-----

FSC: 6830

NIIN: 01-042-8103 MSDS Date: 09/30/1993 MSDS Num: CKHYV

Product ID: NITROUS OXIDE

MFN: 03

Responsible Party Cage: 2W134

Name: LELAND LIMITED, INC

Box: 382

City: BEDMINSTER NJ 07921 Info Phone Number: 908-668-1

800

Emergency Phone Number: 908-668-1008 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: S9G

Item Name: NITROUS OXIDE, TECHNICAL

Unit of Issue: PG

Quantitative Expression: 00000000002EA

UI Container Qty: 1

Type of Container: CYLINDER/BOX

\_\_\_\_\_\_

Ingredients

\_\_\_\_\_\_

Cas: 10024-97-2 RTECS #: QX1350000 Name: NITROUS OXIDE Percent by Wt: 100.

ACGIH TLV: 90 MG/M3;50 PPM ACGIH STEL: NOT ESTABLISHED

\_\_\_\_\_

Health Hazards Data

===

-----

LD50 LC50 Mixture: NONE PROVIDED BY MFR.

Effects of Exposure: SKIN: NO ADVERSE EFFECTS REPORTED FROM THE GAS. DUE TO RAPID EVAPORATION, THE LIQUID MAY CAUSE FROSTBITE WITH REDNESS, TINGLING, PAIN, OR NUMBNESS. EYE: CONTACT WITH LIQUEFIED GAS MAY CAUSE FROSTBITE, BLURRED VISION, REDNESS, PAIN. INGESTION: UNLIKELY. IF LIQUID IS SWALLOWED, FROSTBITE DAMAGE TO LIPS, MOUTH, & DUCOUS MEMBRANES MAY OCCUR.

INHALATION: INHALATION OF HIG

H CONCENTRATIONS WITHOUT ADEQU ATE OXYGEN CAN

RESULT IN HEADACHE & DERIOUS ANOXIA CAUSING FATAL CARDIAL ARRHYTHMIAS OR BRAIN DAMAGE WITH CEREVRAL EDEMA, PERMANENT MENTAL DEFICIT & DE

Explanation Of Carcinogenicity: INADEQUATE EVIDENCE

Signs And Symptions Of Overexposure: FROSTBITE, BLURRED VISION, TINGLING, PAIN, NUMBNESS, CENTRAL NERVOUS SYSTEM DEPRESSION, DROWSINESS, LIGHTHEADEDNESS, CONFUSI

ON, HYSTERIA, ANETHESIA, UNCONSCIOUSNESS.

Medical Cond Aggravated By Exposure: NONE PROVIDED BY MFR.

First Aid: INHALATION: IMMEDIATELY REMOVE FROM EXPOSURE AREA TO FRESH AIR. IF BREATHING HAS STOPPED, GIVE ARTIFICIAL RESPIRATION. MAINTAIN AIRWAY & DESCRIPTION OF RESSURE. KEEP AFFECTED PERSON WARM. GET MEDICAL ATTENTION IMMEDIATELY. SKIN: IN CASE OF FROST BITE, WARM AFFECTED SKIN IN WARM WATER (107 DEG F). IF WARM WATER IS UNAVAILABLE, GENTLY WRAP AFFECTED AREA IN BLANKETS. ALLOW CIRCULAT

ION TO RETURN NATURALLY. GE T MEDICAL ATTENTION

IMMEDIATELY. EYE: IF CONTACT WITH LIQUIFIED OR COMPRESSED GAS OCCURS, WASH WITH LARGE AMOUNTS OF WARM WATER (APPROX 15 TO 20 MINS) GET MEDICAL ATTENTION IMMEDIATELY. INGESTION: ( SEE SUPP DATA)

\_\_\_\_\_\_\_

Handling and Disposal

\_\_\_\_\_

Spill Release Procedures: NONE PROVIDED BY MANUFACTURER
Neutralizing Agent: NO SPECIFIC ANTIDOTE. TREAT SYMPTOMATICA

LLY.

Waste Disposal Methods: NONE PROVIDED BY MANUFACTURER

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

ASSISTANCE, CONTACT THE DISTRICT DIRECTOR OF THE EPA.

Other Precautions: NONE PROVIDED BY MANUFACTURER

\_\_\_\_\_\_\_

Fire and Explosion Hazard Information

\_\_\_\_\_

Flash Point Text: NONE PROVIDED BY Autoignition Temp Text: NONE P

Lower Limits: NONE PROVIDE

**Upper Limits** 

: NONE PROVIDE

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 OUT. USE AGENTS SUITABLE FOR TYPE OF FIRE. COOL CONTAINERS WITH FLOODING AMOUNTS OF WATER, APPLIED FROM AS FAR A DISTA NCE AS POSSIBLE.

Unusual Fire/Explosion Hazard: NONE PROVIDED BY MANUFACTURER

\_\_\_\_\_\_

=

## **Control Measures**

\_\_\_\_\_

Respiratory Protection: SCBA ONLY REQUIRED IN CONFINED SPACES.

Ventilation: PROVIDE LOCAL EXHAUST OR PROCESS ENCLOSURE VENTILATION.

Protective Gloves: PROTECTIVE CLOTHING & GLOVES ARE NOT REQUIRED

Eye Protection: NOT REQUIRED BUT RECOMMENDED

Other Protective Equipment: PROTECTIVE CLOTHING NOT REQUIRED. AN EYE WASH

STATION WITHIN THE IMMEDIATE AREA SHOULD BE PROVIDED.

Work Hygienic Practices: NONE PROVIDED BY MANUFACTU

**RER** 

Supplemental Safety and Health: FIRST AID CONT: INGESTION: TREAT

SYMPTOMATICALLY & DEPRESSION, INCLUDING DROWSINESS, LIGHTHEADEDNESS, CONFUSION, HYSTERI A, ANETHESIA, UNCONSCIOUSNESS.

\_\_\_\_\_\_

## Physical/Chemical Properties

\_\_\_\_\_

HCC: G3

Boiling Point: =-88.7C, -128.F Melt/Freeze Pt: =-91.1C, -132.F

Decomp Te

xt: NONE PROVIDED BY MFR.

Vapor Pres: 760 MMHG @ -88 DEG C

Vapor Density: NONE PROVI

Spec Gravity: 1.8122 G/L @ 25 DEG C

PH: NONE PROVIDED

Viscosity: 0.0145 CPS @ 25 DEG C

Evaporation Rate & Amp; Reference: NONE PROVIDED BY MFR.

Solubility in Water: 59% @ 25 DEG C

Appearance and Odor: COLORLESS GAS OR LIQUID WITH A SLIGHTLY SWEET ODOR AND

TASTE

Percent Volatiles by Volume: NONE PROVIDE Corrosion Rate: NONE PROVIDED BY MFR

\_\_\_\_\_

Reactivity Data

Stability Indicator: YES SEE OTHER INFORMATION). Stability Condition To Avoid: STABLE UNDER NORMAL TEMPERATURES & PRESSURES. AT TEMPERATURES GREATER THAN 300 DEG C. MAY DECOMPOSE & ACT AS AN OXIDIZER. Materials To Avoid: ACETYLENE, ALUMINUM, AMMONIA, BORON (AMORPHOUS), CADMIUM, CARBON MONOXIDE, COBALT, COPPER, DITUNGSTEN CARBIDE, HYDRAZINE, HYDROGEN, HYDROGEN+OXYGEN, HYDROGEN SULFIDE, IRON, LEAD, LITHIUM HYDRIDE, NICKEL, **ORGANIC PER** OXIDES. Hazardous Decomposition Products: THERMAL DECOMPOSITION PRODUCTS MAY INCLUDE TOXIC OXIDES OF NITROGEN. Hazardous Polymerization Indicator: NO Conditions To Avoid Polymerization: HAZARDOUS POLYMERIZATION HAS NOT BE REPORTED TO OCCUR UNDER NORMAL TEMPERATURES AND PRESSURES. \_\_\_\_\_ **Toxicological Information** \_\_\_\_\_ Toxicological Information: NOT PROVIDED \_\_\_\_\_ **Ecological Information** \_\_\_\_\_ Ecological: NOT PROVIDED \_\_\_\_\_\_ **MSDS** Transport Information \_\_\_\_\_ Transport Information: NOT PROVIDED ON MSDS. SEE TRANSPORTATION DATA. \_\_\_\_\_ Regulatory Information

\_\_\_\_\_

Federal Regulatory Informatio

n: NOT PROVIDED

State Regulatory Information: NOT PROVIDED

\_\_\_\_\_

Other Information

\_\_\_\_\_

Other Information: INHALATION: ASPHYXIANT: MULTIPLE CYLINDERS RELEASED IN A CONFINED SPACE MAY CAUSE ASPHYXIA. TARGET EFFECTS: SIMPLE ASPHYXIANT, CENTRAL NERVIOUS SYSTEM DEPRESSANT. POISONING MAY AFFECT BLOOD, LIVER A ND KIDNEYS. MATERIALS TO AVOID CONTINUED: PHENYLLITHIUM, PHOSPHINE, SODIUM (GASEO

MFN: 3

Net Unit Weight: 7.9 GRAMS Multiple KIT Number: 0 Unit Of Issue: PG

Type Of Container: CYLINDER/BOX

\_\_\_\_\_

======

**Detail DOT Information** 

Container QTY: 1

\_\_\_\_\_

DOT PSN Code: KTJ

DOT Proper Shipping Name: NITROUS OXIDE

Hazard Class: 2.2 UN ID Num: UN1070

Label: NONFLAMMABLE GAS, OXIDIZER

Non Bulk Pack: 304
Bulk Pack: 314,315
Max Qty Pass: 75 KG
Max Qty Cargo: 150 KG
Vessel Stow Req: A
Water/Ship/Other Req: 40

\_\_\_\_\_\_

**Detail IMO Information** 

\_\_\_\_\_

IMO PSN Code: KWH

IMO Pr

oper Shipping Name: NITROUS OXIDE

IMDG Page Number: 2166

UN Number: 1070

UN Hazard Class: 2(2.2) IMO Packaging Group: -

Subsidiary Risk Label: OXIDIZING AGENT

EMS Number: 2-08

MED First Aid Guide NUM: NON

\_\_\_\_\_

Detail IATA Information

\_\_\_\_\_\_

IATA PSN Code: SHY IATA UN ID Num: 1070

IATA Proper Shipping Name: NITROUS OXIDE

IATA UN Class: 2.2

Subsidiary Risk Class: 5.1

IATA Label: NON-FLAMMABLE GAS &

amp; OXIDIZER

Packing Note Passenger: 200

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

\_\_\_\_\_

**Detail AFI Information** 

\_\_\_\_\_\_

AFI PSN Code: SHY

AFI Proper Shipping Name: NITROUS OXIDE, COMPRESSED

AFI Hazard Class: 2.2 AFI UN ID NUM: UN1070

AFI Label: 5.1

Special Provisions: P5

Back Pack Reference: A6.3, A6.5

\_\_\_\_\_\_

HAZCOM Label

\_\_\_\_\_\_

Product ID: NITROUS OXIDE

Cage: 2W134

Company Name: LELAND LTD INC

Street: 2614 S CLINTON AVE City: SOUTH PLAINFIELD NJ

Zipcode: 07080

Health Emergency Phone: 908-668-1008

Label Required IND: Y

Date Of Label Review: 04/19/2000

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

Respiratory Protection IND: YES

Health Hazard: Slight Contact Hazard: Slight Fire Hazard: None Reactivity Haza

rd: None

Hazard And Precautions: SKIN: NO ADVERSE EFFECTS KNOWN. DUE TO RAPID EVAPORATION, LIQUID MAY CAUSE FROSTBITE WITH REDNESS, TINGLING, PAIN, OR NUMBNESS. EYE: CONTACT WITH LIQUEFIED GAS MAY CAUSE FROSTBITE, BLURRED VISION, RE DNESS, PAIN. ORAL: FROSTBITE DAMAGE TO LIPS, MOUTH, & DUCOUS MEMBRANES. INHALATION OF HIGH CONCENTRATIONS W/O ADEQUATE OXYGEN CAN RESULT IN HEADACHE & DERIOUS ANOXIA CAUSING FATAL CARDIAL ARRHYTHMIAS OR BRAIN DAMAGE WITH CEREVRAL EDEMA, PERMANE

NT MENTAL DEFICIT & DEFICIT & DEFICIT & DEFICIT & DEPRESSION, INCLUDING DROWSINESS, LIGHTHEADEDNESS, CONFUSION, HYSTERIA, ANETHESIA, UNCONSCIOUSNESS.

\_\_\_\_\_\_

Disclaimer (provided with this information by the compiling agencies): This information is formulated for use by elements of the Department of Defense. The United States of America in no manner whatsoever expressly or implied

warrants, states, or intends said information to have any application, use or viability by or to any person or persons outside the Department of Defense nor any person or persons contracting with any instrumentality of the United States of America and disclaims all liability for such use. Any person utilizing this instruction who is not a military or civilian employee of the United States of America should seek competent professional advice to verify and assume responsibility fo

r the suitability of this information to their particular situation regardless of similarity to a corresponding Department of Defense or other government situation.