



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

To better serve all of our customers Indium Corporation has generated one MSDS, for this product, to be used within the United States as well as internationally. Some of the regulatory information contained within may not be applicable to the customer's individual state or country. Unless otherwise stated the health and safety information provided within is applicable to all products.

SAFETY DATA SHEET

1. PRODUCT AND COMPANY IDENTIFICATION

Product Identifier: NC-771

SDS Number: SDS-IN LF013

Revised Date: 1 APRIL 2014

Product Use: Industrial Use - Liquid 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:



Signal Word: Danger

Hazard Statements:

- H225 Highly Flammable liquid and vapor
- H316 Causes mild skin irritation
- 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 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 – isopropyl alcohol

Eye irritant – (Category 2A)

Flammable liquids - (Category 2)

Skin irritation- (Category 3)

Specific target organ systemic toxicity (single exposure) – (Category 3), Central nervous system

POTENTIAL HEALTH EFFECTS:

Eye Contact: Irritating to the eyes and if not removed promptly, may result in serious eye injury. Do not allow material to come in contact with the eyes.

Ingestion: May cause irritation.

Inhalation: Heated vapor concentrations may be irritating to respiratory tract. Vapors may cause drowsiness and dizziness. Acute effects to high levels of isopropyl alcohol through inhalation are alcoholic intoxication and narcosis.

Skin Contact: May cause skin irritation.

Chronic: Isopropyl alcohol target organs: nerves/kidneys. Otherwise not established.

Note: The Indium Corporation does not recommend, manufacture, market or endorse any of it's product's for human consumption.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Components	% wt	CAS Registry #/EINECS	PEL mg/m ³	TLV-TWA mg/m ³	TLV-STEL mg/m ³
2-PROPANOL					
(ISOPROPYL ALCOHOL)	85-95	67-63-0/200-661-7			
		(US)	980	983	1230
		(EU)	N.E.	999	1250
		(Canada)	N.E.	983	1228
		(Singapore)	983	-	1230
		(Mexico)	-	980	1225
		(China)	-	350	700
PROPRIETARY	5-15		N.E.	N.E.	N.E.

Symbol: XI, F

Risk Phrases: R11, R36, R67

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

N.E. = Not established

EU = European Union Occupational Exposure

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: 16°C(60°F) **Method:** Closed cup equilibrium method.

Auto-ignition Temperature: Not established.

Flammable Limits: Flammable, limits not established

Extinguishing Media:	Use extinguishers appropriate for the surrounding fire conditions.
Special Fire Fighting Procedures:	Firefighters must wear NIOSH approved self-contained breathing apparatus and full protective clothing.

6. ACCIDENTAL RELEASE MEASURES

Spill or Leak Procedures:	Wear a respirator and appropriate personal protection (See Exposure Controls/Personal Protective Section). Absorb spill with inert material (e.g., dry sand or earth), then place in a chemical waste container. Do not allow to enter waterway. Keep flame away or other sources of ignition. Dispose of following all Federal, State and Local regulations. In the EU refer to the Waste assessment rules.
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7. HANDLING AND STORAGE

Handling Precautions:	Keep containers tightly closed when not in use. Use care to avoid spills. Avoid breathing vapors from heated material. Avoid contact with eyes, skin and clothing. Use with adequate ventilation. Ground containers.
Storage Precautions:	Store product in tightly capped original containers in a cool, dry area. Keep away from heat and flame. Store away from incompatible materials. Empty containers may be hazardous as they contain product residue. Ground containers for static protection.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Controls:	Local exhaust ventilation may be necessary to control any air contaminants to within their exposure limits during the use of this product. Additionally, the odor threshold of isopropyl alcohol is 50 ppm and ventilation may be required to keep annoyance odors to the minimum levels. Ventilation is recommended when heating product. Use non-sparking tools and equipment.
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 under certain circumstances where airborne concentrations are expected to be elevated.
Skin:	Compatible chemical resistant gloves(nitrile). Protective outer garment, apron and sleeves as appropriate.
Other:	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. 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:	Clear Liquid mixture	Boiling Point:	Not applicable.
Odor:	Mild alcoholic odor.	Melting Point:	Not applicable

Specific Gravity:	0.8255	
Vapor Pressure:	Not applicable.	Solubility in Water: Soluble
Vapor Density:	(air=1) Not applicable.	

10. STABILITY AND REACTIVITY

General:	Stable.
Conditions to Avoid:	Open flame or other sources of ignition and high temperatures. Acids, halogens, aluminum and oxidizing agents.
Hazardous Decomposition / Combustion:	Elemental oxides
Hazardous Polymerization:	Will not occur.

11. TOXICOLOGICAL INFORMATION

Carcinogenicity:	NTP: No
	OSHA: No
	IARC: No

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

Product not tested.

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. Recycle or dispose of as hazardous waste.
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14. TRANSPORT INFORMATION

Transport in accordance with applicable regulations and requirements.

Shipping Name: UN1219, Isopropanol ,3, PG II

Marine Pollutant: No



North American Emergency Guide Book 2012: Guide #129
Marine Pollutant: No

Shipping small quantities: Ground ONLY

40 CFR 173.150 - Exceptions for Class 3 (Flammable Liquids). Limited quantities of flammable liquids, Class 3, are excepted from labeling requirements for ground shipment only. For Packing Group II, inner packaging not over 5.0L (1.3 gallons) net capacity each, packed in a strong outer packaging.

40 CFR 172.203 – Limited quantities- when a shipping paper is required the description for a material offered for transportation as “limited quantity” must include the words “Limited Quantity” following the basic description.

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

Review 40 CFR for clarification and further information.

Shipping via aircraft requires compliance with the regulations and not under exceptions.

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 complies with the requirements under the EU Directive 2002/95/EC (RoHS).

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 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 Agent in the Workplace, GBZ2-2002.

SARA 313 Listing - 40 CFR 372.65 - None

All ingredients are listed on the EPA TSCA Inventory.

EC Classification, Packaging and Labeling Requirements:

Symbol and Hazard Classification of Product

XI, F

Risk Phrases:

R11 Highly Flammable
R36 Irritating to eyes
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/gas/vapor/spray

S24/25 Avoid contact with skin and eyes

S36/37/39 Wear suitable protective clothing, gloves and eye/face protection

S28 After contact with skin wash immediately with plenty of soap and water

S62 If swallowed, do not induce vomiting seek medical advice immediately and show container or label

S7 Keep container tightly closed

16. OTHER INFORMATION

Revised Date: 1 APRIL 2014

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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.

Note: This MSDS may be translated into an international language. If there is any misinterpretation or misunderstanding of any words or phases that may occur within any translation the ENGLISH language shall always prevail.