SAFETY DATA SHEET

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 the requirements as necessary.

1. PRODUCT AND COMPANY IDENTIFICATION

Product Identifier: 2036 FLUX
SDS Number: SDS-HG4022
Revised Date: 5 APRIL 2018
Product Use: Industrial Use - Non-activated Rosin Flux

MANUFACTURER:

In America:
The Indium Corporation of America®.
34 Robinson Rd., Clinton, NY 13323
Information: (315) 853-4900
nswarts@indium.com

In Europe:
The Indium Corporation of America® (European Operations)
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

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

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

<table>
<thead>
<tr>
<th>Carcinogen listed in</th>
<th>NTP</th>
<th>IARC</th>
<th>OSHA</th>
<th>Not Listed</th>
</tr>
</thead>
</table>

**GHS:**

- **Warning Word:** Danger

**Hazard statement(s)**

- **H225**  Highly flammable liquid and vapor
- **H317**  May cause an allergic skin reaction
- **H319**  Causes serious eye irritation
- **H334**  May cause allergy or asthma symptoms or breathing difficulties if inhaled
- **H335**  May cause respiratory irritation
- **H336**  May cause drowsiness or dizziness
- **EUH208**  Contains rosin. May produce an allergic reaction

**Precautionary statement(s)**

- **P210**  Keep away from heat/sparks/open flames/hot surfaces. – No smoking
- **P233**  Keep container tightly closed
- **P240**  Ground container and receiving equipment
- **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 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:**

- Flammable Liquid – Category 2
- Eye irritation – Category 2A
- Specific target organ toxicity- single exposure – Category 3- central nervous system
- Skin sensitization- Category 1B
- Respiratory sensitization-Category 1B

**POTENTIAL HEALTH EFFECTS:**

**Eye Contact:**  Vapors may be irritating, liquid may damage eye tissue.

**Ingestion:**  May cause persistent nausea, vomiting and abdominal pain.
Inhalation: Vapor may cause headaches and or dizziness. Prolonged or repeated exposure may cause respiratory sensitization. Rosin may cause occupational asthma.

Skin Contact: Prolonged contact may cause irritation and dermatitis. Prolonged exposure may cause skin sensitization in susceptible individuals.

Chronic: Not established.

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

### 3. COMPOSITION / INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Components</th>
<th>% wt</th>
<th>CAS Registry #</th>
<th>PEL (mg/m^3)</th>
<th>TLV-TWA (mg/m^3)</th>
<th>TLV-STEL (mg/m^3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ISOPROPANOL</td>
<td>55-60</td>
<td>67-63-0 (US)</td>
<td>980</td>
<td>983</td>
<td>1225</td>
</tr>
<tr>
<td>PROPAN-2-OL</td>
<td>(EU)</td>
<td>-</td>
<td>999</td>
<td>1250</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(Canada)</td>
<td>-</td>
<td>983</td>
<td>1228</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(Singapore)</td>
<td>983</td>
<td>-</td>
<td>1230</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(Mexico)</td>
<td>-</td>
<td>980</td>
<td>1225</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(China)</td>
<td>-</td>
<td>350</td>
<td>700</td>
<td></td>
</tr>
<tr>
<td>ROSIN</td>
<td>40-45</td>
<td>8050-09-7(US)</td>
<td>N.E.</td>
<td>N.E.</td>
<td>N.E.</td>
</tr>
<tr>
<td></td>
<td>(EU)</td>
<td>0.05</td>
<td>-</td>
<td>0.15</td>
<td></td>
</tr>
</tbody>
</table>

N.E. = Not established \ EU = European 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: 12°C (54°F)  Method: TCC
Auto-ignition Temperature: None
Flammable Limits: Upper: 12, Lower 2
Extinguishing Media: Dry chemical. Use extinguishers appropriate for the surrounding fire conditions.
Special Fire Fighting Procedures: Wear protective clothing. Use water to cool fire exposed containers.

6. ACCIDENTAL RELEASE MEASURES

Spill or Leak Procedures: DO NOT allow material to enter sewer system or waterway. Wear personal protective equipment. Eliminate sources of ignition. Ventilate area in accordance with regulations. 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. Wear personal protective equipment.

Storage Precautions: Store product in tightly capped original containers in a cool, dry area. Refer to product label for specific storage temperature requirements. Rotate stock to ensure use before expiration date on the label. Keep away from flame, or ignition points.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Controls: Face velocity > 2.1 cubic feet/minute in confined areas. Recommend exhaust ventilation to reduce exposure to vapors.

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 where airborne concentrations are expected to be elevated.
Skin: Compatible chemical resistant gloves such as nitrile.
Other: Lab coat, eye-wash fountain in work area. Avoid the use of contact lenses in high fume areas.
Work/Hygienic Practices: Maintain good housekeeping. Clean up spills immediately. Good personal hygiene is essential. 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: Amber  Boiling Point: 79 - 83°C (175 - 182°F)
Odor: Alcohol odor.  Evaporation Rate: 1.7
Specific Gravity: 0.874 +/- 0.005 @60°F  pH: Not available
10. STABILITY AND REACTIVITY
General: Stable.
Conditions to Avoid: Direct heat, open flames and storage in aluminum.
Incompatible Materials: Anhydrides, halogens, phosphorus, trichlorides, monomers, aldehydes
Hazardous Decomposition / Combustion: Carbon dioxide/carbon monoxide.
Hazardous Polymerization: Will not occur.

11. TOXICOLOGICAL INFORMATION
Carcinogenicity: NTP: No
OSHA: No
IARC: No
LD50: Not established. LC50: Not established.

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.
Shipping: UN1219, Isopropanol, 3, PGII

Page 5 of 6
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: Class B2 Flammable Liquid.
Class B Division 2 Flammable, D2B Toxic Material Causing Other Toxic Effects (eye irritation in animals).

This product has been classified in accordance with the guidelines set by the Dept of Industrial Health of the Republic of Singapore.

This product has been classified under the Mexican regulations NOM-018-STPS-2015 and NOM-010-STPS-2014.

In China:
This product has been classified using the Chinese Occupational Limit for Hazardous Agents in the Workplace, GBZ2-2007.
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 in accordance with: Malaysian – OCCUPATIONAL SAFETY AND HEALTH (CLASSIFICATION, LABELING AND SAFETY DATA SHEET OF HAZARDOUS CHEMICALS) REGULATION OCTOBER 2013 – (CLASS).

SARA 313 Listing - 40 CFR 372.65: None

All ingredients are listed on the EPA TSCA Inventory.
Ingredients are listed on the Canadian Domestic Substance List.

16. OTHER INFORMATION

<table>
<thead>
<tr>
<th>HMIS Hazard Rating</th>
<th>Health:</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Fire:</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Physical Hazard:</td>
<td>0</td>
</tr>
</tbody>
</table>

Revised Date: 5 APRIL 2018
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 resulting from the handling or from contact with the above product. 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.