

ELF ATOCHEM NORTH AMERICA INC -- FORANE (R) 114 -- 6830-00-088-3385

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

Product ID:FORANE (R) 114

MSDS Date:03/11/1992

FSC:6830

NIIN:00-088-3385

MSDS Number: BTKNQ

=== Responsible Party ===

Company Name:ELF ATOCHEM NORTH AMERICA INC

Address:3 PARKWAY

City:PHILADELPHIA

State:PA

ZIP:19102-1321

Country:US

Info Phone Num:215-587-7639

Emergency Phone Num:215-587-7639

CAGE:86460

=== 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:ELF ATOCHEM NORTH AMERICA INC

Address:2000 MARKET STREET

Box:City:PHILADELPHIA

State:PA

ZIP:19103-3222

Country:US

Phone:800-245-5858

CAGE:86460

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

Ingred Name:1,2-DICHLOROTETRAFLUOROETHANE

CAS:76-14-2

RTECS #:KI1101000

Fraction by Wt: 100%

Other REC Limits:NONE RECOMMENDED

OSHA P

EL:1000 PPM  
ACGIH TLV:1000 PPM; 9394  
Ozone Depleting Chemical:1

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

LD50 LC50 Mixture:ORAL LD50 (RAT) IS 2,250 MG/KG  
Routes of Entry: Inhalation:YES Skin:YES Ingestion:YES  
Reports of Carcinogenicity:NTP:NO IARC:NO OSHA:NO  
Health Hazards Acute and Chronic:EYE-IRRITANT. SKIN-IRRITANT.  
Explanation of Carcinogenicity:THIS PRODUCT DOES NOT CONTAIN ANY  
COMPONENETS LISTED BY NTP OR IARC OR REGULATED BY OSHA AS  
CARCINOGENS.  
Effects of Overexposure:EYE-VAPOR IS IRRITATING TO EYES. LIQUID IS  
IRRITATING TO EYES & MAY CAUSE TISSUE TO FREEZE. SKIN-CONTACT WITH  
LIQUID MAY CAUSE TISSUE TO FREEZE (FROST BITE). CHEMICAL ITSELF IS  
NOT IRRITATING.  
Medical Cond Aggravated by Exposure:NONE SPECIFIED BY MANUFACTURER.

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

First Aid:INGESTION-N/A, PRODUCT IS A GAS AT AMBIENT CONDITIONS. NEVER  
GOVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON. DERMAL-  
FLUSH  
EXPOSED SKIN WITH LUKEWARM WATER (NOT HOT) OR USE OTHER MEANS TO  
WARM SKIN S LOWLY. EYE-FLUSH WITH PLENTY OF WATER FOR AT LEAST 15  
MIN. INHALATION-REMOVE TO FRESH AIR. IF NOT BREATHING, GIVE  
ARTIFICIAL RESPIRATION. IF HARD TO BREATHE, GIVE OXYGEN. GET MEDICAL  
ATTENTN IN ALL CAS

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

Flash Point:NONFLAMMABLE  
Extinguishing Media:USE EXTINGUISHING MEDIA APPROPRIATE TO SURROUNDING  
FIRE CONDITIONS.  
Fire Figh  
ting Procedures:WEAR SELF-CONTAINED BREATHING APPARATUS IN  
FIGHTING FIRES NEAR THIS PRODUCT DUE TO TOXICITY OF THERMAL  
DECOMPOSITION PRODUCTS. KEEP CONTAINERS COOL.  
Unusual Fire/Explosion Hazard:MAY DECOMPOSE DURING HEATING RELEASING  
IRRITATING, TOXIC & CORROSIVE GASES. CONTAINERS MAY EXPLODE IF  
HEATED DUE TO RESULTING PRESSURE RISE.

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

Spill Release Procedures:KEEP UPWIND, EVACUATE ENCLOSED SPACE. REMOVE  
OR E

EXTINGUISH IGNITION SOURCES. STOP LEAK IF POSSIBLE WITHOUT RISK.  
DISPERSE GAS WITH FLOOR-LEVEL FORCED-AIR VENTILATION. EXHAUST  
VAPORS OUTDOORS. REMOVE ALL FLAMES, HEATING ELEMENTS & GAS  
ENGINES.

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

Handling and Storage Precautions:KEEP AWAY FROM HEAT, SPARKS & FLAMES.  
STORE IN TIGHTLY CLOSED CONTAINERS. KEEP CONTAINERS CLOSED. EMPTY  
CONTAINER MAY CONTAIN HAZARDOUS RESIDUES.

Other Precautions:TOXICITY COMMENTS:

DENSE VAPOR DISPLACES BREATHING

AIR IN CONFINED OR UNVENTILATED AREAS. INHALING CONCENTRATED VAPORS  
CAN CAUSE DROWSINESS, UNCONSCIOUSNESS, RESPIRATORY DEPRESSION AND  
DEATH DUE TO ASPHYXIATION.

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

Respiratory Protection:IF INADEQUATELY VENTILATED AREAS, A NIOSH/MSHA  
APPROVED (TC-19C) SUPPLIED AIR RESPIRATOR OR SELF-CONTAINED  
BREATHING APPARATUS IS REQUIRED.

Ventilation:USE WITH ADEQUATE VENTILATION. WHERE VENTILATION IS

INADEQUATE, USE A LOCAL EXHAUST SYSTEM TO REMOVE VAPORS.

Protective Gloves:SYNTHETIC RUBBER SUCH AS NEOPRENE, LINED

Eye Protection:USE GOGGLES TO PROTECT EYES.

Other Protective Equipment:PROTECT ALL EXPOSED SKIN FROM LIQUID.

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

Supplemental Safety and Health

DO NOT GET ON SKIN OR IN EYES. DO NOT BREATHE VAPORS OR MIST. DESTROY  
CONTAMINATED

SHOES. DO NOT SMOKE. READ LABEL BEFORE USE. DO NOT

CUT, GRIND OR WELD ON OR NEAR CONTAINER DUE TO POSSIBLE TOXIC FUMES  
GENERATION.

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

HCC:G3

Boiling Pt:=-3.8C, 38.7F

B.P. Text:38.8F,3.8C

Melt/Freeze Pt:=-93.9C, -137.F

M.P/F.P Text:-137F,-94C

Vapor Pres:27.26 PSIA

Vapor Density:5.9

Spec Gravity:1.44

Solubility in Water:SLIGHT

Appearance and Odor:COLORLESS LIQUIDIFIED GAS WITH FAINT ETHERAL ODOR.

Percent Volatiles by

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

Stability Indicator/Materials to Avoid:YES

STRONG ALKALI OR ALKALINE EARTH METALS, FINELY POWDERED METALS SUCH AS ALUMINUM, MAGNESIUM OR ZINC & STRONG OXIDIZERS.

Stability Condition to Avoid:THERMAL DECOMPOSITION DUE TO EXPOSURE TO HEAT (>800F) OR FIRE.

Hazardous Decomposition Products:THERMAL DECOMPOSITION PRODUCTS INCLUDE HYDROGEN FLUORIDE, HYDROGEN CHLORIDE, CARBON MONOXIDE, CARBON DIOXIDE, CHLORINE.

NE.

Conditions to Avoid Polymerization:FLAMES, IGNITION SOURCES, HEATING ELEMENTS, COMBUSTION ENGINES, ETC.

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

Waste Disposal Methods:RECYCLE OR RECLAIM IF POSSIBLE. RECLAIM MATERIAL MAY BE INCINERATED BUT TOXIC AND CORROSIVE COMBUSTION PRODUCTS (HF AND HCL) MUST BE HANDLED APPROPRIATELY. CONSULT FEDERAL, STATE AND LOCAL AUTHORITIES FOR PROPER DISPOSAL.

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