



## INDIUM CORPORATION OF AMERICA®\EUROPE®\ASIA-PACIFIC®

### MATERIAL SAFETY DATA SHEET

#### 1. PRODUCT AND COMPANY IDENTIFICATION

**Product Identifier:** PK-001 Epoxy Flux

**MSDS Number:** MSDS-IN EF001

**Revised Date:** 10 September 2002

**Product Use:** Epoxy Flux

#### MANUFACTURER:

##### In America:

The Indium Corporation of America  
1676 Lincoln Ave., Utica NY 13502  
Information: (315) 853-4900

##### EMERGENCY PHONE:

**CHEMTREC 24 hrs.**  
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Asia-Pacific Operations-Singapore  
29 Kian Teck Avenue  
Singapore 628908  
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#### 2. COMPOSITION / INFORMATION ON INGREDIENTS

Components	% wt	CAS Registry #	OSHA PEL mg/m <sup>3</sup>	TLV-TWA mg/m <sup>3</sup>	TLV-STEL mg/m <sup>3</sup>
EPOXY RESIN	45-70	41638-13-5	N.E.	N.E.	N.E.
ANHYDRIDE	30-45	935-79-5	N.E.	N.E.	N.E.
PROPRIETARY	10		N.E.	N.E.	N.E.

Symbol: X<sub>n</sub>

Risk Phrases: R20/21/22, R36/37/38, R40

N.E. = Not established

### 3. HAZARDS IDENTIFICATION

#### PRIMARY ROUTES OF ENTRY:

✓ Eye

✓ Inhalation

✓ Skin

✓ Ingestion

#### Carcinogen listed in

NTP

IARC

OSHA

✓ Not Listed

#### POTENTIAL HEALTH EFFECTS:

**Eye Contact:** Excessive redness and swelling of the conjunctiva may occur. Causes irritation, experienced as stinging and discomfort or pain.

**Ingestion:** Ingestion may irritate the digestive tract.

**Inhalation:** May cause irritation if heated, otherwise harmful health effects are not expected at ambient temperatures.

**Skin Contact:** Brief contact may cause slight irritation with itching and local redness.

**Chronic:** Prolonged or repeated overexposure to mist or vapor generated at high temperatures may result in the inhalation of harmful amounts of material.

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

### 4. 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.

### 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, such as water spray all purpose-type foam or dry chemical.

**Special Fire Fighting Procedures:** Firefighters must wear NIOSH approved or equivalent 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.

**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

**Engineering Controls:** Good general ventilation should be sufficient to control airborne levels.

### Personal protection:

**Eyes:** Chemical safety glasses/goggles.

**Respirator:** A NIOSH 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. Protective outer garment, apron. Sleeves as appropriate.

**Other:** Eyewash fountain in work area. Avoid the use of contact lenses in high fume 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

<b>Appearance:</b>	Pinkish/Gray	<b>Boiling Point:</b>	Not applicable.
<b>Odor:</b>	Slight 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>	Not established
<b>Vapor Density:</b>	(air=1) Not applicable.		

## 10. STABILITY AND REACTIVITY

**General:** Stable.

**Conditions to Avoid:** Freezing temperatures. High temperatures.

**Incompatible Materials:** Not established

**Hazardous Decomposition / Combustion:** Carbon monoxide, carbon dioxide

**Hazardous Polymerization:** Will not occur.



## Symbol and Hazard Classification of Product

 $X_n$ **Risk Phrases:**

- R20/21/22 Harmful by inhalation, in contact with skin and if swallowed  
R36/37/38 Irritating to eyes, respiratory system and skin  
R42 May cause sensitization by inhalation

**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:**      **Health:**            2  
   **Fire:**                    1  
   **Reactivity:**        0

**Revised Date:**            10 September 2002

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

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

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