



SAFETY DATA SHEET

1. PRODUCT AND COMPANY IDENTIFICATION

Product Identifier: INDIUM MONOCHLORIDE

SDS Number: SDS-IB018

Revised Date: 5 DECEMBER 2018

Product Use: Indium Monochloride

MANUFACTURER:

In America:

The Indium Corporation of America®.
34 Robinson Rd., Clinton, NY 13323
Information: (315) 853-4900
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In China:

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Information: (86) 512-6283-4900

<http://www.indium.com>

2. HAZARDS IDENTIFICATION**PRIMARY ROUTES OF ENTRY:**

√Eye √Inhalation √Skin √Ingestion

CARCINOGEN LISTED IN:

NTP IARC OSHA √Not Listed

GHS:

Signal Word: Warning

Hazard statement(s)

H315 Causes skin irritation
 H319 Causes serious eye irritation
 H335 May cause respiratory irritation

Precautionary statement(s)

P261 Avoid breathing dust/fume/gas/mist/vapors/spray
 P264 Wash hands thoroughly after handling
 P271 Use only outdoors or in well –ventilated area
 P280 Wear protective gloves/protective clothing/eye protection/face protection
 P332 + P313 If skin irritation occurs: Get medical advice/attention
 P337 + P313 If eye irritation persists: Get medical advice/attention
 P362 + P364 Take off contaminated clothing and wash before reuse
 P302 + P352 IF ON SKIN: Wash with plenty of soap and water
 P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing
 P305 + P351 + P338 IF IN EYES: Rinse continuously with water for several minutes (15 mins). Remove contact lenses, if present and easy to do. Continue rinsing.
 P403 + 233 Store in a well-ventilated place
 P405 Store locked up
 P501 Dispose of content/container to an approved waste handler or recycle if possible

Classification:

Skin irritation (Category 2)
 Eye irritation (Category 2A)
 Specific target organ toxicity-single exposure (Category 3), respiratory system

POTENTIAL HEALTH EFFECTS:

Eye Contact: May cause severe irritation and possible burns.

Ingestion: May be harmful if swallowed. May cause burns to the gastrointestinal tract. Kidney and liver damage from injected indium compounds has been reported based on limited animal testing.

Inhalation: May cause respiratory irritation. Severe exposure could cause pulmonary damage. Inhalation may cause lung edema. The symptoms may be aggravated by physical effort.

Skin Contact: May cause skin irritation or burns.

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. Pregnant women should take measures to avoid exposure.

Notes: **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 birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov

3. COMPOSITION / INFORMATION ON INGREDIENTS

Components	% wt	CAS Registry #	PEL mg/m ³	TLV-TWA mg/m ³	TLV-STEL mg/m ³
INDIUM MONOCHLORIDE	100	13465-10-6	0.1 (as Indium*)	0.1	-
		(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.

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.

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 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:	Red flakes	Boiling Point:	600 ⁰ C (1112 ⁰ F) volatile
Odor:	Odorless	Melting Point:	586 ⁰ C (1087 ⁰ F) (sublimes @ 300 ⁰ C (572 ⁰ F))
Specific Gravity:	3.46 (H ₂ O=1)	pH:	Not applicable
Vapor Pressure:	Not applicable.	Solubility in Water:	Soluble
Vapor Density:	Not applicable	Molecular Weight:	221.18

10. STABILITY AND REACTIVITY

General: Stable.

Conditions to Avoid: Not established.

Incompatible Materials: Strong acids

Hazardous Decomposition /	Toxic fumes may form at elevated temperatures.
Combustion:	Deliquescent, hydrolyzes to form $\text{In}(\text{OH})_3$
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

12. ECOLOGICAL INFORMATION

Biodegradability: Data not established.

Aquatic Toxicity: Data not established.

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 international regulations and requirements. Not regulated under the Department of Transportation.

UN- None

Non-hazardous under shipping

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.).

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.



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 birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov

Swiss Poison Class: 4

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 Limit for Hazardous Agents in the Workplace, GBZ2-2007

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

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

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:	2
	Fire:	0
	Reactivity:	0

Revised Date: 5 DECEMBER 2018

Prepared by: Nancy Swarts, Indium Corporation of America

Approved by: Nancy Swarts, Indium Corporation of America

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