



SAFETY DATA SHEET

1. PRODUCT AND COMPANY IDENTIFICATION

Product Identifier: INDIUM OXIDE

SDS Number: SDS-IB010

Revised Date: 19 NOVEMBER 2018

Product Use: Industrial Use - Indium Oxide, In_2O_3

MANUFACTURER:

In America:

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<http://www.indium.com>

2. HAZARDS IDENTIFICATION

PRIMARY ROUTES OF ENTRY:

*Eye *Inhalation *Skin *Ingestion NTP

CARCINOGEN LISTED IN:

IARC OSHA *Not Listed

GHS



Symbol - Warning

Hazard statement(s)

H319 Causes serious eye irritation
 H335 May cause respiratory irritation
 H372 Causes damage to organs through prolonged or repeated exposure
 H412 Harmful to aquatic life with long lasting effects

Precautionary statement(s)

P233 Keep container closed
 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 + 341 IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing
 P305 + 351 IF IN EYES: Rinse continuously with water for several minutes (15 mins)

Classification:

Eye irritant (Category 2A)
 Specific target organ toxicity – single exposure (Category 3) respiratory system
 Specific target organ toxicity, repeated exposure (Category 1)
 Chronic aquatic toxicity- Category 3

POTENTIAL HEALTH EFFECTS:

Eye Contact: Causes serious eye irritation.

Ingestion: May be harmful if swallowed.

Inhalation: May cause irritation.

Skin Contact: May cause skin irritation.

Chronic: Kidney and liver damage from injecting indium compounds has been reported based on limited animal testing but no systematic effects from human exposure has been reported.

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

3. COMPOSITION / INFORMATION ON INGREDIENTS

Components	% wt	CAS Registry #/EINECS	PEL mg/m ³	TLV-TWA mg/m ³	TLV-STEL mg/m ³
INDIUM OXIDE	100	1312-43-2/215-193-9	0.1 (as Indium*)	0.1	N.E.
		(EU)	N.E.	0.1 (as Indium)	0.3
		(Canada)	N.E.	0.1 (as Indium)	0.3
		(Singapore)	0.1(as indium)	-	-
		(Mexico)	-	0.1(as indium)	0.3
		(China)	-	0.1(as indium)	0.3

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 established.
- Flammable Limits:** Limits not established. Not flammable.
- Extinguishing Media:** Use extinguishers appropriate for the surrounding fire conditions. Water spray, alcohol resistant foam, dry chemical.
- Special Fire Fighting Procedures:** Firefighters must wear NIOSH approved or equivalent self-contained breathing apparatus and full protective clothing.

6. ACCIDENTAL RELEASE MEASURES

Spill or Leak Procedures: Isolate spill and clean up with vacuum. Avoid conditions, which create fumes or fine dust. DO NOT SWEEP SOLIDS. Do not raise dust levels. Place material in proper waste container. An approved air purifying respirator with particulate cartridge and other personal protective equipment such as gloves is recommended. Dispose of in accordance with Federal, State and Local regulations. In Europe dispose of following the Special Waste Regulations. Indium has reclaim value.

7. HANDLING AND STORAGE

Handling: Keep containers tightly closed when not in use. Use care to avoid spills. Wear appropriate personal protective equipment. Always thoroughly wash your hands after handling this product. DO NOT touch or rub eyes until hands are washed.

Storage Precautions: Store product in tightly capped original containers in a cool, well ventilated and dry area.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Controls: Local and/or Mechanical (general) exhaust ventilation is recommended to control any air contaminants/dust/fume.

Personal protection:

Eyes: Wear chemical safety glasses/goggles.

Respirator: An authority approved air-purifying respirator with a particulate filter is recommended under certain circumstances where airborne concentrations are expected to be elevated.

Skin: Gloves are recommended when handling solids.

Other: Lab coat, apron, eyewash fountain in work area. Avoid the use of contact lenses in high fume/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:	Yellow solid powder	Boiling Point:	850 C (1562 F) volatilizes
Odor:	Odorless	Melting Point:	1910 C + 10 C (3470 F + 50 F)
Specific Gravity:	7.179 (H ₂ O=1)	pH:	Not applicable
Vapor Pressure:	<0.01 MM @25C	Solubility in Water:	Insoluble
Vapor Density:	Not applicable	Molecular Weight:	277.64

10. STABILITY AND REACTIVITY

General: Stable.

Conditions to Avoid: Not established.

Incompatible Materials: Strong oxidizing agents

Hazardous Decomposition / Combustion: Toxic fumes may form at elevated temperatures. Indium / indium oxides
As always dust accumulation should be minimized.

Hazardous Polymerization: Will not occur.

11. TOXICOLOGICAL INFORMATION

Carcinogenicity: **National Toxicology Program (NTP):** No
 Occupational Safety & Health Administration (OSHA): No
 U.N. International Agency for Research on Cancer (IARC): No
LD50: Oral rodent-rat >10 gm/kg * See NIOSH RTECS# NL1770000 (indium)
 Irritancy of Product: Irritant
 Specific target organ toxicity – single exposure: Inhalation

12. ECOLOGICAL INFORMATION

Product not tested.

13. DISPOSAL CONSIDERATION

Waste Disposal Method: Scrap indium metal has some 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 the US Department of Transportation or any other modes of transport.
 UN - none
 Marine Pollutant: No

 North American Emergency Guide Book – Not applicable

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

All ingredients are listed on the EPA TSCA Inventory and Canadian Domestic Substance List.

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

WHMIS: Insufficient data available at this time.

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

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).

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 Exposure Limit of Hazardous Agents in the Workplace, GBZ2-2007.

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

16. OTHER INFORMATION

HMIS Hazard Rating:	Health:	1
	Fire:	0
	Reactivity:	0
Revised Date:	19 NOVEMBER 2018	

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Approved by: Nancy Swarts, Indium Corporation of America

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