
HEALTH HAZARDS

HEALTH HAZARDS - Methane as an alkane (ACGIH 2009) 1000ppm. Carbon monoxide TC_{LO} (Human) is reportedly 650 ppm/45 minutes; LC_{LO} (human) 5000 ppm/5 minutes.

SIGNS AND SYMPTOMS OF EXPOSURE – Methane as an alkane (1000ppm) cardiac sensitivity, and central nervous system impairment. Exposure to 500-1000 ppm Carbon monoxide may cause headache, rapid breathing, nausea, weakness, dizziness and confusion.

PRIMARY ROUTES OF ENTRY - Inhalation

TARGET ORGANS – Methane as an alkane heart and CNS. Carbon monoxide: Lungs, blood, tissues. Carbon monoxide at toxic concentrations causes tissue hypoxia (lack of oxygen) by preventing blood from transporting sufficient oxygen.

MEDICAL CONDITIONS GENERALLY RECOGNIZED AS BEING AGGRAVATED BY EXPOSURE - Carbon monoxide burden may aggravate angina pectoris. Pregnant women are reportedly more sensitive than others. Effects of carbon monoxide exposure are aggravated by heavy labor, heat stress and high altitude.

EXPOSURE LIMITS (ACGIH 2009) – Methane as an alkane 1000 ppm; carbon monoxide 25 ppm.
OSHA carbon monoxide TWA 35 ppm.

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.

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, May 2009.

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.