



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

## SAFETY DATA SHEET

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

**Product Identifier:** POPFLUX 30B

**MSDS Number:** MSDS- IN TF038

**Revised Date:** 4 FEBRUARY 2011

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

**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**

**MANUFACTURER/SUPPLIER/IMPORTER:**

**In America:**

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Technical & Safety Information: (315) 853-4900  
Safety & SDS Information: [nswarts@indium.com](mailto:nswarts@indium.com)  
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**In Asia:**

Asia-Pacific Operations-Singapore  
 29 Kian Teck Avenue  
 Singapore 628908  
 Information: +65 6268-8678

**2. HAZARDS IDENTIFICATION****PRIMARY ROUTES OF ENTRY:**

Eye    Inhalation    Skin    Ingestion    NTP    IARC    OSHA    Not Listed

**Carcinogen listed in****Classification:**

Risk Phrases: R20/21/22, R36/37/38, R42/43, R10, R60, R61



Signal Word: Danger

Hazard Statements:

H317	May cause an allergic skin reaction
H226	Flammable liquid and vapor
H302	Harmful if swallowed
H332	Harmful if inhaled
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled
H360FD	May damage fertility. May damage the unborn child
EUH208	Contains rosin. May produce an allergic reaction

Precautionary statement(s)

P210	Keep away from heat/sparks/open flames/hot surfaces. – No smoking
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

Flammable Category 3  
 Reproductive Toxicity Category 1B (2-methoxyethanol)

**Label:**

*Specific labeling information for product.*



Danger

**Hazard statement(s)**

May cause an allergic skin reaction

Flammable liquid and vapor

Harmful if swallowed

Harmful if inhaled

May cause allergy or asthma symptoms or breathing difficulties if inhaled

May damage fertility. May damage the unborn child

Contains rosin. May produce an allergic reaction

**Precautionary statement(s)**

Keep away from heat/sparks/open flames/hot surfaces. – No smoking

Keep container tightly closed

Avoid breathing dust/fume/gas/mist/vapours/spray

Do not eat, drink or smoke when using this product

Avoid release to the environment

Wear protective gloves/protective clothing/eye protection/face protection

Take off contaminated clothing and wash before reuse

IF ON SKIN: Wash with plenty of soap and water

IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing

IF IN EYES: Rinse continuously with water for several minutes

**OTHER HAZARDS:**

**POTENTIAL HEALTH EFFECTS:**

- Eye Contact:** Irritating to the eyes and if not removed promptly, may result in serious eye injury. 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 cause local irritation to the respiratory system. May be harmful if inhaled. Rosin may cause occupational asthma.
- Skin Contact:** May cause skin irritation or dermatitis. Rosin may cause skin sensitization.

**Chronic:** Not established. Contains a chemical that may impair fertility or cause harm to the unborn child. Target organs (2-methoxyethanol): CNS/liver/lungs/kidneys/immune system/bone marrow.

### 3. COMPOSITION / INFORMATION ON INGREDIENTS

#### 3.2 Mixture:

Components	% wt	CAS Registry #/ EINECS#
ROSIN	45-55	65997-05-9
2-METHOXYETHANOL	30-45	109-86-4
PROPRIETARY (confidential)	10-15	-

THIS PRODUCT CONTAINS A EU REPORTABLE SUBSTANCES OF VERY HIGH CONCERN (SVHC). ( 2-METHOXYETHANOL)

<http://www.pbfree.com>

<http://www.indium.com>

### 4. FIRST AID MEASURES

#### Description of first aid measures:

- Eye Contact:** Hold eyelids apart and flush eyes with plenty of 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.

#### 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 irritation.

#### 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.

## 5. FIRE FIGHTING MEASURES

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

**Special hazards arising from the substance or mixture:**  
May produce toxic fumes of carbon monoxide if burning .

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

No other information is available.

## 6. ACCIDENTAL RELEASE MEASURES

### **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. Use anti - static tools.

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

### **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.

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

## 7. HANDLING AND STORAGE

**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 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. General odor and chemical content require exhaust whenever the container is open.

### **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. Keep away from sources of ignition.

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

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

### Control Parameters:

		<u>CAS#/EINECS#</u>	<u>TWA</u> mg/m3	<u>STEL</u> mg/m3
<b>ROSIN</b>	30-40	65997-05-9 (EU)	0.05	0.15 (sensitiser)
<b>2-METHOXYETHANOL</b>	30-45	109-86-4/203-713-7 (UK)	16 (MEL-skin).	N.E.
		France	16	N.E.
		Belgium	16	N.E.
		Spain	16	N.E.
		Portugal	0.1ppm	N.E.
		Finland	1.6	N.E.
		Denmark	16	N.E.
		Austria	15	60
		Switzerland	15	120
		Poland	15	60
		Norway	16	N.E.
		Ireland	16 skin	N.E.
<b>PROPRIETARY (CONFIDENTIAL)</b>	10-15	-	N.E.	N.E.

N.E. = Not established

### 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:**

<b>Eyes:</b>	Chemical safety glasses/goggles. Face shield for splash hazard.
<b>Respiratory:</b>	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.
<b>Skin:</b>	Compatible chemical resistant gloves. Recommend a nitril disposable or other chemical glove.
<b>Other:</b>	Lab coat, eye-wash fountain in work area. Avoid the use of contact lenses in high fume areas.
<b>Work/Hygienic Practices:</b>	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.

**9. PHYSICAL AND CHEMICAL PROPERTIES****Information on basic physical and chemical properties:**

<b>Appearance:</b>	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>	Insoluble
<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>	46C/115F	<b>Method:</b>	Not applicable
<b>Auto-ignition Temperature:</b>	Not available	<b>Flammable Limits:</b>	Limits not established
<b>UEL/LEL Limits:</b>	Not available	<b>Decomposition Temp:</b>	Not applicable
<b>Viscosity:</b>	Not established	<b>Explosive properties:</b>	Not applicable
<b>Oxidizing Properties:</b>	Not established		

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

**10. STABILITY AND REACTIVITY**

<b><u>Reactivity:</u></b>	Stable.
<b><u>Chemical Stability:</u></b>	Stable
<b><u>Possibility of Hazardous Reactions:</u></b>	Not established
<b><u>Conditions To Avoid:</u></b>	Freezing temperatures and high temperatures.
<b><u>Incompatible Materials:</u></b>	Avoid contact with acids, bases or oxidizing agents. Ignition sources.
<b><u>Hazardous Decomposition / Combustion:</u></b>	Harmful organic fumes and toxic oxide fumes may form at elevated temperatures.
<b><u>Hazardous Polymerization:</u></b>	Will not occur.

## 11. TOXICOLOGICAL INFORMATION

### Information on toxicological effects:

**Acute toxicity:** Not established

**Irritation:** Not established

**Corrosivity:** Not applicable

**Sensitization:** Not available

**Repeated dose toxicity:** Not established

**Carcinogenicity:** Not established

**Likely Routes of Entry:** eyes (irritation) /skin (irritation or sensitization) /inhalation (irritation/sensitization) ingestion (may be harmful)

**Interactive effects:** None known

**Mutagenicity:** Not established

**Toxicity for Reproduction:** Not Established

**Absence of specific data:** None available (not tested)

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

May cause irritation or sensitization by skin and inhalation.

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

Exposure to rosin fume has been known to cause occupational asthma. May cause harm by inhalation and ingestion. Teratogenic effects have occurred in experimental animals (2-methoxyethanol).

**Mixture verses substance information:** None known

### Other Information:

**Carcinogenicity:** NTP: No (National Toxicity Program)

**Listing** OSHA: No (US Occupational Safety & Health Administration)

IARC: No (U.N. International Agency for Research on Cancer)

## 12. ECOLOGICAL INFORMATION

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

**Toxicity:** No information available

**Persistence and degradability:** No information available

**Bioaccumulative potential:** No information available

**Mobility in soil:** No information available

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

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

## 13. DISPOSAL CONSIDERATION

### 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.

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

#### 14. TRANSPORT INFORMATION

Transport in accordance with applicable regulations and requirements.

Flux is hazardous.

**UN proper shipping name:** UN 1188

**Transport hazard class(s):** 3

**Packing group:** III

**Environmental hazards:** None

**Special precautions for user:** None

**Transport in bulk:** Not applicable



**Shipping Name:** UN 1188, Ethylene Glycol Monomethyl Ether, PG III

#### 15. REGULATORY INFORMATION

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

The information in this Material 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.

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

#### 16. OTHER INFORMATION

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



**Xn, F, T (2-methoxyethanol)**

**Risk Phrases:**

- R42/43 May cause sensitization by inhalation or by skin contact  
R36/37/38 Irritating to eyes, respiratory system and skin  
R22 Harmful by inhalation, in contact with skin and if swallowed  
R10 Flammable  
R60 May impair fertility (contains a chemical).  
R61 May cause harm to the unborn child (contains a chemical)

**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:** 4 FEBRUARY 2011

**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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