

# MATERIAL SAFETY DATA SHEET

## SECTION 1. IDENTITY

Product: **BETA III TITANIUM ALLOY (SOLIDS)**

Chemical Family: **Titanium Alloy**

Supplier:

Address:

Telephone: **(510) 623-6996**

Date Prepared: **August 31, 1998**

## SECTION 2. INGREDIENTS

<u>Chemical Components</u>	<u>Wt%</u>	<u>C.A.S. NO.</u>	<u>OSHA Exposure Limits (mg/m<sup>3</sup>)</u>	
			<u>TWA</u>	<u>STEL</u>
Molybdenum, Mo	10.00-13.00	7439-98-7	10, insoluble dust	---
Tin, Sn	3.75-5.25	7440-31-5	2, as SnO <sub>2</sub>	---
Titanium, Ti	74.25-81.75	7440-32-6	10 as TiO <sub>2</sub> dust	---
Zirconium, Zr	4.50-7.50	7440-67-7	5	10

## SECTION 3. PHYSICAL DATA

Boiling Point @ 760 mm Hg: Above 2000°C  
Specific Gravity (H<sub>2</sub>O = 1): 5.06  
Freezing/Melting Point: Above 1500°C  
Solubility (weight % in water): Insoluble  
Bulk Density: 0.183 lb/in.<sup>3</sup>, solids  
% Volatile by Volume: Nonvolatile  
Vapor Pressure: 0 @ 20°C  
Appearance and Color: Silver-grey metal, Orderless



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## **SECTION 7. EMERGENCY AND FIRST AID PROCEDURES**

Inhalation: Remove to clean atmosphere  
Eye Contact: Normal procedures for foreign object  
Skin Contact: Not Applicable  
Ingestion: Not Applicable

## **SECTION 8. EMPLOYEE PROTECTION**

Respiratory Protection: Wear appropriate NIOSH-approved respirator when generation dust or fumes. Have adequate ventilation for grinding operations.  
Protective Clothing: Use of gloves is advisable to avoid cuts.  
Eye Protection: Use normal precautions.

## **SECTION 9. SPECIAL PROCEDURES**

Precautions To Be Taken During Handling And Storage: Machining of Titanium alloys may result in fine turnings, chips or dust. Any material with a dimension less than 0.001 inch is flammable. Keep fines away from any source of ignition.  
Other Precautions: Do not accumulate large quantities of fines or machining residues. FIRE HAZARD. Dispose of these materials daily.

## **SECTION 10. ENVIRONMENTAL PROTECTION**

Spill or Leak Procedures: No special Procedure.  
Waste Disposal: Fine, non-recyclable scrap should be burned in small quantities under controlled conditions. The resulting metallic oxides are inert and may be deposited in a landfill.  
Environmental Hazards: None

## **SECTION 11. TRANSPORTATION REQUIREMENTS**

Department Of Transportation Classification: Not hazardous by D.O.T. regulations.