+357 96 030922
info@marketpublishers.com

Industrial Enzymes Market - Global Industry Size, Share, Trends, Opportunity, and Forecast, Segmented By Type (Carbohydrases, Proteases, Lipases, Phytases, Others), By Source (Microbes, Plants, Animals), By Application (Food & Beverages, Nutraceuticals & Pharmaceuticals, Animal Feed, Others), By Region and Competition, 2020-2030F

https://marketpublishers.com/r/I653E65D18CBEN.html
Date: August 2025
Pages: 188
Price: US$ 4,500.00 (Single User License)
ID: I653E65D18CBEN

Abstracts

Market Overview

Global Industrial Enzymes Market was valued at USD 7.92 billion in 2024 and is expected to reach USD 12.09 billion in the forecast period with a CAGR of 7.27% through 2030. The global industrial enzymes market is witnessing significant growth driven by increasing demand from key end-use industries such as food & beverages, biofuels, animal feed, and textiles. Enzymes are increasingly being adopted due to their eco-friendly and cost-effective nature, helping manufacturers achieve higher efficiency with reduced energy consumption. The rise in consumer awareness around sustainability and the shift toward green chemistry are further accelerating the adoption of enzymes in industrial processes.

In the food and beverage sector, enzymes play a vital role in enhancing product quality, improving shelf-life, and ensuring consistent production. They are widely used in baking, dairy, brewing, and starch processing. The growing global population and rising demand for processed and packaged food products are expected to sustain enzyme consumption in this sector. Furthermore, regulatory support for enzyme use in food processing and the trend of clean-label ingredients are positively influencing the market trajectory.

+357 96 030922
info@marketpublishers.com

Key Market Drivers

Increasing Use in Food and Beverage Sector

Enzymes have become indispensable in modern food and beverage production. A 2024 report showed that over 90% of commercial bread products now incorporate amylases and proteases to enhance texture, shelf life, and baking efficiency. These biocatalysts allow manufacturers to deliver consistent quality while meeting consumer demand for fresher, softer bread. With global bakery consumption rising up nearly 8% year-over-year the reliance on enzymes has surged, making them a cornerstone in bakery innovation and scale up operations.

In dairy and cheese processing, tailored enzyme blends are improving yield and flavor profiles. By 2023, enzyme-assisted lactose reduction rose by 28%, enabling manufacturers to enter the growing lactose-free market. Meanwhile, the use of proteases for cheese maturation increased by more than 15% across Europe, reflecting rising demand for premium cheeses with rich textures. This enzyme-driven shift boosts efficiency by cutting aging time and minimizing whey waste—helping producers reduce both costs and environmental impact while satisfying consumer cravings for specialty, artisanal dairy products.

The convenience and processed foods segment continues to drive enzyme adoption at scale. For instance, fruit juice producers report that pectinase and cellulase enzyme use rose by 20% in 2023 to clarify juices faster and improve yields. In beverage fermentation, enzymes reduced processing time by up to 30%, accelerating production cycles. These technologies also support clean label initiatives, as enzymes replace synthetic clarifiers or preservatives. Consumers now expect transparency in ingredients, and enzyme-based clarification delivers exactly that—natural, minimal additive beverages with cleaner labels and better taste.

Furthermore, advances in enzyme engineering are enabling more resilient and efficient applications. In 2024, heat-stable amylase variants achieved a 35% higher starch conversion rate during high-temperature processing in Asian markets. Similarly, cold-active lipases now enable dairy and plant-based producers to operate at lower temperatures, reducing energy consumption by up to 25%. These innovations exemplify how engineered enzymes enhance both sustainability and productivity, helping food and beverage manufacturers meet regulatory pressure, lower carbon footprints, and respond to evolving consumer expectations for greener, cleaner, and more efficient

+357 96 030922
info@marketpublishers.com

products.

Key Market Challenges

Regulatory Complexities

Regulatory complexities form a significant barrier in the global industrial enzymes market, particularly when enzymes are intended for use in food, feed, pharmaceuticals, and personal care products. Each region imposes its own stringent safety and quality standards. For instance, while the U.S. requires GRAS (Generally Recognized As Safe) status for food enzymes, the European Food Safety Authority (EFSA) follows a separate approval mechanism based on extensive dossiers and safety assessments. These differing frameworks complicate international commercialization, often requiring companies to conduct redundant and costly studies to satisfy multiple agencies. The approval process can span months or even years, delaying time-to-market and discouraging small or mid-sized enzyme manufacturers from entering or expanding into new territories. Additionally, inconsistent labelling regulations further complicate global trade, especially in sectors like beverages or supplements where ingredient transparency is becoming increasingly important.

Moreover, the use of genetically modified organisms (GMOs) in enzyme production adds another layer of regulatory and market resistance. While recombinant DNA technology enhances enzyme yield and efficiency, public and governmental attitudes toward GMOs vary widely across countries. In the EU, for example, GMO-derived enzymes must undergo a separate and often more rigorous risk assessment, making the process time-consuming and unpredictable. Countries like India and Japan impose additional import restrictions and compliance protocols for GMO-derived substances. Even when technically approved, consumer skepticism and demand for “natural” labels can restrict product acceptance. These regulatory and perceptual challenges not only inflate compliance costs but also create strategic uncertainty for enzyme producers navigating global markets, especially those reliant on biotech-driven innovation.

Key Market Trends

Rise in Demand for Eco-Friendly and Sustainable Solutions

A major trend shaping the global industrial enzymes market is the growing emphasis on eco-friendly and sustainable manufacturing practices. Enzymes serve as natural biocatalysts, enabling chemical reactions to occur under milder conditions—reducing the

+357 96 030922
info@marketpublishers.com

need for extreme heat, pressure, or synthetic chemicals. This translates into lower energy consumption, minimal hazardous waste generation, and reduced carbon emissions. Industries such as detergents, textiles, paper & pulp, and leather are increasingly adopting enzyme-based alternatives to replace harsh chemicals like chlorine bleach or sulfur-based compounds. With tightening environmental regulations and rising consumer demand for greener products, companies are turning to enzymes as a key strategy for cleaner production. Additionally, the biodegradability of enzymes ensures that they do not accumulate in the environment, making them ideal for circular economy models. This sustainability-driven trend is further reinforced by corporate ESG goals and national decarbonization efforts across global economies.

Key Market Players

BASF SE

Novozymes A/S

Danisco A/S

Novus International, Inc.

Associated British Foods Plc

Chr. Hansen Holding A/S

Lesaffre SA

Bluestar Adisseo Co.

Kerry Group PLC

Enzyme Development Corporation

Report Scope:

In this report, global industrial enzymes market has been segmented into following categories, in addition to the industry trends which have also been detailed below:

+357 96 030922
info@marketpublishers.com

Industrial enzymes Market, By Type:

- Carbohydrases
- Proteases
- Lipases
- Phytases
- Others

Industrial enzymes Market, By Source:

- Microbes
- Plants
- Animals

Industrial enzymes Market, By Application:

- Food & Beverages
- Nutraceuticals & Pharmaceuticals
- Animal Feed
- Others

Industrial enzymes Market, By Region:

- North America
  - United States
  - Canada
  - Mexico

+357 96 030922
info@marketpublishers.com

- Europe
  - France
  - United Kingdom
  - Italy
  - Germany
  - Spain
- Asia-Pacific
  - China
  - India
  - Japan
  - Australia
  - South Korea
- South America
  - Brazil
  - Argentina
  - Colombia
- Middle East & Africa
  - South Africa
  - Saudi Arabia

+357 96 030922
info@marketpublishers.com

UAE

Kuwait

Turkey

Egypt

Competitive Landscape

Company Profiles: Detailed analysis of the major companies present in global industrial enzymes market.

Available Customizations:

With the given market data, TechSci Research offers customizations according to a company's specific needs. The following customization options are available for the report:

Company Information

Detailed analysis and profiling of additional market players (up to five).

+357 96 030922
info@marketpublishers.com

Contents

+357 96 030922
info@marketpublishers.com

5. NORTH AMERICA INDUSTRIAL ENZYMES MARKET OUTLOOK

+357 96 030922
info@marketpublishers.com

6. EUROPE INDUSTRIAL ENZYMES MARKET OUTLOOK

+357 96 030922
info@marketpublishers.com

7. ASIA-PACIFIC INDUSTRIAL ENZYMES MARKET OUTLOOK

+357 96 030922
info@marketpublishers.com

8. SOUTH AMERICA INDUSTRIAL ENZYMES MARKET OUTLOOK

+357 96 030922
info@marketpublishers.com

9. MIDDLE EAST AND AFRICA INDUSTRIAL ENZYMES MARKET OUTLOOK

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

I would like to order

Product name: Industrial Enzymes Market - Global Industry Size, Share, Trends, Opportunity, and Forecast, Segmented By Type (Carbohydrases, Proteases, Lipases, Phytases, Others), By Source (Microbes, Plants, Animals), By Application (Food & Beverages, Nutraceuticals & Pharmaceuticals, Animal Feed, Others), By Region and Competition, 2020-2030F

Product link: https://marketpublishers.com/r/I653E65D18CBEN.html

Price: US$ 4,500.00 (Single User License / Electronic Delivery)

If you want to order Corporate License or Hard Copy, please, contact our Customer Service:
info@marketpublishers.com

Payment

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page https://marketpublishers.com/r/I653E65D18CBEN.html