



## 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:** FC-NC-HT-D

**SDS Number:** SDS-IN FC013

**Revised Date:** 10 APRIL 2019

**Product Use:** Industrial Use - Flip chip flux

#### MANUFACTURER:

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## 2. HAZARDS IDENTIFICATION

### PRIMARY ROUTES OF ENTRY:

XEye

XInhalation

XSkin

XIngestion

NTP

### Carcinogen listed in

IARC

OSHA

XNot Listed

GHS



Signal Word: Warning

### Hazard statement(s)

H315 Causes skin irritation

H319 Causes serious eye irritation

H410 Very toxic to aquatic life with long lasting effects

### 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 + 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:

Serious Eye irritant (Category 2A)

Skin irritation (Category 2)

Acute aquatic toxicity (Category 1)

Chronic aquatic toxicity (Category 1)

### 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:** May be harmful if swallowed. May cause irritation.

**Inhalation:** Heated vapor concentrations may be harmful if inhaled. May cause irritation.

**Skin Contact:** May cause skin irritation.

**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**

Components	% wt	CAS Registry #	PEL mg/m <sup>3</sup>	TLV-TWA mg/m <sup>3</sup>	TLV-STEL mg/m <sup>3</sup>
POLYGLYCOL ETHER	14-24	9038-95-3	N.E.	N.E.	N.E.
ALIPHATIC ALCOHOL C16-18	70-80	68439-49-6	N.E.	N.E.	N.E.
ALCOHOLS C6-C12	0-10	68603-15-6	N.E.	N.E.	N.E.

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:** 110 C (230 F)      **Method:** Closed cup
- 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 Protective (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 dry area at temperatures no greater than 30C (86F). Consult product label or product data sheet for further information on shelf life and shelf life temperature storage. Keep away from heat and flame. 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.

**Personal protection:**

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

**Respirator:** A NIOSH approved or EU compliant CE 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.

**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/flux

**Boiling Point:** 335 C

**Odor:** Mild characteristic odor.

**Melting Point:** Not applicable

**Specific Gravity:** 0.95

**pH:** Not available

**Vapor Pressure:** Not applicable.

**Solubility in Water:** Not soluble

**Vapor Density:** (air=1) Not applicable.

## 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.

An environmental concern cannot be ruled out in the event that there is mishandling or disposal of the product.

Contains a substance that is very toxic to aquatic life with long lasting effects.

**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.

USDOT/IATA – not regulated

IMDG: (49 CFR 172.322)

UN3082, Environmentally hazardous substance, liquid, N.O.S., 9, PGIII (alkylphenol) (Severe Marine Pollutant)

**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.

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

WHMIS: Insufficient information

This product has been classified in accordance with the guidelines, as 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.

In 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.

Information on exposure levels in China is from regulation document GBZ2-2007 Occupational Exposure Limit for Hazardous Agents in the Workplace.

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).

**16. OTHER INFORMATION**

<b>HMIS Hazard Rating:</b>	<b>Health:</b>	1
	<b>Fire:</b>	1
	<b>Reactivity:</b>	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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