

Material Safety Data Sheet

May be used to comply with
OSHA's Hazard Communication Standard,
29 CFR 1910.1200. Standard must be
consulted for specific requirements.

U.S. Department of Labor

Occupational Safety and Health Administration
(Non-Mandatory Form)
Form Approved
OMB No. 1218-0072

IDENTITY (As Used on Label and List)
TIN BAR OR WIRE

Note: Blank space are not permitted. If and item is not applicable, or no
information is available, the space must be marked to indicate that.

Section I

Manufacturer's Name PRECISE ALLOYS, INC.	Emergency Telephone Number 732-233-5951
Address (Number, Street, City, State, and ZIP Code) 684 E. 133rd Street, Bronx, N.Y. 10454	Telephone Number for Information 1-800-345-2660
	Date Prepared 7/1/03
	Signature of Preparer (optional)

Section II - Hazardous Ingredients/Identity Information

Hazardous Components (Special Chemical Identity; Common Name(S))	OSHA PEL	ACGIH TLV	Other Limits % (optional)
Inghredient CAS NO.			Recommended
TIN 7440-31-5	2mg/m3 TWA		100

Section III - Physical/Chemical Characteristics

Boiling Point (C°) 2260	Specific Gravity (H2O = 1) 7.28
Vapor Pressure (mm Hg.) 1 mm Hg@1610 centigrade	Melting Point (C°) 232
Vapor Density (AIR = 1) n/a	Evaporation Rate n/a
Solubility in Water Insoluble	
Appearance and Odor Odorless, silver-white lustrous metals	

Section IV - Fire and Explosion Hazard Data

Flash Point (Method Used) Not applicable, however dust, powder or fumes are flammable or explosive when exposed to heat or flames.	Flammable Limited
Extinguishing Media Use dry sand, dolomite, graphite, sodium chloride, soda ash or appropriate metal extinguishing powder. DO NOT APPLY WATER TO BURNING MATERIAL.	
Special Fire Fighting Procedures Move container from fire area if can be done without risk. Apply cooling water to sides of container that are exposed to flames until well after fire is out. For massive fire in cargo area use unmanned hose holders or monitor nozzles. If this is impossible withdraw from fire and let burn.	
Unusual Fire and Explosion Hazards	

(Reproduce locally)

OSHA 174,
Sept. 1985

Section V - Reactivity Data

Stability	Unstable	X	Conditions to Avoid
	Stable		Avoid dispersion of dust in air. Fumes may be flammable or explosive-keep away from sparks & ignition
Incompatibility	ammonium nitrate, bromine, bromine trifluoride, carbon tetrachloride & water, chlorine (liquid), chlorine trifluoride, cupric nitrate, disulfur dichloride, fluorine, iodine bromide, iodine heptafluoride, potassium peroxide, sodium peroxide, sodium peroxide & carbon dioxide, sulfur, tellurium, turpentine.		
Hazardous Decomposition	Thermal decomposition may release stannic oxide.		
Hazardous Polymerization	May Occur	X	Conditions to Avoid
	Will Not Occur		

Section VI - Health Hazard Data

Route(s) of Entry:	Inhalation?	Skin?	Ingestion?
Inhalation of dust/fume & ingestion of dust.	Initiate artificial resuscitation.	Normal hygiene&first-aid procedures -wash with soap and water remove contaminated clothing	Should be removed by emesis Do not induce vomiting in unconscious person. Obtain immediate medical attention.
Health Hazard: Acute(Severe short-term) Inhalation of inorganic tin compounds may cause respiratory irritation. Metal Fume Fever(influenza like illness)symptoms-thirst, sweet metallic taste in mouth. Upper respiratory tract irritation accompanied by coughing,dryness of mucous membranes, feeling of malaise. Fever, chills muscular pain, headache, nausea, occasional vomiting,profuse sweating, excessive urination, diarrhea, and prostration may also occur. Tolerance to fumes develops rapidly but quickly lost. All symptoms usually subside within 24-36 hrs. Tin powder may cause moderate irritation with eye contact. This substance is relatively non-toxic by ingestion due to poor absorption although at high levels abdominal pain,nausea,vomiting,gstric irritation,and diarrhea may occur. Chronic(Prolonged) overexposure to lead can result in systemic lead poisoning with symptoms of metallic taste, anemia, insomnia, weakness, constipation, abdominal pain, gastrointestinal disorders, joint and muscle pains, and muscular weakness, and may cause damage to the blood-forming, nervous, kidneys, & reproductive systems. Damage may include reduced fertility in both men and women, damage to the fetus of exposed pregnant women, anemia, muscular weakness&kidney dysfunction.			
Carcinogenicity:	NTP	IARC Monographs?	OSHA Regulated?
Signs and Symptoms of Exposure			
Medical Cond Diseases of the blood and blood forming organs, kidneys, nervous & possibly reproductive systems.			
Generally Agc Not listed as a carcinogen by NTP, OSHA, ACGIH; IARC classifies"lead and its compounds" as a Group 2B carcinogen (possibly carcinogenic to humans).			
Emergency ar Eyes-wash immediatelywith large amounts of water or saline--get medical attention immediately Skin-Remove contaminated clothing and shoes-wash thoroughly(15-20min)-get medical attention Inhalation-Remove from exposure to fresh air immediately. If breathing has stopped perform artificial respiration. Get medical attention immediately. Ingestion-Should be removed by emesis. Do not induce vomiting in unconscious person. Treatment should be performed by qualified personnel. Get medical attention immediately.			

Section VII - Precautions for Safe Handling and Use

Steps to Be Taken in Case Material Is Rel 1) Material in dust form - minimize exposure. Clean up using dustless methods(e.g. HEPA vacuum). Do not use compressed air. 2) Place in closed labeled containers for recycling or disposal. 3) Keep out of waterways. Note: Cleanup personnel should wear protective clothing & respiratory protection where dust/fume exposure exists.	
Waste Dispos May have value on a recycled basis. If disposed of, dispose of in a permitted disposal site in accordance - with all federal, state and local disposal or discharge regulations. Under the U.S. Resource Conservation and Response of the user of the Product to determine, at the time of disposal, whether the Product fall under the RCRA as a hazardous waste. This is because Product uses, transformeds, synthesis, mixtures, etc. may cause the resulting end-product to be classified as hazardous.	
Precautions to Be Taken in Handling and : Practice good housekeeping procedures to prevent dust accumulations. Keep material dry. Avoid storage near incompatible materials. Keep product away from children&their environment, feed products, food products and domestic animals.	
Other Precaut Special attention is drawn to the requirements of the U.S. OSHA Lead Standard (29CFR1910.1025) and Respirator Standard (29 CFR 1910.134) should air borne exposures exceed the U.S. OSHA Action Level (AL) or PEL.	

Section VIII - Control Measures

Respiratory P	Respiratory protection is required where airborne exposures exceed U.S. OSHA/ACGIG permissible air concentrations. Respirator selection shall be made in accordance with the U.S. Occupational Exposure Standard for Lead, 29CFR 1910.1025 and the Respiratory Protection Standard, 29 CFR 1910.134	
Ventilation	Local Exhaust Mechanical (General)	Special Other
Protective Gloves:	Recommended for prolonged contact/heat. - Required above the Lead PEL	Eye Protection : Safety glasses or goggles are recommended where the possibility exists of getting dust particles in the eyes. Safety glasses or goggles with faceshield are recommended around molten metal.
Other Protecti	Full protective clothing and shoes are required for employee exposure above the Lead PEL. Other safety equipment should be worn as appropriate for the work enviroment. Keep work clothing separate from street clothes.	
Work/Hygienic	Do not permit eating, drinking, or the use of cosmetics or tobacco products while handling or processing material or in work areas. Wash hands and face thoroughly before eating, drinking, applying cosmetics or using tobacco products	