SAFETY DATA SHEET

1. PRODUCT AND COMPANY IDENTIFICATION

Product Identifier: TACFLUX 026S
SDS Number: SDS-5776T
Revised Date: 13 SEPTEMBER 2019
Product Use: Industrial Use (mixture) - flux

MANUFACTURER:

In America:
The Indium Corporation of America®
34 Robinson Rd, Clinton NY  13323
Information: (315) 853-4900
nswarts@indium.com

In Europe:
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
China Emergency: +86 4008417580

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:  
- Eye  
- Inhalation  
- Skin  
- Ingestion  

Carcinogen listed in  
- NTP  
- IARC  
- OSHA  
- Not Listed

GHS:

*Warning*

**Signal Word:** Warning  
**Hazard statement(s):**
- H303 May be harmful if swallowed  
- H315 Causes skin irritation  
- H319 Causes serious eye irritation  
- H335 May cause respiratory irritation  
- 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 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 + P341 IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing  
- P305 + P351 IF IN EYES: Rinse continuously with water for several minutes (15 mins)

**Classification:**
- Acute toxicity, oral (Category 5)  
- Acute toxicity, dermal (Category 5)  
- Eye irritation (Category 2A)  
- Acute aquatic toxicity (Category 1)  
- Chronic aquatic toxicity (Category 1)

**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 irritation.

**Skin Contact:** Causes skin irritation or burns.

**NOTE:** The Indium Corporation does not recommend, manufacture, market or endorse any of its
products for human consumption.

3. COMPOSITION / INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Components</th>
<th>% wt</th>
<th>CAS Registry</th>
<th>PEL</th>
<th>TLV-TWA</th>
<th>TLV-STEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>POLYGLYCOL ETHER</td>
<td>80 - 85</td>
<td>9038-95-3</td>
<td>N.E</td>
<td>N.E</td>
<td>N.E.</td>
</tr>
<tr>
<td>CARBOXYLIC ACID</td>
<td>5 – 10</td>
<td>68937-68-8</td>
<td>N.E</td>
<td>N.E.</td>
<td>N.E.</td>
</tr>
<tr>
<td>AMIDES (FROM C2-9 CARBOXYLIC ACIDS AND POLYETHYLENIMINE)</td>
<td>5 - 10</td>
<td>68876-81-3</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.

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
Method: Not available
Auto-ignition Temperature: Not established.
Flammable Limits: Limits not established. Not flammable
Extinguishing Media: Use extinguishers appropriate for the surrounding fire conditions. Foam, dry chemical, water spray.

Special Fire Fighting Procedures: Firefighters must wear NIOSH approved self-contained breathing apparatus and full protective clothing. Evacuate area and fight fire from a safe distance. Containers can build up pressure if exposed to heat (fire) or flame.

6. ACCIDENTAL RELEASE MEASURES

Spill or Leak Procedures: Wear a respirator and appropriate personal protection (See Exposure Controls/Personal Protective Section). Size of spill shall determine respiratory protection from air purifying to self-contained breathing apparatus. Keep unnecessary and unprotected personnel from entering the spill area. 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. Do not allow material to enter any waterway. Contains a chemical that is harmful to aquatic life.
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 away from sources of heat and flame.

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. Store in well ventilated area.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Controls: Exhaust ventilation should be sufficient to control airborne levels and reduce exposure levels. Proper exhaust ventilation designed for hazardous chemicals is required having a face velocity of at least 100 feet per minute.

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

Respirator: An approved or compliant marked air-purifying respirator with an organic vapor chemical cartridge is recommended under certain circumstances where airborne concentrations are expected to be elevated. Confined spaces require additional protection. Use in well ventilated areas. Assess work area before performing work.

Skin: Compatible chemical resistant gloves. Protective outer garment, apron and sleeves as appropriate. Face shield for splash protection. Avoid handling without protection.

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: Clear - liquid
Odor: Slight characteristic odor.
Specific Gravity: 1 g/cc
Vapor Pressure: Not applicable.
Vapor Density: (air=1) Not applicable.
Boiling Point: Not available
Melting Point: Not applicable
pH: 5 -7
Solubility in Water: Not established

10. STABILITY AND REACTIVITY

General: Stable.
Conditions to Avoid: High temperatures, open flame.
Incompatible Materials: Strong oxidizing agents
Hazardous Decomposition: Carbon monoxide/carbon dioxide
## Combustion

**Hazardous Polymerization:** Will not occur.

## 11. TOXICOLOGICAL INFORMATION

<table>
<thead>
<tr>
<th>Carcinogenicity:</th>
<th>NTP: No</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>OSHA: No</td>
</tr>
<tr>
<td></td>
<td>IARC: No</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>LD50:</th>
<th>Not established.</th>
</tr>
</thead>
<tbody>
<tr>
<td>LC50:</td>
<td>Not established.</td>
</tr>
</tbody>
</table>

Product not tested.

## 12. ECOLOGICAL INFORMATION

Product not tested.

Harmful to aquatic life. Contains a chemical that is rated as a severe marine pollutant.

## 13. DISPOSAL CONSIDERATION

**Waste Disposal Method:** Dispose of in accordance with all applicable Federal, State and Local environmental regulations.

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

## 14. TRANSPORT INFORMATION

Transport in accordance with applicable regulations and requirements.

### FOR GROUND AND AIR SHIPPING:

Not classified as hazardous for motor vehicle, rail car or aircraft when shipped as non-bulk packaging.

**NOTE:** Review any exceptions for ground and air shipping based on the quantity, 5L or less liquid and 5kg or less solids being shipped. IATA- A197, 49 CFR 171.4

49 CFR 171.4: Single or combination packaging containing a net quantity per single inner packaging of 5L or less for liquids or having a net mass of 5 kg or less of solids are not subject to any other requirements provided the packaging meets the requirements in Section 173.24 and 173.24a (general requirements for proper packaging material)

### FOR OCEAN SHIPPING ONLY:

Product contains a chemical that is rated as a severe marine pollutant when transporting by ocean as based on the Annex II of the 1973 International Convention for Prevention of Pollution from Ships, as modified by Protocol of 1978 (MARPOL 73/78).
Classified only as hazardous for ocean shipping because it contains a marine pollutant. This product does not fall under any other hazards that would classify its shipping classification otherwise.

IMDG shipping – Marine pollutant
UN 3082, Environmentally Hazardous Substance Liquid, N.O.S., 9, PG III (Marine Pollutant) (polyglycol ether)

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 - polyglycol ether - 5-30%

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: no classification

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.

Product contains substances that are listed on the Philippines Inventory of Chemicals and Chemical Substances.

16. OTHER INFORMATION

<table>
<thead>
<tr>
<th>HMIS Hazard Rating</th>
<th>Health</th>
<th>Fire</th>
<th>Physical Hazard</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Revised Date:</td>
<td>13 SEPTEMBER 2019</td>
<td></td>
<td></td>
</tr>
<tr>
<td>-----------------</td>
<td>-------------------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prepared by:</td>
<td>Nancy Swarts, Indium Corporation of America</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Approved by:</td>
<td>Nancy Swarts, Indium Corporation of America</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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.