

AIRCO, DIVISION OF THE BOC GROUP, INC. -- NITROGEN, REFRIGERATED LIQUID --
6830-00-285-4769

===== Product Identification =====

Product ID:NITROGEN, REFRIGERATED LIQUID

MSDS Date:08/09/1989

FSC:6830

NIIN:00-285-4769

MSDS Number: BDTPK

=== Responsible Party ===

Company Name:AIRCO, DIVISION OF THE BOC GROUP, INC.

Address:575 MOUNTAIN AVE.

City:MURRAY HILL

State:NJ

ZIP:07974

Country:US

Info Phone Num

:201-464-8100

Emergency Phone Num:800-424-9300, CHEMTREC

CAGE:IO644

=== Contractor Identification ===

Company Name:AIRCO INC, AIRCO INDUSTRIAL GASES DIV.

Address:575 MOUNTAIN AVE

Box:City:MURRAY HILL

State:NJ

ZIP:07974-2006

Country:US

Phone:800-424-9300(CHEMTREC)

CAGE:00741

Company Name:AIRCO, DIVISION OF THE BOC GROUP, INC.

Address:575 MOUNTAIN AVENUE

City:MURRAY HILL

State:NJ

ZIP:07974

Country:US

Phone:201-464-8100

CAGE:IO644

===== Composition/Information on Ingredients =====

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Ingred Name:NITROGEN
CAS:7727-37-9
RTECS #:QW9700000
Fraction by Wt: >99.5%
ACGIH TLV:ASPHYXIAN; 9192

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===== Hazards Identification =====

LD50 LC50 Mixture:N/R-NONTOXIC
Routes of Entry: Inhalation:YES Skin:YES Ingestion:NO
Reports of Carcinogenicity:NTP:NO IARC:NO OSHA:NO
Health Hazards Acute and Chronic:INHALATION:NITROGEN IS A SIMPLE
ASPHYXIAN. SKIN:CONTACT WITH CRYOGENIC LIQUID OR COLD PIPING CAN
CAUSE TISSUE FREEZING OR FROSTBITE AND CRYOGENIC "BURNS".
Effects of Overexposure:LOSS OF BALANCE, DIZZINESS, TIGHTNESS THE
FRONTAL AREA OF THE FOREHEAD, TINGLING OF THE TONGUE, FINGERTIPS OR
TOES, WEAKENED SPEECH LEADING TO THE INABILITY TO UTTER SOUNDS,
RAPID REDUCTION IN THE ABILITY TO PERFORM MOVEMENTS, LOSS OF
TACTILE SENSATIONS, HEIGHTED MENTAL ACTIVITY. NOTE: DATA FOR
GASEOUS NITROGEN.
Medical Cond Aggravated by Exposure:RESPIRATORY DISORDERS.

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===== First Aid Measures =====

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First Aid:PROMPT MEDICAL ATTENTION IS MANDATORY IN ALL CASES OF
OVEREXPOSURE TO NITROGEN. RESCUE PERSONNEL SHOULD BE EQUIPPED WITH
SCBA. INHALATION: REMOVE TO FRESH AIR. GIVE MOUTH-TO-MOUTH
RESUSCITATION & OXYGEN IF UNCONSCIOUS. GET IMMEDIATE MEDICAL HELP.
EYE: IMMEDIATELY FLUSH WITH LARGE QUANTITIES OF WATER. GET MEDICAL
ATTN. SKIN/FROSTBITE. FLUSH WITH LUKEWARM WATER (NOT HOT WATER).
GET MED ATTN FOR BURN

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===== Fire Fighting Measures =====

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Extinguishing Media:NONFLAMMABLE, INERT GAS.

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===== Accidental Release Measures =====

Spill Release Procedures:EVACUATE ALL PERSONNEL FROM AFFECTED AREA.USE
APPROPRIATE PROTECTIVE EQUIPMENT.VENTILATE AREA.PERSONNEL SHOULD
AVOID CONTACT WITH VERY COLD MATERIALS OR EXCESSIVE INHALATION OF
GAS.

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===== Handling and Storage =====

Handling and Storage Precautions:USE ONLY IN WELL VENTILATED
AREAS.CYLINDERS MUST "

ALWAYS" BE KEPT UPRIGHT,SPECIALIZED TRUCKS
ARE NEEDED FOR THEIR MOVEMENT.DO NOT REFILL EXCEPT BY MFR
Other Precautions:N*2 IS NONTOX BUT LIBERATION OF LG AMT IN CONFINED
AREA COULD DISPLACE O*2 IN AIR NECESSARY TO SUPPORT LIFE/ LIQUID
N*2 CANNOT BE HANDLED IN CARBON OR LOW ALLOY STEELS/DO NOT STORE IN
SUBSURFACE OR CL OSED AREAS.N*2 CAN SUFFOCAT W/O WARN

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===== Exposure Controls/Personal Protection =====

Respiratory Protection:POSITIVE PRESSURE AIR LINE WITH FULL FACEPIECE
AND AN ESCAPE AIR SUPPLY OR SCBA SHOULD BE AVAILABLE FOR EMERGENCY USE.

Ventilation:LOCAL EXHAUST TO PREVENT ACCUMULATION OF HIGH N*2 CONCENTRATIONS.OXYGEN LEVELS SHOULD BE MAINTAINED AT >18%.

Protective Gloves:USE LOOSE FITTING,INSULATED GLOVES.

Eye Protection:SAFETY GOGGLES OR GLASSES PLUS FACESHLD

Other Protective Equipment:SAFETY SHOES

Work Hygienic Practices:STANDARD PRACTICE.

Supplemental Safety and Health

DO NOT STORE VESSELS IN SUB-SURFACE OR CLOSED (POORLY VENTILATED)

AREAS. NITROGEN GAS CAUSE SUFFOCATION WITHOUT WARNING. LIQUID NITROGEN VESSELS SHOULD NOT BE REFILLED EXCEPT BY QUALIFIED PRODUCERS OF THESE PRODUCTS.

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===== Physical/Chemical Properties =====

HCC:G3

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

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

Vapor Density:0.967

Spec Gravity:0.81

Solubility in Water:NEGLIGIBLE

Appearance and Odor:COLORLESS,ODORLESS LIQUID

Percent Volatiles by Volume:100

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===== Stability and Reactivity Data =====

Stability Indicator/Materials to Avoid:YES
NONE

Hazardous Decomposition Products:NONE

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===== Disposal Considerations =====

Waste Disposal Methods:DO NOT ATTEMPT TO DISPOSE OF RESIDUAL OR UNUSED QUANTITIES.RETURN TO AIRCO FOR PROPER DISPOSAL.

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