SAFETY DATA SHEET

1. PRODUCT AND COMPANY IDENTIFICATION

Product Identifier: TACFLUX 089
SDS Number: SDS- 4687
Revised Date: 4 OCTOBER 2018

Product Use: Industrial Use – (Mixture) Soldering Flux

MANUFACTURER:

In America:
The Indium Corporation of America®,
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nswarts@indium.com

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Outside USA: +1 (703) 527-3887
In China: Emergency 86+ 4008417580

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Information: +44 [0] 1908 580400

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Asia-Pacific Operations-Singapore
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Singapore 628908
Information: +65 6268-8678

In China:
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Suchun Industrial Square
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Information: (86) 512-6283-4900

http://www.indium.com
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 2B
- Respiratory sensitization- Category 1B

POTENTIAL HEALTH EFFECTS:

Eye Contact:  Causes serious eye irritation if not promptly removed. Damage to eyes can occur.

Ingestion:  Harmful if swallowed. May cause irritation and damage to mouth, esophagus and the gastrointestinal tract.

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 or harm.

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-STEL mg/m³</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROSIN</td>
<td>34-41</td>
<td>65997-05-9</td>
<td>N.E.</td>
<td>N.E.</td>
<td>N.E.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(EU) 0.05</td>
<td>N.E.</td>
<td>0.15 (sensitiser)</td>
</tr>
<tr>
<td>POLYGLYCOL ETHER</td>
<td>24-31</td>
<td>9038-95-3</td>
<td>N.E.</td>
<td>N.E.</td>
<td>N.E.</td>
</tr>
<tr>
<td>NON HAZARDOUS</td>
<td>28-42</td>
<td></td>
<td>N.E.</td>
<td>N.E.</td>
<td>N.E.</td>
</tr>
<tr>
<td>PROPRIETARY ACTIVATORS</td>
<td></td>
<td></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. 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. Protective 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 - 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

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.

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 international regulations and requirements. Not regulated under US DOT (United States Department of Transportation).

UN – none
Non-hazardous- ground/IATA/IMDG

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.
WARNING: This product can expose you to chemicals including [epichlorohydrin] which is known to the State of California to cause cancer, and can cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov

SARA 313 Listing (TRI Reporting) - 40 CFR 372.65 - 14% Proprietary polyglycol ether
All ingredients are listed on the USEPA TSCA Inventory.
This product has been classified in accordance with the Mexican regulations: NOM-018-STPS-2015 and NOM-010-STPS-2014.

Malaysia:
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). (GHS)

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. (GHS)
GB/T 16483-2008, GB/T 17517-2013
This product has been classified using the Chinese Occupational Limit for Hazardous Agents in the Workplace, GBZ2-2007

RoHS = Restriction of Hazardous Substances. Product does not contain any ingredients that are listed. Additional information at http://www.pbfree.com

16. OTHER INFORMATION

HMIS Hazard Rating:

Health: 1
Fire: 1
Physical Hazard: 0

Revised Date: 4 OCTOBER 2018
Prepared by: Nancy Swarts, Indium Corporation of America
Approved by: Nancy Swarts, Indium Corporation of America

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