



ADDITIONAL DATA

TRADE NAME AND SYNONYMS: (Continued)

Air; Compressed Air; Compressed Air, Breathing Quality

NOTE: Atmospheric air which is compressed is composed of the following concentrations of gases:

Gas	Molar %
Nitrogen	78.09
Oxygen	20.94
Argon	0.93
Carbon Dioxide	0.033*
Neon	18.18×10^{-4}
Helium	5.239×10^{-4}
Krypton	1.139×10^{-4}
Hydrogen	0.5×10^{-4}
Xenon	0.086×10^{-4}
Radon	6×10^{-18}
Water vapor	Varying concentrations

* Concentrations may have slight variations.

Compressed air is also produced by reconstitution using only oxygen and nitrogen. This product contains 79 molar percent nitrogen and 21 molar percent oxygen plus trace amounts of other atmospheric gases which are present in the oxygen and nitrogen.

Material Safety Data Sheet

LIQUID AIR CORPORATION INDUSTRIAL GASES DIVISION One California Plaza, Suite 350 2121 N. California Blvd. Walnut Creek, California 94596	PRODUCT NAME Compressed Air
ISSUE DATE OCTOBER 1, 1985 AND REVISIONS CORPORATE SAFETY DEPT.	TELEPHONE (415) 977-6500 EMERGENCY RESPONSE INFORMATION ON PAGE 2
TRADE NAME AND SYNONYMS See last page.	CAS NUMBER N/A
CHEMICAL NAME AND SYNONYMS Air	MOLECULAR WEIGHT See note on last page, 28.966
FORMULA	CHEMICAL FAMILY N/A

HEALTH HAZARD DATA

TIME WEIGHTED AVERAGE EXPOSURE LIMIT
None listed (ACGIH, 1984-85).

SYMPTOMS OF EXPOSURE

Air is nontoxic and necessary to support life. Inhalation of air in a high pressure environment such as underwater diving, caissons or hyperbaric chambers can result in symptoms similar to overexposure to pure oxygen. These include tingling of fingers and toes, abnormal sensations, impaired coordination and confusion. Decompression sickness pains or "bends" are possible following rapid decompression.

TOXICOLOGICAL PROPERTIES

High pressure effects (greater than two atmospheres of oxygen) are on the central nervous system. Improper decompression results in the accumulation of nitrogen in the blood.

Listed as Carcinogen or Potential Carcinogen

National Toxicology Program

Yes No

I.A.R.C. Monographs

Yes No

OSHA Yes No

RECOMMENDED FIRST AID TREATMENT

Facilities or practices at which air is breathed in a high pressure environment should be prepared to deal with illnesses associated with decompression (Bends or Caisson Disease). Decompression equipment may be required.

Judgments as to the suitability of information herein for purchaser's purposes are necessarily purchaser's responsibility. Therefore, although reasonable care has been taken in the preparation of such information, Liquid Air Corporation extends no warranties, makes no representations, and assumes no responsibility as to the accuracy or suitability of such information for application to purchaser's purposes or consequences of its use. Since Liquid Air Corporation has no control over the use of this product, it assumes no liability for damage or loss of product resulting from proper (or improper) use or application of the product. Data sheets may be changed from time to time. Be sure to consult the latest edition.

HAZARDOUS MIXTURES OR OTHER LIQUIDS, SOLIDS, OR GASES

N/A

PHYSICAL DATA

BOILING POINT -317.9°F (-194.4°C)	LIQUID DENSITY AT BOILING POINT 54.70 lb/ft ³ (876.21 kg/m ³)
VAPOR PRESSURE @ 70°F (21.1°C) above the critical temperature of -220.4°F (-140.2°C)	GAS DENSITY AT 70°F 1 atm 0.749 lb/ft ³ (1.200 kg/m ³)
SOLUBILITY IN WATER @ 68°F (20°C) Bunsen Coefficient = .0183	FREEZING POINT N/A; Bubble Point @ 1 Atm. = -317.8°F (-194.35°C)
APPEARANCE AND ODOR Colorless, odorless gas.	Specific gravity @70°F (Air = 1.0) is 1.0.

FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (METHOD USED) N/A	AUTO IGNITION TEMPERATURE N/A	FLAMMABLE LIMITS % BY VOLUME N/A	ELECTRICAL CLASSIFICATION Nonhazardous
EXTINGUISHING MEDIA Nonflammable gas.			
SPECIAL FIRE FIGHTING PROCEDURES N/A			

UNUSUAL FIRE AND EXPLOSION HAZARDS

Compressed air at high pressures will accelerate the burning of materials to a greater rate than they burn at atmospheric pressure.

REACTIVITY DATA

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

SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

N/A

WASTE DISPOSAL METHOD

N/A

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

SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type)

VENTILATION N/A	LOCAL EXHAUST N/A	SPECIAL OTHER
MECHANICAL (can)	N/A	OTHER
PROTECTIVE GLOVES Any Material		
FIRE PROTECTION Safety goggles or glasses		
OTHER PROTECTIVE EQUIPMENT Safety shoes		

SPECIAL PRECAUTIONS*

SPECIAL LABELING INFORMATION
DOT Shipping Name: Air, compressed DOT Hazard Class: Nonflammable gas
DOT Shipping Label: Nonflammable gas I.D. No.: UN 1002

SPECIAL HANDLING RECOMMENDATIONS

Valve protection caps must remain in place unless container is secured with valve outlet piped to use point. Do not drag, slide or roll cylinders. Use a suitable hand truck for cylinder movement. Use a pressure reducing regulator when connecting cylinder to lower pressure (3,000 psig) piping or systems. Do not heat cylinder by any means to increase the discharge rate of product from the cylinder. Use a check valve or trap in the discharge line to prevent hazardous back flow into the cylinder.

For additional handling recommendations consult L'Air Liquide's Encyclopedie de Gaz or Compressed Gas Association Pamphlet P-1.

SPECIAL STORAGE RECOMMENDATIONS

Protect cylinders from physical damage. Store in cool, dry, well-ventilated area away from heavily trafficked areas and emergency exits. Do not allow the temperature where cylinders are stored to exceed 130F (54C). Cylinders should be stored upright and firmly secured to prevent falling or being knocked over. Full and empty cylinders should be segregated. Use a "first in-first out" inventory system to prevent full cylinders being stored for excessive periods of time.

For additional storage recommendations consult L'Air Liquide's Encyclopedie de Gaz or Compressed Gas Association Pamphlet P-1.

SPECIAL PACKAGING RECOMMENDATIONS

Dry air is noncorrosive and may be used with all materials of construction. Moisture causes metal oxides which are formed with air to be hydrated so that they increase in volume and lose their protective role (rust formation). Concentrations of SO₂, Cl₂, salt, etc. in the moisture enhances the rusting of metals in air.

OTHER RECOMMENDATIONS OR PRECAUTIONS

Compressed gas cylinders should not be refilled except by qualified producers of compressed gases. Shipment of a compressed gas cylinder which has not been filled by the owner or with his (written) consent is a violation of Federal Law (49CFR).

*Various Government Agencies like Department of Transportation, Occupational Safety and Health Administration, Food and Drug Administration and others may have their own specific regulations for transportation, handling, storage or use of this product which may not be contained herein. The customer or user of this product should be familiar with these regulations.