

ETHYLENE OXIDE

A Critical Building Block for the Cleaning Industry



Ethylene oxide (EO) is a versatile building block of chemistry. It helps make many of the products we use every day, such as plastics, safety glass, adhesives, and textiles.

One area where ethylene oxide is used is in the cleaning industry in the U.S.



How is it used?

A major role of ethylene oxide is in the production of surfactants and emulsifiers used for cleaning and disinfecting.

- ✔ Ethylene oxide-based surfactants are the workhorse of the cleaning industry. The surfactants are key ingredients in many cleaners used in hospitals, cafeterias, hotels, and restaurants. EO-based surfactants are also used for transportation cleaning such as car washes and cleaning planes and trains.
- ✔ Ethanolamines are a family of ethylene oxide derivatives that work as ingredients in cleaning and personal care products, such as soaps, laundry detergents, surface cleaners, creams, and disinfecting products. EO derivatives include monoethanolamine (MEA) and diethanolamine (DEA). MEA is a common ingredient in floor tile cleaners and laundry detergents to help remove dirt, grease, and stains. DEA is an ingredient in engine degreasers and industrial strength detergents. It is also used to create a cleansing foam in bath products like shampoos and hand soaps.¹
- ✔ Other ethylene oxide derivatives include alcohol ethoxylates, alcohol ether sulfates, and polyethylene glycols. Cleaning products include all-purpose cleaners, glass/window care cleaners, laundry detergents, hard surface cleaners, dishwashing detergents, degreasers, floor polishes, and stain removers.
- ✔ The demands on our nation's cleaning and sanitizing sector continue to grow, and overly conservative restrictions on the production of ethylene oxide could put the needs of the \$57.4 billion cleaning industry and 695,700 jobs² at risk.
- ✔ Our member companies are dedicated to the responsible manufacture and use of ethylene oxide, and we support strong, science-based regulation of this important chemistry.

¹ [Chemical Safety Facts – Ethanolamines](#)

² [American Cleaning Institute](#)

