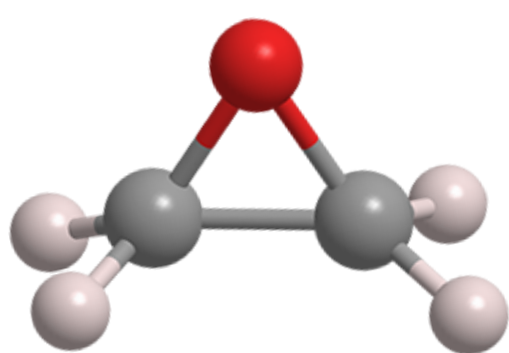


ETHYLENE OXIDE



Ethylene Oxide Chemical Structure

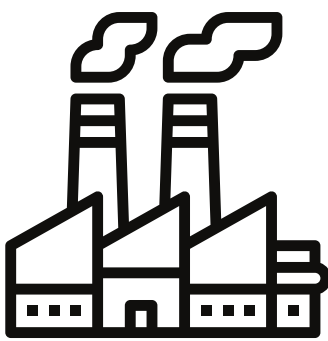
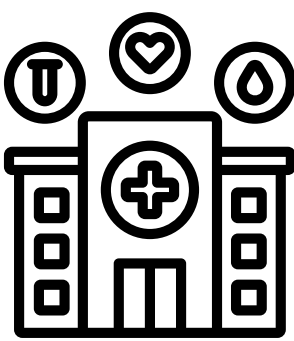
(Ethylene Oxide - American Chemical Society, n.d.) ⁴

IN THE WORKPLACE

There is a wide variety of workplaces that can expose you to Ethylene Oxide; like chemical manufacturing facilities, healthcare facilities, food, and cosmetic industry. ¹

WHAT IS ETHYLENE OXIDE?

Ethylene Oxide (EtO) is a flammable, colorless gas. It smells like ether at toxic levels. According to OSHA EtO is found in the product of antifreeze, detergents, adhesives, solvents, textiles, polyurethane foam, and pharmaceuticals. ¹

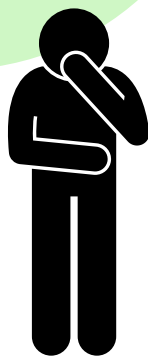
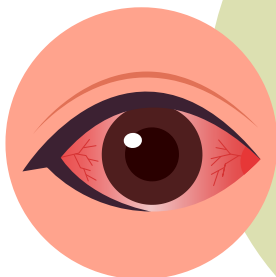


SAFTEY

² To protect against yourself from EtO wearing goggles and skin protections in areas at risk from ² splashes of liquid EtO. Wearing proper clothing when working with EtO. When working in exposure over 1 ppm, wear a supplied-air respirator.

EXPOSURE SIGNS

When EtO comes into contact with you here are some signs²:
Skin: Irritation and burns; with undiluted EtO it can causes frost bite.
Eyes: possible eye damage
Breathing: Inhaling EtO can irritate the nose, throat, and lungs; causing shortness of breath or a build up of fluid in the lungs with high exposure.
Additionally: headaches, nausea, dizziness, vomiting, twitching, and seizures



FIRST AID

When EtO comes into contact with skin or eyes wash with a large amount of water at the nearest wash/eyewash station.
If a leak is present alert all personal in the room and leave the room immediately. Only trained personal should attempt to correct the leak.
Medical examination should take place to evaluate exposure, symptoms, or signs of over-exposure to EtO. ³

Sources:

1. Ethylene oxide - Overview | Occupational Safety and Health Administration. (n.d.). Retrieved March 10, 2025, from <https://www.osha.gov/ethylene-oxide>

2. New Jersey Department of Health and Senior Services. (2009). Right to know hazardous substance fact sheet: Ethylene oxide. <https://nj.gov/health/eoh/rtkweb/documents/fs/0882.pdf>

3. Office of Research Services, & Division of Occupational Health and Safety, D. (2019). ETHYLENE OXIDE SURVEILLANCE PROGRAM. In National Institutes of Health. <https://ors.od.nih.gov/sr/dohs/Documents/ethylene-oxide-program.pdf>

4. Ethylene oxide - American Chemical Society. (n.d.). American Chemical Society. <https://www.acs.org/molecule-of-the-week/archive/e/ethylene-oxide.html>