



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

SAFETY DATA SHEET

1. PRODUCT AND COMPANY IDENTIFICATION

Product Identifier: WAVE SOLDER FLUX 1085

SDS Number: SDS-HG013

Revised Date: 3 DECEMBER 2014

Product Use: Industrial Use - Wave Solder 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

The Indium Corporation of America
80 Scott Street
Elk Grove Village, Illinois 60007

In Europe:

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

In Asia:

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

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

2. HAZARDS IDENTIFICATION

PRIMARY ROUTES OF ENTRY:

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

GHS:



Signal Word: Danger

Hazard Statements:

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
 P243 Take precautionary measures against static discharge
 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.
Ingestion: May cause irritation. May be harmful by ingestion.
Inhalation: Vapor may cause headaches and or dizziness. May cause irritation.
Skin Contact: Prolonged contact may cause irritation.

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 ³	TLV-TWA mg/m ³	TLV-STEL mg/m ³
ISOPROPANOL (PROPAN-2-OL)	75-80	67-63-0 (US)	980	983	1225
		(EU)	-	999	1250
		(Canada)	-	983	1228
		(Singapore)	983	-	1230
		(Mexico)	-	980	1225
		(China)	-	350	700
PROPRIETARY	10-20		N.E.	N.E.	N.E.
POLYOL	5 - 10	56-81-5	N.E	N.E	N.E.

Symbol: Xi, F

Risk Phrases: R36/37/38, R11

PRODUCT DOES NOT CONTAIN ANY LISTED EU SUBSTANCES OF VERY HIGH CONCERN (SVHC)

N.E. = Not established

EU = European Exposure Limits

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: 20°C (68°F) **Method:** Closed Cup

Auto-ignition Temperature: 371°C (700°F)

Flammable Limits:	Upper: 12 @77°F; Lower 2 @ 77°F
Extinguishing Media:	Dry chemical, Water or CO ₂ . 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 from static charge.

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 recommended.

Personal protection:

Eyes: Chemical safety glasses/goggles. Face shield for 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/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, Light Straw	Boiling Point:	81°C (177°F)
Odor:	Alcohol odor.	Evaporation Rate:	1.7
Specific Gravity:	0.868 @ 60° F	pH:	Not available
Vapor Pressure:	33 mm HG @68 F	Solubility in Water:	Soluble

Vapor Density: 2.1 (air=1)**% Volatiles by volume:** 76-80

10. STABILITY AND REACTIVITY

General: Stable.

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

Incompatible Materials: Anhydrides, halogens, oxidizing agents

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.

Product not tested.

Isopropyl alcohol:
LD50 oral-rat-5,045 mg/kg
LC50 Inhalation-rat-8h-16000 ppm
LD50-dermal-rabbit-12,800 mg/kg

12. ECOLOGICAL INFORMATION

Product not tested.

Isopropyl alcohol:
LC50-Pimephales promelas (fathead minnow)- 9,640 mg/l – 96h
EC50-Daphnia magna (water flea)-5,102 mg/l – 24h

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. Generally considered to be hazardous waste.

14. TRANSPORT INFORMATION

Transport in accordance with applicable regulations and requirements.

Shipping : UN 1219, Isopropanol, 3, PG II (mixture)



North American Emergency Response Guidebook – 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.

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, 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

16. OTHER INFORMATION

HMIS Hazard Rating:

Health:	2
Fire:	3
Reactivity:	0

Revised Date: 3 DECEMBER 2014

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.