MATERIAL SAFETY DATA SHEET 29 CFR 1910.1200 OSHA Hazard Communication Rule Format Chem-Tel 24 Hour Emergency # 1-800-255-3924 MINE SAFETY APPLIANCES COMPANY 1000 Cranberry Woods Drive Cranberry Township, PA 16066 PHONE (724) 776-8900

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

# PRODUCT IDENTITY

LABEL IDENTITY - MSA P/N 493579 Calibration Check Gas, 0.6% Propane in Air

CHEMICAL NAME - Propane, Oxygen, Nitrogen Mixture

ADDITIONAL IDENTITIES - MSA P/N 493579 Calibration Gas

FORMULA -  $C_3H_8$ ,  $O_2$ ,  $N_2$ 

## APPLICABLE CHEMICAL CONTENTS

 Propane (CAS 74-98-6)
 7WA (OSHA PEL)

 Air
 8alance (None)

\*Propane as an alkane (ACGIH 2012), OSHA TWA=1000 ppm

NOTE: Gas under pressure, 1000 PSIG at 70°F, Approx. 100 Liters gas at atmospheric pressure

## PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR - Colorless Gas, Faint Odor

Following information is for Nitrogen the main component of this gas mixture

BOILING POINT: -320.4 °F (-195.8 °C)

SPECIFIC GRAVITY (air = 1)  $@70^{\circ}$ F (21.1  $^{\circ}$ 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:  $0.072 \text{ lbs/ft}^3$  (1.153 kg/m<sup>3</sup>)

SOLUBILITY IN WATER - Propane - 6.5 cm<sup>3</sup>/100 ml (18°C)

Oxygen -  $3.2 \text{ cm}^3/100 \text{ ml } (25^{\circ}\text{C})$ 

Nitrogen - 2.3 cm $^{3}/100$  ml (0°C)

\*N/A - Not Applicable

### PHYSICAL HAZARD INFORMATION

PHYSICAL HAZARD - Compressed gas, 1000 PSIG at 70°F

CONDITIONS OR MATERIALS TO AVOID - None

FLASH POINT - N/A\* LEL - N/A\* UEL - N/A\*

N/A\* - Not Applicable

EXTINGUISHING MEDIA – This calibration gas mixture is not flammable.

SPECIAL FIRE FIGHTING PROCEDURES - See next item

UNUSUAL FIRE AND EXPLOSION HAZARDS – Gas under pressure, 1000 PSIG at 70°F. Do not exceed 120°F.

## **HEALTH HAZARDS**

HEALTH HAZARDS – Propane as an alkane, CNS depression; cardiac sensitization.

SIGNS AND SYMPTOMS OF EXPOSURE - Very high propane exposures (10%) causes dizziness.

PRIMARY ROUTES OF ENTRY - Inhalation

TARGET ORGANS - heart, CNS

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

EXPOSURE LIMITS - As an alkane TWA 1000 ppm (ACGIH 2012). OSHA PEL TWA=1000 ppm.

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

N/A\* - Not Applicable

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 - None

WORK PRACTICES - 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. 10, October 2012

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.