Ethylene Oxide

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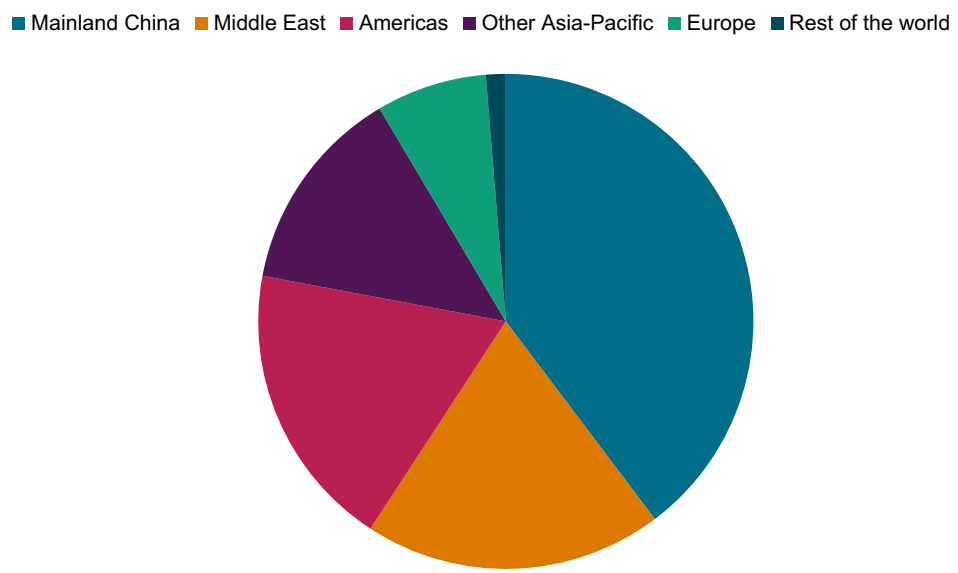
Abstract

Ethylene oxide (EO) is a basic chemical primarily produced by the catalytic oxidation of ethylene. EO is a chemical intermediate that cannot be directly used and is further reacted to produce a wide spectrum of products. Ethylene glycols (mono-, di- and triethylene glycol) constitute by far the single-largest outlet for ethylene oxide, accounting for 70% of the EO market in 2024. Other dominant end uses include higher-value derivatives such as ethoxylates, ethanolamines, glycol ethers, polyethylene glycol and polyether polyols.

World consumption of ethylene oxide (EO) — 2024



Data compiled Jan. 21, 2025.
Source: S&P Global Commodity Insights.

S&P Global
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Between the late 1990s and the late 2000s, North America lost significant momentum on the back of new large-scale EO capacity commissioned in the Middle East and mainland China. In the United States, EO/EG producers lost their competitive edge because of higher raw material costs and aging production units.

The advent of shale gas production in the region has changed the fate of the US and North American petrochemical industry. Natural gas liquids coproduced along with natural gas (ethane and propane, essentially) are now competitively priced feedstock readily available for the petrochemical industry. As a result, the new petrochemical project pipeline has significantly picked up in North America and the region added significant capacity during the last five years.

World consumption of EO is dominated by mainland China. During the forecast period to 2029, mainland China will continue to dominate worldwide consumption, but upcoming capacity expansion and large-scale EO/EG projects in mainland China, the Middle East and Southern Asia will help boost demand through 2029.

For more detailed information, see the table of contents, shown below.

S&P Global's Chemical Economics Handbook – *Ethylene Oxide* is the comprehensive and trusted guide for anyone seeking information on this industry. This latest report details global and regional information, including


Global summary; regional coverage


Producers with annual capacities and plant sites


Production figures and trends


Consumption and forecasts by end use application


Manufacturing processes and environmental issues


Trade – imports and exports

Key benefits

S&P Global's Chemical Economics Handbook – *Ethylene Oxide* has been compiled using primary interviews with key suppliers and organizations, and leading representatives from the industry in combination with S&P Global's unparalleled access to upstream and downstream market intelligence and expert insights into industry dynamics, trade and economics.

This report can help you

– Identify trends and driving forces influencing chemical markets

– Forecast and plan for future demand

– Understand the impact of competing materials

– Identify and evaluate potential customers and competitors

– Evaluate producers

– Track changing prices and trade movements

– Analyze the impact of feedstocks, regulations and other factors on chemical profitability

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