

**SECTION 1: CHEMICAL PRODUCT AND COMPANY IDENTIFICATION****Company Address:**

8125 Cobb Center Drive  
Kennesaw, GA 30152

Product Information: 800-TECH-401  
Customer Service: 800-645-5244

Emergency: (Chemtrec) 800-424-9300  
Revision Date: February 17, 2010

**Product Identification****FLUX-OFF® LEAD-FREE**

**Product Code:** ES1697, ES897B

**SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS**

| Chemical Name                   | CAS No.  | Wt. % Range |
|---------------------------------|----------|-------------|
| <b>Isohexane, a mixture of:</b> |          |             |
| 2-methylpentane                 | 107-83-5 | 10.0-25.0   |
| 3-methylpentane                 | 96-14-0  | 1.0-20.0    |
| 2,3-Dimethylbutane              | 79-29-8  | 1.0-20.0    |
| 2,2-Dimethylbutane              | 75-83-2  | 1.0-20.0    |
| n-hexane                        | 110-54-3 | 0.1-2.0     |
| Acetone                         | 67-64-1  | 20.0-50.0   |
| Carbon dioxide                  | 124-38-9 | 1.0-10.0    |
| Methanol                        | 67-56-1  | 1.0-2.0     |

**SECTION 3: HAZARD IDENTIFICATION**

**Emergency Overview:** Clear, colorless liquid with mild hydrocarbon solvent. This product is extremely flammable. Liquid may irritate eyes and skin under repeated or prolonged exposure. Breathing high concentrations of product 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 the mouth, throat and stomach. May cause vomiting. **Inhalation:** Harmful if inhaled. High concentrations in immediate area can displace oxygen and 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:** Heart, lung, skin, eye.

**SECTION 4: FIRST AID MEASURES**

**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:** If swallowed, 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:** -20 F (-29C) (isohexane) **LEL/UEL:** 1.2/7.7 (% by volume in air)

**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 self-contained breathing apparatus and appropriate personal protective equipment. Absorb spill with inert material (i.e. 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 that lead to waterways. **Small Spills:** Absorb spill with inert material (i.e. 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 skin, eyes or clothing. Wash hands before eating. Use with adequate ventilation. Avoid breathing product vapor. Do not reuse this container. Store in a cool dry place, away from heat, sparks or flames. 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 |
|--------------------|-----------|----------|------------|
| 2-methylpentane    | 500 ppm   | NA       | 1000 ppm   |
| 3-methylpentane    | 500 ppm   | NA       | 1000 ppm   |
| 2,3-Dimethylbutane | 500 ppm   | NA       | 1000 ppm   |
| 2,2-Dimethylbutane | 500 ppm   | NA       | 1000 ppm   |
| n-hexane           | 50 ppm    | 500 ppm  | NA         |
| Acetone            | 500 ppm   | 1000 ppm | 750 ppm    |
| Methanol           | 200 ppm   | 200 ppm  |            |

**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:**

|                     | NFPA | HMIS |
|---------------------|------|------|
| Health              | 1    | 1    |
| Flammability        | 3    | 3    |
| Reactivity          | 1    | 1    |
| Personal Protection | -    | B    |

**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**Physical State: Clear, colorless liquidOdor: Mild hydrocarbon solventpH: NAVapor Pressure: 214 mm Hg @ 68 F (liquid)Vapor Density: 3 (isohexanes) (Air 1)Solubility in Water: NegligibleSpecific Gravity: 0.71 @ 68FEvaporation Rate: >1 (Butyl acetate=1)Percent Volatile: 100Boiling Point: 122 F (50C)**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 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.Hazardous Polymerization: Will not occur. Conditions to avoid: NA**SECTION 11: TOXICOLOGICAL INFORMATION**Inhalation:

|          |           |                  |
|----------|-----------|------------------|
| acetone  | LC50 rats | 50,100 mg/m3/8hr |
| methanol | LC50 rats | 64,000ppm/4hr    |

Skin:

|          |            |     |
|----------|------------|-----|
| acetone  | Rabbit     | MLD |
| methanol | 20mg/24 hr | MLD |

Ingestion:

|          |           |             |
|----------|-----------|-------------|
| acetone  | LD50      | 5800 mg/kg  |
| methanol | LD50 rats | 5,628 mg/kg |

Eyes:

|          |              |     |
|----------|--------------|-----|
| acetone  | 20 mg/rabbit | SEV |
| methanol | 40 mg/rabbit | MOD |

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.

**SECTION 14: TRANSPORTATION INFORMATION**

| Proper Shipping Name              | UN Number | Class | Sub. Risk | Pkg. Group | Hazard Label  | Pkg. Instr.        | Max. Quantity |
|-----------------------------------|-----------|-------|-----------|------------|---------------|--------------------|---------------|
| <u>Air:</u> Aerosols Flammable    | UN 1950   | 2.1   | NA        | NA         | Flammable Gas | 203/ Y203          | 75/ 30 kg     |
| <u>Ground:</u> Consumer Commodity | ORM-D NA  | NA    | NA NA     | ORM-D      |               | Pkg. Auth. 173.306 |               |

**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 (40CFR372). This information should be included on all MSDSs copied and distributed for this material.

| Chemical Name | CAS No.  | Wt. % Range |
|---------------|----------|-------------|
| n-hexane      | 110-54-3 | 0.1-2.0     |
| methanol      | 67-56-1  | 1.0-2.0     |

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

WHMIS: Class A; Class B5; 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 3 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.