## SAFETY DATA SHEET

### 1. PRODUCT AND COMPANY IDENTIFICATION

<table>
<thead>
<tr>
<th>Product Identifier:</th>
<th>1095-NF</th>
</tr>
</thead>
<tbody>
<tr>
<td>SDS Number:</td>
<td>SDS-HG006</td>
</tr>
<tr>
<td>Revised Date:</td>
<td>26 JANUARY 2016</td>
</tr>
<tr>
<td>Product Use:</td>
<td>Industrial use – mixture - Wave Solder Flux (liquid flux)</td>
</tr>
</tbody>
</table>

**MANUFACTURER:**

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

Chicago Materials Division  
80 Scott St.  
Elk Grove Village, Illinois  60004  
Information: (847) 439-9135

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

**EMERGENCY PHONE:**
CHEMTREC 24 hrs.  
USA: 1 (800) 424-9300  
Outside USA: +1 (703) 527-3887
2. HAZARDS IDENTIFICATION

PRIMARY ROUTES OF ENTRY: Eye Inhalation Skin Ingestion Carcinogen listed in NTP IARC OSHA Not Listed

GHS:

Signal Word: Danger

Hazard statement(s)

- H225 Highly flammable liquid and vapor
- H319 Causes serious eye irritation
- H335 May cause respiratory irritation
- H336 May cause drowsiness or dizziness
- H412 Harmful to aquatic life with long lasting effects

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
- 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
- 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
Serious eye damage/eye irritant – Category 2
Flammable liquids - Category 2
Specific target organ systemic toxicity (single exposure) – Category 3

POTENTIAL HEALTH EFFECTS:

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

Ingestion: May result in gastric disturbances.

Inhalation: May cause throat irritation, headache and nausea.

Skin 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.

WARNING: Applicable in the State of California: This product contains chemicals known to the State of California to cause cancer and/or birth defects (or other reproductive harm). (trace levels of contaminants not intentionally added)

3. COMPOSITION / INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Components</th>
<th>% wt</th>
<th>CAS Registry #</th>
<th>PEL mg/m³</th>
<th>TLV-TWA mg/m³</th>
<th>TLV-STEL mg/m³</th>
</tr>
</thead>
<tbody>
<tr>
<td>ISOPROPANOL</td>
<td>75-85</td>
<td>67-63-0 (US)</td>
<td>980</td>
<td>983</td>
<td>1230</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(EU) N.E.</td>
<td>999</td>
<td>1250</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(Canada) N.E.</td>
<td>983</td>
<td>1228</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(Mexico) N.E.</td>
<td>980</td>
<td>1225</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(Singapore) 983</td>
<td>-</td>
<td>1230</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(China) -</td>
<td>350</td>
<td>700</td>
<td></td>
</tr>
<tr>
<td>PROPRIETARY</td>
<td>10-15</td>
<td>-</td>
<td>N.E.</td>
<td>N.E.</td>
<td>N.E.</td>
</tr>
<tr>
<td>SURFACTANT</td>
<td>5-10</td>
<td>9003-11-6</td>
<td>N.E.</td>
<td>N.E.</td>
<td>N.E.</td>
</tr>
</tbody>
</table>

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: 54 F (12C)  Method: Closed Cup
Auto-ignition Temperature: None
Flammable Limits: Upper: 12 Lower: 2
Extinguishing Media: Use extinguishers appropriate for the surrounding fire conditions (water/dry chemical).
6. ACCIDENTAL RELEASE MEASURES

Spill or Leak Procedures: Do not allow chemical material to enter sewer system or waterway. Eliminate sources of ignition. Contain spill and absorb if possible. Wear personal protective equipment. Dispose of following all Federal, State and Local 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. Keep away from sources of ignition.

Storage Precautions: Store product in tightly capped original containers in a cool, dry and ventilated area. Refer to product label for specific storage temperature requirements. Rotate stock to ensure use before expiration date on the label. Store away from sources of ignition.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Controls: Face velocity >2.1 cubic feet/minute in confined areas. Ventilation should be sufficient to reduce exposure to below exposure levels.

Personal protection:

Eyes: Chemical safety glasses/splash goggles/face shield.

Respirator: A NIOSH approved or EU compliant CE 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 for isopropanol.

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

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Liquid, light yellow</td>
</tr>
<tr>
<td>Odor</td>
<td>Alcoholic odor.</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>0.838 @ 77F</td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td>31 mm HG @25°C</td>
</tr>
<tr>
<td>Vapor Density</td>
<td>&gt;1</td>
</tr>
<tr>
<td>Boiling Point</td>
<td>(180°F)</td>
</tr>
<tr>
<td>Melting Point</td>
<td>Not applicable</td>
</tr>
<tr>
<td>pH</td>
<td>6.5 (as is) 7.0 (1% solution)</td>
</tr>
<tr>
<td>Solubility in Water</td>
<td>Soluble</td>
</tr>
</tbody>
</table>
10. STABILITY AND REACTIVITY

General: Stable.

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

Incompatible Materials: Strong alkali, halogens, phosphorus, 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.

RTECS: Isopropyl alcohol NT8050000

12. ECOLOGICAL INFORMATION

Biodegradability: Data not established on product.
Aquatic Toxicity: Data not established on product

Product contains a chemical ingredient that is toxic to aquatic environment. May cause long term adverse effects in the aquatic environment.

Isopropyl alcohol – 4396 mg/kg (rat) LD50 oral/ 12800 mg/kg (rat) LD50 dermal/ 72.6 mg/l (rat) 4h LC50 inhalation

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. Contains 3% of an ingredient that is harmful to the environment. Product is flammable and generally is disposed of as hazardous waste.
14. TRANSPORT INFORMATION

Transport in accordance with applicable regulations and requirements.

Shipping Name: UN1219, Isopropanol, 3, PG II

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 Mexican Standards NOM-018-STPS-2000 and NOM-010-STPS-1999.

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.

WARNING (Applicable in the State of California): This product contains chemicals known to the State of California to cause cancer and/or birth defects (or other reproductive harm). Safe Drinking Water Standard. Trace levels not intentionally added: ethylene oxide, propylene oxide, 1,4 dioxane

SARA 313 Listing - 40 CFR 372.65: Trace levels of ethylene oxide, propylene oxide, 1,4 dioxane

All ingredients are listed on the EPA TSCA Inventory.
Ingredients are listed on the Canadian Domestic Substance List.
## 16. OTHER INFORMATION

<table>
<thead>
<tr>
<th>HMIS Hazard Rating:</th>
<th>Health:</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Fire:</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Reactivity:</td>
<td>0</td>
</tr>
</tbody>
</table>

Revised Date: 26 JANUARY 2016  
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.