



Date: 08/22/2007

**SUPPLIER ADDRESS:** Electronic Fluorocarbons  
86 Vincent Circle  
Warminster, Pa 18974

**EMERGENCY PHONE NUMBER:** (800) 535 5053  
Infotrac

### 1. CHEMICAL PRODUCT

**PRODUCT NAME:** **TETRAFLUOROMETHANE**      **SYNONYMS:** Halocarbon-14, carbon tetrafluoride, carbon fluoride, Freon 14

### 2. COMPOSITION, INFORMATION ON INGREDIENTS

<u>Ingredient Name</u>	<u>Formula</u>	<u>CAS #</u>	<u>Concentration</u>	<u>Exposure Limits (PPM)</u>			
				<u>ACGIH TLV</u>	<u>OSHA PEL</u>	<u>MAC</u>	<u>Other STEL</u>
TETRAFLUOROMETHANE	CF4	75-73-0	99+%	S/A	S/A	S/A	S/A

Note: NE = NONE ESTABLISHED

S/A = SIMPLE ASPHYXIAN

### 3. HAZARD IDENTIFICATION

\*\*\* EMERGENCY OVERVIEW \*\*\*

High pressure gas.  
Can cause rapid suffocation.

### POTENTIAL HEALTH EFFECTS

ROUTES OF ENTRY: Inhalation

ACUTE EFFECTS: Material acts as a simple asphyxiant by displacing air necessary for life. Symptoms include rapid respiration, muscular incoordination, fatigue, dizziness, nausea, vomiting, unconsciousness, and death. Pressure drop through valves and piping may cause extreme cold and frostbite on contact.

CHRONIC EFFECTS: None known

MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE: None known

OTHER EFFECTS OF OVEREXPOSURE: None

CARCINOGENICITY (US ONLY):

NTP - No

IARC MONOGRAPHS - No

OSHA REGULATED - No

### 4. FIRST AID MEASURES

**INHALATION:** Immediately remove victim to fresh air. If breathing has stopped, give artificial respiration. If breathing is difficult, give oxygen.

EYE CONTACT: Immediately flush with copious amounts of water for at least 15 minutes.

SKIN CONTACT: Immediately flush with copious amounts of water for at least 15 minutes while removing contaminated clothing. If frostbite occurs, flush affected areas with lukewarm water.

INGESTION: None

IN EVENT OF EXPOSURE, CONSULT A PHYSICIAN

NOTE TO PHYSICIAN: None

## 5. FIRE FIGHTING MEASURES

FLASH POINT: Nonflammable

AUTOIGNITION TEMPERATURE: N/Ap

FLAMMABLE LIMITS: Nonflammable

LOWER:

UPPER:

EXTINGUISHING MEDIA: Use what is appropriate for surrounding fire.

SPECIAL FIRE FIGHTING INSTRUCTION AND EQUIPMENT: Wear self-contained breathing apparatus and full protective clothing. Keep fire exposed cylinders cool with water spray.

HAZARDOUS COMBUSTION PRODUCTS: None

UNUSUAL FIRE AND EXPLOSION HAZARDS: Cylinder rupture may occur under fire conditions. Emits toxic fumes under fire conditions.

## 6. ACCIDENTAL RELEASE MEASURES

CLEAN UP PROCEDURES: Evacuate and ventilate area. Remove leaking cylinder to exhaust hood or safe outdoor area.

SPECIALIZED EQUIPMENT: None

## 7. HANDLING AND STORAGE

PRECAUTIONS TO BE TAKEN IN HANDLING: Secure cylinder when using to protect from falling. Use suitable hand truck to move cylinders.

PRECAUTIONS TO BE TAKEN IN STORAGE: Store in well ventilated areas away from heat, source of ignition, and combustibles. Keep valve protection cap on cylinders when not in use.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

ENGINEERING CONTROLS: Provide adequate general and local exhaust ventilation to avoid asphyxiation.

EYE / FACE PROTECTION: Safety glasses

SKIN PROTECTION: Protective gloves.

RESPIRATORY PROTECTION: In case of leakage, use self-contained breathing apparatus.

OTHER PROTECTIVE EQUIPMENT: Safety shoes when handling cylinders.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: Colorless

ODOR: Odorless

PHYSICAL PRESSURE: Gas

VAPOR PRESSURE: @ 20 C: 799 mm Hg

VAPOR DENSITY (AIR=1): 3.05

BOILING POINT (C): -130

SOLUBILITY IN WATER: @25 deg. C: .0015% wt.

SPECIFIC GRAVITY (H<sub>2</sub>O=1): Gas

EVAPORATION RATE: Gas

ODOR THRESHOLD: N/Ap

## 10. STABILITY AND REACTIVITY

STABILITY: Stable under normal storage conditions.

CONDITIONS TO AVOID: Storage in poorly ventilated areas. Storage near a heat source.

MATERIALS TO AVOID: Alkali or alkaline earth metals, aluminum.

HAZARDOUS POLYMERIZATION: Will not occur.

HAZARDOUS DECOMPOSITION: Hydrofluoric acid, possible carbonyl fluoride, toxic CO.

## 11. TOXICOLOGICAL INFORMATION

LETHAL CONCENTRATION (LC<sub>50</sub>): NONE ESTABLISHED

LETHAL DOSE 50 (LD<sub>50</sub>): N/Ap

TERATOGENICITY: N/Ap

REPRODUCTIVE EFFECTS: N/Ap

MUTAGENICITY: N/Ap

## 12. ECOLOGICAL INFORMATION

No adverse ecological effects are expected.

## 13. DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD: Dispose of non-refillable cylinders in accordance with federal, state and local regulations. Allow gas to vent slowly to atmosphere in an unconfined area or exhaust hood. If the cylinders are the refillable type, return cylinders to supplier with any valve outlet plugs or caps secured and valve protection caps in place.

## 14. TRANSPORT INFORMATION

CONCENTRATION: 99+%

DOT DESCRIPTION (US ONLY):

PROPER SHIPPING NAME: **Tetrafluoromethane**, R14  
HAZARD CLASS: 2.2 (nonflammable)  
IDENTIFICATION NUMBER: UN1982  
REPORTABLE QUANTITIES: None  
LABELING: NONFLAMMABLE GAS

ADR / RID (EU Only): Class 2, 1A

SPECIAL PRECAUTIONS: Cylinders should be transported in a secure upright position in a well ventilated truck.

## 15. REGULATORY INFORMATION

OSHA: Process Safety Management: Materials are not listed in appendix A of 29 CFR 1910.119 as highly hazardous chemicals.

TSCA: Material is listed in TSCA inventory.

SARA: The threshold planning quantity for material is 10,000 lbs.

EU NUMBER: N/Av

NUMBER IN ANNEX 1 OF DIR 67/548: Not listed in annex 1.

EU CLASSIFICATION: N/Av

R: As

S: N/Av

## 16. OTHER INFORMATION

**OTHER PRECAUTIONS:** Protect containers from physical damage. Do not deface cylinders or labels. Cylinders should be refilled by qualified producers of compressed gas. Shipment of a compressed gas cylinder which has not been filled by the owner or with his written consent is a violation of federal law (49 CFR).

**ABBREVIATIONS:** N/Ap - Not Applicable N/Av - Not Available SA - Simple Asphyxiant NE - None Established

**DISCLAIMER:** Information included in this document is given to the best of our knowledge, however, no warranty is made that the information is accurate or complete. We do not accept any responsibility for damages by the use of the document.