



SAFETY DATA SHEET

1. PRODUCT AND COMPANY IDENTIFICATION

Product Identifier: TIN (IV) OXIDE

SDS Number: SDS- 5389

Revised Date: 5 JULY 2018

Product Use: Industrial Use - Alloy Metal with Tin
Formula = O_2Sn . Also known as stannic oxide, tin oxide

MANUFACTURER:

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<http://www.indium.com>

2. HAZARDS IDENTIFICATION

PRIMARY ROUTES OF ENTRY:

⊕Eye ⊕Inhalation ⊕Skin ⊕Ingestion NTP IARC OSHA ⊕Not Listed

Carcinogen listed in

GHS:

Not dangerous according to GHS.

Precautionary statement(s)

P261 Avoid breathing dust/fume/gas/mist/vapors/spray
 P270 Do not eat, drink or smoke when using this product
 P273 Avoid release to the environment
 P280 Wear protective gloves/protective clothing/eye protection/face protection
 P362 +P364 Take off contaminated clothing and wash before reuse
 P301 + P314 IF SWALLOWED: Get Medical advice/attention if you feel unwell
 P302 +P352 IF ON SKIN: Wash with plenty of soap and water
 P304 + P341 IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing
 P305 + P351 IF IN EYES: Rinse continuously with water for several minutes (15 mins)

POTENTIAL HEALTH EFFECTS:

Eye Contact: May cause irritation.

Ingestion: May be harmful if swallowed.

Inhalation: May be harmful if inhaled. May cause respiratory tract irritation or sensitization.

Skin Contact: May be harmful if absorbed through the skin. May cause skin irritation.

Target Organs: Lungs

Tin – prolonged inhalation of dust or fume may result in irritation of the lungs.

Note: The Indium Corporation does not recommend, manufacture, market or endorse any of its products for human consumption.



WARNING: This product can expose you to chemicals including [trace amounts of lead] which is known to the State of California to cause cancer, and can cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov

Inorganic tin salts are poorly absorbed into the body. Tin oxide inhaled as a dust or fume can lead to a benign pneumoconiosis with no sign of interference with pulmonary function. Ingestion produces vomiting due to gastric irritation from the activity and astringency of tin compounds. Injection of inorganic tin salts produces diarrhea, muscle paralysis and twitching.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Components	% wt	CAS Registry #/EINECS #	PEL mg/m ³	TLV-TWA mg/m ³	TLV-STEL mg/m ³
TIN OXIDE	100	18282-10-5/242-159-0	NA	2	NA

(Stannic dioxide/stannic oxide/white tin oxide)

N.E. = not established

4. FIRST AID MEASURES

- Eye Contact:** Hold eyelids apart and flush eyes with plenty of tepid water for at least 15 minutes. Seek medical attention if irritation persists.
- Ingestion:** If patient is conscious, ONLY induce vomiting as directed by trained personnel. NEVER give anything by mouth to an unconscious person. Seek medical attention immediately.
- Inhalation:** Remove to fresh air. If not breathing, give artificial respiration or oxygen by trained personnel. Seek immediate medical attention.
- Skin Contact:** Remove contaminated clothing. Wash affected area with soap and water. Wash clothing before reuse. If irritation persists, obtain medical attention.

5. FIRE FIGHTING MEASURES

- Flash Point:** Not established. **Method:** Not established.
- Auto-ignition Temperature:** Not applicable
- Flammable Limits:** Fine dusts and powders could be a potential explosion hazard.
- Extinguishing Media:** Use extinguishers appropriate for the surrounding fire conditions. Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
- Special Fire Fighting Procedures:** Firefighters wear an approved self-contained breathing apparatus and full protective clothing.

6. ACCIDENTAL RELEASE MEASURES

- Spill or Leak Procedures:** Wear respirator and other personal protective clothing. (See Exposure Controls/Personal Protection Section). Ventilate area. Vacuum solids instead of sweeping using a grounded unit. Reduce airborne dust and prevent scattering by moistening with water. Place spilt material in a container and dispose of in accordance with applicable regulations.

7. HANDLING AND STORAGE

- Handling Precautions:** Avoid breathing vapors from heated material and dusts. Avoid contact with eyes, skin and clothing. Follow routine safe handling procedures. Use with adequate ventilation.
- Storage Precautions:** Keep away from heat and flame. Store in suitable, tightly capped, and labeled containers in cool dry, well-ventilated area. Empty containers may be hazardous as they contain product residue.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

- Engineering Controls:** Local exhaust ventilation or point source exhaust ventilation is recommended to control any air contaminants or potential exposure. Keep exposures below regulatory limits. Avoid dust generation.
- Personal protection:**
- Eyes:** Chemical safety glasses/goggles. Face shield for any splash/dust hazards.
- Respirator:** An authority approved or compliant marked air-purifying respirator with a fume/dust chemical

cartridge is recommended under certain circumstances where airborne concentrations are expected to be elevated. Warning: Air purifying respirators do not protect the worker in oxygen-deficient atmospheres.

Skin: Wear protective gloves. Hot gloves for handling molten metal.

Other: Eye-wash fountain/shower in work area. Avoid the use of contact lenses in high fume and dust areas.

Work/Hygienic Maintain good housekeeping. Clean up spills immediately. Good personal hygiene is essential. Avoid eating, smoking or drinking in the work area. Wash hands thoroughly with soap and water immediately upon leaving the work area.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Solid white	Boiling Point:	1,800-1,900 C at 1,013 hPa (760 mmHg)
Odor:	Odorless	Melting Point:	1,630C (2,966F)
Specific Gravity:	6.95 g/ml at 25C	pH:	Not applicable
Vapor Pressure:	Not available	Solubility in Water:	Insoluble
Vapor Density:	(air=1) Not applicable.	Molecular Weight:	150.71 g/mol

10. STABILITY AND REACTIVITY

General: Stable.

Conditions to Avoid: No data available

Incompatible Materials: Strong oxidizing agents, strong acids, magnesium, aluminum, potassium, sodium/sodium oxides

Hazardous Decomposition / Combustion: Tin/tin oxides

Hazardous Polymerization: Will not occur.

11. TOXICOLOGICAL INFORMATION

Carcinogenicity:	NTP (National Toxicity Program):	No
	OSHA (Occupational Safety & Health Administration):	No
	IARC (International Agency for Research on Cancer):	No

Acute:

LD50 Oral rat - >20,000 mg/kg

Other:

TIN RTECS# XP7320000
 TIN OXIDE RTECS# XQ4000000

RTECS = NIOSH Registry of Toxic Effects of Chemical Substances

12. ECOLOGICAL INFORMATION

Product not tested.

13. DISPOSAL CONSIDERATION

Waste Disposal Method: Scrap metal alloy usually has value. Contact a commercial reclaimer for recycling. Otherwise, dispose of in accordance with all Federal, State and Local environmental regulations. In Europe follow the Special Waste Regulations.

14. TRANSPORT INFORMATION

Transport in accordance with applicable international regulations and requirements. Not regulated under US DOT (United States Department of Transportation. Non - hazardous under shipping modes USDOT/IATA/IMDG.

UN- NONE

15. REGULATORY INFORMATION

The information in this Safety Data Sheet meets the requirements of the United States Occupational Safety and Health Act and regulations promulgated hereunder (29 CFR 1910.1200 ET. SEQ.).

SARA 313 Listing - 40 CFR 372.65 – None



WARNING: This product can expose you to chemicals including [trace amounts of lead] which is known to the State of California to cause cancer, and can cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov

Ingredients are listed on the TSCA Inventory.

This product has been classified in accordance with the requirements of the Mexican regulations: NOM-018-STPS-2015 and NOM-010-STPS-2014.

This product has been classified in accordance with the hazard criteria of the Canadian Controlled Products Regulation (CPR).

This product has been classified in accordance with the guidelines set by the Dept. of Industrial Health of the Republic of Singapore.

Regulatory Information China:

GB/T 16483-2008, GB/T 17519-2013, Safety Data Sheets for Chemical Products

GB 30000.2-29-2013, Rules for classification and labeling of chemicals (GHS)

Decree No. 591: Regulations on the Control Over Safety of Hazardous Chemicals.

This product has been classified using the Chinese Occupational Limit for Hazardous Agents in the Workplace, GBZ2-2007.

This product has been classified in accordance with: Malaysian – OCCUPATIONAL SAFETY AND HEALTH (CLASSIFICATION, LABELING AND SAFETY DATA SHEET OF HAZARDOUS CHEMICALS) REGULATION OCTOBER 2013 – (CLASS).

Contains ingredients that are listed on the New Jersey Right To Know List.

Ingredients are listed on the China Chemical Inventory.

Ingredients are listed on the Korean Existing Chemical Inventory.

Ingredients are listed on the Philippines Inventory of Chemicals.

Ingredients are listed on the Canadian Domestic Substance List.

16. OTHER INFORMATION

HMIS Hazard Rating:	Health:	0
	Fire:	0
	Reactivity:	0

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Approved by: Nancy Swarts, Indium Corporation of America

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