
HEALTH HAZARDS

HEALTH HAZARDS - Phosphine is an extremely toxic gaseous compound. It is an irritant to the eyes and airway and is a central nervous system depressant. LC_{LO} Human 1000 ppm/5min. LC₅₀ Rat 11 ppm/4 hr. LC_{LO} Mammal 1000 ppm/5 min

SIGNS AND SYMPTOMS OF EXPOSURE - Symptoms may include coughing, shortness of breath, wheezing, increased bronchial secretions and pulmonary edema; weakness, fatigue, headache, dizziness, fainting, drowsiness, tremors, disturbances of gait, convulsions, and coma; abdominal pain, thirst, nausea, and vomiting. Severe exposure may be lethal. High concentrations of phosphine are irritating to the eyes. Reported odor threshold for Phosphine is 0.021 ppm.

PRIMARY ROUTES OF ENTRY - Inhalation.

TARGET ORGANS - Respiratory system.

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

EXPOSURE LIMITS - ACGIH 2009: Phosphine TWA 0.3 ppm, STEL 1 ppm; OSHA PEL 0.3ppm; NIOSH REL 0.3 ppm.

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

EMERGENCY AND FIRST AID PROCEDURES - Prompt medical attention is mandatory in all cases of overexposure to phosphine. Rescue personnel should be equipped with self-contained breathing apparatus and be cognizant of extreme fire and explosion Hazard.

Eye: Immediately and thoroughly flush the eyes with large amounts of water for at least 15 minutes, occasionally lifting the lower and upper eyelids. If irritation, pain, swelling, lacrimation, or photophobia persists, get medical attention as soon as possible.

Skin: Immediately and thoroughly wash contaminated skin with soap and water. Get medical attention as soon as possible.

Breath: Move the exposed person to fresh air at once. If breathing has stopped, **DO NOT** give mouth to mouth artificial respiration instead use a manual bagging method.. Get medical attention as soon as possible.

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.

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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.