SAFETY DATA SHEET

1. PRODUCT AND COMPANY IDENTIFICATION

Product Identifier: FC-NC-HT-B
SDS Number: SDS-IN FC017
Revised Date: 10 APRIL 2019
Product Use: Industrial Use - Flip chip flux

MANUFACTURER:

In America:
The Indium Corporation of America®
34 Robinson Rd., Clinton NY 13323
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Information: +44 [0] 1908 580400

In Asia:
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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

Carcinogen listed in

- NTP
- IARC
- OSHA
- Not Listed

GHS:

Signal Word: Danger

Hazard statement(s)

- H226 Flammable liquid and vapor
- H302 Harmful if swallowed
- H314 Causes severe skin burns and eye damage
- H336 May cause drowsiness or dizziness
- H361 Suspected of damaging fertility or the unborn child
- H412 Harmful to aquatic life with long lasting effects

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
- 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:

- Flammable liquid - Category 3
- Eye damage - Category 1
- Skin corrosion - Category 1B
- Reproductive toxicity - Category 2
- Acute toxicity, Oral – Category 4
- Acute aquatic toxicity - Category 3
- Chronic aquatic toxicity – Category 3

POTENTIAL HEALTH EFFECTS:

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

Ingestion: Harmful if swallowed. May cause irritation.

Inhalation: Heated vapor concentrations may be harmful if inhaled. Material may be destructive to the tissue of the mucous membranes and upper respiratory tract.
**Skin Contact:** May cause skin irritation or burns.

**Chronic:** Not established.

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

### 3. COMPOSITION / INFORMATION ON INGREDIENTS

<table>
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<tr>
<th>Components</th>
<th>% wt</th>
<th>CAS Registry #</th>
<th>PEL mg/m³</th>
<th>TLV-TWA mg/m³</th>
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<td>PROPRIETARY</td>
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</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: 26 C (79 F)  Method: Not available
Auto-ignition Temperature: Not established.
Flammable Limits: Limits not established
Extinguishing Media: Use extinguishers appropriate for the surrounding fire conditions. Foam, dry chemical, water spray.
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. 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: Local exhaust ventilation is necessary 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.
Skin: Compatible chemical resistant gloves. Protective outer garment, apron. Sleeves as appropriate.
Other: Eyewash fountain in work area. Avoid the use of contact lenses in high fume/splash 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: Liquid Clear
Odor: alcohol like odor.
Specific Gravity: 0.91
Vapor Pressure: Not applicable.
Vapor Density: (air=1) Not applicable.
Boiling Point: 100 C
Melting Point: Not applicable
pH: 6.4
Solubility in Water: Not established
10. STABILITY AND REACTIVITY
General: Stable.
Conditions to Avoid: High temperatures, open flame.
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: None known

12. ECOLOGICAL INFORMATION
Product not tested.
Contains a substance very toxic to aquatic organisms, may cause long-term adverse effects into 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.

UN2924, Flammable Liquids, Corrosive, N.O.S., 3, PG II (isopropyl alcohol/alkylphenol)
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.).

SARA 313 Listing - 40 CFR 372.65 - None
All ingredients are listed on the EPA TSCA Inventory and the Domestic Substance List.

This product is intended for industrial manufacturing ONLY. Re-selling this product for consumer use is prohibited by law. Contact the Indium Corporation for further guidance.

This product has been classified in accordance with the hazard criteria of the Canadian Controlled Products Regulation (CPR).

Canadian WHMIS: 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 in accordance with Mexican regulations NOM-018-STPS-2015 and NOM-010-STPS-2014.
This product has been classified using the Chinese Occupational Exposure Limit for Hazardous Agents in the Workplace, GBZ2-2007.
16. OTHER INFORMATION

HMIS Hazard Rating:
  Health: 2
  Fire: 3
  Reactivity: 0

Revised Date: 10 APRIL 2019
Prepared by: Nancy Swarts, Indium Corporation of America
Approved by: Nancy Swarts, Indium Corporation of America

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