



## SAFETY DATA SHEET

### 1. PRODUCT AND COMPANY IDENTIFICATION

**Product Identifier:** INDALLOY WITH FLUXCAKE-219 (CW-219)

**SDS Number:** SDS-CW 5813

**Revised Date:** 1 OCTOBER 2018

**Product Use:** Industrial Use - Flux cored wire for soldering applications. See alloy table for metal combinations.

#### MANUFACTURER:

##### In America:

**The Indium Corporation of America®.**

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Information: (315) 853-4900

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**The Indium Corporation of America®.**

Chicago Materials Division

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##### In Europe:

**The Indium Corporation of America® (European Operations)**

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##### In Asia:

Indium Corporation of America

Asia-Pacific Operations-Singapore

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Singapore 628908

Information: +65 6268-8678

#### EMERGENCY PHONE:

**CHEMTREC 24 hrs.**

**USA: 1 (800) 424-9300**

**Outside USA: +1 (703) 527-3887**

**In China: Emergency 86+ 4008417580**

#### In China:

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Suchun Industrial Square

Unit No. 14-C

Jiangsu Province, China 215126

Information: (86) 512-6283-4900

<http://www.indium.com>

## 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  
 H334            May cause allergy or asthma symptoms or breathing difficulties if inhaled  
 H335            May cause respiratory irritation  
 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 + 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)

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#### Classification:

Skin sensitisation- Category 1B  
 Respiratory sensitization- Category 1B  
 Acute toxicity, inhalation- Category 4

### POTENTIAL HEALTH EFFECTS:

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

**Ingestion:**        This product contains metal and organic chemicals. May cause irritation.

**Inhalation:**        Inhalation of fume or dust may cause local irritation to the respiratory system. Rosin may cause occupational asthma.

**Skin Contact:**    May cause skin irritation or allergic skin reaction.

**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:** This product can expose you to chemicals including [trace amounts of lead] which is known to the State of California to cause cancer, and can cause birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

**2. 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>
<b>TIN</b>	*	7440-31-5/231-141-8			
		(US)	2	2	-
		(EU)	-	2	4
		(Canada)	-	2	4
		(Singapore)	2	-	-
<b>SILVER</b>	*	7440-22-4/231-131-3			
		(US)	0.01	0.1	-
		(EU)	-	0.1	-
		(Canada)	-	0.1	0.3
		(Singapore)	0.1	-	-
(Mexico)	-	0.1	-		
<b>COPPER</b>	*	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
<b>ROSIN MIX</b>	0-5.0	65997-05-9	N.E.	N.E.	N.E.
		(EU)	0.05	N.E.	0.15 (sensitiser)

N.E. = Not established

TWA = time weighted average

STEL= short term exposure limit

**Alloy Table**

**Flux core 0-5%**

<b>Indalloy (metal mixture)</b>	<b>Tin Sn</b>	<b>Silver Ag</b>	<b>Copper Cu</b>	<b>RoHS 2/3 Compliance</b>
256 (SAC305) (96.5Sn/3Ag/0.5Cu)	91.6-96.5	2.85-3	0.48-0.5	Yes
262 (Sn995) (99.5Sn/0.5Cu) doped with 0.05Co	94.5-99.5	-	0.48-0.5	Yes
263 (SAC0307) (99Sn/0.3Ag/0.7Cu)	94.1-99	0.285-0.3	0.67-0.7	Yes

RoHS 2 = EU Restriction of Hazardous Substances (2011/65/EU)

RoHS 3 = products do not contain any listed phthalates

**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.
- 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:** Pick up solids and put in container for reuse or recycling. Do not sweep powder or small particulate. Use vacuum. Reduce airborne dust and prevent scattering by moistening with water. 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:** Local exhaust ventilation is recommended to keep exposures below established limits and protect operators. Use proper ventilation.
- Personal protection:**
- Eyes:** Chemical safety glasses/goggles. Face shield for splash hazard.
- Respirator:** An approved or compliant marked air-purifying respirator with a fume/organic chemical cartridge is recommended under certain circumstances where airborne concentrations are expected to be elevated or exceed exposure limits.
- Skin:** 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 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 - wire      | <b>Boiling Point:</b>       | Not applicable. |
| <b>Odor:</b>             | Odorless                | <b>Melting Point:</b>       | See table       |
| <b>Specific Gravity:</b> | See table               | <b>pH:</b>                  | Not applicable  |
| <b>Vapor Pressure:</b>   | Not established         | <b>Solubility in Water:</b> | Insoluble       |
| <b>Vapor Density:</b>    | (air=1) Not applicable. |                             |                 |

## 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.

**12. ECOLOGICAL INFORMATION**

Product not tested.

**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 international regulations and requirements. Not regulated under US DOT (United States Department of Transportation). Not hazardous under shipping regulations, all modes.

UN – none                            Marine pollutant: No

Not regulated- ground/IATA/ocean

**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  
 Silver    Copper

All ingredients are listed on the EPA TSCA Inventory.



**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 can cause birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

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

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.

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).

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.

## 16. OTHER INFORMATION

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

**Revised Date:** 1 OCTOBER 2018

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