

ELF ATOCHEM NORTH AMERICA INC FINE CHEMICALS -- 04022-004 FORANE 22 --
6830-00-935-9896

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

Product ID:04022-004 FORANE 22

MSDS Date:02/13/1996

FSC:6830

NIIN:00-935-9896

MSDS Number: BRSTW

=== Responsible Party ===

Company Name:ELF ATOCHEM NORTH AMERICA INC FINE CHEMICALS

Address:2000 MARKET STREET

City:PHILADELPHIA

State:PA

ZIP:19103-3222

Country:US

Info Phone Num:

800-558-5575 FAX 215-419-7413

Emergency Phone Num:800-558-5575 716-877-1740

Preparer's Name:PRODUCT SAFETY

CAGE:86460

=== Contractor Identification ===

Company Name:ATOACHEM NORTH AMERICA INC

Address:3 PARKWAY RM 910

Box:City:PHILADELPHIA

State:PA

ZIP:19102

Country:US

Phone:215-587-7197

CAGE:0N628

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:REFRIGERATION SALES CO INC

Add

ress:38-18 33RD ST
Box:City:LONG ISLAND CITY
State:NY
ZIP:11101-2211
Country:US
Phone:800-221-0603
CAGE:3A676

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

Ingred Name:CHLORODIFLUOROMETHANE (SARA 313) (CERCLA)
CAS:75-45-6
RTECS #:PA6390000
Fraction by Wt: 100%
Other REC Limits:NONE RECOMMENDED
OSHA PEL:1000 PPM
ACGIH TLV:1000 PPM; 9596
Ozone Depleting Chemical:2

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

LD50 LC50 Mixture:TLV= 1000 PPM (3450 M
G/M3)

Routes of Entry: Inhalation:YES Skin:YES Ingestion:NO
Reports of Carcinogenicity:NTP:NO IARC:NO OSHA:NO

Health Hazards Acute and Chronic:ACUTE: INHALATION OF HIGH
CONCENTRATIONS IN ENCLOSED OR CONFINED AREAS MAY CAUSE RESPIRATORY
DEPRESSION, ASPHYXIA DUE TO OXYGEN DISPLACEMENT; INCREASES
SENSITIVITY TO ADRENALIN. CONTACT WITH EYES MAY CAUSE IRRITATION.
SKIN CONTACT WITH LIQUID MAY CAUSE FROSTBITE. CHRONIC: NONE
SPECIFIED BY MANUFACTURER.

Explanation of Carcinogeni

city:NO INGREDIENT OF A CONCENTRATION OF 0.1%
OR GREATER IS LISTED AS A CARCINOGEN OR SUSPECTED CARCINOGEN.

Effects of Overexposure:INHALED-DROWSINESS, UNCONSCIOUSNESS,
RESPIRATORY DEPRESSION, DEATH; RAPID HEARTBEAT (TACHYCARDIA),
IRREGULAR HEARTBEAT (CARDIAC ARRYTHMIAS), AND DEPRESSED CARDIAC
FUNCTION. EYES- IRRITATION, FROZEN EY E TISSUE. SKIN-FROZEN SKIN
TISSUE/FROSTBITE.

Medical Cond Aggravated by Exposure:PERSONS WITH PREEXISTING HEART
DISEASE MAY BE AT INCREASED RIS

K FROM EXPOSURE.

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

First Aid:SKIN-FLUSH SKIN WITH WARM WATER. GET MEDICAL ATTENTION IF FROSTBITTEN OR IF SYMPTOMS OCCUR. EYES-FLUSH WITH LOTS OF WATER FOR AT LEAST 15 MINUTES. GET MEDICAL ATTENTION. INHALED-REMOVE TO FRESH AIR. GIVE ARTIFICIAL RESPIRATION IF NOT BREATHING. GIVE OXYGEN IF BREATHING DIFFICULT. GET MEDICAL ATTENTION.

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

Flash Poin

t:NON-FLAMMABLE

Autoignition Temp:Autoignition Temp Text:1170F

Extinguishing Media:USE MEDIA APPROPRIATE FOR SURROUNDING FIRE.

Fire Fighting Procedures:WEAR SELF-CONTAINED BREATHING APPARATUS AND FULL PROTECTIVE GEAR. THOROUGHLY DECONTAMINATE FIREFIGHTERS GEAR AFTER USE.

Unusual Fire/Explosion Hazard:MAY DECOMPOSE DURING CONTACT W/FLAMES, HEATING ELEMENTS OR IN COMBUSTION ENGINES RELEASING IRRITATING,TOXIC & CORROSIVE GASES.CONTAINER MAY EXPLODE IF HEATED.

=====
===== Ac
cidental Release Measures =====

Spill Release Procedures:KEEP UPWIND. EVACUATE ENCLOSED SPACE. ELIMINATE ALL SOURCES OF IGNITION. STOP LEAK IF FEASIBLE. DISPERSE GAS WITH FLOOR-LEVEL FORCED VENTILATION; EXHAUST GAS OUTDOORS. WASH CONTAMINATED CLOTHES BEFORE REUSE. DESTROY CONTAMINATED SHOES.
Neutralizing Agent:NONE SPECIFIED BY MANUFACTURER.

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

Handling and Storage Precautions:STORE IN TIGHTLY CLOSED C
ONTAINERS.

KEEP CONTAINER CLOSED. KEEP AWAY FROM HEAT, SPARKS AND FLAMES. EMPTY CONTAINER MAY CONTAIN HAZARDOUS RESIDUES.

Other Precautions:DO NOT DROP, REUSE OR REFILL CONTAINER. DO NOT SMOKE. READ LABEL BEFORE USE. DO NOT CUT, GRIND, OR WELD ON OR NEAR CONTAINER DUE TO POSSIBLE FUME GENERATION.

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

Respiratory Protection:IF ENGINEERING CONTROLS FAIL OR NON-ROUTINE USE OR AN EMERGENCY OCCURS; WEAR AN MSHA/NIOS

H APPROVED AIR-SUPPLIED

RESPIRATOR OR SCBA, AS REQUIRED. USE IN ACCORDANCE WITH 29 CFR 1910.134 AND MANUFACTURE R'S RECOMMENDATIONS.

Ventilation:USE ADEQUATE MECHANICAL VENTILATION OR LOCAL EXHAUST TO MAINTAIN EXPOSURE BELOW TLV(S).

Protective Gloves:LINED SYNTHETIC RUBBER.

Eye Protection:CHEMICAL SPLASH GOGGLES.

Other Protective Equipment:PROTECT ALL EXPOSED SKIN FROM CONTACT WITH LIQUID.

Work Hygienic Practices:WASH HANDS AFTER HANDLING AND BEFORE EATING, DRINKING, OR SMOKI

NG. LAUNDER CONTAMINATED CLOTHES BEFORE REUSE.

Supplemental Safety and Health

NONE

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

HCC:G3

Boiling Pt:B.P. Text:-41F,-41C

Melt/Freeze Pt:M.P/F.P Text:-256F,-160C

Vapor Pres:7031 MM HG

Vapor Density:2.98

Spec Gravity:1.17

Evaporation Rate & Reference:NONE SPECIFIED BY MFR.

Solubility in Water:SLIGHT

Appearance and Odor:COLORLESS, LIQUIFIED GAS; FAINT ETHEREAL ODOR.

Percent Volatiles by Volume:100

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

Stability Indicator/Materials to Avoid:YES

STRONG ALKALIS, ALKALIE EARTH METALS, FINELY POWDERED METALS AND STRONG OXIDIZING AGENTS.

Stability Condition to Avoid:THERMAL DECOMPOSITION.

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

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

Waste Disposal Methods:RECYCLE OR REC

LAIM IF POSSSIBLE. RECLAIMED

MATERIAL MAY BE INCINERATED BUT TOXIC AND CORROSIVE COMBUSTION PRODCUTS (HF & HCL) MUST BE HANDLED APPROPRIATELY. CONSULT LOCAL, STATE AND FEDERAL AUTHORITIE S FOR PROPER DISPOSAL PROCEDURES.

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 a

ccurate 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.