1. PRODUCT AND COMPANY IDENTIFICATION

Product Identifier: 836 ROSIN FLUX
SDS Number: SDS-4827
Product Use: INDUSTRIAL USE - WAVE SOLDERING FLUX

MANUFACTURER:

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

In Europe:
The Indium Corporation of America® (European Operations)
7 Newmarket Ct
Kingston, Milton Keynes, UK, MK 10 OAG
Information: +44 [0] 1908 580400

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

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

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
2. HAZARDS IDENTIFICATION

PRIMARY ROUTES OF ENTRY:
- Eye
- Inhalation
- Skin
- Ingestion

Carcinogen listed in
- NTP
- IARC
- OSHA
- Not Listed

GHS

Signal Word: Warning

Hazard statement(s)
- H227  Combustible Liquid
- H303  May be harmful if swallowed
- H315  Causes skin irritation
- H317  May cause an allergic skin reaction
- H319  Causes eye irritation
- H334  May cause allergy or asthma symptoms or breathing difficulties if inhaled

Precautionary statement(s)
- P210  Keep away from heat/sparks/open flames/hot surfaces. – No smoking
- P233  Keep container tightly closed
- P240  Ground container and receiving equipment
- P261  Avoid breathing dust/fume/gas/mist/vapors/spray
- P270  Do not eat, drink or smoke when using this product
- P280  Wear protective gloves/protective clothing/eye protection/face protection
- 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 local, state or federal requirements.

Classification:
- Flammable Liquid (Category 4)
- Skin irritation (Category 2)
- Acute toxicity, Oral (Category 4)
- Skin sensitization- Category 1B
- Respiratory sensitization-Category 1B

POTENTIAL HEALTH EFFECTS:

Eye Contact: Irritating to the eyes.

Ingestion: May be harmful if swallowed. May cause irritation.

Inhalation: Heated vapor/mists concentrations may be harmful if inhaled. Rosin may cause occupational asthma.

Skin Contact: Brief contact may cause slight irritation with itching and local redness. Allergic skin reaction or dermatitis may occur with prolonged exposure.

Chronic: Prolonged or repeated overexposure to mist or vapor generated at high temperatures may result in the inhalation of harmful amounts of material. Rosin fumes generated by heating may lead to...
respiratory sensitization (asthma) in susceptible individuals. Polyglycol ether may cause reproductive and birth defects, anemia, liver and kidney damage.

**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 distillates (petroleum), hydrotreated light, kerosene] which are known to the State of California to cause cancer. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

### 3. COMPOSITION / INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Components</th>
<th>% wt</th>
<th>CAS Registry #</th>
<th>TLV-TWA mg/m³</th>
<th>PEL mg/m³</th>
<th>TLV-STEL mg/m³</th>
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</thead>
<tbody>
<tr>
<td>ROSIN</td>
<td>30-40</td>
<td>65997-05-9</td>
<td>N.E.</td>
<td>N.E.</td>
<td>N.E.</td>
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<tr>
<td></td>
<td></td>
<td>(EU) 0.05</td>
<td></td>
<td>N.E.</td>
<td>0.15(sensitiser)</td>
</tr>
<tr>
<td>POLYGLYCOL ETHER</td>
<td>30-45</td>
<td>-</td>
<td>N.E</td>
<td>N.E.</td>
<td>N.E.</td>
</tr>
<tr>
<td>HYDROCARBON SOLVENT</td>
<td>25-30</td>
<td>-</td>
<td>5</td>
<td>5</td>
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</tbody>
</table>

N.E. = Not established

### 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/rinse affected area with soap and plenty of water. Wash clothing before reuse. If irritation persists, obtain medical attention.

### 5. FIRE FIGHTING MEASURES

**Flash Point:** 66C (150F)  **Method:** Not available.

**Auto-ignition Temperature:** Not established.

**Flammable Limits:** Limits not established. Material considered a combustible material.

**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 and other personal protective clothing. (See Exposure Controls/Personal Protection Section). Extinguish or remove all sources of ignition. Absorb spill with inert material (e.g., dry sand or earth), then place in a chemical waste container. Keep unnecessary personnel away. Combustible liquid.

7. HANDLING AND STORAGE

Handling Precautions: Avoid breathing vapors/mists from heated material. Avoid contact with eyes, skin and clothing. Follow routine safe handling procedures. Use with adequate ventilation. Grounding of container may be necessary since product is a potential combustible material.

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. Empty containers may be hazardous as they contain product residue.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Controls: Local exhaust ventilation is required especially during heating in order to keep Exposures of mists and vapors as low as possible. Vent to reduce workers exposure.

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 under certain circumstances where airborne concentrations are expected to be elevated.

Skin: Compatible chemical resistant gloves. Nitrile rubber gloves or other solvent resistant gloves. Latex and disposable nitrile gloves not recommended

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. Ventilate area.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Flux (solid) amber

Boiling Point: Not applicable.

Odor: Slight characteristic odor.

Melting Point: Not applicable

Specific Gravity: Not applicable

pH: 4.5

Vapor Pressure: Not applicable

Solubility in Water: Not established

Vapor Density: (air=1) Not applicable

Flammability: Combustible material

10. STABILITY AND REACTIVITY

General: Stable.

Conditions to Avoid: High temperatures/heat/flame/sparks.

Incompatible Materials: Strong acids/alkalies/strong oxidizing agents
11. TOXICOLOGICAL INFORMATION

Carcinogenicity:
- NTP: No
- OSHA: No
- IARC: No

Product mixture not tested.

Polyglycol Ether:
- Rat, oral LD50 470 mg/kg
- Rabbit, skin, LD50 220 mg/kg

Hydrocarbon Solvent:
- LD50 Oral-rabbit-2,835 mg/kg
- Skin-rabbit-irritating to skin-24h-draize test.

12. ECOLOGICAL INFORMATION

Product not tested. No data available on mixture.
Contains a substance that is toxic to aquatic life with long lasting effects.
Polyglycol ether- Toxicity to fish: LC50-other fish-220 mg/l-96h
  Toxicity to daphnia magna (water flea)- 1,815 mg/l- 24h
An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

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 international regulations and requirements.

Marine Pollutant: No

NA 1993, Combustible Liquid N.O.S., PG III (hydrocarbon solvent/polyglycol ether)

Reference 49 CFR 173.150 on the paperwork for shipping.

IATA: Not regulated/ Flash Point 150F

Marking (ground):
This can be used on containers however must be used on containers classified as bulk.

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: D2B Materials Causing Other Toxic Effects –irritant

WARNING: This product can expose you to chemicals including [distillates (petroleum), hydrotreated light, kerosene] which are known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov

This product has been classified in accordance with the guidelines of 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.

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). (GHS)

In China:
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 using the Chinese Occupational Limit for Hazardous Agents in the Workplace, GBZ2-2007.
All ingredients are listed on the China Chemical Inventory

SARA 313 Listing - 40 CFR 372.65 (FORM R REPORTING) – polyglycol ether
All ingredients are listed on the EPA TSCA Inventory.

16. OTHER INFORMATION

<table>
<thead>
<tr>
<th>HMIS Hazard Rating:</th>
<th>Health:</th>
<th>2</th>
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<tbody>
<tr>
<td>Fire:</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Reactivity:</td>
<td>0</td>
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</tbody>
</table>
Revised Date: 16 AUGUST 2018
Prepared by: Nancy Swarts, Indium Corporation of America
Approved by: Nancy Swarts, Indium Corporation of America

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