



## MATERIAL SAFETY DATA SHEET

**Quick Identifier: Tin**

### I. PRODUCT IDENTIFICATION

<b>Trade Name:</b>	Tin	<b>Formula:</b>	Sn
<b>CAS #:</b>	7440-31-5	<b>Molecular Weight:</b>	7.3 g/cc

### II. HAZARDOUS INGREDIENTS

<u>Hazardous Components:</u>	<u>OSHA PEL:</u>	<u>ACGIH TLV:</u>	<u>Other Limits:</u>
Tin	N/A	N/A	N/A

<b>Sec. 302 (EHS):</b>	No	<b>Sec. 304 RQ:</b>	No	<b>Sec. 313:</b>	yes
<b>HMIS Ratings (0-4): Health:</b>	1	<b>Flammability:</b>	3	<b>Reactivity:</b>	2
<b>HMIS Protective Equipment:</b>	G – Glasses, Gloves, Combination Respirator				

### III. PHYSICAL DATA

<b>Boiling Point:</b>	4100 F	<b>Melting Point:</b>	449 F
<b>Specific Gravity (H<sub>2</sub>O=1):</b>	7.28	<b>Vapor Density (Air=1):</b>	N/A
<b>Vapor Pressure (mm Hg):</b>	1513 F	<b>Evaporation Rate:</b>	N/A
<b>% Volatiles by Volume:</b>	0	<b>Solubility in H<sub>2</sub>O:</b>	NIL

**Appearance and Odor:** Silverery, metallic; no odor

### IV. FIRE AND EXPLOSION HAZARDS DATA

<b>Flash Point/Method:</b>	None		
<b>Explosive Limits:</b>	<b>LEL:</b> None	<b>UEL:</b> None	

**Extinguishing Media:** None  
**Special Fire Fighting Procedures:** None – Tin does not have an explosion or flame point  
**Unusual Fire and Explosion Hazards:** None

### V. HEALTH HAZARD INFORMATION

<b>Routes of Entry:</b>	Inhalation, Ingestion and Eyes.				
<b>Target Organs:</b>	N/A				
<b>Carcinogenicity: NTP:</b>	No	<b>IARC Monographs:</b>	No	<b>OSHA Regulated:</b>	No

**LD50/LC50:** No toxicity data recorded.

**Health Hazards (Acute and Chronic):**

**Inhalation:**

**Acute:** Dust or powder may cause a pneumoconiosis which is relatively benign

**Chronic:** Elemental tin is not generally considered toxic

**Ingestion:**

**Acute:** N/A

**Chronic:** N/A

**Skin:**

**Acute:** N/A

**Chronic:** N/A

**Eye:**

**Acute:** N/A

**Chronic:** N/A

**Signs and Symptoms of Exposures:**

**Inhalation:** N/A

**Ingestion:** N/A

**Skin:** N/A

**Eye:** N/A

**Medical Conditions Generally**

**Aggravated by Exposure:**

**EMERGENCY AND FIRST AID PROCEDURES:**

**INHALATION:** Remove subject from source of contamination; seek immediate medical aid

**INGESTION:** N/A

**SKIN:** N/A

**EYE:** N/A

**VI. REACTIVITY DATA**

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**Stability:** Stable

**Incompatibility (Material to avoid):** No known incompatible materials

**Hazardous Decomposition Products:** None

**Hazardous Polymerization:** Will not occur

**Conditions to Avoid:**

**VII. SPILL OR LEAK PROCEDURES**

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**Special Precautions:**

- 1) Tin non considered toxic or dangerous material
- 2) Sweep up and pack in sturdy container if released or spilled
- 3) For waste disposal, return to supplier

**VIII. SPECIAL PROTECTION INFORMATION**

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**Respiratory Protection:** NIOSH/MSHA – Approved dust & fume respirator should be used to avoid excessive inhalation of particulates

**Ventilation: Local Exhaust:** Should be utilized when welding, burning, sawing, brazing, grinding or machining

**Mechanical (General):** Dust removal/collection if spraying

**Protective Gloves:** Should be used as required by exposure

**Eye Protection:** Safety goggles or glasses should be utilized as required by exposure.

**Other Protective Clothing or Equipment:** Should be utilized as required by the welding standards.

**Work/Hygienic/Maintenance Practices:** Normal hygienic practices.

## **IX. ADDITIONAL COMMENTS**

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Some of the chemicals listed herein are research or experimental substances which may be toxic, as defined by various governmental regulations. In accordance with Environmental Protection Agency regulations and the Toxic Substance Control Act (TSCA), these materials should only be handled by, or under the direct supervision of a “technically qualified individual”, as defined in 40 CFR 710.2(aa).

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