

# Overview of the Specialty Chemicals Industry

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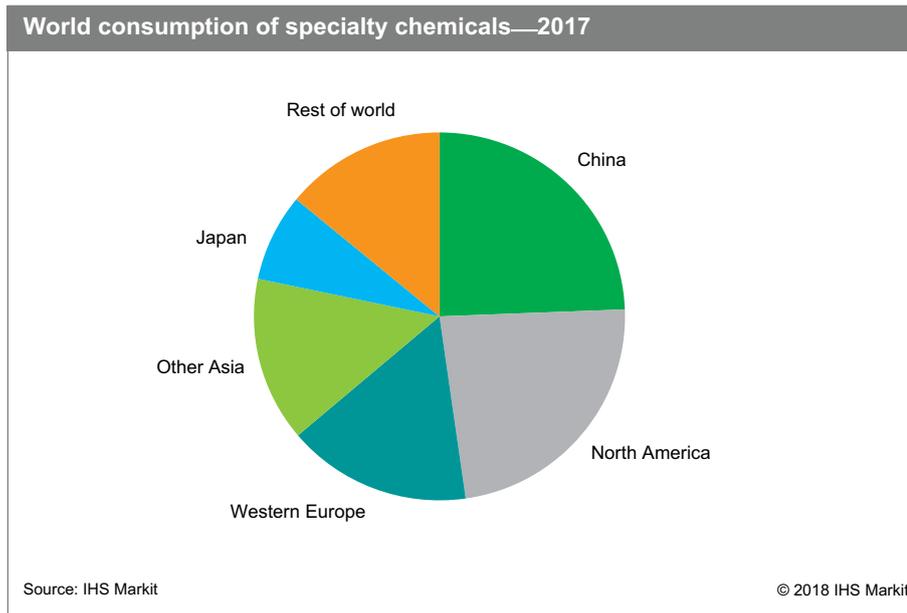
## Abstract

Specialty chemicals are produced by a complex, interlinked industry. In the strictest sense, specialty chemicals are chemical products that are sold on the basis of their performance or function, rather than their composition. They can be single-chemical entities or formulations whose composition sharply influences the performance and processing of the customer's product. Products and services in the specialty chemicals industry require intensive knowledge and ongoing innovation.

Commodity chemicals, on the other hand, are sold strictly on the basis of their chemical composition. They are single-chemical entities. The commodity chemical product of one supplier is generally readily interchangeable with that of any other.

This report covers 29 specialty chemical segments, which are categorized either as market-oriented products (used by a specific industry or market, such as electronic chemicals or oil field chemicals) or functional products (groups of products that serve the same function, such as adhesives, antioxidants, or biocides).

The following pie chart shows the specialty chemicals market share held by each major region in 2017, on a value basis:



In 2017, the world's five largest specialty chemicals segments—industrial and institutional cleaners, specialty polymers, electronic chemicals, surfactants, and flavors and fragrances—had a market share of 35%; the 10 largest segments

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accounted for 63% of total annual specialty chemicals sales. Each specialty chemicals business segment comprises several subsegments, each with individualized product, market, and competitive profiles.

Several specialty chemicals segments are projected to increase faster than the average annual growth forecast for all specialty chemicals during 2017–22. Growth prospects for some of these segments—notably electronic chemicals, nutraceutical ingredients, and oil field chemicals—are favorable because of the positive outlook for the corresponding end-use industries. Oil field chemicals are once again growing thanks to a recovery in crude oil prices. Segments such as nutraceuticals, cosmetic chemicals, and flavors and fragrances owe their auspicious prospects to rising levels of disposable income in the developing world and consumer spending in North America, Western Europe, and Japan.

For decades, the markets for specialty chemicals were located predominantly in the developed regions of North America, Western Europe, and Japan. Driven largely by innovation, both production and consumption were concentrated in those regions. With the rise of China as an economic powerhouse and the Middle East seeking to expand its value chain into higher-valued products, these traditional specialty chemical markets have come under pressure in the past 20 years. This trend was accelerated by the financial downturn of 2008–09. While the markets for some specialty chemicals, such as automotive and construction materials, strongly declined in the developed regions, Middle Eastern and Chinese enterprises aggressively expanded into value-added specialties, often with government backing.

The specialty chemicals business continues to transition. North American, Western European, and Japanese firms still dominate this business, but no longer to the same degree. With trade liberalization, the spread of process technology, the breakdown of numerous economic barriers, the rapid growth of the newly industrialized Asian economies, and rising standards of living in many developing countries, the center of gravity of the global chemical industry is shifting toward the Middle East, where cheap petrochemical feedstocks are available, and Asia, where labor costs remain relatively low and economic growth is high.

Many North American, European, and Japanese specialty chemical producers have established manufacturing facilities in Asia and elsewhere, and at the same time, Chinese and Indian manufacturers have become key players in several specialty chemical markets. However, the concept of China as a low-cost producer is gone, because the country is shifting from an export focus to meet growing domestic needs for higher-value, downstream products. As competition increases and mature products become commoditized, innovation remains one of the few sources of competitive advantage.

In today's world, chemical companies are focusing on innovation, sustainability, and competitiveness. Leading specialty chemical companies are clearly engaging in sustainability and green chemistry, such as improved raw material supply and reduced carbon footprint. They want sustainability as part of their message, to be seen as leaders, and to use sustainability to differentiate themselves in their product design and marketing. The world's rapid consumption of its natural resources represents a huge societal and economic challenge related to water, energy, food, and living standards. Therefore, sustainability is expected to become more and more a driver for successful business, while innovation is seen as the engine that determines progress in the sustainability area.

During 2017–22, the consumption of specialty chemicals by volume is expected to increase at 3.0–3.5% annually on a global basis. The specialty chemicals markets in North America, Western Europe, and Japan are relatively mature and their combined consumption will grow more slowly. Growth in emerging markets will be much higher. In particular, China, which became the largest market for specialty chemicals in 2017, will have the highest growth rate of all regions during the next five years. China is currently experiencing some economic setbacks and the forecast of consumption for specialty chemicals has been downgraded slightly from the historical 8–9% per year. Nevertheless, the country will continue to power the growth of global specialty chemicals during the next five years. In general, the emerging markets offer more dynamic prospects for the specialty chemicals industry because of rising consumer-driven economies and industrialization.

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