



GEBAUER COMPANY
 9410 St. Catherine Avenue • Cleveland, Ohio 44104
 1-800-321-9348 toll-free • (216) 271-5252
 FAX (216) 271-5335

Material Safety Data Sheet

FLURO ETHYL®

After Hours Emergency: Chemtrec (800) 424-9300

I. IDENTIFICATION

| | | | |
|---------------------------|---|----------------|--|
| TRADE NAME SYNONYM | FLURO ETHYL® | REVISION DATE: | September, 1991 by D. Bodkin |
| CHEMICAL NAME SYNONYMS | Dichlorotetrafluoroethane and ethyl chloride | CAS NO. | See II. |
| CHEMICAL FAMILY | Halogenated Hydrocarbon | FORMULA | C₂Cl₂F₄ / C₂H₅Cl |

II. HAZARDOUS INGREDIENTS

| PRINCIPAL HAZARDOUS COMPONENTS | | CAS NO. | % | TLV (UNITS) |
|--|---|-----------------------------------|-----------|---------------------|
| 1,2-Dichlorotetrafluoroethane (R-114) | | 76-14-2 | 83 | 1000 PPM |
| Ethyl Chloride | | 75-00-3 | 17 | 1000 PPM |
| SARA/TITLE III | | | | |
| HMIS RATINGS: | | PRODUCT HAZARD CATEGORIES: | | LISTS: |
| Health | 1 | Chronic Health | No | Extremely Hazardous |
| Flammability | 0 | Acute Health | Yes | Substance |
| Reactivity | 1 | Fire Hazard | No | Cercla Hazardous |
| Personal Protection | - | Pressure Hazard | Yes | Substance |
| | | Reactivity Hazard | No | Toxic Chemicals |
| | | | | Yes |

III. PHYSICAL DATA

| | | | |
|--|-------------------------|---------------------------------------|-----------------------|
| BOILING POINT | 28°F | EVAPORATION RATE (butyl acetate =1) | greater than 1 |
| VAPOR PRESSURE | 16.5psig at 70°F | SPECIFIC GRAVITY (H ₂ O=1) | 1.3 at 77°F |
| VAPOR DENSITY (air=1) | 4.6 | PERCENT VOLATILE BY VOLUME | 100 |
| SOLUBILITY IN WATER <0.6 wt.% at 77°F | | | |
| APPEARANCE AND ODOR Clear, colorless liquid with ether-like odor. | | | |

IV. FIRE AND EXPLOSION HAZARDS

| | | | |
|--|--|----------------------------|-----------------------|
| FLASH POINT (Method Used) | None by TOC | AUTO-IGNITION TEMPERATURE | Not Determined |
| FLAMMABLE OR EXPLOSIVE LIMITS IN AIR BY % VOLUME | LOWER: Nonflammable | UPPER: Nonflammable | |
| EXTINGUISHING MEDIA | Nonflammable | | |
| SPECIAL FIREFIGHTING PROCEDURES | Self-contained breathing apparatus may be required if containers rupture under fire conditions. | | |
| UNUSUAL FIRE AND EXPLOSION HAZARDS | Containers may rupture under fire conditions. Decomposition may occur. | | |

V. HEALTH HAZARDS

THRESHOLD LIMIT VALUE 1000 PPM each compound

EFFECTS OF OVEREXPOSURE

INHALATION: When used according to directions there should be no inhalation hazard. Breathing high concentrations of vapor may cause lightheadedness, giddiness, shortness of breath, and may lead to narcosis, cardiac irregularities, unconsciousness, and death.

SKIN: Liquid contact can cause frostbite. Freezing can occasionally alter pigmentation. Cutaneous sensitization may occur, but appears to be extremely rare.

EYES: Liquid contact can cause frostbite.

INGESTION: Should be avoided.

The components of Fluro Ethyl are not listed as carcinogens by IARC, NTP, or OSHA. Based on animal studies and human experiences this mixture poses no hazard to man relative to systemic toxicity, carcinogenicity, or teratogenicity when occupational exposures are below its recommended exposure limits.

EMERGENCY FIRST AID PROCEDURES FOR:

INHALATION: Remove to fresh air. If not breathing give artificial respiration, preferably mouth to mouth. If breathing is difficult, give oxygen. DO NOT give epinephrine or similar drugs; this may elicit cardiac dysrhythmias.

EYES: Flush with plenty of water for at least 15 minutes. Call physician.

SKIN: Treat for frostbite if necessary, by flooding frozen tissue with tepid water (105-115 °F). DO NOT USE HOT WATER.

INGESTION: Seek medical attention.

VI. REACTIVITY DATA

| | | |
|--------------------------------------|--|--|
| STABILITY | <input type="checkbox"/> UNSTABLE <input checked="" type="checkbox"/> STABLE | CONDITIONS TO AVOID: Open flames and high temperatures |
| INCOMPATIBILITY (Materials to avoid) | Alkali, or alkaline earth metals | |
| HAZARDOUS DECOMPOSITION PRODUCTS | At high temperatures can form hydrochloric, hydrofluoric acids, and carbonyl halides. | |
| HAZARDOUS POLYMERIZATION | <input type="checkbox"/> MAY OCCUR <input checked="" type="checkbox"/> WILL NOT OCCUR | CONDITIONS TO AVOID: |

VII. SPILL OR LEAK PROCEDURES

IN CASE MATERIAL IS RELEASED OR SPILLED Ventilate area well. Remove open flames, stop flow of gas. Allow to evaporate.

WASTE DISPOSAL METHOD Comply with Federal, State and Local laws; Return unused quantities to Gebauer Co.

VIII. SPECIAL PROTECTION INFORMATION

| | | | |
|----------------------------|---|---|---|
| RESPIRATORY PROTECTION | For emergency purpose use a positive pressure self-contained breathing apparatus. | | |
| VENTILATION | LOCAL EXHAUST | When large amounts released | MECHANICAL (GENERAL) None |
| PROTECTIVE GLOVES | For large spills only: Lined butyl gloves | | EYE PROTECTION For large spills only: Safety glasses or goggles For patient use: Cover patient's eyes when applying to face. |
| OTHER PROTECTIVE EQUIPMENT | None | FOR CLINICAL SETTING: Gloves and goggles not required | |

IX. SPECIAL PRECAUTIONS

| | |
|----------------------|--|
| HANDLING AND STORAGE | Clean, dry, cool area. Do not heat above 120 °F (50 °C). |
| OTHER PRECAUTIONS | |

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