

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 Phon

e Num:609-455-4555

Preparer's Name:RAY MADARIAGA

Chemtre 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

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===== 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 AS 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.

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

First Aid:INGESTION

INHALATION: 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.

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===== 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 APPR

OVED 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. SOM E 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 APPRATUS WHERE AIRBORNE EXP0OSURE IS LIKELY OR IF CONCENTRATION EXCEEDS PERMISSIBLE EXPOSURE LIMIT. FOR EM ERGENCY, 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 O

F 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.

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===== 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

===== Stabil

ity 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 DECOMPOSITI

ON 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, POSSIBLEY RESULTING IN RAPID AND IRREGULAR HEART BE AT AND DEPRESSION OF CARDIAC FUNCTION.

===== Ecological Inform

ation =====

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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