



Ethylene Oxide

Frequently Asked Questions

What is ethylene oxide (EO)?

Ethylene oxide is a versatile and valuable compound that's used to help make countless everyday products. EO is used to make household cleaners and personal care items, create fabrics, and manufacture raw materials into more useful forms. A small but important use of EO is the sterilization of medical equipment. The Advanced Medical Technology Association estimates that more than 50 percent of all medical devices are sterilized with EO.

Where is ethylene oxide produced?

At the end of 2018, EO was being produced in the U.S. at 15 facilities in 11 locations by 9 companies. In the U.S., ethylene oxide is primarily produced in two states: Texas and Louisiana.

Is the general population exposed to ethylene oxide?

Ethylene oxide is present in the environment and is created by manufacturing facilities as well as other sources such as plants and cooking oils. The human body also creates EO. Exposure to EO varies across urban, suburban and rural environments. EO emissions from industrial manufacturing and other applications are strictly regulated under federal and in some cases state and local laws.

How is ethylene oxide regulated for worker safety?

OSHA has set exposure limits for employees working in facilities where EO is present. In addition, employers must provide appropriate protective clothing and equipment to employees who may be exposed to EO. The National Institute of Occupational Safety and Health and the American Conference of Governmental Industrial Hygienists also provide guidance for industrial exposure to EO.

Is the community at an elevated risk of cancer due to EO exposure levels?

In 2016, the EPA developed a new health risk suggestion for EO based on computer modeling and later combined the suggestion with estimated concentrations around EO-producing facilities to estimate a level of risk in surrounding communities, which suggested elevated risks near Sasol's Lake Charles Chemicals Complex.

However, a number of independent expert scientists agree that the suggestion overstates the actual level of risk from EO concentrations. For example, scientists found the EPA's suggested risk value is 19,000 times lower than the normal, naturally-created levels of EO already present in the human body.

Sasol will continue to work with the U.S. Environmental Protection Agency and the Louisiana Department of Environmental Quality regarding the EPA's assessment of EO to address concerns and toward a shared goal of positive health outcomes for our community.