# SAFETY DATA SHEET

## 1. PRODUCT AND COMPANY IDENTIFICATION

<table>
<thead>
<tr>
<th>Product Identifier:</th>
<th>TACFLUX 020B</th>
</tr>
</thead>
<tbody>
<tr>
<td>SDS Number:</td>
<td>SDS-IN TF038</td>
</tr>
<tr>
<td>Revised Date:</td>
<td>22 JUNE 2018</td>
</tr>
</tbody>
</table>

**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

http://www.indium.com
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:
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
Sensitization, skin- Category 1B
Serious eye irritation- Category 2B
Acute toxicity, inhalation- Category 5
Sensitization, 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.
3. COMPOSITION / INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Components</th>
<th>% wt</th>
<th>CAS Registry #/EINECS#</th>
<th>PEL</th>
<th>TLV-TWA</th>
<th>TLV-STEL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>mg/m³</td>
<td>mg/m³</td>
<td>mg/m³</td>
</tr>
<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></td>
<td></td>
<td>(EU) 0.05</td>
<td>N.E. 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 N.E.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(EU) 16 (MEL-skin)</td>
<td>N.E. N.E.</td>
<td></td>
</tr>
<tr>
<td>MODIFIED CASTER OIL</td>
<td>3-8</td>
<td>61788-85-0</td>
<td>N.E.</td>
<td>N.E.</td>
<td>N.E.</td>
</tr>
</tbody>
</table>

N.E. = Not established government 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:** 46 C (115 F)  
**Method:** Not available

**Auto-ignition Temperature:** Not established.
<table>
<thead>
<tr>
<th><strong>Flammable Limits:</strong></th>
<th>Flammable - not established</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Extinguishing Media:</strong></td>
<td>Use extinguishers appropriate for the surrounding fire conditions.</td>
</tr>
<tr>
<td><strong>Special Fire Fighting Procedures:</strong></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:**

- **Eyes:** Chemical safety glasses with side shields or 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 elevate or when proper ventilation is not available.
- **Skin:** Compatible chemical resistant gloves. Protective outer garment, apron and sleeves as appropriate. Latex gloves not recommended. Use rubber gloves, nitrile or butyl rubber.
- **Other:** Eyewash fountain in work area. Avoid the use of contact lenses.
- **Work/Hygienic Practices:** 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.

### 9. PHYSICAL AND CHEMICAL PROPERTIES

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

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Page 4 of 6
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 international 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 (ethylene glycol monomethyl ether] which is known to the State of California to cause birth defects or other 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 Mexican regulations 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).

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.
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.

16. OTHER INFORMATION

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

Revised Date: 22 JUNE 2018
Prepared by: Nancy Swarts, Indium Corporation of America
Approved by: Nancy Swarts, Indium Corporation of America

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