



INDIUM CORPORATION OF AMERICA®\EUROPE®\ASIA-PACIFIC®
INDIUM CORPORATION (SUZHOU)®

SAFETY DATA SHEET

1. PRODUCT AND COMPANY IDENTIFICATION

Product Identifier: INDIUM 80 BATTERY FLUX

MSDS Number: MSDS-HG4133

Revised Date: 27 JANUARY 2010

Product Use: Industrial Use - Flux

MANUFACTURER:

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2. HAZARDS IDENTIFICATION

PRIMARY ROUTES OF ENTRY:

Eye

Inhalation

Skin

Ingestion

NTP

Carcinogen listed in

IARC

OSHA

Not Listed

GHS:



POTENTIAL HEALTH EFFECTS:

- Eye Contact:** Vapors may be irritating, liquid may damage eye tissue. May cause burns to the eyes.
- Ingestion:** May cause persistent nausea, vomiting and abdominal pain.
- Inhalation:** May be harmful if inhaled. May cause irritation to respiratory tract.
- Skin Contact:** May cause irritation. May be harmful if absorbed through the skin. May cause burns to the skin.
- Chronic:** May cause delayed target organ effects to spleen, lymphatic system, thymus and bone marrow. Contains a substance classified as a teratogen.
- NOTE:** **The Indium Corporation does not recommend, manufacture, market or endorse any of its products for human consumption.**
- Warning:** This product contains a chemical known to the State of California to cause cancer and birth defects (or other reproductive harm). (CAS# 872-50-4)

3. COMPOSITION / INFORMATION ON INGREDIENTS

Components	% wt	CAS Registry #	PEL mg/m ³	TLV-TWA mg/m ³	TLV-STEL mg/m ³
OXYGENATED SOLVENT	65-75	872-50-4 (US)	N.E	N.E	N.E.
		(EU)	-	103	309
MINERAL ACID	5	10035-10-6(US)	10	N.E.	9.9(ceiling)
		(EU)	-	-	10
		(Canada)	-	-	9.9(ceiling)
		(Singapore)	-	-	9.9
		(Mexico)	-	-	10
WATER	20 - 30	7732-18-5	N.E	N.E	N.E.

Symbol: Xi

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: >200 F **Method:** NA

Auto-ignition Temperature: ND

Flammable Limits: ND

Extinguishing Media: Dry chemical, Water or CO₂. 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. Flammable vapors may travel great distances to ignition source and flash back.

6. ACCIDENTAL RELEASE MEASURES

Spill or Leak Procedures: Do not allow material to enter sewer system or waterway. Check with local authority on discharge to any body of water. Product has a low end pH which may be regulated under state or local laws. Wear personal protective equipment. Eliminate sources of ignition. Ventilate area. 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. Wear personal protective equipment. Wear personal protective equipment as needed. Avoid inhalation of mist or vapors. Take measures to prevent build-up of static charge.

Storage Precautions: Store product in tightly capped original containers in a cool, dry and well-ventilated 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. Splash hazard also requires a face shield.

Respirator: An authority 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/splash 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

Appearance:	Liquid Amber	Boiling Point:	396°F
Odor:	Mild	Evaporation Rate:	>1
Specific Gravity:	1.100 @ 60° F	pH:	2.15
Vapor Pressure:	>1	Solubility in Water:	Soluble
Vapor Density:	ND	% Volatiles by volume:	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, brominated oxides.
Hazardous Polymerization:	Will not occur.

11. TOXICOLOGICAL INFORMATION

Carcinogenicity:	NTP: No		
	OSHA: No		
	IARC: No		
LD50:	Not established.	LC50:	Not established.

Contains an ingredient:

LD50 Oral – rat – 3,914 mg/kg

LD50 – Dermal – rabbit – 8,000 mg/kg

12. ECOLOGICAL INFORMATION

Product not tested.

Product contains an ingredient, which is readily 90% biodegradable.

Toxicity to fish: LC50 – other fish – 4,000 mg/l – 96h

LC50 – *Leuciscus idus* > 500 mg/l – 96h

Toxicity to bacteria: >9,000 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.

14. TRANSPORT INFORMATION

Transport in accordance with applicable regulations and requirements. Not hazardous under shipping requirements.

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 enough data to classify.

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

Warning: This product contains a chemical known to the State of California to cause cancer and birth defects (or other reproductive harm). (CAS 872-50-4)

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

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

SARA 313 Listing - 40 CFR 372.65: None

All ingredients are listed on the EPA TSCA Inventory.

Ingredients are listed on the Canadian Domestic Substance List.

EC Classification, Packaging and Labeling Requirements:

Symbol and Hazard Classification of Product

Xi

Risk Phrases:

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

R61 May cause harm to the unborn child (oxygenated solvent)

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
S41	In case of fire and/or explosion do not breathe fumes

16. OTHER INFORMATION

HMIS Hazard Rating:

Health:	2
Fire:	1
Reactivity:	0

Revised Date: 27 JANUARY 2010

Prepared by: Nancy Swarts, Indium Corporation of America

Approved by: Nancy Swarts, Indium Corporation of America

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