

# MATERIAL SAFETY DATA SHEET

Trade Name: TECHNI-TOOL DUSTER  
MSDS NO. 7580Z134  
Revision Date:  
Date Printed 06/30/2006

## 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Trade Name: TECHNI-TOOL DUSTER  
Chemical Family: Refrigerant Gas  
Synonyms: None  
Emergency Telephone (24 hr.): CHEMTREC 1-800-424-9300

Supplier: Techni-Tool, Inc., 1547 N. Trooper Rd., Worcester, PA, 19490

## 2. COMPOSITION/INFORMATION ON INGREDIENTS

| Ingredient/CAS No.                    | wt. %  | OSHA PEL<br>TWA  | OSHA PEL<br>Ceiling Limits | ACGIH TLV<br>TWA | ACGIH TLV<br>STEL |
|---------------------------------------|--------|------------------|----------------------------|------------------|-------------------|
| 1,1,1,2-Tetrafluoroethane<br>811-97-2 | 95-100 | none established | none established           | none established | none established  |

Contents under pressure. Containers may rupture under fire conditions. Decomposition may occur.

## 3. HAZARDS IDENTIFICATION

**Emergency Overview:** Keep away from heat, sparks and flame. Content under pressure. "Frostbite-like" effects may occur if the liquid or escaping vapors contact the eyes or skin. May decompose on contact with flames or extremely hot metal surfaces to produce toxic and corrosive products. Gross inhalation overexposure may cause heart irregularities, unconsciousness or death. Vapor reduces oxygen available for breathing and is heavier than air. Workers with heart disease or compromised heart function should limit exposure to this material.

**HMIS Classification:** Health: 1 Flammability: 0 Physical Hazard: 2  
**NFPA Rating:** Health: 1 Flammability: 0 Reactivity: 1

## 4. FIRST AID MEASURES

**Eye Contact:** In case of contact, or suspected contact, immediately flush eyes with plenty of water for at least 15 minutes and get medical attention immediately after flushing.  
**Ingestion:** Not applicable - product is a gas at ambient temperatures.  
**Inhalation:** If inhaled, remove to fresh air. If not breathing give artificial respiration, preferably mouth-to-mouth. If breathing is difficult give oxygen. Get medical attention. Do not give adrenaline, epinephrin or similar drugs following exposure to this product.  
**Skin Contact:** For exposure to liquid, immediately warm frostbite area with warm water (not to exceed 105°F). In case of massive exposure, remove clothing while showering with warm water. Get medical attention.

## 5. FIRE FIGHTING MEASURES

**Flammable Properties**  
**Flash Point °F(°C):** NA - Gas  
**Flash Point Method:** Not Applicable  
**Flammable Limits in Air - Lower (%):** Not Applicable  
**Flammable Limits in Air - Upper (%):** Not Applicable  
**Autoignition Temperature °F(°C):** unknown  
**Extinguishing Media:** Use extinguishing media appropriate for surrounding fire. Use water spray to keep containers cool that are exposed to heat or flames.

**Protection Of Fire-Fighters:**  
**Special Fire-Fighting Procedures:** Wear approved positive-pressure self-contained breathing apparatus and protective clothing. Warning!! Contents under pressure. Container may rupture under fire conditions. Decomposition may occur.

**Hazardous Combustion Products:** May decompose on contact with flames or extremely hot metal surfaces to produce toxic and corrosive products. Liquid and gas under pressure, overheating or overpressurizing may cause gas release and/or violent cylinder bursting. Container may explode if heated due to resulting pressure rise. Some mixtures of HFCDs and/or HFCs, and air or oxygen may be combustible if pressurized and exposed to extreme heat or flame.

**Aerosol Comments:** NFPA Level 1 Aerosol

## 6. ACCIDENTAL RELEASE MEASURES

**Personal Precautions:** Wear appropriate protective clothing and equipment to prevent skin and eye contact. Avoid breathing vapor. When airborne exposure limits are exceeded use NIOSH approved respiratory protection equipment appropriate to the material and/or its components.  
**Spill Procedures:** Wear protective equipment specified. Avoid all sources of ignition; heat, sparks and open flames. Use Halogen leak detector or other suitable means to locate leaks or check atmosphere. Keep upwind. Evacuate enclosed spaces and

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disperse gas with floor-level forced-air ventilation. Exhaust vapors outdoors. Do not smoke or operate internal combustoin engines.  
Increase area ventilation. Do not puncture or incinerate container. Contents under pressure.

**Environmental Precautions:** Do not allow entry to the atmosphere. Recover, reclaim or recycle when practical.

## 7. HANDLING AND STORAGE

**Handling and Storage:** Avoid breathing vapors, if exposed to high vapor concentration, leave area at once. Avoid contact with skin and eyes. Use only in a well ventilated area. Do not reuse this container. CAUTION: COMPRESSED GAS. Keep away from heat and open flame. Do not puncture, incinerate or store above 120 F. Do not store in passenger compartment of automobile. Should not be mixed with air for leak testing or used for any other purpose above atmospheric pressure. Protect from light and heat

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Engineering Controls:** Local exhaust ventilation as necessary to maintain exposures to within applicable limits. Showers. Eyewash stations.  
**Eyes:** Chemical goggles; also wear a face shield if splashing hazard exists.  
**Skin Protection:** Avoid skin contact. Wear protective clothing and gloves.  
**Respiratory Protection:** Use in a well ventilated area. An approved respirator (i.e. NIOSH, etc.) should be worn when exposures are expected to exceed the applicable limits.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Appearance:** Clear, colorless liquified gas.  
**Odor:** MILD ETHER LIKE  
**pH Value:** Not Determined  
**Vapor Pressure:** 96 psia @ 25C  
**Vapor Density (Air=1):** 3.6 (Air=1.0) @ 25C  
**Boiling Point (°F):** -26.5 C @ 736 mm Hg  
**Melting/Freezing Point:** not determined  
**Solubility in Water:** Not Determined  
**Bulk Density at 20°C:** not determined  
**Molecular Weight:** Mixture  
**Specific Gravity (H2O=1):** 1.208 @ 77 F (25C)  
**Viscosity:** Not determined.  
**Evaporation Rate:** Not Determined  
**VOC Content(%):** 0  
**Decomposition Temperature:** not determined

## 10. STABILITY AND REACTIVITY

**Chemical Stability:** Stable under normal temperatures and pressures.  
**Conditions to Avoid:** Keep away from heat, sparks and flame. Do not expose to heat or store at temperatures above 120 F.  
**Materials to Avoid:** Avoid finely powdered metals such as aluminum, magnesium or zinc. Strong oxidizers. Avoid contact with alkali or alkaline earth metals.  
**Hazardous Decomposition Products:** Thermal decomposition products include hydrogen fluoride, hydrogen chloride, carbon monoxide, carbon dioxide and chlorine.  
**Hazardous Polymerization:** WILL NOT OCCUR

## 11. TOXICOLOGICAL INFORMATION

### Toxicological Data:

| Ingredient/CAS No.                    | wt. %  | Route      | Species | Dose                    |
|---------------------------------------|--------|------------|---------|-------------------------|
| 1,1,1,2-Tetrafluoroethane<br>811-97-2 | 95-100 | Inhalation | Rats    | 4 hr LC50 > 567,000 ppm |

### Carcinogenicity:

| Ingredient/CAS No.                    | wt. %  | IARC       | NTP        | OSHA       |
|---------------------------------------|--------|------------|------------|------------|
| 1,1,1,2-Tetrafluoroethane<br>811-97-2 | 95-100 | Not Listed | Not Listed | Not Listed |

## 12. ECOLOGICAL INFORMATION

Aquatic Toxicity: 1,1,1,2-Tetrafluoroethane: 48 hour EC50 - Daphnia magna: 980 mg/l, 96 hour LC50 - Rainbow

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trout: 450 mg/l ; 1,1,1-Trifluoroethane: 96 hour LC50 - Rainbow trout: >40 mg/l

### 13. DISPOSAL CONSIDERATION

Waste Classification: Not determined.

Waste Management: Not determined.

Disposal should be made in accordance with federal, state and local regulations. Recover, reclaim or recycle when practical.

### 14. TRANSPORTATION INFORMATION

**U.S. DOT:**

Proper Shipping Name: CONSUMER COMMODITY  
Hazard Class: ORM-D  
UN/NA Number: NA  
DOT Packing Group: NA

**IMDG:**

Proper Shipping Name: 1,1,1,2-Tetrafluoroethane (Refrigerant Gas R 134a)  
Hazard Class: 2.2  
Hazard Subclass: Not determined.  
UN No.: UN3159  
Packing Group: NA  
Marine Pollutant: No

### 15. REGULATORY INFORMATION

**US Federal Regulations:**

| Ingredient/CAS No.                    | wt. %  | SARA 313   | SARA 302   | RQ               | TPQ              |
|---------------------------------------|--------|------------|------------|------------------|------------------|
| 1,1,1,2-Tetrafluoroethane<br>811-97-2 | 95-100 | not listed | not listed | none established | none established |

SARA 311/312 Hazard Categories: Acute, Chronic, Pressure

**State Regulations:**

| Ingredient/CAS No.                    | wt. %  | California Prop. 65<br>Cancer list | California Prop. 65<br>Developmental<br>Toxicity | California Prop. 65<br>Reproductive Female | California Prop. 65<br>Reproductive Male |
|---------------------------------------|--------|------------------------------------|--------------------------------------------------|--------------------------------------------|------------------------------------------|
| 1,1,1,2-Tetrafluoroethane<br>811-97-2 | 95-100 | Not Listed                         | Not Listed                                       | Not Listed                                 | Not Listed                               |

U.S. TSCA: The components of this product are listed on the TSCA Inventory.

### 16. OTHER INFORMATION

**General Notes:** Do not allow undiluted material or large quantities to reach groundwater, bodies of water or sewer system.

**Disclaimer:**

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