

LIQUID AIR CORP -- NITROGEN

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MSDS Safety Information  
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FSC: 6830  
NIIN: 01-106-0895  
MSDS Date: 05/07/1997  
MSDS Num: CHHRG  
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)  
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 Manager: S9G  
Item Name: NITROGEN,TECHNICAL  
Unit of Issue: EA  
UI Container Qty: 0  
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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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Name: MAXIMUM IMPURITIES

% Wt: <0.01

Other REC Limits: NONE RECOMMENDED

OSHA PEL: NOT ESTABLISHED

ACGIH TLV: NOT ESTABLISHED  
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Health Haza

rds Data  
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LD50 LC50 Mixture: NONE SPECIFIED BY MANUFACTURER.

Route Of Entry Inds - Inhalation: YES

Skin: NO

Ingestion: NO

Carcinogenicity Inds - NTP: NO

IARC: NO

OSHA: NO

Effects of Exposure: NITROGEN IS SIMPLE ASPHYXIAN.OXYGEN LEVELS SHOULD BE  
MINTAINED ABOVE 19.5%.INHAL:HI CONC OF GAS CAN CAUSE OXY-DEFICIENT  
ENVIRO.INDIVIDUALS BREATH SUCH ATM MAY EXPERIENCE SYMPT WHICH INCLUDE  
HEAD,RING ING IN EARS,DIZZ,DROWS,UNCONSC,NAU,VOMIT,DEPR

ESS OF ALL

SENSES.UNDER SOME CIRCUMST OF OVEREXPO DEATH MAY OCCUR.

Explanation Of Carcinogenicity: PER MSDS:SUSPECTED CANC AGENT:NOT FOUND IN OSHA  
Z,NTP,CAL/OSHA,IARC;NOT CONSIDERED TO BE NOR SUSPECT TO BE CANC AGENT

Signs And Symptions Of Overexposure: ACUTE:MOST SIGNIFICANT HAZ ASSOC W/THIS  
GAS INHAL OF OXY-DEFICINET ATMS.SYMPT OF OXY DEFICIENCY INCLUDE RESP  
DIFFICULTY,RINGNING IN EARS,HEAD,SHORTNESS OF

BREATH,WHEEZING,HEAD,DIZZ,INDIGESTION,NAU,@HI GH CONC UNCONSC OR DEATH MAY  
OCCU

R.SKINOVEREXPO MAY HAVE BLUE COLOR.CHRONIC:CURRENTLY NO KNOWN ADVERSE HEALTH EFFECTS.

Medical Cond Aggravated By Exposure: PRE-EXISTING RESP CONDITIONS MAY BE AGGRAVATED BY OVER-EXPO TO NITROGEN. TARGET ORGANS:RESPIRATORY SYSTEM.

First Aid: RESCUERS SHOULDNT ATTEMPT RETRIEVE VICTIMS OF EXPO TO NITROGEN W/O ADEQU PPE. @MIN SCBA.REMOVE TO FRESH AIR,AS QUICKLY AS POSSIBLE.ONLY TRAINED PERSONNEL SHOULD ADMIN SUPPLEMENTAL OXY & OR CPR IF NECES SARY.VICTIM MUST BE TAKEN FOR MED ATTN.RESCU

ERS SHOULD BE TAKEN FOR MED ATTN IF NECESSARY.TAKE COPU OF LABEL & MSDS TO DR/OTHER HEALTH PROF W/VICTIM.RECOMMENDATIONS TO DR:TREAT SYMPT & REDUCE OVEREXPO

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Handling and Disposal  
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Spill Release Procedures: EVACUATE IMMED AREA.UNCONTROLLED RELEASE SHOULD BE REPORT TO TRAIN PERSONNEL USING PRE-PLANN PROCEDURES.PROPER PROT EQPMT SHOULD

BE USED.CLEAR AFFECT AREA,PROTECT PEOPL E,RESOPND W/TRAN PERSONNEL.MIN P PE SHOULD BE LEVEL B:SCBA.LOCATE/SEAL LEAK(SUPPLE)

Neutralizing Agent: NONE SPECIFIED BY MANUFACTURER.

Waste Disposal Methods: GAS WILL BE DISSIPATED RAPIDLY IN WELL-VENTI AREA.WASTE DISPO MUST BE IAW APPROPR FED/STATE/LOC REGS.RETURN CYL W/ANY RESIDUAL PROD TO AIR LIQUIDE.DONT DISPO OF LOCALLY.EMERG DISPO-SECURE CYL & SLOWLY DISCHARGE GAS TO ATM IN WELL VENTI AREA/DOUTDOORS

Handling And Storage Precautions: GAS MAY BE SUPPLIED BY PIPELINE @PRESSURE UP

TO 600PSIG.STORE CYL UPRIGHT,FIRMLY SECURE TO PREVENT FALLING/KNOCKOVER.SOTRE IN OPN,PROT AGAINST WEATHER

Other Precautions: & DAMPNESS OF GROUND-PREVENTS RUSTING.STORE IN DRY WELL VENTI AREA AWAY FRM HEAT,IGN,DIRECT SUNLIGHT SOURCES.KEEP STORAGE AREA CLEAR OF MATL WHICH CAN BURN.DONT ALLOW AREA WHERE CYL STORE TO EXCEED 52C /125F.STORE AWAY FRM HEAVILY TRAFF/EMER

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Fire and Explosion Hazard Information  
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Autoignition Temp Text: NA

Lower Limits: N/APPLICABLE

Upper Limits: N/APPLICABLE

Extinguishing Media: NON-FLAMM,INERT GAS.USE EXTINGUISHING MEDIA APPROPRIATE FOR SURROUNDING FIRE.

Fire Fighting Procedures: STRUCTURAL FIREFIGHTERS MUST WEAR SELF-CONTAINED BREATHING APPARATUS (SCBA) AND FULL PROTECTIVE EQPMT.

Unusual Fire/Explosion Hazard: NITROGEN DOESNT BURN;HOWEVER CONTAINERS WHEN INVOLVED IN FIRE MAY RUPTURE OR BURST IN HEAT OF FIRE.

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Control Measures  
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Respiratory Protection: MAINTAIN OXY LEVELS >19.5% IN WORKPLACE. USE SUPPLIED AIR RESP PROT IF OXY LEVELS BEL 19.5% OR DURING EMERG RESPONSE TO RELEASE OF NITROGEN. IF RESP PROT REQUIRED FOLLOW REQMTS OF OSHA 29CFR1910.134 OR EQUIVALENT STATE STDS.

Ventilation: USE W/ADEQ VENTI. LOCAL EXHAU VENTI PREFERRED-PREVENTS CHEMICAL DISPERSION INTO WORKPLACE BY ELIMINATING IT @SOURCE.

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Protective Gloves: WHEN HNDL CYL; APPROP PROT FOR OPERATION

Eye Protection: SAFETY GLASSES

Other Protective Equipment: IF APPROP INSTALL AUTO MONITORING EQPMT TO DETECT OXY LEVEL. USE BODY PROT APPROPR FOR TASK. SAF SHOES WHEN HNDLG CYL.

Work Hygienic Practices: BE AWARE OF ANY SIGNS OF DIZZ/FTG, EXPO TO FATAL CONC OF N2 CULD OCCUR W/O ANY SIGNIF WARNING SYMPT DUE TO OXY DEF.

Supplemental Safety and Health: SPILL: SOURCE. ALLOW GAS (LIGHTER THAN AIR) TO DISSIPATE. MONITOR SURROUNDING AREA FOR OXY. ATM

MUST HAVE @LEAST 19.5% OXY BEF

PERSONNEL CAN BE ALLOWED IN AREA W/O SCBA. LEAK INCIDENTALLY FRM CYL/VALVE CONTACT YOUR SUPPLIER. OTH PRECA: PROTECT AGAINST PHYS DMG. USE CHECK VALVE/PORT DEVICE IN DISCHARGE LINE-PREVENT BACKFLOW.

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Physical/Chemical Properties  
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HCC: G3

B.P. Text: -320F, -196C

M.P/F.P Text: -346F, -210C

Vapor Pres: N/APPLICAB

Vapor Density: 1.153KG/M3

Spec Gravity: 0.90

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PH: NA

Solubility in Water: 0.023, NEGLIGIBLE

Appearance and Odor: COLORLESS ODORLESS GAS; NO UNUSUAL WARNING PROPERTIES ASSOC W/RELEASE OF NITROGE

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Reactivity Data  
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Stability Indicator: YES

Stability Condition To Avoid: CONTACT W/INCOMPATIBLE MATLS. CYLINDERS EXPOSED TO HIGH TEMPS OR DIRECT FLAME CAN RUPTURE OR BURST.

Materials To Avoid: TITANIUM IS ONLY ELEMENT THAT WILL BURN IN NI

TROGEN.LITHIUM

REACTS SLOWLY W/NITROGEN AT AMBIENT TEMPS.

Hazardous Decomposition Products: NONE

Hazardous Polymerization Indicator: NO

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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 N

O: 107880

Product ID: NITROGEN

MSDS Prepared Date: 05/07/1997

Review Date: 09/01/1998

MFN: 1

Net Unit Weight: 494 FT3

Multiple KIT Number: 0

Review IND: Y

Unit Of Issue: EA

Container QTY: 0

Additional Data: PER MSDS:DOT PROPER SHIPPING

NAME:NITROGEN,COMPRESSED,2.2(NON-FLAMM GAS),UN 1066,PKG NA,NON-FLAMM GA S  
LABEL.NOR AMER EMERG RESPO GUIDE BK#121.NOT MARINE POLLUTANT.CYL SHOLD BE  
TRANSPO IN SECURE POSITION IN WELL VENTI VEHICLE.

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Detail

I 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  
Packing Note Passenger: 200  
Max Quant Pass:  
75KG  
Max Quant Cargo: 150KG  
Packaging Note Cargo: 200  
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Detail AFI Information

=====  
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

=====  
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: 06/23/1998  
Status Code: C  
Label Date: 06/23/1998  
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 Precaut

ions: MAIN HELATH HAZ ASSOC W/RELEASES OF NITROGEN IS  
ASPHYXIATION BY DISPLACEMENT OF OXY.MAY EXPERIENCE SYMP HEAD,RINGING IN  
EARS,DIZZ,DROWS,UNCONSC,NAU,VOMIT,DEPRESS OF ALL SENSES.UNDER SOME CIRCUMST  
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SCBA.REMOVE TO FRESH AIR,AS QUICKLY AS POSSIBLE.ONLY TRAIN ED PERSONNEL  
SHOULD ADMIN SUPPLEM OXY &/OR CPR IF NECESSARY.VICTIM MUST BE T  
AKEN FOR  
MED ATTN.RESCUERS SHOULD BE TAKEN FOR MED ATTN IF NECESSARY.TAKE COPY OF  
LABEL/MSDS TO DR/OTHER HEALTH PROF W/VICTI M.RECOMMENDATIONS TO DR:TREAT  
SYMPT,REDUCE OVEREXP

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