### Section 1. Product and Company Identification

<table>
<thead>
<tr>
<th>Common Name</th>
<th>Alloy Pb96/Sb4</th>
<th>Code</th>
<th>Not available.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product type</td>
<td>Metal alloy</td>
<td>Validation Date</td>
<td>3/18/2004</td>
</tr>
<tr>
<td>Synonym</td>
<td>Not available.</td>
<td>Version Number</td>
<td>1</td>
</tr>
<tr>
<td>Material Uses</td>
<td>Industrial applications: Soldering</td>
<td>Supplier</td>
<td>AIM</td>
</tr>
<tr>
<td>Manufacturer</td>
<td>AIM</td>
<td>Manufacturer</td>
<td>AIM</td>
</tr>
</tbody>
</table>

**In Case of Emergency**

**INFOTRAC**

(North America): (800) 535-5053

(International): (352) 323-3500

### Section 2. Hazardous Components

<table>
<thead>
<tr>
<th>Name</th>
<th>CAS #</th>
<th>% by Weight</th>
<th>Toxicity Data (LC50/LD50, TLV)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) LEAD</td>
<td>7439-92-1</td>
<td>96</td>
<td>TWA: 0.05 (mg/m³) from ACGIH (TLV) [United States] [1995] INHALATION</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>TWA: &lt;0.1 (ppm) from NIOSH INHALATION</td>
</tr>
<tr>
<td>2) Antimony</td>
<td>7440-36-0</td>
<td>4</td>
<td>Respirable. ORAL (LD50): Acute: 7000 mg/kg [Rat.]. TWA: 0.5 (mg/m³) from OSHA (PEL) [United States] [1993]</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>TWA: 0.5 (mg/m³) from ACGIH (TLV) [United States] [1989] INHALATION</td>
</tr>
</tbody>
</table>

### 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.
Section 4. First Aid Measures

<table>
<thead>
<tr>
<th>Eye Contact</th>
<th>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.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skin Contact</td>
<td>Wash with soap and water. Cover the irritated skin with an emollient. Get medical attention if irritation develops.</td>
</tr>
<tr>
<td>Hazardous Skin Contact</td>
<td>Not available.</td>
</tr>
<tr>
<td>Inhalation</td>
<td>If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.</td>
</tr>
<tr>
<td>Hazardous Inhalation</td>
<td>Not available.</td>
</tr>
<tr>
<td>Ingestion</td>
<td>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.</td>
</tr>
<tr>
<td>Hazardous Ingestion</td>
<td>Not available.</td>
</tr>
<tr>
<td>Notes to Physician</td>
<td>Not available.</td>
</tr>
</tbody>
</table>

Section 5. Fire Fighting Measures

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

Continued on Next Page
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/m³) from ACGIH (TLV) [United States] [1995] INHALATION
| TWA: <0.1 (ppm) from NIOSH INHALATION Respirable
| TWA: 0.5 (mg/m³) from OSHA (PEL) [United States] [1989] INHALATION
2) Antimony | TWA: 0.5 (mg/m³) from ACGIH (TLV) [United States] [1996] 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.

Continued on Next Page
### 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

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

### Section 11. Toxicological Information

<table>
<thead>
<tr>
<th>Toxic and Chronic Effects on Humans</th>
</tr>
</thead>
<tbody>
<tr>
<td>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.</td>
</tr>
<tr>
<td><strong>CARCINOGENIC EFFECTS</strong>: Classified A3 (Proven for animal) by ACGIH, 2B (Possible for human) by IARC [LEAD]. Classified NONE by NIOSH [LEAD]. Classified NONE by NIOSH [Antimony].</td>
</tr>
<tr>
<td><strong>MUTAGENIC EFFECTS</strong>: Not available.</td>
</tr>
<tr>
<td><strong>TERATOGENIC EFFECTS</strong>: Classified 1 by European Union [LEAD].</td>
</tr>
<tr>
<td><strong>DEVELOPMENTAL TOXICITY</strong>: 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.</td>
</tr>
</tbody>
</table>

**Continued on Next Page**
Revised 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.

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**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.

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**Section 14. Transport Information**

**DOT Classification**

Not a DOT controlled material (United States).

Not regulated

**Special Provisions for Transport**

Not applicable.

**IMO/IMDG Classification**

Not controlled under IMDG.

**Marine Pollutant**

Not available.

**ADR/RID Classification**

Not controlled under ADR (Europe).
### 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  

Continued on Next Page
### Section 16. Other Information

<table>
<thead>
<tr>
<th>Hazardous Material Information System (U.S.A.)</th>
<th>National Fire Protection Association (U.S.A.)</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="#" alt="Health" /></td>
<td><img src="#" alt="Fire Hazard" /></td>
</tr>
<tr>
<td><img src="#" alt="Fire Hazard" /></td>
<td><img src="#" alt="Reactivity" /></td>
</tr>
<tr>
<td><img src="#" alt="Reactivity" /></td>
<td><img src="#" alt="Personal Protection" /></td>
</tr>
</tbody>
</table>

#### 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.

#### Information/Contact
AIM  
25 Kenney Drive, Rhode Island, USA, 02920  
(401) 463-5605 (800) CALL AIM

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