

LIQUID AIR CORP -- LIQUID ARGON -- 6830-01-103-9103

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

Product ID:LIQUID ARGON

MSDS Date:10/01/1985

FSC:6830

NIIN:01-103-9103

MSDS Number: BZLKC

=== Responsible Party ===

Company Name:LIQUID AIR CORP

Address:2121 N CALIFORNIA BLVD

City:WALNUT CREEK

State:CA

ZIP:94596

Country:US

Info Phone Num:415-977-6500

Emergency Phone Num:800-231-1366;800-424-9300(CHEMTREC)

CAGE:

18260

=== Contractor Identification ===

Company Name:LIQUID AIR CORP ONE CALIFORNIA PLAZA

Address:2121 N. CALIFORNIA BLVD

Box:City:WALNUT CREEK

State:CA

ZIP:94596

Country:US

Phone:415-977-6500

CAGE:18260

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

Ingred Name:ARGON

CAS:7440-37-1

RTECS #:CF2300000

OSHA PEL:N/K

ACGIH TLV:ASPHYXIAN

Ingred Name:SUPDAT:AIR NEC TO SUPPORT LIFE. FROSTBITE EFTS ARE CHANGE  
IN COLOR OF SKIN TO GRAY/WHITE POSS FOLLOWED BY (ING 3)

RTECS #

:9999999ZZ

Inged Name:ING 2:BLISTERING. NOTE:EXCEPT WHERE SPECIFIED, HLTH HAZ  
DATA & MOST OF OTHER DATA IN THIS MSDS ARE FOR GASEOUS (ING 4)  
RTECS #:9999999ZZ

Inged Name:ING 3:ARGON. ONE VOL OF LIQ ARGON AT ITS BOILING POINT &  
ATM PRESS WILL VAPORIZE INTO APPROX 840 VOLS OF GASEOUS (ING 5)  
RTECS #:9999999ZZ

Inged Name:ING 4:ARGON AT 70F (21.1C) & 1 ATMOSPHERE.  
RTECS #:9999999ZZ

Inged Name:FIRST AID PROC:MOVED TO UNCONTAM AREA, GIVEN MOUTH-TO-MOUTH  
RESUSCITATION & SUPP OXYG. M  
ED ASSISTANCE SHOULD BE (ING 7)  
RTECS #:9999999ZZ

Inged Name:ING 6:SOUGHT IMMED. SKIN:FLUSH AFFECTED AREAS W/LUKEWARM  
WATER. DO NOT USE HOT WATER. MD SHOULD SEE PATIENT (ING 8)  
RTECS #:9999999ZZ

Inged Name:ING 7:PROMPTLY IF CRYOGENIC "BURN" HAS RESULTED IN  
BLISTERING OF DERMAL SURF/DEEP TISSUE FREEZING.  
RTECS #:9999999ZZ

Inged Name:OTHER PREC:BE REFILLED EXCEPT BY QUALIFIED PRDCRS OF THESE  
PRODS. SHIPMENT OF COMPRESSED GAS CNTNR WHICH HAS NOT(ING 10)  
RTECS #:9999999ZZ

Inged Name:ING 9:BEEN FILLED BY OWNER/WITH HIS (WRITTEN) CONSENT IS  
VIOLATION OF FED LAW (49CFR). LIQ ARGON IS DELIVERED TO(ING 11)  
RTECS #:9999999ZZ

Inged Name:ING 10:CUSTOMER INTO STATIONARY VACUUM-JACKETED VESSELS AT  
CUSTOMER'S LOCATION/IN PORTABLE VACUUM-JACKETED "LIQ"(ING 12)  
RTECS #:9999999ZZ

Inged Name:ING 11:CYLS. STATIONARY CUSTOMER-SITE VESSELS SHOULD BE  
OPERATED I/A/W MFR'S & LIQ AIR CORP'S INSTRUCTIONS. DO (ING 13)  
RTECS #:9999999ZZ

Inged Name:ING 12:NOT ATTEMPT TO REPAIR,

ADJUST/IN ANY OTHER WAY  
MODIFY OPERATION OF THESE VESSELS. IF THERE IS MALFUNCTION(ING 14)  
RTECS #:9999999ZZ

Ingred Name:ING 13:OR OTHER TYPE OF OPERATIONAL PROB W/VESSEL, CONT  
CLOSEST LIQ AIR CORP LOCATION IMMED. LIQ ARGON CYLS (ING 15)  
RTECS #:9999999ZZ

Ingred Name:ING 14:SHOULD BE USED ONLY IN WELL-VENTILATED AREAS & I/A/W  
MFR'S & LIQ AIR CORP'S INSTRUCTIONS. THESE CYLS MUST(ING 16)  
RTECS #:9999999ZZ

Ingred Name:ING 15:ALWAYS BE KEPT IN UPRIGHT POSITION. SPECIALIZED HAND  
T  
RUCKS ARE NEEDED FOR THEIR MOVEMENT. "FIRST IN- (ING 17)  
RTECS #:9999999ZZ

Ingred Name:ING 16:FIRST OUT" INVENTORY SYS SHOULD BE USED W/THESE  
CYLS. FOR ADDNL HNDLG/STOR RECS CONSULT COMPRESSED GAS (ING 18)  
RTECS #:9999999ZZ

Ingred Name:ING 16:ASSOC PAMPHLET P-1. ALSO SEE CGA SFTY BULLETIN SB-2  
(OXYG DEFICIENT ATMS) & CGA PAMPHLETS P-9 (INERT (ING 19)  
RTECS #:9999999ZZ

Ingred Name:ING 18:GASES - ARGON, NITROGEN & HELIUM), P-12 (SAFE HNDLG  
OF CRYOGENIC LIQS) & P-14 (ACCIDENT PREVENT  
ION IN (ING 20)  
RTECS #:9999999ZZ

Ingred Name:ING 19:OXYGEN-RICH & OXYGEN-DEFICIENT ATMOSPHERES).  
RTECS #:9999999ZZ

Ingred Name:EYE PROT:& FULL LENGTH FACESHIELD .  
RTECS #:9999999ZZ

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

LD50 LC50 Mixture:NONE SPECIFIED BY MANUFACTURER.  
Routes of Entry: Inhalation:YES Skin:YES Ingestion:NO  
Reports of Carcinogenicity:NTP:NO IARC:NO OSHA:NO  
Health Hazards Acute and Chronic:ARGON IS DEFINED AS SIMPLE ASPHY. OXYG  
LEVELS SHO

ULD BE MAINTAINED AT >18 MOLAR PERCENT AT NORMAL ATM  
PRESS WHICH IS EQUIV TO PARTIAL PRESS OF 135 MM HG. EFTS OF EXPOS  
TO HIGH CONCS SO AS TO DISPLACE OXYG IN AIR NEC FOR LIFE MAY INCL  
ANY, ALL/NONE OF FOLLOWING:LOSS OF BALANCE & DIZZ; TIGHTNESS IN  
(EFTS OF OVEREXP)  
Explanation of Carcinogenicity:NOT RELEVANT  
Effects of Overexposure:HLTH HAZ:FRONTAL AREA OF FOREHEAD; TINGLING OF  
TONGUE, FINGERTIPS/TOES; WEAKENED SPEECH LEADING TO INABILITY TO  
UTTER SOUNDS; RAPID REDUCTIO  
N IN ABILITY TO PERFORM MOVEMENTS;  
REDUCE CONSCIOUSNESS OF S URROUNDS; LOSS OF TACTILE SENSATIONS;  
HEIGHTENED MENTAL ACTIVITY. IT SHOULD BE RECOGNIZED THAT IS IS POSS  
THAT (SUPDAT)  
Medical Cond Aggravated by Exposure:NONE SPECIFIED BY MANUFACTURER.

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

First Aid:PROMPT MED ATTN IS MANDATORY IN ALL CASES OF OVEREXP TO  
ARGON. RESCUE PERS SHOULD BE EQUIPPED W/NIOSH/MSHA APPRVD SCBA.  
INGEST:CALL MD IMMED . EYES:IM  
MED FLUSH W/POTABLE WATER FOR MIN OF  
15 MINS , SEEK ASSISTANCE FROM MD . INHAL:CONSCIOUS PERS SHOULD BE  
ASSISTED TO UNCONTAM AREA & INHALE FRESH AIR. QUICK REMOVAL FROM  
CONTAM AREA IS MOST IMPORTANT. UNCONSCIOUS PERS SHOULD BE (ING 6)

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

Extinguishing Media:MEDIA SUITABLE FOR SURROUNDING FIRE . NONFLAMMABLE,  
INERT.  
Fire Fighting Procedures:USE NIOSH/MSHA APPROVED SCBA & FULL PROTECTIVE  
EQUIPMENT .

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

Spill Release Procedures:NONE SPECIFIED BY MANUFACTURER.  
Neutralizing Agent:NONE SPECIFIED BY MANUFACTURER.

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

Handling and Storage Precautions:DO NOT STORE CYLS IN SUB-SURF/CLSD  
AREAS. ARGON IS HVR/AIR & LEAKING GAS COULD ACCUM IN LOW AREAS &  
CAUSE SUFFOCATION W/OUT WARNING.  
Other Precautions:LIQ ARGON CANNOT BE HNDLD IN CARBON/LOW ALLOY STEELS.  
18-8 & 18-10

STAINLESS STEELS ARE ACCEPT AS ARE COPPER & ITS  
ALLOYS, NICKEL & ITS ALLOYS, BRASS, BRONZE, SILICON ALLOYS, MONEL,  
INCONEL & BERYLLIUM. LIQUEFIED GAS CYLS SHOULD NOT (ING 9)

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

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

Ventilation:LOCAL EXHAUST:TO PREVENT ACCUM OF HIGH CONCS SO AS TO  
REDUCE OXYGEN L

EVEL IN AIR TO 188.12F

Solubility in Water:0.034 @ 20C

Appearance and Odor:CLEAR, SLIGHTLY TINTED LIQUID; ODORLESS.

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

Stability Indicator/Materials to Avoid:YES  
NONE.

Stability Condition to Avoid:NONE SPECIFIED BY MANUFACTURER.

Hazardous Decomposition Products:NONE.

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

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

Discla

imer (provided with this information by the compiling agencies):

This information is formulated for use by elements of the Department  
of Defense. The United States of America in no manner whatsoever,  
expressly or implied, warrants this information to be accurate and  
disclaims all liability for its use. Any person utilizing this  
document should seek competent professional advice to verify and  
assume responsibility for the suitability of this information to their  
particular situation.