



## SAFETY DATA SHEET

### 1. PRODUCT AND COMPANY IDENTIFICATION

**Product Identifier:** FLUX 3519

**SDS Number:** SDS-HG4025

**Revised Date:** 20 MARCH 2018

**Product Use:** Industrial Use - Solder Flux- wave flux, rosin flux

#### MANUFACTURER:

##### In America:

**The Indium Corporation of America®.**

34 Robinson Rd., Clinton, NY 13323

Information: (315) 853-4900

[nswarts@indium.com](mailto:nswarts@indium.com)

##### EMERGENCY PHONE:

**CHEMTREC 24 hrs.**

**USA: 1 (800) 424-9300**

**Outside USA: +1 (703) 527-3887**

##### In Europe:

**The Indium Corporation of America® (European Operations)**

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:

XEye      XInhalation      XSkin      XIngestion      NTP      **Carcinogen listed in**  
 IARC      OSHA      XNot Listed

GHS:



Signal Word: Danger

#### Hazard Statements:

H225      Highly flammable liquid and vapor  
 H317      May cause an allergic skin reaction  
 H319      Causes serious eye irritation  
 H334      May cause allergy or asthma symptoms or breathing difficulties if inhaled  
 H335      May cause respiratory irritation  
 H336      May cause drowsiness or dizziness  
 EUH208      Contains rosin. May produce an allergic reaction

#### Precautionary statement(s)

P210      Keep away from heat/sparks/open flames/hot surfaces. – No smoking  
 P233      Keep container tightly closed  
 P240      Ground container and receiving equipment  
 P242      Use spark resistant 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 +P364      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:

Isopropyl alcohol:  
 Flammable Liquid - Category 2  
 Serious eye damage/eye irritant - Category 2  
 Specific target organ systemic toxicity (single exposure) – Category 3 Central Nervous system

### POTENTIAL HEALTH EFFECTS:

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

**Ingestion:**      May result in gastric disturbances such as nausea and vomiting.

**Inhalation:**      May cause throat irritation, headache or dizziness. Rosin based products may cause respiratory sensitization.

**Skin Contact:**      May cause irritation. Contact with rosin based product may cause dermatitis.

**Chronic:**      Not established.

**NOTE:**      **The Indium Corporation does not recommend, manufacture, market or endorse any of it's 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>
ISOPROPYL ALCOHOL	55-60	67-63-0 (US)	980	983	1230
		(EU)	-	999	1250
		(Canada)	-	983	1228
		(Singapore)	983	-	1230
		(Mexico)	-	980	1225
		(China)	-	350	700
ROSIN	25-30	8050-09-7	N.E.	N.E.	N.E.
		(EU)	0.05	-	0.15
TERPENE HYDROCARBON	5-15	9005-90-7(US)	N.E.	N.E.	N.E.
PROPRIETARY	5-10	-	N.E.	N.E.	N.E.

N.E. = Not established

**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:** 18C(65F)      **Method:** TCC
- Auto-ignition Temperature:** Not available
- Flammable Limits:** Upper limit 12. Lower limit 0.8.
- Extinguishing Media:** Water, CO<sub>2</sub>, Dry chemical. Use extinguishers appropriate for the surrounding fire conditions.
- Special Fire Fighting Procedures:** Standard fire fighting equipment

**6. ACCIDENTAL RELEASE MEASURES**

**Spill or Leak Procedures:** DO NOT allow material to enter sewer system or waterway. Wear personal protective equipment, such as gloves and depending on the quantity a respirator with organic cartridges may be required. Clean up by absorption. Eliminate sources of ignition. Keep unnecessary personnel away. Put clean-up materials in a properly labeled metal drum. 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.

**Storage Precautions:** Store product in tightly capped original containers in a cool, dry area away from sources of ignition. 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 to keep exposure limits as low as possible.

### Personal protection:

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

**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.

**Other:** Lab coat, eyewash 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

<b>Appearance:</b>	Amber	<b>Boiling Point:</b>	81°C (178°F)
<b>Odor:</b>	Alcoholic	<b>Melting Point:</b>	Not applicable
<b>Specific Gravity:</b>	0.860	<b>pH:</b>	Not available
<b>Vapor Pressure:</b>	27.2 mm HG @68°F	<b>Solubility in Water:</b>	Insoluble
<b>Vapor Density:</b>	2.62	<b>Evaporation Rate:</b>	1.7
<b>Volatile by Volume:</b>	75%		

## 10. STABILITY AND REACTIVITY

**General:** Stable.

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

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

**Hazardous Decomposition / Combustion:** Carbon dioxide/carbon monoxide.

**Hazardous Polymerization:** Will not occur.

**11. TOXICOLOGICAL INFORMATION**

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

**LD50:**                      Not established.                      **LC50:**                      Not established.

**Other:** Prolonged or repeated exposure to rosin flux fume may cause workers to develop occupational asthma.

Oral LD50 (isopropyl alcohol)

LD50 Oral- rat- 5,045 mg/kg

Inhalation LC50 (isopropyl alcohol)

LC50 inhalation-rat-8h-16000 ppm

Dermal LD50

LD50 – Dermal- rabbit-12,800 mg/kg

RTECS: Isopropyl alcohol NT8050000

**12. ECOLOGICAL INFORMATION**

This section is subject to future development.

LC50-Pimephales promelas (fathead minnow)- 9,640 mg/l – 96h (isopropyl alcohol)

EC50-Daphnia magna (water flea) – 5,102 mg/l – 24h (isopropyl alcohol)

**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.

UN1219, Isopropanol , 3, PG II



North American Emergency Guide Book – Guide #129

MARINE POLLUTANT: NO

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



This product has been classified under the Mexican regulations NOM-018-STPS-2015 and NOM-010-STPS-2014.

### In China:

This product has been classified using the Chinese Occupational Limit for Hazardous Agents in the Workplace, GBZ2-2007. Decree No. 591: Regulations on the Control over Safety of Hazardous Chemicals GB 30000.2-29-2013, Rules for classification and labeling of chemicals. (GHS) GB/T 16483-2008, GB/T 17517-2013

This product has been classified in accordance with: Malaysian – OCCUPATIONAL SAFETY AND HEALTH (CLASSIFICATION, LABELING AND SAFETY DATA SHEET OF HAZARDOUS CHEMICALS) REGULATION OCTOBER 2013 – (CLASS).

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

## 16. OTHER INFORMATION

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

<b>Revised Date:</b>	20 MARCH 2018
<b>Prepared by:</b>	Nancy Swarts, Indium Corporation of America
<b>Approved by:</b>	Nancy Swarts, Indium Corporation of America

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