



DuPont Chemicals

2008FR

Revised 28-APR-2004

Printed 3-MAY-2004

## "FREON" 22

### CHEMICAL PRODUCT/COMPANY IDENTIFICATION

#### Material Identification

Corporate MSDS Number DU000025

Formula CHClF<sub>2</sub>

Molecular Weight 86.47

CAS Name "FREON" 22

#### Tradenames and Synonyms

Freon 22  
CHLORODIFLUOROMETHANE  
HCFC-22  
CC0335  
Dymel 22

#### Company Identification

MANUFACTURER/DISTRIBUTOR  
DuPont Fluoroproducts  
1007 Market Street  
Wilmington, DE 19898

#### PHONE NUMBERS

Product Information 1-800-441-7515 (outside the U.S.  
302-774-1000)  
Transport Emergency CHEMTREC 1-800-424-9300(outside U.S.  
703-527-3887)  
Medical Emergency 1-800-441-3637 (outside the U.S.  
302-774-1000)

### COMPOSITION/INFORMATION ON INGREDIENTS

#### Components Material

CAS Number %

\*"FREON" 22 METHANE, CHLORODIFLUORO- 75-45-6 100

\* Disclosure as a toxic chemical is required under Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR part 372.

(Continued)

---

**FIRST AID MEASURES**(Continued)**EYE CONTACT**

In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Call a physician.

**INGESTION**

Ingestion is not considered a potential route of exposure.

---

**Notes to Physicians**

THIS MATERIAL MAY MAKE THE HEART MORE SUSCEPTIBLE TO ARRHYTHMIAS. Catecholamines such as adrenaline, and other compounds having similar effects, should be reserved for emergencies and then used only with special caution.

---

---

**FIRE FIGHTING MEASURES****Flammable Properties**

Flash Point	Will not burn
Autodecomposition	632 C (1170 F)

Other burning materials may cause "FREON" 22 to burn weakly.

Chlorodifluoromethane is not flammable at ambient temperatures and atmospheric pressure. However, chlorodifluoromethane has been shown in tests to be combustible at pressures as low as 60 psig at ambient temperature when mixed with air at concentrations of 65 volume % air. Experimental data have also been reported which indicate combustibility of "FREON" 22 in the presence of certain concentrations of chlorine.

---

**Fire and Explosion Hazards:**

Cylinders may rupture under fire conditions. Decomposition may occur.

---

**Extinguishing Media**

As appropriate for combustibles in area. Extinguishant for other burning material in area is sufficient to stop burning.

---

**Fire Fighting Instructions**

Use water spray or fog to cool containers. Self-contained breathing apparatus (SCBA) is required if cylinders rupture or contents are released under fire conditions. Water runoff should be contained and neutralized prior to release.

---

(Continued)

---

## PHYSICAL AND CHEMICAL PROPERTIES

### Physical Data

Boiling Point	-40.8 C (-41.4 F)
Vapor Pressure	151 psig @ 25 C (77 F)
Vapor Density	3.03 (Air=1.0) @ 25 C (77 F)
% Volatiles	100 WT%
Evaporation Rate	>1 (CCl4=1.0)
Solubility in Water	0.3 WT% @ 25 C (77 F)
pH	Neutral
Odor	Slight ethereal
Form	Liquified Gas.
Color	Clear, Colorless.
Liquid Density	1.194 g/cm <sup>3</sup> @ 25 C (77 F)

---

## STABILITY AND REACTIVITY

### Chemical Stability

Material is stable. However, avoid open flames and high temperatures.

### Incompatibility with Other Materials

Incompatible with alkali or alkaline earth metals--powdered Al, Zn, Be, etc.

### Decomposition

Decomposition products are hazardous. "FREON" 22 can be decomposed by high temperatures (open flames, glowing metal surfaces, etc.) forming hydrochloric and hydrofluoric acids, and possibly carbonyl halides. These materials are toxic and irritating. Contact should be avoided.

### Polymerization

Polymerization will not occur.

---

## TOXICOLOGICAL INFORMATION

### # Animal Data

#### INHALATION:

4 hour, LC50, rat: 220,000 ppm.

Inhalation 4 hour, LC50, rat: 220,000 ppm

Animal testing indicates this material is a slight eye irritant.

Animal testing indicates this material is a skin irritant, but not a skin sensitizer.

Long-term exposure by ingestion caused no significant toxicological effects.

Single inhalation exposure to high doses caused central nerv

(Continued)

---

## TRANSPORTATION INFORMATION

### Shipping Information

DOT/IMO  
Proper Shipping Name      CHLORODIFLUOROMETHANE  
Hazard Class                2.2  
UN No.                        1018  
DOT/IMO Label                NONFLAMMABLE GAS

Shipping Containers

Tank Cars.  
Tank Trucks.  
Cylinders.

---

## REGULATORY INFORMATION

### U.S. Federal Regulations

TSCA Inventory Status      Reported/Included.

TITLE III HAZARD CLASSIFICATIONS SECTIONS 311, 312

Acute            : Yes  
Chronic         : No  
Fire            : No  
Reactivity     : No  
Pressure       : Yes

### HAZARDOUS CHEMICAL LISTS

SARA Extremely Hazardous Substance: No  
CERCLA Hazardous Substance         : No  
SARA Toxic Chemical                 - See Components Section

---

## OTHER INFORMATION

### NFPA, NPCA-HMIS

NPCA-HMIS Rating  
Health                                1  
Flammability                         0  
Reactivity                            1

Personal Protection rating to be supplied by user depending on use conditions.

---

The data in this Material Safety Data Sheet relates only to the specific material designated herein and does not relate to use in combination with any other material or in any process.

Responsibility for MSDS : MSDS Coordinator  
>                                : DuPont Fluoroproducts

(Continued)