

Precision Gas Products Inc.

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Butane in Air 0.0001% to 0.9%

MATERIAL SAFETY DATA SHEET

Identification

Revision Date 01-01-09

Products Name: BUTANE IN AIR 0.0001% TO 0.9%
Chemical Family: Gas Mixture
Chemical formula: C₄H₁₀ 0.0001% to 0.9% in Air
MSDS identification Code/ Number: MSDS 101A

Composition/ Information on Ingredients

Ingredient Name	Concentration Percent by Weight
BUTANE CAS Number: 106-97-8	0.0001 to 6.0
Exposure Limits	
• ACGIH TLV-TWA: 800 ppm	
• ACGIH TLV-TWA: D	
• OSHA PEL-TWA: 800 ppm (final)	
AIR	NONE
CAS Number: 25635-88-5	99.1 to 99.999

Hazard Identification

No data given

First Aid Measures

Inhalation

Prompt medical attention is mandatory in all cases of overexposure. Rescue personnel should be equipped with self-contained breathing apparatus. Victims 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, and if breathing has stopped, administer artificial resuscitation and supplemental oxygen. Further treatment should be symptomatic and supportive.

Fire Fighting Measures

Flammable Properties

Flash Point: N/A

Lower Explosive Limit (%): 1.8 (Butane)

Upper Explosive Limit (%): 8.5 (Butane)

- Fire and Explosion: Hazards
Electrical Classification: Nonhazardous
- Extinguishing Media: Use any extinguishing media that is suitable for the surrounding fire. Use water spray to cool fire – exposed containers.

Accidental Release Measures

Evacuate all personnel from affected areas. Use appropriate protective equipment. If leak is in user's equipment, be certain to purge piping with an inert gas prior to attempting repairs. If leak is in container or container valve, contact CHEMTREC.

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 backflow 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.

Exposure Controls/Personal Protection

Engineering Controls: Hood with forced ventilation. Use local exhaust to prevent accumulation above the exposure limit.

Eye/Face Protection: Safety goggles or glasses.

Skin Protection: Protective gloves of any material.

Respiratory Protection: Positive pressure air line with mask or self-contained breathing apparatus should be available for emergency use.

Other/General Protection: Safety shoes.

Physical & Chemical Properties

Appearance: A colorless gas.
Odor: Odorless gas.

Basic Physical Properties
Vapor Density (Air=1): 1.0
Solubility (H₂O): Negligible

Stability & Reactivity

Stability: Stable

Incompatible Materials: None known

Hazardous Polymerization: Will not occur

Toxicological Information

Acute Inhalation Effects: Butane is a simple asphyxiant. Oxygen levels should be maintained at greater than 19.5 percent at normal atmospheric pressure. The effects of overexposure to high concentrations so as to displace the oxygen in the air necessary for life include headache, dizziness, labored breathing and eventual unconsciousness.

Miscellaneous Toxicological Information

Carcinogenicity – NTP: No IARC: No OSHA: No

Ecological Information

No data given

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.

Transport Information

Proper Shipping Name: Compressed Gas, N.O.S. (Air, Butane)
Hazardous Class: 2.2
CT (DOT) Identification Number: UN 1956
CT (DOT) Shipping Label: Nonflammable gas

Regulatory Information

SARA Title III Notifications and Information

SARA Title III – Hazard Class: Sudden Release of Pressure Hazard

Other Information

Hazard Rating	Health:	1 Slight
	Fire:	0 Negligible
	Reactivity:	0 Negligible

MSDS Identification Code/Number: MSDS 101A

Reference Documentation

This gas mixture is noncorrosive and may be used with any common structural material. Compressed gas cylinders should not be refilled except by qualified producers of compressed gases. Shipments 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).

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