

DU PONT -- FREON 502 REFRIGERANT -- 6830-00-144-9952

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

Product ID:FREON 502 REFRIGERANT

MSDS Date:03/19/1991

FSC:6830

NIIN:00-144-9952

MSDS Number: BNRMT

=== Responsible Party ===

Company Name:DU PONT

Address:1007 MARKET STREET

City:WILMINGTON

State:DE

ZIP:19898

Country:US

Info Phone Num:800-441-9450

Emergency Phone Num:800-424-9300/800-441-3637

Preparer's Name:W

J BROCK

CAGE:25827

=== 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

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

Ingred Name:ETHANE, CHLOROPENTAFLUORO ("FREON" 115) (SARA 313)

CAS:76-15-3

RTECS #:KH7877500

Fraction by Wt: 51.2%

Other REC Limits:NONE SPECIFIED

OSHA PEL:1000 PPM

ACGIH TLV:1000 PPM

Ozone Depleting Chemical:1

Ingred Name:METHANE, CHLORODIFLUORO

("FREON" 22)
CAS:75-45-6
RTECS #:PA6390000
Fraction by Wt: 48.8%
Other REC Limits:NONE SPECIFIED
OSHA PEL:1000 PPM
ACGIH TLV:1000 PPM
Ozone Depleting Chemical:2

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

LD50 LC50 Mixture:FREON "115" 800,000 PPM/"22" 220,000 PPM
Routes of Entry: Inhalation:YES Skin:YES Ingestion:NO
Reports of Carcinogenicity:NTP:NO IARC:NO OSHA:NO
Health Hazards Acute and Chronic:OVEREXPOS BY INHAL MAY INCLUDE
DISCOMFORT- NAUSEA/HEADACHE/WE
AKNESS/TEMP NERV SYS DEPRESS
W/ANESTHETIC EFFECTS LIKE DIZZINESS/CONFUSION/INCOORDINATION/LOSS
OF CONSCIOUSNESS OR W/GROSS OVEREXPOS (>20%) , POSS TEMP ALTERATION
OF THE HEART'S ELECTRICAL ACTIVITY W/IRREG
PULSE/PALPITATIONS/INADEQ CIRCULATION. MISUSE: DEATH.#
Explanation of Carcinogenicity:N/K #INDIVIDUALS W/PREEXISTING DISEASES
OF THE CENTRAL NERV/CARDIO SYS MAY HAVE INCREASED SUSCEPTIBILITY TO

Effects of Overexposure:##TOXICITY EXCESSIVE EXPOSURES. CARDIAC
SENSI
TIZATION WAS OBSERVED IN BEAGLE DOGS EXPOSED TO CONCENTRATIONS
OF 15% TO 25% "FREON" 115. VAPOR REDUCES OXYGEN AVAILABLE FOR
BREATHING & IS HEAVIER THAN AI R. SKIN CONTACT WITH THE LIQUID CAN
CAUSE FROSTBITE. "FREON" 22-TOXICITY IN ANIMALS BY INHAL TO CONC
RANGING FROM###
Medical Cond Aggravated by Exposure:N/K ###5 TO 70% INCLUDE EFFECTS ON
THE CENTRAL NERV SYS/LIVER/LUNGS/KIDNEYS/SPLEEN/CARDIAC
SENSITIZATION/DECREASED BODY WEIGHT GAIN/PARTIAL ANESTHESIA.
INCREASE OF
TUMORS IN MALE RATS AT CONC OF####

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

First Aid:INHAL: IMMED GET FRESH AIR. KEEP CALM. IF BREATH STOP, GIVE
ARTIF RESP/IF DIFFICULT, GIVE OXYGEN. CALL DR. SKIN: CLEAN SKIN
AFTER USE. EYE: IMMED FLUSH W/WATER. CALL DR. "NOTES TO PHYSICIAN":
BECAUSE OF POSSIBLE DISTURBANCES OF CARDIAC RHYTHM, CATECHOLAMINE
DRUGS, SUCH AS EPINEPHRINE, SHOULD BE USED WITH SPECIAL CAUTION
ONLY IN SITUATIONS OF EMERGENCY LIFE SUP

PORT.

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

Flash Point:WILL NOT BURN

Extinguishing Media:AS APPROPRIATE FOR COMBUSTIBLES IN AREA.

Fire Fighting Procedures:SELF-CONTAINED BREATHING APPARATUS IS REQUIRED IF CYLINDERS RUPTURE OR RELEASE UNDER FIRE CONDITIONS.

Unusual Fire/Explosion Hazard:CYLINDERS ARE EQUIPPED WITH TEMPERATURE AND PRESSURE RELIEF DEVICES BUT STILL MAY RUPTURE UNDER FIRE CONDITIONS. DECOMPOSITION MAY OCCUR.

===== Accident
al Release Measures =====

Spill Release Procedures:REVIEW FIRE & EXPLOSION HAZARDS & SAFETY PRECAUTIONS BEFORE PROCEEDING WITH CLEAN-UP. USE APPROPRIATE PERSONAL PROTECTIVE EQUIPMENT DURING CLEANING. VENT AREA-ESPEC LOW PLACES WHERE HEAVY VAPORS MIGHT COLLECT. RMV OPEN FLAMES. USE SCBA FOR LG SPILLS.

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

Handling and Storage Precautions:CLEAN, DRY AREA. DO NOT HEAT ABOVE 125 DEGREES F.

Other Prec

autions:N/K #####50,000 PPM. SLIGHT BUT SIGNIFICANT INCREASE IN DEVELOPMENTAL TOXICITY (EYE MALFORMATIONS, DECREASED FETAL WEIGHTS) OBSERVED IN OFFSPRING OF RATS EXPOSED TO HIGH CONC (50,000 PPM) OF FC-22. HOW EVER NO INDICATION OF ADVERSE#####

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

Ventilation:NORM VENT-GEN ADEQ. LOCAL EXHAUST SHOULD BE USED WHEN LARGE AMOUNTS ARE RELEASED. MECH VENT SHOULD BE USED IN LOW PLACES

Protective Gloves:NEOPRENE RUBBER GLOVES.

Eye Protection:CHEMICAL SPLASH GOGGLES.

Other Protective Equipment:SELF-CONTAINED BREATHING APPARATUS IS REQUIRED IF A SPILL OR RELEASE OCCURS.

Supplemental Safety and Health

#####EFFECTS ON FEMALE REPRODUCTIVE PERFORMANCE AT CONCENTRATIONS UP TO 50,000 PPM.

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

HCC:G3

Boiling Pt:B.P. Text:-50F,-45C

Vapor Pres:169 PSIA

Vapor Density:3.92 @ 25C

Spec Gravity:1.22

pH:NEUTRL

Evaporation Rate & Reference:> 1 (CCL4 = 1

.0)

Solubility in Water:0.15 WT% AT 25 C

Appearance and Odor:CLEAR, COLORLESS LIQUIDIFIED GAS WITH SLIGHT
ETHEREAL ODOR.

Percent Volatiles by Volume:100%

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

Stability Indicator/Materials to Avoid:YES

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

Stability Condition to Avoid:OPEN FLAMES AND HIGH TEMPERATURES.

Hazardous Decomposition Products:FREON 502 REFRIGERANT CAN BE DECOMP BY
HIGH TEMP (OPEN FLAMES/GLOW ME
TAL SURFACES, ETC) FORMING
HYDROCHLORIC AND

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

Waste Disposal Methods:COMPLY WITH FEDERAL, STATE AND LOCAL
REGULATIONS. REMOVE TO A PERMITTED WASTE DISPOSAL FACILITY OR
RECLAIM BY DISTILLATION.

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