

Cysteine - Market Share Analysis, Industry Trends & Statistics, Growth Forecasts (2025 - 2030)

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Report description:

The Cysteine Market size is estimated at 11.65 kilotons in 2025, and is expected to reach 14.88 kilotons by 2030, at a CAGR of greater than 5% during the forecast period (2025-2030).

The cysteine market was hampered due to COVID-19. Lockdowns, restrictions, and economic uncertainties led to shifts in consumer behavior and affected various industries, influencing the demand for cysteine-derived products. However, the conditions started recovering in 2021, which is expected to restore the market's growth during the forecast period.

Key Highlights

- The increasing demand from the bakery and pharmaceutical industry is likely to stimulate the cysteine market globally, during the forecast period.
- However, increasing concerns related to animal-sourced cysteine, and the harmful effects of cysteine on the human body are expected to hamper the cysteine market.
- The development of palladium reagents for cysteine S-arylation and the development of cysteine derivatives for the treatment of various conditions is expected to provide an opportunity for market growth in the upcoming period.
- Asia-Pacific, with the largest consumption from India, is expected to dominate the cysteine market.

Cysteine Market Trends

Food Industry to Dominate the Market

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- In the bakery sector, Cysteine serves as a dough conditioner, aiding in the process of disrupting disulfide bonds within gluten. It helps improve the elasticity and texture of dough, resulting in softer bread, cakes, and pastries. The accepted usage of cysteine is up to 0.009 part L-cysteine, per 100 parts of flour when used as a dough strengthener.
- Moreover, according to the American Bakers Association, the American bakery industry has USD 186 billion of overall economic impact.
- Also, India is the second-largest manufacturer of biscuits, after the United States. In India, the bakery industry is witnessing noticeable growth and is all set to witness a boom in flavors for catering to customers' taste buds. For instance, according to Invest India, the average annual growth rate of the food processing sector in India has been 11.18% in the last five years.
- The trends of fusion and Indo-western flavors are at their peak in India. For instance, bakeries are focusing on blending Indian flavors with French desserts.
- Furthermore, according to the Statistics Bureau of Japan, Ministry of Internal Affairs and Communications (Japan), the average monthly household expenditure on confectionery food items was JPY 5,410 (~USD 36.71) in 2022.
- All such trends in the food industry are driving the demand for flavors, which is further expected to increase the demand for cysteine from the flavor producing companies.
- Hence, with increasing demand for dough conditioning application, along with other applications, the cysteine demand has been growing from the bakery industry.

Asia-Pacific Region to Dominate the Market

- The Asia-Pacific region dominated the global market. With the growing bakery market of large countries, like China and India, the cysteine market is likely to grow during the forecast period.
- China is the largest producer of L-cysteine, globally. The country follows the traditional method of producing cysteine from duck feathers and human hair. The traditional process starts with the boiling of feathers or hair in concentrated hydrochloric acid and activated carbon, followed by the process of electrolysis.
- According to the National Bureau of Statistics of China, the food service industry generated revenue of Yuan 502.94 billion (USD 70.98 billion) from full-service restaurants, and Yuan 157.82 billion (USD 22.24 billion) from fast-food restaurants in 2022. This witnessed the growth of the food industry in China.
- Moreover, the availability of cysteine is essential for the production of animal feed using smaller quantities of protein-rich raw materials.
- China's animal feed production industry is the largest industry in the world. According to the China Feed Industry Association (CFIA) report, in 2022, 302.2 MMT of feed was produced. Also, several new investments are expected to come up in the coming years, which may positively influence the demand for cysteine in the market.
- Furthermore, according to Invest India, the Indian food processing sector is expected to reach USD 535 billion, growing at a CAGR of 15.2 % by 2025 which is further expected to increase the demand for cysteine in Asia Pacific region.

Cysteine Industry Overview

The global cysteine market is a consolidated market, where top 5 players account for majority of the market share. The major players (not in any particular order) include CJ CheilJedang Corp., Wacker Chemie AG, Merck KGaA, Ajinomoto Co. Ltd, and Nippon Rika Co. Ltd, among others.

Additional Benefits:

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- The market estimate (ME) sheet in Excel format
- 3 months of analyst support

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