

LIQUID AIR CORP -- NITROGEN

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MSDS Safety Information
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FSC: 6830
NIIN: 00-285-4769
MSDS Date: 05/07/1997
MSDS Num: CFYDF
Product ID: NITROGEN
MFN: 01
Responsible Party
Cage: 18197
Name: LIQUID AIR CORP
Address: 2700 POST OAK BLVD 18TH FLOOR
City: HOUSTON TX 77056
Info Pho
ne Number: 713-868-0440/ FAX 800-231-1366
Emergency Phone Number: 713-868-0440/800-424-9300(CHEMTREC)
Preparer's Name: UNKNOWN
Review Ind: Y
Published: Y

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Preparer Co. when other than Responsible Party Co.
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Cage: 18197
Name: LIQUID AIR CORP
Address: 2121 N CALIFORNIA BLVD, STE 296
City: WALNUT CREEK CA 94596

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Contractor Summary
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Cage: 24274
Name: AIR LIQUID AMERICA CORP
Address: 2700 POST OAK DR
City: HOUSTON TX 77056-8229
Phone: 716-868-0440
Cage: 18197
Name: LIQUID AIR CORP
Address: 2121 N CALIFORNIA BLVD, STE 296
City: WALNUT CREEK CA 94596
Phone: 415-977-6500

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Item Description Information
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Item Name: NITROGEN,TECHNICAL
Unit of Issue: GL
UI Container Qty:

0

Type of Container: BULK

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Ingredients
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Cas: 7727-37-9

RTECS #: QW9700000

Name: NITROGEN

% Wt: >99.99

Other REC Limits: NONE RECOMMENDED

OSHA PEL: NOT ESTABLISHED

ACGIH TLV: ASPHYXIAN; 9596
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Health Hazards Data
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LD50 LC50 Mixture: NOT RELEVANT

Route Of Entry Inds - Inhalati

on: YES

Skin: NO

Ingestion: NO

Carcinogenicity Inds - NTP: NO

IARC: NO

OSHA: NO

Effects of Exposure: TARGET ORGANS:RESPIRATORY SYSTEM. ACUTE- NITROGEN IS
NONTOXIC BUT CAN PRODUCE SUFFOCATION BY DISPLACING OXYGEN. PROLONGED
INHALATION OF HIGH CONCENTRATIONS CAN CAUSE UNCONSCIOUSNESS, CONVULSIVE
MOVEMENTS, POSSIBLE DEATH. THIS PRODUCT IS A GAS. CANNOT BE SWALLOWED OR
CONTACTED. CHRONIC- NONE.

Explanation Of Carcinogenicity: NONE

Signs And Symptoms Of Overexposure: DIZZINESS, TIGHTNESS IN
FRONTAL AREA OF

FOREHEAD, TINGLING OF TONGUE, FINGERTIPS OR TOES, WEAKENED SPEECH LEADING TO
INABILITY TO UTTER SOUNDS; RAPID REDUCTION IN ABILITY TO PERFORM MOVEMENTS,
REDUCED CONSCIOUSNESS OF SURROUNDINGS, RINGING IN EARS, HEADACHE, NAUSEA,
VOMITING, BLUE SKIN COLOR, UNCONSCIOUSNESS, DEATH

Medical Cond Aggravated By Exposure: UNKNOWN

First Aid: PROMPT MEDICAL ATTENTION IS MANDATORY IN ALL CASES OF OVEREXPOSURE.
RESCUE PERSONNEL SHOULD WEAR SELF-CONTAINED BREATHING APPARATUS.

INHAL

ED:REMOVE TO FRESH AIR. PROVIDE OXYGEN/CPR IF NEEDED. EYE/SKIN

/ORAL:UNLIKELY (GAS)
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Handling and Disposal
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Spill Release Procedures: EVACUATE ALL PERSONNEL FROM AFFECTED AREA. USE
APPROPRIATE PROTECTIVE EQUIPMENT. VENTILATE AREA. IF LEAK IS FROM CYLINDER OR
ITS VALVE, CONTACT YOUR SUPPLIER. THE ATMOSPHERE MUST HAVE AT LEAST 19.5% O
XYGEN BEFORE PERSONNEL CAN BE ALLOWED IN THE AR

EA.

Neutralizing Agent: NOT RELEVANT

Waste Disposal Methods: DISPOSE OF IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REGULATIONS. DO NOT ATTEMPT TO DISPOSE OF RESIDUAL OR UNUSED QUANTITIES. RETURN IN THE SHIPPING CONTAINER PROPERLY LABELED, WITH ANY VALVE OR CAPS SECURED TO YOUR SUPPLIER FOR PROPER DISPOSAL.

Handling And Storage Precautions: STORE CYLINDERS UPRIGHT, SECURE, IN COOL, DRY, VENTILATED AREA BELOW 125F. PROTECT FROM PHYSICAL DAMAGE. FULL & EMPTY CYLINDERS SHOULD BE SEGREGATED.

Other Precautions: BE AWARE THAT EXPOSURES TO FATAL CONCENTRATIONS OF NITROGEN COULD OCCUR WITHOUT ANY SIGNIFICANT WARNING SYMPTOMS. USE A "FIRST IN-FIRST OUT" INVENTORY SYSTEM. CLOSE VALVE AFTER EACH USE AND WHEN EMPTY .

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Fire and Explosion Hazard Information
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Flash Point Text: NONE

Lower Limits: NOT RELEVANT

Upper Limits: NOT RELEVANT

Extinguishing Media: USE WATER FOG, CARBON DIOXIDE, FOAM, OR DRY CHEMICAL FOR

SURROUNDING FIRE. KEEP FIRE-EXPOSED CYLINDERS COOL WITH WATER.

Fire Fighting Procedures: AS WITH ANY FIRE, WEAR PROTECTIVE CLOTHING AND NIOSH-APPROVED SELF-CONTAINED BREATHING APPARATUS IF NEEDED.

Unusual Fire/Explosion Hazard: CONTAINER MAY RUPTURE.

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Control Measures
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Respiratory Protection: IF OXYGEN LEVEL IS BELOW 19.5%, USE NIOSH-APPROVED SELF-CONTAINED BREATHING APPARATUS OR SUPPLIED AIR RESPIRATOR, OPERATED IN POSITIVE PRESSURE MODE.

Ventilation: ADEQUATE

Protective Gloves: LEATHER WHEN HANDLING CYLINDERS

Eye Protection: GOGGLES/GLASSES RECOMMENDED

Other Protective Equipment: SAFETY SHOES WHEN HANDLING CYLINDERS

Work Hygienic Practices: OBSERVE GOOD INDUSTRIAL HYGIENE PRACTICES AND RECOMMENDED PROCEDURES.

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Physical/Chemical Properties
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HCC: G3
NRC/State LIC No: NOT RELEVANT
B.P. Text: -320F,-196C
M.P/F.P Text: -346F,-210C
Vapor Pres: UNKNOWN
Vapor Density: 0.906
Spec Gravity: NOT RELEVANT
Viscosity: NOT RELEVANT
Evaporation Rate & Reference: NOT RELEVANT (GAS)
Solubility in Water: 0.023% @ 32F/0C
Appearance and Odor: COLORLESS, ODORLESS GAS
Percent Volatiles by Volume: 100

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Reactivity Data

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Stability Indicator: YES
Stability Condition To Avoid: HEATING CYLINDER, DIRECT FLAME CONTACT
Materials To Avoid: TITANIUM (WILL BURN IN NITROGEN), LITHIUM (SLOWLY REACTS)
Hazardous Decomposition Products: NONE
Hazardous Polymerization Indicator: NO
Conditions To Avoid Polymerization: NOT RELEVANT

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Toxicological Information

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Ecological Information

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MSDS Transport Information

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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: 18197

Trans ID NO: 66386

Product ID: NITROGEN

MSDS Prepared Date: 05/07/1997

Review Date: 02/10/1998

MFN: 1

Radioactivity: NOT RELEVANT

Net Unit Weight: 133 LBS

Multiple KIT Number: 0

Review IND: Y

Unit Of Issue: GL

Container QTY: 0

Type Of Container: BULK

Additional Data: PROPER SHIPPING NAME, HAZARD CLASS, UN ID NUMBER PER MSDS.
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Detail DOT Information
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DOT PSN Code: KLZ

DOT Proper Shipping Name: NITROGEN, COMPRESSED

Hazard Class: 2.2

UN ID Num: UN1066

Label: NONFLAMMABLE GAS

Packaging Exception: 306

Non Bulk Pack: 302

Bulk Pack: 314,315

Max Qty Pass: 75 KG

Max Qty Cargo: 150 KG

Vessel Stow Req: A
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Detail IMO Information
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IMO PSN Code: KSR

IMO Proper Shipping Name: NITROGEN, COMPRESSED

IMDG Page Number: 2163

UN Number: 1066

UN Hazard Class: 2(2.2)

IMO Packaging Group: -

Subsidiary Risk Label: -

EMS Number: 2-04

MED First Aid Guide NUM: NON
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Detail IATA Information
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IATA PSN Code: SBP

IATA UN ID Num: 1066

IATA Proper Shipping Name: NITROGEN, COMPRESSED

IATA UN Class: 2.2

IATA Label: NON-FLAMMABLE GAS

Pack

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

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Detail AFI Information
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AFI PSN Code: SBP
AFI Proper Shipping Name: NITROGEN, COMPRESSED
AFI Hazard Class: 2.2
AFI UN ID NUM: UN1066
Special Provisions: P5
Back Pack Reference: A6.3, A6.6

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HAZCOM Label
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Product ID: NITROGEN
Cage: 18197
Company Name: LIQUID AIR CORP
Street: 2121 N CALIFORNIA BLVD, STE 296
City: WALNUT CREEK CA
Zipcode: 94596
Health Emergency Phone: 713-868-0440/800-424-9300(CHEMTREC)
Label Required IND: Y
Date Of Label Review: 02/10/1998
Status Code: C
MFG Label NO: UNKNOWN
Label Date: 02/10/1998
Origination Code: F
Signal Word: WARNING
Health Hazard: Moderate
Contact Hazard: None
Fire Hazard: None
Reactivity Hazard: None
Hazard And Precautions: TARGET ORGANS
:RESPIRATORY SYSTEM. ACUTE- NITROGEN IS
NONTOXIC BUT CAN PRODUCE SUFFOCATION BY DISPLACING OXYGEN. PROLONGED
INHALATION CAN CAUSE UNCONSCIOUSNESS, CONVULSIVE MOVEMENTS, POSSIBLE DEATH.
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RESC

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INHALED:REMOVE TO FRESH AIR. PROVIDE OXYGEN/CPR IF NEEDED.
EYE/SKIN/ORAL:UNLIKELY (GAS)

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