



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

### 1. PRODUCT AND COMPANY IDENTIFICATION

**Product Identifier:** RA-2 FLUX CAKE

**MSDS Number:** MSDS- 4449

**Revised Date:** 29 JANUARY 2007

**Product Use:** FLUX CAKE

#### MANUFACTURER:

##### In America:

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

##### 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>
ROSIN	96-98	65997-05-7 (EU)	N.E. 0.05	N.E. -	N.E. 0.15 (sensitizer)
ADDITIVE	2.0-4.0	-	N.E.	N.E.	N.E.

N.E. = Not established

### 3. HAZARDS IDENTIFICATION

#### PRIMARY ROUTES OF ENTRY:

⊗Eye    ⊗Inhalation    ⊗Skin    ⊗Ingestion    NTP    IARC    OSHA    ⊗Not Listed

#### Carcinogen listed in

#### POTENTIAL HEALTH EFFECTS:

**Eye Contact:**    May cause eye irritation.

**Ingestion:**    May cause irritation.

**Inhalation:**    May cause irritation to the respiratory tract. Prolonged exposure may cause occupational asthma.

**Skin Contact:**    May cause skin irritation. May cause skin sensitization or allergic reaction.

**NOTE:**    **The Indium Corporation does not recommend, manufacture, market or endorse any of its product's 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 or allergic skin reaction persists, get medical attention.

### 5. FIRE FIGHTING MEASURES

**Flash Point:**    175C                      **Method:**    Closed cup

**Auto-ignition Temperature:**    Not established

**Flammable Limits:**    Not available

**Extinguishing Media:**    Use extinguishers appropriate for the surrounding fire conditions, such as foam or dry chemical.

**Special Fire Fighting Procedures:**    Firefighters must wear NIOSH approved or equivalent self-contained breathing apparatus and full protective clothing.

Powered material may form explosive dust-air mixtures. Material may accumulate a static charge, which could act as an ignition source.

## 6. ACCIDENTAL RELEASE MEASURES

**Spill or Leak Procedures:** Wear a respirator and appropriate personal protection (See Exposure Controls/Personal Protective Section). Do not sweep material without proper personal protection. Remove sources of ignition. Avoid dust generation.

Keep unauthorized personnel away. Dispose of following all Federal, State and Local regulations. Chemicals should not be released to sewer or other waterways.

## 7. HANDLING AND STORAGE

**Handling Precautions:** Keep containers tightly closed when not in use. Use care to avoid spills. Avoid breathing dust from 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 or bags may be hazardous as they contain product residue.

### Solid Product:

Static charges generated by emptying package in or near flammable vapors may cause flash fire. May form flammable dust-air mixtures. Dust may cause eye irritation. May cause allergic skin reaction (sensitization) in susceptible individuals. Repeated exposure may lead to respiratory sensitization (asthma).

### Molten Product:

Avoid contact with molten material. Wear a face shield when working with molten material. When material is heated, wear gloves to protect against thermal burns.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**Engineering Controls:** Good exhaust ventilation should be sufficient to control airborne contaminant levels and keep exposures as low as possible. Avoid breathing dust. Molten state material requires ventilation or capture of any fumes or vapors.

### Personal protection:

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

**Respirator:** A NIOSH approved or EU compliant CE marked air-purifying respirator is recommended under certain circumstances where airborne concentrations are expected to be elevated. Evaluate the situation and determine whether additional respiratory protection is required. If so use particulate cartridge. Under certain conditions a HEPA dust mask may be worn.

**Skin:** Compatible chemical resistant gloves should be worn to prevent direct contact with skin. Protective outer garment, apron and sleeves as appropriate.

**Other:** Eyewash fountain and shower in work area. Avoid the use of contact lenses in dusty 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>	Solid/amber	<b>Boiling Point:</b>	NA
<b>Odor:</b>	Slight	<b>Melting Point:</b>	NA
<b>Specific Gravity:</b>	1.102 @25C	<b>pH:</b>	NA
<b>Solubility in Water:</b>	negligible		
<b>Vapor Pressure:</b>	32C		

**10. STABILITY AND REACTIVITY**

<b>General:</b>	Stable.
<b>Conditions to Avoid:</b>	None known
<b>Incompatible Materials:</b>	Strong oxidizing agents
<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

Oral LD-50 (rat) >4,000 mg/kg  
Oral LD-50(mouse) >4,000 mg/kg  
Inhalation LC-50 (rat) 6h > 0.585 mg/l  
Dermal LD-50 (rabbit) >2,500 mg/kg

**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.

**14. TRANSPORT INFORMATION**

Transport in accordance with applicable regulations and requirements.  
 Non hazardous for transport. Not regulated under the US DOT.

**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).

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 - None

All ingredients are listed on the EPA TSCA Inventory.

EC Classification, Packaging and Labeling Requirements:

Symbol and Hazard Classification of Product

XI

R36/37/38 Irritating to eyes, by inhalation and if swallowed.

R42/43 May cause sensitization by inhalation and skin contact

**Safety Phrases:**

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

S24/25 Avoid contact with skin and eyes

S36/37/39 Wear suitable protective clothing, gloves and eye/face protection

S7 Keep container tightly closed

**16. OTHER INFORMATION**

<b>HMIS Hazard Rating:</b>	<b>Health:</b>	1
	<b>Fire:</b>	1
	<b>Reactivity:</b>	0

**Revised Date:** 29 JANUARY 2007

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

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

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insure proper health, safety and other necessary information is included on the container.