



# Ethylene Oxide



The Global Leader in Comprehensive  
Sterilization Solutions

[sterigenics.com](http://sterigenics.com)

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Based on a gas diffusion process, EO is capable of sterilizing and rendering products free of viable microorganisms. Sterility occurs when an EO gas molecule reacts with and destroys the microbial DNA. The process requires the simultaneous control of four variables, but interdependent parameters: gas concentration, temperature, relative humidity and time of exposure. EO effectiveness depends on its ability to freely diffuse through a product and packaging. All products must be placed in breathable packaging that allows gas to penetrate the sterile barrier and reach all surfaces of the device or product.

## Best Suited for:

EO is considered the sterilization method with the broadest application available for medical products due to its effectiveness at lower temperatures and its general compatibility with a diversity of materials, resins and product types, including:

- Polymer resin-based products
- Single-use medical devices
- Procedure kits
- Surgical trays
- Synthetic gowns
- External terminal sterilization of sealed combination device/drug devices (filled syringes, drug coated stents)

## Key Benefits:

The EO process delivers a wide variety of sterilization benefits including:

**Sterilization at Low Temperatures:** Ensures the integrity of both the product and packaging.

**Product Compatibility:** Effectively sterilizes a broad range of polymers, resins, natural materials and metals as well as dual drug/ device combination products that require external contact surface sterilization.

**Sterility Assurance and Treatment Efficacy:** Consistently meets product and regulatory requirements.

**Flexibility and Versatility:** Effectively sterilizes a wide range of products with different variations in densities and packaging/box configurations.

**Parametric Release:** Allows for the release of products directly after processing which results in fast turn times to help get product to market rapidly.

## Ethylene Oxide Facilities



NORTH & CENTRAL  
AMERICA



EUROPE



ASIA

## Comprehensive Sterilization Solutions

We are over 1600 engineers, scientists, safety specialists and solution providers focused on eliminating threats to the health of humanity. We have global breadth and more than 90 years of deep expertise across Gamma, EO, E-Beam and X-ray sterilization. Our operations span 47 facilities in 13 countries to ensure we are the "point of safe" for our customers.

**Safeguarding Global Health™ – with every product we sterilize.**



**Sterigenics®**

A Sotera Health company

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