



Freedonia Focus Reports
World Collection

World Enzymes

June 2016



Highlights

World Overview and Forecasts
Demand by Type | Demand by Market

Regional Segmentation and Forecasts
Regional Production Overview | Regional Demand Overview | North America
Western Europe | Asia/Pacific | Other Regions

Industry Structure
Industry Composition and Characteristics | Companies Cited

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ABOUT THIS REPORT

Scope & Method

This report forecasts total world demand in 2020 for enzymes by type, market, and major world region in US dollars at the manufacturers' level. Type segments include:

- carbohydrases
- proteases
- polymerases
- phytases
- nucleases
- lipases
- other types such as catalases, laccases, and lysozymes.

Enzymes used as nutraceutical products (ie, dietary supplements) are included in the scope of this report, while enzymes used as active pharmaceutical ingredients are excluded.

Reported markets encompass:

- industrial
- specialty.

Major world regions include:

- North America
- Western Europe
- Asia/Pacific
- all other regions.

Demand by type and market segment is also forecast for each major world region.

To illustrate historical trends world, type, market, and regional demand (including type and market segments) are provided for 2010 and 2015.

Finally, world production is segmented by major world region and provided for 2010, 2015, and 2020.

This report quantifies trends in terms of compound annual growth rates (CAGRs), which, by definition, employ in their calculation only the first and last datapoints over a period. The CAGR is used to describe forecast growth, defined as the trend beginning in the base year and ending in the forecast year. Forecasts are developed via the identification and analysis of pertinent statistical relationships and other historical trends and events, as well as their expected impact over the forecast period. Readers are encouraged to consider historical volatility when assessing particular annual values along the forecast trend, including in the forecast year.

Unless otherwise indicated, historical demand and production values are expressed in US dollars at the prevailing rate of exchange with local currencies. Forecasts to 2020, however, assume a fixed 2015 exchange rate.

Other various topics, including profiles of pertinent leading suppliers, are covered in this report. A full outline of report items by page is available in the [Table of Contents](#).

Sources

World Enzymes (FW35017) is based on [a comprehensive industry study](#) published by The Freedonia Group in June 2016. Reported findings represent the synthesis and analysis of data from various primary, secondary, macroeconomic, and demographic sources including:

- firms participating in the industry, and their suppliers and customers
- government/public agencies
- national, regional, and international non-governmental organizations
- trade associations and their publications
- the business and trade press
- indicator forecasts by The Freedonia Group
- the findings of other industry studies by The Freedonia Group.

Specific sources and additional resources are listed in the [Resources](#) section of this publication for reference and to facilitate further research.

Industry Codes

The topic of this report is related to the following industry codes:

NAICS/SCIAN 2007		SIC	
North American Industry Classification System		Standard Industry Codes	
325199	All Other Basic Organic Chemical Mfg	2833	Medicinal Chemicals and Botanical Products
325411	Medicinal and Botanical Mfg		
325413	In-Vitro Diagnostic Substance Mfg	2835	In Vitro and In Vivo Diagnostic Substances
		2869	Industrial Organic Chemicals, NEC

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RESOURCES

The Freedonia Group

<i>3417 World Enzymes</i> , June 2016	www.freedoniagroup.com
Related Industry Studies	
<i>3322 Water Treatment Chemicals</i> , July 2015	see study contents
<i>3285 Enzymes</i> , May 2015	see study contents
<i>3217 World Catalysts</i> , December 2014	see study contents
<i>3207 World Industrial & Institutional Cleaning Chemicals</i> , November 2014	see study contents
Related Focus Reports	
<i>Enzymes: United States</i>	see report contents
<i>Motor Vehicle Biofuels: United States</i>	see report contents
<i>Oilfield Chemicals: United States</i>	see report contents
<i>Pharmaceuticals: United States</i>	see report contents
<i>Renewable Energy: United States</i>	see report contents
<i>World Catalysts</i>	see report contents
<i>World Specialty Silicas</i>	see report contents
Freedonia Custom Research	see capabilities

Trade Publications

<i>BioWorld</i> (USA)	www.bioworld.com
<i>Chemical & Engineering News</i> (USA)	https://cen.acs.org
<i>Food Ingredients Online</i> (USA)	www.foodingredientsonline.com
<i>Genetic Engineering & Biotechnology News</i> (USA)	www.genengnews.com
<i>ICIS Chemical Business</i> (UK)	www.icis.com
<i>IHS Chemical Week</i> (USA)	www.chemweek.com

Agencies & Associations

Biotechnology Innovation Organization	www.bio.org
European Federation of Biotechnology	www.efb-central.org
Eurostat	http://ec.europa.eu/eurostat
International Council of Chemical Associations	www.icca-chem.org
International Monetary Fund	www.imf.org
Organisation for Economic Co-operation and Development	www.oecd.org
Society for Applied Biotechnology	www.sabt.org.in
Society for the Commercial Development of Industrial Biotechnology	www.scd-ibio.org
Society for Industrial Microbiology and Biotechnology	www.simbhq.org
United States Department of Commerce	www.commerce.gov
United States International Trade Commission	www.usitc.gov
World Bank	www.worldbank.org

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