SAFETY DATA SHEET

User must review the contents of this (SDS) and determine what is applicable to their own country laws under Health and Safety and apply them as necessary. This (SDS) will not reference every countries Health and Safety Laws. It is the user’s responsibility to determine what is applicable to them, including but not limited to review of any specific chemical lists and apply the requirements as necessary.

1. PRODUCT AND COMPANY IDENTIFICATION

Product Identifier: TACFLUX 37014
SDS Number: SDS-5945
Product Use: Industrial Use - flux

Revised Date: 5 NOVEMBER 2018

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: Emergency 86+ 4008417580

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

http://www.indium.com
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)

- H316 Causes mild 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

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)

Classification:
- Skin corrosion/irritation- Category 3
- Sensitisation, skin- Category 1B
- Serious eye damage/eye irritation- Category 2A
- Sensitisation, respiratory- Category 1B
- Specific organ toxicity, single exposure (respiratory tract irritation)- Category 3

POTENTIAL HEALTH EFFECTS:

Eye Contact: Causes serious eye irritation.

Ingestion: May be harmful if swallowed.

Inhalation: May cause irritation. Inhalation of rosin fume may cause occupational asthma.

Skin Contact: May cause skin irritation. Rosin may cause dermatitis and skin sensitization.

NOTE: The Indium Corporation does not recommend, manufacture, market or endorse any of its products for human consumption.
### 3. COMPOSITION / INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Components</th>
<th>% wt</th>
<th>CAS Registry#/EINECS#</th>
<th>PEL mg/m³</th>
<th>TLV-TWA mg/m³</th>
<th>TLV-STEL mg/m³</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROSIN</td>
<td>40 - 60</td>
<td>65997-05-9</td>
<td>N.E.</td>
<td>N.E.</td>
<td>N.E.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(EU) 0.05</td>
<td>N.E.</td>
<td>0.15 (sensitiser)</td>
<td></td>
</tr>
<tr>
<td>POLYGLYCOL ETHER</td>
<td>30 - 50</td>
<td>9038-95-3</td>
<td>N.E.</td>
<td>N.E.</td>
<td>N.E.</td>
</tr>
<tr>
<td>PROPRIETARY ACTIVATORS</td>
<td>10-30</td>
<td>-</td>
<td>N.E.</td>
<td>N.E.</td>
<td>N.E.</td>
</tr>
</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 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:** Using a spatula, scoop up flux and place in a plastic or glass jar and tightly cap. Absorb spill and place into waste container 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. Wear appropriate personal protective equipment when working or handling flux. Always thoroughly wash your hands after handling this product. DO NOT touch or rub eyes until hands are washed.
**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.

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### 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**Engineering Controls:** Use exhaust ventilation especially during heating of 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 under certain circumstances where airborne concentrations are expected to be elevated.
- **Skin:** Compatible chemical resistant gloves- nitrile.
- **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.

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### 9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Appearance:</strong></td>
<td>Flux-yellow cream</td>
<td><strong>Boiling Point:</strong></td>
<td>Not available</td>
</tr>
<tr>
<td><strong>Odor:</strong></td>
<td>Mild characteristic odor.</td>
<td><strong>Melting Point:</strong></td>
<td>Not available</td>
</tr>
<tr>
<td><strong>Specific Gravity:</strong></td>
<td>1 g/cc (flux)</td>
<td><strong>pH:</strong></td>
<td>Not available</td>
</tr>
<tr>
<td><strong>Vapor Pressure:</strong></td>
<td>Not applicable.</td>
<td><strong>Solubility in Water:</strong></td>
<td>Insoluble</td>
</tr>
<tr>
<td><strong>Vapor Density:</strong></td>
<td>(air=1) Not applicable.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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### 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.

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### 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.

Product mixture not tested.
12. ECOLOGICAL INFORMATION
Product mixture not tested.

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 international regulations and requirements. Not regulated under US DOT (United States Department of Transportation). Non hazardous under shipping requirements.

   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.).

SARA 313 Listing - 40 CFR 372.65 - None

Ingredients are listed under the US TSCA Inventory or are exempt under LVE.

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 – irritation/sensitization.

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 the Mexican guidelines, NOM-018-STPS-2015 and NOM-010-STPS-2014.

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 Limit for Hazardous Agents in the Workplace, GBZ2-2007.
## 16. OTHER INFORMATION

<table>
<thead>
<tr>
<th>HMIS Hazard Rating:</th>
<th>Health:</th>
<th>1</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Fire:</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Reactivity:</td>
<td>0</td>
</tr>
</tbody>
</table>

**Revised Date:** 5 NOVEMBER 2018  
**Prepared by:** Nancy Swarts, Indium Corporation of America  
**Approved by:** Nancy Swarts, Indium Corporation of America

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