MATERIAL SAFETY DATA SHEET
MSDS 0121

Section 1 -- PRODUCT AND COMPANY IDENTIFICATION

HMIS CODES
PRODUCT NAME C-Flux
C-Flux
PRODUCT CODES 74025, 74026
CHEMICAL FAMILY Organic/Inorganic
USE Soldering Flux
MANUFACTURER'S NAME The RectorSeal Corporation
2601 Spenwick Drive Houston, Texas 77055 USA
EMERGENCY TELEPHONE NO. Chemtrec 24 Hours
(800) 424-9300
VALIDATION DATE March 15, 2006
REVISION DATE March 15, 2006

Section 2 -- COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>% by WT</th>
<th>CAS No.</th>
<th>INGREDIENT</th>
<th>UNITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;20</td>
<td>7646-85-7 Zinc Chloride</td>
<td>ACGIH TLV 1 mg/m3</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>OSHA PEL 1 mg/m3</td>
</tr>
<tr>
<td>&lt;1</td>
<td>12125-02-9 Ammonium Chloride</td>
<td>ACGIH TLV 10 mg/m3</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>OSHA PEL 10 mg/m3</td>
</tr>
<tr>
<td>&lt;10</td>
<td>1314-13-2 Zinc Oxide</td>
<td>ACGIH TLV 5 mg/m3</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>OSHA PEL 5 mg/m3</td>
</tr>
<tr>
<td>-</td>
<td>7440-31-5 Tin</td>
<td>ACGIH TLV 5 mg/m3</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>OSHA PEL 5 mg/m3</td>
</tr>
<tr>
<td>&lt;1</td>
<td>7440-36-0 Antimony</td>
<td>ACGIH TLV 0.5 mg/m3</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>OSHA PEL 0.5 mg/m3</td>
</tr>
</tbody>
</table>

Section 3 -- HAZARDS IDENTIFICATION

SUMMARY OF ACUTE HAZARDS
Irritation to respiratory system from fumes evolved during soldering.
Eye contact may cause intense irritation and injury.

ROUTE OF EXPOSURE, SIGNS AND SYMPTOMS

INHALATION
Irritation to respiratory system from fumes evolved during soldering.

EYE CONTACT
Contact may cause intense irritation and injury.

SKIN CONTACT
May cause skin irritation.

INGESTION
Nausea, vomiting, irritation to digestive system.

SUMMARY OF CHRONIC HAZARDS

Short term effects to liver and kidneys can occur. Chemical irritation from continued skin contact can occur. Continuous industrial use in small unventilated areas may result in sufficient inhalation of solder and flux fumes to cause lung damage and irritation of respiratory tract.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE

Individuals with pre-existing or chronic diseases of the eyes, skin, respiratory system, cardiovascular system, gastrointestinal system, liver, or kidneys may have increased susceptibility to excessive exposure.

Section 4 -- FIRST AID MEASURES

If INHALED: If overcome by exposure, remove victim to fresh air immediately. Give oxygen or artificial respiration as needed. Obtain emergency medical attention. Prompt action is essential.

If on SKIN: Immediately wash with soap and water. Remove and wash any contaminated clothing.

If in EYES: Flush eyes with large amounts of water for 15 minutes. Get medical attention if irritation persists.

If SWALLOWED: If swallowed, call a physician immediately. Only induce vomiting at the instruction of a physician. Never give anything by mouth to an unconscious person.

Section 5 -- FIRE FIGHTING MEASURES

FLASH POINT LEL UEL
>230 F (110 C) SETA CC N/D N/D

EXTINGUISHING MEDIA

Foam, dry chemical, carbon dioxide or water fog.

SPECIAL FIRE FIGHTING PROCEDURES: Wear self-contained full face piece breathing apparatus and other protective clothing. Hazardous decomposition products possible (see Section 10). May release ZnO and HCl fumes.

UNUSUAL FIRE AND EXPLOSION HAZARDS: Heat may build up pressure and rupture closed containers.

Section 6 -- ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Wipe up spills to prevent footing hazard. Avoid flushing into sewers, drains, waterways and soil. Wear protective clothing during clean up.

Section 7 -- HANDLING AND STORAGE

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING: Keep container closed and upright when not in use. Store flux at ambient conditions. Wash thoroughly after handling to remove all residue.

OTHER PRECAUTIONS: Avoid prolonged or repeated contact with skin or clothing.

Empty containers may contain residues; treat as if full and observe all products precautions. Do not reuse empty containers.

Section 8 -- EXPOSURE CONTROLS/PERSONAL PROTECTION

RESPIRATORY PROTECTION (SPECIFY TYPE): In confined, poorly ventilated areas, use NIOSH/MSHA approved air purifying or supplied air respirators during
soldering operations until fumes have dissipated.
VENTILATION - LOCAL EXHAUST: Acceptable
MECHANICAL (GENERAL): Acceptable
OTHER: N/A
PROTECTIVE GLOVES: Wear rubber gloves.
EYE PROTECTION: Safety glasses (ANSI Z-87.1 or equivalent)
OTHER PROTECTIVE CLOTHING OR EQUIPMENT: Coveralls recommended.
WORK/HYGIENIC PRACTICES: Where use can result in skin contact, wash exposed areas thoroughly before eating, drinking, smoking, or leaving work area. Launder contaminated clothing before reuse.

Section 9 -- PHYSICAL AND CHEMICAL PROPERTIES

- BOILING POINT: N/D
- SPECIFIC GRAVITY (H2O = 1): 1.59
- VAPOR PRESSURE (mm Hg): N/D
- MELTING POINT: N/D
- VAPOR DENSITY (AIR = 1): N/A
- EVAPORATION RATE (ETHYL ACETATE = 1): N/A
- APPEARANCE/ODOR: Gray Paste / No Odor
- SOLUBILITY IN WATER: Insoluble
- VOLATILE ORGANIC COMPOUNDS (VOC) Content:
  (Theoretical Percentage By Weight): 0% or (0 g/L)

Section 10 -- STABILITY AND REACTIVITY

- STABILITY: Stable
- CONDITIONS TO AVOID: None
- INCOMPATIBILITY (MATERIALS TO AVOID): None known
- HAZARDOUS DECOMPOSITION PRODUCTS: Toxic fumes of zinc, chlorine, and HCL may be evolved during soldering.
- HAZARDOUS POLYMERIZATION: Will not occur.

Section 11 -- TOXICOLOGY INFORMATION

CHRONIC HEALTH HAZARDS
No ingredient in this product is an IARC, NTP or OSHA listed carcinogen.

TOXICOLOGY DATA
Ingredient Name

- Zinc Chloride
  Oral-Rat LD50:350 mg/kg
  Inhalation-Rat LC50:1960 mg/m3/10M

- Ammonium Chloride
  Oral-Rat LD50:1650 mg/kg
  Inhalation-Rat LC50:N/D

- Zinc Oxide
  Oral-Rat TDL0:6846 mg/kg
  Inhalation-Mouse LC50:2500 mg/m3

- Tin
  Oral-Rat TD50:N/D
  Inhalation-Rat LC50:N/D

- Antimony
  Oral-Rat LD50:7 g/kg
  Inhalation-Rat TCL0:50 mg/m3/7H/52W-I
Section 12 -- Ecological Information

ECOLOGICAL DATA
Ingredient Name

**Zinc Chloride**
- Food Chain Concentration Potential: None
- WATERFOWL TOXICITY: N/A
- BOD: None
- AQUATIC TOXICITY: 7.2 ppm/96 hr/medium bluegill/TLM

**Ammonium Chloride**
- Food Chain Concentration Potential: None
- WATERFOWL TOXICITY: N/A
- BOD: N/A
- AQUATIC TOXICITY: 6 ppm/96 hr/sunfish TLM

**Zinc Oxide**
- Food Chain Concentration Potential: N/D
- WATERFOWL TOXICITY: N/D
- BOD: N/D
- AQUATIC TOXICITY: N/D

**Tin**
- Food Chain Concentration Potential: N/D
- WATERFOWL TOXICITY: N/D
- BOD: N/D
- AQUATIC TOXICITY: N/D

**Antimony**
- Food Chain Concentration Potential: N/D
- WATERFOWL TOXICITY: N/D
- BOD: N/D
- AQUATIC TOXICITY: N/D

Section 13 -- DISPOSAL CONSIDERATIONS

Waste Classification: Non-regulated solid waste
Disposal Method: Approved landfill
Waste from this product is not considered hazardous as defined under the Resource Conservation and Recovery Act (RCRA) 40 CFR 261. Dispose of in accordance with Federal, State, and Local regulation regarding pollution.

Section 14 -- TRANSPORTATION INFORMATION

DOT: Non-Regulated
OCEAN (IMDG): Non-Regulated
AIR (IATA): Non-Regulated
WHMIS (CANADA): Non-Regulated

Section 15 -- REGULATORY INFORMATION

REGULATORY DATA
Ingredient Name

**Zinc Chloride**
- SARA 313: Yes
- TSCA Inventory: Yes
- CERCLA RQ: 1000 lb.
- RCRA Code: N/A
<table>
<thead>
<tr>
<th>Material</th>
<th>SARA 313</th>
<th>TSCA Inventory</th>
<th>CERCLA RQ</th>
<th>RCRA Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ammonium Chloride</td>
<td>No</td>
<td>Yes</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Zinc Oxide</td>
<td>Yes</td>
<td>Yes</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Tin</td>
<td>No</td>
<td>Yes</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Antimony</td>
<td>Yes</td>
<td>Yes</td>
<td>5,000 lb.</td>
<td>N/A</td>
</tr>
</tbody>
</table>

This document is prepared pursuant to the OSHA Hazard Communication Standard (29 CFR 1910.1200). The information herein is given in good faith, but no warranty, expressed or implied is made. Consult RectorSeal for further information: (713) 263-8001