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 020B-DISP
SDS Number: SDS-5110
Revised Date: 12 MARCH 2018

Product Use: Industrial Use –Tacflux for soldering related activity

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: 

<table>
<thead>
<tr>
<th>☒Eye</th>
<th>☒Inhalation</th>
<th>☒Skin</th>
<th>☒Ingestion</th>
<th>NTP</th>
<th>IARC</th>
<th>OSHA</th>
<th>☒Not Listed</th>
</tr>
</thead>
</table>

GHS:

Signal Word: Danger

Hazard Statements:

- H226 Flammable liquid and vapor
- H303 May be harmful if swallowed
- H317 May cause an allergic skin reaction
- H320 Causes eye irritation
- H333 May be harmful if inhaled
- H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled
- H360FD May damage fertility. May damage the unborn child
- 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
- 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:

- Flammable liquids- Category 3
- Acute toxicity, oral- Category 5
- Sensitisation, skin- Category 1B
- Serious eye damage/eye irritation- Category 2B
- Acute toxicity, inhalation- Category 5
- Sensitisation, respiratory- Category 1B
- Reproductive toxicity- Category 1B

POTENTIAL HEALTH EFFECTS:

- **Eye Contact:** Irritating to the eyes and if not removed promptly, may result in serious eye irritation. Do not allow material to come in contact with the eyes.

- **Ingestion:** May be harmful if swallowed. May cause irritation and damage to the mouth, esophagus and gastrointestinal tract.
### Inhalation:
Heated vapor concentrations may be harmful if inhaled. May cause irritation or harm to respiratory tract. Rosin may cause occupational asthma.

### Skin Contact:
May cause skin irritation. Allergic reactions or dermatitis are possible, especially with repeated or prolonged exposure. May be harmful is absorbed through the skin.

### Chronic:
Not established. Contains a chemical that may impair fertility or cause harm to the unborn child. Target organs (2-methoxyethanol): CNS/liver/lungs/kidneys/immune system/bone marrow.

**Warning:** This product can expose you to chemicals including [2-methoxyethanol] which is known to the State of California to cause male reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

### NOTE:
The Indium Corporation does not recommend, manufacture, market or endorse any of its product's 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>45-55</td>
<td>65997-05-9 (US)</td>
<td>N.E.</td>
<td>N.E.</td>
<td>N.E.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(EU)</td>
<td>0.05</td>
<td>N.E.</td>
<td>0.15 (sensitiser)</td>
</tr>
<tr>
<td>2-METHOXYETHANOL</td>
<td>30-45</td>
<td>109-86-4/203-713-7</td>
<td>80 (skin)</td>
<td>16</td>
<td>N.E.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(EU)</td>
<td>16 (MEL-skin)</td>
<td>N.E.</td>
<td>N.E.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(Canada)</td>
<td>N.E.</td>
<td>16</td>
<td>32</td>
</tr>
<tr>
<td>PROPRIETARY ADDITIVES</td>
<td>10-15</td>
<td>-</td>
<td>N.E.</td>
<td>N.E.</td>
<td>N.E.</td>
</tr>
<tr>
<td>NON-HAZARDOUS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></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

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flash Point:</td>
<td>46 C (115 F)</td>
</tr>
<tr>
<td>Method:</td>
<td>Not available</td>
</tr>
<tr>
<td>Auto-ignition Temperature:</td>
<td>Not established.</td>
</tr>
<tr>
<td>Flammable Limits:</td>
<td>Flammable - not established</td>
</tr>
<tr>
<td>Extinguishing Media:</td>
<td>Use extinguishers appropriate for the surrounding fire conditions.</td>
</tr>
<tr>
<td>Special Fire Fighting Procedures:</td>
<td>Firefighters must wear NIOSH approved self-contained breathing apparatus and full protective clothing.</td>
</tr>
</tbody>
</table>

### 6. ACCIDENTAL RELEASE MEASURES

**Spill or Leak Procedures:**
- Wear a respirator and appropriate personal protection (See Exposure Controls/Personal Protective Section).
- Absorb spill with inert material (e.g., dry sand or earth), then place in a chemical waste container.
- Dispose of following all Federal, State and Local regulations.
- Keep sources of ignition away.

### 7. HANDLING AND STORAGE

**Handling Precautions:**
- Keep containers tightly closed when not in use.
- Use care to avoid spills.
- Avoid breathing vapors from heated material.
- Avoid contact with eyes, skin and clothing.
- Use with adequate ventilation.
- Keep sources of ignition away.
- Ground containers.

**Storage Precautions:**
- Store product in tightly capped original containers in a cool, dry area.
- Keep away from heat and flame.
- Store away from incompatible materials.
- Empty containers may be hazardous as they contain product residue.

### 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**Engineering Controls:**
- Exhaust ventilation is recommended to control airborne levels and keep exposures as low as possible.
- Recommend material not be used without proper ventilation.

**Personal protection:**

<table>
<thead>
<tr>
<th>Part</th>
<th>Protection</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eyes</td>
<td>Chemical safety glasses with side shields or goggles. Face shield for splash hazards.</td>
</tr>
<tr>
<td>Respirator</td>
<td>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 elevate or when proper ventilation is not available.</td>
</tr>
<tr>
<td>Skin</td>
<td>Compatible chemical resistant gloves. Protective outer garment, apron and sleeves as appropriate. Latex gloves not recommended. Use rubber, nitrile or butyl rubber.</td>
</tr>
<tr>
<td>Other</td>
<td>Eyewash fountain in work area. Avoid the use of contact lenses.</td>
</tr>
<tr>
<td>Work/Hygienic Practices:</td>
<td>Maintain good housekeeping. Clean up spills immediately. Avoid eating, smoking or drinking in the work area. Wash hands thoroughly with soap and water after handling.</td>
</tr>
</tbody>
</table>

### 9. PHYSICAL AND CHEMICAL PROPERTIES

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

10. STABILITY AND REACTIVITY

General: Stable.
Conditions to Avoid: Freezing temperatures. High temperatures.
Incompatible Materials: Ignition sources
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.
Other: 2-methoxyethanol
LD50 oral - 2370 mg/kg (rat)
LD50 Dermal – 1280 mg/kg (rabbit) & 2000 mg/kg (rat)

12. ECOLOGICAL INFORMATION

Product not tested.
2-methoxyethanol
500 mg/l LC50 96h (freshwater fish)
10000 mg/l LC50 96h (freshwater fish)

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.
Shipping name: UN 1188, Ethylene Glycol Monomethyl Ether, 3, PG III
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).

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

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

WARNING: This product can expose you to chemicals including [2-methoxyethanol] which is known to the State of California to cause male reproductive harm. For more information go to www.P65Warnings.ca.gov

SARA 313 Listing - 40 CFR 372.65 : 2-methoxyethanol

All ingredients are listed on the EPA TSCA Inventory.

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

In China:
This product has been classified using the Chinese Occupational Limit for Hazardous Agents in the Workplace, GBZ2-2007.
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 in accordance with: Malaysian – OCCUPATIONAL SAFETY AND HEALTH (CLASSIFICATION, LABELING AND SAFETY DATA SHEET OF HAZARDOUS CHEMICALS) REGULATION OCTOBER 2013 – (CLASS).
16. OTHER INFORMATION

HMIS Hazard Rating:  
Health: 2  
Fire: 2  
Physical Hazards: 0

Revised Date: 12 MARCH 2018
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.