Material Safety Data Sheet

Section 1. Product and Company Identification

Common Name	**Alloy Pb96/Sb4**
Product type	**Metal alloy**
Synonym	Not available.
Material Uses	Industrial applications: Soldering
Supplier	AIM
Manufacturer	AIM

Code	Not available.
Validation Date	**3/18/2004**
Version Number	**1**

In Case of Emergency **INFOTRAC**
(North America): (800) 535-5053
(International): (352) 323-3500

Section 2. Hazardous Components

Name	CAS #	% by Weight	Toxicity Data (*LC50/LD50, TLV*)
1) LEAD	7439-92-1	96	TWA: 0.05 (mg/m^3) from ACGIH (TLV) [United States] [1995] INHALATION TWA: <0.1 (ppm) from NIOSH INHALATION Respirable.
2) Antimony	7440-36-0	4	ORAL (LD50): Acute: 7000 mg/kg [Rat.]. TWA: 0.5 (mg/m^3) from OSHA (PEL) [United States] [1993] TWA: 0.5 (mg/m^3) from ACGIH (TLV) [United States] [1989] INHALATION

Section 3. Hazards Identification

Physical State and Appearance
Solid. (Metal alloy:)

Emergency Overview
WARNING!!

Risk of cancer depends on duration and level of exposure Avoid contact with eyes, skin and clothing. DO NOT ingest. Avoid breathing dust. Keep container closed. Use only with adequate ventilation. Avoid exposure during pregnancy. Wash thoroughly after handling. Avoid contact of spilled material and runoff with soil and surface waterways.

Routes of Entry
Inhalation. Ingestion.

Potential Acute Health Effects

Eyes As shipped, this product is not hazardous in case of eye contact (irritant).

Skin As shipped, this product is not hazardous in case of skin contact (irritant, sensitizer). Non-permeator by skin. Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering.

Inhalation Fumes and/or dusts produced by this product may be hazardous in case of inhalation.

Ingestion This product may cause serious illness in case of ingestion.

Potential Chronic Health Effects
Chronic effects: Chronic effects: This product may cause serious illness in case of ingestion.
Fumes and/or dusts produced by this product may be hazardous in case of eye contact (irritant), of inhalation.
This product may be hazardous in case of skin contact (irritant, sensitizer).
Non-corrosive for skin. Non-permeator by skin.

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Medical Conditions Aggravated by Overexposure:	Repeated exposure to toxic material may produce general deterioration of health by an accumulation in one or many human organs.
Overexposure /Signs/Symptoms	Not available.
See Toxicological Information (section 11)	

Section 4. First Aid Measures

Eye Contact	Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention if irritation occurs.
Skin Contact	Wash with soap and water. Cover the irritated skin with an emollient. Get medical attention if irritation develops.
Hazardous Skin Contact	Not available.
Inhalation	If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen Get medical attention.
Hazardous Inhalation	Not available.
Ingestion	Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If large quantities of this material are swallowed, call a physician immediately. Loosen tight clothing such as a collar, tie, belt or waistband.
Hazardous Ingestion	Not available.
Notes to Physician	Not available.

Section 5. Fire Fighting Measures

Flammability of the Product	Non-flammable.
Auto-Ignition Temperature	Not applicable.
Flash Points	Not applicable.
Flammable Limits	Not applicable.
Products of Combustion	Not available.
Fire Hazards in Presence of Various Substances	Not applicable.
Explosion Hazards in Presence of Various Substances	No known risk of explosion in the presence of shock or electrical discharge.
Fire Fighting Media and Instructions	Not applicable.
Protective Clothing (Fire)	Not applicable.
Special Remarks on Fire Hazards	Not available.
Special Remarks on Explosion Hazards	Not available.

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Section 6. Accidental Release Measures

Small Spill and Leak	Use appropriate tools to put the spilled solid in a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.
Large Spill and Leak	Use a shovel to put the material into a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system. Be careful that the product is not present at a concentration level above TLV. Check TLV on the MSDS and with local authorities.

Section 7. Handling and Storage

Handling	Avoid contact with eyes, skin, and clothing. DO NOT ingest. Avoid breathing dust. Keep container closed. Use only with adequate ventilation. Wash thoroughly after handling. Avoid contact of spilled material and runoff with soil and surface waterways.
Storage	Keep container tightly closed. Keep container in a cool, well-ventilated area.

Section 8. Exposure Controls, Personal Protection

Engineering Controls	Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.
Personal Protection	
Eyes	Safety glasses.
Body	Lab coat.
Respiratory	Dust respirator. Be sure to use an approved/certified respirator or equivalent. Wear appropriate respirator when ventilation is inadequate.
Hands	Gloves.
Feet	Not applicable.

*** Note: Suggested protective clothing may not be adequate for a specific process. Consult a specialist before using.**

Personal Protection in Case of a Large Spill	Splash goggles. Full suit. Dust respirator. Boots. Gloves. A self contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

Product Name	**Exposure Limits**
1) LEAD	TWA: 0.05 (mg/m^3) from ACGIH (TLV) [United States] [1995] INHALATION TWA: <0.1 (ppm) from NIOSH INHALATION Respirable.
2) Antimony	TWA: 0.5 (mg/m^3) from OSHA (PEL) [United States] [1993] TWA: 0.5 (mg/m^3) from ACGIH (TLV) [United States] [1989] INHALATION

Consult local authorities for acceptable exposure limits.

Section 9. Physical and Chemical Properties

Physical State and Appearance	Solid. (Metal alloy:)	**Odor**	Not available.
Molecular Weight	Not applicable.	**Taste**	Not available.
Chemical formula	Not applicable.	**Color**	silver-grey
pH (1% Soln/Water)	Not applicable.	**Specific Gravity**	Weighted average: 10.96 (Water = 1)
Acid Value (IPC TM-650, 2.3.13)	Not available.		
Boiling/Condensation Point	Not available.		

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Melting/Freezing Point	251.7-300 C
Critical Temperature	Not available.
Vapor Pressure	Not applicable.
Vapor Density	Not available.
Volatility	Not available.
Odor Threshold	Not available.
Evaporation Rate	Not available.
VOC	Not available.
Viscosity	Not available.
$LogK_{ow}$	Not available.
Ionicity (in Water)	Not available.
Dispersion Properties	Is not dispersed in cold water, hot water.
Solubility	Insoluble in cold water, hot water.
Physical Chemical Comments	Not available.

Section 10. Stability and Reactivity

Stability and Reactivity	The product is stable.
Conditions of Instability	Stable in normal conditions. Over melting point, may emit toxic lead oxides. (LEAD)
Incompatibility with Various Substances	Slightly reactive with oxidizing agents, metals, acids.
Hazardous Decomposition Products	Not available.
Hazardous Polymerization	Will not occur.
Corrosivity	Not considered to be corrosive for metals and glass according to our database.
Special Remarks on Corrosivity	Not available.

Section 11. Toxicological Information

Toxic and Chronic Effects on Humans

This product may cause serious illness in case of ingestion.
Fumes and/or dusts produced by this product may be hazardous in case of eye contact (irritant), of inhalation.
This product may be hazardous in case of skin contact (irritant, sensitizer).
Non-corrosive for skin. Non-permeator by skin.
CARCINOGENIC EFFECTS: Classified A3 (Proven for animal) by ACGIH, 2B (Possible for human) by IARC [LEAD]. Classified NONE by NIOSH [LEAD]. Classified NONE by NIOSH [Antimony].
MUTAGENIC EFFECTS: Not available.
TERATOGENIC EFFECTS: Classified 1 by European Union [LEAD].
DEVELOPMENTAL TOXICITY: Classified Reproductive system/toxin/female, Reproductive system/toxin/male [PROVEN] [LEAD]. Classified Reproductive system/toxin/female, Reproductive system/toxin/male [PROVEN] [Antimony].
The product may be toxic to blood, kidneys, lungs, the nervous system, the reproductive system, spleen, brain, digestive system, gastrointestinal tract, upper respiratory tract, skin, central nervous system (CNS), eye, lens or cornea.

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	Repeated or prolonged exposure to the substance can produce target organs damage.
Toxicity to Animals	Acute oral toxicity (LD50): 7000 mg/kg [Rat.]. (Antimony).
Special Remarks on Chronic Effects on Humans	Human: LEAD crosses the placental barrier. CHRONIC OVEREXPOSURE EFFECTS; Increase of LEAD LEVEL in blood, muscle soreness, metallic taste, abdominal cramps, headaches. (Note: these statements apply to ingested and/or inhaled particles) (LEAD)
Special Remarks on Other Toxic Effects on Humans	MOLTEN METAL can cause severe BURNS! (LEAD)
Special Remarks on Toxicity to Animals	Not available.

Section 12. Ecological Information

Ecotoxicity	Not available.
BOD5 and COD	Not available.
Biodegradable/OECD	Not available.
Mobility	Not available.
	Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.
Toxicity of the Products of Biodegradation	The products of degradation are less toxic than the product itself.
Special Remarks on the Products of Biodegradation	Not available.

Section 13. Disposal Considerations

Waste Information	Waste must be disposed of in accordance with federal, state and local environmental control regulations.
Waste Stream	Not available.

Consult your local or regional authorities.

Section 14. Transport Information

DOT Classification	Not a DOT controlled material (United States).	
	Not regulated	
Special Provisions for Transport	Not applicable.	
Special Provisions for Transport		
IMO/IMDG Classification	Not controlled under IMDG.	
Marine Pollutant	Not available.	
ADR/RID Classification	Not controlled under ADR (Europe).	

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ICAO/IATA Classification	Not controlled under IATA.

Section 15. Regulatory Information

HCS Classification	Class: Irritating substance. Class: Sensitizing substance. Class: Target organ effects. Class: Reproductive toxins.
U.S. Federal Regulations	TSCA 8(a) PAIR: Antimony TSCA 8(a) IUR: Antimony TSCA inventory: LEAD; Antimony TSCA 8(d) H and S data reporting: Antimony: Oct 4, 1992 SARA 302/304/311/312 extremely hazardous substances: No products were found. SARA 302/304 emergency planning and notification: No products were found. SARA 302/304/311/312 hazardous chemicals: LEAD; Antimony SARA 311/312 MSDS distribution - chemical inventory - hazard identification: LEAD: delayed health hazard; Antimony: immediate health hazard, delayed health hazard SARA 313 toxic chemical notification and release reporting: LEAD: 0.1%; Antimony: 1% Clean water act (CWA) 307: LEAD; Antimony Clean water act (CWA) 311: No products were found. Clean air act (CAA) 112 accidental release prevention: No products were found. Clean air act (CAA) 112 regulated flammable substances: No products were found. Clean air act (CAA) 112 regulated toxic substances: No products were found.
State Regulations	Rhode Island RTK hazardous substances: LEAD; Antimony Pennsylvania RTK: LEAD; Antimony: (environmental hazard, generic environmental hazard) Florida: LEAD; Antimony Minnesota: LEAD; Antimony Michigan critical material: LEAD; Antimony Massachusetts RTK: LEAD; Antimony New Jersey: LEAD; Antimony California prop. 65: This product contains the following ingredients for which the State of California has found to cause cancer, birth defects or other reproductive harm, which would require a warning under the statute: LEAD California prop. 65: This product contains the following ingredients for which the State of California has found to cause reproductive harm (female) which would require a warning under the statute: LEAD California prop. 65: This product contains the following ingredients for which the State of California has found to cause reproductive harm (male) which would require a warning under the statute: LEAD California prop. 65 (no significant risk level): LEAD: 0.0005 mg/day (inhalation) California prop. 65 (acceptable daily intake level): LEAD California prop. 65: This product contains the following ingredients for which the State of California has found to cause birth defects which would require a warning under the statute: LEAD California prop. 65: This product contains the following ingredients for which the State of California has found to cause cancer which would require a warning under the statute: LEAD
International Regulations	
EINECS	Not available.
DSCL (EEC)	20/22- Harmful by inhalation and if swallowed. R50/53- Very toxic to aquatic organisms. May cause long-term adverse effects in the aquatic environment. 61- May cause harm to the unborn child. 62- Possible risk of impaired fertility.
International Lists	Australia (NICNAS): LEAD; Antimony Korea (TCCL): LEAD; Antimony Philippines (RA6969): LEAD; Antimony

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Section 16. Other Information

Hazardous Material Information System (U.S.A.)

Health	*	1
Fire Hazard		0
Reactivity		0
Personal Protection		E

National Fire Protection Association (U.S.A.)

Label statements

BIRTH DEFECT HAZARD
CONTAINS MATERIAL WHICH CAN CAUSE BIRTH DEFECT
VERY TOXIC TO AQUATIC ORGANISMS.
CONTAINS MATERIAL WHICH CAUSES DAMAGE TO THE FOLLOWING ORGANS: BLOOD, KIDNEYS, LUNGS, NERVOUS SYSTEM, REPRODUCTIVE SYSTEM, SPLEEN, BRAIN, DIGESTIVE SYSTEM, GASTROINTESTINAL TRACT, RESPIRATORY TRACT, SKIN, CENTRAL NERVOUS SYSTEM, CRYSTALLINE LENS OR CORNEA.
MAY BE HARMFUL IF INHALED OR SWALLOWED.
POSSIBLE CANCER HAZARD
CONTAINS MATERIAL WHICH MAY CAUSE CANCER BASED ON ANIMAL DATA.
MAY BE HARMFUL TO ENVIRONMENT IF RELEASED IN LARGE AMOUNTS.

References Not available.

Other Special Considerations Not available.

Document Modifications

Validated by P. Diallo on 3/18/2004.

Verified by P. Diallo.

Printed 3/18/2004.

Information/Contact

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