



INDIUM CORPORATION OF AMERICA®/ EUROPE®/ ASIA PACIFIC®
INDIUM CORPORATION (SUZHOU)®
SAFETY DATA SHEET

1. PRODUCT AND COMPANY IDENTIFICATION

Product Identifier: INDIUM HYDROXIDE

MSDS Number: MSDS-IB015

Revised Date: 16 NOVEMBER 2009

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

MANUFACTURER:

In America:

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2. HAZARDS IDENTIFICATION

PRIMARY ROUTES OF ENTRY:

Eye Inhalation Skin Ingestion

NTP IARC OSHA Not Listed

CARCINOGEN LISTED IN:

POTENTIAL HEALTH EFFECTS:

Eye Contact: May cause severe irritation and possible burns.

Ingestion: 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 contains a chemical known to the State of California to cause cancer and/or birth defects (or other reproductive harm). (Trace levels of listed metals (lead)).

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 SYMBOL: XI RISK PHRASES: R36/37/38 * As Indium CAS# 7440-74-6

4. FIRST AID MEASURES

- Eye Contact:** Hold eyelids apart and flush eyes with plenty of 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:** 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.

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:	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

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

This section is subject to future development.

WGK Germany – Water Hazard Class 3

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.

15. REGULATORY INFORMATION

The information in this Material 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.).

The information in this Material Safety Data Sheet meets the requirements of the EU under Chemicals (Hazard Information and Packaging for Supply) Regulations 1994 (CHIP 2) Regulation 6.

This product has been classified in accordance with the hazard criteria of the Commission Directive 91/155/EEC and EH40.

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 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-2000 and NOM-010-STPD-1999.

SARA 313 listing - 40 CFR 372.65: None

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 listed metals (lead)).

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

EC Classification, Packaging and Labeling Requirements:
 Symbol and Hazard Classification of Product XI

Risk Phrases:

R36/37/38 Irritating to eyes, respiratory system and skin

Safety Phrases:

S20/21 When using do not eat, drink or smoke
 S24/25 Avoid contact with skin and eyes
 S36/37/39 Wear suitable protective clothing, gloves and eye/face protection

16. OTHER INFORMATION

HMIS Hazard Rating:	Health:	2
	Fire:	0
	Reactivity:	1

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Approved by: Nancy Swarts, Indium Corporation of America

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