



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

## 1. PRODUCT AND COMPANY IDENTIFICATION

**Product Identifier:** #14 ROSIN FLUX

**MSDS Number:** MSDS-HG017

**Revised Date:** 7 APRIL 2010

**Product Use:** Industrial Use - Wave Solder Flux

### MANUFACTURER:

#### In America:

The Indium Corporation of America  
 1676 Lincoln Ave., Utica NY 13502  
 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:

Asia-Pacific Operations-Singapore  
 29 Kian Teck Avenue  
 Singapore 628908  
 Information: +65 6268-8678

## 2. HAZARDS IDENTIFICATION

GHS:



Warning Word: Danger/Irritant

### PRIMARY ROUTES OF ENTRY:

\*Eye      \*Inhalation      \*Skin      \*Ingestion

### Carcinogen listed in

NTP      IARC      OSHA      \*Not Listed

### POTENTIAL HEALTH EFFECTS:

**Eye Contact:** Vapors may be irritating, liquid may damage eye tissue.

- Ingestion:** May cause persistent nausea, vomiting and abdominal pain.
- Inhalation:** Vapor may cause headaches and or dizziness. Rosin may cause occupational asthma.
- Skin Contact:** Prolonged contact may cause irritation and dermatitis.
- Chronic:** 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 #	PEL mg/m <sup>3</sup>	TLV-TWA mg/m <sup>3</sup>	TLV-STEL mg/m <sup>3</sup>
ISOPROPANOL	45-55	67-63-0	980	983	1225
		(EU)		999	1250
		(Canada)	-	983	1228
		(Singapore)	983	-	1230
		(Mexico)	-	980	1225
		(China)	-	350	700
ROSIN	45-55	8050-09-7	N.E.	N.E.	N.E.
		(EU)	0.05	N.E.	0.15
HYDROCARBON	1-5	8052-41-3	N.E.	N.E.	100 (PPM)

Symbol: Xi, F  
N.E. = Not established

Risk Phrases: R36/37/38, R11, R42/43  
EU = European Exposure Limits

### 4. FIRST AID MEASURES

- Eye Contact:** Hold eyelids apart and flush eyes with plenty of 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:** 16°C (61°F)      **Method:** Closed Cup  
**Auto-ignition Temperature:** 399°C (750°F)  
**Flammable Limits:** Upper: 12 @77°F; Lower 2 @ 77°F  
**Extinguishing Media:** Dry chemical, Alcohol type foam. 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.

**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. Recommend exhaust ventilation when working with product.

### Personal protection:

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

**Respirator:** An authority approved or compliant marked air-purifying respirator with a fume/organic chemical cartridge is recommended where airborne concentrations are expected to be elevated.

**Skin:** Compatible chemical resistant gloves. Use gloves such as nitrile, which are compatible with alcohols and lower pH chemicals.

**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>	Liquid, Amber	<b>Boiling Point:</b>	81°C (177°F)
<b>Odor:</b>	Alcohol odor.	<b>Evaporation Rate:</b>	1.7
<b>Specific Gravity:</b>	0.912 @ 60° F	<b>pH:</b>	Not determined
<b>Vapor Pressure:</b>	33 mm HG @68 F	<b>Solubility in Water:</b>	50% Soluble
<b>Vapor Density:</b>	2.1 (air=1)	<b>% Volatiles by volume:</b>	50
<b>Pounds Per Gallon:</b>	7.63		

## 10. STABILITY AND REACTIVITY

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

## 11. TOXICOLOGICAL INFORMATION

<b>Carcinogenicity:</b>	<b>NTP:</b> No		
	<b>OSHA:</b> No		
	<b>IARC:</b> No		
<b>LD50:</b>	Not established.	<b>LC50:</b>	Not established.

## 12. ECOLOGICAL INFORMATION

This section is subject to future development.

Biodegradability: Data not established.

Aquatic Toxicity: Data not established.

## 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.



UN1219, Isopropanol, 3, PG II (mixture)

North American Emergency Guide #129

## 15. REGULATORY INFORMATION

The information in this Material 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.).

The information in this Material Safety Data Sheet meets the requirements of the EU under Chemicals (Hazard Information and Packaging for Supply) Regulations 1994 (CHIP 2) Regulation 6.

This product has been classified in accordance with the hazard criteria of the Commission Directive 91/155/EEC and EH40.

This product has been classified using the Chinese Occupational Exposure Limit for Hazardous Agents in the Workplace, GBZ2-2002.

This product has been classified in accordance with the Mexican standard NOM-018-STPS-2000 and NOM-010-STPS-1999.

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

Canadian WHMIS: Class B2 Flammable Liquid



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

SARA 313 Listing - 40 CFR 372.65: None

All ingredients are listed on the EPA TSCA Inventory.

Ingredients are listed on the Canadian Domestic Substance List.

EC Classification, Packaging and Labeling Requirements:

Symbol and Hazard Classification of Product

Xi, F

### Risk Phrases:

- R36/37/38 Irritating to eyes, respiratory system and skin
- R 11 Highly Flammable
- R42/43 May cause sensitization by inhalation and by skin contact

### Safety Phrases:

- S16 Keep away from sources of ignition - "No Smoking"
- S20/21 When using do not eat, drink or smoke

S23	Do not breathe fumes
S24/25	Avoid contact with skin and eyes
S28	After contact with skin wash immediately with plenty of soap and water
S36/37/39	Wear suitable protective clothing, gloves and eye/face protection
S62	If swallowed, do not induce vomiting seek medical advice immediately and show container or label
S7	Keep container tightly closed

## 16. OTHER INFORMATION

**HMIS Hazard Rating:**

<b>Health:</b>	2
<b>Fire:</b>	3
<b>Reactivity:</b>	0

**Revised Date:** 7 APRIL 2010

**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.