

NATIONAL REFRIGERANTS INC -- REFRIGERANT 22 (HCFC-22) -- 6830-00-935-9896

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

Product ID:REFRIGERANT 22 (HCFC-22)
MSDS Date:03/01/1998
FSC:6830
NIIN:00-935-9896
Status Code:A
MSDS Number: CKVGM
=== Responsible Party ===
Company Name:NATIONAL REFRIGERANTS INC
Address:661 KENYON AVE
City:ROSEHAYN
State:NJ
ZIP:08302
Country:US
Info Phone Num:800-262-0012
Emergency Phone Num:609-455-4555
Preparer's Name:RAY MADARIAGA
Chemtrec Ind/Phone:(800)424-9300
CAGE:4J994
=== Contractor Identification ===
Company Name:NATIONAL REFRIGERANTS INC
Address:661 KENYON AVE
Box:City:BRIDGETON
State:NJ
ZIP:08302
Country:US
Phone:800-262-0012/215-698-6620
CAGE:4J994

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

Ingred Name:CHLORODIFLUOROMETHANE (R22)
CAS:75-45-6
RTECS #:PA6390000
= Wt:100.
OSHA PEL:1000 PPM TWA
ACGIH TLV:3540 MG/M3;1000 PPM
Ozone Depleting Chemical:2

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

LD50 LC50 Mixture:C/CE. PLEASE FILL OUT THIS SECTION
Reports of Carcinogenicity:NTP:NO IARC:NO OSHA:NO
Health Hazards Acute and Chronic:TARGET ORGANS AFFECTED BY EXPOSURE TO
THIS MATERIAL ARE: EYES, SKIN, CENTRAL NERVOUS SYSTEM, RESPIRATORY
SYSTEM, HEART. EYE: IRRITANT. VAPOR IS IRRITATING TO EYES. LIQUID
IS IRRITATING TO EYES & MAY CAUSE TISSUES TO FREEZE. SKIN:
IRRITANT. CONTACT WITH LIQUID MAY CAUSE TISSUES TO FREEZE (FROST
BITE). CHEMICAL ITSELF IS NOT IRRITATING.
Explanation of Carcinogenicity:THIS PRODUCT DOES NOT CONTAIN ANY
COMPONENTS LISTED BY NTP OR IARC OR REGULATED BY OSHA ASA
CARCINOGENS.
Effects of Overexposure:IRRITATION, REDNESS AND PAIN FROM FROSTBITES.
Medical Cond Aggravated by Exposure:PERSONS WITH PREEXISTING HEART
DISEASE MAY BE AT INCREASED RISK FROM EXPOSURE.

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

First Aid:INGESTION: N/A-PRODUCT IS A GAS AT AMBIENT CONDITIONS.
 DERMAL: FLUSH EXPOSED SKIN WITH LUKEWARM WATER (NOT HOT) - OR USE OTHER MEANS TO WARM SKIN SLOWLY. GET MEDICAL ATTENTION IF FROSTBITTEN BY LIQUID OR IF IRRITATION OCCURS. EYE: IF IN EYES, IMMEDIATELY FLUSH WITH PLENTY OF WATER. GET MEDICAL ATTENTION IF IRRITATION PERSISTS. INHALATION: IF INHALED, REMOVE TO FRESH AIR. IF NOT BREATHING, GIVE ARTIFICIAL RESPIRATION. IF BREATHING IS DIFFICULT GIVE OXYGEN. GET MEDICAL ATTENTION.

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

Flash Point:NONFLAMMABLE
 Autoignition Temp:=632.C, 1169.6F
 Lower Limits:NA
 Upper Limits:NA
 Extinguishing Media:USE EXTINGUISHING MEDIA APPROPRIATE FOR SURROUNDING FIRE CONDITIONS.
 Fire Fighting Procedures:FIREFIGHTERS & OTHERS WHO MAY BE EXPOSED TO PRODUCTS OF COMBUSTION SHOULD WEAR FULL FIRE FIGHTING TURN OUT GEAR (FULL BUNKER GEAR) & SELF CONTAINED BREATHING APPARATUS (PRESSURE DEMAND MSAH/NIOSH APPROVED OR EQUIVALENT). FIRE FIGHTING EQUIPMENT SHOULD BE THOROUGHLY DECONTAMINATED AFTER USE.
 Unusual Fire/Explosion Hazard:MAY DECOMPOSE DURING CONTACT WITH FLAMES, HEATING ELEMENTS, OR IN COMBUSTION ENGINES RELEASING IRRITATING, TOXIC, & CORROSIVE GASES. CONTAINER MAY EXPLODE IF HEATED DUE TO RESULTING PRESSURE RISE. SOME MIXTURES OF HCFCs &/OR HFCs, & AIR OR OXYGEN MAY BE COMBUSTIBLE IF PRESSURIZED & EXPOSED TO EXTREME HEAT OR FLAME

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

Spill Release Procedures:REMOVE OR EXTINGUISH IGNITION OR COMBUSTION SOURCES. EVACUATE ENCLOSED SPACES UNTIL GAS IS DISPERSED. KEEP UPWIND. STOP LEAK IF POSSIBLE WITHOUT RISK. DISPERSE GAS WITH FLOOR-LEVEL FORCED-AIR VENTILATION. EXHAUST VAPORS OUTDOORS. REMOVE ALL FLAMES, HEATING ELEMENTS & GAS ENGINES. WASH CONTAMINATED CLOTHES BEFORE USE. DESTROY CONTAMINATED SHOES.
 Neutralizing Agent:NONE PROVIDED BY MFR.

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

Handling and Storage Precautions:DO NOT GET IN EYES, ON SKIN OR CLOTHING. DO NOT BREATHE VAPOR, MIST OR GAS. KEEP CONTAINER CLOSED. KEEP AWAY FROM HEAT, SPARKS, & FLAMES. STORE IN TIGHTLY CLOSED CONTAINERS. EMPTY CONTAINERS MAY CONTAIN HAZARDOUS RESIDUE. DO NOT DROP, REUSE OR REFILL CONTAINER. DO NOT SMOKE. READ LABEL BEFORE USE.
 Other Precautions:PROTECT ALL EXPOSED SKIN FROM LIQUID CONTACT.

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

Respiratory Protection:USE NIOSH/MSHA APPROVE FULL FACE (TC-19C) SUPPLIED AIR RESPIRATOR OR SELF-CONTAINED BREATHING APPARATUS WHERE AIRBORNE EXPOSURE IS LIKELY OR IF CONCENTRATION EXCEEDS PERMISSIBLE EXPOSURE LIMIT. FOR EMERGENCY, USE APPROVED FULL FACE POSITIVE-PRESSURE AIRLINE WITH AUXILIARY SELF-CONTAINED BREATHING APPARATUS.
 Ventilation:DILUTION VENTILATION ACCEPTABLE, LOCAL MECHANICAL EXHAUST

VENTILATION PREFERRED, IF PRACTICAL, AT SOURCES OF AIR
CONTAMINATION SUCH AS OPEN PROCESS EQUIPMENT.

Protective Gloves:CHEMICAL RESISTANT GLOVES TO PREVENT SKIN CONTACT

Eye Protection:WEAR CHEMICAL GOGGLES IF POTENTIAL FOR EYE CONTACT

Other Protective Equipment:EYE FLUSHING EQUIPMENT IMMEDIATELY

AVAILABLE. APPROPRIATE CHEMICAL RESISTANT PROTECTIVE CLOTHING.

Work Hygienic Practices:RINSE CONTAMINATED CLOTHING & CLEAN PROTECTIVE
EQUIPMENT BEFORE REUSE. WASH SKIN THOROUGHLY AFTER HANDLING.

Supplemental Safety and Health
NONE.

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

HCC:G3

Boiling Pt:=-40.6C, -41.4F

Melt/Freeze Pt:=-160.C, -256.F

Decomp Temp:Decomp Text:NONE PROVIDED BY MFR.

Vapor Pres:136 PSIA @ 21C / 70 F

Vapor Density:2.98@1 ATM

Spec Gravity:1.17 @ 30 / 0 C (H2O=1)

Evaporation Rate & Reference:GAS

Solubility in Water:SLIGHT

Appearance and Odor:COLORLESS, LIQUIFIED GAS WITH FAINT ETHEREAL ODOR

Percent Volatiles by Volume:100.0

Corrosion Rate:NONE PROVIDED BY MFR

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

AVOID CONTACT WITH STRONG ALKALI OR ALKALINE EARTH METALS, FINELY
POWDERED METALS SUCH AS ALUMINUM, MEGNESIUM OR ZINC & STRONG
OXIDIZERS SINCE THEY MAY REACT WITH OR ACCELERATE DECOMPOSITION OF
THIS MATERIAL

Stability Condition to Avoid:FLAMES, EXTREMELY HOT METAL SURFACES,
HEATING ELEMENTS, COMBUSTION ENGINES, ETC. DO NOT MIX HCFC-22 WITH
OXYGEN OR AIR ABOVE ATMOSPHERIC PRESSURE.

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

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

Toxicological Information:DENSE VAPORS DISPLACE BREATHING AIR IN
CONFINED AREAS CAUSING ASPHYXIATION. THIS COMPOUND ALSO INCREASES
THE SENSITIVITY OF THE HEART TO ADRENALINE, POSSIBLY RESULTING IN
RAPID AND IRREGULAR HEART BE AT AND DEPRESSION OF CARDIAC FUNCTION.

===== Ecological Information =====

Ecological:NO INFORMATION PROVIDED.

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

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

===== MSDS Transport Information =====

Transport Information:PSN: CHLOROFLUOROMETHANE (R-22), 2.2, UN1018.

===== Regulatory Information =====

SARA Title III Information:SEC 313: THIS CHEMICAL IS SUBJECT TO THE
REPORTING REQUIREMENTS OF THIS SECTION (40CFR PART 372).

Federal Regulatory Information:THIS CHEMICAL IS LISTED ON THE US EPA
TSCA INVENTORY.

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

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