.

**Special Fire Fighting Procedures:** Use NIOSH/MSHA-approved self-contained breathing apparatus and full protective clothing if involved in fire.

**Unusual Fire and Explosion Hazards:** Metal products are not a fire hazard. However, finely divided dust may form explosive mixture with air. ~~Never drop water or liquids into molten solder.~~ Do not plunge damp or wet solder bars/pieces into molten solder.

**Note:** When overheated, lead fumes are toxic. Never exceed 500°C

#### SECTION IV: REACTIVITY HAZARD DATA

**Stability:** Stable

**Conditions to avoid:** None

**Incompatibility (materials to avoid):** Strong Acids, Strong Alkalis

**Hazardous Decomposition Products:** None-Hazardous Polymerization will not occur

#### SECTION V: HEALTH HAZARD

**Primary Routes of Entry**

**Inhalation:** Fumes

**Ingestion:** Solid Metal-not edible

**Skin Absorption:** N/A

**Signs and Symptoms of Overexposure:**

Possible flu-like symptoms (nausea, constipation, headache, dizziness) – self-limiting, usually disappears within 24 hours.

#### SECTION VI: EMERGENCY AND FIRST AID PROCEDURES

**Ingestion:** Drink large quantities of water- induce vomiting. Call a physician at once; advise of chemical composition (section II).

**Skin:** Wash thoroughly with water to remove all residue. If a rash develops, call a physician.

**Inhalation:** Terminate exposure & remove to fresh air. Call physician, advise of chemical composition (section II)

**Eyes:** Flush with water for at least 15 minutes to remove irritant. Consult a physician.

#### SECTION VII: EFFECTS OF ACUTE EXPOSURE

**Tin (Sn):** Elemental tin is not generally considered to be toxic.

**Antimony:** NAIF

Note: It is unlikely that normal exposure to this solder, while using appropriate protective equipment, would result in illness.

#### SECTION VIII: CONTROL AND PROTECTIVE MEASURES

**Respiratory Protection:** Use NIOSH-approved breathing apparatus to prevent exposure to dusts/fumes.

**Eye Protection:** Wear approved safety glasses or welding goggles, appropriate to your procedure.

**Ventilation:** Local exhaust: Yes Mechanical: Yes Special: Conform with your regulatory statutes.

**Protective gloves are recommended:** Especially for high temperature applications to prevent burns.

**Other:** Standard protective equipment used in soldering operations. Conform to all local, state, and federal regulations.

#### SECTION IX: PRECAUTIONS FOR SAFE HANDLING AND USE/LEAK PROCEDURES

**Steps to be taken if material is spilled or released:** Solder is solid/recyclable. Vacuuming is recommended for accumulated metal dust from saw/grind operations.

**Waste disposal method:** According to Federal, State, Local & OSHA Regulations.

**Precautions to be taken in handling and storage:** Dry storage; Ambient temperature.

**Other Precaution/Special Handling:** Wet or moist ingots will present a steam explosion hazard when submerged in molten solder. Avoid fire and explosion risks. Always preheat ingot before charging into furnace.

\*0=Insignificant

1= Slight

2=Moderate

3=High

4=Extreme

NFPA Rating:

Health: 1

Flammability: 0

Reactivity: 0

Special: 0

HMIS Rating:

Health: 1

Flammability: 0

Reactivity: 0

Special: 0

**SECTION X: OPTIONAL INFORMATIONAL**

Department of Transportation:

Proper Shipping Name: Solder Wire-not regulated

Hazard Class: NAIF

ID & Packing Group Number: NAIF

**TOXIC SUBSTANCE CONTROL ACT: \*DOES NOT APPLY TO TIN ANTIMONY ALLOY**

**SARA TITLE III PROGRAM:**      CHEMICAL NAME      CAS NO.      CONCENTRATION

This product contains the following

Toxic chemicals subject to the

Reporting requirements of

EPCRA of 1986 and 40 CFR 372

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Good housekeeping procedures should be maintained. Personnel should wash thoroughly before smoking or eating. Food and drink should not be consumed or Tobacco products used. Cosmetics should not be applied in areas where exposure exist.