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MSDS Safety Information
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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: 908-668-1008
Emergency Phone Number: 908-668-1008
Chemtrec IND/Phone: (800)424-9300
Review Ind: Y
Published: Y

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Contractor Summary
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Cage: 2W134
Name: LELAND LTD INC
Address: 2614 S CLINTON AVE
City: SOUTH PLAINFIELD NJ 07080
Phone: 908-561-2000; 908-568-1310

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Item Description Information
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Item Manager: S9G
Item Name: NITROUS OXIDE, TECHNICAL
Unit of
Issue: PG
Quantitative Expression: 00000000002EA
UI Container Qty: 1
Type of Container: CYLINDER/BOX

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Ingredients
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Cas: 10024-97-2
RTECS #: QX1350000
Name: NITROUS OXIDE
Percent by Wt: 100.
ACGIH TLV: 90 MG/M3;50 PPM
ACGIH STEL: NOT ESTABLISHED

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Health Hazards Data
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LD50 LC50 M

ixture: 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, & MUCOUS MEMBRANES MAY OCCUR. INHALATION: INHALATION OF HIGH CONCENTRATIONS WITHOUT ADEQU ATE OXYGEN CAN RESULT IN HEADAC

HE & SERIOUS ANOXIA CAUSING FATAL CARDIAL ARRHYTHMIAS OR BRAIN DAMAGE WITH CEREVRAL EDEMA, PERMANENT MENTAL DEFICIT & VISUAL SYSTEM INVOLVMENT. HIGH CONCENTRATIONS MIXED WITH AIR OR OXYGEN (SEE SUPP DATA)

Explanation Of Carcinogenicity: INADEQUATE EVIDENCE

Signs And Symptions Of Overexposure: FROSTBITE, BLURRED VISION, TINGLING, PAIN, NUMBNESS, CENTRAL NERVOUS SYSTEM DEPRESSION, DROWSINESS, LIGHTHEADEDNESS, CONFUSION, HYSTERIA, ANETHESIA, UNCONSCIOUSNESS.

Medical Cond Aggravate

d 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 & BLOOD PRESSURE. 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 CIRCULATION TO RETURN NATURALLY. GE T MEDICAL ATTENTION IMMEDIATELY. E

YE: 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)

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Handling and Disposal
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Spill Release Procedures: NONE PROVIDED BY MANUFACTURER

Neutralizing Agent: NO SPECIFIC ANTIDOTE. TREAT SYMPTOMATICALLY.

Waste Disposal Methods: NONE PROVIDED BY MANUFACTURER

Handl

ing 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
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Fire and Explosion Hazard Information
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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 DISTANCE AS POSSIBLE.

Unusual Fire/Explosion Hazard: NONE PROVIDED BY MANUFACTURER

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Control Measures
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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 MANUFACTURER

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

SYMPTOMATICALLY & GET MEDICAL ATTENTION. HEALTH CONT: MAY PRODUCT SIGNS OF CENTRAL NERVOUS SYSTEM DEPRESSION, INCLUDING DROWSINESS, LIGHTEADEDNESS, CONFUSION, Hysteria, ANESTHESIA, UNCONSCIOUSNESS.

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Physical/Chemical Properties
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HCC: G3

Boiling Point: =-88.7C, -128.F

Melt/Freeze Pt: =-91.1C, -132.F

Decomp Text: NONE PROVIDED BY MFR.

Vapor Pres: 760 MMHG @ -88 DEG C

Vapor

Density: NONE PROVIDED

Spec Gravity: 1.8122 G/L @ 25 DEG C

PH: NONE PROVIDED

Viscosity: 0.0145 CPS @ 25 DEG C

Evaporation Rate & 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 PROVIDED

Corrosion Rate: NONE PROVIDED BY MFR

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Reactivity Data
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Stability

y 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 PEROXIDES,

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.

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Toxicological Information

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Toxicological Information: NOT PROVIDED

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Ecological Information

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Ecological: NOT PROVIDED

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MSDS Transport Information

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Transport Information: NOT PROVIDED ON MSDS. SEE TRANSPORTATION DATA.

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Regulatory Information

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Federal Regulatory Information: NOT PROVIDED

State Regulatory Information: NOT PROVIDED

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Other Information

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Other Information: INHALATION: ASPHYXIAN: MULTIPLE CYLINDERS RELEASED IN A CONFINED SPACE MAY CAUSE ASPHYXIA. TARGET EFFECTS: SIMPLE ASPHYXIAN, CENTRAL NERVIOUS SYSTEM DEPRESSANT. POISONING MAY AFFECT BLOOD, LIVER AND KIDNEYS. MATERIALS TO AVOID CONTINUED: PHENYLLITHIUM, PHOSPHINE, SODIUM (GASEOUS), STANNOUS CHLORIDE, TIN (II) OXIDE, TUNGSTEN CARBIDE

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Transportation Information
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Responsible Party Cage: 2W134
Trans ID NO: 152503
Product ID: NITROUS OXIDE
MSDS Prepared Date: 09/30/1993
Review Date: 04/19/2000
MFN: 3
Net Unit Weight: 7.9 GRAMS
Multiple KIT Number: 0
Unit Of Issue: PG
Container QTY: 1
Type Of Container: CYLINDER/BOX
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Detail DOT Information
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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
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Detail IMO Information
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IMO PSN Code: KWH
IMO Proper Shipping Name: NITROUS OXIDE
IMDG Page Number: 2166
UN Numb
er: 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
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Detail IATA Information
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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 & OXIDIZER
Packing Note Passenger: 200
Max Quant Pass: 75KG
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ax Quant Cargo: 150KG
Packaging Note Cargo: 200

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Detail AFI Information
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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

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HAZCOM Label
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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 Hazard: 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, REDNESS, PAIN. ORAL: FROSTBITE DAMAGE TO LIPS, MOUTH, & MUCOUS
MEMBRANES. INHALATION OF HIGH CONCENTRATIONS W/O ADEQUATE OXYGEN CAN RESULT
IN HEADACHE & SERIOUS ANOXIA CAUSING FATAL CARDIAL ARRHYTHMIAS OR BRAIN
DAMAGE WITH CEREBRAL EDEMA, PERMANENT MENTAL DEFICIT & VISUAL SYSTEM
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XED WITH AIR OR OXYGEN MAY PRODUCT SIGNS OF CNS
DEPRESSION, INCLUDING DROWSINESS, LIGHTHEADEDNESS , CONFUSION, HYSTERIA,
ANETHESIA, UNCONSCIOUSNESS.

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