



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

## SAFETY DATA SHEET

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

1.1 **Product Identifier:**

TACFLUX 006

**SDS Number:** SDS- IN TF006

**Revised Date:** 11 NOVEMBER 2016

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

**Product Use:** Industrial Use (Mixture) - Soldering 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)  
Corporation web page: <http://www.indium.com>

**In Europe:**

Indium Corporation of Europe  
7 Newmarket Ct.  
Kingston, Milton Keynes, UK, MK 10 OAG  
Information: (normal business hours) +44 [0] 1908 580400  
EU Contact: [aday@indium.com](mailto:aday@indium.com)

**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

**In Asia:**

Indium Corporation of America  
 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 of the mixture:****2.2 Label elements**

Labeling according to Regulation (EC) No. 1272/2008



Signal Word: Warning

**Hazard statement(s)**

H317            May cause an allergic skin reaction  
 H319            Causes serious eye irritation  
 H334            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 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)

Classification:

Eye irritation- Category 2A

### 2.3 OTHER HAZARDS:

#### 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

## SECTION 3. COMPOSITION / INFORMATION ON INGREDIENTS

### 3.2 Mixture:

Components	CAS Registry #/ EINECS#
ROSIN	65997-05-9
POLYGLYCOL ETHER	9038-95-3
ADDITIVES	-

<http://www.indium.com>

## 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. Rosin may cause dermatitis. Eye exposure may cause serious irritation.

### 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** Fire fighters 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 maybe 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. No reclaim value known.

**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** 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 flux. 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.

**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
ROSIN	20-40	65997-05-9	0.05	0.15
POLYGLYCOL ETHER	25-40	9038-95-3	N.E.	N.E.
ADDITIVES	35-40	-	N.E.	N.E.

N.E. = Not established TWA= time weighted average STEL= short term exposure limit

**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. No hazardous air pollutant.

**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 nitrile 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>	Clear-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 available.	<b>pH:</b>	Not applicable
<b>Vapour Pressure:</b>	Not applicable.	<b>Solubility in Water:</b>	Insoluble
<b>Vapour Density:</b>	(air=1) Not applicable.	<b>Partition coefficient:</b>	Not established
<b>Relative Density:</b>	Not established	<b>Flash Point:</b>	Not established
<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

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

**SECTION 11. TOXICOLOGICAL INFORMATION****11.1 Information on toxicological effects:**

<b>Acute toxicity:</b>	Not established	<b>Mutagenicity:</b>	Not established
<b>Irritation:</b>	Not established	<b>Toxicity for Reproduction:</b>	Not Established
<b>Corrosivity:</b>	Not applicable	<b>Absence of specific data:</b>	None available (not tested)
<b>Sensitization:</b>	Not available		
<b>Repeated dose toxicity:</b>	Not established		
<b>Carcinogenicity:</b>	Not established.		
<b>Likely Routes of Entry:</b>	eyes (irritation) /skin (irritation) /inhalation (irritation) ingestion (may be harmful)		
<b>Interactive effects:</b>	None known		

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

May cause irritation by skin and inhalation.

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

None known

**Mixture verses substance information:** None known

**Other Information:**

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

**SECTION 12. ECOLOGICAL INFORMATION**

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.

**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. Non- hazardous flux.

**RoHS (Restriction of Hazardous Substances):** Compliant with RoHS.

**SECTION 14. TRANSPORT INFORMATION**

Transport in accordance with applicable regulations and requirements.

Flux is non-hazardous.

Not regulated/non-hazardous under US DOT (United States Department of Transportation).

Not regulated/non-hazardous under international shipping requirements.

- |             |   |                |
|-------------|---|----------------|
| <b>14.1</b> | <b><u>UN Number</u></b>                     | Not applicable |
| <b>14.2</b> | <b><u>UN proper shipping name:</u></b>      | Not applicable |
| <b>14.3</b> | <b><u>Transport hazard class(s):</u></b>    | Not applicable |
| <b>14.4</b> | <b><u>Packing group:</u></b>                | Not applicable |
| <b>14.5</b> | <b><u>Environmental hazards:</u></b>        | Not applicable |
| <b>14.6</b> | <b><u>Special precautions for user:</u></b> | Not applicable |
| <b>14.7</b> | <b><u>Transport in bulk:</u></b>            | Not applicable |

**SECTION 15. REGULATORY INFORMATION**

This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006.

**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.

Product complies with RoHS 2- (2011/65/EU)

**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.

**Revised Date:** 11 NOVEMBER 2016

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

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



Abbreviations and acronyms:

CAS No. –Chemicals Abstracts Service Number

CLP- Classification Labeling and Packaging Regulation

GHS - Global Harmonized System

EC- European Commission

EC No. – European Chemical Number: EINECS/ELINCS/ NLP

EINECS – European Inventory of Existing Commercial Chemical Substances

EU- European Union

NTP- National Toxicity Program

OSHA - US Occupational Safety & Health Administration

IARC - UN International Agency for Research on Cancer

UN – United Nations

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).

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.