



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

1. PRODUCT AND COMPANY IDENTIFICATION

Product Identifier: INDALLOY WITH CORE 230

SDS Number: SDS-CW 006

Revised Date: 1 JULY 2016

Product Use: Industrial Use - Flux cored wire

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:

⊕Eye ⊕Inhalation ⊕Skin ⊕Ingestion NTP

Carcinogen listed in

IARC OSHA ⊕Not Listed

GHS:



Signal Word: Warning

Hazard statement(s)

- H317 May cause an allergic skin reaction
- H319 Causes serious eye irritation
- H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled
- EUH208 Contains rosin. May produce an allergic reaction

Precautionary statement(s)

- P233 Keep container tightly closed
- 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 + 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)

Classification:

- Eye irritation- Category 2A
- Skin sensitizer- Category 1B
- Respiratory sensitizer- Category 1B

POTENTIAL HEALTH EFFECTS:

Eye Contact: Irritating to the eyes and if not removed, may result in serious irritation. Contact with fume from molten metal may cause irritation.

Ingestion: May cause irritation.

Inhalation: Rosin has been known to cause occupational asthma.

Skin Contact: May cause skin irritation. Exposure to rosin may cause irritation or dermatitis.

Chronic: SILVER: Chronic skin contact or ingestion of silver powder, salts or fume can result in a condition known as Argyria, a condition with bluish pigmentation of the skin and eyes.

TIN: Prolonged inhalation of fume may result in lung complications.

COPPER: Overexposure to fumes of copper 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: Applicable in California: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm. (trace levels of lead)

Normal handling of solid metal is not harmful.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Components	% wt	CAS Registry #/EINECS#	PEL mg/m ³	TLV-TWA mg/m ³	TLV-STEL mg/m ³
TIN	*	7440-31-5/231-141-8			
		(US)	2	2	-
		(EU)	-	2	4
		(Canada)	-	2	4
		(Singapore)	2	-	-
SILVER	*	7440-22-4/231-131-3			
		(US)	0.01	0.1	-
		(EU)	-	0.1	-
		(Canada)	-	0.1	0.3
		(Singapore)	0.1	-	-
COPPER	*	7440-50-8/231-159-6			
		(US)	0.1 (fume)	0.2 (fume)	-
		(EU)	-	0.2 (fume)	-
		(Canada)	-	0.2 (fume)	0.6 (fume)
		(Singapore)	0.2(fume)	-	-
		(Mexico)	-	0.2(fume)	2
ANTIMONY	*	7440-36-0/231-146-5			
		(US)	0.5	0.5	-
		(EU)	0.5	-	-
		(Canada)	-	0.5	1.5
		(Mexico)	-	-	0.5

		(Singapore)	0.5	-	-
		(China)	-	0.5	-
ROSIN MIX	1.0-5.0	65997-05-9 (US)	N.E.	N.E.	N.E.
		(EU)	0.05	N.E.	0.15 (sensitiser)

N.E. = Not established

ALLOY TABLE

Indalloy (metal mix)	%TIN Sn	%SILVER Ag	%COPPER Cu	%ANTIMONY Sb	RoHS 2 Compliance
121	96.5	3.5	-	-	Yes
133	95	-	-	5	
241 (SAC 387)	95.5	3.8	0.7	-	Yes
246	95.5	4	-	-	Yes
256 (SAC 305)	96.5	3	0.5	-	Yes
263 (SAC0307)	99	0.3	0.7	-	Yes
				-	
				-	

RoHS 2 = Restriction of Hazardous Substances

EU Directive 2011/65/EU

Products above do not contain any RoHS metals intentionally added. Products above do not contain any RoHS flame retardants (PBB or PBDE).

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.
Extinguishing Media: Use extinguishers appropriate for the surrounding fire conditions.
Special Fire Fighting Procedures:

Firefighters must wear NIOSH approved self-contained breathing apparatus and full protective clothing.

6. ACCIDENTAL RELEASE MEASURES

Spill or Leak Procedures: Sweep up and place in a clearly labeled container for chemical waste. Not regarded as dangerous to the environment. Dispose of following all Federal, State and Local regulations.

7. HANDLING AND STORAGE

Handling Keep containers tightly closed when not in use. Use care to avoid spills. Always thoroughly wash your hands after handling this product. DO NOT touch or rub eyes until hands are washed.

Storage Precautions: Refer to product label for specific storage temperature requirements. Rotate stock to ensure use before expiration date on the label.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Controls: Good general ventilation should be used. If applicable use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits.

Personal protection:

Eyes: Chemical safety glasses/goggles. Face shield for splash hazards or particulate.

Respirator: An authority approved or compliant marked air-purifying respirator with a fume/organic/particulate chemical cartridge is recommended under certain circumstances where airborne concentrations are expected to be elevated or exceed exposure limits.

Skin: Compatible chemical resistant gloves may be required for certain applications. Hot gloves as needed for melting applications.

Other: Lab coat, eye-wash fountain in work area. Avoid the use of contact lenses in high fume or particulate 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:	Solid metal	Boiling Point:	Not applicable.
Odor:	Odorless	Melting Point:	See table
Specific Gravity:	See Table	pH:	Not applicable
Vapor Pressure:	1 mm Hg @ 973 C	Solubility in Water:	Insoluble

Vapor Density: (air=1) Not applicable.**Flash Point:** Not flammable**10. STABILITY AND REACTIVITY**

General: Stable.

Conditions to Avoid: Not established.

Incompatible Materials: Avoid contact with acids, bases or oxidizing agents.

Hazardous Decomposition / Combustion: Harmful organic fumes and toxic oxide fumes may form at elevated temperatures.

Hazardous Polymerization: Will not occur.

11. TOXICOLOGICAL INFORMATION

Carcinogenicity: **NTP:** No
OSHA: No
IARC: No

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

Other: Chronic Toxicity: Prolonged or repeated exposure to rosin flux fume may cause workers to develop occupational asthma.

12. ECOLOGICAL INFORMATION

Product not tested. No information available.

13. DISPOSAL CONSIDERATION

Waste Disposal Method: Scrap metal alloy usually has value. Contact a commercial reclaimer for recycling. Otherwise, dispose of in accordance with all Federal, State and Local environmental regulations.

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. Marine Pollutant: No

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.).

Some ingredients are listed on the New Jersey Right To Know List.

SARA 313 Listing - 40 CFR 372.65

Silver CAS# 7440-22-4

Copper CAS# 7440-50-8

All ingredients are listed on the EPA TSCA Inventory.

California Prop 65 Safe Drinking Water Standard: Warning: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm. (trace levels of lead)

Regulatory Information China:

GB/T 16483-2008, GB/T 17519-2013, Safety Data Sheets for Chemical Products

GB 30000.2-29-2013, Rules for classification and labeling of chemicals (GHS)

Decree No. 591: Regulations on the Control Over Safety of Hazardous Chemicals.

This product has been classified using the Chinese Occupational Exposure 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.

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).

This product has been classified in accordance with the hazard criteria of the Canadian Controlled Products Regulation (CPR).

Canadian WHMIS: D2B Materials Causing Other Toxic Effects -irritant



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

This product complies with the requirements established under the EU directive 2011/65/EU, Restriction of Hazardous Substances (RoHS). 1907/2006 REACH Regulations

All ingredients are listed on the Canada (CDSL)

All ingredients are listed on the EU (EINECS)

16. OTHER INFORMATION

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

Revised Date: 1 JULY 2016

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Approved by: Nancy Swarts, Indium Corporation of America

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