

# THE FACTS ABOUT ETHYLENE OXIDE



## What is ethylene oxide?

Ethylene oxide is a versatile compound used to make countless everyday products. Ethylene oxide is used to make household cleaners and personal care items, create fabrics, and manufacture raw materials into more useful forms.



Polyester fibers for upholstery, carpet, pillows, and clothing



Automotive brake fluid, antifreeze, safety glass, and seating



Household and industrial cleaners



Pharmaceuticals and ointments



Cosmetics and shampoos



Sterilization of medical devices, bandages, and food



De-icing solutions

## Product Stewardship



**RESPONSIBLE CARE®**  
OUR COMMITMENT TO SUSTAINABILITY

Companies that make and work with ethylene oxide are actively investing in research and product stewardship technologies so that they can continue to help protect the health of our communities. This starts with the regulations set out by the Environmental Protection Agency and state agencies. But many companies go beyond simply following regulations. They continuously revise and improve their safety practices and procedures. They are making progress in three ways:

- These companies have invested millions of dollars in the research and development of rigorous product stewardship guidelines.
- They use advanced technologies to track emissions and help prevent accidents before they happen, as well as installing technologies that support long-term safety.
- They work together across the industry, sharing best practices for safely producing, shipping, and handling ethylene oxide.

*As a result of these actions, industrial ethylene oxide emissions have already fallen nationwide by over 80% since 2002.*

**Progress has been made, but companies that make and work with ethylene oxide are not stopping there. They are constantly using what they've learned to improve best practices, striving to minimize emissions every day.**

## Emissions Sources are regulated by EPA and OSHA

Sources of ethylene oxide emissions are regulated under U.S. Environmental Protection Agency Maximum Achievable Control Technology (MACT) and Occupational Safety and Health Administration (OSHA) standards. Measures include:

- Requirements for control devices to reduce emissions
- Facility monitoring, including initial performance
- tests Site-specific operating parameters
- Continuous reporting and recordkeeping requirements
- Establishing and implementing written compliance program to reduce worker exposures to or below the OSHA limit

### Flawed EPA Science → Overstated Risk

- EPA's 2014 National Air Toxics Assessment (NATA) used a flawed risk value for ethylene oxide that is not based on the best available science. It vastly overstates risk to communities and workers.
- The risk value is far below levels found in nature. It is 19,000 times lower than the naturally-created levels of ethylene oxide in the human body. And it is far lower than the concentrations found in ambient air in states without ethylene oxide production or use.
- The risk value was generated by EPA's Integrated Risk Information System (IRIS) program, which neglected to consider certain comprehensive, highly relevant studies.
- The National Academies, U.S. Government Accountability Office, Congress, and many in the scientific community have found serious, longstanding problems with the IRIS program.
- ACC's Ethylene Oxide Panel has filed a Request for Correction under the Information Quality Act to EO information used in the 2014 NATA.

*For more information on EO, please visit [www.chemicalsafetyfacts.org](http://www.chemicalsafetyfacts.org)*