

# Enzymes Market to Exceed USD 77.1 Bn by 2034, Growing at 7.5% CAGR on Rising Demand for Sustainable Additive & Packaging

Enzymes Market to hit US\$ 77.1 Bn by 2034 at 7.5% CAGR, driven by rising demand for sustainable additives and eco-friendly packaging solutions.

WILMINGTON, DE, UNITED STATES, August 18, 2025 /EINPresswire.com/ -- The global enzymes market was valued at US\$ 10.9 Billion in 2023. The industry is projected to grow at a CAGR of 7.5% from 2024 to 2034 and is expected to reach US\$ 77.1 Billion by the end of 2034.



## Growth is being fueled by rising

investments in enzyme-based additives, advancements in sustainable food packaging solutions, and ongoing R&D to enhance enzyme stability and activity. Enzymes continue to offer significant advantages over traditional chemical catalysts, enabling lower operational costs and reduced environmental impact.

For detailed insights and a Sample report, Request access today!

https://www.transparencymarketresearch.com/sample/sample.php?flag=S&rep\_id=481

# Analyst Viewpoint

Increasing investment in the production of enzyme-based additives is propelling the global enzymes market. These additives not only lower carbon emissions compared to chemical catalysts but also support the growing global focus on sustainability.

Moreover, the surge in R&D of enzyme-based food packaging solutions is contributing to market expansion. Enzyme-infused packaging materials are degradable and eco-friendly, aligning with consumer and regulatory demand for sustainable alternatives.

Key players are also actively investing in technologies that improve enzyme performance under industrial conditions, which is expected to further enhance adoption across multiple end-use industries.

#### Market Introduction

Enzymes, widely known as biological catalysts, accelerate chemical reactions at physiological temperatures. They are extensively applied across food & beverages, agriculture, cosmetics, pharmaceuticals, and industrial processes.

Among them, lipases are key enzymes that catalyze fats and oils. Industrial applications include the production of biodiesel, fine chemicals, and biopolymeric materials.

Recent innovations in enzyme engineering and recombinant DNA technology have led to the development of extremozymes, enzymes derived from extremophilic microorganisms capable of functioning in extreme conditions. These enzymes are well-suited for heavy-duty industrial applications such as pulp & paper, textiles, and bioenergy.

## **Key Market Drivers**

Rising Investment in Enzyme-based Additives

Depleting fossil fuel reserves and stricter carbon emission norms are pushing industries toward renewable and sustainable alternatives. Enzyme-based catalytic coatings and additives provide biodegradable, cost-effective, and environmentally friendly options compared to chemical catalysts.

In January 2024, Abu Dhabi's Industrial Development Bureau (IDB), in collaboration with XMILE Group, launched the first enzyme-based fuel additives facility in the Middle East & Africa.

R&D in Enzyme-based Food Packaging Solutions

Enzymes are being tailored for active and intelligent packaging solutions that extend food shelf life and ensure quality.

In 2019, Uflex introduced its Flexzyme technology, using plant-based peptides and enzymes to manufacture sustainable multilayer plastics for food packaging.

# **Regional Outlook**

North America accounted for the largest share of the global enzymes market in 2023 and is expected to retain dominance through 2034. The region's demand is driven by a strong push for eco-friendly and sustainable products.

Europe is witnessing robust growth due to strict VOC emission regulations. Enzyme-based coatings and adhesives provide an attractive alternative to conventional chemical-based solutions.

Asia Pacific is anticipated to emerge as a high-growth region, supported by expanding food & beverage and pharmaceutical industries.

Competitive Landscape

Major players in the enzymes market are focused on expanding their enzyme portfolios to cater to industrial and consumer applications:

BASF SE expanded its portfolio in 2023 with Lavergy M Ace 100 L mannanase, a detergent enzyme designed for sustainable laundry formulations.

Kerry Group plc announced plans to acquire the lactase enzyme business of Chr. Hansen and Novozymes in 2023, strengthening its capabilities in lactose-free and sugar-reduced dairy products.

Other prominent companies include Dow and Chr. Hansen A/S (part of Novonesis).

These players are also investing in biocatalysts that can replace heavy metal catalysts in industries such as food packaging, textiles, and pulp & paper.

Frequently Asked Questions

- 1. How big was the global enzymes market in 2023?
- It was valued at US\$ 10.9 Bn in 2023
- 2. How is the enzymes industry expected to grow during the forecast period?
- It is anticipated to grow at a CAGR of 7.5% from 2024 to 2034
- 3. What are the key factors driving the demand for enzymes?
- Increase in investment in production of enzyme-based additives and surge in R&D of enzyme-based food packaging solutions
- 4. Which was the major region in the global enzymes landscape in 2023?
- North America was the leading region in 2023
- 5. Who are the prominent enzyme manufacturers?

- BASF SE, Dow, and Chr. Hansen A/S, part of Novonesis

Access More Trending Exclusive Reports by Transparency Market Research:

Textile Enzymes Market: <a href="https://www.transparencymarketresearch.com/textile-enzymes-market.html">https://www.transparencymarketresearch.com/textile-enzymes-market.html</a>

Industrial Enzymes Market: <a href="https://www.transparencymarketresearch.com/industrial-enzymes-market.html">https://www.transparencymarketresearch.com/industrial-enzymes-market.html</a>

Specialty Enzymes Market: <a href="https://www.transparencymarketresearch.com/specialty-enzymes-market.html">https://www.transparencymarketresearch.com/specialty-enzymes-market.html</a>

Medical Enzyme Technology Market: <a href="https://www.transparencymarketresearch.com/medical-enzymes-technology.html">https://www.transparencymarketresearch.com/medical-enzymes-technology.html</a>

Ligase Enzymes Market: <a href="https://www.transparencymarketresearch.com/ligase-enzymes-market.html">https://www.transparencymarketresearch.com/ligase-enzymes-market.html</a>

Enzyme Inhibitor Market: <a href="https://www.transparencymarketresearch.com/enzyme-inhibitors-market.html">https://www.transparencymarketresearch.com/enzyme-inhibitors-market.html</a>

Enzyme and Assay Development Services Market: <a href="https://www.transparencymarketresearch.com/enzyme-and-assay-development-services-market.html">https://www.transparencymarketresearch.com/enzyme-and-assay-development-services-market.html</a>

Digestive Health Enzymes Market: <a href="https://www.transparencymarketresearch.com/digestive-health-enzymes-market.html">https://www.transparencymarketresearch.com/digestive-health-enzymes-market.html</a>

Diagnostic Specialty Enzymes Market: <a href="https://www.transparencymarketresearch.com/diagnostic-specialty-enzymes-market.html">https://www.transparencymarketresearch.com/diagnostic-specialty-enzymes-market.html</a>

Fluoropolymer Market: <a href="https://www.transparencymarketresearch.com/fluoropolymers-market.html">https://www.transparencymarketresearch.com/fluoropolymers-market.html</a>

Ethylene Glycol Market: <a href="https://www.transparencymarketresearch.com/ethylene-glycol-market.html">https://www.transparencymarketresearch.com/ethylene-glycol-market.html</a>

Activated Carbon Market: <a href="https://www.transparencymarketresearch.com/activated-carbon-market.html">https://www.transparencymarketresearch.com/activated-carbon-market.html</a>

Biopesticides Market: <a href="https://www.transparencymarketresearch.com/biopesticides-market.html">https://www.transparencymarketresearch.com/biopesticides-market.html</a>

Carbon Fiber Market: <a href="https://www.transparencymarketresearch.com/carbon-fiber-market.html">https://www.transparencymarketresearch.com/carbon-fiber-market.html</a>

Lubricant Market: <a href="https://www.transparencymarketresearch.com/lubricants-market.html">https://www.transparencymarketresearch.com/lubricants-market.html</a>

Textile Chemicals Market: <a href="https://www.transparencymarketresearch.com/textile-chemicals-market.html">https://www.transparencymarketresearch.com/textile-chemicals-market.html</a>

Carbon Nanotubes Market: <a href="https://www.transparencymarketresearch.com/carbon-nano-tubes-market.html">https://www.transparencymarketresearch.com/carbon-nano-tubes-market.html</a>

Specialty Surfactants Market: <a href="https://www.transparencymarketresearch.com/specialty-and-biosurfactants-market.html">https://www.transparencymarketresearch.com/specialty-and-biosurfactants-market.html</a>

Medical Device Coatings Market: <a href="https://www.transparencymarketresearch.com/medical-device-coatings-market.html">https://www.transparencymarketresearch.com/medical-device-coatings-market.html</a>

Nanocoatings Market: <a href="https://www.transparencymarketresearch.com/nanocoatings-market.html">https://www.transparencymarketresearch.com/nanocoatings-market.html</a>

About Transparency Market Research

Transparency Market Research, a global market research company registered at Wilmington, Delaware, United States, provides custom research and consulting services. Our exclusive blend of quantitative forecasting and trends analysis provides forward-looking insights for thousands of decision makers. Our experienced team of Analysts, Researchers, and Consultants use proprietary data sources and various tools & techniques to gather and analyses information.

Our data repository is continuously updated and revised by a team of research experts, so that it always reflects the latest trends and information. With a broad research and analysis capability, Transparency Market Research employs rigorous primary and secondary research techniques in developing distinctive data sets and research material for business reports.

### Contact:

Transparency Market Research Inc.

CORPORATE HEADQUARTER DOWNTOWN,

1000 N. West Street,

Suite 1200, Wilmington, Delaware 19801 USA

Tel: +1-518-618-1030

USA - Canada Toll Free: 866-552-3453

Website: <a href="https://www.transparencymarketresearch.com">https://www.transparencymarketresearch.com</a>

Email: sales@transparencymarketresearch.com

Atil Chaudhari Transparency Market Research Inc. +1 518-618-1030 email us here

This press release can be viewed online at: https://www.einpresswire.com/article/840917867

EIN Presswire's priority is source transparency. We do not allow opaque clients, and our editors try to be careful about weeding out false and misleading content. As a user, if you see something we have missed, please do bring it to our attention. Your help is welcome. EIN Presswire, Everyone's Internet News Presswire™, tries to define some of the boundaries that are reasonable in today's world. Please see our Editorial Guidelines for more information.

© 1995-2025 Newsmatics Inc. All Right Reserved.