

AIRCO INDUSTRIAL GASES -- FREON 22 -- 6830-00-174-9677

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

Product ID:FREON 22

MSDS Date:03/01/1988

FSC:6830

NIIN:00-174-9677

MSDS Number: BTRTM

==== Responsible Party ===

Company Name:AIRCO INDUSTRIAL GASES

Address:575 MOUNTAIN AVE

City:MURRAY HILL

State:NJ

ZIP:07974-2006

Country:US

Info Phone Num:201-464-8100

Emergency Phone Num:201-464-8100,800-424-9300(CHEMTREC)

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reparer's Name:NONE

CAGE:6J576

==== Contractor Identification ===

Company Name:BOC GROUP INC THE, BOC GASES DIV

Address:575 MOUNTAIN AVE

Box:City:NEW PROVIDENCE

State:NJ

ZIP:07974-1209

Country:US

Phone:908-464-8100

CAGE:6J576

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

Ingred Name:CHLORODIFLUOROMETHANE

CAS:75-45-6

RTECS #:PA6390000

Fraction by Wt: 100%

Other REC Limits:NONE RECOMMENDED

OSHA PEL:1000 PPM

ACGIH TLV:1000 PPM; 9394

Ozone Depleting Chemical:2

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

LD50 LC50 Mixture:ORAL LD50 (RAT) IS UNKNOWN.

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 VAPORS MAY CAUSE

CENTRAL NERVOUS SYSTEM DEPRESSION, DEATH. SKIN OR EYE CONTACT WITH LIQUID MAY CAUSE IRRITATION. CONTACT WITH RAPIDLY EVAPORATING LIQUID MAY CAUSE FROSTBITE OR CRYOGENIC "BURNS". PRODUCT IS RELATIVELY

NON-TOXIC. IT MAY ACT AS A NARCOTIC AT HIGH CONCENTRATIONS.CHRONIC:NONE SPECIFIED.

Explanation of Carcinogenicity:NONE

Effects of Overexposure:INHALATION: LIGHT-HEADEDNESS, GIDDINESS, DISORIENTATION, NAUSEA, VOMITING, NARCOSIS, CARDIAC DYSRHYTHMIAS, HYPOTENSION, AND DEATH. SKIN: IRRITATION, FROSTBITE, CRYOGENIC BURNS, BLISTERS. CHANGE IN SKIN COLOR TO GRAY OR WHITE. EYES: IRRITATION, CRYOGENIC BURNS.

Medical Cond Aggravated by Exposure:NONE SPECIFIED BY MANUFACTURER.

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

First Aid:EYES: FLUSH WITH LARGE AMOUNTS OF WATER. IF ADVERSE SYMPTOMS DEVELOP, GET MEDICAL ATTENTION. SKIN: REMOVE CONTAMINATED CLOTHING. FLUSH AREA WITH LUKEWARM WATER. DO NOT USE HOT WATER. GET MEDICAL ATTENTION. INHALATION: MOVE TO FRESH AIR. RESUSCITATE AND/OR GIVE OXYGEN IF NEEDED. GET MEDICAL ATTENTION. FURTHER TREATMENT SHOULD BE SYMPTOMATIC AND SUPPORTIVE. INGESTION: NOT LIKELY ROUTE OF EXPOSURE.

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

Flash Point:NONE.

Extinguishing Media:NONFLAMMABLE. USE MEDIA APPROPRIATE FOR SURROUNDING FIRE.

Fire Fighting Procedures:WEAR FIRE FIGHTING PROTECTIVE EQUIPMENT AND FULL FACE-PIECE SELF-CONTAINED BREATHING APPARATUS. COOL FIRE EXPOSED CONTAINERS WITH WATER SPRAY. CONTAIN RUNOFF.

Unusual Fire/Explosion Hazard:COMPRESSED GAS. MAY EXPLODE IF EXPOSED TO FIRE. IF INVOLVED IN FIRE IT MAY DECOMPOSE YIELDING TOXIC PRODU

CTS.

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

Spill Release Procedures:EVACUATE ALL PERSONNEL FROM AFFECTED AREA. USE APPROPRIATE PROTECTIVE EQUIPMENT. IF LEAK IS IN USER'S EQUIPMENT, BE CERTAIN TO PURGE PIPING PRIOR TO REPAIRS. IF LEAK IS IN CONTAINER OR CONTAINER VALVE , CONTACT CHEMTRAC OR CALL CLOSEST AIRCO LOCATION.

Neutralizing Agent:NONE

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

Handling and Storage Precautions:STORE IN COOL, DRY, WELL VENTILATED AREA OF NON-COMBUSTIBLE CONSTRUCTION AWAY FROM HEAVILY TRAFFICKED AREAS AND EMERGENCY EXITS.

Other Precautions:DO NOT STORE ABOVE 130F. STORE CYLINDERS UPRIGHT AND SECURED. SEGREGATE FULL AND EMPTY CYLINDERS. USE "FIRST IN-FIRST OUT INVENTORY SYSTEM. USE ONLY IN WELL-VENTILATED AREAS. DO NOT DRAG, SLIDE, OR ROLL CYLINDERS. USE SUITABLE HAND TRUCK.

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

Respiratory Protection:NONE NORMALLY REQUIRED. POSITIVE PRESSURE LINE WITH MASK OR SCBA SHOULD BE AVAILABLE FOR EMERGENCY USE.

Ventilation:HOOD WITH FORCED VENTILATION.

Protective Gloves:USE PLASTIC OR RUBBER GLOVES.

Eye Protection:SAFETY GOGGLES OR GLASSES.

Other Protective Equipment:PROVIDE EYE WASH STATION AND SAFETY SHOWER. SAFETY SHOES FOR CYLINDER HANDLING.

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

Supplemental Safety a

nd Health

VALVE PROTECTION CAPS MUST REMAIN IN PLACE UNLESS CONTAINER IS SECURED WITH VALVE OUTLET PIPED TO USE POINT. DO NOT HEAT CYLINDER BY ANY MEANS TO INCREASE THE DISCHARGE RATE OF PRODUCT. USE A CHECK VALVE OR TRAP IN DISCHARGE LINE TO PREVENT BACK FLOW INTO THE CYLINDER. PROTECT CYLINDERS FROM PHYSICAL DAMAGE.

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

HCC:G3

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

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

Vapor Pres:121

PSIG

Vapor Density:3.06

Solubility in Water:SLIGHTLY SOLUBLE

Appearance and Odor:COLORLESS GAS. SLIGHT ETHEREAL ODOR.

Percent Volatiles by Volume:100

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

Stability Indicator/Materials to Avoid:YES

ALKALI AND ALKALINE EARTH METALS: POWDERED ALUMINUM, ZINC, MAGNESIUM, BERYLLIUM, ETC.

Stability Condition to Avoid:OPEN FLAMES AND HIGH 300F TEMPERATURES.

Hazardous Decomposition Products:HYDROGEN FLUORIDE, HYDROGEN CHLORIDE, AN

D POSSIBLY PHOSGENE.

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

Waste Disposal Methods:DO NOT ATTEMPT TO DISPOSE OF WASTE OR UNUSED QUANTITIES. RETURN IN THE SHIPPING CONTAINER PROPERLY LABELED WITH ANY VALVE OUTLET PLUGS OR CAPS SECURED AND VALVE PROTECTION CAP IN PLACE TO AIRCO FOR PR OPER DISPOSAL.

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