

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.

PRODUCT IDENTITY

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_4 in Air

APPLICABLE CHEMICAL CONTENTS

	<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

PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR - Colorless, Odorless Gas

BOILING POINT - N/A SPECIFIC GRAVITY ($\text{H}_2\text{O} = 1$) - N/A

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

VAPOR DENSITY (AIR = 1) - < 1

SOLUBILITY IN WATER - Methane - 9 $\text{cm}^3/100 \text{ ml}$ (20°C)
Oxygen - 3.2 $\text{cm}^3/100 \text{ ml}$ (25°C)
Nitrogen - 2.3 $\text{cm}^3/100 \text{ ml}$ (0°C)

N/A - Not Applicable

PHYSICAL HAZARD INFORMATION

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.

HEALTH HAZARDS

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

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.

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

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. 5, July 1996

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