

MSDS  
ANTIMONIAL LEAD ALLOYS

**Material Safety Data Sheet**

**I. PRODUCT IDENTIFICATION**

Manufacturer's Name: Vulcan Lead Inc. Telephone #: 414-645-2040  
Address: 1400 W. Pierce Street, Milwaukee, WI 53204-1284  
Trade Names: **Antimonial Lead and Hard Lead**  
Synonyms: Sheet, Plate, Flashing, Batts, Bricks, Anodes, Pipe, Starwire, Rod, Strip,  
Wire, Burning Bar, Caulking, Billets, Ingots, Castings, Extrusions, Pig  
Intended Use: Industrial, Commercial

**II. HAZARDOUS INGREDIENTS**

Material or Component	Weight %	OSHA/WISHA PEL/TWA	ACGIH CEILING	TLV/TWA	TLV/STEL	OTHER
Lead (CAS# 7439-92-1)	90-99	50ug/m <sup>3</sup>	None	0.15mg/m <sup>3</sup>	None	30ug/m <sup>3</sup> Action Level
Antimony (CAS# 7440-36-0)	0-10	.5mg/m <sup>3</sup>	None	.5mg/m <sup>3</sup>	None	N/A

**III. PHYSICAL DATA**

Boiling Point @ 760 MM Hg: Greater than 2516 Deg.F. Melting Point: 486-680 Deg F.  
Specific Gravity (H<sub>2</sub>O = 1): 9.6-11.3 Vapor Pressure: N/A  
Vapor Density (Air = 1): N/A Solubility in H<sub>2</sub>O (% by wt.): Negligible  
% Volatiles by Vol: N/A Evaporation Rate (Butyl Acetate = 1): N/A  
Appearance & Odor: Bluish-gray metal; no apparent odor

**IV. HEALTH HAZARD INFORMATION**

Routes of Exposure When Process of Handling

Inhalation: Dust, vapor and/or fume may be irritating to the respiratory system and can result in both acute and chronic overexposure.  
Skin Absorption: Dust, vapor and/or fume are not readily absorbed through the skin.  
Eye contact: Dust, vapor and/or fume may cause irritation.  
Ingestion: Dust, vapor and/or fume may be absorbed by the digestive system, and can result in both acute and chronic overexposure.

Effects of Overexposure

Acute Overexposure: If left untreated: headache, chills, nausea, weakness, vomiting, loss of appetite, uncoordinated body movements, convulsions, stupor, and coma.  
Chronic Overexposure: If left untreated: weakness, insomnia, hypertension, slight irritation to skin and eyes, metallic taste in mouth, anemia, constipation, headache, muscle, and joint pains, metal fume fever, ulceration of the nasal septum, neuromuscular dysfunction, paralysis, and encephalopathy. Lead exposure can pose a risk to developing fetuses and may impair the reproductive systems in men and women. Damage to kidneys, red blood cell forming, and central nervous system may occur.

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**Effects of Overexposure, continued:**

**Aggravated Medical Conditions:** Chronic forms of kidney, liver, hematopoietic, and/or neurologic diseases; pre-existing skin and/or respiratory disorders may be aggravated by exposure to this product.

**Carcinogenicity:** Lead is listed by - IARC

**Emergency and First Aid Procedures**

**Eyes:** Flush with copious quantities of water. Get immediate medical attention.

**Skin:** Wash thoroughly with soap and water.

**Inhalation:** Remove from exposure. Get medical attention if experiencing effects of overexposure.

**Ingestion:** Get immediate medical attention.

**Note 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). Antimony is a primary chemical irritant of the skin. The chronic effects of antimony ingestion may resemble those of arsenic poisoning. Antimony is a severe pulmonary irritant.

**V. FIRE and EXPLOSIVE DATA**

Flash Point (Test Method): N/A

Autoignition Temperature: N/A

Flammable Limits in Air (% by Vol.)

Lower: N/A

Upper: N/A

**Extinguishing Media:** Dry chemical or carbon dioxide should be used on surrounding fire. Do not use water on fires where molten metal is present.

**Special Fire Fighting Procedures:** Use full body protective clothing and full-facepiece, self-contained breathing apparatus operated in a positive-pressure mode.

**Unusual Fire and Explosion Hazard:** Molten metals produce fume, vapor and/or dust that may be toxic and/or respiratory irritants. The product, or its dust, can react vigorously with strong oxidizing agents.

**VI. REACTIVITY DATA**

Conditions Contributing to Instability: N/A

**Incompatibility:** Strong oxidizers and this product may liberate hydrogen gas.

**Hazardous**

**Decomposition:** High temperatures may produce heavy metal fume, vapor and/or dust.

Products/Conditions Contributing to Hazardous Polymerization: N/A

**VII. SPILL or LEAK PROCEDURES**

**Steps To Be Taken if Material is Released or Spilled:** Dust material should be vacuumed or wet swept where vacuuming is not feasible. Particulate matter should be stored in dry containers for later disposal. Do not use compressed air or dry sweeping as a means of cleaning.

**Neutralizing Chemicals:** N/A

**Waste Disposal Method:** Dispose of toxic substances and hazardous wastes in accordance with local, state and federal regulations.

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**VIII. SPECIAL PROTECTION INFORMATION**

**Ventilation Requirements:** Ventilation, as described in the "Industrial Ventilation Manual" produced by the American Conference of Governmental Industrial Hygienists, shall be provided in areas where exposures are above the permissible exposure limits or threshold limit values specified by OSHA or other local, state and federal regulations.

**Specific Personal Protection Equipment**

**Respiratory:** As specified by 29CFR1910.1025 Subpart (f) of the Federal Occupational Safety and Health Administration standard for Occupational Exposure to Lead. Other local and state regulations may also apply.

**Eye:** Face shield or vented goggles should be used around molten metal.

**Glove:** Gloves should be worn when handling the product.

**Other Clothing and Equipment:** Coveralls, or other full body clothing, shall be worn during product use and properly laundered after use, with the wash water disposed of in accordance with local, state and federal regulations. Hard hat, safety boots and other safety equipment should be worn as appropriate for the industrial environment. Personal clothing and shoes should be protected from contamination with this product.

**IX. SPECIAL PRECAUTIONS**

**Precautionary Statements:**

There are two major means of heavy metal absorption: namely, inhalation and ingestion. Most inhalation problems can be prevented with adequate use of aforementioned ventilation and respirator information. Always exercise normal, good personal hygiene prior to smoking or eating. Smoking and eating should be confined to non-contaminated areas.

Work clothes and equipment should remain in designated lead contaminated areas, and never taken or laundered with personal clothing. Launder contaminated clothing before reuse.

Wash hands, face, neck, and arms thoroughly before eating or smoking.

The product is intended for industrial use only, and should be isolated from children and their environment. Caution must be exercised not to expose anyone to the smoke fumes and dust generated from the use of this product. Do not smoke while using this product.

In accordance with California's Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65), the following statement is issued: "Warning: This product contains a chemical known to the state of California to cause cancer, birth defects and/or other reproductive harm."

This product contains greater than 0.10% Lead (CAS# 7439-92-1) and greater than 1% Antimony which are subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments & Reauthorization Act of 1986 and 40 CFR Part 372.

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**Other Handling and Storage Requirements**

Store in dry area where accidental contact with acids is not possible.

Avoid Skin Contact.

**FOR INDUSTRIAL AND COMMERCIAL USE, OR WHERE PRODUCT IS CONTINUALLY USED.**

Adhere to all personal protection equipment procedures when handling, and ventilation requirements when heavy metal exposures are above permissible exposure limits or threshold limit values.

**Before Using This Product Be Familiar With The Information Contained In:**

The Federal Standard for Occupational Exposure to Lead  
(29CFR1910.1025): Published in the Federal Register on Tuesday,  
November 14, 1978 by the Occupational Safety and Health Administration.

Preparation Date: Revised February, 1999.