SAFETY DATA SHEET

1. PRODUCT AND COMPANY IDENTIFICATION

Product Identifier: TACFLUX 020
SDS Number: SDS-IN TF020
Revised Date: 20 MARCH 2018


MANUFACTURER:

In America:
The Indium Corporation of America®.
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Information: (315) 853-4900
nswarts@indium.com

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

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Outside USA: +1 (703) 527-3887

In China:
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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>Carcinogen listed in</th>
<th>NTP</th>
<th>IARC</th>
<th>OSHA</th>
<th>Not Listed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eye</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
</tr>
<tr>
<td>Inhalation</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
</tr>
<tr>
<td>Skin</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
</tr>
<tr>
<td>Ingestion</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
</tr>
</tbody>
</table>

GHS

Signal Word: Warning

Hazard statement(s)

H317  May cause an allergic skin reaction
H334  May cause allergy or asthma symptoms or breathing difficulties if inhaled
H335  May cause respiratory irritation
EUH208 Contains rosin. May produce an allergic reaction

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 irritation-Category 2
Respiratory sensitization-Category 1B
Respiratory irritation- Category 3

POTENTIAL HEALTH EFFECTS:

Eye Contact:  May cause irritation to the eyes.

Ingestion:  May be harmful if swallowed.

Inhalation:  Heated vapor concentrations may be harmful if inhaled. Irritating to respiratory tract. Rosin may cause occupational asthma.

Skin Contact:  May cause skin irritation. Allergic reactions are possible, especially with repeated or 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.

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 #</th>
<th>PEL mg/m³</th>
<th>TLV-TWA 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 (US) N.E. N.E. N.E.</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>(EU) 0.05</td>
<td>N.E.</td>
<td>0.15 (sensitiser)</td>
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</tr>
<tr>
<td>POLYGLYCOL ETHER</td>
<td>25-35</td>
<td>9038-95-3</td>
<td>N.E.</td>
<td>N.E.</td>
<td>N.E.</td>
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<tr>
<td>PROPRIETARY</td>
<td>25-40</td>
<td>-</td>
<td>N.E.</td>
<td>N.E.</td>
<td>N.E.</td>
</tr>
</tbody>
</table>

N.E. = Not established  
EU = European Union Occupational 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:** >200 F  
**Method:** ASTM D93-02A

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

**Flammable Limits:** Limits not established, not flammable.

**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:** Wear a respirator and appropriate Personal Protective (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. 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. Avoid breathing vapors from heated material. Avoid contact with eyes, skin and clothing. Use with adequate ventilation.

**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:  
Good general ventilation should be sufficient to control airborne levels.

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

Respirator:  
A NIOSH approved or EU compliant CE 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. Protective outer garment, apron and sleeves as appropriate.

Other:  
Eyewash fountain in work area. Avoid the use of contact lenses in high fume areas.

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 immediately upon leaving the work area.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:  
Flux/Paste.

Boiling Point:  
Not applicable.

Odor:  
Mild characteristic odor.

Melting Point:  
Not applicable

Specific Gravity:  
Not applicable.

pH:  
Not applicable

Vapor Pressure:  
Not applicable.

Solubility in Water:  
Insoluble

Vapor Density:  
(air=1) Not applicable.

VOC:  
<487,000 ug/kg

10. STABILITY AND REACTIVITY

General:  
Stable.

Conditions to Avoid:  
Freezing temperatures. High temperatures.

Incompatible Materials:  
Not established

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:  
None known. Does not contain any carcinogens.

12. ECOLOGICAL INFORMATION

Product 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 regulations and requirements. Not regulated under US DOT (United States Department of Transportation).

Non hazardous for shipping by all international modes.

UN - none


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

All ingredients are listed on the EPA TSCA Inventory.

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 - irritant

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.
16. OTHER INFORMATION

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

Revised Date: 20 MARCH 2018

Prepared by: Nancy Swarts, Indium Corporation of America

Approved by: Nancy Swarts, Indium Corporation of America

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