



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

## 1. PRODUCT AND COMPANY IDENTIFICATION

**Product Identifier:** WF – 7742 3X CONCENTRATE  
**MSDS Number:** MSDS-4282 **Revised Date:** 22 JULY 2009  
**Product Use:** INDUSTRIAL USE - WAVE SOLDER FLUX [IPN Flux WV – 84391 – 5 Gal]

### MANUFACTURER:

#### In America:

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

#### 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:

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

### POTENTIAL HEALTH EFFECTS:

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

**Ingestion:** May cause gastric disturbance.

**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:** Applicable in the State of California. This product contains a chemical known to the State of California to cause cancer and/or birth defects (or other reproductive harm).  
Contains: 1,4 dioxane <0.05%

### 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>
WATER	35-45	7732-18-5	N.E.	N.E.	N.E.
CARBOXYLIC ACID	15-20	68603-87-2	N.E.	N.E.	N.E.
PROPRIETARY	35-50		N.E.	N.E.	N.E.

Risk Phrases: R36/37/38

N.E. = Not established

### 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:** >200F      **Method:** Not available
- Auto-ignition Temperature:** Not determined
- Flammable Limits:** Not determined
- Extinguishing Media:** Dry chemical, CO<sub>2</sub>, water. Use extinguishers appropriate for the surrounding fire conditions.
- Special Fire Fighting Procedures:** Wear protective clothing and self - contained breathing apparatus. Use water to cool fire exposed containers.

## 6. ACCIDENTAL RELEASE MEASURES

**Spill or Leak Procedures:** Do not allow material to enter sewer system or waterway unless allowed to do so. Wear personal protective equipment. Eliminate sources of ignition. Ventilate area in accordance with regulations. Dispose of following all Federal, State and Local 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. Exhaust ventilation recommended.

### Personal protection:

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

**Respirator:** An approved or compliant 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 use gloves such as nitrile.

**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>	Light Amber	<b>Boiling Point:</b>	212 F
<b>Odor:</b>	Mild	<b>Evaporation Rate:</b>	>1
<b>Specific Gravity:</b>	1.014 -1.042 @60F	<b>pH:</b>	~3.0
<b>Vapor Pressure:</b>	23.7 mm HG @ 25 C	<b>Solubility in Water:</b>	Soluble
<b>Vapor Density:</b>	Not determined	<b>% Volatiles by volume:</b>	100

## 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 Listed:** National Toxicity Program **NTP:** No  
Occupational Safety & Health Administration **OSHA:** No  
International Agency for Research on Cancer **IARC:** No

**LD50:** Not established. **LC50:** Not established.  
Product not tested.

## 12. ECOLOGICAL INFORMATION

This section is subject to future development.

Product not tested.

## 13. DISPOSAL CONSIDERATION

**Waste Disposal Method:** Dispose of in accordance with all Federal, State and Local environmental regulations. Non hazardous under EPA.

## 14. TRANSPORT INFORMATION

Transport in accordance with applicable regulations and requirements. Non - hazardous for shipping.

North America Emergency Guide Book 2004 – Not applicable

## 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: Not classified

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

SARA 313 Listing - 40 CFR 372.65: 1,4 dioxane <0.05%

**WARNING:** This product contains a chemical known to the State of California to cause cancer and/or birth defects (or other reproductive harm).  
Contains: 1,4 dioxane <0.05%

All ingredients are listed on the EPA TSCA Inventory.

This product has been classified under the Mexican regulations NOM-018-STPS-2000 and NOM-010-STPS-1999.

This product has been classified using the Chinese Occupational Exposure Limit for Hazardous Agents in the Workplace, GBZ2-2002.

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

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:** 22 JULY 2009

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

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

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