SAFETY DATA SHEET

1. PRODUCT AND COMPANY IDENTIFICATION

Product Identifier: TACFLUX 007M
SDS Number: SDS-IN TF007M Revised Date: 10 SEPTEMBER 2018

Product Use: Industrial Use (mixture) - No clean flux for soldering applications

MANUFACTURER:

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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)

H317 May cause an allergic skin reaction
H320 Causes eye irritation
H34 May cause allergy or asthma symptoms or breathing difficulties if inhaled
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 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 sensitization- Category 1B
Eye Irritant -Category 2
Respiratory sensitization- Category 1B

POTENTIAL HEALTH EFFECTS:

**Eye Contact:** Irritating to the eyes and can cause serious irritation. Do not allow material to come in contact with the eyes.

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

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

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

**Chronic:** Not established.

Contains 1% of an ingredient that is suspected of causing cancer.

**NOTE:** The Indium Corporation does not recommend, manufacture, market or endorse any of it's 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>
</tr>
</thead>
<tbody>
<tr>
<td>ROSIN</td>
<td>56-64</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) 0.05</td>
<td>N.E.</td>
<td>0.15 (sensitiser)</td>
<td></td>
</tr>
<tr>
<td>POLYGLYCOL ETHER</td>
<td>31-35</td>
<td>9038-95-3</td>
<td>N.E.</td>
<td>N.E.</td>
<td>N.E.</td>
</tr>
<tr>
<td>ALCOHOLS</td>
<td>4-15</td>
<td>68603-15-6</td>
<td>N.E.</td>
<td>N.E.</td>
<td>N.E.</td>
</tr>
<tr>
<td>MODIFIED CASTER OIL</td>
<td>1-10</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  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: >200F

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 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. In the EU refer to the Special Waste Regulations.
7. HANDLING AND STORAGE

Handling: 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: Exhaust ventilation should be sufficient to control airborne levels. Use ventilation to keep exposures as low as possible.

Personal protection:

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

Respirator: An approved or compliant 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 – yellow creamy
Odor: Mild characteristic odor.
Melting Point: Not applicable
Flammability: N/A
Specific Gravity: 1 g/cc
Vapor Pressure: Not applicable.
Vapor Density: (air=1) Not applicable.
Auto-ignition temp: N/D
Viscosity: Not available
Boiling Point: Not applicable.
Odor Threshold: N/D
Flash Point: >200C
Explosion Limits: Not Determined
pH: 4 - 8
Solubility in Water: Insoluble
Evaporation Rate: N/D
Partition coefficient, n-octanol/water: N/D

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

<table>
<thead>
<tr>
<th>Carcinogenicity:</th>
<th>NTP: No</th>
</tr>
</thead>
<tbody>
<tr>
<td>OSHA: No</td>
<td></td>
</tr>
<tr>
<td>IARC: No</td>
<td></td>
</tr>
<tr>
<td>LD50:</td>
<td>Not established.</td>
</tr>
<tr>
<td>LC50:</td>
<td>Not established.</td>
</tr>
</tbody>
</table>

**Other:** Contains 1% of an ingredient that is suspected of causing cancer and suspected of causing genetic defects.

Germ Cell Mutagenicity: No data available
Carcinogenicity: No data available on product
Reproductive Toxicity: No data available on product
Specific Target Organ Toxicity – Single Exposure – No data available
Specific Target Organ Toxicity – Repeated Exposure; No data available

## 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. Product is generally classified as non-hazardous for waste disposal. Do not discharge to any drain or body of water. Empty containers should not be reused because they may retain residue. All containers should be disposed of in an environmentally safe manner and in accordance with applicable governmental 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 all shipping modes (ground, air, water).

IATA not regulated.

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.).

This product has been classified in accordance with the hazard criteria of the Canadian Controlled Products Regulation (CPR).

Canadian WHMIS: Class D 2 Materials causing other toxic effects (skin and eye 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.

This product has been classified in accordance with Mexican regulations 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.

SARA 313 Listing - 40 CFR 372.65 - None

RoHS = Restriction of Hazardous Substances. Product is complaint with the directive.

All ingredients are listed on the EPA TSCA Inventory.

16. OTHER INFORMATION

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

Revised Date: 10 SEPTEMBER 2018

Prepared by: Nancy Swarts, The Indium Corporation of America

Approved by: Nancy Swarts, The Indium Corporation of America

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