

E. I. DUPONT DE NEMOURS AND COMPANY -- FREON 12 FLUOROCARBON -- 6830-00-264-5913  
===== Product Identification =====

Product ID:FREON 12 FLUOROCARBON

MSDS Date:09/23/1991

FSC:6830

NIIN:00-264-5913

MSDS Number: BDQLJ

=== Responsible Party ===

Company Name:E. I. DUPONT DE NEMOURS AND COMPANY

Address:FREON PRODUCTS DIVISION

City:WILMINGTON

State:DE

ZIP:19898

Info Phone Num:800-441-3637

Emergency Phone

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

CAGE:73925

=== Contractor Identification ===

Company Name:DDRV STOCK MAINTENANCE DIV/DDRV-H

Address:8000 JEFFERSON-DAVIS HIGHWAY

Box:City:RICHMOND

State:VA

ZIP:23297

Country:US

Phone:804-279-3125

CAGE:02LX8

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

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

Ingred Name:D

ICHLORODIFLUOROMETHANE (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

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

LD50 LC50 Mixture:TLV IS 1000 PPM, 4950 MG/M3.

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

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

Health Hazards Acute and Chronic:ACUTE-INHALE:MAY CAUSE TINGLING  
SENSAT

ION,HUMMING IN THE AIR,SLURRED SPEECH,AMNESIA,IRREGULAR HEART  
BEAT,UNCONSCIOUSNESS OR DEATH.MISUSE CAN BE  
FATAL.EYE:TEARING,IRRITATION.SKIN:LIQUID MAY CAUSE FROST  
BITE.ORAL:LIQUID MAY CAUSE NECROSIS OF LIPS & TONGS,BLANCHING OF  
SKIN,PAIN & TENDERNESS.CHRONIC-MAY CAUSE CNS EFFECTS.

Effects of Overexposure:INHALATION MAY CAUSE TINGLING SENSATION,  
HUMMING IN THE AIR, SLURRED SPEECH, AMNESIA, IRREGULAR HEART BEAT,  
UNCONSCIOUSNESS OR DEATH. MISUSE CAN BE FATAL. EYE IRRITATION

&

BLURRED VISION. SKIN EXPOSUR E TO LIQUID MAY CAUSE FROSTBITE.  
ORALLYLIQUID MAY CAUSE NECROSIS OF LIPS & TONGS, BLANCHING OF SKIN,  
PAIN & TENDERNESS.

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

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

First Aid:GET MEDICAL ATTENTION IN ALL CASES. EYE:FLUSH WITH  
WATER FOR

15 MINUTES. HOLD EYELIDS OPEN. SKIN:FLUSH WITH WATER. TREAT FOR  
FROSTBITE IF NECESSARY. INHALED:REMOVE TO FRESH AIR & PROVIDE  
OXYGEN/CPR IF NEEDED. ORAL:INGESTION IS NOT CONSIDERED A POTENTIAL  
ROUTE OF EXPOSURE.

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

Flash Point:WILL NOT BURN

Extinguishing Media:WATER, CO2, FOAM OR DRY CHEMICAL. WATER SPRAY MAY  
BE USED TO KEEP FIRE EXPOSED CONTAINERS COOL & FLUSH SPILLS AWAY.

Fire Fighting Procedures

:WEAR FULL PROTECTIVE CLOTHING AND

NIOSH-APPROVED SELF-CONTAINED BREATHING APPARATUS WITH FULL FACEPIECE OPERATED IN THE POSITIVE PRESSURE MODE.

Unusual Fire/Explosion Hazard:MAY FORM HYDROGEN FLUORIDE, HYDROGEN CHLORIDE AND TRACES OF CARBONYL HALIDES. CYLINDERS MAY BE RUPTURED UNDER FIRE CONDITIONS.

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

Spill Release Procedures:KEEP UPWIND. VENTILATE ENCLOSED SPACES UNTIL GAS IS DISPERSED. DO NOT SMOKE OR OPERATE INTERNAL COMBUSTION ENGINES IN IMMEDIATE VICINITY.

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

Handling and Storage Precautions:STORAGE-STORE IN COOL, DRY PLACE. CYLINDERS ARE UNDER PRESSURE. KEEP AWAY HEAT & INCOMPATIBLE MATERIALS.

Other Precautions:AVOID BREATHING VAPORS. AVOID EYE OR SKIN CONTACT. WASH WITH SOAP AND WATER BEFORE EATING OR DRINKING. USE WITH ADEQUATE VENTILATION. NEVER USE IN CONFINED OR CLOSED SPACE

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

Respiratory Protection:WEAR NIOSH-APPROVED SELF-CONTAINED BREATHING APPARATUS OPERATED IN POSITIVE PRESSURE MODE OR SUPPLIED-AIR RESPIRATOR WITH FULL FACEPIECE AND OPERATED IN PRESSURE-DEMAND OR OTHER POSITIVE PRESSURE MODE .

Ventilation:LOCAL EXHAUST/MECHANICAL

Protective Gloves:CLOTH-LINED RUBBER GLOVES

Eye Protection:SAFETY GOGGLES/FACE SHIELD

Other Protective Equipment:EYEBATH, SAFETY SHOWER, PROTECTIVE CLOTHING

Work Hygienic Practices:

OBSERVE GOOD PERSONAL HYGIENE PRACTICES AND RECOMMENDED PROCEDURES. WASH THOROUGHLY AFTER HANDLING AND BEFORE EATING.

Supplemental Safety and Health

VP=4893MM HG(80PSIG).NOTE:EXPOSURE TO HIGH VAPOR LEVELS MAY CAUSE CARDIAC ARRHYTHMIA. VAPOR MAY COLLECT IN LOW PLACES-NON-FLAMMABLE, FREON 12-DECOMPOSES SLOWLY WITH WATER-TYPE 12 OF FED SPEC BB-F-1421/MSDS DATED OCT85

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

HCC:G3

Boiling Pt:B.P. Text:-22F,-30C

Vapor Pressure:4888 @ 25C

Vapor Density

ensity:4.26

Spec Gravity:1.315

Solubility in Water:NEGLIGIBLE

Appearance and Odor:CLEAR, COLORLESS LIQUEFIED GAS - SLIGHT ETHEREAL  
ODOR

Percent Volatiles by Volume:100

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

Stability Indicator/Materials to Avoid:YES

ALKALI OR ALKALINE EARTH METALS, POWDERED ALUMINUM, ZINC, BERYLLIUM,  
ETC.

Stability Condition to Avoid:FIRE, TEMPERATURES ABOVE 125F

Hazardous Decomposition Products:MAY FORM HYDROGEN FLUORIDE, HYDROGEN  
CHLO

RIDE AND TRACES OF CARBONYL HALIDES.

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

Waste Disposal Methods:FOR DISCHARGE OR DISPOSING OF WASTE MATERIAL,  
CONSULT LOCAL, STATE AND FEDERAL AUTHORITIES.

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