

Ethylene Oxide Basics

What is ethylene oxide (EtO)?

Ethylene oxide is a flammable, colorless gas used to make a range of products, including antifreeze, textiles, plastics, detergents and adhesives. EtO also is used to sterilize equipment and plastic devices that cannot be sterilized by steam, such as medical equipment.

The Clean Air Act lists EtO as a Hazardous Air Pollutant. U.S. EPA recently updated its risk value for ethylene oxide and is working with industry, and state, local and tribal air agencies to address this chemical.

Health risks of ethylene oxide

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.

How can I submit questions?

Email your questions to: eto@epa.gov