

ETHYLENE OXIDE (EO)

Sasol is committed to safety, the environment and the health of our communities.

Air, water and workplace safety and security are all regulated by federal agencies responsible for protecting public health and the environment.

Sasol and the agencies that regulate us have robust safety and management protocols to ensure safe production and handling of EO—protocols that have guided safe operation of Sasol’s EO facilities at the Lake Charles Chemicals Complex for 60 years. Specifically, sources of ethylene oxide emissions are strictly regulated by U.S. Environmental Protection Agency and Occupational Safety and Health Administration (OSHA) standards. Sasol complies with all state and federal regulations at a minimum and in many cases, including for EO, we operate well below our permitted emission allowances.

Measures include:

- Control devices to reduce emissions
- 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



Louisiana
Department of
Environmental Quality
& U.S. Environmental
Protection Agency

Sasol not only complies with regulations, but is committed to continuous improvement

Clean air and a healthy environment are important to all of us, and Sasol is committed to not only zero harm but continuous improvement. Sasol has demonstrated proactive, continuous improvement of our environmental and safety performance over the past two decades. We view compliance as the minimum standard and proactively invest in the latest technology and emission controls. We’ve made a lot of progress and continue to challenge ourselves to be better.

In 2019, Sasol hired a professional testing company to evaluate the actual performance of a vapor combustion unit (VCU) that is part of our EO emissions control system. The test confirmed the destruction efficiency of the VCU was better than Sasol’s emissions calculations, which led to significant overreporting of EO emissions. Sasol has since adjusted its reporting to reflect these findings, and continues to evaluate ways to further reduce emissions.

Ethylene oxide is a versatile chemical building block

EO is primarily used in industrial manufacturing operations to make other chemicals. It is present in the environment and is created by various sources, including plants and cooking oils. The human body also creates EO.

EO and its derivatives help make a variety of products we use every day, including:

- Polyester fibers for clothing and upholstery
- Household and industrial cleaners
- Cosmetics & shampoos
- De-icing solutions
- Automotive brake fluid and antifreeze
- Pharmaceuticals and ointments
- Sterilization of medical devices

