

**MATERIAL SAFETY DATA SHEET  
29 CFR 1910.1200 OSHA Hazard  
Communication Rule Format**

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

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**PRODUCT IDENTITY**

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LABEL IDENTITY - MSA P/N 459942 Calibration Check Gas, 2.5% Methane in Air  
CHEMICAL NAME - Methane, Oxygen, Nitrogen Mixture  
ADDITIONAL IDENTITIES - MSA P/N 459942 Calibration Gas  
FORMULA - CH<sub>4</sub> in Air

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**APPLICABLE CHEMICAL CONTENTS**

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	<u>%</u>	<u>TWA</u>
Methane (CAS 74-82-8)	2.5	None*
Air	Balance	None

\*Methane is a simple asphyxiant (ACGIH 1995-96)

NOTE: Gas Under Pressure, 250 PSIG at 70°F, Approx. 16 Liters Gas at Atmospheric Pressure

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**PHYSICAL AND CHEMICAL PROPERTIES**

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APPEARANCE AND ODOR - Colorless, Odorless Gas

BOLING POINT - N/A SPECIFIC GRAVITY (H<sub>2</sub>O = 1) - N/A

VAPOR PRESSURE - N/A PERCENT VOLATILE BY VOLUME - N/A

VAPOR DENSITY (AIR = 1) - < 1

SOLUBILITY IN WATER - Methane - 9 cm<sup>3</sup>/100 ml (20°C)  
Oxygen - 3.2 cm<sup>3</sup>/100 ml (25°C)  
Nitrogen - 2.3 cm<sup>3</sup>/100 ml (0°C)

N/A - Not Applicable

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**PHYSICAL HAZARD INFORMATION**

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PHYSICAL HAZARD - Compressed Gas, 250 PSIG at 70°F

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, 250 PSIG at 70°F. Do Not Exceed 120°F.

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## HEALTH HAZARDS

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HEALTH HAZARDS - Methane is a simple asphyxiant, ACGIH 1995-96.

SIGNS AND SYMPTOMS OF EXPOSURE - None known for 2.5% Methane in air.

PRIMARY ROUTES OF ENTRY - Inhalation

TARGET ORGANS - Lungs

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

EXPOSURE LIMITS - None. Methane is a simple asphyxiant (ACGIH 1995-96).

CARCINOGENICITY DATA - Component gases are not listed by NIOSH RTECS, OSHA, NTP or IARC.

EMERGENCY AND FIRST AID PROCEDURES - None

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## SAFE HANDLING AND USE

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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 exha

STORAGE - Store in a cool, dry, well-ventilated area. Do not exceed 120°F.

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## CONTROL MEASURES

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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. 5, July 1996

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