



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

SAFETY DATA SHEET

1. PRODUCT AND COMPANY IDENTIFICATION

Product Identifier: PK005 EPOXY FLUX

SDS Number: SDS- 4404

Revised Date: 5 MARCH 2015

Product Use: Industrial Use - Epoxy Flux

MANUFACTURER:

In America:

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

EMERGENCY PHONE:

CHEMTREC 24 hrs.
USA: 1 (800) 424-9300
Outside USA: +1 (703) 527-3887

In Europe:

Indium Corporation of Europe
7 Newmarket Ct.
Kingston, Milton Keynes, UK, MK 10 OAG
Information: +44 [0] 1908 580400

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

2. HAZARDS IDENTIFICATION

PRIMARY ROUTES OF ENTRY:

*Eye *Inhalation *Skin *Ingestion NTP **Carcinogen listed in**
IARC OSHA *Not Listed

GHS



Signal Word: Warning

Hazard statement(s)

H303 May be harmful if swallowed
H315 Causes skin irritation
H317 May cause an allergic skin reaction
H318 Causes serious eye damage
H335 May cause respiratory irritation

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)

Classification:

Acute toxicity, oral- Category 5
Skin irritation – Category 2
Skin sensitization- Category 1B
Serious eye damage- Category
Respiratory irritation-Category 3

POTENTIAL HEALTH EFFECTS:

Eye Contact: May cause eye irritation. Contains ingredients that may cause severe eye damage.

Ingestion: Ingestion may irritate the digestive tract. May be harmful.

Inhalation: May cause irritation or respiratory sensitization.

Skin Contact: Brief contact may cause irritation with itching and local redness. May cause skin sensitization.

Chronic: Prolonged or repeated overexposure to mist or vapor generated at high temperatures may result in the inhalation of harmful amounts of material. Prolonged exposure to skin may cause allergic reaction/dermatitis. Heating of epoxy may cause irritation or sensitization. Target organs:

kidney/liver/spleen/thymus/lymphatic system/bone marrow)

WARNING: This product contains a chemical known to the State of California to cause developmental toxicity. (Applicable in California). (1-methyl-2-pyrrolidinone)

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

3. COMPOSITION / INFORMATION ON INGREDIENTS

Components	% wt	CAS Registry #	PEL mg/m ³	TLV-TWA mg/m ³	TLV-STEL mg/m ³
EPOXY RESIN	30-35	2386-87-0	N.E.	N.E.	N.E.
HARDENER	17-20	19438-60-9	N.E.	N.E.	N.E.
PROPRIETARY ACTIVATORS	25-34	-	N.E.	N.E.	N.E.
1-METHYL-2 -PYRROLIDINONE	17-20	872-50-4	N.E.	10ppm.	N.E.

Symbol: X_i
N.E. = Not established

Risk Phrases: R36/37/38, R41, R43

**PRODUCT CONTAINS EU REACH SUBSTANCE OF VERY HIGH CONCERN (SVHC)
(1-METHYL-2-PYRROLIDINONE)**

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.
- 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:** >95C **Method:** Not available
- Auto-ignition Temperature:** Not established.
- Flammable Limits:** Limits not established
- 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.

Emits toxic fumes under fire conditions.

6. ACCIDENTAL RELEASE MEASURES

Spill or Leak Procedures: Wear a respirator and appropriate personal protection (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. Do not discharge to any drain or sewer. 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 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 especially when heating of material.

Skin: Compatible chemical resistant gloves, not latex. Protective outer garment, apron and 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

Appearance:	Flux - light amber	Boiling Point:	Not applicable.
Odor:	Slight characteristic odor.	Melting Point:	Not applicable
Specific Gravity:	1.16 @25C	pH:	Not applicable
Vapor Pressure:	Not applicable.	Solubility in Water:	Not established
Vapor Density:	(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.

11. TOXICOLOGICAL INFORMATION

Carcinogenicity:	NTP: No		
	OSHA: No		
	IARC: No		
LD50:	Not established.	LC50:	Not established.
Other:	Target Organ(s) from ingredients: Kidneys, liver, nerves, bone marrow		
	Epoxy resin: Oral, rat, 4490 mg/kg, LD50// Skin, rabbit, 20 ml/kg, LD50 Contains a substance that is may cause damage to the fetus		

12. ECOLOGICAL INFORMATION

Product not tested.

Contains a substance that is harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

13. DISPOSAL CONSIDERATION

Waste Disposal Method: Dispose of in accordance with all Federal, State and Local environmental regulations. In Europe follow the Special Waste Regulations.

14. TRANSPORT INFORMATION

Transport in accordance with applicable regulations and requirements. Not regulated under US DOT (United States Department of Transportation). Non hazardous under all shipping regulations.

UN – none

Not hazardous for shipping, Non –hazardous for IATA-not regulated.

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).

WMHIS- no information is available to classify.

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 - 1-methyl-2-pyrrolidinone

Warning: California Prop 65/Safe Drinking Water Standard: This product contains a chemical(s) known to the State of California to cause developmental toxicity. 1-methyl-2-pyrrolidinone

All ingredients are listed on the EPA TSCA Inventory.

EC Classification, Packaging and Labeling Requirements:

Symbol and Hazard Classification of Product

X_i

Risk Phrases:

- R36/37/38 Irritating to eyes, respiratory system and skin
- R41 Risk of serious damage to eyes
- R43 May cause sensitization skin contact

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: 5 MARCH 2015

Prepared by: Nancy Swarts, Indium Corporation of America

Approved by: Nancy Swarts, Indium Corporation of America

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.

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.