

# Air Material Safety Data Sheet

ISSUE DATE	01 March 2016	TRADE NAME AND SYNONYMS Air ; Compressed Air; Compressed Air , Breathing Quality	CHEMICAL NAME AND SYNONYMS Air
REVISIONS	V1-02.2016	FORMULA Reconstituted air - approx. 79% N <sub>2</sub> , 21% O <sub>2</sub> Compressed - 78% N <sub>2</sub> , 21% O <sub>2</sub> Balance : Other atmospheric gases	CHEMICAL FAMILY N/A (Air does not have a CAS #)

## HEALTH HAZARD DATA

### EXPOSURE LIMITS

Air is nontoxic and no exposure limits have been established. Air is not listed as a carcinogen by NTP , IARC or OSHA.

### SYMPTOMS IF INGESTED , CONTACTED WITH SKIN , OR VAPOR INHALED

Air is nontoxic and is necessary to support life. Inhalation of air at high pressures , such as pressures which may exist in hyperbaric chambers , can result in similar symptoms to those exposure to oxygen. Inhalation of air at high pressures can also result in accumulation of nitrogen in the blood which may result in decompression sickness.

### TOXICOLOGICAL PROPERTIES

Exposure to high pressures of air where the partial pressure of oxygen is in excess of two atmospheres may produce a variety of central nervous system manifestations including tingling of fingers and toes , visual and acoustical disturbances , abnormal sensations , impaired coordination , confusion , muscle twitching , and epileptiform seizures. Severe hazards may be present when confusion and impaired judgement lead to operational errors. Exposure to high pressures may result in nitrogen narcosis.

### RECOMMENDED FIRST AND TREATMENT

Facilities at which air is breathed under pressure should be prepared to deal with illness related to hyperbaric environment. Decompression equipment may be required.

## FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method Used)	AUTO IGNITION TEMP	FLAMMABLE LIMITS	LEL	UEL
N/A	N/A	Non-flammable	N/A	N/A

EXTINGUISHING MEDIA	ELECTRICAL CLASSIFICATION GROUP
N/A	N/A

### SPECIAL FIRE FIGHTING PROCEDURES

N/A

### UNUSUAL FIRE AND EXPLOSION HAZARDS

Compressed air at high pressure can accelerate the burning of materials which are combustible at atmospheric pressure.

## PHYSICAL DATA

BOILING POINT (°F) @ 1 atm - 317.9F (-194.4C)	FREEZING POINT (°F) Range : -351F to -358F (-213C to -216C) Because air is a mixture.
VAPOR PRESSURE (psia) N/A	SOLUBILITY IN WATER @ 68F (20C) , 1 atm 1.87% by volume
VAPOR DENSITY (lb/cu ft) @ 68F (20C) , 1 atm 0.07520	SPECIFIC GRAVITY (AIR = 1) @ 68F (20C) , 1 atm 1.00
	LIQUID DENSITY (lb/uc ft) @ boiling point , 1 atm 54.56
	SPECIFIC GRAVITY (H2O=1) @ boiling point , 1 atm 0.874

### APPEARANCE AND ODOR

Gaseous gas is colorless and odorless.

REACTIVITY DATA			
STABILITY	UNSTABLE		CONDITIONS TO AVOID
Inert	STABLE	X	Avoid the use of oil in systems at full cylinder pressure.
INCOMPATIBILITY (Materials to avoid)			HAZARDOUS DECOMPOSITION PRODUCTS
None			None
HAZARDOUS	MAY OCCUR		CONDITIONS TO AVOID
POLYMERIZATION	WILL NOT OCCUR	X	None
SPILL OR LEAK PROCEDURES			
STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED			
No hazard			
WASTE DISPOSAL METHOD			
Do not attempt to dispose residual air in compressed gas cylinders. Return with the cylinder valve tightly closed , positive pressure in the cylinders , and valve cap in place.			
SPECIAL PROTECTION INFORMATION			
RESPIRATORY PROTECTION (Specify Type)			
None			
VENTILATION	LOCAL EXHAUST	SPECIAL	
	None	None	
None	MECHANICAL (General)	OTHER	
	None	None	
PROTECTIVE GLOVES			
Leather work gloves are recommended when handling compressed gas cylinders.			
EYE PROTECTION			
Safety glasses are recommended when handling high-pressure cylinders.			
OTHER PROTECTIVE EQUIPMENT			
Safety toe shoes are recommended when handling high-pressure cylinders.			
SPECIAL PRECAUTIONS *			
SPECIAL LABELLING INFORMATION			
DOT Shipping Name : Air , Compressed DOT Hazard Class : Non-flammable Gas			
DOT Shipping label : Non-flammable Gas. I.D. number : UN 1002			
SPECIAL HANDLING RECOMMENDATIONS			
Compressed gas cylinders contain gas with extremely high pressure and should be handled with care. Use a pressure-reducing regulator when connecting to lower pressure equipment and piping systems. Secure cylinders when in use. Never use direct flame to heat a compressed gas cylinder. Use a check valve to prevent backflow into storage container. Avoid dragging , rolling or sliding cylinders , even for a short distance. Use a suitable hand truck.			
SPECIAL STORAGE RECOMMENDATIONS			
Keep cylinders away from source of heat. Storage should not be heavy traffic areas to prevent accidental knocking over or damage from passing or falling objects. Valve caps should remain on cylinders not connected for use. Segregate full and empty cylinders. Storage areas should be free of combustible material. Avoid exposure to areas where salt or other corrosive chemicals are present. Store compressed gas cylinders with valve end up.			
OTHER RECOMMENDATIONS OR PRECAUTIONS			
Compressed gas cylinders should not be refilled except by qualified producers of a compressed gases.			