

DU PONT E I DE NEMOURS & CO CHEMICALS & PIGMENTS -- FREON 14/FREON 23 SPECIALTY
FLUOROCARBON (1 -- 4935-00-930-3892

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

Product ID:FREON 14/FREON 23 SPECIALTY FLUOROCARBON (1

MSDS Date:05/01/1989

FSC:4935

NIIN:00-930-3892

MSDS Number: BQXVG

=== Responsible Party ===

Company Name:DU PONT E I DE NEMOURS & CO CHEMICALS & PIGMENTS

Address:1007 MARKET ST

City:WILMINGTON

S

tate:DE

ZIP:19898

Country:US

Info Phone Num:302-695-0756

Emergency Phone Num:800-441-7515,800-424-9300(CHEMTREC)

Preparer's Name:K.P.BROWN

CAGE:0BA38

=== Contractor Identification ===

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

Address:DELLE DONNE CORPORATE CTR

City:WILMINGTON

State:DE

ZIP:19880-0800

Country:US

Phone:800-441-7515

CAGE:0BA38

Company Name:DU PONT E I NEMOURS & CO CHEMICALS & PIGMENTS DEPT

Address:1007 MARKET ST

Box:City:WILMINGTON

State:DE

ZIP:19898

Country:US

Phone:800-44

1-7515

CAGE:23037

Company Name:GOODMAN BALL INC

Address:3639 HAVEN AVE

Box:City:MENLO PARK AVE

State:CA

ZIP:94025-1009

Country:US

Phone:415-363-0113

CAGE:62502

Company Name:PACIFIC SCIENTIFIC CO HTL/KIN-TECH DIVISION

Address:1800 HIGHLAND AVE

Box:City:DUARTE

State:CA

ZIP:91010

Country:US

Phone:818-359-9317/602-796-1100

CAGE:05167

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

EC Limits:NONE RECOMMENDED

Ingred Name:TETRAFLUOROMETHANE (FREON 14)

CAS:75-73-0

RTECS #:FG4920000

Fraction by Wt: 16%

Other REC Limits:NONE RECOMMENDED

=====
===== 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:EYES AND SKIN: LIQUID CONTACT MAY

CAUSE FROSTBITE. INHALATION: HIGH CONCENTRATI

ONS OF VAPOR IS

HARMFUL AND MAY CAUSE HEART IRREGULARITIES, ALTERATION OF THE HEART'S ELECTRICAL ACTIVITY, CNS DEPRESSION , UNCONSCIOUSNESS, AND DEATH. INTENTIONAL MISUSE CAN BE FATAL. INGESTION: NOT CONSIDERED A POTENTIAL ROUTE OR EXPOSURE.

Effects of Overexposure:EYES AND SKIN: IRRITATION, FROSTBITE.

INHALATION: HEART IRREGULARITIES, ALTERATION OF HEART'S ELECTRICAL ACTIVITY, CNS DEPRESSION, DIZZINESS, HEADACHE, CONFUSION, INCOORDINATION, UNCONSCIOUSNESS, IRRE GULAR

PULSE, PALPITATIONS,

INADEQUATE CIRCULATION, DEATH. INGESTION: NOT CONSIDERED A POTENTIAL ROUTE OF EXPOSURE.

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.

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

First Aid:EYES: FLUSH WITH LARGE AMOUNTS OF WATER. GET MEDICAL ATTENTION. SKIN: REMOVE CONTAMINATED CL

OTHING. FLUSH AREA WITH

LARGE AMOUNTS OF WATER. TREAT FOR FROSTBITE IF NECESSARY.

INHALATION: MOVE TO FRESH AIR. IF NOT BREATHING GIVE CPR. IF BREATHING DIFFICULT GIVE OXYGEN. GET MEDICAL ATTENTION. INGESTION: INGESTION IS NOT CONSIDERED A POTENTIAL ROUTE OF EXPOSURE.

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

Flash Point:NONFLAMMABLE

Extinguishing Media:USE MEDIA APPROPRIATE FOR COMBUSTIBLES IN AREA.

Fire Fighting Procedures:USE WATER SPRAY OR FOG TO

COOL FIRE EXPOSED

CONTAINERS. SELF-CONTAINED BREATHING APPARATUS IS REQUIRED IF CYLINDERS RUPTURE OR RELEASE UNDER FIRE CONDITIONS.

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

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

Spill Release Procedures:VENTILATE AREA, ESPECIALLY LOW PLACES WHERE HEAVY VAPORS MIGHT COLLECT. REMOVE OPEN FLAMES. WEAR SELF-CONTAINED

BREATHING APPARATUS (SCBA) FOR LARGE SPILLS.
Neutralizing Agent:NONE SPECIFIED BY MANUFACTURER.

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

Handling and Storage Precautions:STORE IN A CLEAN, DRY AREA AWAY FROM FLAMES AND HEAT ABOVE 125F.

Other Precautions:NONE SPECIFIED BY MANUFACTURER.

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

Respiratory Protection:NONE REQUIRED UNDER NORMAL CONDITIONS OF USE. SELF-CONTAINED BREATHING APPARATUS (SCBA) IS REQUIRED IF A LARGE SPILL OR RELEASE OCCURS.

Ventilation:NORMAL VENTILATION ADEQUATE FOR STANDARD PROCEDURES.LOCAL EXHAUST WHEN LARGE AMOUNTS RELEASED.MECNICAL FOR LOW PLACES.

Protective Gloves:LINED LEATHER GLOVES IF SKIN CONTACT.

Eye Protection:SPLASH GOGGLES IF CONTACT IS POSSIBLE.

Other Protective Equipment:NONE SPECIFIED BY MANUFACTURER.

Work Hygienic Practices:WASH AFTER HANDLING AND BEFORE EATING, DRINKING, OR SMOKING. LAUNDER CONTAMINATED CLOTHING BEFORE REUSE.

Supplemental Safety and Health

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

HCC:G3

Boiling Pt:B.P. Text:-146F,-99C

Decomp Temp:Decomp Text:>1409F,>765

Vapor Pres:119PSIA

Vapor Density:2.52

Spec Gravity:1.413

Evaporation Rate & Reference:>1 (CCL4=1)

Solubility in Water:0.08 % BY WT.

Appearance and Odor:COLORLESS GAS. SLIGHT ETHEREAL ODOR.

Percent Volatiles by Volume:100

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

Stability Indicator/Materia

Is to Avoid: YES

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

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

Hazardous Decomposition Products: THIS PRODUCT CAN BE DECOMPOSED BY HIGH TEMPERATURES, OPEN FLAMES FORMING HYDROFLUORIC ACID AND POSSIBLY CARBONYL HALIDES.

Conditions to Avoid Polymerization: WILL NOT OCCUR.

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

Waste Disposal Methods: DISPOSE OF WASTE IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REGULATIONS. RECLAIM BY DISTILLATION OR VENT TO ATMOSPHERE.

Disclaimer (provided with this information by the compiling agencies): This information is formulated for use by elements of the Department of Defense. The United States of America in no manner whatsoever, expressly or implied, warrants this information to be accurate and disclaims all liability for its use. Any person utilizing this document should seek competent professional advice to verify and assume responsibility for the suitability of this information to their particular situation.