

This product contains methane, oxygen and nitrogen, substances subject to the Pennsylvania Worker and Community Right-To-Know Act.

PRODUCT IDENTITY

LABEL IDENTITY - MSA P/N 96329 Calibrating Gas, 2% Methane in Air
CHEMICAL NAME - Methane, Oxygen, Nitrogen Mixture
ADDITIONAL IDENTITIES - MSA P/N 96329 Calibration Gas
FORMULA - CH₄ in Air

APPLICABLE CHEMICAL CONTENTS

	<u>%</u>	<u>TWA</u>
Methane (CAS 74-82-8)	2.0	1000 ppm*
Air	Balance	None

*Methane as an alkane (ACGIH 2009)

NOTE: Gas under pressure, 115 PSIG at 70°F, Approx. 3 liters gas at atmospheric pressure

PHYSICAL AND CHEMICAL PROPERTIES

For Nitrogen, the main component of this gas mixture

APPEARANCE AND ODOR - Colorless, odorless gas

BOILING POINT : -195.8⁰ C (-320.4⁰ F):

VAPOR PRESSURE - N/A*

GAS DENSITY : @32⁰ F (0⁰ C): 0.072 lbs/ft³

SPECIFIC GRAVITY (air= 1) : @70⁰ F (21.1⁰ C): 0.906

PERCENT VOLATILE BY VOLUME - N/A*

SOLUBILITY IN WATER - Methane - 9 cm³/100 ml (20°C)
Oxygen - 3.2 cm³/100 ml (25°C)
Nitrogen - 2.3 cm³/100 ml (0°C)

N/A* - Not Applicable

PHYSICAL HAZARD INFORMATION

PHYSICAL HAZARD - Compressed gas, 115 PSIG at 70°F (21.1⁰ C)

CONDITIONS OR MATERIALS TO AVOID - None

FLASH POINT - N/A

LEL - N/A

UEL - N/A

EXTINGUISHING MEDIA - This calibration gas mixture is not flammable

SPECIAL FIRE FIGHTING PROCEDURES – See next item.

UNUSUAL FIRE AND EXPLOSION HAZARDS – Gas under pressure, 115 PSIG at 70°F(21.1⁰ C). Do not exceed 120°F.

HEALTH HAZARDS

HEALTH HAZARDS - Methane 1000 ppm TWA as an alkane; CNS depression, cardiac sensitization, (ACGIH 2009)

SIGNS AND SYMPTOMS OF EXPOSURE – Exposure to 1000 ppm methane causes CNS depression and cardiac sensitization.

PRIMARY ROUTES OF ENTRY - Inhalation

TARGET ORGANS – Heart, CNS.

MEDICAL CONDITIONS GENERALLY RECOGNIZED AS BEING AGGRAVATED BY EXPOSURE - No Information

EXPOSURE LIMITS - Methane as an alkane 1000 ppm TWA (ACGIH 2009).

CARCINOGENICITY DATA - NIOSH RTECS, OSHA, NTP or IARC does not list component gases.

EMERGENCY AND FIRST AID PROCEDURES - None

SAFE HANDLING AND USE

HYGIENIC PRACTICES - Avoid breathing gas

PROTECTIVE MEASURES DURING REPAIR AND MAINTENANCE OF CONTAMINATED EQUIPMENT - N/A*

PROCEDURES FOR SPILL OR LEAK CLEANUP - Ventilate area

WASTE DISPOSAL - Do not puncture or incinerate cylinder. Before discarding cylinder, slowly release contents to a safe exhaust. Dispose of cylinder in accordance with local, state and federal regulations

STORAGE - Store in a cool, dry, well-ventilated area. Do not exceed 120⁰F.

CONTROL MEASURES

PERSONAL PROTECTIVE EQUIPMENT - Due to the limited amount of gas in the cylinder, and the low release rate employed in instrument calibration, respiratory protection is not indicated under conditions of intended use.

ENGINEERING CONTROLS - Mechanical ventilation is suitable.

WORK PRACTICES - Avoid breathing gas. Use in well-ventilated areas. Follow the calibration procedure detailed in the MSA instruction manual provided with the instrument under calibration.

DATE OF PREPARATION - Rev. 11, July 2009

WARNING: This is a hazardous chemical product. By following the directions and warnings provided with this product, the hazards associated with the use of this product can be greatly reduced but never entirely eliminated. Mine Safety Appliances Company makes no warranties, expressed or implied, with respect to this product and EXPRESSLY DISCLAIMS THE WARRANTY OF MERCHANTABILITY AND ANY WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE. Users assume all risks in handling, using or storing this product.