


ELECTRONIC SPACE PRODUCTS INTERNATIONAL

1050 Benson Way, Ashland, OR 97520
 Toll Free (800) 638-2581 * Fax (541) 488-8313
 E-Mail: sales@espimetals.com

MATERIAL SAFETY DATA SHEET
I PRODUCT IDENTIFICATION

Trade Name:	Indium-Tin Oxide	Synonym:	None Known
Chemical Formula:	91 mol.% In ₂ O ₃ /9 mol.% SnO ₂	Chemical Family:	Metal oxide blend

II HAZARDOUS INGREDIENTS

CAS #: 50926-11-9

II PHYSICAL DATA

Boiling Point:	Unknown	Melting Point:	Approximately 1500 °C
Density, gm/cc:	7.16	Reaction with Water:	None
Appearance and Odor:	White to pale yellow pieces.	Solubility in H₂O:	Insoluble

IV FIRE AND EXPLOSION HAZARDS DATA

Flash Point (Method used): N/A **Fire Point:** None
Flammable Limits: Upper: N/A **Lower:** N/A

Autoignition Temperature: None

Extinguishing Media: N/A
Special Fire Fighting Procedures: N/A

V HEALTH HAZARD INFORMATION

Permissible Exposure Limit: No OSHA PEL for indium oxide or Tin Oxide. TLV for inorganic tin compounds TLV for In and its compounds (as In) = 0.1 mg/m³. (as Sn) = 2 mg/m³.

Irritation: Skin, and eye. Mild irritation (transient)

Corrosivity: Eye.

Sensitization: None reported.

Lung Effects (Specify): Mild pulmonary irritation. Mild benign pneumoconiosis (stenosis) may result from chronic long term exposure to tin dust and fumes.

Other: Tin oxide is of low oral toxicity. Animal studies show indium to be moderate to highly toxic via ingestion with liver, heart and kidney effects. An irritant upon skin contact.

EMERGENCY FIRST AID PROCEDURES:

INGESTION: Induce vomiting.

DERMAL: Flush with soap and water.

EYE CONTACT: Flush with plenty of water for at least 15 minutes.

INHALATION: Remove to fresh air.

VI REACTIVITY DATA

Stability: Stable

Hazardous Polymerization: Will not occur

Hazardous Decomposition Products: None

VII SPILL OR LEAK PROCEDURES

Steps to Be Taken If Spilled or Released: Sweep or scoop up and remove.

Waste Disposal Method: Dispose of in normal refuse.

VIII SPECIAL PROTECTION INFORMATION

Respiratory Protection: Filter, dust, fume, mist. Use a respirator for dusty conditions.

Ventilation Requirement: Local exhaust.

Eye: Safety Glasses.

Hand (Glove Type): Neoprene

Other Protective Equipment: Normal laboratory wear.

IX SPECIAL PRECAUTIONS

Precautionary Labeling: Wash thoroughly. Do not get in eyes, on skin or clothing. Keep container closed. Store in tightly closed containers.

Other Handling and Storage Conditions: Not classified as hazardous by DOT, UN or IMCO.

The above information is believed to be correct, but does not purport to be all inclusive and shall be used only as a guide. ESPI shall not be held liable for any damage resulting from handling or from contact with the above product.

Issued by: S. Dierks
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