



**ALDON CORPORATION**

# MATERIAL SAFETY DATA SHEET

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MSDS No. TT 170  
Effective Date March 17, 1998

## SECTION V HEALTH HAZARD DATA

TT 170

**Threshold Limited Value** ACGIH 1992-93 Tin metal: TWA: 2 mg/m<sup>3</sup>.  
Organic compounds as Sn: TWA: 0.1 mg/m<sup>3</sup>; STEL: 0.2 mg/m<sup>3</sup>.

**Effects of Overexposure**  
**INHALATION:** Exposure to the fume or dust may lead to pneumoconiosis without symptoms of interference with pulmonary functions. **INGESTION:** May irritate stomach lining. **EYES:** May irritate eyes. **SKIN:** None expected.

**Emergency and First Aid Procedures**  
**EYES:** Using great care, flush thoroughly with water, lifting upper and lower eyelids occasionally. Get medical attention. **INHALATION AS DUST OR FUME:** Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention. **INGESTION:** If swallowed, if conscious, give one or two glasses of water, induce vomiting and call physician. Never give anything by mouth to an unconscious person. **SKIN:** Wash with mild soap and water.

## SECTION VI REACTIVITY DATA

<b>Stability</b>	<b>Unstable</b>		<b>Conditions to Avoid</b>	Contact with acid emits hydrogen gas.
	<b>Stable</b>	X		

**Incompatibility (Materials to Avoid)** Strong oxidizers, chlorine, cupric nitrate, potassium, sodium peroxide, sulfur, Halogens, Sulfurous Chlorosulfuric and Pyrosulfuric acid.

**Hazardous Decomposition Products** Oxides of tin may be present. Reacts with acids; will cause evolution of flammable hydrogen gas.

<b>Hazardous Polymerization</b>	<b>Conditions to Avoid</b>		Not applicable.
	<b>May Occur</b>	<b>Will Not Occur</b>	
		X	

## SECTION VII SPILL OR LEAK PROCEDURES

**Steps to be taken in case material is released or spilled**  
Sweep up and place in a suitable container for reclamation or disposal. Wash spill area with soap and water.

**Waste Disposal Method** Discharge, treatment, or disposal may be subject to Federal, State or Local laws. These disposal guidelines are intended for the disposal of catalog-size quantities only.

Dispose of in accordance with federal, state and local regulations.

## SECTION VIII SPECIAL PROTECTION INFORMATION

**Respiration Protection (Specify Type)** None should be needed in normal laboratory handling at room temperature. If dusty conditions prevail, work in ventilation hood or wear a NIOSH/MSHA-approved dust mask.

<b>Ventilation</b>	<b>Local Exhaust</b>	None at room temperature	<b>Special</b>	No.
	<b>Mechanical (General)</b>	Recommended.	<b>Other</b>	No.

**Protective Gloves** None should be needed. **Eye Protection** Chemical safety glasses.

**Other Protective Equipment** Lab coat, eye wash station, ventilation hood for fume on heating or dust.

## SECTION IX SPECIAL PRECAUTIONS

**Precautions to be Taken in Handling & Storing** Store in a cool, dry place away from fire hazards, oxidizing materials, acids and acid fumes. Wash thoroughly after handling.  
Keep container tightly closed when not in use.

**Other Precautions** Read label on container before using. Do not wear contact lenses when working with chemicals.

Avoid conditions which create fume. Use care in handling. Abrasive to skin. Remove and wash contaminated clothing.

For laboratory use only. Not for drug, food or household use. Keep out of reach of children.

<b>Revision</b> No. 6	<b>Date</b> 3/17/98	<b>Approved</b> Michael Raszeja	<b>Chemical Safety Coordinator</b> MR
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## SECTION I NAME 24 HOUR EMERGENCY ASSISTANCE

<b>Product</b>	TIN METAL	 <b>CHEMTREC</b> <b>800-424-9300</b> Day 716-226-6177  <b>NFPA HAZARD RATING</b> LEAST SLIGHT MODERATE HIGH EXTREME 0 1 2 3 4  <b>HMIS *</b> HEALTH FIRE REACTIVITY 0 0 0
<b>Chemical Synonyms</b>	Tin Metal, Powder, Granular, Mossy, Shot, Sheet	
<b>Formula</b>	Sn	
<b>Unit Size</b>	up to 2.5 Kg.	
<b>C.A.S. No.</b>	7440-31-5	

## SECTION II INGREDIENTS OF MIXTURES

Principal Component(s)	%	TLV Units
Tin Metal	99.85%	TWA: 2 mg/m <sup>3</sup> (Air)
<b>CAUTION! HARMFUL IF INHALED AS DUST OR FUME.</b>		

## SECTION III PHYSICAL DATA

Melting Point (°F)	231.9°C (449°F)	Specific Gravity (H <sub>2</sub> O = 1)	7.31 at 20°C
Boiling Point (°F)	2270°C (4118°F)	Percent Volatile by Volume (%)	N/A
Vapor Pressure (mm Hg)	1 mm at 1492°C	Evaporation Rate ( =1)	N/A
Vapor Density (Air=1)	4.11		
Solubility in Water	Insoluble in water.		
Appearance & Odor	Silvery white metallic powder, granular, mossy, shot, sheet; no odor.		

## SECTION IV FIRE AND EXPLOSION HAZARD DATA

<b>Flash Point (Method Used)</b>	Not flammable.	<b>Flammable Limits in Air % by Volume</b> N/A	<b>Lower</b>	<b>Upper</b>
<b>Extinguisher Media</b>	Use any media suitable for extinguishing supporting fire.			

### SPECIAL FIREFIGHTING PROCEDURES

In fire conditions, wear a NIOSH/MSHA-approved self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

### UNUSUAL FIRE AND EXPLOSION HAZARDS

Slight fire hazard. Fire or excessive heat may produce hazardous dust or fume. In contact with acids, emits hydrogen gas. This gas is flammable and can cause explosion.

D.O.T. **NON-REGULATED.**

Approved by U.S. Department of Labor "essentially similar" to form OSHA-20