



SAFETY DATA SHEET

1. PRODUCT AND COMPANY IDENTIFICATION

Product Identifier: INDIUM SULFATE

SDS Number: SDS-IB012

Revised Date: 11 DECEMBER 2017

Product Use: Industrial Use Only - Indium Sulfate ($\text{In}_2\text{O}_{12}\text{S}_3$) [Indium Sulfate Powder]

MANUFACTURER:

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2. HAZARDS IDENTIFICATION

GHS – not classified

Precautionary statement(s)

P233	Keep container tightly 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)
P501	Dispose of in accordance with applicable regulations. Product may be recycled.

PRIMARY ROUTES OF ENTRY:

Eye Inhalation Skin Ingestion

CARCINOGEN LISTED IN:

NTP IARC OSHA Not Listed

POTENTIAL HEALTH EFFECTS:

Eye Contact: May cause irritation.

Ingestion: May be harmful if swallowed. May cause irritation.

Inhalation: May cause respiratory 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.

Other: Hygiene practices should be in place when handling this product. Avoid breathing dust.

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

Warning: This product contains a chemical known to the State of California to cause cancer and/or birth defects (or other reproductive harm). (Trace impurities: may contain listed metal (lead/cadmium/nickel)).

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 SULFATE	100	13464-82-9/236-689-1	0.1 (as Indium*)	0.1	N.E.
		(EU)	-	0.1 (as Indium)	0.3
		(Canada)	-	0.1 (as Indium)	0.3
		(Mexico)	0.1 (as Indium)	-	0.3
		(Singapore)	0.1 (as Indium)	-	-
		(China)	-	0.1(as indium)	0.3

N.E. = Not established * Indium CAS# 7440-74-6

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.
- Special Fire Fighting Procedures:** Firefighters must wear NIOSH approved or equivalent self-contained breathing apparatus and full protective clothing.

Product by itself does not burn.

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 may have 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.

Personal protection:

Eyes: Wear chemical safety glasses/goggles. Face shield for splash hazards.

Respirator: A NIOSH 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 or dusty 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:	Powder/white	Boiling Point:	Not established
Odor:	Odorless	Melting Point:	Not available
Specific Gravity:	Not available	pH:	Not available
Vapor Pressure:	Not applicable.	Solubility in Water:	Soluble/ 53.92 gm/100 gm solution @ 20C
Vapor Density:	Not applicable	Molecular Weight:	Not available
Flash Point:	Not applicable	Viscosity:	Not available

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.

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: No information available

Irritancy of Product:	May be an irritant	Mutagenicity:	Not established
Sensitization to Product:	Not established	Teratogenicity:	Not established
Reproductive Toxicity:	Not established	Synergistic Products:	Not established

LD50 intravenous- rat- 5.630 mg/kg
LD 50 subcutaneous- rat- 22.500 mg/kg

12. ECOLOGICAL INFORMATION

Product not tested.

13. DISPOSAL CONSIDERATION

Waste Disposal Method: Scrap indium metal may have 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 regulations and requirements. Not regulated under the Department of Transportation. Not hazardous for shipping-all modes.

North America Emergency Guide Book – Not listed

UN – none

Marine Pollutant: No

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).

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 is classified in accordance with the Mexican regulations, NOM-018-STPS-2015 and NOM-010-STPS-2014.

California Prop 65: Warning: This product contains a chemical known to the State of California to cause cancer and/or birth defects (or other reproductive harm). (Trace levels of impurities: may contain lead/cadmium/nickel).

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

Malaysia:

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). (GHS)

In China:

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

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

GB/T 16483-2008, GB/T 17517-2013

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

SARA 313 listing - 40 CFR 372.65: None

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

16. OTHER INFORMATION

HMIS Hazard Rating:	Health:	0
	Fire:	0
	Physical Hazard:	0

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