

# MATERIAL SAFETY DATA SHEET

## ADMAT INC

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## SECTION 1 - IDENTIFICATION

Product Name: Indium Tin Oxide  
Synonyms: None known  
Chemical Family: Metal Oxide Blend  
CAS#: 50926-11-9  
Molecular formula: 91 mol.% In<sub>2</sub>O<sub>3</sub>/9 mol.% SnO<sub>2</sub>

## SECTION 2 - INGREDIENTS

Chemical:	Indium Tin Oxide			
CAS#	%	PEL	TLV	
Indium (III) Oxide				
1312-43-2	90%	n/a	.1 mG/M3	(as In)
Tin (IV) Oxide				
18282-10-5	10%	n/a	2 mG/M3	(as Sn)

## SECTION 3 - PHYSICAL DATA

Boiling Point: not determined  
% Volatiles: 0  
Solubility in Water: Insoluble  
Specific Gravity: not determined  
Freezing/Melting Point: Approx 1500 C  
Evaporation Rate (butyl acetate = 1): 0  
Vapor Density: Not Applicable  
Vapor Pressure: Not Applicable  
Appearance and odor: White to pale yellow pieces  
Other: No data

## SECTION 4 - FIRE AND EXPLOSION HAZARD DATA

Flash Point: None  
Flammable Limits in Air, Low: Not applicable  
High: Not applicable  
Auto-ignition Temperature: None

**Extinguishing Media:**

Product is not flammable. Use fire fighting techniques that suit the surrounding fire.

**Protective Equipment:**

Use normal firefighting procedures which include wearing NIOSH/MSHA approved self-contained breathing apparatus, flame and chemical resistant clothing, hats, boots, and gloves.

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**SECTION 5 - HEALTH DATA**

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OSHA (PEL): Indium Tin Oxide has no OSHA PEL listed.

ACGIH (TLV): TLV for In and its compounds (as In) = 0.1 mg/m<sup>3</sup>. (as Sn) = 2 mg/m<sup>3</sup>.

**A. ANIMAL TOXICITY**

LD50: No data  
LC50: No data  
Other: No data

**B. EFFECTS OF EXPOSURE**

**ACUTE EFFECTS**

**Ingestion:** Exposure to Indium Compounds may cause bone, joint and hear pain. Tooth decay and gastrointestinal disorders may also result. Experiments with animals indicate that indium exposures may result in weight loss, reduced appetite and water consumption, kidney and liver damage, paralysis, and damage to the brain, heart, and spleen.

**Skin Contact:** Generally the product does not cause irritation

**Eye Contact:** May cause irritation

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

**Other:** No classification data on carcinogenic studies are available.

## EMERGENCY AND FIRST AID PROCEDURES

**Ingestion:**

Induce vomiting

**Skin Contact:**

Flush with soap and water

**Eye Contact:**

Immediately flush eyes, including under eyelids, with large amounts of water for at least 15 minutes. Call a physician.

**Inhalation:**

Remove to fresh air.

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## **SECTION 6 - REACTIVITY**

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**Incompatibility:** No dangerous reactions known

**Hazardous Decomposition Products:** None known.

**Stability:** Stable

**Hazardous Polymerization:** None known.

**Other:** Avoid acids

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## **SECTION 7 - ENVIRONMENTAL INFORMATION**

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Spill and Leak Procedures: Sweep or scoop up.

Waste Disposal: Recyclable resources. Consult state, local or federal EPA regulations for proper disposal.

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## **SECTION 8 - PROTECTION INFORMATION**

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Ventilation Requirements: Local exhaust

Respiratory Protection: High efficiency particle respirator for dusty conditions

Protective Gloves: Neoprene

Eye/Face Protection: ANSI approved safety goggles

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## **SECTION 9 - SPECIAL PRECAUTIONS**

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Handling and storage: Keep container tightly closed. Store in a cool, dry, well ventilated area. Wash thoroughly after use.

Other Precautions: Lab coat and apron, flame and chemical resistant coveralls, eye-wash capable of sustained flushing, safety drench shower and hygienic facilities for washing.

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## **SECTION 10 - COMMENTS**

Employers should use this information only as a supplement to other information gathered by them, and should make independent judgment of suitability of this information to ensure proper use and protect the health and safety of employees. This information is furnished without warranty, and any use of the product not in conformance with this Material Safety Data Sheet or in combination with any other product or process, is the responsibility of the user.