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**HEALTH HAZARDS**

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**HEALTH HAZARDS** - Methane as an alkane CNS depression and cardiac sensitization. It can, however, reduce the amount of oxygen in the air necessary to support life. Exposure to oxygen-deficient atmospheres (< 19.5%) may produce dizziness, nausea, vomiting, loss of consciousness, and death. At very low oxygen concentrations (< 12%) unconsciousness and death may occur without warning. Methyl Mercaptan is added as an odorizer. The odor threshold of Methyl Mercaptan is 0.0021 ppm. Exposure to Mercaptan may cause eye, skin, and respiratory system irritation. Chronic low-level exposures to Mercaptan produced functional disorders in female workers. A 90 day continuous inhalation study at a concentration of 50 ppm produced hematological, hepatic, and minor lung effects in animals.

**SIGNS AND SYMPTOMS OF EXPOSURE** - Eye, skin, and respiratory system irritation.

**PRIMARY ROUTES OF ENTRY** - Inhalation

**TARGET ORGANS** – Methane: Central Nervous system, and heart. Methyl Mercaptan: Liver, systemic.

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

**EXPOSURE LIMITS** - Methane – 1000 ppm; Methyl Mercaptan - 0.5 ppm (ACGIH 2011).

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

**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.

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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** - Methane is a flammable, colorless, compressed gas packaged in cylinders under high pressure. It poses an immediate fire and explosion hazard when concentrations exceed 5.0%. Concentrations that can cause rapid suffocation are within or above flammable range. In case of leak, ventilate area. Shut off methane source if possible. Remove sources of heat or ignition. Use soap solution to detect leaks.

**WASTE DISPOSAL** - Do not puncture or incinerate cylinder. Before discarding cylinder, slowly release contents outdoors with the proper regulator. 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.

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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** - Provide ventilation and/or exhaust to prevent accumulation of gas concentrations above 1.0%.

**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, Sept. 2011

**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.