



**INDIUM CORPORATION OF AMERICA®\EUROPE®\ASIA-PACIFIC®  
INDIUM CORPORATION (SUZHOU)®**

**SAFETY DATA SHEET**

**1. PRODUCT AND COMPANY IDENTIFICATION**

**Product Identifier:** TACFLUX 010

**SDS Number:** SDS-IN TF010

**Revised Date:** 7 APRIL 2014

**Product Use:** Industrial Use (mixture) - Tacflux used in soldering applications.

**MANUFACTURER:**

**In America:**

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## 2. HAZARDS IDENTIFICATION

### PRIMARY ROUTES OF ENTRY:

Eye   
 Inhalation   
 Skin   
 Ingestion   
 NTP   
 IARC   
 OSHA   
Not Listed

### Carcinogen listed in

GHS:



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  
 H402            Harmful to aquatic life

Contains a substance that may cause burns to the skin

### 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 + 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:**    May cause burns to the eyes if not removed promptly. May cause eye irritation and damage.

**Ingestion:**        May cause irritation, burns and damage to the gastrointestinal tract.

**Inhalation:**        Heated vapor concentrations may cause irritation if inhaled. May cause burns to the respiratory tract.

**Skin Contact:**    May cause skin irritation or burns.

**Chronic:**            Not established. Effects may be delayed.

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

### 3. COMPOSITION / INFORMATION ON INGREDIENTS

Components	CAS Registry #
POLYGLYCOL ETHER	9038-95-3
CARBOXYLIC ACID (FATTY ACIDS)	67762-36-1
ALCOHOLS	68603-15-6

Symbol: Xi Risk Phrases: R36/37/38, R41, R52  
 N.E. = Not established

**PRODUCT DOES NOT CONTAIN ANY REPORTABLE EU SUBSTANCES OF VERY HIGH CONCERN (SVHC)**

### 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:** Not established. **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 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. 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

Components	% wt	CAS Registry #	PEL mg/m <sup>3</sup>	TLV-TWA mg/m <sup>3</sup>	TLV-STEL mg/m <sup>3</sup>
POLYGLYCOL ETHER	65-80	9038-95-3	N.E.	N.E.	N.E.
CARBOXYLIC ACID (FATTY ACIDS)	5-10	67762-36-1	N.E.	N.E.	N.E.
ALCOHOLS	10-25	68603-15-6	N.E.	N.E.	N.E.

Information on the formulation ingredients provided above has been changed. The actual ingredients of the product have not changed.

Symbol: Xi

N.E. = Not established

Risk Phrases: R36/37/38

RoHS Compliant

**PRODUCT DOES NOT CONTAIN ANY REPORTABLE EU SUBSTANCES OF VERY HIGH CONCERN (SVHC)**

**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.

Signs and symptoms of exposure:

Material may be destructive to tissue of the mucous membranes and upper respiratory tract. Cough, wheezing, shortness of breath, headache or nausea may occur.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance:</b>	Flux	<b>Boiling Point:</b>	Not applicable.
<b>Odor:</b>	Mild characteristic odor.	<b>Melting Point:</b>	Not applicable
<b>Specific Gravity:</b>	Not applicable.	<b>pH:</b>	Not applicable
<b>Vapor Pressure:</b>	Not applicable.	<b>Solubility in Water:</b>	Insoluble
<b>Vapor Density:</b>	(air=1) Not applicable.		

## 10. STABILITY AND REACTIVITY

<b>General:</b>	Stable.
<b>Conditions to Avoid:</b>	Freezing temperatures. High temperatures.
<b>Incompatible Materials:</b>	Not established
<b>Hazardous Decomposition / Combustion:</b>	Harmful organic fumes and toxic oxide fumes may form at elevated temperatures.
<b>Hazardous Polymerization:</b>	Will not occur.

## 11. TOXICOLOGICAL INFORMATION

<b>Carcinogenicity:</b>	<b>NTP:</b> No (National Toxicology Program)		
	<b>OSHA:</b> No (Occupational Safety and Health Administration)		
	<b>IARC:</b> No (International Agency for Research on Cancer)		
<b>LD50:</b>	Not established.	<b>LC50:</b>	Not established.
<b>Other:</b>	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			

## 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

Daphniatotoxicity EC/LC50 (48h):0.6 mg/l

Bacteriatotoxicity 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

<b>Waste Disposal Method:</b>	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.

Contains a substance that is classified as a severe marine pollutant

UN – none ground

Transport via ocean requires proper labeling/markings. Review requirements.



UN 3082, Environmentally Hazardous Substance, Liquid, N.O.S., 9, PG III (phenol)

**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: contains a substance classified as causing burns.

This product has been classified in accordance with the guidelines set by the Dept of Industrial Health of the Republic of Singapore.

SARA 313 Listing - 40 CFR 372.65 - None

All ingredients are listed on the USEPA TSCA Inventory.

EC Classification, Packaging and Labeling Requirements:

Symbol and Hazard Classification of Product

XI

**Risk Phrases:**

- R36/37/38 Irritating to eyes, respiratory system and skin
- R41 Risk of serious damage to eyes
- R52 Harmful to aquatic organisms

**Safety Phrases:**

- S20/21 When using do not eat, drink or smoke
- S23 Do not breathe fumes/gas/vapor/spray

S24/25	Avoid contact with skin and eyes
S36/37/39	Wear suitable protective clothing, gloves and eye/face protection
S7	Keep container tightly closed

## 16. OTHER INFORMATION

**HMIS Hazard Rating:**

<b>Health:</b>	2
<b>Fire:</b>	1
<b>Reactivity:</b>	0

**Revised Date:** 7 APRIL 2014

**Prepared by:** Nancy Swarts, The Indium Corporation of America

**Approved by:** Nancy Swarts, The Indium Corporation of America

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Note: This MSDS may be translated into an international language. If there is any misinterpretation or misunderstanding of any words or phrases that may occur within any translation the ENGLISH language shall always prevail.