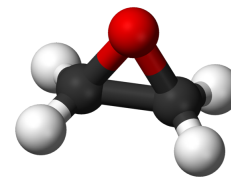


Protect Fenceline Communities from Toxic Ethylene Oxide Pollution

Ethylene oxide (abbreviated as EtO), is a synthetic chemical widely used in chemical manufacturing to produce other chemicals that are then used in consumer products, and for sterilization. It can cause cancer and other serious health effects. At least 115 industrial or commercial facilities across the US release ethylene oxide into the air, which increases the cancer risk for people in these communities and the workers at these facilities. The cancer risk from ethylene oxide in many of these communities is 100 times the level that triggers action under the Clean Air Act.



What is ETHYLENE OXIDE and how is it used?

According to the U.S. Environmental Protection Agency: Ethylene oxide is a flammable, colorless gas used to make other chemicals that are used in making a range of products, including antifreeze, textiles, plastics, detergents and adhesives. Ethylene oxide also is used to sterilize equipment and plastic devices that cannot be sterilized by steam, such as medical equipment. Ethylene oxide in the air can come from different types of sources, including industries such as chemical manufacturers and sterilizers.¹

What are the HEALTH EFFECTS of ethylene oxide?

Also according to the EPA: Long-term exposure to ethylene oxide can irritate the eyes, skin, nose, throat, and lungs, and harm the brain and nervous system (causing effects such as headaches, memory loss, numbness). Studies show that breathing air containing elevated ethylene oxide levels over many years increases the risk of some types of cancers, including cancers of the white blood cells (such as non-Hodgkin lymphoma, myeloma and lymphocytic leukemia); and breast cancer in females.² Newer studies show that ethylene oxide is a much more potent carcinogen than scientists previously thought.³

WHERE is ethylene oxide used and released?

Most of the EtO released comes from chemical manufacturing and from sterilization of surgical and medical instruments and supplies. According to the 2016 EPA Toxics Release Inventory, there are 118 facilities in the US that collectively released over 320,000 pounds of ethylene oxide to the air. These facilities are located in 31 states and Puerto Rico, although many are clustered in a few states, including Georgia, Illinois, Louisiana, North Carolina, Pennsylvania, South Carolina, Texas, and West Virginia.⁴

WHO is being affected?

Based on data from the 2014 National Air Toxics Assessment (the most recent available), at least 288,000 people live in 58 ethylene oxide “hot spots” with **cancer risk from EtO at least 100 times**

¹ U.S. Environmental Protection Agency, *Background Information on Ethylene Oxide*, <https://www.epa.gov/hazardous-air-pollutants-ethylene-oxide/background-information-ethylene-oxide#what>

² U.S. EPA, *Background Information on Ethylene Oxide*.

³ U.S. EPA, *Frequent Questions on Ethylene Oxide*, <https://www.epa.gov/hazardous-air-pollutants-ethylene-oxide/frequent-questions-ethylene-oxide>

⁴ 2016 Toxic Release Inventory data from US EPA, accessed through www.rtk.net on March 13, 2019.

greater than the level that triggers action under the Clean Air Act (and in many communities 300 times greater or more). Many of the facilities contributing to EtO cancer hot spots are clustered in certain states and counties, including: New Castle County, DE; Lehigh County, PA; Kanawha County, WV; DuPage and Lake Counties, IL; Calcasieu Parish, St. Charles Parish, and St. John the Baptist Parish, LA; and Harris County and Jefferson County, TX. Many of these communities are much more low-income and/or people of color than the US as a whole. For example:

New Castle County, DE – includes one census tract with cancer risk from ethylene oxide that is 110 times greater than the level that triggers action under the Clean Air Act. The population within 3 miles of the Croda Inc. facility in New Castle County that releases ethylene oxide is 52% people of color (compared to about 38% nationally), with 31% of residents at or below poverty level (compared to 13.5% nationally).

Kanawha County, WV – includes four census tracts with cancer risk from ethylene oxide from 151 to 335 times greater than the level that triggers action under the Clean Air Act. Thirty-four percent of residents within 3 miles of ethylene oxide emitting facilities in the County are at or below poverty level (compared to about 13.5% nationally).

Calcasieu Parish, LA – includes one census tract with cancer risk from ethylene oxide that is 84 times greater than allowed under the Clean Air Act. Thirty-four percent of residents within 3 miles of ethylene oxide emitting facilities in the County is at or below poverty level (compared to about 13.5% nationally).

WHAT'S HAPPENING now?

EPA has so far largely failed to act on the high cancer risk caused by ethylene oxide in many places. Many communities affected by ethylene oxide pollution are now organizing to protect their health.

The Trump Administration is trying to rollback the science-based health standard for ethylene oxide through an unrelated rulemaking. That public comment deadline is April 26, 2019. Comments can be submitted at <https://www.regulations.gov/document?D=EPA-HQ-OAR-2018-0417-0001>

Members of Congress have introduced the [Expanding Transparency Of Information and Safeguarding Toxics](#) (ETO IS Toxic) Act, which would modernize and strengthen toxic air pollution monitoring and chemical hazard assessment programs.

For More Information

Visit www.EJ4All.org or email Sherron@ComingCleanInc.org