



Material Safety Data Sheet

Section 1. Product and Company Identification

Common Name	Sn63/Pb37 482/WS	Code	Not available
Product type	Cored wire (Water Soluble)	Validation Date	5/19/2004
Synonym	Not available.		
Material Uses	Metal industry: soldering		
Supplier	AIM	In Case of Emergency	INFOTRAC (North America): (800) 535-5053 (International): (352) 323-3500
Manufacturer	AIM		

Section 2. Hazardous Components

Name	CAS #	% by Weight	Toxicity Data (LC50/LD50, TLV)
1) Tin	7440-31-5	61-62.5	TWA: 2 (mg/m ³) from OSHA (PEL) [United States] [1997] <u>INHALATION</u> Respirable. TWA: 2 (mg/m ³) from ACGIH (TLV) [United States] [1994] <u>INHALATION</u> Respirable.
2) LEAD	7439-92-1	35.8-36.7	TWA: 0.05 (mg/m ³) from ACGIH (TLV) [United States] [1995] <u>INHALATION</u> TWA: <0.1 (ppm) from NIOSH <u>INHALATION</u> Respirable.
3) organic amine	102-60-3	0.14-3.04	ORAL (LD50): Acute: 3000 mg/kg [Rat].

Section 3. Hazards Identification

Physical State and Appearance	Solid.
Emergency Overview	WARNING!! Risk of cancer depends on duration and level of exposure. Avoid contact with eyes. DO NOT ingest. Avoid breathing dust. Avoid prolonged or repeated contact with skin. 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 Fumes and/or dusts produced by this product may be hazardous in case of eye contact (irritant). Skin This product may be hazardous in case of skin contact (irritant, sensitizer). Inhalation Fumes and/or dusts produced by this product may be hazardous in case of inhalation. May be fatal if inhaled. Ingestion Fumes and/or dusts produced by this product may be hazardous in case of ingestion. May be fatal if swallowed.
Potential Chronic Health Effects	Chronic effects: Fumes and/or dusts produced by this product may be hazardous in case of eye contact (irritant), of ingestion, of inhalation. This product may be hazardous in case of skin contact (irritant, sensitizer). Non-corrosive for skin. Non-permeator by skin.
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 immediately.
Skin Contact	In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Cover the irritated skin with an emollient. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention.
Hazardous Skin Contact	Wash with a disinfectant soap and cover the contaminated skin with an anti-bacterial cream. 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	If swallowed, do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention immediately.
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.
Fire Fighting Media and Instructions	Not applicable.
Protective Clothing (Fire)	Not applicable.
Special Remarks on Fire Hazards	Metallic part of product is nonflammable. The core may burn if exposed to direct flame.
Special Remarks on Explosion Hazards	Not available.

Section 6. Accidental Release Measures

Small Spill and Leak	Use appropriate tools to put the spilled solid in a convenient waste disposal container. If necessary: Neutralize the residue with a dilute solution of sodium carbonate. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.
Large Spill and Leak	Poisonous solid. No specific data for spill and leak according to our database.

Section 7. Handling and Storage

Handling	Avoid contact with eyes DO NOT ingest. Avoid breathing dust. Avoid prolonged or repeated contact with skin. 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 Splash goggles.

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) (See section 2)

Consult local authorities for acceptable exposure limits.

Section 9. Physical and Chemical Properties

Physical State and Appearance	Solid.	Odor	Not available.
Molecular Weight	Not applicable.	Taste	Not applicable.
Chemical formula	Not applicable.	Color	Colorless.
pH (1% Soln/Water)	Acidic.	Specific Gravity	Weighted average: 7.53 (Water = 1)
Acid Value (IPC TM-650, 2.3.13)	Not available.		
Boiling/Condensation Point	Not available.		
Melting/Freezing Point	Weighted average: 267.27°C (513.1°F)		
Critical Temperature	Not available.		
Vapor Pressure	Not applicable.		
Vapor Density	Not available.		
Volatility	Not available.		
Odor Threshold	Not available.		
Evaporation Rate	Not available.		

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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	Stable in normal conditions. Over melting point, toxic metallic oxides may be evolved.
Incompatibility with Various Substances	Slightly reactive with oxidizing agents, metals, acids, moisture.
Hazardous Decomposition Products	Not available.
Hazardous Polymerization	Will not occur.
Corrosivity	Very slightly corrosive in presence of copper. Non-corrosive in presence of glass, of steel, of aluminum, of zinc, of stainless steel(304), of stainless steel(316).
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 eye contact (irritant), of ingestion, of inhalation.</p> <p>This product may be hazardous in case of skin contact (irritant, sensitizer). Non-corrosive for skin. Non-permeator by skin.</p> <p>CARCINOGENIC EFFECTS: Classified NONE by NIOSH [Tin]. Classified A3 (Proven for animal) by ACGIH, 2B (Possible for human) by IARC [LEAD]. Classified NONE by NIOSH [LEAD].</p> <p>MUTAGENIC EFFECTS Not available.</p> <p>TERATOGENIC EFFECTS Classified 1 by European Union [LEAD].</p> <p>DEVELOPMENTAL TOXICITY: Classified Reproductive system/toxin/female, Reproductive system/toxin/male [PROVEN] [LEAD].</p> <p>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.</p> <p>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	No specific information is available in our data base regarding the toxicity to animals.
Special Remarks on Chronic Effects on Humans	Prolonged and repeated exposure to tin oxide fumes may result in benign pneumoconiosis (stannosis). (Tin)
Special Remarks on Other Toxic Effects on Humans	MOLTEN METAL can cause severe BURNS! Fumes and dust may irritate eyes, digestive system and respiratory tract. (Tin)
Special Remarks on Toxicity to Animals	No additional remark. (Tin)


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).	
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: Triethanolamine TSCA inventory: organic amine; 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: Tin; LEAD SARA 311/312 MSDS distribution - chemical inventory - hazard identification: Tin: immediate health hazard; LEAD: delayed health hazard SARA 313 toxic chemical notification and release reporting: LEAD: 0.1% Clean water act (CWA) 307: LEAD

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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: (generic environmental hazard); 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 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

International Regulations

EINECS

Not available.

DSCL (EEC)

20/22- Harmful by inhalation and if swallowed.
 36/38- Irritating to eyes and skin.
 43- May cause sensitization by skin contact.
 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): organic amine; Tin; LEAD
 Korea (TCCL): organic amine; Tin; LEAD
 Philippines (RA6969): organic amine; Tin; LEAD

Section 16. Other Information

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

Health	*	2
Fire Hazard		0
Reactivity		1
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.
 HARMFUL IF INHALED OR SWALLOWED.
 CAUSES EYE IRRITATION.
 MAY CAUSE SKIN REACTION.
 POSSIBLE CANCER HAZARD
 CONTAINS MATERIAL WHICH MAY CAUSE CANCER BASED ON ANIMAL DATA.
 MAY BE HARMFUL TO ENVIRONMENT IF RELEASED IN LARGE AMOUNTS.

References

-CHEMTOX database

Other Special Considerations

-ALL COMPONENTS 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

Validated by P. Diallo on 5/19/2004.

Verified by P. Diallo.
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Information/Contact

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