



**INDIUM CORPORATION OF AMERICA ®\EUROPE®\ASIA-PACIFIC®  
INDIUM CORPORATION (SUZHOU) ®  
SAFETY DATA SHEET**

### 1. PRODUCT AND COMPANY IDENTIFICATION

**Product Identifier:** Sn 995

**SDS Number:** SDS-5709

**Revised Date:** 5 JULY 2017

**Product Use:** Tin alloy (Sn 995) cobalt-doped, lead free soldering alloy

**MANUFACTURER:**

**In America:**

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**In Asia:**

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## 2. HAZARDS IDENTIFICATION

### GHS

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 +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)

**PRIMARY ROUTES OF ENTRY:**

⊕ Eye    ⊕ Inhalation    ⊕ Skin    ⊕ Ingestion    NTP    IARC    OSHA    ⊕Not Listed

**Carcinogen listed in**

**POTENTIAL HEALTH EFFECTS:**

**Eye Contact:** Contact with material at room temperature or fume from material at typical re-flow temperatures over 100°C may cause eye irritation. Molten metal can cause damage to eyes.

**Ingestion:** This product contains metal. May be harmful if ingested.

**Inhalation:** Heated vapor concentrations may be harmful if inhaled. Prolonged or repeated exposure to smoke or fumes may cause respiratory irritation.

**Skin Contact:** Not expected to cause any issues as received in solid metal form. Molten metal may cause burns or irritation.

**Chronic:** Prolonged or repeated overexposure to mist or vapor generated at high temperatures may result in the inhalation of harmful amounts of material.

**TIN:** Has been shown to increase incidence of sarcoma in animal tests at site or application.

**COPPER:** Overexposure to fumes may cause metal fume fever (chills, muscle aches, nausea, fever; dry throat, cough, weakness, lassitude); metallic or sweet taste; discoloration of skin and hair.

**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 lead and cobalt)

## 3. COMPOSITION / INFORMATION ON INGREDIENTS

Components	% wt	CAS Registry #/EINECS#	PEL mg/m <sup>3</sup>	TLV-TWA mg/m <sup>3</sup>	TLV-STEL mg/m <sup>3</sup>
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<b>TIN</b>	99.5	7440-31-5/231-141-8			
		(US)	2	2	-
		(EU)	-	2	4
		(Singapore)	2	-	-
		(Canada)	-	2	4
<b>COPPER</b>	0.5	7440-50-8/231-159-6			
		(US)	0.1	0.2	-
		(EU)	-	0.2 (fume)	2(dust)
		(Canada)	-	0.2	0.6
		(Singapore)	0.2(fume)	1(dust)	-
		(Mexico)	0.2	-	2
		(China)	-	0.2(fume)	0.6(fume)
<b>COBALT (doped)</b>	500 ppm	7440-48-4/231-158-0	0.1	0.02	N.E.

N.E. = Not established  
**PRODUCT IS RoHS COMPLIANT**

#### 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 flammable      **Method:** Not established.
- Auto-ignition Temperature:** Not established.
- Flammable Limits:** Limits not established.
- Extinguishing Media:** Use extinguishers appropriate for the surrounding fire conditions. Foam, dry chemical, water spray and carbon dioxide.
- Special Fire Fighting Procedures:** Firefighters must wear an approved self-contained breathing apparatus and full protective clothing.

## 6. ACCIDENTAL RELEASE MEASURES

**Spill or Leak Procedures:** Wear respirator if conditions warrant and other personal protective clothing. (See Exposure Controls/Personal Protection Section). Keep unnecessary personnel away. If molten allow metal to cool. Scoop up and reclaim/recycle.

## 7. HANDLING AND STORAGE

**Handling** Avoid breathing vapors from heated material. Avoid contact with eyes, skin and clothing.  
**Precautions:** Follow routine safe handling procedures. Use with adequate ventilation.  
**Storage Precautions:** Keep away from heat and flame. Store in suitable, tightly capped, and labeled containers in cool dry, well-ventilated area. Store away from incompatible materials.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**Engineering Controls:** Local exhaust ventilation (point source) is recommended especially during heating, cutting and grinding. Avoid breathing dust/fume/gas/spray/vapours.

### Personal protection:

**Eyes:** Chemical safety glasses/goggles. Face shield over eye protection for splash protection.

**Respirator:** A NIOSH approved or EU compliant CE marked air-purifying respirator with a particulate/fume chemical cartridge is recommended under certain circumstances where airborne concentrations are expected to be elevated.

**Skin:** Compatible chemical resistant gloves. Hot gloves for handling molten metal.

**Other:** Lab coat, eye-wash fountain in work area. Avoid the use of contact lenses in high fume/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

<b>Appearance:</b>	Solid metal	<b>Boiling Point:</b>	Not applicable.
<b>Odor:</b>	None	<b>Melting Point:</b>	228C
<b>Specific Gravity:</b>	7.3	<b>pH:</b>	Not applicable
<b>Vapor Pressure:</b>	Not applicable.	<b>Solubility in Water:</b>	Not soluble
<b>Vapor Density:</b>	(air=1) Not applicable.		

## 10. STABILITY AND REACTIVITY

**General:** Stable.  
**Conditions to Avoid:** High temperatures.  
**Incompatible Materials:** Acids, bases, oxidizers  
**Hazardous Decomposition / Combustion:** Carbon monoxide, Carbon dioxide  
**Hazardous Polymerization:** Will not occur.

**11. TOXICOLOGICAL INFORMATION**

**Carcinogenicity:**                    **NTP:** No Product mixture  
     **OSHA:**      No            “  
     **IARC:**      No            “

**LD50:**                                    Not established.                                    **LC50:**                                    Not established.

**12. ECOLOGICAL INFORMATION**

Product not tested.

**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. Product has reclaim value. Avoid release to environment.

**14. TRANSPORT INFORMATION**

Transport in accordance with applicable regulations and requirements. Not regulated under US DOT (United States Department of Transportation). Not hazardous under shipping regulations: ground/IATA/IMDG.

UN - none

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: Not classified, insufficient data.

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 in accordance with the Mexican guidelines, NOM-018-STPS-2015 and NOM-010-STPS-2014.

In China:

This product has been classified using the Chinese Occupational Limit for Hazardous Agents in the Workplace, GBZ2-2007. 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 in accordance with: Malaysian – OCCUPATIONAL SAFETY AND HEALTH (CLASSIFICATION, LABELING AND SAFETY DATA SHEET OF HAZARDOUS CHEMICALS) REGULATION OCTOBER 2013 – (CLASS).

SARA 313 Listing - 40 CFR 372.65 (FORM R REPORTING) – Cobalt

All ingredients are listed on the EPA TSCA Inventory.

**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 lead and cobalt)**

## 16. OTHER INFORMATION

<b>HMIS Hazard Rating:</b>	<b>Health:</b>	1
	<b>Fire:</b>	0
	<b>Reactivity:</b>	0

**Revised Date:** 5 JULY 2017

**Prepared by:** Nancy Swarts, Indium Corporation of America

**Approved by:** Nancy Swarts, Indium Corporation of America

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