

E. I. DU PONT DE NEMOURS & CO. INC. -- FREON(R) 12 FLUOROCARBON -- 6830-00-424-9580

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

Product ID:FREON(R) 12 FLUOROCARBON

MSDS Date:05/01/1989

FSC:6830

NIIN:00-424-9580

MSDS Number: BGVQT

=== Responsible Party ===

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

Address:1251 BRANDYWINE BLDG

City:WILMINGTON

State:DE

ZIP:19898

Country:US

Info Phone Num:800-441-9450

Emergency Phone Num:800-441-3637

Preparer's Name:K. P. BROWN

CAGE:18897

=== Contractor Identification ===

Company Name:DU PONT E I DE NEMOURS AND CO INC PETROCHEMICALS DEPT

Address:1251 BRANDYWINE BLDG

Box:City:WILMINGTON

State:DE

ZIP:19898

Phone:302-773-5676

CAGE:73925

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

CAGE:18897

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

Ingred Name:DICHLORODIFLUOROMETHANE (SARA III)

CAS:75-71-8

RTECS #:PA8200000

Fraction by Wt:

100%

OSHA PEL:1000 PPM

ACGIH TLV:1000 PPM; 9192

EPA Rpt Qty:5000 LBS

DOT Rpt Qty:5000 LBS

Ozone Depleting Chemical:1

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

LD50 LC50 Mixture:ORAL LD50 (RAT) = >1000MG/KG

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

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

Health Hazards Acute and Chronic:ACUTE: A MILD EYE IRRITANT. INHALATION

MAY CAUSE CNS AND NARCOSIS. HIGH CONCENTRATIONS MAY CAUSE

IRREGULARITIES, UNC

UNCONSCIOUSNESS, OR DEATH. REPEATED INGESTION
CAUSED SLIGHT LIVER EFFECTS AND SLIGHT DECREASE IN WEIGHT GAIN.
CONTACT WITH LIQUID MAY CAUSE FROSTBITE. CHRONIC: NONE SPECIFIED BY
MANUFACTURER.

Explanation of Carcinogenicity:NOT LISTED BY IARC, NTP, OSHA AS A
CARCINOGEN.

Effects of Overexposure:EYE: TEARING, BLURRED VISION AND IRRITATION.
SKIN: FROSTBITE.INHALATION: TEMPORARY CNS DEPRESSION WITH
ANAESTHETIC EFFECTS SUCH AS DIZZINESS, HEADACHE, CONFUSION,
INCOORDINATION AND

LOSS OF CONSCIOUSNESS, IRREGULAR PULSE.

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

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

First Aid:INHALATION: REMOVE TO FRESH AIR. IF NOT BREATHING, GIVE CPR.
IF BREATHING IS DIFFICULT, GIVE OXYGEN. CALL A PHYSICIAN. KEEP
VICTIM QUIET, DO NOT GIVE STIMULANTS. NARCOTIC EFFECT. DENSE VAPORS
MAY REMAIN IN LUNGS. MAY CAUSE MILD IRRITATION. EYE: FLUSH
IMMEDIATELY WITH LARGE AMOUNTS OF WATER FOR 15 MINUTES. GET MEDICAL
ATTENTION. SKIN: WASH WITH SOAP AND WATER PROMPTLY. GET MEDICAL
ATTENTION.

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

Flash Point:WILL NOT BURN

Extinguishing Media:AS APPROPRIATE FOR COMBUSTIBLES IN AREA.

Fire Fighting Procedures:SCBA IS REQUIRED IF CYLINDERS RUPTURE AND
CONTENTS ARE RELEASED UNDER FIRE
CONDITIONS.

Unusual Fire/Explosion Hazard:USE WATER SPRAY OR FOG TO COOL
CONTAINERS. CYLINDERS MAY RUPTURE UNDER FIRE CONDITIONS.
DECOMPOSITION MAY OCCUR.

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

Spill Release Procedures:VENTILATE AREA-ESPECIALLY LOW PLACES WHERE
HEAVY VAPORS MIGHT COLLECT. REMOVE OPEN FLAMES. USE SCBA FOR LARGE
SPILLS.

Neutralizing Agent:NONE

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

Handling and Storage

Precautions:STORE IN A COOL, DRY, WELL-VENTILATED
LOCATION, AWAY FROM ANY AREA WHERE THE FIRE HAZARD MAY BE ACUTE.
KEEP CONTAINERS CLOSED WHEN NOT IN USE.
Other Precautions:EMPTY CONTAINERS MAY CONTAIN HAZARDOUS RESIDUES. DO
NOT BREATH DUST, VAPOR, MIST OR GAS. DO NOT GET IN EYES OR ON SKIN.

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

Respiratory Protection:SELF-CONTAINED, SUPPLIED AIR.
Ventilation:LOCAL EXHAUST RECOMMENDED TO CONTROL VAPORS BELOW 50% OF
TLV.
Protective Gloves:LINED BUTYL GLOVES
Eye Protection:CHEMICAL SAFETY GOGGLES & FACE SHIELD.
Other Protective Equipment:APRON AND WORK CLOTHING TO MINIMIZE
EXPOSURE. EYE WASH STATION & SAFETY SHOWER RECOMMENDED.
Work Hygienic Practices:WASH THOROUGHLY AFTER USE AND BEFORE EATING,
SMOKING OR USING TOILET FACILITIES. DO NOT BREATH VAPORS OR MIST.
Supplemental Safety and Health
INHALATION OF HIGH CONCENTRATIONS OF VAPOR IS HARMFUL AND MAY CAUSE
HEART IRREGULARITIES, UNCONSCIOUSNESS,
OR DEATH. INTENTIONAL MISUSE
CAN BE FATAL. VAPORS REDUCES OXYGEN AVAILABE FOR BREATHING AND I S
HEAVIER THAN AIR. LIQUID CONTACT CAN CAUSE FROSTBITE.

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

HCC:G3
Boiling Pt:B.P. Text:-22F,-30C
Vapor Pres:94.5
Vapor Density:4.26
Spec Gravity:1.315
pH:NEUT.
Solubility in Water:0.028 WT. %
Appearance and Odor:CLEAR, COLORLESS LIQUEFIED GAS WITH SLIGHT ETHEREAL
ODOR
Percent Volatiles by Volume:100

===== Stab
ility and Reactivity Data =====

Stability Indicator/Materials to Avoid:YES
ALKALI OR ALKALINE EARTH METALS-POWDERED AL, ZN, BE, ETC.
Stability Condition to Avoid:HIGH TEMPERATURES AND OPEN FLAMES
Hazardous Decomposition Products:HYDROGEN FLUORIDE, HYDROGEN CHLORIDE,
AND POSSIBLY CARBONYL HALIDES.

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

Waste Disposal Methods:BEST TO RECYCLE OR RECLAIM, IF POSSIBLE. CONSULT
FEDERAL, STATE, OR LOCAL AUTHORITIES F

OR PROPER DISPOSAL
PROCEDURES.

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