

WAC 296-855-099 Definitions. Action level. An airborne concentration of ethylene oxide (EtO) of 0.5 parts per million, calculated as an eight-hour time-weighted average.

Authorized personnel. Individuals specifically permitted by the employer to enter the exposure control area to perform necessary duties, or to observe employee exposure evaluations.

Breathing zone. The space around and in front of an employee's nose and mouth, forming a hemisphere with a six- to nine-inch radius.

CAS (Chemical Abstract Service) number. CAS numbers are internationally recognized and used on safety data sheets (SDSs) and other documents to identify substances. For more information see <http://www.cas.org/about>.

Container. Any container, except for pipes or piping systems that contains ethylene oxide. It can be any of the following:

- (a) Barrel.
- (b) Bottle.
- (c) Can.
- (d) Cylinder.
- (e) Drum.
- (f) Reaction vessel.
- (g) Storage tank.

Day. Any part of a calendar day.

Director. The director means the director of the department of labor and industries or their designee.

Emergency. Any event that could or does result in the unexpected significant release of ethylene oxide. Examples of emergencies include equipment failure, container rupture, or control equipment failure.

Ethylene oxide (EtO). Is an organic chemical represented by the CAS registry number 75-21-8. EtO is a flammable colorless gas and is commonly used to sterilize medical equipment and as a fumigant for certain agricultural products. It is also used as an intermediary in the production of various chemicals such as ethylene glycol, automotive antifreeze, and polyurethane.

Exposure. The contact an employee has with ethylene oxide, whether or not protection is provided by respirators or other personal protective equipment (PPE). Exposure can occur through various routes of entry such as inhalation, ingestion, skin contact, or skin absorption.

Licensed health care professional (LHCP). An individual whose legally permitted scope of practice allows him or her to provide some or all of the health care services required for medical evaluations.

Permissible exposure limits (PELs). PELs are employee exposures to toxic substances or harmful physical agents that must not be exceeded. PELs are specified in applicable WISHA rules. The PELs for ethylene oxide (EtO) are:

- (a) Eight-hour time-weighted average (TWA₈) of one part per million (ppm); and
- (b) Fifteen-minute short-term exposure limit (STEL) of five ppm.

Short-term exposure limit (STEL). An exposure limit averaged over a short time period (usually fifteen minutes) that must not be exceeded during any part of an employee's workday.

Time-weighted average (TWA₈). An exposure limit averaged over an eight-hour period that must not be exceeded during an employee's workday.

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. WSR 18-22-116, § 296-855-099, filed 11/6/18, effective 12/7/18.]