

DUPONT CHEMICALS -- FLUOROCARBON 22 -- 6830-00-935-9896

===== Product Identification =====

Product ID:FLUOROCARBON 22

MSDS Date:12/19/1990

FSC:6830

NIIN:00-935-9896

MSDS Number: BNCGV

=== Responsible Party ===

Company Name:DUPONT CHEMICALS

Address:CHESTNUT RUN PLAZA 711S

Box:80709

City:WILMINGTON

State:DE

ZIP:19880-0709

Country:US

Info Phone Num:800-441-9450/302-999-5072 (BROCK)

Emergency Phone Num:800-424-9300(CHEMTREC)/800-441-3637

Preparer's Name:DR W J BRO

CK

CAGE:KO192

=== Contractor Identification ===

Company Name:DU PONT

Address:1007 MARKET STREET

Box:City:WILMINGTON

State:DE

ZIP:19898

Country:US

Phone:800-441-9442

CAGE:25827

Company Name:DUPONT CHEMICALS

Address:1007 MARKET STREET

City:WILMINGTON

State:DE

ZIP:19898

Country:US

Phone:800-441-7515/800-441-3637

CAGE:KO192

===== Composition/Information on Ingredients =====

Ingred Name:METHANE, CHLORODIFLUOROMETHANE- ("FREON" 22)

CAS:75-45-6

RTECS #:PA6390000

Fraction by Wt: 100%

Other REC Limits:NONE SPECIFIED

OSHA PEL:1000 PPM-8 HR TWA

ACGIH TLV:1000 PPM-8 HR TWA

Ozone Depleting Chemical:2

===== Hazards Identification =====

LD50 LC50 Mixture:INHAL 4-HR LC50: 220,000 PPM (RAT)

Reports of Carcinogenicity:NTP:NO IARC:NO OSHA:NO

Health Hazards Acute and Chronic:INHAL MAY CAUSE TEMPORARY NERVOUS SYS
DEPRESSION. HIGHER EXPOSURES TO VAPORS MAY CAUSE TEMPORARY
ALTERATION OF HEART'S ELECTRICAL ACTIVITY, DEATH. FATALITY FROM
GR

OSS OVEREXPOSURE. SKIN CONTACT W/LIQ MAY CAUSE FROSTBITE.
DELIBERATE MISUSE CAN BE FATAL. VAPOR REDUCES OXYGEN AVAILABLE FOR
BREATHING & IS HEAVIER THAN AIR.

Explanation of Carcinogenicity:NONE OF THE COMPONENTS IN THIS MATERIAL
IS LISTED BY IARC, NTP, OSHA, OR ACGIH AS A CARCINOGEN.

Effects of Overexposure:NERVOUS SYSTEM DEPRESSION ANESTHETIC EFFECTS:
DIZZINESS, HEADACHE, CONFUSION, INCOORDINATION, AND LOSS OF
CONSCIOUSNESS. HEART'S ELECTRICAL ACTIVITY: IRREGULAR PULSE,

PALPITATIONS, OR INADEQUATE CIRCULATION; OR FATALITY FROM GROSS
OVEREXPOSURE.

Medical Cond Aggravated by Exposure:INDIVIDUALS WITH PREEXISTING
DISEASES OF CENTRAL NERVOUS OR CARDIOVASCULAR SYSTEM MAY HAVE
INCREASED SUSCEPTIBILITY TO THE TOXICITY OF EXCESSIVE EXPOSURES.

===== First Aid Measures =====

First Aid:INHALATION: IMMEDIATELY REMOVE TO FRESH AIR. KEEP PERSONS CALM. IF
NOT BREATHING, GIVE ARTIFICIAL RESPIRATION. IF BREATHING IS
DIFFICULT, GIVE OXYGEN. CALL DR.

SKIN: FLUSH WITH WATER. TREAT FOR
FROSTBITE IF NECESSARY. EYE: IMMEDIATELY FLUSH EYES WITH PLENTY OF
WATER. CALL DR.

===== Fire Fighting Measures =====

Flash Point Method:TOC

Flash Point:NONE

Extinguishing Media:AS APPROPRIATE FOR COMBUSTIBLES IN AREA. USE WATER
SPRAY OR FOG TO COOL CONTAINERS.

Fire Fighting Procedures:SELF-CONTAINED BREATHING APPARATUS IS REQUIRED
IF CYLINDERS RUPTURE OR CONTENTS ARE RELEASED UNDER FIRE
C

CONDITIONS.

Unusual Fire/Explosion Hazard:CYLINDERS ARE EQUIPPED W/PRESSURE & TEMP RELIEF DEVICES BUT MAY RUPTURE UNDER FIRE CONDITIONS. DECOMPOSITION MAY OCCUR.

===== Accidental Release Measures =====

Spill Release Procedures:NOTE: REVIEW FIRE & EXPLOSION HAZARDS & SAFETY PRECAUTIONS BEFORE PROCEEDING W/CLEAN UP. USE PERSONAL PROTECTIVE EQUIPMENT DURING CLEAN UP. VENTILATE AREA-ESP LOW PLACES WHERE VAPORS COLLECT. REMOVE OPEN FLAMES. USE SCBA FOR LARGE SPILLS OR RELEASES.

===== Handling and Storage =====

Handling and Storage Precautions:STORE IN CLEAN, DRY AREA. DO NOT HEAT ABOVE 125F. AVOID BREATHING VAPORS & LIQUID CONTACT W/SKIN OR EYES. Other Precautions:USE WITH SUFFICIENT VENT TO KEEP EMPLOYEES EXPOSURES BELOW RECOMMENDED LIMITS. HCFC-22 SHOULD NOT BE MIXED OR ALLOWED TO BE PRESENT WITH HIGH CONCENTRATIONS OF AIR ABOVE ATMOSPHERIC PRESSURE.

===== Exposure Controls
/Personal Protection =====

Respiratory Protection:SELF-CONTAINED BREATHING APPARATUS IS REQUIRED IF A LARGE RELEASE OCCURS.
Ventilation:NORMAL VENT FOR STD MFR PROCEDURES IS GENERALLY ADEQUATE. USE LOCAL EXHAUST W/LARGE RELEASE. USE MECHAN VENT IN LOW AREA
Protective Gloves:LINED BUTYL GLOVES.
Eye Protection:CHEM SPLASH GOGGLES FOR HANDLING LIQUID.
Supplemental Safety and Health

===== Physical/Chemical Properties =====

HCC:G3
Boiling Pt:B.P. Text:-
41F,-41C
Decomp Temp:Decomp Text:1170F,632C
Vapor Pres:151 PSIG *
Vapor Density:3.03 @ 25C
Spec Gravity:1.194 G/CC @25C
pH:NEUTRL
Evaporation Rate & Reference:>1 (CC14=1.0)
Solubility in Water:0.30 WT % @ 25C
Appearance and Odor:CLEAR, COLORLESS LIQUEFIED GAS, SLIGHT ETHERAL ODOR.
Percent Volatiles by Volume:100

===== Stability and Reactivity Data =====

Stability Indicator/Materials to Avoid:YES
INCOMPATIBLE WITH ALKALI OR ALKALINE EARTH METALS--POWDERED AL, Z

N, BE,
ETC.

Stability Condition to Avoid:AVOID OPEN FLAMES AND HIGH TEMPERATURES.

Hazardous Decomposition Products:BY HIGH TEMPERATURES FORMING:
HYDROCHLORIC & HYDROFLUORIC ACIDS--POSSIBLY CARBONYL HALIDES.

===== Disposal Considerations =====

Waste Disposal Methods:RECLAIM BY DISTILLATION. COMPLY WITH FEDERAL,
STATE AND LOCAL REGULATIONS.

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