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 8.9HF-LV
SDS Number: SDS- 4839 Revised Date: 5 APRIL 2019
Product Use: INDUSTRIAL USE (MIXTURE) - Soldering Flux

MANUFACTURER:

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Asia-Pacific Operations-Singapore  
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Suzhou Industrial Park  
Suchun Industrial Square  
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Jiangsu Province, China 215126  
Information: (86) 512-6283-4900
2. HAZARDS IDENTIFICATION

PRIMARY ROUTES OF ENTRY:

- Eye
- Inhalation
- Skin
- Ingestion

Carcinogen listed in:

- NTP
- IARC
- OSHA
- Not Listed

GHS

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 +P341 IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing
- P305 + P351 IF IN EYES: Rinse continuously with water for several minutes (15 mins)

Classification:

- Skin sensitization - Category 1B
- Eye irritation – Category 2A
- Respiratory sensitization - Category 1B

POTENTIAL HEALTH EFFECTS:

Eye Contact: Irritating to the eyes and if not removed promptly, may result in serious eye irritation. Do not allow material to come in contact with the eyes.

Ingestion: May cause irritation.

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: Not established.

NOTE: The Indium Corporation does not recommend, manufacture, market or endorse any of it's 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-STEI mg/m³</th>
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</thead>
<tbody>
<tr>
<td>ROSIN</td>
<td>40-45</td>
<td>65997-05-9</td>
<td>N.E.</td>
<td>N.E.</td>
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</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(EU) 0.05</td>
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</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>N.E.</td>
<td>0.15 (sensitiser)</td>
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<tr>
<td>POLYGLYCOL ETHER</td>
<td>35-40</td>
<td>9038-95-3</td>
<td>N.E.</td>
<td>N.E.</td>
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<tr>
<td>FATTY ACIDS (C6-12)</td>
<td>15-25</td>
<td>67762-36-1</td>
<td>N.E.</td>
<td>N.E.</td>
<td>N.E.</td>
</tr>
</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. Flush with tepid water if irritation is evident. Wash clothing before reuse. If irritation persists, obtain medical attention.

5. FIRE FIGHTING MEASURES


Auto-ignition Temperature: Not established.

Flammable Limits: Not applicable, 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 exhaust ventilation should be sufficient to control airborne levels and keep exposures to as low as possible.

Personal protection:

Eyes: Chemical safety glasses/goggles. Face shield for splash hazards.

Respirator: An 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/shower in work area. Avoid the use of contact lenses in high fume areas.

Work/Hygienic Practices: 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-yellow

Odor: Mild characteristic odor.

Specific Gravity: Not established

Vapor Pressure: Not established

Vapor Density: (air=1) Not applicable.

Boiling Point: Not established

Melting Point: Not established

pH: Not applicable

Solubility in Water: Insoluble

Flammability: Not flammable/ignitable

10. STABILITY AND REACTIVITY

General: Stable.

Conditions to Avoid: Freezing temperatures. High temperatures.

Incompatible Materials: Not established

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.

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 modes.
- Non-hazardous under IATA. Not regulated.
- UN - none

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).

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 - NONE
All ingredients are listed on the USEPA TSCA Inventory.

RoHS = Restriction of Hazardous Substances. Product does not contain any ingredients that are listed.
This product has been classified in accordance with Mexican regulations NOM-018-STPS-2015 and NOM-010-STPS-2014.

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).

In China:
Decree No. 591: Regulations on the Control over Safety of Hazardous Chemicals
GB 30000.2-29-2013, Rules for classification and labeling of chemicals.
GB/T 16483-2008, GB/T 17517-2013
This product has been classified using the Chinese Occupational Exposure Limit for Hazardous Agents in the Workplace, GBZ2-2007

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.

16. OTHER INFORMATION

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<tr>
<th>HMIS Hazard Rating</th>
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<tbody>
<tr>
<td></td>
<td>Fire</td>
<td>1</td>
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<tr>
<td></td>
<td>Physical Hazard</td>
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</tr>
</tbody>
</table>

Revised Date: 5 APRIL 2019
Prepared by: Nancy Swarts, Indium Corporation of America
Approved by: Nancy Swarts, Indium Corporation of America

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