

ELF ATOCHEM NORTH AMERICA INC -- 04089, FORANE (R) 141B -- 6850-01-434-4410

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Product Identification
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Product ID:04089, FORANE (R) 141B

MSDS Date:11/03/1999

FSC:6850

NIIN:01-434-4410

Status Code:A

MSDS Number: CKFWT

=== Responsible Party ===

Company Name:ELF ATOCHEM NORTH AMERICA INC

Address:2000 MARKET STREET

City:PHILADELPHIA

State:PA

ZIP:19103-3222

Country:US

Info Phone Num:215-419-70

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Emergency Phone Num:215-419-7695\7704

Chemtrec Ind/Phone:(800)424-9300

CAGE:86460

=== Contractor Identification ===

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

Company Name:SDB CONSULTANTS LTD

Address:401 WHITNEY AVE SUITE 120

Box:City:GRETNA

State:LA

ZIP:70056

Country:US

Phone:504-366-9105

Contract Num:SP0450-00-M-D752

CAGE:0PGK2

Company Name:SDB CONSULTANTS LTD

Address:401 WHITNE

Y AVE SUITE 120
Box:City:GRETNA
State:LA
ZIP:70056
Country:US
Phone:504-366-9105
Contract Num:SP0450-99-M-C826
CAGE:0PGK2
Company Name:SDB CONSULTANTS LTD
Address:401 WHITNEY AVE SUITE 120
Box:City:GRETNA
State:LA
ZIP:70056
Country:US
Phone:504-366-9105
Contract Num:SP0450-99-M-NE11
CAGE:0PGK2

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Composition/Information on Ingredients
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Ingred Name:1,1-DICHLORO-1-FLUOROETHANE (SARA 313)
CAS:1717-00-6
RTECS #:KI0997000
= Wt:100.
Other REC Limits:500 PPM (MFR)(WEEL)
Ozon
e Depleting Chemical:2

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Hazards Identification
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LD50 LC50 Mixture:LD50 (ORAL, RAT) > 5,000 MG/KG
Routes of Entry: Inhalation:YES Skin:YES Ingestion:NO
Reports of Carcinogenicity:NTP:NO IARC:NO OSHA:NO
Health Hazards Acute and Chronic:TARGET ORGANS: N/P. PROLONGED OR
REPEATED CONTACT REMOVES OILS FROM THE SKIN & MAY DRY SKIN CAUSING
IRRITATION, REDNESS & RASH. HIGH VAPOR CONCENTRATIONS ARE
IRRITATING TO THE EYES & RESPIRATORY TRACT &
MAY RESULT IN CENTRAL
NERVOUS SYSTEMEFFECTS SUCH AS HEADACHE, DIZZINESS, DROWSINESS &, IN
SEVERE EXPOSURE, LOSS OF CONSCIOUSNESS & DEATH. THE DENSE VAPOR OF
THIS MATERIAL MAY REDUCE THE AVAILABLE O XYGEN FOR BREATHING.
PROLONGED EXPOSURE TO AN OXYGEN-DEFICIENT ATMOSPHERE MAY BE FATAL.
INHALATION MAY CAUSE AN INCREASE IN THE SENSITIVITY OF THE HEART TO
ADRENALINE, WHICH COULD RESULT IN IRREGULAR OR RAPID HEARTBEATS.
Explanation of Carcinogenicity:NONE SPECIFIED BY MANUFAC

TURER.

Effects of Overexposure:PROLONGED OR REPEATED CONTACT REMOVES OILS FROM THE SKIN & MAY DRY SKIN CAUSING IRRITATION, REDNESS & RASH. HIGH VAPOR CONCENTRATIONS ARE IRRITATING TO THE EYES & RESPIRATORY TRACT & MAY RESULT IN CENTRAL NERVOUS SYSTEMEFFECTS SUCH AS HEADACHE, DIZZINESS, DROWSINESS &, IN SEVERE EXPOSURE, LOSS OF CONSCIOUSNESS & DEATH.

Medical Cond Aggravated by Exposure:MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE TO THIS MATERIAL INCLUDE HEART DISEASE OR COMPROMISED HEART FUNCTION.

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

First Aid:IF IN EYES, IMMEDIATELY FLUSH WITH PLENTY OF WATER FOR AT LEAST 15 MINS. GET MEDICAL ATTENTION. IF ON SKIN, FLUSH THE AREA WITH PLENTY OF WATER. REMOVE CONTAMINATED CLOTHING & SHOES. WASH CLOTHING. GET MEDICAL ATTENTION IF IRRITATION DEVELOPS & PERSISTS. IF SWALLOWED, DO NOT INDUCE VOMITING. GIVE WATER TO DRINK. GET MEDICAL ATTENTION IMMEDIATELY. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON. IF INHALED, REMOVE TO FRESH AIR. IF NOT BREATHING, GIVE ARTIFICIAL RESPIRATION. IF BREATHING IS DIFFICULT, GIVE OXYGEN. GET MEDICAL ATTENTION. DO NOT GIVE ADRENALINE, EPINEPHRINE OR SIMILAR DRUGS FOLLOWING EXPOSURE TO THIS PRODUCT.

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

Flash Point Method:TCC

Flash Point:NONE

Autoignition Temp:550.C, 1022.F

Lower Limits:7.4

Upper Limits:15.5

Extinguishing Media:USE WATER SPRAY, WATER FOG, CARBON DIOXIDE, OR DRY

CHEMICAL. COOL FIRE EXPOSED CONTAINERS WELL AFTER THE FIRE IS OUT TO PREVENT POSSIBLE EXPLOSIONS.

Fire Fighting Procedures:FIRE FIGHTERS & OTHERS WHO MAY BE EXPOSED TO PRODUCTS OF COMBUSTION SHOULD WEAR FULL FIRE TURN OUT GEAR (FULL BUNKER GEAR) & SELF CONTAINED BREATHING APPARATUS (PRESSURE DEMAND NIOSH OR EQUIVALENT) FIRE FIGHTING EQUIPMENT SHOULD BE THOROUGHLY DECONTAMINATED AFTER USE.

Unusual Fire/Explosion Hazard:MAY DECOMPOSE DURING

ING CONTACT WITH FLAMES

OR EXTREMELY HOT METAL SURFACES TO PRODUCE TOXIC & CORROSIVE PRODUCTS. SOME MIXTURES OF HCFCs &/OR HFCS, & AIR OR OXYGEN MAY BE COMBUSTIBLE IF PRESSURIZED & EXPOSED TO EXTREME HEAT OR FLAME. CONTAINER MAY EXPLODE IF HEATED DUE TO RESULTING PRESSURE RISE.

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

Spill Release Procedures: USE HALON GEN LEAK DETECTOR OR OTHER SUITABLE MEANS TO LOCATE LEAKS OR CHECK ATMOSPHERE. KEEP UPWIND. EVACUATE

ENCLOSED SPACES & DISPERSE GAS WITH FLOOR-LEVEL FORCED-AIR VENTILATION. EXHAUST VAPORS OUT DOORS. DO NOT SMOKE OR OPERATE INTERNAL COMBUSTION ENGINES. REMOVE FLAMES & HEATING ELEMENTS.

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

Handling and Storage Precautions: DO NOT GET IN EYES/SKIN/CLOTHING.

AVOID BREATHING VAPOR/MIST. KEEP CONTAINER CLOSED. USE ONLY WITH ADEQUATE VENTILATION. WASH THOROUGHLY AFTER HANDLING. KEEP AWAY FROM HEAT, SPARK

SHOCK & FLAMES. EMPTIED CONTAINER RETAIN VAPOR & PRODUCT RESIDUE. OBSERVE ALL LABEL SAFEGUARDS UNTIL CONTAINER IS DESTROYED.

Other Precautions: DO NOT REUSE THIS CONTAINER. DO NOT CUT OR WELD ON OR NEAR CONTAINER. THE PRESENCE OF EXCESS LEVELS OF MOISTURE, SHOULD BE AVOIDED SINCE IT MAY LEAD TO CORROSION OF CARBON STEEL. IT IS RECOMMENDED THAT CONTAINERS BE RAISED ABOVE FLOOR OR GROUND DURING EXTENDED PERIODS TO PREVENT CONTAINER CORROSION DUE TO STANDING WATER

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

Respiratory Protection: USE NIOSH APPROVED RESPIRATORY PROTECTION EQUIPMENT APPROPRIATE TO THE MATERIAL WHEN EXPOSURE LIMITS ARE EXCEEDED. FOR EMERGENCY & OTHER CONDITIONS WHERE EXPOSURE LIMIT MAY BE SIGNIFICANTLY EXCEEDED, USE AN APPROVED FULL FACE POSITIVE-PRESSURE, SELF-CONTAINED BREATHING APPARATUS OR POSITIVE-PRESSURE AIRLINE WITH AUXILIARY SELF-CONTAINED AIR SUPPLY.

Ventilation: IF PRACTICAL, USE LOCAL MECHANICAL

L EXHAUST VENTILATION AT

SOURCES OF AIR CONTAMINATION SUCH AS OPEN PROCESS EQUIPMENT.

Protective Gloves:CHEMICAL RESISTANT GLOVES.

Eye Protection:WEAR CHEMICAL GOGGLES. WEAR FACE SHIELD.

Other Protective Equipment:WEAR CHEMICAL GOGGLES & HAVE EYE FLUSHING EQUIPMENT AVAILBLE. WEAR APPROPRIATE CHEMICAL RESISTANT PROTECTIVE CLOTHING & CHEMICAL RESISTANT GLOVES OR PREVENT SKIN CONTACT.

Work Hygienic Practices:RINSE CONTAMINATED SKIN PROMPTLY. WASH CONTAMINATED CLOTHING AND CLEAN PROTECTIVE EQUIPMENT BEFORE REUSE.

WASH SKIN THOROUGHLY AFTER HANDLING.

Supplemental Safety and Health

ENGINEERING CONTROLS: INVESTIGATE ENGINEERING TECHNIQUES TO REDUCE EXPOSURES BELOW AIRBORNE EXPOSURE LIMITS. PROVIDE VENTILATION IF NECESSARY TO CONTROL EXPOSURE LEVELS BELOW AIRBORNE EXPOSURE LIMITS. SKIN: CONSULT GLOVES MANUFACTURER TO DETERMINE APPROPRIATE TYPE OF GLOVE MATERIAL FOR GIVEN APPLICATION.

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

HCC:

G3

Boiling Pt:=32.C, 89.6F

Melt/Freeze Pt:=-103.3C, -154.F

Vapor Pres:10PSIA@68F

Vapor Density:4.0

Spec Gravity:1.24

Solubility in Water:SLIGHT

Appearance and Odor:CLEAR, COLORLESS LIQUID AND VAPOR WITH FAINT ETHER ODOR.

Percent Volatiles by Volume:100

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

Stability Indicator/Materials to Avoid:YES

AVOID CONTACT WITH HYDROCHLORIC ACID, ALKALI OR ALKALINE EARTH METALS, FINELY POWDERED METALS (ALUMINUM, MAGNESIUM, ZINC) & STRONG

OXIDIZERS SINCE THEY MAY REACT OR ACCELERATE DECOMPOSITION.

Stability Condition to Avoid:THIS MATERIAL IS CHEMICALLY STABLE UNDER SPECIFIED CONDITIONS OR STORAGE, SHIPMENT AND/OR USE.

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

===== Toxicological Information =====

Toxicological Information:ORAL: PRACTICALLY NON-TOXI

C TO RATS (LD50

>5000 MG/KG). DERMAL-NO MORE THAN SLIGHTLY TOXIC TO RATS (LD50 >2000 MG/KG). INHALATION- PRACTICALLY NON-TOXIC TO RATS (4-HR LC50 61,647 PPM). EYE IRRITATION- NON-IRRITATING TO SLIGHTLY IRRITATING TO RABBITS. SKIN IRRITATION-NON-IRRITATING TO RABBITS (4-HR & 24-HR EXPOSURE). NO ALLERGIC SKIN RESPONSE WAS OBSERVED IN GUINEA PIGS FOLLOWING REPEATED SKIN EXPOSURE TO HCFC 141B USING THE MAXIMIZATION PROCEDURE.

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Ecological:ECOTOXICOLOGICAL INFORMATION: 48-HR EC50 DAPHNIA MAGNA: 31.2 MG/L, SLIGHTLY TOXIC. 96-HR ZEBRA FISH (STATIC): 126 MG/L, PRACTICALLY NON-TOXIC. CHEMICAL FATE INFORMATION: BASED ON ITS LOW N-OCTANOL/WATER PARTITION COEFFICIENT (LOW POW 2.3), BIOACCUMULATION OF THIS MATERIAL IS CONSIDERED UNLIKELY.

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Waste Disposal Methods:RECOVER, RECYCLE OR RECLAIM WHEN PRACTICAL. DISPOSE OF IN ACCORDANCE WITH FEDERAL, STATE & LOCAL REGULATIONS. NOTE CHEMICAL ADDITIONS TO, PROCESSING OF, OR OTHERWISE ALTERING THIS MATERIAL MAY MAKE THIS WASTE MANAGEMENT INFORMATION INCOMPLETE, INACCURATE, OR OTHERWISE INAPPROPRIATE. STATE & LOCAL WASTE DISPOSAL REQUIREMENTS MAY BE MORE RESTRICTIVE.

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Transport Information:DOT NAME: REFRIGERANTS OR DISPERSANTS NOI, LIQUID OR GAS. DOT PACKING GROUP: PG. DOT SPECIAL INFORMATION: NOT REGULATED WHEN SHIPPED BY GROUND, WATER, OR AIR.

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SARA Title III Information:HAZARD CATEGORIES UNDER CRITERIA OF SARA TITLE III RULES (40 CFR PART 370): IMMEDIATE (ACUTE) HEALTH, Y; DELAYED (CHRONIC) HEALTH, N; FIRE, N; REACTIVE, N; SUDDEN RELEASE OF PRESSURE, N. SARA REPORTABLE QUANTITIES: 1,1-DICHLORO-1-FLUOROETHANE (HCFC-141B). SARA TITLE III, SECTION 3131: THIS PRODUCT CONTAINS

INS CHEMICALS WHICH ARE DEFINED AS A TOXIC
CHEMICAL UNDER AND SUBJECT TO THE REPORTING REQUIREMENTS OF,
SECTION 313 OF TITLE III OF SARA: 1,1-DICHLORO-1-FLUOROETHANE
(HCFC-141B).

Federal Regulatory Information:THE COMPONENTS OF THIS PRODUCT ARE ALL
ON THE TSCA INVENTORY LIST.

State Regulatory Information:NONE SPECIFIED BY MANUFACTURER.

===== Other Information =====

Disclaimer (provided with this information by the compiling agencies):

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