

AIRGAS -- NITROGEN REFRIGERATED LIQUID -- 6830-01-106-0895

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Product Identification
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Product ID:NITROGEN REFRIGERATED LIQUID

MSDS Date:05/01/1990

FSC:6830

NIIN:01-106-0895

MSDS Number: BWRCW

=== Responsible Party ===

Company Name:AIRGAS

Address:FIVE RADNOR CORP CTR 100 MATSONFORD RD

City:RADNOR

State:PA

ZIP:19087

Country:US

Info Phone Num:215-687-5253

Emergency Phone Num:215-687-5253

CAG

E:AIRGA

=== Contractor Identification ===

Company Name:AIRGAS

Address:100 MATSONFORD ROAD, 5 RADNOR CORP CNTR

City:RADNOR

State:PA

ZIP:19087

Country:US

Phone:215-687-5253

CAGE:AIRGA

Company Name:AIRGAS INC

Address:100 MATSONFORD RD SUITE 550

Box:City:WAYNE

State:PA

ZIP:19087

Country:US

Phone:215-687-5253

CAGE:0MN39

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Composition/Information on Ingredients
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Ingred Name:NITROGEN

CAS:7727-37-9

RTECS #:QW9700000

OSHA PEL:N/K

ACGIH TLV:ASPHYXIAN; 9495

Ingred Name:SUPDA

T:FOLLOWED BY BLISTERING. PERSONS IN ILL HLTH WHERE
SUCH ILLNESS WOULD BE AGGRAVATED BY EXPOS TO NITROGEN (ING 3)
RTECS #:9999999ZZ

Ingred Name:ING 2:SHOULD NOT BE ALLOWED TO WORK WITH OR HANDLE THIS
PRODUCT.
RTECS #:9999999ZZ

Ingred Name:FIRST AID PROC:SUPPORTIVE. SKIN:FLUSH AFFECTED AREAS
W/LUKEWARM WATER. DO NOT USE HOT WATER. PHYSICIAN SHOULD SEE(ING 5)
RTECS #:9999999ZZ

Ingred Name:ING 4:PATIENT PROMPTLY IF CRYOGENIC "BURN" HAS RSLTD IN
BLISTERING OF DERMAL SURF/DEEP TISS
FREEZING. PROMPT MED (ING 6)
RTECS #:9999999ZZ

Ingred Name:ING 5:ATTN IS MANDATORY IN ALL CASES OF OVEREXPOS TO
NITROGEN. RESCUE PERS SHOULD BE EQUIPPED WITH SCBA.
RTECS #:9999999ZZ

Ingred Name:OTHER PREC:OPERATIONAL PROBLEM W/VESSEL, CONT CLOSEST
SUPPLIER LOCATION IMMED. LIQ NITROGEN CYLS SHOULD BE USED (ING 8)
RTECS #:9999999ZZ

Ingred Name:ING 7:ONLY IN WELL-VENT AREAS & IN ACCORD W/MFR'S & YOUR
SUPPLIER'S INSTRUCTIONS. THESE CYLS MUST ALWAYS BE KEPT (ING 9)
RTECS #:9999999ZZ

Ingred Name:ING 8:IN AN UPRIGHT POSITION. SPECIALIZED HAND TRUCKS ARE
NEEDED FOR THEIR MOVEMENT. "FIRST IN-FIRST OUT" (ING 10)
RTECS #:9999999ZZ

Ingred Name:ING 9:INVENTORY SYS SHOULD BE USED W/THESE CYLS. LIQ
NITROGEN CANNOT BE HNDLD IN CARBON/LOW ALLOY STEELS. (ING 11)
RTECS #:9999999ZZ

Ingred Name:ING 10:EIGHTEEN-EIGHT & 18-10 STAINLESS STEELS ARE
ACCEPTABLE AS ARE COPPER & ITS ALLOYS, NICKEL & ITS ALLOYS, (ING
12)
RTECS #:9999999ZZ

Ingred Name:ING 11:BRASS, BRONZE, SILICON

ALLOYS, MONEL, INCONEL, &
BERYLLIUM. ALSO SEE COMPRESSD GAS ASSOC PAMPHLETS P-9, (ING 13)
RTECS #:9999999ZZ

Inged Name:ING 12:P-12, P-14, & SFTY BULLETIN SB-2. LIQUIFIED GAS CYLS
SHOULD NOT BE REFILLED EXCEPT BY QUALIFIED PRODUCERS(ING 14)
RTECS #:9999999ZZ

Inged Name:ING 15:OF THESE PRODS. SHIPMENT OF A COMPRESSED GAS CNTNR
WHICH HAS NOT BEEN FILLED BY OWNER/W/HIS (WRITTEN) (ING 15)
RTECS #:9999999ZZ

Inged Name:ING 14:CONSENT IS IN VIOLATION OF FEDERAL LAW (49CFR).
ALWAYS
SECURE CYLS IN AN UPRIGHT POSITION BEFORE (ING 16)
RTECS #:9999999ZZ

Inged Name:ING 15:TRANSPORTING THEM. NEVER TRANSPORT CYLS IN TRUNKS OF
VEHICLES, ENCLOSED VANS, TRUCK CABS/IN PASSENGER (ING 17)
RTECS #:9999999ZZ

Inged Name:ING 16:COMPARTMENTS. TRANSPORT CYLS SECURED IN OPEN
FLATBED/IN OPEN PICK-UP TYPE VEHICLES. NOTE:EXCEPT WHERE (ING 18)
RTECS #:9999999ZZ

Inged Name:ING 17:SPECIFIED, HLTH HAZ DATA & MOST OF OTHER DATA IN
THIS MSDS ARE FOR GASEOUS NITROGEN. ONE VOL OF LIQ
(ING 19)
RTECS #:9999999ZZ

Inged Name:ING 18:NITROGEN AT ITS BOILING PT & ATM PRESS WILL VAPORIZE
INTO APPROX 695 VOLS OF GASEOUS NITROGEN @ 70F(21C) & 1 ATM.
RTECS #:9999999ZZ

Inged Name:EYE PROT:AND FULL LENGTH FACE SHIELD .
RTECS #:9999999ZZ

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

LD50 LC50 Mixture:NONE SPECIFIED BY MANUFACTURER.
Routes of Entry: Inhalation:YES Skin:YES Ingestion:YES
Reports of Carcinogenicity:NTP:NO IARC:NO OSHA:NO
Health Hazards A

cute and Chronic: EFTS OF EXPOS TO HIGH CONCS SO AS TO DISPLACE OXYG IN AIR NEC FOR LIFE INCLUDE ANY, ALL OR NONE OF THE FOLLOWING: LOSS OF BALANCE/DIZZINESS, TIGHTNESS IN FRONTAL AREA OF FOREHEAD, TINGLING OF TONGUE, FINGERTIPS/TOES, WEAKENED SPEECH LEADING TO INABILITY TO UTTER SOUNDS, RAPID REDUCTION IN ABILITY TO (EFTS OF OVEREXP)

Explanation of Carcinogenicity: NOT RELEVANT

Effects of Overexposure: HLTH HAZS: PERFORM MOVEMENTS, REDUCED CON OF SURROUNDINGS, LOSS OF TACTIL

E SENSATIONS, HEIGHTENED MENTAL

ACTIVITY. IT SHOULD BE RECOGNIZED THAT IT IS POSS THAT NONE OF ABOVE SYMPS MAY OCCUR IN NITROGEN ASPHYXIA SO THAT THERE ARE NO DEFINITE WARNING SYMPS. CONT W/CRYOGENIC LIQ/COLD PIPING CNTNG LIQ CAN CAUSE TISS(SUPDAT)

Medical Cond Aggravated by Exposure: FROSTBITE.

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

First Aid: INGEST: CALL MD IMMED . EYES: IMMED FLUSH W/POTABLE WATER FOR MIN OF 15 MINUTES, SEEK ASSISTANCE FROM MD

. INHAL: CON PERSON

SHOULD BE ASSISTED TO AN UNCONTAM AREA & INHAL FRESH AIR. QUICK REMOVAL FROM CONTAM AREA IS MOST IMPORTANT. UNCON PERSONS SHOULD BE MOVED TO AN UNCONTAM AREA, GIVEN MOUTH-TO-MOUTH RESUSCITATION & SUPP OXYG. FURTHER TREATMENT SHOULD BE SYMPTOMATIC & (ING 4)

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

Extinguishing Media: MEDIA SUITABLE FOR SURROUNDING FIRE . NONFLAMMABLE, INERT.

Fire Fighting Procedures: WEAR NIOSH/MSHA APPROVED SCBA & FULL

PROTECTIVE EQUIPMENT .

Unusual Fire/Explosion Hazard: NOT APPLICABLE.

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

Spill Release Procedures: NONE SPECIFIED BY MANUFACTURER.

Neutralizing Agent: NONE SPECIFIED BY MANUFACTURER.

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

Handling and Storage Precautions: LIQ NITROGEN IS DELIVERED TO CUSTOMER INTO STATIONARY VACUUM-JACKETED VESSELS AT CUSTOMER'S LOC/IN PORTABLE VACUUM-JACKETED "LIQU

ID CYLINDERS.

Other Precautions:STATIONARY CUSTOMER-SITE VESSELS SHOULD BE OPERATED IN ACCORD W/MFR'S & YOUR SUPPLIER'S INSTRUCTIONS. DO NOT ATTEMPT TO REPAIR, ADJUST/IN ANY OTHER WAY MODIFY OPERATION OF THESE VESSELS. IF THERE IS A MALFUNCTION/OTHER TYPE OF (ING 7)

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

Respiratory Protection:NIOSH/MSHA APPROVED POSITIVE PRESSURE AIR LINE WITH MASK OR SELF-CONTAINED BREATHING APPARATUS SHOULD BE AVAILABLE FOR EMERGENCY USE.

Ventilation:LOCAL EXHAUST:TO PREVENT ACCUM OF HIGH CONC SO AS TO REDUCE OXYG LEVEL IN AIR TO LESS THAN 18 MOLAR PERCENT.

Protective Gloves:LOOSE FITTING, INSULATED GLOVES.

Eye Protection:ANSI APPRVD CHEM WORK GOGGS (ING 20)

Other Protective Equipment:EMERGENCY EYE WASH & DELUGE SHOWER WHICH MEET ANSI DESIGN CRITERIA . SAFETY SHOES.

Work Hygienic Practices:NONE SPECIFIED BY MANUFACTURER.

Supplemental Safety and Health

VP:ABOVE CRITICAL TEMP OF -232.6F, -147C @ 70F,21.1C. EF
TS OF

OVEREXP:FREEZING/FROSTBITE ON SKIN CONT/IF SPLASHED INTO EYES. NITROGEN IS NON TOX BUT LIBERATION OF LG AMT IN CONFINED AREA COULD DISPLAC E AMT OF OXYG IN AIR NEC TO SUPPORT LIFE. FROSTBITE EFTS ARE CHANGE IN COLOR OF SKIN TO GRAY/WHITE POSSIBLY (ING 2)

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

Boiling Pt:B.P. Text:-321F,-196C

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

Vapor Pres:SUPP DATA

Spec Gravity:0.97 @ 70F

Solubility in Water:VERY SLIGHTLY

Appearance and Odor:COLORLESS, ODORLESS, GAS OR LIQUID. LIQUID IS CLEAR.

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

Stability Indicator/Materials to Avoid:YES

NONE

Stability Condition to Avoid:NOT APPLICABLE.

Hazardous Decomposition Products:NONE

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

Waste Disposal Methods:DISPOSAL MUST BE I/A/W FEDERAL, STATE & LOCAL REGULATIONS .

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ncies):

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