



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

### 1. PRODUCT AND COMPANY IDENTIFICATION

**Product Identifier:** SUPERFLEX 12-4

**MSDS Number:** MSDS-4650

**Revised Date:** 20 DECEMBER 2007

**Product Use:** Soldering Flux Material

#### 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:

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7 Newmarket Ct.  
Kingston, Milton Keynes, UK, MK 10 OAG  
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##### In China:

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No. 428 Xinglong Street  
Suzhou Industrial Park  
Suchun Industrial Square  
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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. COMPOSITION / INFORMATION ON INGREDIENTS

Components	% wt	CAS Registry #	TLV-TWA mg/m <sup>3</sup>	PEL mg/m <sup>3</sup>	TLV-STEL mg/m <sup>3</sup>
ROSIN	30-40	65997-05-9(US)	N.E.	N.E.	N.E.
		(EU)	0.05	N.E.	0.15(sensitiser)
POLYGLYCOL ETHER	15-25	9038-95-3	N.E.	N.E.	N.E.
CARBOXYLIC ACID	10-20	70248-25-8	N.E.	N.E.	N.E.
PROPRIETARY NON-HAZARDOUS ACTIVATORS	25-35	-	N.E.	N.E.	N.E.

Risk Phrases: R36/37/38, R42/43 EU = European Exposure Limits  
 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:** Moderately irritating to the eyes and if not removed promptly, may result in permanent damage.

**Ingestion:** Harmful if swallowed. May cause irritation and damage to mouth, esophagus and the gastrointestinal tract.

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

**Skin Contact:** Brief contact may cause slight irritation with itching and local redness. Allergic reaction may occur with prolonged exposure to rosin flux.

**Chronic:** Prolonged or repeated overexposure to mist or vapor generated at high temperatures may result in the inhalation of harmful amounts of rosin material. Rosin material may cause occupational asthma.

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

### 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:** >100 C **Method:** Not established.

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

<b>Flammable Limits:</b>	Limits not established.
<b>Extinguishing Media:</b>	Use extinguishers appropriate for the surrounding fire conditions. Foam, dry chemical, water spray and carbon dioxide.
<b>Special Fire Fighting Procedures:</b>	Firefighters must wear an approved self-contained breathing apparatus and full protective clothing.

## 6. ACCIDENTAL RELEASE MEASURES

<b>Spill or Leak Procedures:</b>	Wear respirator and other personal protective clothing. (See Exposure Controls/Personal Protection Section). Extinguish or remove all sources of ignition. Absorb spill with inert material (e.g., dry sand or earth), then place in a chemical waste container. Keep unnecessary personnel away.
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## 7. HANDLING AND STORAGE

<b>Handling</b>	Avoid breathing vapors from heated material. Avoid contact with eyes, skin and clothing.
<b>Precautions:</b>	Follow routine safe handling procedures. Use with adequate ventilation.
<b>Storage Precautions:</b>	Keep away from heat and flame. Store in suitable, tightly capped, and labeled containers in cool dry, well-ventilated area. 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 recommended especially during heating.
<b>Personal protection:</b>	
<b>Eyes:</b>	Chemical safety glasses/goggles.
<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. Avoid skin contact with rosin material.
<b>Other:</b>	Lab coat, sleeve protectors and eye-wash fountain in work area. Avoid the use of contact lenses in high fume areas.
<b>Work/Hygienic</b>	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>	Flux- yellow - creamy	<b>Boiling Point:</b>	Not applicable.
<b>Odor:</b>	Slight characteristic odor.	<b>Melting Point:</b>	Not applicable
<b>Specific Gravity:</b>	1 g/cc	<b>pH:</b>	4 - 8
<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. Freezing temperatures
<b>Incompatible Materials:</b>	Not established
<b>Hazardous Decomposition / Combustion:</b>	Carbon monoxide
<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.

**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. 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. Non-hazardous material for shipping.

**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, insufficient data.

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 (FORM R REPORTING) – 6% proprietary glycol ether

All ingredients are listed on the EPA TSCA Inventory.

EC Classification, Packaging and Labeling Requirements:

Symbol and Hazard Classification of Product

**Risk Phrases:**

R42/43 May cause sensitization by inhalation and skin contact

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 breath 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

S7 Keep container tightly closed

## 16. OTHER INFORMATION

**HMIS Hazard Rating:**      **Health:**            1  
   **Fire:**                    1  
   **Reactivity:**        0

**Revised Date:**            20 DECEMBER 2007

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

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

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