

DU PONT E I DE NEMOURS & CO INC -- FREON 22 -- 6830-00-935-9896

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

Product ID:FREON 22

MSDS Date:10/05/1996

FSC:6830

NIIN:00-935-9896

MSDS Number: CDZWC

=== Responsible Party ===

Company Name:DU PONT E I DE NEMOURS & CO INC

Address:1007 MARKET STREET

Box:1635

City:WILMINGTON

State:DE

ZIP:19898

Country:US

Info Phone Num:800-441-7515/MSDS 302-992-3511

Emergency Phone

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

Preparer's Name:(CORP MSDS#:DU000025)

CAGE:18873

=== Contractor Identification ===

Company Name:E.I. DUPONT DE NEMOURS & CO

Address:1007 MARKET STREET

Box:City:WILMINGTON

State:DE

ZIP:19898

Country:US

Phone:800-441-7515;800-441-9442

CAGE:18873

Company Name:ELF ATOCHEM NORTH AMERICA INC

Address:2000 MARKET STREET

Box:City:PHILADELPHIA

State:PA

ZIP:19103-3222

Country:US

Phone:800-245-5858

CAGE:86460

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

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Ingred Name:CHLORODIFLUOROMETHANE (SARA 313) (CERCLA)

CAS:75-45-6

RTECS #:PA6390000

Fraction by Wt: 100%

Other REC Limits:NONE RECOMMENDED

OSHA PEL:1000 PPM

ACGIH TLV:1000 PPM; 9596

Ozone Depleting Chemical:2

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

LD50 LC50 Mixture:NONE SPECIFIED BY MANUFACTURER.

Routes of Entry: Inhalation:YES Skin:YES Ingestion:NO

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

Health Hazards Acute and Chronic:HIGH VAP CONCEN

INHAL HARMFUL,MAY

CAUSE HEART IRREGULARITIES,UNCONSC,DEATH.VAP REDUCES OXY AVAI FOR BREATH,HEAVIER THAN AIR.LIQ CONTACT CAN CAUSE

FROSTBITE.SKIN:FROSTBITE.PROL OVEREXPO DEFATTING,DRYNE SS.EYE:IRRIT W/DISCOMFT,TERRING,BLURINGVISION.INHAL:TEMP NERV SYS DEPRESS W/ANESTHETIC EFFECTS.HIGHER EXPO MAY (SUPPLE)

Explanation of Carcinogenicity:PER MSDS:NONE OF COMPO PRESENT IN MATL

@CONCEN =/>0.1% LISTED BY IARC/NTP/OSHA/ACGIH AS CARCINOGEN.

Effects of Overexposure:HI VAP CONCEN I

NHAL HARMFUL,HEART

IRREGULARITIES,UNCONSC,DEATH,REDUCES OXY AVAI FOR BREATHING,FROSTBITE,SKIN DEFATTING,DRYNESS.EYE IRRIT W/DISCOMFORT,BLURING VISION,TEARING.TEMP NERV SYS DEPRESS(DIZZ, HEAD,CONFUSION,INCOORD,UNCONSC).TEMP ALTER HEART ELECTRICAL ACTIVITY,IRREG PULS,PALPITATION,INADQ CIRCULATION,FATALITY.

Medical Cond Aggravated by Exposure:INDIVIDUALS W/PRE-EXISTING DISEASES

OF CENTRAL NERVOUS OR CARDIOVASCULAR SYSTEM MAY HAVE INCR SUSCEPTIBILITY TO TOXICITY OF EXCESS

IVE EXPOSURES.

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

First Aid:INHAL:IMMED REMOVE TO FRESH AIR.KEEP PERSON CALM.NOT BREATH

GIVE ART RESP;DIFFI BREATH GIVE OXY.CALL DR.SKIN:FLUSH W/LUKEWARM WATER.DONT USE HOT WATER.FROSTBITE OCCURRED CALL DR.EYE:IMEMD FLUSH W/PLENTY OF WATER FOR @LEAST 15MINS.CALL DR.INGEST:NOT CONSIDERED POTENTIAL ROUTE OF EXPOSURE.DR:BECAUSE OF POSSIBLE DISTURBANCES OF CARDIAC RHYTHM CATECHOLAMINE DRUGS(EPINEPHREINE)SHOULD O

NLY BE
USED(SUPP)

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

Flash Point:WILL NOT BURN

Autoignition Temp:Autoignition Temp Text:632C

Lower Limits:NP

Upper Limits:NP

Extinguishing Media:AS APPROPRIATE FOR COMBUSTIBLES IN
AREA.EXTINGUISHANT FOR OTHER BURNING MATL IN AREA IS SUFFICIENT TO
STOP BURNING.

Fire Fighting Procedures:USE WATERSPRAY/FOG TO COOL
CNTNRS.SELF-CONTAINED BREATHING APPARATUS (SCBA) REQUIRED IF
CYLINDERS RUPTURE OR CONTENTS ARE RELE
ASED UNDER FIRE CONDITIONS.

Unusual Fire/Explosion Hazard:CYL MAY RUPTURE UNDER FIRE
CONDITIONS.DECOMPO MAY OCCUR.OTHE RBURNING MATLS MAY CAUSE HCFC22
TO BURN WEAKLY.CHLORODIFLUOROMETHANE NOT FLAMM @AMBT TEMP/ATM (SUP)

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

Spill Release Procedures:REVIEW MSDS BEF CLEANUP.USE APPROPRIATE
PPE.VENTI AREA.REMOVE OPN FLAMES.USE SCBA FOR LG SPILL/RELEASE.

Neutralizing Agent:NONE SPECIFIED BY MANUFACTURER.

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

Handling and Storage Precautions:USE W/SUFFI VENTI TO KEEP WORKER EXPO
BEL RECOMMENDED LIMITS.PROD SHOULDNT BE MIX W/AIR FOR LEAK
TEST.SHOULDNT BE USED/ALLOW W/HI AIR CONCEN >ATM PRES

Other Precautions:INTENTIONAL MISUSE/DELIBERATE INHAL MAY CAUSE DEATH
W/O WARNING.CONTACT W/CHLORINE/STRONG OXIDIZING AGENTS SHOULD BE
AVOIDED.STORAGE:CLEAN DRY AREA.DONT HEAT >52C(125F).

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

Respiratory Protection:UNDER NORMAL MFG CONDITIONS NO RESPIRATORY
PROTECTION REQUIRED WHEN USING PRODUCT.SELF-CONTAINED BREATHING
APPARATUS (SCBA) REQUIRED IF LARGE RELEASE OCCURS.

Ventilation:NORMAL VENTI FOR STD MFG PROCEDURES GEN ADEQU.LOC EXHAU
USED WHEN LG AMTS RELEASAED.MECH VENTI USED IN LOW/ENCLOSE PLACE

Protective Gloves:IMPERVIOUS GLOVES

Eye Protection:CHEMICAL SPLASH GOGG

Other Protective Equipment:NONE SPECIFIED BY MANUFACTURER.

Work Hygienic Practices:NONE SPECIF

IED BY MANUFACTURER.

Supplemental Safety and Health

FIRE:PRESS;HOWEVER COMBUST @60PSIG @AMBT TEMP WHEN MIX W/65%AIR.COMBUST
IN PRESENCE OF CERT CHLORINE CONCENS. HEALTH:LEAD TO TEMP
ALTERATION OF HEART'S ELECTRICAL ACTIVITY W/IRREG
PULSE,PALPITATIONS,I NADEQ CIRCULATION.FATALITY MAY OCCUR FROM
GROSS OVEREXPO. 1ST AID:W/SPECIAL CAUT IN SITUATIONS OF EMERG LIFE
SUPPORT.

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

HCC:G3

Boiling Pt:B.P. Text:-41F,-41C

M

Melt/Freeze Pt:M.P/F.P Text:NP

Decomp Temp:Decomp Text:NP

Vapor Pres:151PSIG

Vapor Density:3.03

Spec Gravity:1.194G/CM3

pH:NEUTRA

Viscosity:NP

Evaporation Rate & Reference:>1, CCL4=1

Solubility in Water:0.3%, SLIGHT

Appearance and Odor:CLEAR, COLORLESS, LIQUIFIED GAS, SLIGHT ETHEREAL

Percent Volatiles by Volume:100

Corrosion Rate:NP

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

Stability Indicator/Materials to Avoid:YES

ALKALI OR ALKALINE EARTH METALS-POWDERED AL,ZN,BE
,ETC.

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

Hazardous Decomposition Products:DECOMPO PROD HAZ.CAN BE DECOMPO BY
HIGH TEMPS(OPN FLAME,GLOWING METAL SURFACES,ETC)FORMS HCL & HF
ACIDS,CARBONYL HALIDES

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

Waste Disposal Methods:COMPLY W/FED/STATE/LOC REGULATIONS.RECLAIM BY
DISTILLATION OR REMOVE TO PERMITTED WASTE DISPOSAL FACILITY.

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