

MATERIAL SAFETY DATA SHEET (MSDS)

P-10 QUENCH GAS

(Please ensure that this MSDS is received by the appropriate person)

Date: August 2016

Version 2

Ref. No. MS046

1 PRODUCT AND COMPANY IDENTIFICATION

PRODUCT IDENTIFICATION

Product Name	P-10 QUENCH GAS
Chemical Formula	CH ₄ plus Ar
Trade Names	P-10 Quench Gas
	10% Methane/Balance Argon
Colour coding	Peacock Blue (F.08) body with Red (A11) and Silver (Plascon 720/022) bands on the shoulder. The red band shall be adjacent to the valve. The relevant decal shall be affixed centrally to the body of the cylinder.
Valve	3 SH - Brass, 5/8 inch BSP left hand female.
Company Identification	African Oxygen Limited 23 Webber Street Johannesburg, 2001 Tel. No: (011) 490-0400 Fax No: (011) 490-0506

EMERGENCY No. 0860020202 or 086 011 1185 (24 hours)

2 COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Families	Paraffin plus Inert gas
UN No.	1954
Hazchem Code:	2 SE
Hazchem Warning	2 A Flammable gas

3 HAZARDS IDENTIFICATION

Main Hazards Both methane and argon do not support life. They can act as simple asphyxiants by diluting the concentration of oxygen in air below the levels necessary to support life. As the mixture is heavier than air it will tend to concentrate at lower levels. All cylinders are portable gas containers, and must be regarded as transportable vessels at all times.

Adverse Health effects. Apart from being an asphyxiant the mixture has no adverse health effects.

Chemical hazards	None.
Biological Hazards	None
Vapour Inhalation	Simple asphyxiant
Eye contact	No known effect
Skin contact	No known effect
Ingestion	(See "Vapour Inhalation")

4 FIRST AID MEASURES

Prompt medical attention is mandatory in all cases of overexposure to methane/argon mixtures. Rescue personnel should be equipped with self-contained breathing apparatus. Conscious persons should be assisted to an uncontaminated area and inhale fresh air. Quick removal from the contaminated area is most important. Unconscious persons should be removed to an uncontaminated area, and given mouth-to-mouth resuscitation and supplemental oxygen.

Eye Contact	No known effect.
Skin Contact	No known effect.
Ingestion	(See section 3. above).

5 FIRE FIGHTING MEASURES

Extinguishing media As methane/argon mixture does not contribute significantly to the fire, it could help with the extinguishing by reducing the oxygen content of the air by dilution to below the level to support combustion.

Specific hazards The mixture does not support life. It can act as a simple asphyxiant by diluting the concentration of oxygen in the air below the levels to support life. Methane could also separated from the Argon, and collect in confined areas, possible forming explosive Methane/Air mixtures.

Emergency actions If possible, shut off the source of excess mixture. Evacuate area. All cylinders should be removed from the

vicinity of the fire. Cylinders that cannot be removed should be cooled with water from a safe distance to prevent the build-up of excessive pressure. Cylinders which have been exposed to excessive heat should be clearly identified and returned to the supplier. CONTACT THE NEAREST AFROX BRANCH.

Protective clothing Self-contained breathing apparatus. Safety gloves and shoes, or boots, should be worn when handling cylinders.

Environmental precautions. The mixture is heavier than air and could accumulate in low-lying areas. Care should be taken when entering a potentially oxygen-deficient environment. If possible, ventilate the affected area.

6 ACCIDENTAL RELEASE MEASURES

Personal precaution. Do not enter any areas where the mixture has been spilled unless tests have shown that it is safe to do so.

Environmental precautions. The mixture does not pose a hazard to the environment.

Small spills Shut off the source of the escaping mixture. Ventilate the area.

Large spills Evacuate the area. Shut off the source of the spill if it can be done without risk. Restrict access to the area until completion of the clean-up procedure. Ventilate the area using forced draught if necessary.

7 HANDLING AND STORAGE

Do not allow cylinders to slide or come into contact with sharp edges. P-10 cylinders may be stacked horizontally provided that they are firmly secured at each end to prevent rolling. Use "first in - first out" inventory system to prevent full cylinders from being stored for excessive periods of time. Keep out of reach of children.

8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational exposure hazards As the mixture is a simple asphyxiant, avoid any areas where spillage has taken place. Only enter once testing has proved the atmosphere to be safe, and remember that the gas is heavier than air.

Engineering control measures Engineering control measures are preferred to reduce exposures to oxygen-depleted atmospheres. General methods include forced-draught ventilation, separate from other exhaust ventilation systems.

Personal protection Self contained breathing apparatus should always be worn when entering area where oxygen depletion may have occurred. Safety goggles, gloves and shoes or boots should be worn when handling containers.

9 PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL DATA

Argon	
Chemical Symbol	Ar
Molecular Weight	39,948
Specific volume @ 20°C & 101,325 kPa	603,7 ml/g
Relative density of gas @ 101,325 kPa (Air = 1)	1,380
Colour	None
Taste	None
Odour	None
Methane	
Chemical Symbol	CH ₄
Molecular Weight	16,043
Specific volume @ 20°C & 101,325 kPa	1402,4 ml/g
Relative density of gas @ 101,325 kPa (Air = 1)	0,555
Flammability limits in air	5,0 - 15,4% by vol.
Colour	None
Taste	None

