



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

### 1. PRODUCT AND COMPANY IDENTIFICATION

**Product Identifier:** CS-113

**MSDS Number:** MSDS-1005

**Revised Date:** 10 FEBRUARY 2006

**Product Use:** Cleaning Solvent

#### 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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No. 428 Xinglong Street  
Suzhou Industrial Park  
Suchun Industrial Square  
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Jiangsu Province, China 215126  
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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	TLV-TWA	TLV-STEL
POLYGLYCOL ETHER	90-100	9038-95-3	mg/m <sup>3</sup> N.E.	mg/m <sup>3</sup> N.E.	mg/m <sup>3</sup> N.E.
PROPRIETARY ADDITIVES	0-10		N.E.	N.E.	N.E.

Symbol: X<sub>n</sub>

N.E. = Not established

Risk Phrases: R36/37/38

EU = European Union Occupational Exposure Limits

### 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 moderate irritation to the eyes. May cause slight corneal injury. May cause lacrimation. Effects likely to heal readily.
- Ingestion:** Single dose oral toxicity is considered to be low. Small amounts swallowed incidental to normal handling operations are not likely to cause injury; swallowing amounts larger than that may cause injury. Observations in animals include ataxia, tremors and convulsions.
- Inhalation:** Heated vapor concentrations may be harmful if inhaled.
- Skin Contact:** May cause mild skin irritation. A single prolonged exposure is not likely to result in the material being absorbed through the skin in harmful amounts.
- 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:** 126 C (259 F)     **Method:**     Setaflash
- Auto-ignition Temperature:** 202C
- Flammable Limits:** Not established
- Extinguishing Media:** Use extinguishers appropriate for the surrounding fire conditions. Foam, dry chemical, water spray. Do not use direct water stream.
- Special Fire Fighting Procedures:** Firefighters must wear NIOSH approved self-contained breathing apparatus and full protective clothing.

## 6. ACCIDENTAL RELEASE MEASURES

**Spill or Leak Procedures:** Wear a respirator and appropriate Personal Protective (See Exposure Controls/Personal Protective Section). Keep non-emergency personnel from 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 in carbon steel, stainless steel or teflon containers. Store away from incompatible materials. Empty containers may be hazardous as they contain product residue.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**Engineering Controls:** Good exhaust ventilation should be sufficient to control airborne levels. Local exhaust may be necessary for some operations.

**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 under certain circumstances where airborne concentrations are expected to be elevated. Most conditions do not require respiratory protection.

**Skin:** Compatible chemical resistant gloves. Protective outer garment, apron and sleeves as appropriate.

**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>	Clear Liquid	<b>Boiling Point:</b>	274C (525 F)
<b>Odor:</b>	Mild characteristic odor.	<b>Freezing Point:</b>	< -75 C
<b>Vapor Density:</b>	>6 (Air = 1)	<b>pH:</b>	Not established
<b>Vapor Pressure:</b>	<0.01 mmHG @ 20C	<b>Solubility in Water:</b>	<4
<b>Specific Gravity:</b>	0.930 @ 25/25		
<b>VOC Content:</b>	932 g/l or 7.77 lbs/gal as per Rule 443.1 of California SCAQMD		

## 10. STABILITY AND REACTIVITY

<b>General:</b>	Stable.
<b>Conditions to Avoid:</b>	Product can decompose at elevated temperatures.
<b>Incompatible Materials:</b>	Strong oxidizing agents
<b>Hazardous Decomposition / Combustion:</b>	Aldehydes, ketones and organic acids.
<b>Hazardous Polymerization:</b>	Will not occur.

## 11. TOXICOLOGICAL INFORMATION

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

**LD50:** For skin absorption in rats and rabbits is >2000 mg/kg. For oral male rats is 3100 mg/kg and female rats is 2600 mg/kg.

**LC50:** Not established.

**Other:** In vitro mutagenicity studies were negative. Animal mutagenicity studies were negative.

## 12. ECOLOGICAL INFORMATION

This section is subject to future development.

**Biodegradability:** Based on stringent test guidelines, this material can not be considered as readily biodegradable; however, these results do not necessarily mean that material is not biodegradable under environmental conditions. Material is ultimately biodegradable. Reaches more than 70% mineralization in OECD test (s) for inherent biodegradability. Biodegradation reached in CO2 Evolution Test (Modified Sturm Test, OECD Test No. 301B) after 28 days: 21.5-24.3%. Biodegradation reached in Modified Zahn-Wellens/EMPA Test (OECD Test No. 302 B) after 28 days: 93%.

**Aquatic Toxicity:** Material is practically non-toxic to aquatic organisms on an acute basis (LC50 greater than 100 mg/l in most sensitive species). Acute LC50 for guppy (*Poecilia reticulata*) is 564 mg/l. Acute LC50 for water flea (*Daphnia magna*) is greater than 1000 mg/l. Growth inhibition EC50 for green alga (*Selenastrum capricornutum*) is 265-351 mg/l.

## 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. Do not dump into any sewers, on the ground or into any body of water.

## 14. TRANSPORT INFORMATION

Transport in accordance with applicable regulations and requirements.  
North American Emergency Guide Book: Not specifically listed or categorized.

## 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 Mexican regulations: NOM-018-STPS-2000 and NOM-010-STPS-1999.

This product has been classified in accordance with the hazard criteria of the Canadian Controlled Products Regulation (CPR).

WHMIS: D2B – Eye and skin irritant.

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 - None

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>

### 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/gas/vapor/spray

S24/25 Avoid contact with skin and eyes

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

S28 After contact with skin wash immediately with plenty of soap and water

S7 Keep container tightly closed

**16. OTHER INFORMATION**

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

**Revised Date:**            10 FEBRUARY 2006

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

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

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