



**INDIUM CORPORATION OF AMERICA®\EUROPE®\ASIA-PACIFIC®\INDIUM CORPORATION (SUZHOU)®**

**MATERIAL SAFETY DATA SHEET**

**1. PRODUCT AND COMPANY IDENTIFICATION**

**Product Identifier:** INDIFLUX #1095-NF

**MSDS Number:** MSDS-HG006

**Revised Date:** 17 JANUARY 2008

**Product Use:** Wave Solder Flux

**MANUFACTURER:**

**In America:**

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**EMERGENCY PHONE:**

**CHEMTREC 24 hrs.**

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Singapore 628908  
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**2. 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>
ISOPROPANOL	75-85	67-63-0 (US)	980	983	1230
		(EU)	N.E.	999	1250
		(Canada)	N.E.	983	1228
		(Mexico)	N.E.	980	1225
		(Singapore)	983	-	1230
		(China)	-	350	700

PROPRIETARY	10-15		N.E.	N.E.	N.E.
SURFACTANT	5-10	9003-11-6	N.E	N.E	N.E.
Symbol: XI, F, N		Risk Phrases: R36/37/38			
N.E. = Not established					

### 3. HAZARDS IDENTIFICATION

#### PRIMARY ROUTES OF ENTRY:

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

#### POTENTIAL HEALTH EFFECTS:

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

**Ingestion:** May result in gastric disturbances.

**Inhalation:** May cause mild throat irritation, headache and nausea.

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

**Chronic:** Not established.

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

**WARNING:** Applicable in the State of California: This product contains chemicals known to the State of California to cause cancer and/or birth defects (or other reproductive harm).

### 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:** 54 F(12C)      **Method:** Closed Cup

**Auto-ignition Temperature:** None

**Flammable Limits:** Upper: 12 Lower: 2

**Extinguishing Media:** Use extinguishers appropriate for the surrounding fire conditions (water/dry chemical).

**Special Fire Fighting  
Procedures:**

Wear standard fire fighting equipment

**6. ACCIDENTAL RELEASE MEASURES**

**Spill or Leak Procedures:** DO NOT allow chemical material to enter sewer system or waterway. Eliminate sources of ignition. Contain spill and absorb if possible. 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 and ventilated area. Refer to product label for specific storage temperature requirements. Rotate stock to ensure use before expiration date on the label.

**8. EXPOSURE CONTROLS / PERSONAL PROTECTION**

**Engineering Controls:** Face velocity >2.1 cubic feet/minute in confined areas. Ventilation should be sufficient to reduce exposure to below exposure levels.

**Personal protection:**

**Eyes:** Chemical safety glasses/splash goggles/face shield.

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

**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:** Liquid, light yellow

**Odor:** Alcoholic odor.

**Specific Gravity:** 0.838 @ 77F

**Vapor Pressure:** 31 mm HG @25°C

**Vapor Density:** >1

**Boiling Point:** 180°F)

**Melting Point:** Not applicable

**pH:** 6.5 (as is) 7.0 (1% solution)

**Solubility in Water:** Soluble

**10. STABILITY AND REACTIVITY**

**General:** Stable.

**Conditions to Avoid:** Direct heat, open flames and storage in aluminum.

<b>Incompatible Materials:</b>	Strong alkali, halogens, phosphorus, monomers, aldehydes & trichlorides
<b>Hazardous Decomposition / Combustion:</b>	Carbon dioxide/carbon monoxide.
<b>Hazardous Polymerization:</b>	Will not occur.

## 11. TOXICOLOGICAL INFORMATION

**Carcinogenicity:**      **NTP:** No  
                                 **OSHA:** No  
                                 **IARC:** No

**LD50:**                      Not established.

**LC50:**                      Not established.

## 12. ECOLOGICAL INFORMATION

This section is subject to future development.

Biodegradability: Data not established on product.

Aquatic Toxicity: Data not established on product

Product does contain 3% of a chemical ingredient that is toxic to aquatic environment. May cause long term adverse effects in the aquatic environment. Dangerous for the 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.

Shipping Name:              UN1219, Isopropanol, 3, PG II

North America Emergency Guide Book: Guide Page #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.).

The information in this Material Safety Data Sheet meets the requirements of the EU under Chemicals (Hazard Information and Packaging for Supply) Regulations 1994 (CHIP 2) Regulation 6.

This product has been classified in accordance with the hazard criteria of the Commission Directive 91/155/EEC and EH40.

This product has been classified in accordance with the hazard criteria of the Mexican Standards NOM-018-STPS-2000 and NOM-010-STPS-1999.

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.

**WARNING:** This product contains chemicals known to the State of California to cause cancer and/or birth defects (or other reproductive harm).

Trace levels of: ethylene oxide, propylene oxide, 1,4 dioxane

SARA 313 Listing - 40 CFR 372.65: Trace levels of ethylene oxide, propylene oxide, 1,4 dioxane

All ingredients are listed on the EPA TSCA Inventory.

Ingredients are listed on the Canadian Domestic Substance List.

EC Classification, Packaging and Labeling Requirements:

Symbol and Hazard Classification of Product

XI, F, N

**Risk Phrases:**

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

R51/53 Toxic to aquatic environment may cause long term adverse effects in the aquatic environment

**Safety Phrases:**

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

S23 Do not breathe fumes

S24/25 Avoid contact with skin and eyes

S27 Take off immediately all contaminated clothing

S28 After contact with skin wash immediately with plenty of soap and water

S36/37/39	Wear suitable protective clothing, gloves and eye/face protection
S61	Avoid release to the environment
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>	1
	<b>Fire:</b>	3
	<b>Reactivity:</b>	0

**Revised Date:** 17 JANUARY 2008

**Prepared by:** Nancy Swarts, Indium Corporation of America

**Approved by:** Nancy Swarts, Indium Corporation of America

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