



Material Safety Data Sheet

Section 1. Product and Company Identification

Common Name	Alloy Sn63/Pb37	Code	Not available.
Product type	Metal alloy	Validation Date	03-24-2003
Synonym	Not available.	Version Number	3
Material Uses	Not available.		
Supplier	AIM	In Case of	INFOTRAC
Manufacturer	AIM 9100 Henri-Bourassa east Montreal, Quebec, Canada, H1E 2S4, (514) 494-2000	Emergency	(North America): (800) 535-5053 (International): (352) 323-3500

Section 2. Hazardous Ingredients

Name	CAS #	% by Weight	Exposure Limits
1) Tin	7440-31-5	63	TWA: 2 (mg/m ³) from ACGIH (TLV) [United States] [1994] <u>INHALATION</u> Respirable.
2) Lead	7439-92-1	37	TWA: 0.1 (mg/m ³) from NIOSH [United States] [1994] <u>INHALATION</u>

Section 3. Hazards Identification

Physical State and Appearance	Solid. (bar, ingot, solid wire)
Emergency Overview	WARNING!! Risk of cancer depends on duration and level of exposure Avoid exposure during pregnancy. 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). Inhalation As shipped, this product is not hazardous in case of inhalation (lung irritant). Ingestion As shipped, this product is not hazardous in case of ingestion.
Potential Chronic Health Effects	Fumes and/or dusts produced by this product may be hazardous in case of ingestion, of inhalation. This product may be hazardous in case of skin contact (irritant, sensitizer), of eye contact (irritant).
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)	

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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.
Skin Contact	Prolonged and repeated contact with bare skin may cause irritation. Wash gently and thoroughly the contaminated skin with running water and non-abrasive soap.
Hazardous Skin Contact	MOLTEN METAL causes SEVERE BURNS! In case of BURNS: USE WATER, cover with antiseptic ointment and steril gauze. Seek IMMEDIATE medical attention.
Inhalation	If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.
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	Non-explosive in presence of open flames and sparks, of shocks, of heat.
Fire Fighting Media and Instructions	Not applicable.
Protective Clothing (Fire)	Not applicable.
Special Remarks on Fire Hazards	Massive metal is nonflammable.
Special Remarks on Explosion Hazards	No additional remark.

Section 6. Accidental Release Measures

Small Spill and Leak	MOLTEN METAL: DO NOT USE WATER ON HOT or MOLTEN METAL. Let cool before picking up with a clean shovel or pan and return to process or recycling. Prevent entry into waterways and sewers. Wear gloves if manual contact is necessary. If sweeping is necessary (small particles), cover cool spilled metal with a dry, non-combustible material (earth, sand). If dust generation cannot be avoided, wear DUST RESPIRATOR. OTHER (bars, ingots): Use appropriate tools to put the spilled solid in a container reserved to that effect. Wear gloves if manual contact is necessary.
Large Spill and Leak	MOLTEN METAL: Let cool before picking up and returning to process or recycling. OTHER: Use appropriate tools to put the spilled solid in a container reserved to that effect.

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Section 7. Handling and Storage

Handling	Wear suitable protective clothing. Use in a well ventilated area. When using do not eat, drink or smoke. Avoid contact with skin and eyes. After handling, always wash hands thoroughly with soap and water.
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 HANDLING: safety glasses
REMELTING: splash goggles or face shields

Body REMELTING: coveralls

Respiratory REMELTING: dust and fume respirator. Wear appropriate respirator when ventilation is inadequate. Be sure to use a MSHA/NIOSH approved respirator or equivalent.

Hands gloves (suitable to the operation)

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

- 1) TIN
- 2) LEAD

Exposure Limits

TWA: 2 (mg/m³) from ACGIH (TLV) [United States] [1994] INHALATION Respirable.
TWA: 0.05 (mg/m³) from ACGIH (TLV) [United States] [1995] INHALATION
TWA: <0.1 (ppm) from NIOSH INHALATION Respirable.

Consult local authorities for acceptable exposure limits.

Section 9. Physical and Chemical Properties

Physical State and Appearance	Solid. (bar, ingot, solid wire)	Odor	not applicable.
Molecular Weight	Not applicable.	Taste	Not applicable
Chemical formula	Not applicable.	Color	silver-grey
pH (1% Soln/Water)	Not applicable.	Specific Gravity	8.79(Water = 1)
Acid Value	Not available.		
Boiling/Condensation Point	Not available.		
Melting/Freezing Point	183°C (361.4°F)		
Critical Temperature	Not available.		
Vapor Pressure	Not applicable		
Vapor Density	Not available.		
Volatility	Not available.		

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Odor Threshold	Not available.
Evaporation Rate	Not available.
VOC	Not available.
Viscosity	Not available.
LogK_{ow}	The product is insoluble in water and oil.
Ionicity (in Water)	Non-ionic.
Dispersion Properties	Is not dispersed in cold water, hot water, methanol, diethyl ether, n-octanol, acetone.
Solubility	Insoluble in cold water, hot water, methanol, diethyl ether, n-octanol, acetone.
Physical Chemical Comments	Not available.

Section 10. Stability and Reactivity

Stability and Reactivity	The product is stable.
Conditions of Instability	Over melting point, toxic metallic oxides may be evolved.
Incompatibility with Various Substances	Reactive with oxidizing agents, 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	<p>Fumes and/or dusts produced by this product may be hazardous in case of ingestion, of inhalation (lung irritant). This product may be hazardous in case of skin contact (irritant, sensitizer), of eye contact (irritant). CARCINOGENIC EFFECTS: [LEAD] - Classified A3 (Proven for animal) by ACGIH, 2B (Possible for human) by IARC. MUTAGENIC EFFECTS: Not available. TERATOGENIC EFFECTS: [LEAD] - Classified 1 by European Union. DEVELOPMENTAL TOXICITY: [LEAD] - Classified Reproductive system/toxin/female, Reproductive system/toxin/male [PROVEN]. 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. Repeated or prolonged exposure to the substance can produce target organs damage. Repeated exposure to toxic material may produce general deterioration of health by an accumulation in one or many human organs.</p>
Toxicity to Animals	<p>LD50: Not available. LC50: Not available.</p>
Special Remarks on Chronic Effects on Humans	<p>Human: LEAD crosses the placental barrier. CHRONIC OVEREXPOSURE EFFECTS; Increase of LEAD LEVEL in blood, muscle soreness, metallic taste, abdominal cramps, headaches. (Note: the above statements apply to ingested and/or inhaled particles [dust; fumes]) Overexposure to tin oxide fumes may result in benign pneumoconiosis (stannosis). Repeated and prolonged contact with bare skin may cause irritation, dermatitis and/or an allergic reaction (sensitization) in susceptible individuals.</p>

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Special Remarks on Other Toxic Effects on Humans	MOLTEN METAL can cause severe BURNS! Prolonged and repeated contact with bare skin may cause irritation or dermatitis. Fumes and dust may irritate eyes, digestive system and respiratory tract.
Special Remarks on Toxicity to Animals	No additional remark.

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 available.	
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).	
ICAO/IATA Classification	Not controlled under IATA.	

Section 15. Regulatory Information

HCS Classification	Class: Contains material which can cause cancer. Class: Sensitizing substance. Class: Target organ effects. Class: Reproductive toxins.
U.S. Federal Regulations	TSCA inventory: Tin; Lead 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: No products were found. SARA 311/312 MSDS distribution - chemical inventory - hazard identification: Lead: delayed health hazard SARA 313 toxic chemical notification and release reporting: Lead: 0.1% Clean water act (CWA) 307: No products were found. 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: Tin; Lead Pennsylvania RTK: Tin; Lead Florida: Tin; Lead Minnesota: Tin; Lead Michigan critical material: Lead Massachusetts RTK: Tin; Lead New Jersey: Tin; Lead New Jersey spill list: Tin California prop. 65: This product contains LEAD for which the State of California has found to cause cancer, birth defects or other reproductive harm (male, female), which would require a warning under the statute. California prop. 65 (no significant risk level): Lead : 0.0005 mg/day (inhalation)
International Regulations	
EINECS	Not available.
DSCL (EEC)	20/22- Harmful by inhalation and if swallowed. 33- Danger of cumulative effects. 36/38- Irritating to eyes and skin. 43- May cause sensitization by skin contact. 61- May cause harm to the unborn child. 62- Possible risk of impaired fertility.
International Lists	No products were found.

Section 16. Other Information

Hazardous Material Information System (U.S.A.)	Health	*	1	National Fire Protection Association (U.S.A.)	
	Fire Hazard		0		
	Reactivity		0		
	Personal Protection		E		

Label statements

CANCER HAZARD
CONTAINS MATERIAL WHICH CAN CAUSE CANCER
BIRTH DEFECT HAZARD
CONTAINS MATERIAL WHICH CAN CAUSE BIRTH DEFECT.
CAUSES SEVERE RESPIRATORY TRACT IRRITATION.
CAUSES DAMAGE TO THE FOLLOWING ORGANS: BLOOD, KIDNEYS, LUNGS, NERVOUS SYSTEM, REPRODUCTIVE SYSTEM, SPLEEN, BRAIN, DIGESTIVE SYSTEM, GASTROINTESTINAL TRACT, RESPIRATORY TRACT, SKIN, EYES.
MAY BE HARMFUL IF INHALED OR SWALLOWED.

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MAY CAUSE EYE AND SKIN IRRITATION.
MAY CAUSE ALLERGIC SKIN REACTION.

References

-ACGIH, Threshold Limit Values, 1994-1995. -Canada Gazette Part II, Vol. 122, No. 2 Registration SOR/88-64 31 December, 1987 Hazardous Products Act "Ingredient Disclosure List". -CFR29, OSHA's Permissible Exposure Limits, revision July, 1993. -CFR29, part 1910.1200, Hazard Communication. -CHEMTOX database -Components' manufacturer's Material Safety Data Sheet. -CRC Handbook of chemistry and physics, 67 th edition, CRC Press inc., Boca Raton, Florida. -CSST (Comission de Santé et Sécurité au Travail), document #RT-12: Classification of Certain Chemical Substances. -IATA, Dangerous Goods Regulations, 37th edition (January 1, 1996) -NFPA, Fire Protection Guide to Chemical Hazards, 11th edition. -NIOSH, Pocket Guide to Chemical Hazards, revision June 1994. Sigma-Alrich handbook of fine chemicals, 1998 -TSCA (Toxic Substance Contral Act), Chemical Substance Inventory List, 1985.

Other Special Considerations

-ALL INGREDIENTS WITH SUSCEPTIBLE HAZARDS THAT ARE PRESENT IN A CONCENTRATION GREATER THAN 1 % (GREATER THAN 0.1 % FOR CARCINOGENS) HAVE BEEN DISCLOSED IN THIS SAFETY DOCUMENT.

Document Modifications

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