#### WBT-Distribution GmbH

Hatzper Straße 125

D - 45149 Essen

Tel.; 0201 / 87102-0 Fax: 0201 / 8710222

## SECTION I. PRODUCT - INFORMATION

PRODUCT NAME (NUMBER)

Solder Alloys of Lead, Tin, Silver, Bismuth, Antimony

and Indium

CHEMICAL FAMILY

Inorganic Metals. Not regulated.

D.O.T. HAZARD CLASS

### SECTION II. HAZARDOUS INGREDIENTS

	INGEDIENTS	CAS NUMBER	WEIGHT PERCENT	OSHA PEL	ACGIH TLV
Lead	Product contains	7439-92-1	-	0,05mg/cum	0,05mg/cum
Tin	one or more of	7440-31-5	•	2,0mg/cum	2.0mg/cum
Silver	these metallic	7440-22-4	See	0.01mg/cum	0,1mg/cum
Bismuth	elements in varying	7440-69-9	Below	NE	NE
Antimony	percentages.	7440-36-0	-	0.5mg/cum	0,5mg/cum
Indium	F-10011111	7440-74 <del>-8</del>	-	0,1mg/cum	0,1mg/cum

WEIGHT

Composition of solder alloys vary widely therefore no weight percent or specific

PERCENT

gravity is given. (See product label for composition.)

### SECTION III. PHYSICAL DATA

#### (PUBLISHED OR ESTIMATED VALUES)

BOILING POINT Deg. F.	NA	SPECIFIC GRAVITY	NA
(760mm Hg)		(H <sub>2</sub> O=1)	
VAPOR PRESSURE	NA	% VOLATILE BY WEIGHT	NA
(mm Hg at 20 Deg. C.)		EVAPORATION RATE	NA
VAPOR DENSITY (AIR=1)	NA	•	
SOLUBILITY IN WATER	insoluble	рH	NA
APPEARANCE AND ODOR Silver-gray metal, oderless, various		ess, various shapes and sizes.	

## SECTION IV. FIRE AND EXPLOSION HAZARD DATA

ESTIMATED FLAMMABLE LIMITS (% By Volume in Air) LEL: NA UEL: NA

FLASH POINT Deg. F. NA

EXITINGUISHING MEDIA NA

SPECIAL FIRE Use NIOSH/MSHA approved self-contained breathing FIGHTING apparatus and full protective clothing if involved in a fire. PROCEDURES

UNUSUAL FIRE Moderate in the form of dust when exposed to heat AND EXPLOSION of flame. When heated to high temperatures, lead emits highly toxic fumes.

NA - NOT APPLICABLE

NE - NOT ESTABLISHED NL - NOT LISTED

UN - UNKNOWN

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

LEAD: Exposure to hing levels of airborne or ingested lead may produce symtoms 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 ist appendices.

CHRONIC TOXICITY: Women of child bearing age should avoid exposure to lead and ist 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, SILVER, BISMUTH, ANTIMONY and INDIUM 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 carcinogens 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 symtoms 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: For hot metal burns exposed area should be cooled with water and medical attention sought. After handling solid solder wire, bar, etc., wash thoroughly with soap and water. Dust, vapor and/or fume are not readily absorbed through the skin.

EYE CONTACT: Flush with water, contact a physician. Dust or fume may cause imitation.

### SECTION VI. REACTIVITY DATA

STABILITY

CONDITIONS NA

STABLE: X UNSTABLE: TO AVOID

INCOMPATABILITY:

(Materials to Avoid)

Oxidizing materials, acids, hydrogen peroxide >52%.

**HAZADOUS** 

**DECOMPOSITION PRODUCTS** 

Lead oxide and antimony oxide fume may be evolved at temperatures greater than 1000 deg. F (538 C°).

HAZARDOUS POLYMERIZATION

CONDITIONS

WILL OCCUR: WILL NOT OCCUR: X TO AVOID NA SECTION VII. SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

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

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

Must be in accordance with Federal, State and Local Laws and Regulations.

### SECTION VIII. SPECIAL PROTECTION

RESPRATORY A NIOSH/MSHA approved dust/fume respirator should be worn

where alroome exposures may exceed OSHA/ACGIH permissable

air concentrations.

EYEWEAR Safety glasses and/or face protection is recommended for exposures

to dust or splash of hot metal.

CLOTHING/ Protective gloves should be worn to reduce burn exposure. Work GLOVES 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 permissable air concentrations.

### SECTION IX. SPECIAL PRECAUTIONS

PRECAUTIONS 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 may be used. Always wash hands after handling solder and before eating, drinking or smoking.

#### 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. SECTION X. ADDITIONAL INFORMATION

NOTES TO PHYSICIAN; Lead and ist 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 or fume 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).

BISMUTH: May cause foul breath, a blue-black line on the gums, and stomatitis.

ANTIMONY: May cause gastrointestinal upset, sleeplessness, irritability and muscular pain. May also cause respiratory tract imitation, metallic taste or damage

to kidney, liver or nervous system.

INDIUM: May cause weight loss, pulmonary edema, blood damage and degenerative

changes in liver and kidneys.

MEDICAL CONDITIONS POSSIBLY AGGRAVATED:

Diseases of the 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, Antimony, Silver (See product label.)

EMERGENCY TELEPHONE NUMBER:

Tel . 0201 / 87102-0 (Mr. Thörner)

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