

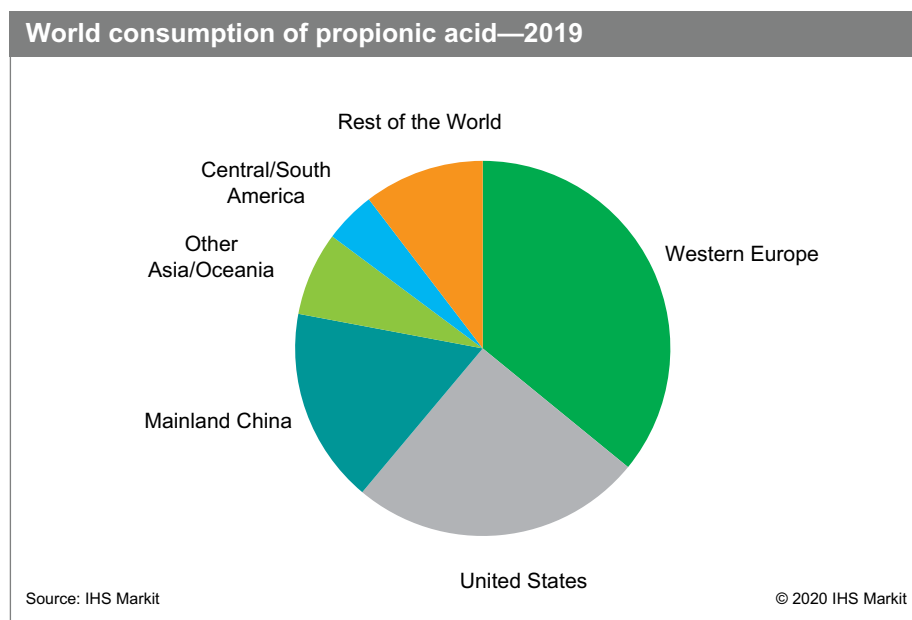
# Propionic Acid

15 April 2020

## Abstract

With only six major producers worldwide, the propionic acid business can be considered a global one, with trade playing a significant role in the global supply/demand pattern. Production capacity is geographically concentrated in Western Europe, the United States, and to a minor extent, in China, and is largely managed by western firms. BASF is the only western producer operating a facility in Asia via its 50% subsidiary BASF-YPC. The propionic acid business is characterized by a high level of integration and most manufacturers produce propionic acid as well as its raw materials—either ethylene or propionaldehyde, or both. Ethylene is the major factor determining the price of propionic acid and can account for up to 80% of the final production cost.

The following pie chart shows world consumption of propionic acid:



Animal feed and grain preservation account for roughly half of the propionic acid consumed worldwide. Propionic acid, or a buffered solution with ammonium salt, is added to animal feed to prevent the growth of mold (acquired as contaminants in the field or during storage). In general, usage depends on the moisture level of the feed, the storage time, and the type of livestock, with ruminants showing a higher tolerance compared with poultry and pigs.

About another third of the propionic acid consumed is used in the manufacture of calcium and sodium propionates. Calcium and sodium propionates are permitted additives for both food and feed preservation. The use of calcium and sodium propionates in food is growing fast in India, mainland China, and the Middle East, as well as in South America. This

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is also driving propionic acid consumption in Western Europe and North America, as these countries are major producers and exporters of the propionate salts.

Other significant end uses of propionic acids are in the manufacture of herbicides and diethyl ketone, while smaller-volume applications include cellulose acetate propionate, solvent esters, flavors and fragrances, and plasticizers.

The global market for propionic acid has been growing at an average annual rate of around 3% during the past three years and this is expected to continue during 2019–24. Consumption for food and feed preservatives, especially in Asia and South America, will be the major driver of this growth. In these regions, improving standards of living and the increasing popularity of processed food are supporting the use of propionate salts in food. Furthermore, increasing demand for meat in developing countries as well as the trend toward industrialized farming will also drive the use of propionic acid in feed applications. Other fast-growing markets include propionate esters for solvents, such as n-butyl and pentyl propionate; these esters are increasingly being used as replacements for solvents listed as hazardous air pollutants.

Thanks to recent capacity expansion in China and in the United States, the market is presently adequately supplied. However, capacity additions might become necessary in the future, depending on the demand development of other carboxylic acids that share the same multiproduct oxidation units with propionic acid.

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

**IHS Markit's Chemical Economics Handbook – *Propionic Acid*** 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

**IHS Markit's Chemical Economics Handbook – *Propionic Acid*** has been compiled using primary interviews with key suppliers and organizations, and leading representatives from the industry in combination with IHS Markit'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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