

LELAND LIMITED INC -- CARBON DIOXIDE, GAS

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MSDS Safety Information
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FSC: 4220
NIIN: 01-391-9844
MSDS Date: 10/19/1996
MSDS Num: CJKBT
Product ID: CARBON DIOXIDE, GAS
MFN: 01
Responsible Party
Cage: 2W134
Name: LELAND LIMITED INC
Address: 382 SOMERVILLE RD
Box: 382
City: BEDMINSTER NJ 07
921
Info Phone Number: 908-668-1008
Emergency Phone Number: 1-800-424-9300

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Item Description Information
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Item Manager: S9I
Item Name: LIFE RAFT,INFLATABLE
Unit of Issue: EA
UI Container Qty: 1

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Ingredients
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Cas: 124-38-9
RTECS #: FF6400000
Name: CARBON DIOXIDE GAS
Percent by W
t: 100.
OSHA PEL: 9000 MG/M3;5000 PPM
ACGIH TLV: 9000 MG/M3;5000 PPM
ACGIH STEL: 54000 MG/M3

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Health Hazards Data
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Route Of Entry Inds - Inhalation: YES
Skin: YES
Ingestion: NO
Carcinogenicity Inds - NTP: NO
IARC: NO
OSHA: NO
Effects of Exposure: TARGET ORGANS: HEART, RESPIRATORY AND NERVOUS SYSTEM.
INHALATION: INITIALLY RESULTS IN A COMPENSATORY INCREASE IN BOTH RATE &
DEPTH O

F VENTILATION. BEYOND A CERTAIN POINT MAY REVERSE TO HYPOVENTILATION RESULTING IN RESPIRATORY ACIDOSIS. DEATH FROM ASPHYXIA MAY OCCUR IF CONCENTRATION & DURATION OF EXPOSURE ARE SUFFICIENT. SKIN: NO EFFECTS FROM GAS. LIQUID MAY CAUSE FROSTBITE. EYES: AT HIGH CONCENTRATION IN AIR, MAY CAUSE STINGING SENSATION; MAY CAUSE IRRITATION. INGESTION: UNLIKELY. IF LIQUID IS SWALLOWED, MAY CAUSE FROSTBITE DAMAGE TO LIPS, MOUTH AND MUCOUS MEMBRANES.

Signs And Symptoms Of Overexposure: INHALATION: INCREASE IN BOTH RATE &

DEPTH OF VENTILATION. SKIN: REDNESS, TINGLING, PAIN, OR NUMBNESS IF LIQUID CONTACT IS MADE. IN SEVERE CASES, THE SKIN MAY BECOME HARD, WHITE, AND DEVELOP BLISTERS. EYES: STINGING SENSATION.

First Aid: INHALATION: IMMEDIATELY REMOVE FROM EXPOSURE AREA TO FRESH AIR. IF BREATHING HAS STOPPED, GIVE ARTIFICIAL RESPIRATION. MAINTAIN AIRWAY & BLOOD PRESSURE. KEEP AFFECTED PERSON WARM. GET MEDICAL ATTENTION IMMEDIATELY. SKIN :FOR FROSTBITE, WARM AFFECTED AREA IN WATER (107F). IF

WARM WATER IS UNAVAILABLE, GENTLY WRAP AFFECTED AREA IN BLANKETS. ALLOW CIRCULATION TO RETURN NATURALLY. GET MEDICAL ATTENTION IMMEDIATELY. EYES: WASH WITH LARGE AMOUNTS OF WARM WATER FOR 15-20 MIN. GET MEDICAL ATTENTION IMMEDIATELY. INGESTION: TREAT SYMPTOMATICALLY & GET MEDICAL ATTENTION.

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Handling and Disposal
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Waste Disposal Methods: FOR ASSISTANCE, CONTACT THE DISTRICT DIRECTOR OF THE EPA.

Handling And Storage Precautions: STORE IN ACCORDANCE WITH 29 CFR 1910.101.

Other Precautions: NONE
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Fire and Explosion Hazard Information
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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

COOL AFTER THE FIRE IS OUT. USE AGENTS SUITABLE FOR TYPE OF FIRE. COOL CYLINDERS WITH FLOODING AMOUNTS OF WATER, APPLIED FROM AS FAR A DISTANCE AS POSSIBLE.

Unusual Fire/Explosion Hazard: GAS-NEGLIGIBLE FIRE HAZARD WHEN EXPOSED TO HEAT OR FLAME CYLINDER-MAY RUPTURE IN HEAT OF FIRE.
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Control Measures
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Respiratory Protection: SCBA, ONLY REQUIRED IN CONFINED SPACES.

Ventilation: PROVIDE

E GENERAL DILUTION VENTILATION.

Eye Protection: NOT REQUIRED, BUT ADVISABLE.

Other Protective Equipment: NOT REQUIRED UNLESS MULTIPLE CYLINDERS RELEASE IN
CONFINED SPACES.

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Physical/Chemical Properties
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HCC: G3

Boiling Point: =-79.C, -110.2F

B.P. Text: (SUBLIMES)

Melt/Freeze Pt: =-57.C, -70.5F

M.P/F.P Text: @4000 MMHG

Vapor Pres: 43700 MMHG@21C

Vapor Density: 1.5

Spec Gravity: 1.52@21

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PH: ACIDIC IN SOL'N

Solubility in Water: SOLUBLE

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

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Reactivity Data
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Stability Indicator: YES

Stability Condition To Avoid: STABLE UNDER NORMAL TEMPERATURES AND PRESSURES.

Materials To Avoid: ACRYLALDEHYDE, BA PEROXIDE, CE OXIDE, DIETHYL MG,
ETHYLENEIMINE, HYDRAZINE, METAL ACETYLIDES, METAL HYDRIDES, METALS,

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OTASSIUM, POTASSIUM-SODIUM ALLOYS, SODIUM, SODIUM PEROXIDE.

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: HARDOUS POLYMERIAZATION HAS NOT BEEN
REPORTEDTO OCCUR UNDER NORMAL TEMPERATURES AND PRESSURE.

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Toxicological Information
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Ecological Information
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MSDS Transport Information
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Transport Information: PER MANUFACTURER OF THE LIFE RAFT: UN2990, LIFE-SAVING
APPLIANCES, SELF-INFLATING.

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Regulatory Information
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Other Information
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Transportation Information
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Responsible Party Cage: 2W134
Trans ID NO: 147011
Product ID: CARBON DIOXIDE, GAS
MSDS Prepared Date: 10/19/1996
Review Date: 04/12/2000
MFN: 1
Net Unit Weight: 4.46 LB GAS
Multiple KIT Number:

0
Unit Of Issue: EA
Container QTY: 1
Additional Data: EACH DEVICE HAS A CYLINDER CONTAINING 205 CU FT OF CARBON
DIOXIDE GAS. WEIGHT OF EMPTY CYLINDER = 10 .16 LBS, WEIGHT OF GAS PLUS
CYLINDER IS 14.62 LBS. PSN PER MARKINGS ON THE STOCK.

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Detail DOT Information
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DOT PSN Code: IHN
DOT Proper Shipping Name: LIFE-SAVING APPLIANCES, SELF INFLATING
Hazard Class: 9
UN ID Num: UN2990
Label
: NONE
Non Bulk Pack: 219
Bulk Pack: NONE
Max Qty Pass: NO LIMIT
Max Qty Cargo: NO LIMIT
Vessel Stow Req: A

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Detail IMO Information
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IMO PSN Code: IYJ
IMO Proper Shipping Name: LIFE-SAVING APPLIANCES, SELF-INFLATING
IMDG Page Number: 9032
UN Number: 2990
UN Hazard Class: 9
IMO Packaging Group: -
Subsidiary Risk Label: -
EMS Number:
MED First Aid Guide NUM: ss
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Detail IATA Information
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IATA PSN Code: PAY
IATA UN ID Num: 2990
IATA Proper Shipping Name: LIFE-SAVING APPLIANCES, SELF-INFLATING
IATA PSN Modifier: ,(APPLIES TO LIFE-SAVING APPLIANCES THAT PRESENT A HAZARD IF
THE SELF-INFLATING DEVICE IS ACTIVATED ACCIDENTALLY).
IATA UN Class: 9
IATA Label: MISCELLANEOUS
Packing Note Passenger: SEE 905
Max Quant Pass: SEE 905
Max Quant Cargo: SEE 905
Packaging Note Cargo:
SEE 905
Exceptions: A48, A87
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Detail AFI Information
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AFI PSN Code: PAY
AFI Proper Shipping Name: LIFE-SAVING APPLIANCES, SELF INFLATING
AFI Hazard Class: 9
AFI UN ID NUM: UN2990
Special Provisions: P5
Back Pack Reference: A13.11
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HAZCOM Label
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Product ID: CARBON DIOXIDE, GAS
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age: 2W134
Company Name: LELAND LTD INC
Street: 2614 S CLINTON AVE
City: SOUTH PLAINFIELD NJ
Zipcode: 07080
Health Emergency Phone: 1-800-424-9300
Label Required IND: Y
Date Of Label Review: 08/04/1999
Status Code: A
Origination Code: F
Eye Protection IND: YES
Signal Word: WARNING
Respiratory Protection IND: YES
Health Hazard: Moderate
Contact Hazard: Slight
Fire Hazard: None
Reactivity Hazard: None
Hazard And Precautions: TARGET ORGANS: HEART, RESPIRATORY AND NERVOUS SYSTEM.
INHALATION: INIT

ALLY RESULTS IN A COMPENSATORY INCREASE IN BOTH RATE & DEPTH OF VENTILATION. BEYOND A CERTAIN POINT MAY REVERSE TO HYPOVENTILATION RESULTING IN RESPIRATORY ACIDOSIS. DEATH FROM ASPHYXIA MAY OCCUR IF CONC. & DURATION OF EXPOSURE ARE SUFFICIENT. SKIN: NO EFFECTS FROM GAS. LIQUID MAY CAUSE FROSTBITE. EYES: AT HIGH CONC. IN AIR, MAY CAUSE STINGING SENSATION; MAY CAUSE IRRITATION. INGESTION: UNLIKELY. IF LIQUID IS SWALLOWED, MAY CAUSE FROSTBITE DAMAGE TO LIPS, MOUTH AND MUCOUS MEMBRANES.

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