

# Industrial Phosphates

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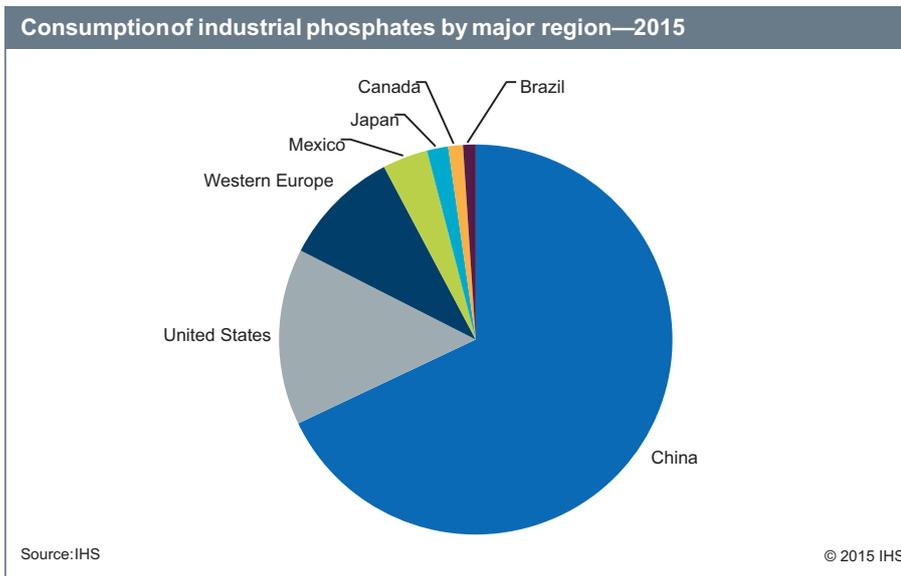
## Abstract

The industrial phosphate market is a minor but important segment of the total phosphate market. Fertilizer and feed are the major outlets for phosphates. Industrial phosphates are used in a broad range of end uses including food, detergents, personal hygiene, and construction and account for only around 6–8% of global phosphate consumption.

Driven largely by population growth, phosphates have also benefited from economic growth and improved standards of living in developing regions, which has also contributed to increasing demand for phosphate products.

Detergents, which used to be the largest end use for industrial phosphates, have been affected by environmental pressure, and consumption has declined significantly. Producers are focusing on creating new markets in food and horticultural applications to counter the decrease in demand from the detergent industry.

The following pie chart shows consumption of industrial phosphates by major region:



Since the global economic crisis, the industrial phosphates markets have experienced steady growth. Raw material price spikes and supply shortages that hindered recovery during 2009–10 were eased by slightly weakened global demand and capacity additions through 2012. Capacity rationalization and consolidation in Europe and the Americas has likewise helped stabilize the market, allowing some global producers to increase profits through forward integration into higher-value derivatives.

## Contacts

### Koon-Ling Ring

Koon-Ling.ring@ihs.com

### Maria deGuzman

Maria.deguzman@ihs.com

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In China, where most capacity is based on the thermal acid process, higher energy costs have had an impact on the price of exports. During 2000–15, phosphoric acid exports increased at an average annual rate of 10.8%. A decrease in exports is expected during 2015–20, unless additional investments in wet-process acid capacity are made. Ma'aden Phosphate Company's expansion in Saudi Arabia, due onstream sometime in 2016, is likely to cut into China's global exports of both industrial phosphoric acid and STPP. In addition, it is likely to draw down pricing, particularly given current STTP consumption trends.

Environmental concerns will continue to have a strong influence on phosphate demand in detergents in much of the world. In Western Europe and North America, legislation reducing phosphate content in automatic dishwashing detergents has led to further declines in recent years. Sodium phosphates' rapid contraction is expected to stabilize, however, as producers have begun to identify new markets in food, horticulture, and water treatment applications. In addition, phosphate builders still account for a considerable portion of detergent segments in regions where bans do not currently exist and in industrial and institutional cleaners, where greater cleaning effectiveness is required.

Industrial phosphates are growing faster in developing markets such as Latin America and Asia, where demand for convenience foods and beverages, ready-to-use baking mixes, packaged meat, and seafood products is increasing as a result of a rapidly expanding middle class. Globally, calcium and potassium phosphates will experience above-average gains in fortification of food and beverages. In addition, use in electronics, specifically in the production of lithium ion-phosphate batteries used in devices and electric vehicles, has begun to increase and promises considerable growth opportunities. Overall, consumption of industrial phosphates is expected to increase worldwide in line with average gross domestic product growth.

In Europe, Japan, and the United States, a decrease in the detergent segment and moderate growth in other applications is expected, whereas for China, South America, the Middle East, and India, growth is expected to be healthy, driven by increasing use of phosphate-based detergents in those regions.

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**IHS Customer Care:**

Americas: +1 800 IHS CARE (+1 800 447 2273); CustomerCare@ihs.com  
Europe, Middle East, and Africa: +44 (0) 1344 328 300; Customer.Support@ihs.com  
Asia and the Pacific Rim: +604 291 3600; SupportAPAC@ihs.com

