SAFETY DATA SHEET

Disclaimer:
User must review the contents of this SDS and determine what is applicable to their own country laws under Health and Safety and apply them as necessary. This SDS will not reference every countries Health and Safety Laws. It is the user’s responsibility to determine what is applicable to them, including but not limited to review of any specific chemical lists and apply those requirements as necessary.

1. PRODUCT AND COMPANY IDENTIFICATION

Product Identifier: PoP FLUX 89LV-B
SDS Number: SDS- 5837  Revised Date: 15 DECEMBER 2017
Product Use: Industrial Use – (mixture not defined as an article) - Soldering Flux
Part Number: 84579

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

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
2. HAZARDS IDENTIFICATION

PRIMARY ROUTES OF ENTRY:
- Eye
- Inhalation
- Skin
- Ingestion
- NTP
- IARC
- OSHA
- Not Listed

GHS:

Signal Word: Warning

Hazard statement(s)
- H315 Causes skin irritation
- 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 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)
- P501 Dispose of in accordance with applicable local, state and federal laws.

GHS Classification
- Skin irritant - Category 3
- Serious Eye irritation - Category 2

POTENTIAL HEALTH EFFECTS:

**Eye Contact:** Causes serious eye irritation if not promptly removed. May cause harm.

**Ingestion:** May cause irritation. May be harmful.

**Inhalation:** Heated vapor concentrations may be harmful if inhaled. Irritating to respiratory tract. Rosin may cause occupational asthma.

**Skin Contact:** May cause skin irritation. Allergic reactions are possible, especially with repeated or prolonged exposure.
Chronic: Prolonged or repeated exposures to heated material may cause irritation.

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

3. COMPOSITION / INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Components</th>
<th>% wt</th>
<th>CAS Registry #</th>
<th>PEL mg/m³</th>
<th>TLV-TWA mg/m³</th>
<th>TLV-STEL mg/m³</th>
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</thead>
<tbody>
<tr>
<td>ROSIN</td>
<td>25-40</td>
<td>65997-05-9</td>
<td>N.E.</td>
<td>N.E.</td>
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<tr>
<td></td>
<td></td>
<td>(EU)</td>
<td>0.05</td>
<td>N.E.</td>
<td>0.15 (sensitiser)</td>
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<tr>
<td>POLYGLYCOL ETHER</td>
<td>20-40</td>
<td>9038-95-3</td>
<td>N.E.</td>
<td>N.E.</td>
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<tr>
<td>FATTY ACIDS</td>
<td>20-35</td>
<td>67762-36-1</td>
<td>N.E.</td>
<td>N.E.</td>
<td>N.E.</td>
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</tbody>
</table>

N.E. = Not established  EU = European Union Occupational Exposure Limits

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: 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.

Special Fire Fighting Procedures: Firefighters must wear NIOSH approved self-contained breathing apparatus and full protective clothing.
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. Ensure area is properly vented. 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 and keep exposures to as low as possible. Use exhaust ventilation when using the product especially while heating product.
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.
Skin: Compatible chemical resistant gloves. Protective outer garment, apron and sleeves as appropriate. Protect the skin from direct exposure.
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 – dark blue
Odor: Mild characteristic odor.
Specific Gravity: 1 g/cc
Vapor Pressure: Not established
Vapor Density: (air=1) Not applicable.
Boiling Point: Not established
Melting Point: Not established
pH: 4 - 8
Solubility in Water: Insoluble

10. STABILITY AND REACTIVITY
General: Stable.
Conditions to Avoid: Freezing temperatures. High temperatures.
Incompatible Materials: acids, bases or oxidizing agents
Hazardous Decomposition / Combustion: Not established
Hazardous Polymerization: Will not occur.

11. TOXICOLOGICAL INFORMATION
Carcinogenicity:
   NTP: No
   OSHA: No
   IARC: No
LD50: Not established. LC50: Not established.
Other: Prolonged or repeated exposure to rosin flux fume may cause workers to develop occupational asthma. None of the ingredients including proprietary are listed as a carcinogen.

12. ECOLOGICAL INFORMATION
Product not tested.
<3% of the mixtures ingredients consist of unknown hazards to 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).
Flux - is non - hazardous under shipping modes.
UN – none
Not regulated by IATA.
Marine Pollutant: No

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).
Canadian WHMIS: D2B –Materials Causing Other Toxic Effects (irritant or sensitizer)
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 (TRI Reporting) - 40 CFR 372.65 - 10% Proprietary polyglycol ether
All ingredients are listed on the USEPA TSCA Inventory.
RoHS2 (2011/65/EU) complies.

**Japan:**
Poisonous and Deleterious Substance Control Law (PDSCL): No ingredients are listed.
Fire Service Law (FSL): Not regulated/not dangerous.
Industrial Safety and Health Law (ISHL): ingredients are listed
PRTR and Promotion of Chemical Management law, Class I Substance: Not applicable.
Waste Disposal and Public Cleaning Law: product is not classified as hazardous for waste disposal
Class II Designated Chemical Substances: No ingredients are listed.
Ingredients are listed on the Japanese Inventory Chemical Substance List/Industrial Safety and Health Law Substance List.
Review SDS and apply regulations where applicable.

This product has been classified in accordance with Mexican regulations NOM-0180STPS-2015 and NOM-010-STPS-2014.

**Regulatory Information China:**
GB/T 16483-2008, GB/T 17519-2013, Safety Data Sheets for Chemical Products
GB 30000.2-29-2013, Rules for classification and labeling of chemicals (GHS)
Decree No. 591: Regulations on the Control Over Safety of Hazardous Chemicals.
This product has been classified using the Chinese Occupational Limit for Hazardous Agents in the Workplace, GBZ2-2007.

This product has been classified in accordance with: Malaysian – OCCUPATIONAL SAFETY AND HEALTH (CLASSIFICATION, LABELING AND SAFETY DATA SHEET OF HAZARDOUS CHEMICALS) REGULATION OCTOBER 2013 – (CLASS).
16. OTHER INFORMATION

<table>
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<tr>
<th>HMIS Hazard Rating</th>
<th>Health:</th>
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<tbody>
<tr>
<td></td>
<td>Fire:</td>
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<tr>
<td>Physical Hazard:</td>
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</table>

Revised Date: 15 DECEMBER 2017
Prepared by: Nancy Swarts, Indium Corporation of America
Approved by: Nancy Swarts, Indium Corporation of America

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