

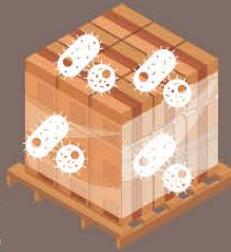
# Ethylene Oxide

A flammable colorless gas

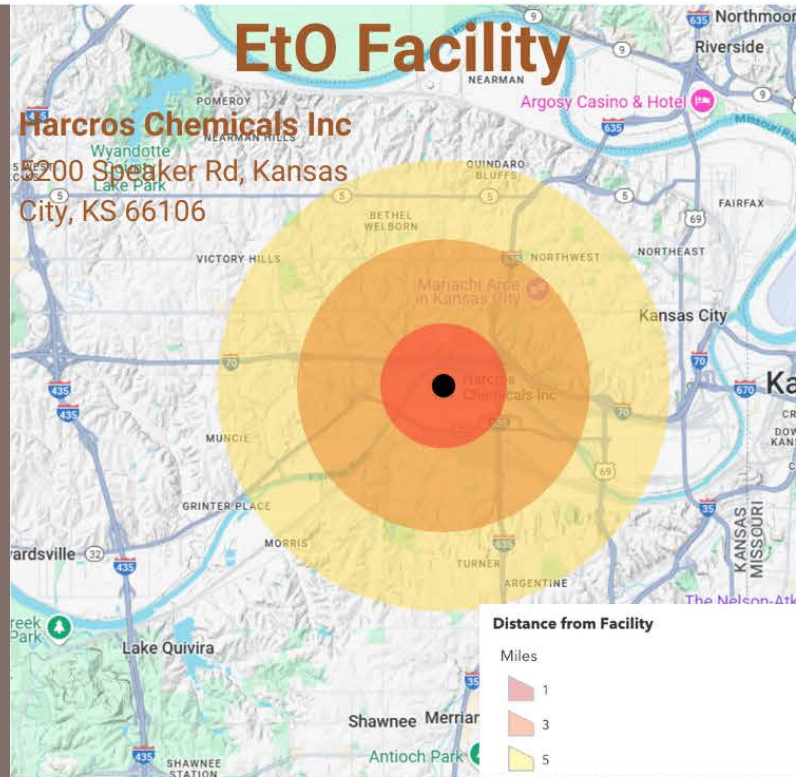
## Harcros use of EtO

Harcros Chemicals, Inc. is a major distributor and producer of industrial chemicals in KCK. Harcos uses EtO as a key ingredient in their manufacturing of chemicals like surfactants, solvents, bleaches, biologicals, and filter aids to market in agriculture, auto care, household and industrial cleaning.

- In 2021 Harcos released 4,282 lbs of EtO into the air
- Worst Case Scenario: An explosion of 175,150 lbs of EtO gas 6 miles out requiring evacuation of 190,000 people



Harcros also releases other toxic chemicals such as 3,283 lbs of propylene oxide, 743 lbs 1,2,4-trimethylbenzene, and 5,758 lbs n-butyl alcohol per year.



## How are people exposed to EtO?

EtO from nearby sterilization facilities or other facilities that use EtO can be inhaled and get inside your body



## What Can We Do?

Report an  
Environmental Concern  
to the  
Kansas Department of  
Health and Environment  
(785) 296-1500



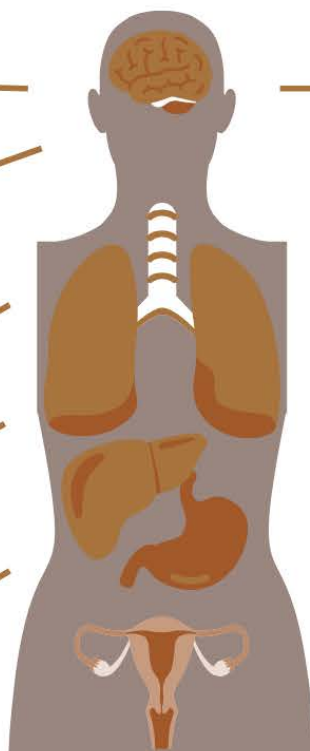
1. Require Harcos to conduct a Safer Technology and Alternatives Analysis for safer chemicals and manufacturing.
2. Push for manufacturing surfactants without EtO as shown by the EPA's Safer Chemical Ingredients list
3. Strengthen the RMP rule for enhanced community notification in multiple languages during an emergency
4. Better worker health & safety protections



# What are the health effects of EtO?

## Short Term

Headache  
Slows down neurological functions  
Irritation of eyes, skin, nose, throat, lungs  
Shortness of breath  
Nausea, vomiting, diarrhea



## Long Term

Damage to brain and nervous system  
Lung disease  
Associated with increase risk in breast cancer, stomach cancer, blood cancer, leukemia, and lymphoma  
Reproductive harm

## How can an employee protect themselves against EtO Exposure?



- Wear personal protective equipment (goggles, gloves, protective clothing layers, mask)
- Discard clothing that has been degraded by EtO
- Do not eat, drink, or smoke while working with EtO
- See a doctor if you are exposed to EtO to be tested and treated
- Contact OSHA at 1-800-321-6742