



## INDIUM CORPORATION OF AMERICA

®\EUROPE®\ASIA-PACIFIC®/INDIUM CORPORATION (SUZHOU) ®

### SAFETY DATA SHEET

#### 1. PRODUCT AND COMPANY IDENTIFICATION

**Product Identifier:** 3549-HF10

**SDS Number:** SDS-4423

**Revised Date:** 18 FEBRUARY 2015

**Product Use:** INDUSTRIAL USE - WAVE FLUX

#### MANUFACTURER:

##### In America:

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

##### EMERGENCY PHONE:

**CHEMTREC 24 hrs.**  
**USA: 1 (800) 424-9300**  
**Outside USA: +1 (703) 527-3887**

##### In Europe:

Indium Corporation of Europe  
7 Newmarket Ct.  
Kingston, Milton Keynes, UK, MK 10 OAG  
Information: +44 [0] 1908 580400

##### In China:

Indium Corporation (Suzhou) Co., Ltd.  
No. 428 Xinglong Street  
Suzhou Industrial Park  
Suchun Industrial Square  
Unit No. 14-C  
Jiangsu Province, China 215126  
Information: (86) 512-6283-4900

##### In Asia:

Indium Corporation of America  
Asia-Pacific Operations-Singapore  
29 Kian Teck Avenue  
Singapore 628908  
Information: +65 6268-8678

## 2. HAZARDS IDENTIFICATION

### PRIMARY ROUTES OF ENTRY:

\*Eye      \*Inhalation      \*Skin      \*Ingestion      NTP

### Carcinogen listed in

IARC      OSHA      \*Not Listed

GHS:



Signal Word: Danger

### Hazard statement(s)

H225      Highly flammable liquid and vapor  
 H319      Causes serious eye irritation  
 H336      May cause drowsiness or dizziness

### 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  
 P241      Use explosion-proof electrical/ventilating/lightening/equipment  
 P242      Use only non- sparking tools  
 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 2  
 Eye irritation – Category 2A  
 Specific target organ toxicity- single exposure – Category 3- central nervous system

### POTENTIAL HEALTH EFFECTS:

**Eye Contact:**      Vapors may be irritating, liquid may damage eye tissue. May cause severe eye irritation

**Ingestion:**      May cause irritation.

**Inhalation:**      Vapor may cause headaches and or dizziness. May cause respiratory irritation.

**Skin Contact:**      Prolonged contact may cause irritation. Repeated or prolonged exposure may cause drying and cracking of the skin.

**Chronic:**      Not established.

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

### 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>
ISOPROPANOL	82-92	67-63-0 (US)	980	983	1225
PROPAN-2-OL		(EU)	-	999	1250
		(Canada)	-	983	1228
		(Singapore)	983	-	1230
		(Mexico)	-	980	1225
		(China)	-	350	700
PROPRIETARY SOLVENT	2-8	-	300	150	-
PROPRIETARY ACTIVATORS	1.0-16.0	-	N.E.	N.E.	N.E.

Symbol: XI, F  
N.E. = Not established

Risk Phrases: R36/37/38, R11, R67

**PRODUCT DOES NOT CONTAIN ANY EU REPORTABLE SUBSTANCES OF VERY HIGH CONCERN**

### 4. FIRST AID MEASURES

- Eye Contact:** Hold eyelids apart and flush eyes with plenty of tepid 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:** 12°C (54°F)      **Method:** Closed Cup
- Auto-ignition Temperature:** N/A
- Flammable Limits:** Upper: 12 @77°F; Lower 2 @ 77°F
- Extinguishing Media:** Dry chemical, Water or CO<sub>2</sub>. 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. Wear personal protective equipment. Eliminate sources of ignition. Ventilate area in accordance with regulations. 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. Ground containers.

**Storage Precautions:** Store product in tightly capped original containers in a cool, dry 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 is recommended.

### Personal protection:

**Eyes:** Chemical safety glasses/goggles. Face shield for any splash hazards.

**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, which are compatible with alcohols

**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>	Amber	<b>Boiling Point:</b>	Not established
<b>Odor:</b>	Alcohol odor.	<b>Evaporation Rate:</b>	Not established
<b>Specific Gravity:</b>	Not established	<b>pH:</b>	Not available
<b>Vapor Pressure:</b>	Not established	<b>Solubility in Water:</b>	Not established
<b>Vapor Density:</b>	2.1 (air=1)		

## 10. STABILITY AND REACTIVITY

**General:** Stable.

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

<b>Incompatible Materials:</b>	Anhydrides, halogens, phosphorus, trichlorides, monomers, aldehydes
<b>Hazardous Decomposition / Combustion:</b>	Carbon dioxide/carbon monoxide.
<b>Hazardous Polymerization:</b>	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.
--------------	------------------	--------------	------------------

IPA (isopropyl alcohol)  
 LD50 rat, oral-5,045 mg/kg  
 LC50 inhalation, rat-8h-16000 ppm  
 LD50, dermal, rabbit-12,800 mg/kg

## 12. ECOLOGICAL INFORMATION

Product not tested.

Toxicity to fish- LC50 – Pimephales promelas (fathead minnow), 9,640 mg/l-96h

## 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. Flammable material.

UN1219, Isopropanol, 3, PG II (solution)



North America Emergency Guide Book – Guide #129

## 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).



Canadian WHMIS:

Class B Division 2 Flammable, D2B Toxic Material Causing Other Toxic Effects (eye irritation in animals).

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.

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

XI,F

**Risk Phrases:**

R36/37/38 Irritating to eyes, respiratory system and skin  
 R 11 Highly Flammable  
 R67 Vapors may cause drowsiness and dizziness

**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

RoHS 2(Restriction of Hazardous Substances: Product complies with the EU Directive 2011/65/EU. Product does not contain any metals or flame retardants.

## 16. OTHER INFORMATION

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

**Revised Date:** 18 FEBRUARY 2015

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

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

The information and recommendations contained herein are, to the best of The Indium Corporation of America's knowledge and belief, accurate and reliable as of the date issued. The Indium Corporation of America does not warrant or guarantee their accuracy or reliability, and The Indium Corporation of America shall not be liable for any loss or damage arising out of the user thereof. The information and recommendations are offered for the user's consideration and examination, and it is the user's responsibility to satisfy itself that they are suitable and complete for its particular use. If buyer repackages this product, legal counsel should be consulted to insure proper health, safety and other necessary information is included on the container.