1. PRODUCT AND COMPANY IDENTIFICATION

Product Identifier: INDIUM SSF-1 BRAZING FLUX
MSDS Number: MSDS-4312
Revised Date: 05 JANUARY 2006
Product Use: ALL PURPOSE BRAZING FLUX (LOW TEMPERATURE SOLDERS)

MANUFACTURER:

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

In Europe:
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:
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. 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-STELE mg/m³</th>
</tr>
</thead>
<tbody>
<tr>
<td>POTASSIUM TETRAFLUOROBORATE</td>
<td>70-75</td>
<td>14075-53-7</td>
<td>N.E.</td>
<td>N.E.</td>
<td>N.E.</td>
</tr>
<tr>
<td>WATER</td>
<td>25-30</td>
<td>7732-18-5</td>
<td>N.E.</td>
<td>N.E.</td>
<td>N.E.</td>
</tr>
</tbody>
</table>

Risk Phrases: R36/37/38
N.E. = Not established

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INDIUM CORPORATION (SUZHOU) ©

MATERIAL SAFETY DATA SHEET

Page 1 of 5
3. HAZARDS IDENTIFICATION

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

POTENTIAL HEALTH EFFECTS:
Eye Contact: Vapors may be irritating and liquid may damage eye tissue.
Ingestion: May cause severe irritation to mouth, throat and stomach. Contains fluoride.
Inhalation: May cause irritation of respiratory tract.
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.

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.

Note to Physician: Contains caustic material

5. FIRE FIGHTING MEASURES

Flash Point: None  Method: N/A
Auto-ignition Temperature: N/A
Flammable Limits: N/A
Extinguishing Media: Dry chemical, Water or CO₂. 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.
### 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. Refer to product label for specific storage temperature requirements. Rotate stock to ensure use before expiration date on the label.

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### 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.
- **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. Additional protection may be required in confined areas.
- **Skin:** Compatible chemical resistant gloves.
- **Other:** Lab coat, eye-wash fountain in work area. Avoid the use of contact lenses in high fume 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.

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### 9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>White paste</td>
</tr>
<tr>
<td>Boiling Point</td>
<td>N/D</td>
</tr>
<tr>
<td>Odor</td>
<td>Mild paraffin odor</td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>N/D</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>Not available</td>
</tr>
<tr>
<td>pH</td>
<td>N/A</td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td>NA</td>
</tr>
<tr>
<td>Solubility in Water</td>
<td>Soluble</td>
</tr>
<tr>
<td>Vapor Density</td>
<td>NA</td>
</tr>
</tbody>
</table>

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### 10. STABILITY AND REACTIVITY
**General:**
Stable.

**Conditions to Avoid:**
Excessive heat

**Incompatible Materials:**
Acids and contact with lime dust

**Hazardous Decomposition / Combustion:**
Carbon dioxide, hydrogen fluoride, boron oxides

**Hazardous Polymerization:**
Will not occur.
11. TOXICOLOGICAL INFORMATION

Carcinogenicity: National Toxicity Program (NTP): No
Occupational Safety & Health Administration (OSHA): No
International Agency for Research on Cancer (IARC): No

LD50: Not established.  LC50: Not established.

Potassium tetrafluoroborate  RTECS#ED2800000

12. ECOLOGICAL INFORMATION

This section is subject to future development.

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

13. DISPOSAL CONSIDERATION

Waste Disposal Method: Dispose of in accordance with all Federal, State and Local environmental regulations.

14. TRANSPORT INFORMATION

Transport in accordance with applicable regulations and requirements.
Non-hazardous for transport.

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).

This product has been classified in accordance with the guidelines set by the Dept of Industrial Health of the Republic of Singapore.

SARA 313 Listing - 40 CFR 372.65: None
All ingredients are listed on the EPA TSCA Inventory.
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 Agents in the Workplace, GBZ2-2002.

EC Classification, Packaging and Labeling Requirements:
Symbol and Hazard Classification of Product

**Risk Phrases:**
R36/37/38 Irritating to eyes, respiratory system and skin

**Safety Phrases:**
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
S7 Keep container tightly closed

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### 16. OTHER INFORMATION

**HMIS Hazard Rating:**
- Health: 1
- Fire: 0
- Reactivity: 0

**Revised Date:** 05 JANUARY 2006

**Prepared by:** Nancy Swarts, Indium Corporation of America

**Approved by:** Nancy Swarts, Indium Corporation of America

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