
Ethylene in Air (Equivalent to 20 and 50 ppm EtO)

Date: 01/02/16

MATERIAL SAFETY DATA SHEET

CHEMTREC Assistance: (800) 424-9300

Kem Medical Products – 5305 NW 35th Terrace, Ft Lauderdale, FL 33309

SECTION I - PRODUCT IDENTIFICATION

PRODUCT NAME: Ethylene in Air 10-500ppm volume Ethylene
SYNONYM: N/A
FORMULA: C₂H₄ in Air
CAS: N/A

SECTION II - HEALTH HAZARD DATA

Ethylene is defined as a simple asphyxiant. Oxygen levels should be maintained at greater than 18 molar percent, but less than 23 molar percent. The amount of ethylene in this mixture needed to cause the air to be unfit for human respiration is inadequate.

Symptoms of Exposure:

Anesthetic effect may cause under prolonged exposure drowsiness, headaches, dizziness, loss of coordination, nausea, plus a slight irritation to the mucous membranes; however, there is an insufficient amount of ethylene in this mixture to manifest most of these symptoms.

Toxicological Properties:

The concentration of ethylene and the balance gas of air present in this mixture are both non-toxic.

Recommended First Aid Treatment:

Relocate affected personnel to uncontaminated area and inhale fresh air.

Potentially Hazardous Mixtures with Other Chemicals:

None.

SECTION III – FIRE AND EXPLOSION HAZARD INFORMATION

FLAMMABLE LIMITS % BY VOLUME: N/A
EXTINGUISHING MEDIA: N/A (Nonflammable gas), use water if involved in fire.
NFPA 704 NUMBER (HFR): 0 0 0 0
ELECTRICAL CLASSIFICATION: Non-hazardous.
FLASH POINT: N/A
AUTO IGNITION TEMPERATURE: N/A
SPECIAL FIRE FIGHTING PROCEDURES: When the mixture is involved in a fire, the compressed air balance gas at high pressures will accelerate the burning of materials at a greater rate.

SECTION IV – PERSONAL PROTECTION INFORMATION

RESPIRATORY/VENTILATION: Hood with forced ventilation
GLOVES: Plastic or rubber (neoprene, butyl, poly)
EYES AND OTHER: Safety goggles or glasses only, contact lenses are not recommended.
15 minute shower/eyewash, protection shoes.

SECTION V - REACTIVITY INFORMATION

STABILITY: Stable
INCOMPATIBILITY: Chlorine
HAZARDOUS DECOMPOSITION PRODUCTS: None
HAZARDOUS POLYMERIZATION PRODUCTS: None
CONDITIONS TO AVOID: Cylinder temperatures should not exceed 130°F (54°C)

SECTION VI - LEAK AND DISPOSAL INFORMATION

LEAK PROCEDURES: Evacuate all personnel from the affected area. Use appropriate protective equipment. Shut off flow of gas, and purge lines with an inert gas. Switch off non-essential electrical equipment.

WASTE DISPOSAL: Do not attempt to dispose of any unused quantities of product or their containers without contacting Kem Medical for instructions.

SECTION VII – SPECIAL SAFETY AND REGULATORY CONSIDERATIONS

LABELING:

DOT SHIPPING NAME Compressed Gases n.o.s.
TECHNICAL DESCRIPTION Ethylene, air
IDENTIFICATION # UN 1956
HAZRD CLASS/DIVISION Non-flammable gas 2.2

HANDLING: Use only in well ventilated areas. The cylinder should be secured with a chain or strap. Do not drag, drop or roll the cylinder. Use both hands when carrying the cylinder. Do not heat the cylinder. One-way check valves in the use line are recommended to prevent backflow. Systems should be cleaned “for Oxygen service” before first use.

STORAGE: Protect the cylinders from physical damage. Store the cylinders in a cool (130°F), dry, ventilated, posted “no smoking or open flames” area constructed of non-combustible materials, away from aisles and other traffic areas. Keep full cylinders separated from empties. Rotate stock first-in, first-out.

PACKAGING: Use the cylinders as provided, with the recommended regulator. Do not attempt to refill the cylinder or transfill the product from one container to another.

OTHER PRECAUTIONS: Conduct monitoring of gas exposure to personnel, do not rely on odor as a way to detect the presence of gas.

SECTION VIII - PHYSICAL DATA

MOLECULAR WEIGHT: 28.97
SPECIFIC GRAVITY: 1.0
LIQUID DENSITY AT BOILING POINT: 54.7 lb/ft³ average
GAS DENSITY AT STP: 0.075 lb/ft³ average
FREEZING TEMPERATURE: -318°F
APPEARANCE AND ODOR Shipped in compressed gas cylinders under pressure (typically 240-500 psig). Vapor is colorless and odorless.
VAPOR PRESSURE: @ 70°F, above Critical Temperatures

SECTION IX - COMMENTS

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