10107

LIQUID AIR CORPORATION

Material Safety Data Sheet

	PRODUCT NAME Liquid Nitrogen **TELEPHONE (415) 977-6500** **EMERGENCY RESPONSE INFORMATION ON PAGE 2**	
LIQUID AIR CORPORATION INDUSTRIAL GASES DIVISION One California Plaza, Suite 350 2121 N. California Blvd. Walnut Creek, California 94596	**TRADE NAME AND SYNONYMS** Please see last page. **CHEMICAL NAME AND SYNONYMS** Liquid Nitrogen	**CAS NUMBER** 7727-37-9
ISSUE DATE OCTOBER 1, 1985 **AND REVISIONS** CORPORATE SAFETY DEPT.	**FORMULA** Liquefied N_2 **MOLECULAR WEIGHT** 28.013	**CHEMICAL FAMILY** Inert

HEALTH HAZARD DATA (SEE NOTE ON LAST PAGE)

TIME WEIGHTED AVERAGE EXPOSURE LIMIT Nitrogen is defined as a simple asphyxiant. Oxygen levels should be maintained at greater than 18 molar percent at normal atmospheric pressure which is equivalent to a partial pressure of 135 mm Hg (ACGIH, 1984-85).

SYMPTOMS OF EXPOSURE *

Effects of exposure to high concentrations so as to displace the oxygen in air necessary for life may include any, all or none of the following:

- o Loss of balance or dizziness;
- o Tightness in the frontal area of the forehead;
- o Tingling of the tongue, fingertips or toes; (Continued on last page.)

TOXICOLOGICAL PROPERTIES

Nitrogen is nontoxic but the liberation of a large amount in a confined area could displace the amount of oxygen in air necessary to support life.

Frostbite effects are a change in color of the skin to gray or white possibly followed by blistering.

Listed as Carcinogen or Potential Carcinogen	National Toxicology Program	I.A.R.C. Monographs	OSHA
	Yes ☐ No ☒	Yes ☐ No ☒	Yes ☐ No ☒

RECOMMENDED FIRST AID TREATMENT

PROMPT MEDICAL ATTENTION IS MANDATORY IN ALL CASES OF OVEREXPOSURE TO NITROGEN. RESCUE PERSONNEL SHOULD BE EQUIPPED WITH SELF-CONTAINED BREATHING APPARATUS.

Inhalation: Conscious persons should be assisted to an uncontaminated area and inhale fresh air. Quick removal from the contaminated area is most important. Unconscious persons should be moved to an uncontaminated area, given mouth-to-mouth resuscitation and supplemental oxygen. Medical assistance should be sought immediately.

For dermal contact or frostbite, flush affected areas with lukewarm water. DO NOT USE HOT WATER. A physician should see the patient promptly if the cryogenic "burn" has resulted in blistering of the dermal surface or deep tissue freezing.

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HAZARDOUS MIXTURES OF OTHER LIQUIDS, SOLIDS, OR GASES
None

PHYSICAL DATA

BOILING POINT -320.445°F (-195.803°C)	**LIQUID DENSITY AT BOILING POINT** 50.48 lb/ft^3 (808.607 kg/m^3)
VAPOR PRESSURE @ 70°F (21.1°C) above the critical temp. of -232.51°F (-146.95°C)	**GAS DENSITY AT 70°F 1 atm** .07245 lb/ft^3 (1.1605 kg/m^3)
SOLUBILITY IN WATER @ 68°F (20°C) Bunsen coefficient = .01557	**FREEZING POINT** -346.004°F (-210.002°C)
APPEARANCE AND ODOR Clear, colorless, odorless liquid	

FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (METHOD USED) N/A	**AUTO IGNITION TEMPERATURE** N/A	**FLAMMABLE LIMITS % BY VOLUME** N/A
EXTINGUISHING MEDIA Nonflammable, inert		**ELECTRICAL CLASSIFICATION** Nonhazardous
SPECIAL FIRE FIGHTING PROCEDURES N/A		
UNUSUAL FIRE AND EXPLOSION HAZARDS N/A		

REACTIVITY DATA

STABILITY **Unstable**		**CONDITIONS TO AVOID**
Stable	X	
INCOMPATIBILITY (Materials to avoid) None		
HAZARDOUS DECOMPOSITION PRODUCTS None		
HAZARDOUS POLYMERIZATION **May Occur**		**CONDITIONS TO AVOID**
Will Not Occur	X	

SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED See note on last page.
WASTE DISPOSAL METHOD See note on last page.

EMERGENCY RESPONSE INFORMATION
IN CASE OF EMERGENCY INVOLVING THIS MATERIAL, CALL DAY OR NIGHT (800) 231-1366
OR CALL CHEMTREC AT (800) 424-9300