SECTION 1: CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Company Address:  
8125 Cobb Center Drive  
Kennesaw, GA   30152

Product Information:  800-TECH-401  
Emergency:   (Chemetrec) 800-424-9300

Customer Service:  800-645-5244  
Revision Date:   April 4, 2008

Product Identification  
NEW & IMPROVED FLUX-OFF® NO CLEAN

Product Code:  ES1695, ES895B

SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS#</th>
<th>Wt. % Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>trans-1,2-dichloroethylene</td>
<td>156-60-5</td>
<td>20.0-50.0</td>
</tr>
<tr>
<td>HCFC-225ca</td>
<td>422-56-0</td>
<td>10.0-20.0</td>
</tr>
<tr>
<td>HCFC-225cb</td>
<td>507-55-1</td>
<td>10.0-20.0</td>
</tr>
<tr>
<td>1,1,1,2-tetrafluoroethane</td>
<td>811-97-2</td>
<td>10.0-25.0</td>
</tr>
<tr>
<td>Tetrahydrofuran</td>
<td>109-99-9</td>
<td>1.0-5.0</td>
</tr>
<tr>
<td>Carbon dioxide</td>
<td>124-38-9</td>
<td>1.0-5.0</td>
</tr>
<tr>
<td>Methanol</td>
<td>67-56-1</td>
<td>1.0-3.0</td>
</tr>
</tbody>
</table>

SECTION 3: HAZARD IDENTIFICATION

Emergency Overview: Clear, colorless liquid with strong ethereal odor. This product is nonflammable. Liquid may irritate eyes and skin under repeated or prolonged exposure. Breathing high concentrations of product vapors may produce drowsiness and a headache.

Potential Health Effects:
- Eyes: Liquid, aerosols and vapors of this product may be irritating and can cause pain, tearing, reddening and swelling accompanied by a stinging sensation.
- Skin: Contact may cause skin irritation.
- Ingestion: Harmful if swallowed. Irritating to mouth, throat and stomach. May cause vomiting.
- Inhalation: Harmful if inhaled. High concentrations of vapors in immediate area can displace oxygen and can cause dizziness, unconsciousness, and even death with longer exposure. Keep people away from such vapors without self-contained breathing apparatus.

Pre-Existing Medical Conditions Aggravated by Exposure: Lung, skin, eye, gastrointestinal tract, central nervous system.

SECTION 4: FIRST AID

- Eyes: Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Have eyes examined and tested by medical personnel if irritation develops or persists.
- Skin: Wash skin with soap and water. Remove contaminated clothing. Get medical attention if irritation develops or persists. Wash clothing separately before reuse.
- Ingestion: Do not induce vomiting. Keep head below knees to minimize chance of aspirating material into the lungs. Never give anything by mouth to an unconscious person. Get medical attention immediately.
- Inhalation: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

SECTION 5: FIRE FIGHTING MEASURES

Flash Point: None (TCC)  
LEL/UEL: Not available

Extinguishing media: Use alcohol foam, carbon dioxide, or water spray when fighting fires involving this material.

Fire Fighting Instructions: As in any fire, wear self-contained breathing apparatus (pressure-demand, MSHA/NIOSH approved or equivalent) and full protective gear.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Large Spills: Shut off leak if possible and safe to do so. Wear a self-contained breathing apparatus and appropriate personal protective equipment. Absorb spill with inert material (e.g. dry sand or earth), then place in a chemical waste container for proper disposal. Do not flush to sewer. Avoid runoff into storm sewers and ditches which lead to waterways.

Small Spills: Absorb spill with inert material (e.g. dry sand or earth), then place in a chemical waste container for proper disposal.

SECTION 7: HANDLING AND STORAGE

Avoid prolonged or repeated contact with eyes, skin, and clothing. Wash hands before eating. Use with adequate ventilation. Avoid breathing product vapor or mist. Do not reuse this container. Store in a cool dry place away from heat, sparks or flames. Keep container closed when not in use. Do not store in direct sunlight.

KEEP OUT OF REACH OF CHILDREN.

SECTION 8: EXPOSURE CONTROLS, PERSONAL PROTECTION

Exposure Guidelines:  
CHEMICAL NAME  | ACGIH TLV | OSHA PEL | ACGIH STEL | OTHER |
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>trans-1,2-dichloroethylene</td>
<td>200 ppm</td>
<td>not established</td>
<td>not established</td>
<td>100 ppm*</td>
</tr>
<tr>
<td>HCFC-225ca/HCFC-225cb</td>
<td>not established</td>
<td>not established</td>
<td>not established</td>
<td>1000 ppm*</td>
</tr>
<tr>
<td>1,1,1,2-tetrafluoroethane</td>
<td>not established</td>
<td>not established</td>
<td>not established</td>
<td></td>
</tr>
<tr>
<td>Tetrahydrofuran</td>
<td>50 ppm</td>
<td>200 ppm</td>
<td>100 ppm</td>
<td></td>
</tr>
<tr>
<td>Carbon dioxide</td>
<td>5000 ppm</td>
<td>10,000 ppm</td>
<td>30,000 ppm</td>
<td></td>
</tr>
<tr>
<td>Methanol</td>
<td>200 ppm</td>
<td>200 ppm</td>
<td>250 ppm</td>
<td></td>
</tr>
</tbody>
</table>

* Supplier’s Occupational Exposure Limit

Work/Hygienic Practices: Good general ventilation should be sufficient to control airborne levels. Local exhaust ventilation may be necessary to control any air contaminants to within their TLVs during the use of this product. If vapor concentration exceeds TLV, use NIOSH approved organic vapor cartridge respirator. Wear safety glasses with side shields (or goggles) and rubber or other chemically resistant gloves when handling this material.
NFPA and HMIS Codes:

<table>
<thead>
<tr>
<th>Property</th>
<th>NFPA</th>
<th>HMIS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Flammability</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Reactivity</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Personal Protection</td>
<td>-</td>
<td>B</td>
</tr>
</tbody>
</table>

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Clear colorless liquid
Odor: Ethereal
PH: NA
Vapor Pressure: 205 mm Hg @ 68 F
Vapor Density: >1
Boiling Point: 99 F (37C)

SECTION 10: STABILITY AND REACTIVITY

Stability: - This product is stable. Conditions to Avoid: Do not spray near open flames, red hot surfaces or other sources of ignition.
Incompatibility: Do not mix with powdered alkali and alkaline earth metals or strong oxidizing agents.
Products of Decomposition: Thermal decomposition may release carbon monoxide, carbon dioxide and incompletely burned hydrocarbons as well as hydrochloric and hydrofluoric acid vapor.

SECTION 11: TOXICOLOGICAL INFORMATION:

Inhalation:
- Methanol: LC50 rat 64,000 ppm/4 hrs
- HCFC-225ca: LC50 rat 37,300 ppm/4 hrs
- HCFC-225cb: LC50 rat 36,800 ppm/4 hrs
- trans,1,2-dichloroethylene: LC50 rat 24,100 ppm/4 hrs
- Tetrahydrofuran: LC50 Rat 18,000ppm/4hrs

Eye:
- trans,1,2-dichloroethylene: MOD – SEV
- HCFC-225ca/HCFC-225cb: rabbit
- Tetrahydrofuran: Moderate irritant

Ingestion:
- Methanol: LD50 rat >5,000 mg/kg
- HCFC-225ca: LD50 >5,000 mg/kg
- HCFC-225cb: LD50 >5,000 mg/kg
- trans,1,2-dichloroethylene: LD50 rabbit >5,000 mg/kg
- Methanol: LD50 rabbit 15,800 mg/kg
- HCFC-225ca/HCFC-225cb: LD50 rabbit >2,000 mg/kg
- Tetrahydrofuran: Severe irritant

Cancer Information: No ingredients listed as human carcinogens by NTP or IARC
Reproductive effects: none
Teratogenic effects: none
Mutagenic effects: none

SECTION 12: ECOLOGICAL INFORMATION

Environmental Impact Information
Avoid runoff into storm sewers and ditches which lead to waterways. Water runoff can cause environmental damage.

REPORTING
US regulations require reporting spills of this material that could reach any surface waters. The toll free number for the US Coast Guard National Response Center is: 1-800-424-8802

SECTION 13: DISPOSAL CONSIDERATIONS
Dispose of in accordance with all federal, state and local regulations. Water runoff can cause environmental damage.

SECTION 14: TRANSPORTATION INFORMATION

<table>
<thead>
<tr>
<th>Proper Shipping Name</th>
<th>UN Number</th>
<th>Class</th>
<th>Sub. Risk</th>
<th>Pkg. Group</th>
<th>Hazard Label</th>
<th>Pkg.</th>
<th>Max. Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aerosols, nonflammable</td>
<td>UN1950</td>
<td>2.2</td>
<td>NA</td>
<td>NA</td>
<td>Nonflammable</td>
<td>203</td>
<td>75kg;150kg</td>
</tr>
<tr>
<td>Consumer Commodity ORM-D</td>
<td>NA</td>
<td>ORM-D</td>
<td>NA</td>
<td>NA</td>
<td>ORM-D</td>
<td>Pkg.</td>
<td>173.306</td>
</tr>
</tbody>
</table>

SECTION 15: REGULATORY INFORMATION

SECTION 313 SUPPLIER NOTIFICATION This product contains the following toxic chemicals subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 (40 CFR 372).

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This information should be included on all MSDSs copied and distributed for this material.

TOXIC SUBSTANCES CONTROL ACT (TSCA) All ingredients of this product are listed on the TSCA Inventory.

WHMIS: Class A; Class D2B
This product has been classified according to the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR.

SECTION 16: OTHER INFORMATION:

Product is a Level 1 aerosol. Do not puncture or incinerate containers. Normal ventilation for standard manufacturing practices is usually adequate. Local exhaust should be used when large amounts are released.

To the best of our knowledge, the information contained herein is accurate. However, all materials may present unknown hazards and should be used with caution. In particular, improper use of our products and their inappropriate combination with other products and substances may produce harmful results which cannot be anticipated. Final determination of the suitability of any material is the sole responsibility of the user. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that may exist.