Phenol

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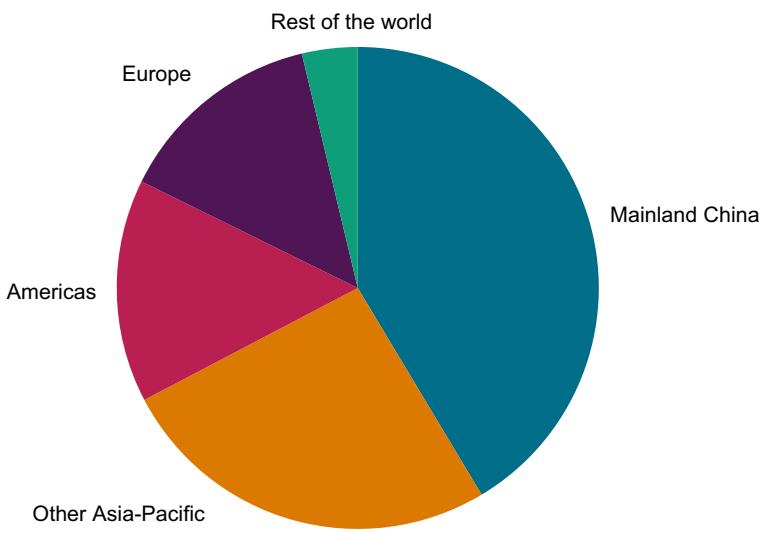
Abstract

Phenol is an aromatic organic compound derived from benzene that is produced naturally and synthesized as a manufactured, high-volume chemical. It is predominantly used in the production of bisphenol A (BPA), which accounts for over half of phenol consumption worldwide; in turn, BPA is the precursor for notable plastics such as polycarbonate and epoxy resins. Phenol is also utilized in the production of phenolic resins, which rely heavily on the construction industry, as well as in the production of caprolactam, which is used in the manufacture of nylon 6 and other synthetic fibers. Smaller end uses from phenol include alkylphenol and polyphenol oxidase (PPO)/ortho-xylenol.

World consumption of phenol — 2024



Data compiled March 4, 2025.
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Global phenol demand amounted to over 12 million metric tons in 2024, growing 1.7% per year over the last five years. BPA is the leading demand driver, representing over half of global phenol consumption in 2024, with major end-use markets in polycarbonate and epoxy resins. Global phenol demand is led by Asia, accounting for more than half of total consumption.

The global phenol market is driven predominantly by demand for BPA. In turn, consumption of BPA is driven by demand for polycarbonate products, growth for which has been consistently above the GDP rate historically and is expected to remain so for the future. Polycarbonate is mostly used in the automotive, original equipment manufacture (OEM), construction, optical media and appliance industries. It usually competes with glass and acrylic resins in glazing/sheet, along with acrylonitrile-butadiene-styrene (ABS) resins in appliances and power tools. Consumption of BPA is also influenced by demand for epoxy resins. The majority of epoxy resins is produced to make surface coatings, rigid printed circuit boards and adhesives. Consumption of epoxy resin is dependent on OEM and automotive production, and construction and remodeling activity.

The second-largest end use for phenol remains phenol-formaldehyde resins, demand for which relies heavily on the construction industry. Mainland China will continue to lead growth in phenol demand as more downstream capacity is added to meet the strong demand growth from the automotive, consumer and construction sectors.

Nylon-KA oil is the third-largest market for phenol, but has been the fastest-growing application over the last five years,

Demand for BPA, phenol-formaldehyde resins and other markets for phenol is greatly influenced by general economic conditions. As a result, consumption of phenol largely follows the patterns of the leading world economies.

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

S&P Global's Chemical Economics Handbook — *Phenol* 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 — *Phenol* 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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