



**INDIUM CORPORATION OF AMERICA ® EUROPE ® ASIA-PACIFIC ®**  
**INDIUM CORPORATION (SUZHOU) ®**  
**SAFETY DATA SHEET**

**1. PRODUCT AND COMPANY IDENTIFICATION**

**Product Identifier:** FC-NC-HT-A

**MSDS Number:** MSDS-IN FC011

**Revised Date:** 2 MAY 2013

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

**MANUFACTURER:**

**In America:**

The Indium Corporation of America  
1676 Lincoln Ave., Utica NY 13502  
Information: (315) 853-4900

**EMERGENCY PHONE:**

**CHEMTREC 24 hrs.**

**USA: 1 (800) 424-9300**

**Outside USA: +1 (703) 527-3887**

**In Europe:**

Indium Corporation of Europe  
7 Newmarket Ct.  
Kingston, Milton Keynes, UK, MK 10 OAG  
Information: +44 [0] 1908 580400

**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

**In Asia:**

Indium Corporation of America  
Asia-Pacific Operations-Singapore  
29 Kian Teck Avenue  
Singapore 628908  
Information: +65 6268-8678

## 2. HAZARDS IDENTIFICATION

### PRIMARY ROUTES OF ENTRY:

Eye   
 Inhalation   
 Skin   
 Ingestion   
 NTP   
 Carcinogen listed in IARC   
 OSHA   
Not Listed

GHS:



Signal Word: Danger

Hazard Statements:

H225            Highly Flammable liquid and vapor  
 H316            Causes mild skin irritation  
 H319            Causes serious eye irritation  
 H333            May be harmful if inhaled  
 H336            May cause drowsiness or dizziness

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            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)  
 P404            Store in closed container  
 P501            Dispose of contents/containers following government requirements

Classification – isopropyl alcohol

Serious eye damage/eye irritant – Category 2

Flammable liquids - Category 2

Specific target organ systemic toxicity (single exposure) – Category 3

### 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 and damage to the mouth, esophagus and gastrointestinal tract.

**Inhalation:** Heated vapor concentrations may be harmful if inhaled. Material may be destructive to the tissue of the mucous membranes and upper respiratory tract. High concentrations can cause headache, nausea, and vomiting.

**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>
ISOPROPYL ALCOHOL	75-80	67-63-0	980	983	1230
		(EU)	-	999	1250
		(Singapore)	983	-	1230
		(Mexico)	-	980	1225
		(China)	-	350	700
		(Canada)	-	983	1228
PROPRIETARY	20-25	-	N.E.	N.E.	N.E.

Symbol: XI, F

Risk Phrases: R36/37/38, R10

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 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:** 23 C (73 F)      **Method:** Not available

**Auto-ignition Temperature:** Not established.

**Flammable Limits:** Limits not established

<b>Extinguishing Media:</b>	Use extinguishers appropriate for the surrounding fire conditions. Foam, dry chemical, water spray.
<b>Special Fire Fighting Procedures:</b>	Firefighters must wear NIOSH approved self-contained breathing apparatus and full protective clothing.

## 6. ACCIDENTAL RELEASE MEASURES

<b>Spill or Leak Procedures:</b>	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

<b>Handling Precautions:</b>	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.
<b>Storage Precautions:</b>	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

<b>Engineering Controls:</b>	Local exhaust ventilation is necessary to control airborne levels.
<b>Personal protection:</b>	
<b>Eyes:</b>	Chemical safety glasses/goggles. Face shield for splash hazards.
<b>Respirator:</b>	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.
<b>Skin:</b>	Compatible chemical resistant gloves. Protective outer garment, apron and sleeves as appropriate.
<b>Other:</b>	Eyewash fountain in work area. Avoid the use of contact lenses in high fume areas.
<b>Work/Hygienic Practices:</b>	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

<b>Appearance:</b>	Liquid/paste	<b>Boiling Point:</b>	83 C
<b>Odor:</b>	alcohol like odor.	<b>Melting Point:</b>	Not applicable
<b>Specific Gravity:</b>	0.80	<b>pH:</b>	Not applicable
<b>Vapor Pressure:</b>	Not applicable.	<b>Solubility in Water:</b>	Not established
<b>Vapor Density:</b>	(air=1) Not applicable.		

## 10. STABILITY AND REACTIVITY

<b>General:</b>	Stable.
-----------------	---------

<b>Conditions to Avoid:</b>	High temperatures, open flame.
<b>Incompatible Materials:</b>	Not established
<b>Hazardous Decomposition / Combustion:</b>	Not established
<b>Hazardous Polymerization:</b>	Will not occur.

## 11. TOXICOLOGICAL INFORMATION

<b>Carcinogenicity:</b>	<b>NTP:</b> No		
	<b>OSHA:</b> No		
	<b>IARC:</b> No		
<b>LD50:</b>	Not established.	<b>LC50:</b>	Not established.
<b>Other:</b>	None known		

## 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 Name: UN1219, Isopropanol 3, PG II (mixture)



North America Emergency Guide Book – Guide # 129

## 15. REGULATORY INFORMATION

The information in this Material 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 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 using the Chinese Occupational Exposure Limit for Hazardous Agents in the Workplace, GBZ2-2002.

This product has been classified in accordance with Mexican regulations, NOM-018-STPS-2000 and NOM-010-STPS-1999.

SARA 313 Listing - 40 CFR 372.65 - None

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

EC Classification, Packaging and Labeling Requirements:

Symbol and Hazard Classification of Product

XI, F

**Risk Phrases:**

R36/37/38 Irritating to eyes, respiratory system and skin

R10 Flammable

R67 Vapors may cause drowsiness and dizziness

**Safety Phrases:**

S20/21 When using do not eat, drink or smoke

S23 Do not breathe fumes/gas/vapor/spray

S24/25 Avoid contact with skin and eyes

S36/37/39 Wear suitable protective clothing, gloves and eye/face protection

S62 If swallowed, do not induce vomiting seek medical advice immediately and show container or label

S7 Keep container tightly closed

## 16. OTHER INFORMATION

<b>HMIS Hazard Rating:</b>	<b>Health:</b>	2
	<b>Fire:</b>	3
	<b>Reactivity:</b>	0

**Revised Date:** 2 MAY 2013

**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 arising out of the user thereof. 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.