



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

## MATERIAL SAFETY DATA SHEET

### 1. PRODUCT AND COMPANY IDENTIFICATION

**Product Identifier:** INDIUM WAVE SOLDER FLUX #1075-EX30

**MSDS Number:** MSDS-HG003

**Revised Date:** 12 JANUARY 2007

**Product Use:** Wave Solder Flux

#### MANUFACTURER:

##### In America:

The Indium Corporation of America  
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##### EMERGENCY PHONE:

**CHEMTREC 24 hrs.**

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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>
WATER	85-95	7732-18-5 (US)	N.E.	N.E.	N.E.
PROPRIETARY (NON-HAZ)	2		N.E.	N.E.	N.E.
CARBOXYLIX ACID	<3	68603-87-2 (US)	N.E.	N.E.	N.E.

Risk Phrases: R36/37/38

N.E. = Not established

### 3. HAZARDS IDENTIFICATION

#### PRIMARY ROUTES OF ENTRY:

✓Eye    ✓Inhalation    ✓Skin    ✓Ingestion

#### Carcinogen listed in

NTP    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.

**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:**    **This product contains a chemical 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:**    Not established.    **Method:**    Not established.

**Auto-ignition Temperature:**    None

**Flammable Limits:**    Limits not established.

**Extinguishing Media:**    Use extinguishers appropriate for the surrounding fire conditions.

**Special Fire Fighting**    None

**Procedures:**

## 6. ACCIDENTAL RELEASE MEASURES

**Spill or Leak Procedures:** DO NOT allow material to enter sewer system or waterway. 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.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**Engineering Controls:** Face velocity >2.1 cubic feet/minute in confined areas. Recommended personal protective equipment.

### Personal protection:

**Eyes:** Chemical safety glasses/goggles.

**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

<b>Appearance:</b>	Liquid, clear	<b>Boiling Point:</b>	100°C (212°F)
<b>Odor:</b>	Mild characteristic odor.	<b>Melting Point:</b>	0°C (32°F)
<b>Specific Gravity:</b>	1.014 @ 60° F	<b>pH:</b>	2.8 (as is) 3.5 (1% solution)
<b>Vapor Pressure:</b>	23.7 mm HG @25°C	<b>Solubility in Water:</b>	Soluble
<b>Vapor Density:</b>	(air=1) Not applicable.		

## 10. STABILITY AND REACTIVITY

**General:** Stable.

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

**Incompatible Materials:** Strong alkali.

**Hazardous Decomposition / Combustion:** Carbon dioxide/carbon monoxide.

**Hazardous Polymerization:** Will not occur.

## 11. TOXICOLOGICAL INFORMATION

**Carcinogenicity:** NTP: No

OSHA: No

IARC: No

Product contains trace levels of 1, 4 Dioxane CAS# 123-91-1 PEL 100 ppm/TLV 20 ppm

**LD50:** Not established.

**LC50:** Not established.

## 12. ECOLOGICAL INFORMATION

This section is subject to future development.

Biodegradability: Data not established.

Aquatic Toxicity: Data not established.

## 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. Not regulated under US DOT (United States Department of Transportation).

## 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 Canadian Controlled Products Regulation (CPR).

WHMIS: May not be classified.

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

**WARNING:** This product contains a chemical known to the State of California to cause cancer and/or birth defects (or other reproductive harm). (trace levels of 1, 4 Dioxane)

SARA 313 Listing - 40 CFR 372.65: trace levels of 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:

**Risk Phrases:**

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

**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

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>	0
	<b>Reactivity:</b>	0

**Revised Date:** 12 JANUARY 2007

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

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

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