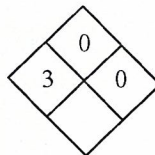


# MATERIAL SAFETY DATA SHEET



**alphametals.**  
600 Route 440  
Jersey City, NJ 07304  
Tel: (201) 434-6778



Number 0000081D  
Revision 2/22/97

Page 1 of 4

## SECTION I. GENERAL INFORMATION

PRODUCT NAME (NUMBER) Solder Powders of Lead, Tin and Silver

CHEMICAL FAMILY Inorganic Metals  
D.O.T. HAZARD CLASS Respirable Dust (RQ 1)

## SECTION II. HAZARDOUS INGREDIENTS

INGREDIENTS	CAS NUMBER	WEIGHT PERCENT	OSHA PEL	ACGIH TLV
Lead	7439-92-1	*	0.05mg/cum	0.05 mg/cum
Tin	7440-31-5	*	2.0 mg/cum	2.0 mg/cum
Silver	7440-22-4	*	0.1mg/cum	0.1 mg/cum

\* Weight Percent: Composition of solder powders vary, therefore, no weight percent or specific gravity is given (see container label for composition).

## SECTION III. PHYSICAL DATA

(PUBLISHED OR ESTIMATED VALUES)

BOILING POINT Deg F (760 mm Hg)	NA	SPECIFIC GRAVITY (H <sub>2</sub> O=1) (@ 77 deg F)	NA
VAPOR PRESSURE (mm Hg at 25 Deg C)	NA	% VOLATILE BY WEIGHT	NA
VAPOR DENSITY (AIR=1)	NA	EVAPORATION RATE	NA
SOLUBILITY IN WATER	Insoluble	pH	NA
APPEARANCE AND ODOR	Silver -gray metal powder, odorless.		

## SECTION IV. FIRE AND EXPLOSION HAZARD DATA

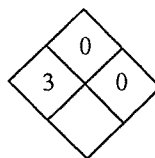
ESTIMATED FLAMMABLE LIMITS (% By volume in air)	LEL: NA	UEL: NA
FLASH POINT Deg F.	NA	
EXTINGUISHING MEDIA	NA	
SPECIAL FIRE FIGHTING PROCEDURES	Use NIOSH/MSHA approved self-contained breathing apparatus and full protective clothing if involved in a fire.	
UNUSUAL FIRE AND EXPLOSION HAZARD	Moderate when exposed to heat or flame. When heated to high temperatures, lead emits highly toxic fumes.	

NA - NOT APPLICABLE NE - NOT ESTABLISHED NL - NOT LISTED UN - UNKNOWN

# MATERIAL SAFETY DATA SHEET



**alphametals.**  
600 Route 440  
Jersey City, NJ 07304  
Tel: (201) 434-6778



Number 0000081D  
Revision 2/22/97

Page 2 of 4

## Solder Powders of Lead, Tin and Silver

### SECTION V. (A) HEALTH HAZARD DATA (Symptoms/Effects of Overexposure)

**LEAD:** Exposure to high levels of airborne or ingested lead may produce symptoms of anemia, insomnia, weakness, constipation, nausea and abdominal pain. Overexposure may cause damage to blood-forming, nervous, reproductive, intestinal and urinary systems. For occupational exposure requirements see 29 CFR 1910.1025 Lead Standard and its appendices.

**CHRONIC TOXICITY:** Women of child bearing age should avoid exposure to lead and its inorganic compounds due to post-natal effects. Lead can cause potential injury to a developing fetus and possible effects on reproduction. For overexposure to TIN see Section X.

**LISTED CARCINOGENS:** None of the metal elements of this product are confirmed as human carcinogens at this time by NTP, IARC, or OSHA. IARC classifies lead and some lead compounds as 2B carcinogens (possibly carcinogenic to humans).

**MEDICAL CONDITIONS POSSIBLY AGGRAVATED:** See Section X.

### SECTION V. (B) HEALTH HAZARD DATA (Emergency and first aid procedures)

**INHALATION:** Lead: Excessive overexposure may result in an acute or chronic illness. If symptoms are present, the individual should be removed from exposure and a physician consulted.

**INGESTION:** Call a physician or Poison Control Center at once.

**SKIN CONTACT:** After handling, wash thoroughly with soap and water. Solder powders of Tin, Lead and Silver are not readily absorbed through the skin.

**EYE CONTACT:** Flush with water, contact a physician. May cause irritation.

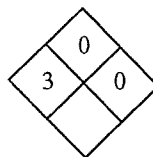
### SECTION VI. REACTIVITY DATA

<b>STABILITY</b>	<b>CONDITIONS TO AVOID:</b> NA
<b>STABLE : X</b>	
<b>UNSTABLE:</b>	
<b>INCOMPATIBILITY</b>	
(Materials to avoid)	Oxidizing materials, acids, hydrogen peroxide >52%.
<b>HAZARDOUS DECOMPOSITION PRODUCTS</b>	
	Lead oxide fume may be evolved at temperatures greater than 100°F (538°C).
<b>HAZARDOUS POLYMERIZATION</b>	
<b>WILL OCCUR:</b>	<b>CONDITIONS TO AVOID:</b> NA
<b>WILL NOT OCCUR: X</b>	

# MATERIAL SAFETY DATA SHEET



**alphametals.**  
600 Route 440  
Jersey City, NJ 07304  
Tel: (201) 434-6778



Number 0000081D  
Revision 2/22/97

Page 3 of 4

## Solder Powders of Lead, Tin and Silver

### SECTION VII. SPILL OR LEAK PROCEDURES

#### STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

Avoid inhalation of solder powder. Vacuuming or washing is recommended. Do not use dry sweeping or compressed air cleaning systems.

#### WASTE DISPOSAL

Scrap or waste solder should be recycled or stored in sealed containers for later disposal.

*Must be in accordance with Federal, State, and Local Laws and Regulation*

### SECTION VIII. SPECIAL PROTECTION

#### RESPIRATORY

A NIOSH/MSHA approved dust/fume respirator should be worn where airborne exposures may exceed OSHA/ACGIH permissible air concentrations.

#### EYEWEAR

Safety glasses and/or face protection is recommended.

#### CLOTHING/GLOVES

Protective gloves should be worn. Work clothes should be worn and laundered in accordance with current OSHA lead standards.

#### VENTILATION

Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below permissible air concentrations.

### SECTION IX. SPECIAL PRECAUTIONS

#### PRECAUTION TO BE TAKEN IN HANDLING AND STORING

Food and drink should not be consumed or tobacco products used, nor cosmetics applied in areas where solder powder may be used. Always wash hands after handling solder and before eating, drinking or smoking. Avoid breathing solder powder or dust. Observe safety precautions. (See Section VIII).

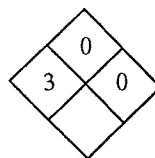
#### OTHER PRECAUTIONS:

CONTAINERS: Since empty containers may retain product residues (vapor, liquid, or solid) all labeled hazard precautions must be observed. FOR INDUSTRIAL USE ONLY. KEEP OUT OF REACH OF CHILDREN. DO NOT TAKE INTERNALLY.

# MATERIAL SAFETY DATA SHEET



**alphametals.**  
600 Route 440  
Jersey City, NJ 07304  
Tel: (201) 434-6778



Number 0000081D  
Revision 2/22/97

Page 4 of 4

## Solder Powders of Lead, Tin and Silver

### SECTION X. ADDITIONAL INFORMATION

NOTES TO PHYSICIAN: Lead and its inorganic compounds are neurotoxins which may produce peripheral neuropathy. For an overview of the effects of lead exposure, consult Occupational Safety and Health Administration Appendix A of Occupational Exposure to Lead (29CFR1910.1025).

HEALTH HAZARD DATA: (continued)

OVEREXPOSURE TO:

TIN: Dust may cause irritation of the skin, mucous membranes, and may result in a benign pneumoconiosis (stannosis).

SILVER: May cause discoloration of eyes and skin (argyria)

MEDICAL CONDITIONS POSSIBLY AGGRAVATED:

Diseases of the blood and blood-forming organs, kidneys, nervous and possibly reproductive systems.

### REGULATORY INFORMATION

California State Proposition 65:

"WARNING! This product may contain LEAD known to the State of California to cause cancer, birth defects or other reproductive harm." (See product label.)

Toxic Substance Control Act (TSCA) Status:

All ingredients of this product are listed on the TSCA inventory.

SARA TITLE III (Section 313):

Components that may be present in this product at a level which could require reporting under this statute are: Lead, Silver (See container label).

### EMERGENCY TELEPHONE NUMBER

CHEMTREC

1-800-424-9300

DAY OR NIGHT

The information contained herein is based on data considered accurate and is offered at no charge. No warranty is expressed or implied regarding the accuracy of this data. Liability is expressly disclaimed for loss or injury arising out of use of this information or the use of any materials designated.