

VAN WATERS AND ROGERS -- FREON TF -- 6850-00-105-3084

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

Product ID:FREON TF

MSDS Date:07/25/1990

FSC:6850

NIIN:00-105-3084

MSDS Number: BPHFR

=== Responsible Party ===

Company Name:VAN WATERS AND ROGERS

Address:1600 NORTH BLDG.

City:SEATTLE

State:WA

ZIP:93104-1564

Country:US

Info Phone Num:408-435-8700

Emergency Phone Num:408-435-8700 OR 303-338-5651

CAGE:87664

=== Contractor Identification ===

Company Name:CHEMICAL COMMODITIE

S AGENCY, INC.

Address:27447 PACIFIC STREET

Box:City:HIGHLAND

State:CA

ZIP:92346-2640

Country:US

Phone:909-864-2310

CAGE:60777

Company Name:VAN WATERS AND ROGERS INC., UNIVAR CORP.

Address:1600 NORTON BLDG. 801 2ND AVENUE

Box:City:SEATTLE

State:WA

ZIP:98104-1564

Country:US

Phone:206-447-5911/800-424-9300(CHEMTREC)

CAGE:87664

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

Ingred Name:1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE (FREON 113) (SARA  
III)

CAS:76-13-1

RTECS #:KJ400

0000  
Fraction by Wt: >99%  
OSHA PEL:1000PPM/1250STEL  
ACGIH TLV:1000PPM/1250STEL9192  
Ozone Depleting Chemical:1

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

LD50 LC50 Mixture:LD50 (ORAL RAT) IS 43 G/KG  
Routes of Entry: Inhalation:YES Skin:YES Ingestion:YES  
Reports of Carcinogenicity:NTP:NO IARC:NO OSHA:NO  
Health Hazards Acute and Chronic:ACUTE: VAPORS ARE HEAVIER THAN AIR AND  
CAN CAUSE SUFFOCATION BY REDUCING OXYGEN AVAILABLE FOR BREATHING.  
BREATHING VAPORS P  
LUS EPINEPHRIN TYPE DRUGS MAY CAUSE CARDIAC  
IRREGULARITIES. CHRONIC: NO SPEC IFIC INFORMATION AVAILABLE.  
Explanation of Carcinogenicity:NONE OF THE CHEMICALS IN THIS PRODUCT IS  
LISTED BY IARC, NTP OR OSHA AS A CARCINOGEN.  
Effects of Overexposure:INHALE: LIGHT-HEADEDNESS, GIDDINESS, SHORTNESS  
OF BREATH, NARCOSIS, CARDIAC IRREGULARITIES, UNCONSCIOUSNESS OR  
DEATH. EYE: IRRITATION. SKIN:NOTHING WITH BRIEF EXPOSURE;BUT  
POSSIBLE IRRITATION AFTER PR OLONGED CONTACT. INGEST: LARGE  
  
QUANTITIES MAY CAUSE NAUSEA AND VOMITING.  
Medical Cond Aggravated by Exposure:CARDIOVASCULAR DISEASE MAY BE  
AGGRAVATED.

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

First Aid:INHALATION: REMOVE SUBJECT TO FRESH AIR. MAINTIAN BREATHING.  
EYE: FLUSH WITH PLENTY OF WATER FOR 15 MINUTES. GET IMMEDIATE  
MEDICAL ATTENTION. SKIN: WASH WITH SOAP AND WATER. REMOVE  
CONTAMINATED CLOTHI NG AND SHOES. IF IRRITATION PERSISTS, SEE DR.  
INGESTION: DO NOT INDUCE VOMI  
TING. GET IMMEDIATE MEDICAL ATTENTION.  
NOTHING BY MOUTH IF UNCONSCIOUS OR CONVULSING.

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

Flash Point:NONE  
Extinguishing Media:THIS MATERIAL IS NOT COMBUSTABLE. USE  
EXTINGUISHING MEDIA APPPPROPRIATE FOR SURROUNDING FIRE.  
Fire Fighting Procedures:FIRE FIGHTERS SHOULD WEAR SCBA & FULL  
PROTECTIVE CLOTHING. USE WATER SPRAY TO COOL NEARBY CONTAINERS &  
STRUCTURES EXPOSED TO FIRE.  
Unusual Fire/Explosion Hazard:EXTINGUIS

H ALL NEARBY SOURCES OF IGNITION

SINCE VAPORS DECOMPOSE TO HAZARDOUS PRODUCTS AT HIGH TEMPERATURES.

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

Spill Release Procedures:WIPE OR SOAK UP SMALL SPILLS WITH PAPER TOWEL OR INERT ABSORBANT. DIKE TO RETAIN LARGE SPILLS. VACUUM UP FREE LIQUID. REMOVE RESIDUE WITH INERT ABSORBANT. PLACE IN DOT DISPOSAL CONTAINER. KEEP OUT OF SEWERS,STORM DRAINS, SURFACE WATERS, SOIL.

Neutralizing Agent:NO INFORMATION GIVEN ON MSDS BY SUPPLIER

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

Handling and Storage Precautions:STORE IN COOL, DRY, WELL VENTILATED AREA. KEEP CONTAINERS CLOSED. STORE AWAY FROM OTHER CHEMICALS. DO NOT USE PRESSURE TO EMPTY CONTAINER.

Other Precautions:'EMPTY' CONTAINERS MAY CONTAIN RESIDUE OR VAPOR. TREAT THEM WITH THE RESPECT DUE FULL ONES. DO NOT CUT,WELD,ETC. ON THEM. VAPORS ARE HEAVIER THAN AIR & COLLECT IN LOW PLACES. DO NOT ENTER WHERE VAPORS ARE EXPECTED W/O SCBA & OBSERVER.

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

Respiratory Protection:WEAR NIOSH APPROVED SCBA OR SUPPLIED AIR RESPIRATOR IF CONDITIONS OF USE GENERATE VAPORS OR MISTS.

Ventilation:MECHANICAL (GENERAL) VENTILATION CAPABLE OF MAINTAINING EMISSIONS AT THE POINT BELOW THE PEL.

Protective Gloves:RUBBER

Eye Protection:CHEMICAL SAFETY GOGGLES

Other Protective Equipment:SAFETY SHOWER AND EYE BATH. LONG SLEEVED SHIRT, TROUSERS, SAFETY SHOES, RUBBER APRON.ED OR REPEATED CONTACT.

Work Hygienic Practices:MFR: ? HMIS:USE GOOD CHEMICAL HYGIENE PRACTICE. AVOID UNNECESSARY CONTACT. WASH THOROUGHLY BEFORE EATING OR DRINKING.

Supplemental Safety and Health

MSDS RECEIVED FROM NAVY (FOCAL POINT N). NAVY IDENTIFIED NSN.

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

HCC:V2

NRC/State Lic Num:NONE

Boiling Pt:=47.8C, 118.F

Melt/Freeze Pt:=-35.C, -31.F

Vapor Pres:334 MM

Vapor Density:2.9

Spec Gravity:1.57

Ev

aporation Rate & Reference:>1 (BUTYL ACETATE=1)

Solubility in Water:NIL

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

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

Stability Indicator/Materials to Avoid:YES

ALKALIS, OXIDIZING MATERIALS, WATER & MOIST AIR, ALKALI OR ALKALINE  
EARTH METALS, ALUMINUM OR ZINC.

Stability Condition to Avoid:OPEN FLAMES, WELDING ARCS, OR OTHER HIGH  
TEMPERATURE SOURCES WHICH MAY INDUCE THERMAL DECOMPOSITION.

Ha

azardous Decomposition Products:MAY LIBERATE CARBON MONOXIDE, CARBON  
DIOXIDE, HYDROGEN CHLORIDE, CHLORINE, PHOSGENE, OR HYDROGEN  
FLOURIDE.

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

Waste Disposal Methods:DISPOSE OF CONTAMINATED PRODUCT AND MATERIALS  
USED IN CLEANING UP SPILLS AND LEAKS IN A MANNER APPROVED FOR THIS  
MATERIAL.CONSULT APPROPRIATE FEDERAL STATE AND LOCAL REGULATIORY  
AGENCIES TO ACERTAIN P ROPER DISPOSAL PROCEDURES.

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