Precision Gas Products Inc.
2455 Cawthra Road, Unit 21/ Mississauga, Ontario, L5A 3P1
Tel: (905) 949-2626 / 1-888-730-8196 Fax: (905) 949-2688
Emergency Contact: Chemtrec (800) 424-9300

Reconstituted Air

MATERIAL SAFETY DATA SHEET

Identification

Revision Date 01-01-12

Products Name: RECONSTITUTED AIR
Chemical Family: Gas Mixture
Chemical formula: O2: 19.5-23.5%; N2: 76.5-80.5%
MSDS identification Code/ Number: MSDS 102
Synonyms: CGA Grade O Breathing Air, Extra Dry Air, Zero Air, H2O Free Air, Synthetic Air

Hazard Rating	Health:	0 Negligible
	Fire:	0 Negligible
	Reactivity:	0 Negligible

Composition/ Information on Ingredients

Ingredient Name	Concentration Percent by Weight
NITROGEN CAS Number: 7727-37-9	76.5 to 80.5
OXYGEN CAS Number: 7782-44-7	19.5 to 23.5

Exposure Limits

- Simple Asphyxiant-maintain oxygen levels above 19.5%

Hazard Identification

No data given

Physical Data

Boiling Point: -317.8°F -194°C
Vapor Pressure: Above critical temperature
Vapor Density (Air=1): 1.0@ STP
Solubility (H2O): Slightly soluble
Appearance: Colorless gas
Odor: Odorless

Fire Fighting Measures

Flammable Properties
Flash Point: None

Fire and Explosion Hazards: Vigorously accelerates combustion.
Electrical Classification: Nonhazardous.
Extinguishing Media: Water spray to keep cool.
Fire Fighting Instructions: If possible, stop flow of gas that is supporting the fire.

Exposure and Effects - Inhalation

Routes of Exposure - Inhalation

Air is nontoxic and necessary to support life. However, high pressure effects (greater than two atmospheres) act on the central nervous system by the accumulation of nitrogen in the blood. Inhalation of air in a high-pressure environment such as underwater diving, caissons or hyperbolic 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 "blends" are possible following rapid decompression.

First Aid - Inhalation

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

Toxicological Information

- Miscellaneous Toxicological Information

Carcinogenicity – NTP: No IARC: No OSHA: No

Stability & Reactivity

Stability: Stable
Incompatible Materials: All flammable materials
Hazardous Polymerization: Will not occur
Hazardous Decomposition: None

Disposal Considerations

Do not attempt to dispose of waste or unused quantities. Return in the shipping container properly labeled, with any valve outlet plugs or caps secure and valve protection cap in place to Precision Gas Products for proper disposal.

Exposure Controls/Personal Protection

Eye/Face Protection: Safety goggles or glasses.

Skin Protection: Protective gloves of any suitable material.

Other/General Protection: Safety shoes.

Handling and Storage

- Handling and Storage Precautions

Use only in well – ventilated areas. 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 (<3000 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 system**.**

Protect cylinders from physical damage. Store in cool, dry, well – ventilated area of noncombustible construction away from heavily trafficked areas and emergency exits. Do not allow the temperature where cylinders are stored to exceed 130°F (54°C). Cylinders should be stored upright and firmly secured to prevent falling or being knocked over. Use a "first in, first out" inventory system to prevent full cylinders being stored for excessive periods of time. Post "NO SMOKING OR OPEN FLAMES" signs in the storage area or use area. There should be no sources of ignition in the storage or use area.

Never carry a compressed gas cylinder or a container of a gas in cryogenic liquid form in an enclosed space such as a car trunk, van or station wagon. A leak can result in a fire, asphyxiation or toxic exposure.

Shipping Information

Proper Shipping Name: Air, compressed
Hazardous Class: 2.2
CT (DOT) Identification Number: UN 1002
CT (DOT) Shipping Label: Nonflammable gas

Reference Documentation

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 role (rust information). Concentrations of SO2, C12, salt, etc. in the moisture enhances the rusting of metals in air.
Oxygen should not be used as a substitute for compressed air in pneumatic since this type generally contains flammable lubricants. Compressed gas cylinders should not be refilled except by qualified procedures of compressed gases. Shipments of a compressed gas cylinders, which has not been filled by the owner or with his written consent is a violation of Federal Law (49CFR)

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