



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

MSDS Number: MSDS-IN LF013

Revised Date: 13 AUGUST 2009

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



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: Harmful if swallowed. May cause irritation and damage to the mouth, esophagus and gastrointestinal tract.

Inhalation: Heated vapor concentrations may be harmful if inhaled. Moderately 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 mild skin irritation. Allergic reactions are possible, especially with repeated or prolonged exposure.

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

Note: **The Indium Corporation does not recommend, manufacture, market or endorse any of its 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, R36/37/38

N.E. = Not established

EU = European Union Occupational Exposure

4. FIRST AID MEASURES

- Eye Contact:** Hold eyelids apart and flush eyes with plenty of 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. 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. Avoid breathing vapors from heated material. Avoid contact with eyes, skin and clothing. Use with adequate ventilation.
- 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:** A NIOSH approved or EU compliant CE 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. 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 | Boiling Point: | Not applicable. |
| Odor: | Mild alcoholic odor. | Melting Point: | Not applicable |
| Specific Gravity: | Not applicable. | pH: | Not applicable |
| 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
- LD50:** Not established. **LC50:** Not established.
- RTECS: Isopropyl alcohol NT8050000

12. ECOLOGICAL INFORMATION

This section is subject to future development.

Product not tested.

WGK Germany (water hazard class) Class 1

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.

14. TRANSPORT INFORMATION

Transport in accordance with applicable regulations and requirements.

Shipping Name: UN1219, Isopropanol ,3, PGII (mixture)



North American Emergency Guide Book 2004: Guide #129

15. REGULATORY INFORMATION

The information in this Material 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.).

The information in this Material Safety Data Sheet meets the requirements of the EU under Chemicals (Hazard Information and Packaging for Supply) Regulations 1994 (CHIP 2) Regulation 6.

This product has been classified in accordance with the hazard criteria of the Commission Directive 91/155/EEC and EH40.

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,

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

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

HMIS Hazard Rating:

Health:	2
Fire:	3
Reactivity:	0

Revised Date: 13 AUGUST 2009

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Approved by: Nancy Swarts, Indium Corporation of America

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