



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

## SAFETY DATA SHEET

### SECTION 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

**1.1 Product Identifier:** TACFLUX 026

**MSDS Number:** SDS- 4068

**Revised Date:** 6 MARCH 2015

**1.2 Relevant identified uses of the substance or mixture and uses advised against**

**Product Use:** Industrial Use (Mixture) - Solder flux.

**1.3 Details of the supplier of the safety data sheet**

**MANUFACTURER/SUPPLIER/IMPORTER:**

**In America:**

The Indium Corporation of America  
1676 Lincoln Ave., Utica NY 13502  
Technical & Safety Information: (315) 853-4900  
Safety & SDS Information: [nswarts@indium.com](mailto:nswarts@indium.com)  
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**In Europe:**

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7 Newmarket Ct.  
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Information: (normal business hours) +44 [0] 1908 580400  
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**In China:**

Indium Corporation (Suzhou) Co., Ltd.  
No. 428 Xinglong Street  
Suzhou Industrial Park  
Suchun Industrial Square  
Unit No. 14-C  
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Information: (86) 512-6283-4900

**In Asia:**

Asia-Pacific Operations-Singapore  
29 Kian Teck Avenue  
Singapore 628908

Information: +65 6268-8678

**1.4 Emergency telephone number**

**FOR CHEMICAL EMERGENCY ONLY PHONE \*:**

**CHEMTREC 24 hrs.**

**USA: 1 (800) 424-9300**

**Outside USA: +1 (703) 527-3887**

**\* Used only for spill/leak/fire/exposure/accident**

**ALL OTHER INQUIRIES: TOLL FREE: +1-800-448-9240 Indium Corporation**

**SECTION 2. HAZARDS IDENTIFICATION**

**PRIMARY ROUTES OF ENTRY:**

Eye    Inhalation    Skin    Ingestion    NTP    IARC    OSHA    Not Listed

**Carcinogen listed in**

**2.1 Classification:**

Risk Phrases: R22, R36/38 (See Section 15)

**2.2 Label Elements**



Signal Word: Warning

Hazard statement(s)

- H302 Harmful if swallowed
- H314 Causes severe skin burns and eye damage
- H361 Suspected of damaging fertility or the unborn child
- H400 Very toxic to aquatic life

Precautionary statement(s)

- P233 Keep container tightly closed
- P261 Avoid breathing dust/fume/gas/mist/vapours/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
- 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)
- P310 Call POISON CENTER, or doctor/physician

Classification:

- Serious eye damage (Category 1)
- Reproductive toxicity (Category 2)
- Acute aquatic toxicity (Category 1)
- Skin corrosive (Category 1B)

**2.3 POTENTIAL HEALTH EFFECTS:**

- Eye Contact:** Irritating to the eyes and if not removed promptly, may result in serious eye damage. Do not allow material to come in contact with the eyes.
- Ingestion:** Harmful if swallowed. May cause irritation and damage to mouth, esophagus and the gastrointestinal tract.
- Inhalation:** Vapors or fumes from this material may be harmful if inhaled.
- Skin Contact:** May cause skin irritation or burns.
- Chronic:** Not established.

**SECTION 3. COMPOSITION / INFORMATION ON INGREDIENTS****3.2 Mixture:**

Components	% wt	CAS Registry #/ EINECS#
POLYGLYCOL ETHER	70-85	9038-95-3
CARBOXYLIC ACID	1-10	70248-25-8
ALCOHOLS	10-20	68603-15-6

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**SECTION 4. FIRST AID MEASURES****4.1 Description of 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.

**4.2 Most important symptoms and effect, both acute and delayed:**

Skin contact may cause irritation. Long term contact may cause dermatitis.  
 Inhalation of decomposed rosin fume may cause irritation or occupational asthma.  
 Eye exposure may cause serious damage.

**4.3 Indication of any immediate medical attention and special treatment needed:**

No specific special treatment information is available on this mixture. Review data provided in this document to understand the hazards when working with the product. No other information is available at this time.

Seek medical attention if eye irritation continues after flushing .

If respiratory discomfort is evident seek medical advice.

**SECTION 5. FIRE FIGHTING MEASURES**

**5.1 Extinguishing Media:** Use extinguishers appropriate for the surrounding fire conditions. Water, CO2, foam media.

**5.2 Special hazards arising from the substance or mixture:**

May produce toxic fumes of carbon monoxide if burning .

**5.3 Advice for Firefighters**

Firefighters must wear approved self-contained breathing apparatus and full protective clothing.

Material product is not flammable. No other information is available.

**SECTION 6. ACCIDENTAL RELEASE MEASURES****6.1 Personal precautions, protective equipment and emergency procedures:****For non-emergency personnel:**

Keep away from the spill. Remove sources of ignition. Keep exhaust ventilation system running. In the event of a fire evacuate area.

**For emergency responders:**

Wear safety glasses, gloves when cleaning up any spill. Other equipment may be necessary based on the immediate area and other chemicals unrelated to the product that may be in use. Adequate ventilation should be available. Keep unnecessary personnel away from area during clean up. If on floor wear foot protection to avoid any direct contamination to shoes and boots. Material is sticky and gluey and may cause a slip/fall hazard for clean-up crew.

**6.2 Environmental Precautions:** Dispose contaminated cloth rags or paper towels following all applicable governmental regulations. Material is non - hazardous. May not have any reclaim value.

**6.3 Methods and material for containment and cleaning up:**

Spill or leak procedures: Using a spatula, scoop up flux and place into a plastic pail or drum and tightly cap.

**6.4 Reference to other sections:** See Section 8 for exposure levels.

**SECTION 7. HANDLING AND STORAGE****7.1 Precautions  
For Safe Handling:**

Keep containers tightly closed when not in use. Use care to avoid spills. Use only with production equipment specifically designed for use with flux. Wear appropriate personal protective equipment when working or handling solder paste. Always thoroughly wash your hands after handling this product. DO NOT touch or rub eyes until hands are washed. Do not eat, drink or smoke when handling this product. Utilize exhaust ventilation especially during heating product. General odor and chemical content require exhaust whenever the container is open.

**7.2 Conditions for Safe Storage, including any incompatibilities:**

**Storage Precautions:** Store product in tightly capped original containers in a cool, dry area. Refer to product label and product data sheet for specific storage temperature requirements. Rotate stock to ensure use before expiration date.

**7.3 Specific End Use(s):** Soldering applications

**SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION****8.1 Control Parameters:**

			<u>TWA</u>	<u>STEL</u>
		<u>CAS#/EINECS#</u>	mg/m3	mg/m3
POLYGLYCOL ETHER	70-85	9038-95-3	N.E.	N.E.
CARBOXYLIC ACID	1-10	70248-25-8	N.E.	N.E.
ALCOHOLS	10-20	68603-15-6	N.E.	N.E.

N.E. = Not established

TWA= TIME WEIGHTED AVERAGE

STEL = SHORT TERM EXPOSURE LEVEL

**8.2 Exposure Controls:**

**Engineering Controls:** Use only with production equipment with adequate exhaust ventilation and other safety features specifically designed for chemical use. Use exhaust ventilation when using the product especially while heating product. Air emission control equipment may be necessary based on the local governmental requirements for contaminants entering the atmosphere. Contains organic related compounds.

**Personal protection:**

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

**Respiratory:** An 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. Recommend a nitril disposable or other chemical glove.

**Other:** Lab coat, eye-wash fountain in work area. Avoid the use of contact lenses in high fume areas.

**Work/Hygienic Practices:** Maintain good housekeeping. Clean up spills immediately. Do not allow rags or paper towels to accumulate in the work area. Good personal hygiene is essential. Avoid eating, smoking or drinking in the work area. Wash hands thoroughly with soap and water immediately upon leaving the work area.

## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties:

<b>Appearance:</b>	Yellow flux	<b>Boiling Point/Range:</b>	Not determined
<b>Odor:</b>	Mild characteristic odor.	<b>Melting Point/Freezing Point:</b>	Not applicable
<b>Odor Threshold:</b>	Not established	<b>Evaporation Rate:</b>	Not applicable
<b>Specific Gravity:</b>	Not applicable.	<b>pH:</b>	Not applicable
<b>Vapour Pressure:</b>	Not applicable.	<b>Solubility in Water:</b>	water soluble
<b>Vapour Density:</b>	(air=1) Not applicable.	<b>Partition coefficient:</b>	Not established
<b>Relative Density:</b>	Not established	<b>Flammability:</b>	Not applicable
<b>Flash Point:</b>	Not applicable	<b>Method:</b>	Not applicable
<b>Auto-ignition Temperature:</b>	Not applicable	<b>Flammable Limits:</b>	Limits not established
<b>UEL/LEL Limits:</b>	Not applicable	<b>Decomposition Temp:</b>	Not applicable
<b>Viscosity:</b>	Not established	<b>Explosive properties:</b>	Not applicable
<b>Oxidizing Properties:</b>	Not established		

**9.2 Other Information:** Above data for the whole mixture.

## SECTION 10. STABILITY AND REACTIVITY

<b>10.1 <u>Reactivity:</u></b>	Stable.
<b>10.2 <u>Chemical Stability:</u></b>	Stable
<b>10.3 <u>Possibility of Hazardous Reactions:</u></b>	Not established
<b>10.4 <u>Conditions To Avoid:</u></b>	None known
<b>10.5 <u>Incompatible Materials:</u></b>	Avoid contact with acids, bases or oxidizing agents.
<b>10.6 <u>Hazardous Decomposition / Combustion:</u></b>	Harmful organic fumes and toxic oxide fumes may form at elevated temperatures.
<b>10.7 <u>Hazardous Polymerization:</u></b>	Will not occur.

## SECTION 11. TOXICOLOGICAL INFORMATION

### 11.1 Information on toxicological effects:

<b><u>Acute toxicity:</u></b>	Not established	<b><u>Mutagenicity:</u></b>	Not established
<b><u>Irritation:</u></b>	Not established	<b><u>Toxicity for Reproduction:</u></b>	Not Established
<b><u>Corrosivity:</u></b>	Not applicable	<b><u>Absence of specific data:</u></b>	None available (not tested)
<b><u>Sensitization:</u></b>	Not available		
<b><u>Repeated dose toxicity:</u></b>	Not established		
<b><u>Carcinogenicity:</u></b>	Not established		

**Likely Routes of Entry:** eyes (damage) /skin (irritation) /inhalation (irritation) ingestion (harmful)

**Interactive effects:** None known

**Symptoms related to the physical, chemical and toxicological characteristics:**

May cause irritation or burns by skin contact.

**Delayed and immediate effects as well as chronic effects from short and long-term exposure:**

No data is available on the mixture. Ingredient harmful by ingestion.

**Mixture verses substance information:** None known

**Other Information:**

**Carcinogenicity:** NTP: No (National Toxicity Program)  
**Listing** OSHA: No (US Occupational Safety & Health Administration)  
 IARC: No (UN International Agency for Research on Cancer)

Contains an ingredient that may be harmful to the unborn child or a risk of impaired fertility

## **SECTION 12. ECOLOGICAL INFORMATION**

This section is subject to future development. Product mixtures not tested.

**12.1 Toxicity:** No information available

**12.2 Persistence and degradability:** No information available

**12.3 Bioaccumulative potential:** No information available

**12.4 Mobility in soil:** No information available

**12.5 Results of PBT and vPvB assessments:** No data is available

**12.6 Other adverse effects:** No information is available for mixture. Avoid release to environment.

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

Contains an ingredient that is very toxic to aquatic life.

## **SECTION 13. DISPOSAL CONSIDERATION**

**13.1 Waste treatment method:**

Dispose of in accordance with environmental regulations. Containerize material and classify according to applicable regulations. No pre-treatment on site is recommended. Do not dispose of down any drain or waterway. Utilize the same personal protective equipment as the user when handling for disposal.

## **SECTION 14. TRANSPORT INFORMATION**

Transport in accordance with applicable regulations and requirements.

**14.1 UN Number:** None

**14.2 UN proper shipping name:** 3145

**14.3 Transport hazard class(s):** 8

**14.4 Packing group:** III

**14.5 Environmental hazards:** None

**14.6 Special precautions for user:** None

**14.7 Transport in bulk:** Not applicable

**SHIPPING NAME/DESCRIPTION:** UN3145, ALKYLPHENOLS, LIQUID, N.O.S., 8, PG III



## SECTION 15. REGULATORY INFORMATION

### 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture:

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.).

All ingredients are listed on the USEPA TSCA Inventory.

All ingredients are listed on EINECS. Note Rosin was recently listed under the No Longer Polymer List, Notification of New Chemical Substances in Accordance with Directive 67/548/EEC.

Safety data sheet was developed using EC 1907/2006 amended as of 20 May 2010 EU No 453/2010 and information as stated under regulation EC No 1272/2008 CLP Regulation.

GHS = Global Harmonized System

CLP= Classification, labeling and packaging

Product does not contain any substances ozone depleting substances and therefore not subject to EC 2037/2000.

**15.2 Chemical safety assessment:** None performed for mixture.

## SECTION 16. OTHER INFORMATION

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

### **Risk Phrases:**

- R22 Harmful if swallowed
- R36/38 Irritating to eyes and skin
- R50 Very toxic to aquatic organisms ( contains an ingredient)
- R62 Contains an ingredient that is possible risk of impaired fertility
- R63 Contains an ingredient that is possible risk of harm to the unborn child

### **Safety Phrases:**

- S20/21 When using do not eat, drink or smoke
- S23 Do not breathe fumes
- S24/25 Avoid contact with skin and eyes
- S27 Take off immediately all contaminated clothing



S28 After contact with skin wash immediately with plenty of soap and water  
S36/37/39 Wear suitable protective clothing, gloves and eye/face protection  
S7 Keep container tightly closed

**Revised Date:** 6 MARCH 2015

**Prepared by:** Nancy Swarts, The Indium Corporation of America, nswarts@indium.com

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

Changes provided on this SDS were based on the requirements of EU No. 453/2010 of May 20, 2010 regarding amendments to EC No. 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH).

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