LELAND LIMITED INC -- CARBON DIOXIDE, GAS -----MSDS Safety Information ______ FSC: 4220 NIIN: 00-805-8383 MSDS Date: 05/02/2000 MSDS Num: CKWRR Product ID: CARBON DIOXIDE, GAS MFN: 01 Responsible Party Cage: 2W134 Name: LELAND LIMITED INC Address: 382 SOMERVILLE RD Box: 382 City: BEDMINSTER NJ 07921 Info Phone Number: 908-668-1008 Emergency Phone Number: (800)424-9300 Resp. Party Other MSDS No.: C02.MSD/VAS Chemtrec IND/Phone: (800)424-9300 Review Ind: Y Published: Y Contractor Summary ______ Cage: 2W134 Name: LELAND LTD INC Address: 2614 S CLINTON AVE City: SOUTH PLAINFIELD NJ 07080 Phone: 908-561-2000; 908-568-1310 ______ Item Description Information _____ ======== Item Manager: S9I Item Name: CARTRIDGE, CARBON DIOXIDE Specification Number: MIL-C-601 Type/Grade/Class: 2 TYPE Unit of Issue: EA UI Container Qty: 1 Type of Container: CARTRIDGE _____ Ingredients

Cas: 124-38-9

RTECS #: FF6400000 Name: CARBON DIOXIDE

OSHA PEL: 9000 MG/M3;5000 PPM ACGIH TLV: 9000 MG/M3;5000 PPM

ACGIH STEL: 54000 MG/M3

Percent by Wt: 100.

Health Hazards Data

LD50 LC50 Mixture: NO DATA PROVIDED BY MANUFACTURER

Route Of Entry Inds - Inhalation: YES

Skin: YES Ingestion: NO

Carcinogenicity Inds - NTP: NO

IARC: NO OSHA: NO

Effects of Exposure: INHALATION: INITIALLY, EXPOSURE TO INCREASED CARBON DIOXIDE CONCENTRATIONS RESULTS IN A COMPEN-SATORY INCREASE IN BOTH RATE & amp; DEPTH

OF VENTILATION. BEYOUND A CERTAIN POINT, HOWEVER, THIS MAY REVERSE TO

HYPOVENTILATION RESULTING RESPIRATORY ACIDOISIS. DEATH FROM ASPHYXIA MAY OCCUR IF THE CONCENTRATION & amp; DURATION OF EXPOSURE ARE SUFFICIENT. SKIN: NO ADVERSE EFFECTS HAVE BEEN REPORTED FROM THE GAS. DU E TO RAPID EVAPORATION, THE LIQUID MAY CAUSE FROSTBITE. EYE: AT HIGH CONCENTRATIONS IN AIR, MAY CAUSE STINGING SENSATION; MAY CAUSE IRRITATION. INGESTION: UNLIKELY. IF LIQUID IS SWALLOWED, FROSTBITE D AMAGE TO LIPS, MOUTH & DUCOUS **MEMBRANES**

Explanation Of Carcinogenicity: NONE

Signs And Symptions Of Overexposure: INHALATION: INCREASE IN BOTH RATE AND DEPTH OF VENTILATION THEN HYPOVENTILATION RESULTING RESPIRATORY ACIDOISIS. DEATH FROM ASPHYXIA MAY OCCUR. SKIN: DUE TO RAPID EVAPORATION, THE LIQUID MAY CAUSE FR OSTBITE WITH RENESS, TINGLING, PAIN, OR NUMBNESS. IN SEVERE CASES, THE SKIN MAY BECOME HARD, WHITE, AND DEVELOP BLISTERS. EYE: AT HIGH CONCENTRATIONS IN AIR, MAY CAUSE STINGING SENSATION. INGESTION: F ROSTBITE TO LIPS, MOUTH, MUCOUS MEMBRANES.

cal Cond Aggravated By Exposure: NO DATA PROVIDED BY MANUFACTURER.

First Aid: INHALATION: IMMEDIATELY REMOVE FROM EXPOSURE AREA TO FRESH AIR. IF BREATHING HAS STOPPED, GIVE ARTIFICIAL RESPIRATION. MAINTAIN AIRWAY AND BLOOD PRESSURE. KEEP AFFECTED PERSON WARM, GET MEDICAL ATTENT ION IMMEDIATELY.SKIN: IN CASE OF FROSTBITE, WARM AFFECTED SKIN WITH WARM WATER (107F). IF WARM WATER IS UNAVAILABE, GENTLY WRAP AFFECTD AREA IN BLANKETS. ALLOW CIRCULATION TO RETURN NATURALLY. GET MED ICAL ATTEN

TION IMMEDIATELY, EYE: IF CONTACT WITH

LIQUIFIED OR COMPRESSED GAS OCCURS, WASH WITH LARGE AMOUNTS OF WARM WATER (APPROXIMATELY 15-20 MINUTES). GET MEDICAL ATTENTION IMMEDIATELY.

Handling and Disposal

Spill Release Procedures: NO DATA PROVIDED BY MANUFACTURER Neutralizing Agent: NO DATA PROVIDED BY MANUFACTURER

Waste Disposal Methods: NO DATA PROVIDED BY MANUFACTURER.

Handling And

Storage Precautions: DO NOT PERMIT PHYSICAL DAMAGE OR OVERHEATING OF CYLINDERS. CONTENTS ARE UNDER PRESSURE; CYLINDERS MAY RUPTURE AND TRAVEL A CONSIDERABLE DISTANCE. CONTACT OF LIQUEFIED GASES WITH WATER MAY CAUSE EXPLOS IONS DUE TO RAPID TEMPERATURE FLUCTUATIONS. STORE IN ACCOR-DANCE WITH 29 CFR 1910.101.

Other Precautions: HANDLING CONT: FOR ASSISTANCE, CONTACT THE DISTRICT DIRECTOR OF THE EPA.

Fire and Explosion Hazard Inform

ation

Extinguishing Media: DRY CHEMICAL, CARBON DIOXIDE, OR HALON. FOR LARGER FIRES, USE WATER SPRAY, FOG OR STANDARD FOAM.

Fire Fighting Procedures: COOL FIRE-EXPOSED CYLINDERS WITH WATER FROM THE SIDE UNTIL WELL AFTER THE FIRE IS IUT. USE AGENTS SUITABLE FOR TYPE OF FIREL COOL CYLINGERS WITH FLOODING AMOUNTS OF WATER. APPLIED FROM AS FAR A DISTAN CE AS POSSIBLE.

Unusual Fire/Explosion Hazard: GAS--NEGLIGIBLE FIRE HAZARD WHEN EXPO SED TO HEAT

OR FLAME. CYLINDER--MAY RUPTURE IN HEAT OF FIRE.

Control Measures

Respiratory Protection: SCBA ONLY REQUIRED IN CONFINES SPACES.

Ventilation: PROVIDE GENERAL DILUTION VENTILATION.

Protective Gloves: PROTECTIVE CLOTHING IS NOT REQUIRED

Eye Protection: NOT REQUIRED, BUT ADVISABLE.

Other Protective Equipment: PROTECTIVE CLOTHING IS NOT REQUIRED

Work Hygienic Practices: NO D

ATA PROVIDED BY MANUFACTURER

Supplemental Safety and Health: NO DATA PROVIDED BY MANUFACTURER

Physical/Chemical Properties

HCC: G3

Boiling Point: =-78.3C, -109.F

B.P. Text: SUBLIMES

Melt/Freeze Pt: =-57.C, -70.6F Vapor Pres: 43700 MMHG@21C

Vapor Density: 1.977G/I Spec Gravity: 1.52@21C Solubility in Water: SOLUBLE

Appearance and Odor: ODORLESS, COLORLESS GAS, WITH SLIGHT ACIDIC TASTE.

______ Reactivity Data ______ Stability Indicator: YES ION OR Stability Condition To Avoid: STABLE UNDER NORMAL TEMPERATURES AND PRESSURES. Materials To Avoid: ACRYLADEHYDE: EXOTHERMIC POLYMERIZATION; BARIUM PEROCIDE: INCANDESCENT REACTION; CESIUM OXIDE: INGNITION; DIETHYL MAGNESIUM: IGNITION; ETHYLENEIMINE: EXPLOSIVE POLYMERIZATION; HYDAZINE: DECOMPOSITION; METAL ACETYLIDES: IGNI Hazardous Decomposition Products: TEMPERATURES ABOVE 1700 C MAY CAUSE DECOMPOSITION AND THE RELEASE OF OXYGEN AND HIGHLY TOXIC CARBON MONOXIDE. Hazardous Polymerization Indicator: NO Conditions To Avoid Polymerization: HAZARDOUS POLYMERIZATION HAS NOT BE REPROTED TO OCCUR UNDER NORMAL TEMPERATURES AND PRESSURES. ______ Toxicological Information _____ Toxicological Information: NO DATA PROVIDED BY MANUFA CTURER. _____ **Ecological Information** _____ Ecological: NO DATA PROVIDED BY MANUFACTURER _____ **MSDS** Transport Information Transport Information: NO DATA PROVIDED BY MANUFACTURER _____ Regulatory Information _____ Sara Title III Information: NO DATA PROVIDED BY MANUFACTURER ______ Other Information

Federal Regulatory Information: NO DATA PROVIDED BY MANUFACTURER State Regulatory Information: NO DATA PROVIDED BY MANUFACTURER

Other Information: NFPA RATINGS: HEALTH=U, FIRE=0, REACTIVITY=0. CERCLA

RATINGS: HEALTH=3, FORE=0, REACTIVITY=0, PERSISTENCE=0.

Transportation Information

Responsible Party Cage: 2W134

Trans ID NO: 155593

Product ID: CARBON DIOXIDE, GAS MSDS Prepared Date: 05/02/2000

Review Date: 12/14/2000

MFN: 1

Net Unit Weight: UNKNOWN Multiple KIT Number: 0

Unit Of Issue: EA Container QTY: 1

Type Of Container: CARTRIDGE

Detail DOT Information

DOT PSN Code: CUX

DOT Proper Shipping Name: CARBON DIOXIDE

Hazard Class: 2.2 UN ID Num: UN1013

Label: NONFLAMMABLE GAS Packaging Exception: 306 Non Bulk Pack: 302,304 Bulk Pack: 302,314,315 Max Qty Pass: 75 KG Max Qty Cargo: 150 KG Vessel Stow Req: A

Detail IMO Information

IMO PSN Code: DOH

IMO Proper Shipping Name: CARBON DIOXIDE

IMDG Page Number: 2111

UN Number: 1013 UN Hazard Cl ass: 2(2.2)

IMO Packaging Group: -Subsidiary Risk Label: -EMS Number: 2-09

MED First Aid Guide NUM: 615

Detail IATA Information

IATA PSN Code: FHH IATA UN ID Num: 1013

IATA Proper Shipping Name: CARBON DIOXIDE +

IATA UN Class: 2.2

IATA Label: NON-FLAMMABLE GAS

Packing Note Passenger: 200
Max Quant Pass: 75KG
Max Quant Cargo: 150KG
Packaging Note Cargo: 200

Detail AFI Information

AFI PSN Code: FHH

AFI Proper Shipping Name: CARBON DIOXIDE

AFI Hazard Class: 2.2 AFI UN ID NUM: UN1013 Special Provisions: P5

Back Pack Reference: A6.3, A6.5, A6.6

HAZCOM Label

Product ID: CARBON DIOXIDE, GAS

Cage: 2W134

Company Name: LELAND LTD INC Street: 2614 S CLINTON AVE

Ci

ty: SOUTH PLAINFIELD NJ

Zipcode: 07080

Health Emergency Phone: (800)424-9300

Label Required IND: Y

Date Of Label Review: 12/14/2000

Status Code: A
Origination Code: F
Eye Protection IND: YES
Skin Protection IND: YES
Signal Word: WARNING

Respiratory Protection IND: YES

Health Hazard: Moderate Contact Hazard: Moderate

Fire Hazard: None

Reactivity Hazard: None

Hazard And Precautions: INHALATION:INITIALLY, EXPOSURE TO INCREASED CARBON DIOXIDE CONCENTRATIONS RESULTS IN A COMPEN-SATORY INCREASE IN B OTH RATE & DIOXIDE CONCENTRATIONS RESULTS IN A COMPEN-SATORY INCREASE IN B

DEPTH OF VENTILATION. BEYOUND A CERTAIN POINT, HOWEVER, THIS MAY REVERSE TO HYPOVENTILATION RESULTING RESPIRATORY ACIDOISIS. DEATH FROM ASPHYXIA MAY OCCUR IF THE CONCENTRATION & DURATION OF EXPOSURE ARE SUFFICIENT. SKIN: DUE TO RAPID EVAPORATION, THE LIQUID MAY CAUSE FROSTBI TE. EYE: AT HIGH CONCENTRATIONS IN AIR, MAY CAUSE STINGING SENSATION; MAY CAUSEIRRITATION. INGESTION: UNLIKELY. IF LIQUID IS SWALLOWED, FROSTBITE DAMAGE TO LIPS, MOUTH & Amp; MUCOUS MEMBRANES

. TARGET ORGAN S: N/P.

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