

# Butylenes

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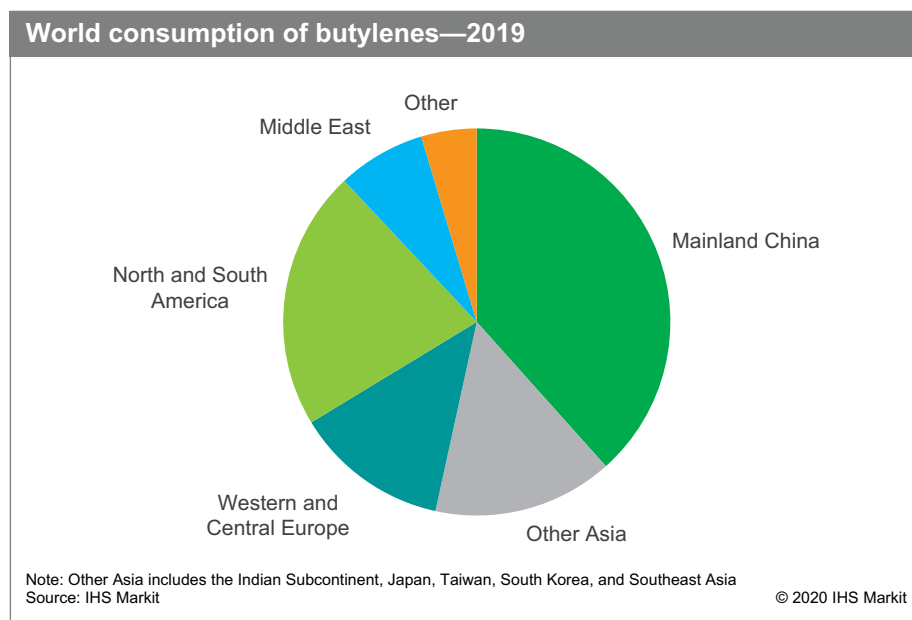
## Abstract

Butylenes, also referred to as butenes, are four-carbon mono-olefins that are produced in various hydrocarbon processes, principally catalytic cracking in refineries and steam cracking in olefins plants. These processes yield isomeric mixtures of butene-1, cis- and trans-butene-2, and isobutylene. Butylenes for chemical feedstock are diverted from streams with the appropriate isomer content. Both isomer and purity requirements for chemical production vary depending on the intended application. Derivatives of butylenes range from polygas chemicals and methyl tertiary-butyl ether (MTBE)—where crude butylenes streams may be used—to polybutene-1 and linear low-density polyethylene (LLDPE), which require high-purity butene-1.

In addition, isobutylene is produced from isobutanes, which are produced primarily from natural gas processing and, to a much lesser extent, refinery operations. Normal butylene is not produced from isobutanes. All other applications produce only normal butylenes.

In 2019, the fuel market accounted for nearly 80% of the total world consumption of butylenes, with chemical usage accounting for the remainder. The major fuel application is in the manufacture of gasoline blending components, such as gasoline alkylate and methyl tertiary-butyl ether (MTBE) and ethyl tertiary-butyl ether (ETBE), which are used as octane improvers in fuel applications.

The following pie chart shows world consumption of butylenes:



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Overall, the consumption of butylenes is forecast to increase moderately during 2019–24, led by chemical use.

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

**IHS Markit's Chemical Economics Handbook – *Butylenes*** 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 – *Butylenes*** 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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