



SAFETY DATA SHEET

1. PRODUCT AND COMPANY IDENTIFICATION

Product Identifier: INDIUM HYDROXIDE

SDS Number: SDS-IB015

Revised Date: 9 MARCH 2018

Product Use: Industrial Use - Indium Hydroxide $\text{In}(\text{OH})_3$
Molecular weight: 165.84 g/mol

MANUFACTURER:

In America:

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In Asia:

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2. HAZARDS IDENTIFICATION

PRIMARY ROUTES OF ENTRY:

√Eye √Inhalation √Skin √Ingestion

NTP

CARCINOGEN LISTED IN:

IARC OSHA √Not Listed



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
 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 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:

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 eye irritation.

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.

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.

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 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 HYDROXIDE	100	20661-21-6/243-947-1	0.1 *	0.1*	-
		(EU)	-	0.1 *	0.3*
		(Canada)	-	0.1 *	0.3*
		(Singapore)	0.1*	-	-
		(Mexico)	-	0.1*	0.3*
		(China)	-	0.1*	0.3*

N.E. = Not established * As 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. Water spray, alcohol-resistant foam, dry chemical.		
Special Fire Fighting Procedures:	Will decompose in a general fire. 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. For liquids: Isolate spill and remove with absorbent. Place in proper container. 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. Avoid inhalation of powders and dust.

Personal protection:

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

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:	White powder	Boiling Point:	Loses H ₂ O above 150 C (302 F)
Odor:	Odorless	Melting Point:	150 C (302 F)
Specific Gravity:	7.31g/cc	pH:	Not applicable
Vapor Pressure:	<0.01 MM 25 C	Solubility in Water:	Insoluble
Vapor Density:	Not applicable	Molecular Weight:	165.84

H₃InO₃

10. STABILITY AND REACTIVITY

General: Stable.

Conditions to Avoid: No information available

Incompatible Materials: Strong acids, carbon dioxide

Hazardous Decomposition / Combustion: Oxides of indium, carbon monoxide, carbon dioxide

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:	Not established.	LC50: Not established.
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
RTECS -	Not listed	

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. Non - hazardous under shipping modes: IATA, ground, ocean.

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

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.

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 for Hazardous Agents in the Workplace, GBZ2-2002.

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

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)

Product is listed on the EPA TSCA Inventory

Listed on Canadian Non Domestic Substance List.

Listed on the Korean Inventory of Existing Chemicals

Listed on the European Inventory of Existing Commercial Chemical Substances

Listed on the Australian Inventory of Chemical Substances

Listed on the Japanese Inventory Chemical Substances Law

Listed on the Taiwan Inventory of Chemical Substances Law

16. OTHER INFORMATION

HMIS Hazard Rating:	Health:	2
	Fire:	0
	Reactivity:	0

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