



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

## **SAFETY DATA SHEET**

### **1. PRODUCT AND COMPANY IDENTIFICATION**

**Product Identifier:** #70 BATTERY FLUX

**SDS Number:** SDS-4161

**Revised Date:** 6 MARCH 2015

**Product Use:** INDUSTRIAL USE - SOLVENT BASED BATTERY FLUX

#### **MANUFACTURER:**

##### **In America:**

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## 2. HAZARDS IDENTIFICATION

### PRIMARY ROUTES OF ENTRY:

Eye   
 Inhalation   
 Skin   
 Ingestion   
 NTP   
 Carcinogen listed in IARC   
 OSHA   
Not Listed



Signal Word: Danger

#### Hazard statement(s)

H226 Flammable liquid and vapour  
 H302 Harmful if swallowed  
 H314 Causes severe skin burns and eye damage  
 H333 May be harmful if inhaled  
 H335 May cause respiratory irritation  
 H402 Harmful to aquatic life

#### Precautionary statement(s)

P210 Keep away from heat/sparks/open flames/hot surfaces. – No smoking  
 P233 Keep container tightly closed  
 P240 Ground/bond container and receiving equipment  
 P261 Avoid breathing dust/fume/gas/mist/vapors/spray  
 P270 Do not eat, drink or smoke when using this product  
 P273 Avoid release to the environment  
 P280 Wear protective gloves/protective clothing/eye protection/face protection  
 P362 Take off contaminated clothing and wash before reuse  
 P301 + P314 IF SWALLOWED: Get Medical advice/attention if you feel unwell  
 P302 +P352 IF ON SKIN: Wash with plenty of soap and water  
 P304 + 341 IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing  
 P305 + 351 IF IN EYES: Rinse continuously with water for several minutes (15 mins)

#### Classification:

Flammable liquid- Category 3  
 Acute toxicity, oral- Category 4  
 Skin corrosion- Category 1C  
 Acute toxicity, inhalation- Category 5  
 Specific target organ, single exposure, respiratory tract irritation- Category 3  
 Acute aquatic – Category 3

### POTENTIAL HEALTH EFFECTS:

**Eye Contact:** Vapors may be irritating, liquid may damage eye tissue.

**Ingestion:** Harmful if swallowed

**Inhalation:** Vapor may cause headache and or dizziness. May cause irritation to respiratory system.

**Skin Contact:** May cause irritation. Prolonged contact may cause burns to the skin

**Chronic:** Not established.

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

**Warning:** This product contains chemicals known to the State of California to cause cancer and birth defects (or other reproductive harm). (trace levels of ethylene oxide, 1,4 dioxane)

### 3. 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>
ISOBUTYL ALCOHOL	35-45	78-33-1 (US)	300	152	-
		(Canada)	-	152	227
		(Singapore)	152	-	-
		(Mexico)	-	150	225
		(China)	-	350	700
HYDROBROMIC ACID	10-15	10035-10-6(US)	10	N.E.	9.9(ceiling)
		(EU)	-	-	10
		(Canada)	-	-	9.9(ceiling)
		(Singapore)	-	-	9.9(ceiling)
		(Mexico)	-	-	10
(China)	-	10	-		
PROPRIETARY ALCOHOL	20-25	-	N.E.	N.E.	N.E.
ETHANOLAMINE	5-10	141-43-5(US)	6	7.5	15
		(EU)	-	7.6	15
		(Canada)	-	7.5	15
		(Singapore)	7.5	-	15
		(Mexico)	-	8	15
(China)	-	8	15		

Symbol: X<sub>n</sub>, F, C  
N.E. = Not established

Risk Phrases: R20/21/22, R36/37/38, R10  
EU = European Exposure Limits



protection may be required in confined areas.

**Skin:** Compatible chemical resistant gloves. Use gloves such as nitrile, which are compatible with alcohol and corrosive substances. Latex gloves are not recommended.

**Other:** Lab coat, eye-wash fountain in work area. Avoid the use of contact lenses in high fume 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

<b>Appearance:</b>	Colorless	<b>Boiling Point:</b>	225 F
<b>Odor:</b>	Alcohol odor.	<b>Evaporation Rate:</b>	>2
<b>Specific Gravity:</b>	1.045 @60F	<b>pH:</b>	<1
<b>Vapor Pressure:</b>	20 mm HG @ 68F	<b>Solubility in Water:</b>	Soluble
<b>Vapor Density:</b>	NA	<b>% Volatiles by volume:</b>	90

## 10. STABILITY AND REACTIVITY

**General:** Stable.

**Conditions to Avoid:** Direct heat, open flames and storage in aluminum.

**Incompatible Materials:** Anhydrides, halogens, phosphorus, trichlorides, monomers, aldehydes

**Hazardous Decomposition / Combustion:** Carbon dioxide/carbon monoxide/unidentified organics during combustion

**Hazardous Polymerization:** Will not occur.

## 11. TOXICOLOGICAL INFORMATION

<b>Carcinogenicity:</b>	National Toxicity Program <b>NTP:</b>	No	
	Occupational Safety & Health Administration <b>OSHA:</b>	No	
	International Agency for Research on Cancer <b>IARC:</b>	No	
<b>LD50:</b>	Not established.	<b>LC50:</b>	Not established.

Isobutyl alcohol- RTECS: NP9625000  
 Hydrobromic acid- RTECS: MW3850000  
 Ethanolamine- RTECS: KJ5775000

Product mixture not tested.

## 12. ECOLOGICAL INFORMATION

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.

Corrosive liquid, Flammable, N.O.S., (isobutyl alcohol, hydrobromic acid), 8, UN 2920, PGII

North America Emergency Guide Book – Guide #132



### 15. REGULATORY INFORMATION

The information in this 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.).

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



WHMIS: Class B2 Flammable Liquid

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 (s) known to the State of California to cause cancer and birth defects (or other reproductive harm). (trace levels of ethylene oxide, 1,4 dioxane)

SARA 313 Listing - 40 CFR 372.65: trace levels of ethylene oxide, 1,4 dioxane, ethylene oxide.

All ingredients are listed on the EPA TSCA Inventory.

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

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

EC Classification, Packaging and Labeling Requirements:

Symbol and Hazard Classification of Product

X<sub>n</sub>,F, C

**Risk Phrases:**

R20/21/22 Harmful by inhalation, in contact with skin and if swallowed

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

R 10 Flammable

**Safety Phrases:**

S16 Keep away from sources of ignition - "No Smoking"

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

**16. OTHER INFORMATION**

<b>HMIS Hazard Rating:</b>	<b>Health:</b>	3
	<b>Fire:</b>	2
	<b>Reactivity:</b>	0

**Revised Date:** 6 MARCH 2015**Prepared by:** Nancy Swarts, Indium Corporation of America**Approved by:** Nancy Swarts, Indium Corporation of America

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