

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
P.O. Box 426
Pittsburgh, PA 15230
PHONE (412) 967-3000

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

PRODUCT IDENTITY

LABEL IDENTITY - MSA P/N 806736 Calibration Check Gas, 100 ppm Nitrous Oxide in Nitrogen

CHEMICAL NAME - Nitrous Oxide, Nitrogen Mixture

ADDITIONAL IDENTITIES - MSA P/N 806736 calibration gas

FORMULA - $N_2O + N_2$

APPLICABLE CHEMICAL CONTENTS

	<u>%</u>	<u>TWA</u>
Nitrous Oxide (CAS 10024-97-2)(ACGIH 2005)	0.01	50 ppm
Nitrogen (CAS 7727-37-9)	Balance	None

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

PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR - Colorless, odorless gas.

BOILING POINT - N/A

VAPOR PRESSURE - N/A

VAPOR DENSITY (AIR = 1) Approx. 1

SOLUBILITY IN WATER - Nitrous Oxide - 130.0 cm³/100 ml (0°C)
Nitrogen - 2.3 cm³/100 ml (0°C)

SPECIFIC GRAVITY (H₂O = 1) - N/A

PERCENT VOLATILE BY VOLUME - N/A

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

EXTINGUISHING MEDIA - This 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 - Nitrous oxide and nitrogen are asphyxiants. In high concentrations with oxygen, Nitrous oxide is an anesthetic gas. Prolonged exposure to anesthetic concentrations (approx. 25-80%) reportedly has caused bone marrow depression. Exposure to high concentrations has been associated with effects on reproductive system, blood, central nervous system, liver and kidneys. Heavy occupational exposure reportedly has caused reproductive effects.

SIGNS AND SYMPTOMS OF EXPOSURE - Significant dilution of ambient air by asphyxiants causes increased breathing frequency, drowsiness, weakness, and ringing in ears.

PRIMARY ROUTES OF ENTRY - Inhalation

TARGET ORGANS - Lungs, blood, and brain

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

EXPOSURE LIMITS - ACGIH 2005 50 ppm TWA

CARCINOGENICITY DATA - Not listed by NIOSH, RTECS, IARC, NTP or OSHA.

EMERGENCY AND FIRST AID PROCEDURES - Remove victim from exposure. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately

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 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. 6, august 2005

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.