

\*\* This information is given in good faith, but no warranty, expressed or implied is made.

## MATERIAL SAFETY DATA SHEET

Pure Tin  
ANODES, INGOT, BAR,  
WIRE  
ASTM B339-95

### SECTION 1: IDENTIFICATION

Furnished by: Grant Manufacturing & Alloying, Inc  
200-C Furnace Street  
Birdsboro, Pa 19508

Effective Date: 01/01/01

Emergency Phone Number: 610-404-1380

Person to Contact: David Charest

### SECTION 2: CONSTITUENTS

CHEMICAL	CAS#	%WT	CARCINOGEN	TLV
TIN	7440-31-5	100.0	NO	2mg/cu m ACGIH

### SECTION 3: PHYSICAL DATA

Melting Point 360-620 degrees

Boiling Point n/ap

Vapor Pressure not volatile

Vapor Density not volatile

Solubility in Water nil

Apperance/Color silver to gray

Specific Gravity, 68-77 F 7-11 (approx), depending on alloy

Odor none

% Volatile nil

pH n/ap

Evaporation Rate n/ap

### SECTION 4: FIRE AND EXPLOSION HAZARD DATA

Flash Point not flammable

<b>Flammable Limits</b>	n/ap
<b>Extinguishing Methods</b>	n/ap
<b>Fire Fighting Equipment</b>	If metal is present where there is fire, wear self contained breathing device . in case lead fumes

**SECTION 5:  
REACTIVITY  
DATA**

<b>Stability</b>	stable
<b>Conditions to Avoid</b>	n/ap
<b>Hazardous Polymerization</b>	will not occur
<b>Incompatibility</b>	strong acids, reducing agents, halogens and oxidizers
<b>Hazardous Decomposition</b>	

**SECTION 6: SPILL, LEAK AND  
DISPOSAL PROCEDURES**

<b>Actions to take for spills</b>	allow to solidify, collect and place in sealed drum
<b>Disposal Method</b>	return to supplier

**SECTION 7: HEALTH  
HAZARD INFORMATION**

<b>Eye</b>	dust or fumes will be an irritant
<b>Skin Contact</b>	not a route of entry to the body
<b>Skin Absorption</b>	not a route of entry to the body
<b>Ingestion</b>	

Ingestion of lead dust or fumes must be avoided. Lead is toxic and cumulative, affecting the kidneys and nervous system. Symptoms will include anemia, insomnia, weakness, irritability, constipation and stomach pains. Tin is not regarded as toxic, but excessive exposure can cause fever, nausea, diarrhea and stomach cramps.

**Section 8: First Aid Procedures**

Eyes:	Flush thoroughly with water and call a physician.
Skin:	Wash thoroughly with soap and water.

Ingestion: Induce vomiting if person is conscious. Call a physician.  
Inhalation: Remove to fresh air. Call a physician.  
Note to Physician: Check for effects of antimony

### **Section 9: Special Handling Information**

Ventilation: Required to maintain TLV's  
Respiratory Protection: Fume Mask required.  
Eye Protection: Wear protective goggles.  
Skin Protection: Use protective gloves when handling material.  
Other: N/A

### **Section 10: Special Precautions & Additional Information**

Storage: Store metal in clean dry area, away from heat and chemicals that might react with the material.

### **Section 11: Hazard Rating**

Based on NFPA and NPCA Systems

Health-1

Flammability-0

Reactivity-0

Special Hazard-W

**END:**