

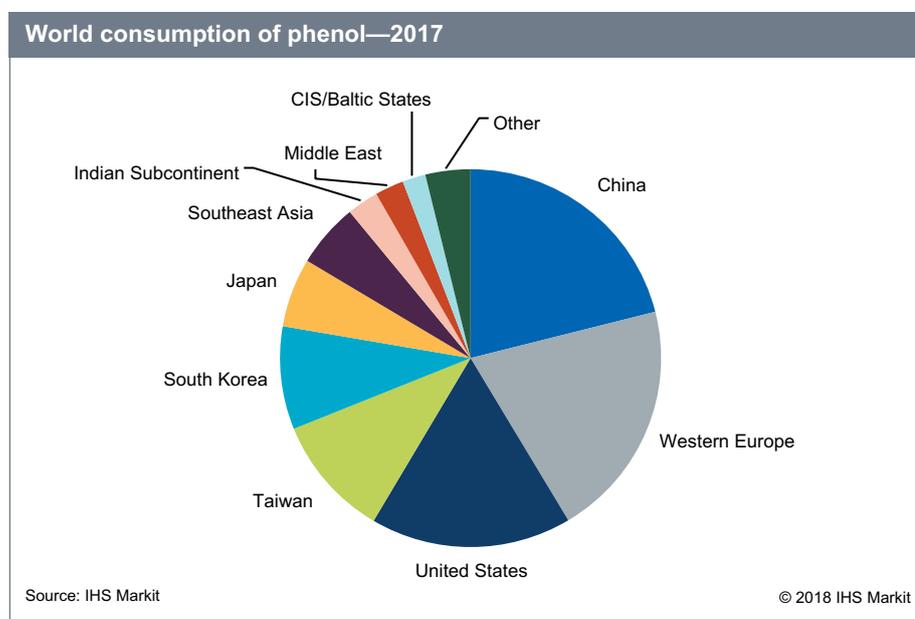
Phenol

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Abstract

The global phenolic industry has undergone some key changes over the last few years. During 2012–17, a very large amount of phenol capacity was brought online in Asia and the Middle East, resulting in decreased operating rates and an oversupplied market. Additionally, rationalization has been limited and demand growth has been modest. Nevertheless, 2017 proved to be a more promising year for many producers in the phenol chain. Anticipated capacity additions in 2017 were all significantly delayed; this helped improve the operating rates of existing plants across the world. Furthermore, phenol downstream demand was also strong in 2017, driven by exceptional growth in the nylon chain, rising demand for bisphenol A (BPA), and growth in demand for phenolic resins. However, demand will not outpace global economic growth until 2022, with more supply being added in 2018 and from 2020 onwards. These additions will be mainly in Northeast Asia, thus keeping the cumene and phenol market balanced.

The following pie chart shows world consumption of phenol:



The global phenol market is driven predominantly by demand for BPA, which accounts for nearly half of global phenol consumption. In turn, consumption of BPA is driven by demand for polycarbonate products, the growth of which has been consistently above the GDP rate historically and expected to remain so for the future. Polycarbonate is mostly used in the automotive, 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 and in appliances and power tools. Consumption of BPA is also influenced by demand for epoxy resins. The majority of epoxy resins are produced to make surface coatings,

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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. China will continue to lead the growth in phenol demand as more downstream capacity is added because of 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.

The strongest consumption growth is in Northeast Asia, especially China. Growth in North America and Western Europe is either stagnant or low, while growth in South America will be strong, but from a small base.

The Middle East will have strong consumption growth, driven by production of BPA, which is being produced primarily for export to other regions.

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