



INDIUM CORPORATION OF AMERICA®\EUROPE®\ASIA-PACIFIC®

## MATERIAL SAFETY DATA SHEET

### 1. PRODUCT AND COMPANY IDENTIFICATION

**Product Identifier:** LIQUID FLUX 5RMA

**MSDS Number:** MSDS-IN LF-008

**Revised Date:** 22 JANUARY 2003

**Product Use:** Liquid 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:

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##### 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 #	OSHA PEL mg/m <sup>3</sup>	TLV-TWA mg/m <sup>3</sup>	TLV-STEL mg/m <sup>3</sup>
<u>ROSIN</u>	40-50	65997-05-9	N.E.	N.E.	N.E.
		(EU)	0.05	N.E.	0.15
<u>ALCOHOLS</u>	30-40	71076-86-3	N.E.	N.E.	N.E.
<u>METHYL ETHYL KETONE</u>	10-30	78-93-3	590	590	885
		(EU)	N.E.	600	899
		(CANADA)		590	885

Symbol: X<sub>n</sub>F

Risk Phrases: R36/37/38, R11

N.E. = Not established

EU = European Union Occupational Exposure Limits

### 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 to severely irritating to the eyes and if not removed promptly, may result in serious eye injury. Do not allow material to come in contact with the eyes.
- Ingestion:** Harmful if swallowed. May cause irritation and damage to the mouth, esophagus and gastrointestinal tract. May have systematic effects.
- Inhalation:** Heated vapor concentrations may be harmful if inhaled. Material may be destructive to the tissue of the mucous membranes and upper respiratory tract.
- Skin Contact:** May cause mild skin irritation. May be harmful if absorbed through the skin. Allergic reactions are possible, especially with repeated or prolonged exposure.
- Chronic:** Not established.
- 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:** 11 C (52 F)      **Method:** Not available
- Auto-ignition Temperature:** Not established.
- Flammable Limits:** Limits not established. Flammable
- Extinguishing Media:** Use extinguishers appropriate for the surrounding fire conditions. Foam, dry chemical, water spray.
- Special Fire Fighting Procedures:** Firefighters must wear NIOSH approved self-contained breathing apparatus and full protective clothing. Evacuate area and fight fire from a safe distance. Containers can build up pressure if exposed to heat (fire) or flame.

## 6. ACCIDENTAL RELEASE MEASURES

**Spill or Leak Procedures:** Wear a respirator and appropriate Personal Protective (See Exposure Controls/Personal Protective Section). Size of spill shall determine respiratory protection from air purifying to self contained breathing apparatus. Keep unnecessary and unprotected personnel from entering the spill area. 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

**Handling Precautions:** 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.

**Storage Precautions:** 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

**Engineering Controls:** Exhaust ventilation should be sufficient to control airborne levels.

### Personal protection:

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

**Respirator:** 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.

**Skin:** Compatible chemical resistant gloves. Protective outer garment, apron. Sleeves as appropriate. Face Shield.

**Other:** Eyewash fountain in work area. Avoid the use of contact lenses in high fume areas.

**Work/Hygienic Practices:** 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	<b>Boiling Point:</b>	84 C (183 F)
<b>Odor:</b>	Slight characteristic odor.	<b>Melting Point:</b>	Not applicable
<b>Specific Gravity:</b>	0.91	<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

**General:** Stable.

**Conditions to Avoid:** 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

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

**LD50:**                      Not established.                      **LC50:**                      Not established.

**Other:** None known

## 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.

Flammable Liquid, N.O.S., (methyl ethyl ketone, alcohols), 3, UN1993, II

## 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: Class B Division 2

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

SARA 313 Listing - 40 CFR 372.65 - Methyl Ethyl Ketone CAS#78-93-3

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

X<sub>n</sub>F**Risk Phrases:**

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

R11 Highly Flammable

**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:** 22 JANUARY 2003**Prepared by:** Nancy Swarts, Indium Corporation of America**Approved by:** Nancy Swarts, Indium Corporation of America

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