

Summary: Ethylene Oxide Emissions in Lake County, November 6, 2018

On November 2, 2018, the Chicago Tribune published a story about Ethylene Oxide (EtO) emissions from two Lake County facilities: Medline Industries, Inc. in Waukegan and Vantage Specialty Chemicals, Inc. in Gurnee.¹

The Lake County Health Department and Community Health Center learned of these emission concerns that same day and began investigating the situation immediately.

What is Ethylene Oxide?

Ethylene Oxide (EtO) is a colorless gas² used in the manufacturing of several industrial chemicals and as a sterilizing agent for medical equipment and supplies. People can be exposed to EtO through direct inhalation, ingestion, or contact to the skin.

Who is responsible for monitoring EtO emissions?

The Illinois Environmental Protection Agency (IEPA) and the U.S. Environmental Protection Agency (USEPA) have sole jurisdiction for regulating (monitoring and permitting) emissions.³

What are the risks of EtO exposure?

In December of 2016, the USEPA updated the risk status of EtO from “probably carcinogenic to humans” to “carcinogenic to humans”.⁴

The Chicago Tribune article refers to data from the USEPA’s 2014 National Air Toxics Assessment (NATA), stating that four high-risk census tracts are near Medline (Waukegan).¹

How should I use NATA data?

NATA provides screening-level estimates of the risk of cancer and other potentially serious health effects from inhaling air toxics. This data is not a representation of the actual diagnosis of cancer in any area or in any one person.⁵

- The data can be used to identify pollutants and types of pollution sources of greatest concern.
- The data can be used to improve understanding of air toxics-related health risks.
- The data should NOT be used as a definitive means to pinpoint specific risk values within a census tract.⁵

What is the Health Department doing?

The Health Department is working with local, state, and federal agencies using all available resources to protect the health of Lake County residents. A meeting has been requested with the IEPA and USEPA to obtain more information and discuss next steps this week. Additional information will be provided to the public as it becomes available.

On November 2, 2018, the Health Department submitted a Freedom of Information Act (FOIA) request to the IEPA for the following information:

- EtO emissions data for Sterigenics (Willowbrook), Medline (Waukegan), and Vantage (Gurnee) for the past 10 years;
- Copies of the facilities' air operating permits and violations occurring in the past 10 years;
- Permissible EtO emission levels at these facilities.

What actions need to be taken?

To fully assess the risk to Lake County residents, outdoor air quality monitoring needs to occur at multiple sampling locations in Lake County. This will help determine the actual levels of EtO surrounding these facilities. The Health Department does not have the capability and appropriate equipment to conduct this monitoring. We are requesting that USEPA complete this outdoor air quality monitoring in Lake County as they have stated they intend to do additional outdoor air quality monitoring in Willowbrook, Illinois.

The Health Department also recommends that the IEPA and/or USEPA immediately perform an in-depth investigation of EtO emissions at the two facilities in Lake County, Illinois. Results should be provided to Lake County residents as well as local, state, and federal agencies. Subsequent actions should be based on these findings.

Citations

1. Hawthorne, Michael. *2 Lake County polluters emit same cancer-causing gas as Sterigenics, but authorities haven't warned the public*. Chicago Tribune. 2 Nov. 2018. Web. <https://www.chicagotribune.com/news/local/breaking/ct-met-lake-county-cancer-risks-pollution-20181028-story.html>. Accessed November 2, 2018.
2. OSHA. What is ethylene oxide? <https://www.osha.gov>. Accessed November 5, 2018.
3. *Air Pollution Prevention and Control*.; 2017:6336-6628. <https://www.gpo.gov/fdsys/pkg/USCODE-2017-title42/pdf/USCODE-2017-title42-chap85.pdf>. Accessed November 5, 2018.
4. Environmental Protection Agency. *Frequent Questions on Ethylene Oxide*. Washington; 2018. <https://www.epa.gov/hazardous-air-pollutants-ethylene-oxide/frequent-questions-ethylene-oxide>. Accessed November 5, 2018.
5. Environmental Protection Agency. *Technical Support Document EPA's 2014 National- Air Toxics Assessment*. Washington; 2018. https://www.epa.gov/sites/production/files/2018-09/documents/2014_nata_technical_support_document.pdf. Accessed November 5, 2018.