SAFETY DATA SHEET

1. PRODUCT AND COMPANY IDENTIFICATION

Product Identifier: TACFLUX 010
SDS Number: SDS-IN TF010  Revised Date: 16 NOVEMBER 2020
Product Use: Industrial Use (mixture) - Tacflux used in soldering applications.

MANUFACTURER:

In America:
The Indium Corporation of America®
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nswarts@indium.com

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Suchun Industrial Square
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Information: (86) 512-6283-4900

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CHEMTREC 24 hrs.
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Outside USA: +1 (703) 527-3887
In China: 86+ 4001-204937
2. HAZARDS IDENTIFICATION

PRIMARY ROUTES OF ENTRY: Carcinogen listed in
- Eye
- Inhalation
- Skin
- Ingestion
- NTP
- IARC
- OSHA
- Not Listed

GHS:

Classification: mixture
Skin irritant - Category 2
Serious eye irritation - Category 2A
Acute toxicity, oral (Category 4) Estimated to be ATE 1190
Acute toxicity, dermal ATE 17,857 - Category not applicable for product mixture.
Acute toxicity, inhalation (Category 5)*
*Information and classification of product has been changed due to re-evaluation and review of available updated and current literature and resources. There is limited and varied LC50 inhalation testing. Estimated ATE 28.
Short term (acute) aquatic hazard – Category 1 (H400)
Long term (chronic) aquatic hazard – Category 1 (H410)

Signal Word: Warning

Hazard statement(s)
H302 May be harmful if swallowed
H315 Causes skin irritation
H319 Causes serious eye irritation
H333 May be harmful if inhaled
H410 Very toxic to aquatic life with long lasting effects

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)

POTENTIAL HEALTH EFFECTS:

Eye Contact: Irritating to the eyes. Spray or liquid may cause damage to eyes.

Ingestion: May be harmful if swallowed.
**Inhalation:** May cause respiratory irritation or harm. May cause damage to central nervous system with prolonged or repeated exposure.

**Skin Contact:** Causes skin irritation.

**Chronic:** Not established.

**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-STEEL mg/m³</th>
</tr>
</thead>
<tbody>
<tr>
<td>Polyglycol Ether</td>
<td>65-80</td>
<td>9038-95-3</td>
<td>N.E.</td>
<td>N.E.</td>
<td>N.E.</td>
</tr>
<tr>
<td>Carboxylic Acid (Fatty Acids)</td>
<td>5-10</td>
<td>67762-36-1</td>
<td>N.E.</td>
<td>N.E.</td>
<td>N.E.</td>
</tr>
<tr>
<td>Alcohols</td>
<td>10-25</td>
<td>68603-15-6</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. Exposure can cause burns and therefore seek medical attention.

- **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. Material may cause burns to the skin, seek medical attention.

### 5. FIRE FIGHTING MEASURES

- **Flash Point:** >200°F
- **Method:** Not established.

- **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 Protective Clothing:** 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
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. Wear proper PPE.

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.

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. Protective outer garment, apron and sleeves as appropriate.

Other: Eyewash fountain in work area. Avoid the use of contact lenses in high fume/splash 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
Odor: Mild characteristic odor.
Specific Gravity: Not applicable.
Vapor Pressure: Not applicable.
Vapor Density: (air=1) Not applicable.
Boiling Point: Not applicable.
Melting Point: Not applicable.
P pH: 5-7
Solubility in Water: Insoluble

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 (National Toxicology Program)
                 OSHA: No (Occupational Safety and Health Administration)
                 IARC: No (International Agency for Research on Cancer)

LD50: Not established.
LC50: Not established.

Other: Product not tested.

Contains an ingredient: Drauze test, rabbit, eye: 100 ul Moderate
                      Draize test, rabbit, skin: 500 ul Severe
                      Oral, rat: LD50 = 2100 mg/kg  Skin, rabbit : LD50 = 5 ml/kg
Contains a substance that causes damage to central nervous system with repeated or prolonged exposure.

12. ECOLOGICAL INFORMATION

Product has not been tested. Some of the raw ingredients have not been individually tested. The following is information on ingredients that have testing or other information. Please note that this does not reflect the end product.

- 8% not readily biodegradable.
- 2% difficult to degrade biological. Fishtoxicity – Leuciscus idus LC50: > 10,000 mg/l/96h
- Daphniatoxicity EC/LC50 (48h): 0.6 mg/l
- Bacteriotoxicity EC/LC50 (0.5h): > 10,000 mg/l log POW: 45

Contains a severe marine pollutant.

Harmful to aquatic life. An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

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. An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Contains an ingredient classified as a severe marine pollutant.

14. TRANSPORT INFORMATION

Transport in accordance with applicable regulations and requirements.

- USDOT/IATA – not regulated

IMDG: (49 CFR 172.322)

UN3082, Environmentally hazardous substance, liquid, N.O.S., 9, PGIII (alkylphenol) (Severe Marine Pollutant)

Note: Based on the March 2016 third party corrosion testing, under the US Department Of Transportation regulatory testing requirements, this product does not meet the classification of Class 8 (Corrosive) under the US Department of Transportation requirements. This is classified as a containing a severe marine pollutant.

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 USEPA TSCA Inventory.

This product has been classified in accordance with the hazard criteria of the Canadian Controlled Products Regulation
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: Malaysian – OCCUPATIONAL SAFETY AND HEALTH (CLASSIFICATION, LABELING AND SAFETY DATA SHEET OF HAZARDOUS CHEMICALS) REGULATION OCTOBER 2013 – (CLASS).

This product has been classified in accordance with the Mexican regulations: NOM – 018-STPS-2015 and NOM-010-STPS-2014.

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 Exposure Limit for Hazardous Agents in the Workplace GBZ2-2007.

Philippines:
Product does not contain any substance that is listed under CPECs (Controlled Precursor and Essential Chemicals. Product does not contain any substances listed under the Dangerous Drugs Board (DDB).

16. OTHER INFORMATION

<table>
<thead>
<tr>
<th>HMIS Hazard Rating</th>
<th>Health: 2</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Fire: 1</td>
</tr>
<tr>
<td></td>
<td>Reactivity: 0</td>
</tr>
</tbody>
</table>

Revised Date: 16 NOVEMBER 2020
Prepared by: Nancy Swarts, The Indium Corporation of America
Approved by: Nancy Swarts, The Indium Corporation of America

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