

Precision Gas Products Inc.

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Pentane in Air 0.0001% to 0.75%

MATERIAL SAFETY DATA SHEET

Identification

Revision Date 01-01-09

Products Name: PENTANE IN AIR 0.0001% TO 0.75%

CAS Number: N/A

Chemical Family: Gas Mixture

Chemical formula: C₅H₁₂ 0.0001% to 0.75% in Air

MSDS identification Code/ Number: MSDS 156

Composition/ Information on Ingredients

Ingredient Name	Concentration Percent by Weight
PENTANE CAS Number: 1096-65-0	< .0001 to 0.75
Exposure Limits	
• 600 Molar PPM	
• STEL= 750 Molar PPM (ACGIH, 1985-86)	
• OSHA PEL=1000 Molar PPM (1985)	
• IDLH: 500 ppm	
AIR None	99.25 to 99.999
CAS Number: 25635-88-5	

Hazard Identification

No data given

First Aid Measures

Eyes

Remove contaminated clothing as rapidly as possible. Flush affected areas with water. In case of frostbite or cryogenic "burns" flush area with lukewarm water. *Do not use hot water.* A physician should see the patient if the cryogenic "burn" has resulted in blistering of the dermal surface or deep tissue freezing.

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. Keep victim warm and quite. Assure that mucous or vomited material does not obstruct the airway by positional drainage.

Fire Fighting Measures

Flammable Properties

Flash Point: -40F

Lower Explosive Limit (%): 1.4 (Pentane)

Upper Explosive Limit (%): 7.8 (Pentane)

- Fire and Explosion Hazards: None Electrical Classification: Class 1, Group D
- Extinguishing Media: Water (foam), dry chemical, carbon dioxide.
- Fire Fighting Instructions If possible, stop flow of gas; use water spray to cool 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 location for emergency assistance.

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.

Earth-ground and bond all lines and equipment associated with the system. All electrical equipment should be non-sparking or explosion proof.

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: Use butyl rubber, PVC or polyethylene gloves.

Other/General Protection : Safety shoes, safety shower.

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

Physical & Chemical Properties

Appearance: A colorless gas.

Odor: Mild paraffinic odor

Basic Physical Properties

Solubility (H₂O): Negligible

Stability & Reactivity

Stability: Stable

Conditions to avoid (Stability): None

Incompatible Materials: Oxygen, other oxidizers.

Hazardous Decomposition Products: None

Hazardous Polymerization: Will not occur

Toxicological Information

Eye Effects: Vapors may cause mild irritation of the eyes.

Skin Effects: Vapors may cause mild irritation of the eyes.

Acute Inhalation Effects: High concentrations of pentane so as to exclude an adequate supply of oxygen to the lungs causes dizziness, deeper breathing due to hunger, possible nausea and eventual unconsciousness.

Miscellaneous Toxicological Information

Carcinogenicity – NTP: No IARC: No OSHA: No

Ecological Information

No Data Give

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, Pentane)

Hazardous Class: 2.2

CT (DOT) Identification Number: UN 1956

CT (DOT) Shipping Label: Nonflammable gas

Regulatory Information

No Data Given

Other Information

MSDS Identification Code/Number: MSDS 156

Reference Documentation

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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