



## SAFETY DATA SHEET

### 1. PRODUCT AND COMPANY IDENTIFICATION

**Product Identifier:** WF-9945 LEAD FREE ROSIN FLUX

**SDS Number:** SDS-4710

**Revised Date:** 8 DECEMBER 2017

**Product Use:** INDUSTRIAL USE (mixture) - WAVE SOLDER FLUX

#### MANUFACTURER:

##### In America:

The Indium Corporation of America  
34 Robinson Road, Clinton NY 13323  
Information: (315) 853-4900  
nswarts@indium.com

##### EMERGENCY PHONE:

**CHEMTREC 24 hrs.**  
**USA: 1 (800) 424-9300**  
**Outside USA: +1 (703) 527-3887**

##### In Europe:

Indium Corporation of Europe  
7 Newmarket Ct.  
Kingston, Milton Keynes, UK, MK 10 OAG  
Information: +44 [0] 1908 580400

##### In China:

Indium Corporation (Suzhou), Co., Ltd  
No. 428 Xinglong Street  
Suzhou Industrial Park  
Suchun Industrial Square  
Unit No. 14-C  
Jiangsu Province, China 215126  
Information: (86) 512-6283-4900

##### In Asia:

The Indium Corporation of America  
Asia-Pacific Operations-Singapore  
29 Kian Teck Avenue  
Singapore 628908  
Information: +65 6268-8678

## 2. HAZARDS IDENTIFICATION

### PRIMARY ROUTES OF ENTRY:

Eye   
 Inhalation   
 Skin   
 Ingestion   
 NTP   
 IARC   
 OSHA   
 Not Listed

### Carcinogen listed in

GHS



Signal Word: Danger

### Hazard Statements:

H225 Highly Flammable liquid and vapor  
 H315 Causes skin irritation  
 H317 May cause an allergic skin reaction  
 H319 Causes serious eye irritation  
 H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled  
 H335 May cause respiratory irritation  
 H336 May cause drowsiness or dizziness  
 EUH208 Contains rosin. May produce an allergic reaction

### Precautionary statement(s)

P210 Keep away from heat/sparks/open flames/hot surfaces. – No smoking  
 P233 Keep container tightly closed  
 P240 Ground/Bond container and receiving equipment  
 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)  
 P501 Dispose of in accordance with applicable regulations

Classification:

Flammable Liquid – Category 2

Skin irritant- Category 3

Eye irritant- Category 2

### POTENTIAL HEALTH EFFECTS:

**Eye Contact:** Vapors may be irritating, liquid may cause irritation to eye tissue.  
**Ingestion:** May cause persistent nausea, vomiting and abdominal pain. Irritating to digestive tract.  
**Inhalation:** Vapor may cause headaches and or dizziness. Avoid inhalation of vapors. Irritating to respiratory tract. Rosin may cause occupational asthma.  
**Skin Contact:** Prolonged contact may cause irritation and dermatitis.  
**Chronic:** Over exposure to vapors may be harmful. Not established.  
**NOTE:** **The Indium Corporation does not recommend, manufacture, market or endorse any of its products for human consumption.**

**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>
ISOPROPANOL  (PROPAN-2-OL)	80-86	67-63-0/200-661-7			
		(US)	980	983	1225
		(EU)	-	999	1250
		(Canada)	-	983	1228
		(Mexico)	980	-	1225
		(China)	-	350	700
		(Singapore)	983	-	1230
MINERAL SPIRITS	10-15	8052-41-3/232-489-3	2900	572	-
		(Canada)	-	525	1050
ROSIN	5-12	65997-05-9/NLP No. 500-163-2	N.E.	N.E.	N.E.
			(EU)	0.05	-
PROPRIETARY ACTIVATORS	1-3	-	N.E.	N.E.	N.E.

N.E. = Not established

EU = European Exposure Limits

**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:** 12°C (54°F)      **Method:** Closed Cup
- Auto-ignition Temperature:** 750 F (isopropanol)
- Flammable Limits:** Upper: 12 @77°F; Lower 2 @ 77°F (isopropanol)
- Extinguishing Media:** Water. Use extinguishers appropriate for the surrounding fire conditions.
- Special Fire Fighting Procedures:** Wear protective clothing and self-contained breathing apparatus. Use water to cool fire exposed containers. Flammable vapors may travel great distances to ignition source and flash back.

## 6. ACCIDENTAL RELEASE MEASURES

**Spill or Leak Procedures:** Do not allow material to enter sewer system or waterway. Wear personal protective equipment. Eliminate sources of ignition. Ventilate area in accordance with regulations. Dispose of following all Federal, State and Local regulations. In the EU refer to the Special Waste Regulations.

## 7. HANDLING AND STORAGE

**Handling Precautions:** Keep containers tightly closed when not in use. Use care to avoid spills. Wear personal protective equipment. Ground containers. Use in well vented areas.

**Storage Precautions:** Store product in tightly capped original containers in a cool, dry area. 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:** Face velocity >2.1 cubic feet/minute in confined areas. Overall exhaust ventilation. Recommended in order to keep exposures to as low as possible.

### Personal protection:

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

**Respirator:** An approved or compliant marked air-purifying respirator with a fume/organic chemical cartridge is recommended where airborne concentrations are expected to be elevated. Use respiratory protection in confined areas. Air purifying respirators will offer no protection in oxygen deficient areas. Ensure that the protection factors of the respirator are not exceeded.

**Skin:** Compatible chemical resistant gloves. Use gloves such as nitrile, which are compatible with alcohols. Do not use latex gloves for handling of product.

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

**Work/Hygienic Practices:** 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>	Amber liquid	<b>Boiling Point:</b>	83C(181F)
<b>Odor:</b>	Alcohol odor.	<b>Evaporation Rate:</b>	Not available
<b>Specific Gravity:</b>	0.802 g/cc	<b>pH:</b>	5.8
<b>Vapor Pressure:</b>	Not available	<b>Solubility in Water:</b>	Soluble
<b>Vapor Density:</b>	Not available	<b>Flash Point:</b>	12C(54F)

**10. STABILITY AND REACTIVITY**

**General:** Stable.  
**Conditions to Avoid:** Direct heat, open flames and storage in aluminum.  
**Incompatible Materials:** Anhydrides, halogens, phosphorus, trichlorides, monomers, aldehydes  
**Hazardous Decomposition / Combustion:** Carbon dioxide/carbon monoxide.  
**Hazardous Polymerization:** Will not occur.

**11. TOXICOLOGICAL INFORMATION**

**Carcinogenicity:** National Toxicity Program **NTP:** No  
 Occupational Safety & Health Administration **OSHA:** No  
 International Agency for Research on Cancer **IARC:** No

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

**12. ECOLOGICAL INFORMATION**

Product not tested.

An environmental hazard cannot be excluded in the event of unprofessional handling.

**13. DISPOSAL CONSIDERATION**

**Waste Disposal Method:** Dispose of in accordance with all Federal, State and Local environmental regulations.

**14. TRANSPORT INFORMATION**

Transport in accordance with applicable regulations and requirements.

UN1987, Alcohols, N.O.S., 3, PG II (isopropanol, mineral spirits)



North American Emergency Guide Book – Guide # 127

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).

SARA 313 Listing - 40 CFR 372.65: none

All ingredients are listed on the EPA TSCA Inventory.

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

Canadian WHMIS: Class B Division 2 Flammable, D2B Toxic Material Causing Other Toxic Effects (eye irritation in animals).



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 Mexican regulations: NOM-018-STPS-2015 and NOM-010-STPS-2014.

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: Malaysian – OCCUPATIONAL SAFETY AND HEALTH (CLASSIFICATION, LABELING AND SAFETY DATA SHEET OF HAZARDOUS CHEMICALS) REGULATION OCTOBER 2013 – (CLASS).

RoHS 2 (Restriction of Hazardous Substances) Compliance Statement: This product complies with the requirements of the EU Directive 2011/65/EU regarding the restriction of certain hazardous substances in electronic equipment. This product does not contain any metals and does not contain any flame-retardants.

## 16. OTHER INFORMATION

<b>HMIS Hazard Rating:</b>	<b>Health:</b>	2
	<b>Fire:</b>	3
	<b>Physical Hazard:</b>	0

**Revised Date:** 8 DECEMBER 2017

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

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

The information and recommendations contained herein are, to the best of The Indium Corporation of America's knowledge and belief, accurate and reliable as of the date issued. The Indium Corporation of America does not warrant or guarantee their accuracy or reliability, and The Indium Corporation of America shall not be liable for any loss or damage arising out of the user thereof. The information and recommendations are offered for the user's consideration and examination, and it is the user's responsibility to satisfy itself that they are suitable and complete for its particular use. If buyer repackages this product, legal counsel should be consulted to insure proper health, safety and other necessary information is included on the container.