

World Markets for Fermentation Ingredients

https://marketpublishers.com/r/W00E16855DEEN.html

Date: October 2022

Pages: 262

Price: US\$ 5,500.00 (Single User License)

ID: W00E16855DEEN

Abstracts

Report Scope:

After categorizing the main fermentation products, the report describes each individual product, reviews industry developments, estimates current volumes produced and consumed, and finally considers price trends and industry structure.

This report does not cover every industrial product that is fermented. Most of the products covered in this report have been on the market for years, but the examples of astaxanthin and beta-carotene demonstrate how difficult it is to introduce such products with sustainability. Few recently introduced industrial fermentation products have become mainstream practices, and many new products ultimately disappear.

The market size and estimations are provided in terms of value (USD Millions), considering 2021 as a base year, and a market forecast will be provided from 2022 to 2027. Regional market size with respect to the application will be provided. COVID-19 impact will be considered during the market estimation.

The report includes an analysis of major players across each regional fermentation ingredients market. The report explains the major drivers and regional dynamics of the global fermentation ingredients market and current trends within the industry. The report concludes with a review of the most important companies active in the fermentation process arena.

Report Includes:

100 data tables and 58 additional tables

An up-to-date overview of the global markets for fermentation-derived



ingredients and fine chemicals

Analyses of the global and regional market trends, with historic market revenue for 2021, estimates for 2022, and projections of compound annual growth rates (CAGRs) through 2027

Highlights of the upcoming market potential for fermentation-derived ingredients, growth driving factors, and areas of focus to forecast this market into various segments and sub-segments

Estimation of the actual market size and revenue forecast for the fermentation ingredients market in USD million terms, and corresponding market share analysis based on ingredient type, technology, application, and region

Updated information on key market drivers and opportunities, industry shifts and regulations, and other demographic factors that will influence this market demand in the coming years (2022-2027)

Holistic review of the COVID-19 impact on the fermentation derived ingredients market at the global level, with pandemic implications on demand and supply of fermentation derived ingredients, price impact, and various strategic decisions to boost the marketplace

Market share analysis of the key market participants, along with their research priorities, product portfolios, and competitive landscape

Patent review and new developments, R&D activities, recent industry structure, and current state of the market for fermentation-derived ingredients

Descriptive company profiles of the leading global players, including Adisseo, BASF, DSM, Medopharm, Novozymes A/S, Sumitomo Chemical Co. Ltd. and Vedan International



Contents

CHAPTER 1 INTRODUCTION

- 1.1 Study Goals and Objectives
- 1.2 Reasons for Doing This Study
- 1.3 What's New in This Report?
- 1.4 Scope of Report
- 1.5 Intended Audience
- 1.6 Information Sources
- 1.7 Methodology
- 1.8 Geographic Breakdown
- 1.9 Analyst's Credentials
- 1.10 BCC Custom Research
- 1.11 Related BCC Research Reports

CHAPTER 2 SUMMARY AND HIGHLIGHTS

2.1 Overview

CHAPTER 3 MARKET AND TECHNOLOGY OVERVIEW

- 3.1 Main Fermentation Categories and Products
- 3.2 Conversion Rates and Global Carbohydrate Demand
- 3.3 Availability of Carbohydrates
 - 3.3.1 Sugars
 - 3.3.2 Molasses
 - 3.3.3 Hydrolyzed Starches
 - 3.3.4 Population Growth
- 3.4 Regulatory Guidelines
- 3.5 Supply Chain Analysis
 - 3.5.1 Raw Material
 - 3.5.2 Manufacturing
 - 3.5.3 Marketing & Distribution
 - 3.5.4 End-User
- 3.6 Impact of COVID-19 on Fermentation Ingredients Market
 - 3.6.1 Impact of COVID-19 on Demand
 - 3.6.2 Impact of COVID-19 on Supply



CHAPTER 4 MARKET OVERVIEW

- 4.1 Market Driver
 - 4.1.1 Rising Demand for Green Chemicals
 - 4.1.2 Growing Animal Feed Industry
 - 4.1.3 Rising Demand for Industrial Enzymes
 - 4.1.4 Rising Demand for Organic Ingredients and Products
- 4.2 Market Restraints
 - 4.2.1 Supply Chain Disruption Due to Russia-Ukraine War
 - 4.2.2 Volatile Prices of Raw Material
- 4.3 Market Opportunities
 - 4.3.1 Expanding Biopharmaceutical Industry
- 4.4 Pricing Analysis

CHAPTER 5 MARKET BREAKDOWN BY INGREDIENT TYPE

- 5.1 Market Highlights
- 5.2 Amino Acids
 - 5.2.1 L-Lysine
 - 5.2.2 L-Threonine
 - 5.2.3 L-Tryptophan
 - 5.2.4 Monosodium Glutamate
- 5.3 Industrial Enzymes
 - 5.3.1 Industry Developments
- 5.4 Organic Acids
 - 5.4.1 Citric Acid
 - 5.4.2 Gluconic Acid
 - 5.4.3 Lactic Acid
 - 5.4.4 Itaconic Acid
 - 5.4.5 Succinic Acid
- 5.5 Vitamins, Carotenoids, and Related Compounds
 - 5.5.1 Ascorbic Acid
 - 5.5.2 Riboflavin
 - 5.5.3 Isoascorbic Acid
 - 5.5.4 Cyanocobalamin
 - 5.5.5 Carotenoids and Other Products
- 5.6 Crude Antibiotics
 - 5.6.1 Industry Developments
- 5.7 Polysaccharides and Polymers



5.7.1 Industry Developments

CHAPTER 6 MARKET BREAKDOWN BY APPLICATION

- 6.1 Market Highlights
- 6.2 Feed
- 6.3 Food & Beverages
- 6.4 Pharmaceuticals & Cosmetics
- 6.5 Industrial & Others
- 6.6 Amino Acids
 - 6.6.1 L-Lysine
 - 6.6.2 L-Threonine
 - 6.6.3 L-Tryptophan
 - 6.6.4 Monosodium Glutamate
- 6.7 Industrial Enzymes
- 6.8 Organic Acids
 - 6.8.1 Citric Acid
 - 6.8.2 Gluconic Acid
 - 6.8.3 Lactic Acid
 - 6.8.4 Itaconic Acid
 - 6.8.5 Succinic Acid
- 6.9 Vitamins, Carotenoids, and Related Compounds
 - 6.9.1 Ascorbic Acid
 - 6.9.2 Riboflavin
 - 6.9.3 Isoascorbic Acid
 - 6.9.4 Cyanocobalamin
 - 6.9.5 Carotenoids
- 6.10 Crude Antibiotics
- 6.11 Polysaccharides and Polymers

CHAPTER 7 MARKET BREAKDOWN BY REGION

- 7.1 Global Market
- 7.2 North America
- 7.3 Europe
- 7.4 Asia-Pacific
- 7.5 Latin America
- 7.6 Middle East & Africa



CHAPTER 8 PATENT REVIEW AND NEW DEVELOPMENT

- 8.1 Overview
- 8.2 Patent Product Segments
- 8.3 Patents by Country
- 8.4 Patent Evaluation
- 8.5 Patent Assignees
 - 8.5.1 Cargill Inc.
 - 8.5.2 Archer Daniels Midland
 - 8.5.3 Evonik Degussa
 - 8.5.4 IdeaCuria Inc.
 - 8.5.5 IFP Energies
 - 8.5.6 LanzaTech
 - 8.5.7 Toray Industries
- 8.6 New Innovation, Discoveries, and Processes
 - 8.6.1 Corbion Preservation Innovations
 - 8.6.2 Ajinomoto: Maintaining "Deliciousness"
 - 8.6.3 Bio-based Plastic: Addressing the Demand for Biodegradable Plastics
 - 8.6.4 Fermented Seaweed
 - 8.6.5 BASF
- 8.6.6 The Beauty Chef: Meeting the Consumer Demand for Fermented Beauty Products
- 8.6.7 Challenges and Solutions with Fermentation Processes
- 8.7 Innovative and Emerging Participants

CHAPTER 9 COMPETITIVE ANALYSIS

- 9.1 Strategic Initiatives
- 9.2 Competitive Summary
 - 9.2.1 Crude Antibiotics
 - 9.2.2 Organic Acids
 - 9.2.3 Amino Acids
 - 9.2.4 Polysaccharides and Polymers
 - 9.2.5 Industrial Enzymes
 - 9.2.6 Vitamins, Carotenoids, and Related Compounds

CHAPTER 10 COMPANY PROFILES

ADISSEO (BLUESTAR)



AJINOMOTO CO. INC.

ALLTECH

AMANO ENZYME INC.

ARCHER DANIELS MIDLAND CO.

ASSOCIATED BRITISH FOODS PLC

BASF SE

CARGILL INC.

CHR. HANSEN

CJ CHEILJEDANG

CORBION NV

CP KELCO U.S. INC.

CSPC NUTRITIONALS

DAESANG CORP.

DEOSEN BIOCHEMICAL CO.

DSM NUTRITIONAL PRODUCTS LTD.

EVONIK INDUSTRIES AG

FUFENG GROUP CO. LTD.

GALACTIC

GLOBAL BIO-CHEM TECHNOLOGY GROUP CO. LTD.

HENAN JINDAN LACTIC ACID TECHNOLOGY CO., LTD.

IFF

JUNGBUNZLAUER SUISSE AG

MEDOPHARM

NORTH CHINA PHARMACEUTICAL GROUP CORP.

NORTHEAST PHARMACEUTICAL GROUP

NOVOZYMES A/S

NOVUS INTERNATIONAL INC.

SANDOZ INTERNATIONAL GMBH

SUMITOMO CHEMICAL CO. LTD.

TATE & LYLE PLC

TTCA CO. LTD.

VEDAN INTERNATIONAL

ZHEJANG NHU CO., LTD.

CHAPTER 11 APPENDIX: ACRONYMS



List Of Tables

LIST OF TABLES

Summary Table: Global Market for Fermentation-Derived Fine Chemicals, by Region, Through 2027

Table 1: Typical Carbohydrate Conversion Rates for Fermentation Products

Table 2: Starch Content Share of Grains and Tubers

Table 3: Regulatory Guidelines for Organic Production and Handling of Example

Fermented Ingredients, by Country/Region

Table 4: Average Global Prices of Amino Acid, by Type

Table 5: Average Global Prices of Organic Acid, by Type

Table 6: Average Global Price of Vitamins, Carotenoids, and Related Compounds, by Type

Table 7: Average Global Price of Polysaccharides and Polymers, by Type

Table 8: Global Market for Fermentation-Derived Fine Chemicals, by Ingredient Type,

Through 2027

Table 9: Global Market for Fermentation-Derived Amino Acids, by Product Type,

Through 2027

Table 10: Global Consumption of L-Lysine as HCL, Through 2027

Table 11: Global Consumption of L-Threonine, Through 2027

Table 12: Global Consumption of Tryptophan, Through 2027

Table 13: Global Consumption for MSG, Through 2027

Table 14: Global Market for Fermentation-Derived Industrial Enzymes, Through 2027

Table 15: Global Market for Fermentation-Derived Organic Acids, by Type, Through 2027

Table 16: Outline of Citric Acid Production Processes

Table 17: Global Consumption of Citric Acid, Through 2027

Table 18: Global Consumption of Gluconic Acid, Through 2027

Table 19: Global Consumption of Lactic Acid, Through 2027

Table 20: Global Consumption of Itaconic Acid, Through 2027

Table 21: Global Consumption of Succinic Acid, Through 2027

Table 22: Global Market for Fermentation-Derived Vitamins, Carotenoids, and Related

Compounds, by Product Type, Through 2027

Table 23: Global Consumption of Ascorbic Acid, Through 2027

Table 24: Global Consumption of Riboflavin, Through 2027

Table 25: Global Consumption of Isoascorbic Acid, Through 2027

Table 26: Global Consumption of Cyanocobalamin, Through 2027

Table 27: Global Consumption of Carotenoids, Through 2027



- Table 28: Global Market for Crude Antibiotics, by Type, Through 2027
- Table 29: Antimicrobial Drug Use and Sales in Food-Producing Animals, 2013-2020
- Table 30: Global Market for Fermentation-Derived Polysaccharides, by Type, Through 2027
- Table 31: Global Consumption of Xanthan, Gellan, and Others, Through 2027
- Table 32: Global Market for Fermentation-Derived Fine Chemicals, by Application,
- Through 2027
- Table 33: Global Market for Amino Acids, by Application, Through 2027
- Table 34: Global Market for Lysine, by Application, Through 2027
- Table 35: Global Market for Threonine, by Application, Through 2027
- Table 36: Global Market for Tryptophan, by Application, Through 2027
- Table 37: Global Market for Monosodium Glutamate, by Application, Through 2027
- Table 38: Global Market for Industrial Enzymes, by Application, Through 2027
- Table 39: Global Market for Organic Acids, by Application, Through 2027
- Table 40: Global Market for Citric Acid, by Application, Through 2027
- Table 41: Global Market for Gluconic Acid, by Application, Through 2027
- Table 42: Applications of Lactic Acid
- Table 43: Global Market for Lactic Acid, by Application, Through 2027
- Table 44: Global Market for Itaconic Acid, by Application, Through 2027
- Table 45: Global Market for Succinic Acid, by Application, Through 2027
- Table 46: Global Market for Vitamins, Carotenoids, and Related Compounds, by Application, Through 2027
- Table 47: Global Market for Ascorbic Acid, by Application, Through 2027
- Table 48: Global Market for Riboflavin, by Application, Through 2027
- Table 49: Global Market for Isoascorbic Acid, by Application, Through 2027
- Table 50: Global Market for Cyanocobalamin, by Application, Through 2027
- Table 51: Global Market for Carotenoids and Other Vitamins, by Application, Through 2027
- Table 52: Global Market for Crude Antibiotics, by Application, Through 2027
- Table 53: Global Market for Polysaccharides and Polymers, by Application, Through 2027
- Table 54: Global Market for Fermentation-Derived Fine Chemicals, by Region, Through 2027
- Table 55: Global Market for Fermentation-Derived Fine Chemicals, by Region, 2021
- Table 56: North American Market for Fermentation-Derived Fine Chemicals, by Country, Through 2027
- Table 57: North American Market for Fermentation-Derived Fine Chemicals, by Ingredients Type, Through 2027
- Table 58: North American Market for Amino Acid, by Type, Through 2027



Table 59: North American Market Volume for Amino Acid, by Type, Through 2027

Table 60: North American Market for Organic Acid, by Type, Through 2027

Table 61: North American Market Volume for Organic Acid, by Type, Through 2027

Table 62: North American Market for Vitamins, Carotenoids, and Related Compounds,

by Type, Through 2027

Table 63: North American Market Volume for Vitamins, Carotenoids, and Related Compounds, by Type, Through 2027

Table 64: North American Market for Polysaccharides and Polymers, Through 2027

Table 65: North American Market Volume for Polysaccharides and Polymers, Through 2027

Table 66: European Market for Fermentation-Derived Fine Chemicals, by Country,

Through 2027

Table 67: European Market for Fermentation-Derived Fine Chemicals, by Ingredients

Type, Through 2027

Table 68: European Market for Amino Acid, by Type, Through 2027

Table 69: European Market Volume for Amino Acid, by Type, Through 2027

Table 70: European Market for Organic Acid, by Type, Through 2027

Table 71: European Market Volume for Organic Acid, by Type, Through 2027

Table 72: European Market for Vitamins, Carotenoids, and Related Compounds, by

Type, Through 2027

Table 73: European Market Volume for Vitamins, Carotenoids, and Related

Compounds, by Type, Through 2027

Table 74: European Market for Polysaccharides and Polymers, 2021-2027

Table 75: European Market Volume for Polysaccharides and Polymers, 2021-2027

Table 76: Asia-Pacific Market for Fermentation-Derived Fine Chemicals, by Country,

Through 2027

Table 77: Asia-Pacific Market for Fermentation-Derived Fine Chemicals, by Ingredients

Type, Through 2027

Table 78: Asia-Pacific Market for Amino Acid, by Type, Through 2027

Table 79: Asia-Pacific Market Volume for Amino Acid, by Type, Through 2027

Table 80: Asia-Pacific Market for Organic Acid, by Type, Through 2027

Table 81: Asia-Pacific Market Volume for Organic Acid, by Type, Through 2027

Table 82: Asia-Pacific Market for Vitamins, Carotenoids, and Related Compounds, by

Type, Through 2027

Table 83: Asia-Pacific Market Volume for Vitamins, Carotenoids, and Related

Compounds, by Type, Through 2027

Table 84: Asia-Pacific Market for Polysaccharides and Polymers, Through 2027

Table 85: Asia-Pacific Market Volume for Polysaccharides and Polymers, Through 2027

Table 86: Latin American Market for Fermentation-Derived Fine Chemicals, by Country,



Through 2027

Table 87: Latin American Market for Fermentation-Derived Fine Chemicals, by Ingredients Type, Through 2027

Table 88: Latin American Market for Amino Acid, by Type, Through 2027

Table 89: Latin American Market Volume for Amino Acid, by Type, Through 2027

Table 90: Latin American Market for Organic Acid, by Type, Through 2027

Table 91: Latin American Market Volume for Organic Acid, by Type, Through 2027

Table 92: Latin American Market for Vitamins, Carotenoids, and Related Compounds, by Type, Through 2027

Table 93: Latin American Market Volume for Vitamins, Carotenoids, and Related Compounds, by Type, Through 2027

Table 94: Latin American Market for Polysaccharides and Polymers, Through 2027

Table 95: Latin American Market Volume for Polysaccharides and Polymers, Through 2027

Table 96: Middle East & African Market for Fermentation-Derived Fine Chemicals, by Country, Through 2027

Table 97: Middle East & African Market for Fermentation-Derived Fine Chemicals, by Ingredients Type, Through 2027

Table 98: Middle East & African Market for Amino Acid, by Type, Through 2027

Table 99: Middle East & African Market Volume for Amino Acid, by Type, Through 2027

Table 100: Middle East & African Market for Organic Acid, by Type, Through 2027

Table 101: Middle East & African Market Volume for Organic Acid, by Type, Through 2027

Table 102: Middle East & African Market for Vitamins, Carotenoids, and Related Compounds, by Type, Through 2027

Table 103: Middle East & African Market Volume for Vitamins, Carotenoids, and Related Compounds, by Type, Through 2027

Table 104: Middle East & African Market for Polysaccharides and Polymers, Through 2027

Table 105: Middle East & African Market Volume for Polysaccharides and Polymers, Through 2027

Table 106: Related Patents Issued for Fermentation Ingredients, 2000-2022*

Table 107: Related Patents Issued for Fermentation Ingredients, by Country, 2000-2022*

Table 108: Recent Patent Evaluation for Fermentation Ingredients, 2015-2022*

Table 109: Key Patent Assignees for Fermentation Ingredients, 2015-2022*

Table 110: Comparison of Ethanol Yield From Various Seaweeds

Table 111: Select Innovative and Emerging Participants in the Fermentation Ingredient Industry



Table 112: Global Market Leaders of Fermentation-Derived Products, 2021

Table 113: Global Market for Fermentation-Derived Fine Chemicals, by Manufacturer,

2021

Table 114: Adisseo: Product Portfolio

Table 115: Ajinomoto: Product Portfolio

Table 116: Ajinomoto: Business Developments

Table 117: Alltech: Product Portfolio

Table 118: Amano Enzyme: Product Portfolio

Table 119: ADM: Product Portfolio

Table 120: ADM: Business Developments

Table 121: Associated British Foods PLC: Product Portfolio

Table 122: Associated British Foods PLC: Business Developments

Table 123: BASF: Product Portfolio

Table 124: BASF: Business Developments

Table 125: Cargill: Product Portfolio

Table 126: Cargill: Business Developments

Table 127: Chr. Hansen: Product Portfolio

Table 128: CJ CheilJedang: Product Portfolio

Table 129: Corbion NV: Product Portfolio

Table 130: Corbion NV: Business Developments

Table 131: CP Kelco: Product Portfolio

Table 132: CSPC Nutritionals: Product Portfolio

Table 133: Daesang Corp.: Product Portfolio

Table 134: Deosen Biochemical Co.: Product Portfolio

Table 135: DSM: Product Portfolio

Table 136: DSM: Recent Developments

Table 137: Evonik: Product Portfolio

Table 138: Fufeng Group Co. Ltd.: Product Portfolio

Table 139: Galactic: Product Portfolio

Table 140: Galactic: Recent Developments

Table 141: Global Bio-Chem Technology Group Co. Ltd.: Product Portfolio

Table 142: Henan Jindan Lactic Acid Technology Co., Ltd.: Product Portfolio

Table 143: IFF: Product Portfolio

Table 144: IFF: Recent Developments

Table 145: Jungbunzlauer Suisse AG: Product Portfolio

Table 146: Medopharm: Product Portfolio

Table 147: North China Pharmaceutical Group Corp.: Product Portfolio

Table 148: Northeast Pharmaceutical Group Co., Ltd.: Product Portfolio

Table 149: Novozymes A/S: Product Portfolio



Table 150: Novus International Inc.: Product Portfolio

Table 151: Sandoz Product Portfolio

Table 152: Sumitomo Chemical Co. Ltd.: Product Portfolio

Table 153: Tate & Lyle: Product Portfolio

Table 154: TTCA Co., Ltd.: Product Portfolio

Table 155: Vedan International: Product Portfolio

Table 156: Zhejiang NHU Co., Ltd.: Product Portfolio

Table 157: Glossary: Ingredient Definitions



List Of Figures

LIST OF FIGURES

Summary Figure A: Global Market for Fermentation-Derived Fine Chemicals, 2021-2027

Summary Figure B: Global Market for Fermentation-Derived Fine Chemicals, by Region, 2021-2027

Figure 1: Categorization of Industrial Fermentation Products

Figure 2: Largest Suppliers of Sugar, 2017-2023e*

Figure 3: Development of Utilization Ratio for Cereals, 1990-2022e*

Figure 4: Global Population, by Selected Countries, 2019 vs. 2024

Figure 5: Fermentation Ingredients Market: Supply Chain Analysis

Figure 6: Fermentation Ingredients Manufacturing

Figure 7: Global Production Capacities of Bioplastics, 2020-2026

Figure 8: Global Meat Production, 2018-2021

Figure 9: Top Feed Producers, 2019 and 2020

Figure 10: FAO Food Price Index 2019-2022

Figure 11: Global Market for Fermentation-Derived Fine Chemicals, by Ingredient Type, 2021-2027

Figure 12: Global Market Share of Fermentation-Derived Fine Chemicals, by Ingredient Type, 2021

Figure 13: Global Market for Fermentation-Derived Amino Acids, by Product Type, 2021-2027

Figure 14: Global Market Share of Fermentation-Derived Amino Acids, by Product Type, 2021

Figure 15: Global Market for Fermentation-Derived Industrial Enzymes, 2021-2027

Figure 16: Global Market for Fermentation Derived Organic Acids, by Type, 2021-2027

Figure 17: Global Market Share of Fermentation-Derived Organic Acids, by Type, 2021

Figure 18: Global Market for Fermentation-Derived Vitamins, Carotenoids, and Related Compounds, by Product Type, 2021-2027

Figure 19: Global Market Share of Fermentation-Derived Vitamins, Carotenoids, and Related Compounds, by Product Type, 2021

Figure 20: Global Market for Crude Antibiotics, by Type, 2021-2027

Figure 21: Categorization of Antimicrobial Products

Figure 22: Global Market for Fermentation-Derived Polysaccharides, by Type, 2021-2027

Figure 23: Global Market Share of Fermentation-Derived Polysaccharides, by Type, 2021



Figure 24: Global Market for Fermentation-Derived Fine Chemicals, by Application, 2021-2027

Figure 25: Global Market for Amino Acids, by Application, 2021-2027

Figure 26: Global Market Share of Amino Acids, by Application, 2021

Figure 27: Global Market for Lysine, by Application, 2021-2027

Figure 28: Global Market Share of Lysine, by Application, 2021

Figure 29: Global Market for Threonine, by Application, 2021-2027

Figure 30: Global Market Share of Threonine, by Application, 2021

Figure 31: Global Market for Tryptophan, by Application, 2021-2027

Figure 32: Global Market Share of Tryptophan, by Application, 2021

Figure 33: Global Market for Monosodium Glutamate, by Application, 2021-2027

Figure 34: Global Market for Industrial Enzymes, by Application, 2021-2027

Figure 35: Global Market Share of Industrial Enzymes, by Application, 2021

Figure 36: Global Market for Organic Acids, by Application, 2021-2027

Figure 37: Global Market Share of Organic Acids, by Application, 2021

Figure 38: Global Market for Citric Acid, by Application, 2021-2027

Figure 39: Global Market Share of Citric Acid, by Application, 2021

Figure 40: Global Market for Gluconic Acid, by Application, 2021-2027

Figure 41: Global Market Share of Gluconic Acid, by Application, 2021

Figure 42: Global Market for Lactic Acid, by Application, 2021-2027

Figure 43: Global Market Share of Lactic Acid, by Application, 2021

Figure 44: Global Market for Itaconic Acid, by Application, 2021-2027

Figure 45: Global Market for Succinic Acid, by Application, 2021-2027

Figure 46: Global Market Share of Succinic Acid, by Application, 2021

Figure 47: Global Market for Vitamins, Carotenoids and Related Compounds, by Application, 2021-2027

Figure 48: Global Market Share of Vitamins, Carotenoids and Related Compounds, by Application, 2021

Figure 49: Global Market for Ascorbic Acid, by Application, 2021-2027

Figure 50: Global Market Share of Ascorbic Acid, by Application, 2021

Figure 51: Global Market for Riboflavin, by Application, 2021-2027

Figure 52: Global Market Share of Riboflavin, by Application, 2021

Figure 53: Global Market for Isoascorbic Acid, by Application, 2021-2027

Figure 54: Global Market Share of Isoascorbic Acid, by Application, 2021

Figure 55: Global Market for Cyanocobalamin, by Application, 2021-2027

Figure 56: Global Market Share of Cyanocobalamin, by Application, 2021

Figure 57: Global Market for Carotenoids and Other Vitamins, by Application,

2021-2027

Figure 58: Global Market Share of Carotenoids and Other Vitamins, by Application,



2021

Figure 59: Global Market for Crude Antibiotics, by Application, 2021-2027

Figure 60: Global Market Share of Crude Antibiotics, by Application, 2021

Figure 61: Global Market for Polysaccharides and Polymers, by Application, 2021-2027

Figure 62: Global Market Share of Polysaccharides and Polymers, by Application, 2021

Figure 63: Global Market for Fermentation-Derived Fine Chemicals, by Region, 2021

Figure 64: Global Market Share of Fermentation Derived Fine Chemicals, by Region, 2021

Figure 65: North American Market for Fermentation-Derived Fine Chemicals, by Country, 2021

Figure 66: North American Market for Fermentation-Derived Fine Chemicals, by Ingredients Type, 2021-2027

Figure 67: North American Market for Amino Acid, by Type, 2021-2027

Figure 68: North American Market for Organic Acid, by Type, 2021-2027

Figure 69: North American Market for Vitamins, Carotenoids and Related Compounds, by Type, 2021-2027

Figure 70: North American Market for Polysaccharides and Polymers, 2021-2027

Figure 71: European Market for Fermentation-Derived Fine Chemicals, by Country, 2021

Figure 72: European Market for Fermentation-Derived Fine Chemicals, by Ingredients Type, 2021-2027

Figure 73: European Market for Amino Acid, by Type, 2021-2027

Figure 74: European Market for Organic Acid, by Type, 2021-2027

Figure 75: European Market for Vitamins, Carotenoids, and Related Compounds, by Type, 2021-2027

Figure 76: European Market for Polysaccharides and Polymers, 2021-2027

Figure 77: Asia-Pacific Market for Fermentation-Derived Fine Chemicals, by Country, 2021

Figure 78: Asia-Pacific Market for Fermentation-Derived Fine Chemicals, by Ingredients Type, 2021-2027

Figure 79: Asia-Pacific Market for Amino Acid, by Type, 2021-2027

Figure 80: Asia-Pacific Market for Organic Acid, by Type, 2021-2027

Figure 81: Asia-Pacific Market for Vitamins, Carotenoids, and Related Compounds, by Type, 2021-2027

Figure 82: Asia-Pacific Market for Polysaccharides and Polymers, 2021-2027

Figure 83: Latin American Market for Fermentation-Derived Fine Chemicals, by Country, 2021

Figure 84: Latin American Market for Fermentation-Derived Fine Chemicals, by Ingredients Type, 2021-2027



Figure 85: Latin American Market for Amino Acid, by Type, 2021-2027

Figure 86: Latin American Market for Organic Acid, by Type, 2021-2027

Figure 87: Latin American Market for Vitamins, Carotenoids and Related Compounds,

by Type, 2021-2027

Figure 88: Latin American Market for Vitamins, Carotenoids, and Related Compounds,

by Type, 2021-2027

Figure 89: Middle East & African Market for Fermentation-Derived Fine Chemicals, by

Country, 2021

Figure 90: Middle East & African Market for Fermentation-Derived Fine Chemicals, by

Ingredients Type, 2021-2027

Figure 91: Middle East & African Market for Amino Acid, by Type, 2021-2027

Figure 92: Middle East & African Market for Organic Acid, by Type, 2021-2027

Figure 93: Middle East & African Market for Vitamins, Carotenoids, and Related

Compounds, by Type, 2021-2027

Figure 94: Middle East & African Market for Polysaccharides and Polymers, 2021-2027

Figure 95: Share of Related Patents Issued for Fermentation Ingredients, by Country,

2000-2022*

Figure 96: Strategic Initiatives, by Market Player, 2019-2021

Figure 97: Global Market Share for Fermentation-Derived Fine Chemicals, by

Manufacturer, 2021

Figure 98: Global Market Share of Major Crude Antibiotics Manufacturers, 2021

Figure 99: Global Market Share of Fermentation-Derived Organic Acid, by Producer,

2021

Figure 100: Global Market Share of Fermentation-Derived Amino Acid, by Producer,

2021

Figure 101: Global Market Share of Polysaccharides and Polymers, by Producer, 2021

Figure 102: Global Market Share of Industrial Enzymes, by Producer, 2021

Figure 103: Global Market Share of Fermentation-Derived Vitamins, Carotenoids, and

Related Compounds, by Producers, 2021

Figure 104: Adisseo: Revenue, 2020 and 2021

Figure 105: Adisseo: Revenue Share, by Business Segment, 2021

Figure 106: Adisseo: Revenue Share, by Region, 2021

Figure 107: Ajinomoto: Revenue, 2019-2021

Figure 108: Ajinomoto: Revenue Share, by Business Segment, 2021

Figure 109: ADM: Revenue, 2019-2021

Figure 110: ADM: Revenue Share, by Business Segment, 2021

Figure 111: ADM: Revenue Share, by Region/Country, 2021

Figure 112: Associated British Foods PLC: Revenue, 2019-2021

Figure 113: Associated British Foods PLC: Revenue Share, by Business Segment,



2021

Figure 114: Associated British Foods PLC: Revenue Share, by Region/Country, 2021

Figure 115: BASF: Revenue, 2020 and 2021

Figure 116: BASF: Revenue Share, by Business Segment, 2021

Figure 117: BASF: Revenue Share, by Region, 2021

Figure 118: Chr. Hansen: Revenue, 2020 and 2021

Figure 119: Chr. Hansen: Revenue Share, by Business Segment, 2021

Figure 120: CJ CheilJedang: Revenue, 2019-2021

Figure 121: Corbion NV: Revenue, 2020 and 2021

Figure 122: Corbion NV: Revenue Share, by Business Segment, 2021

Figure 123: CP Kelco: Revenue, 2020 and 2021

Figure 124: Daesang Corp.: Revenue, 2020 and 2021

Figure 125: DSM: Revenue Share, 2020 and 2021

Figure 126: DSM: Revenue Share, by Business Segment, 2021

Figure 127: DSM: Revenue Share, by Region/Country, 2021

Figure 128: Evonik: Revenue Share, 2019-2021

Figure 129: Evonik: Revenue Share, by Business Segment, 2021

Figure 130: Evonik: Revenue Share, by Region, 2021

Figure 131: Fufeng Group Co. Ltd.: Revenue Share, 2019-2021

Figure 132: Fufeng Group Co. Ltd.: Revenue Share, by Business Segment, 2021

Figure 133: Fufeng Group Co. Ltd.: Revenue Share, by Product Type, 2021

Figure 134: Global Bio-Chem Technology Group Co. Ltd.: Revenue Share, 2020 and 2021

Figure 135: Global Bio-Chem Technology Group Co. Ltd.: Revenue Share, by Business Segment, 2021

Figure 136: Henan Jindan Lactic Acid Technology Co., Ltd.: Revenue Share, 2019-2021

Figure 137: IFF: Revenue Share, 2019-2021

Figure 138: IFF: Revenue Share, by Region, 2021

Figure 139: IFF: Revenue Share, by Business Segment, 2021

Figure 140: Novozymes A/S: Revenue Share, 2019-2021

Figure 141: Novozymes A/S: Revenue Share, by Business Segment, 2021

Figure 142: Novozymes A/S: Revenue Share, by Region, 2021

Figure 143: Sandoz: Revenue Share, by Business Segment, 2021

Figure 144: Sandoz: Revenue Share, by Region, 2021

Figure 145: Sumitomo Chemical Co. Ltd.: Revenue Share, 2019-2021

Figure 146: Sumitomo Chemical Co. Ltd.: Revenue Share, by Business Segment, 2021

Figure 147: Tate & Lyle: Revenue Share, by Business Segment, 2021

Figure 148: Vedan International: Revenue Share, 2019 and 2020

Figure 149: Vedan International: Revenue Share, by Business Segment, 2020



Figure 150: Vedan International: Revenue Share, by Region, 2020



I would like to order

Product name: World Markets for Fermentation Ingredients

Product link: https://marketpublishers.com/r/W00E16855DEEN.html

Price: US\$ 5,500.00 (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/W00E16855DEEN.html

To pay by Wire Transfer, please, fill in your contact details in the form below:

First name:	
Last name:	
Email:	
Company:	
Address:	
City:	
Zip code:	
Country:	
Tel:	
Fax:	
Your message:	
	**All fields are required
	Custumer signature

Please, note that by ordering from marketpublishers.com you are agreeing to our Terms & Conditions at https://marketpublishers.com/docs/terms.html

To place an order via fax simply print this form, fill in the information below and fax the completed form to +44 20 7900 3970