

This product contains nitrogen, a substance 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 468249 Calibration Check Gas, 100% Nitrogen, Pre-purified  
CHEMICAL NAME - Nitrogen  
ADDITIONAL IDENTITIES - MSA P/N 468249 Calibration Gas  
FORMULA - N<sub>2</sub>

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**APPLICABLE CHEMICAL CONTENTS**

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	<u>%</u>	<u>TWA</u>
Nitrogen (CAS 7727-37-9)	100	None

NOTE: Gas under pressure, 400 PSIG at 70°F, Approx. 27 Liters Gas at Atmospheric Pressure

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**PHYSICAL AND CHEMICAL PROPERTIES**

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APPEARANCE AND ODOR - Colorless, odorless gas

Following information is for Nitrogen :

BOILING POINT - -320.4°F ( -195.8 ° C)                      SPECIFIC GRAVITY (air = 1) @70°F (21.1 °C): 0.906

VAPOR PRESSURE @70°F (21.1 °C): N/A\*                      PERCENT VOLATILE BY VOLUME - N/A\*

GAS DENSITY @32°F (0 °C) and 1 atm: 0.072 lbs/ft<sup>3</sup> (1.153 kg/ m<sup>3</sup>)

VAPOR DENSITY (AIR = 1) - 1

SOLUBILITY IN WATER - 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, 400 PSIG at 70°F

CONDITIONS OR MATERIALS TO AVOID - None

FLASH POINT - N/A

LEL - None

UEL - None

EXTINGUISHING MEDIA - This calibration gas mixture is not flammable

SPECIAL FIRE FIGHTING PROCEDURES - See next item

UNUSUAL FIRE AND EXPLOSION HAZARDS - Gas under pressure, 400 PSIG at 70°F. Do not exceed 120°F.

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**HEALTH HAZARDS**

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- **HEALTH HAZARDS** - Nitrogen is an asphyxiant.  
Note: This gas mixture contains less than 19.5% oxygen if this mixture is released in a small poorly ventilated area (confined space) an oxygen deficient environment may occur.
- **SIGNS AND SYMPTOMS OF EXPOSURE:** Oxygen deficient atmosphere: Individuals breathing such an atmosphere may experience symptoms which include headaches, ringing in the ears, dizziness, drowsiness, unconsciousness, nausea, vomiting and depression of all the senses. Under some circumstances of over-exposure, death may occur.

PRIMARY ROUTES OF ENTRY - Inhalation

TARGET ORGANS – Lungs, blood.

MEDICAL CONDITIONS GENERALLY RECOGNIZED AS BEING AGGRAVATED BY EXPOSURE - Pre-existing respiratory conditions may be aggravated by over-exposure to this gas mixture.

EXPOSURE LIMITS - None

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

EMERGENCY AND FIRST AID PROCEDURES - Remove from exposure. Administer oxygen. Consult physician immediately.

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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 - None

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.

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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. 12, Nov 2010

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.