



## SAFETY DATA SHEET

### 1. PRODUCT AND COMPANY IDENTIFICATION

**Product Identifier:** INDIUM NITRATE SOLID

**SDS Number:** SDS-IB005

**Revised Date:** 7 MARCH 2018

**Product Use:** Indium Nitrate  $\text{InN}_3\text{O}_9$ . Molecular weight 300.83 g/mol

#### MANUFACTURER:

##### In America:

**The Indium Corporation of America®.**

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Asia-Pacific Operations-Singapore

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Singapore 628908

Information: +65 6268-8678

## 2. HAZARDS IDENTIFICATION

### PRIMARY ROUTES OF ENTRY:

XEye    XInhalation    XSkin    XIngestion

### CARCINOGEN LISTED IN:

NTP    IARC    OSHA    XNot Listed

GHS



Signal Word:    Warning

### Hazard statement(s)

H272    May intensify fire; oxidizer  
 H302    Harmful if swallowed  
 H315    Causes skin irritation  
 H319    Cause severe eye irritation  
 H335    May cause respiratory irritation

### Precautionary statement(s)

P210    Keep away from heat/sparks/open flames/hot surfaces. No smoking  
 P220    Keep/Store away from clothing/combustible materials  
 P221    Take precaution to avoid mixing with combustibles  
 P233    Keep container tightly closed  
 P261    Avoid breathing dust/fume/gas/mist/vapors/spray  
 P264    Wash hands thoroughly after handling  
 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 + P341    IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing  
 P305 + P351    IF IN EYES: Rinse continuously with water for several minutes (15 mins)  
 P370 + P378    IN CASE OF FIRE: Use dry sand, dry chemical or alcohol resistant foam to extinguish  
 P501    Dispose of contents/container by recycling if possible otherwise dispose of via approved handler

### Classification:

Oxidizing solids (Category 2)  
 Acute toxicity, Oral (Category 4)  
 Skin irritant (Category 2)  
 Eye irritant (Category 2A)

### 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. Inhalation may cause lung edema. The symptoms may be aggravated by physical effort.


**Skin Contact:**    Harmful by skin contact or causes 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. Pregnant women should take measures to avoid exposure.

**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 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](http://www.P65Warnings.ca.gov)

### 3. COMPOSITION / INFORMATION ON INGREDIENTS

Components	% wt	CAS Registry #	PEL mg/m <sup>3</sup>	TLV-TWA mg/m <sup>3</sup>	TLV-STEL mg/m <sup>3</sup>
INDIUM NITRITE	100	13770-61-1/237-393-5			
		(US)	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:** Oxidizer                      **Method:** Not established.
- Auto-ignition Temperature:** Not established.
- Flammable Limits:** Limits not established.

<b>Extinguishing Media:</b>	Use extinguishers appropriate for the surrounding fire conditions.
<b>Special Fire Fighting Procedures:</b>	Firefighters must wear NIOSH approved or equivalent self-contained breathing apparatus and full protective clothing.

## 6. ACCIDENTAL RELEASE MEASURES

<b>Spill or Leak Procedures:</b>	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. Keep sources of ignition away. Dispose of in accordance with Federal, State and Local regulations. In Europe dispose of following the Special Waste Regulations. Indium may have reclaim value.
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## 7. HANDLING AND STORAGE

<b>Handling:</b>	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.
<b>Storage Precautions:</b>	Store product in tightly capped original containers in a cool, well ventilated and dry area. Keep away from sources of ignition.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

<b>Engineering Controls:</b>	Local and/or Mechanical (general) exhaust ventilation is recommended to control any air contaminants.
<b>Personal protection:</b>	
<b>Eyes:</b>	Wear chemical safety glasses/goggles. Face shield for splash hazards.
<b>Respirator:</b>	A NIOSH approved air-purifying respirator with a particulate filter is recommended under certain circumstances where airborne concentrations are expected to be elevated.
<b>Skin:</b>	Gloves are recommended when handling solids.
<b>Other:</b>	Lab coat, apron & eyewash fountain in work area. Avoid the use of contact lenses in high fume areas.
<b>Work/Hygienic</b>	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

<b>Appearance:</b>	White to colorless	<b>Boiling Point:</b>	Decomposes
<b>Odor:</b>	Slight nitric acid odor	<b>Melting Point:</b>	- 2 H <sub>2</sub> O @100C
<b>Specific Gravity:</b>	NA	<b>pH:</b>	Not applicable
<b>Vapor Pressure:</b>	Not applicable.	<b>Solubility in Water:</b>	Soluble in water
<b>Vapor Density:</b>	Not applicable	<b>Molecular Weight:</b>	300.85

**10. STABILITY AND REACTIVITY**

<b>General:</b>	Stable.
<b>Conditions to Avoid:</b>	Not established.
<b>Incompatible Materials:</b>	Nitrates
<b>Hazardous Decomposition / Combustion:</b>	Toxic fumes NO <sub>x</sub> may form at elevated temperatures.
<b>Hazardous Polymerization:</b>	Will not occur.

**11. TOXICOLOGICAL INFORMATION**

<b>Carcinogenicity:</b>	<b>National Toxicology Program (NTP):</b>	No
	<b>Occupational Safety &amp; Health Administration (OSHA):</b>	No
	<b>U.N. International Agency for Research on Cancer (IARC):</b>	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

RTEC# NL1750000

LD50 Oral-mouse-3,300 mg/kg

Reproductive toxicity-hamster-intravenous

Effects on Fertility: Post-implantation mortality

Developmental toxicity-hamster-intravenous

Specific developmental abnormalities: musculoskeletal system

Developmental toxicity – hamster-intravenous

Effects on Embryo or fetus: fetal death

**12. ECOLOGICAL INFORMATION**

No information is available

**13. DISPOSAL CONSIDERATION**

**Waste Disposal Method:** 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.

UN 1477, Nitrates, Inorganic, N.O.S., 5.1, PG III



North America Emergency Guide Book – Guide 140

## 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.).



**WARNING:** This product can expose you to chemicals including [Trace 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](http://www.P65Warnings.ca.gov)

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: listed metals).

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.

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

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**

<b>HMIS Hazard Rating:</b>	<b>Health:</b>	2
	<b>Fire:</b>	0
	<b>Reactivity:</b>	2
	<b>Special Hazard</b>	OX

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