

# **Global Arachidonic Acid Market Size study, by Form (Solid, Solvent), by Source (Plant, Animal), by Application (Infant Formula, Supplement) and Regional Forecasts 2022-2032**

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## **Abstracts**

The Global Arachidonic Acid Market is valued at approximately USD 230.19 million in 2023 and is anticipated to grow with a moderate yet steady CAGR of more than 4.3% over the forecast period 2024-2032. Arachidonic Acid (ARA), a polyunsaturated omega-6 fatty acid, has emerged as an indispensable compound in the nutritional science and food ingredients landscape, especially due to its critical role in infant brain development and cellular signaling. It is primarily found in phospholipids of cell membranes and is increasingly being incorporated into commercial infant formulas to mimic the composition of human milk. The demand for ARA is being dynamically shaped by shifting dietary patterns, heightened consumer awareness about early-life nutrition, and a rising prevalence of nutritional deficiencies in newborns and adults alike. Moreover, the evolving dietary supplement sector is leaning heavily into ARA's potential in improving cognitive function, boosting immune response, and addressing inflammatory conditions.

The trajectory of growth for the global arachidonic acid market is being significantly fueled by increasing demand from the infant nutrition segment. In an effort to replicate the lipid profile of breast milk, manufacturers are integrating ARA, often alongside DHA (Docosahexaenoic Acid), to offer functional benefits such as enhanced neurodevelopment and retinal health in neonates. At the same time, the market is benefitting from the surge in personalized nutrition and fitness-oriented supplement regimens where ARA is being studied for its performance-enhancing and muscle-recovery properties. Further amplifying this expansion are technological breakthroughs in fermentation and extraction processes, especially from microbial or fungal sources,

which allow for scalable, sustainable, and high-purity production of ARA, thus reducing dependence on traditional animal-based sources.

However, the ARA market also grapples with several headwinds that could impede its long-term growth potential. Production complexities and high costs associated with fermentation-based extraction technologies limit mass-market scalability for several manufacturers, particularly in price-sensitive economies. Additionally, regulatory scrutiny surrounding infant formula ingredients and potential side effects from overconsumption present compliance challenges that need to be tactically navigated. Despite these constraints, the increasing penetration of ARA into non-traditional applications such as therapeutic nutrition, dermatology formulations, and functional food products is opening new corridors of opportunity for stakeholders willing to innovate across value chains.

Investments in research and development are accelerating across the board, with companies vying to differentiate through product purity, bioavailability, and eco-friendly sourcing methods. Many of the market's top players are actively involved in joint ventures and strategic partnerships to expand manufacturing capabilities and enter untapped regional markets. Clean label movements and plant-based trends are also influencing R&D strategies, pushing companies to pivot toward algae- and fermentation-derived ARA, which not only aligns with sustainability goals but also resonates well with vegan and vegetarian consumer bases. As the lines between food and pharmaceuticals continue to blur, the positioning of ARA as a bioactive compound with functional versatility is expected to become even more pronounced.

Regionally, North America dominates the global arachidonic acid market, driven by advanced infant nutrition frameworks, robust healthcare infrastructure, and early adoption of functional ingredients in consumer products. Europe follows closely, supported by a growing elderly population and widespread usage of dietary supplements. Meanwhile, the Asia Pacific region is projected to experience the highest growth rate during the forecast period, underpinned by an expanding middle-class population, rapid urbanization, and rising health consciousness among consumers. Countries like China and India are not only witnessing an uptick in ARA consumption but are also investing in local production facilities, further cementing the region's status as a pivotal growth arena.

Major market player included in this report are:

Cargill, Incorporated

BASF SE

Cayman Chemical

Avanti Polar Lipids, Inc.

Cabio Biotech (Wuhan) Co., Ltd.

Koninklijke DSM N.V.

Suntory Beverage & Food Limited

Guangdong Runke Bioengineering Co., Ltd.

Kingdomway Nutrition Inc.

Bio-Techne Corporation

Nu-Mega Ingredients Pty Ltd

Zhejiang NHU Co., Ltd.

A&Z Food Additives Co., Ltd.

Wuhan Hezhong Bio-Chemical Manufacturing Co., Ltd.

Merck KGaA

The detailed segments and sub-segment of the market are explained below:

By Form

Solid

Solvent

## By Source

Plant

Animal

## By Application

Infant Formula

Supplement

## By Region:

### North America

U.S.

Canada

### Europe

UK

Germany

France

Spain

Italy

ROE

### Asia Pacific

China

India

Japan

Australia

South Korea

RoAPAC

Latin America

Brazil

Mexico

Middle East & Africa

Saudi Arabia

South Africa

RoMEA

Years considered for the study are as follows:

Historical year – 2022

Base year – 2023

Forecast period – 2024 to 2032

Key Takeaways:

*Global Arachidonic Acid Market Size study, by Form (Solid, Solvent), by Source (Plant, Animal), by Application...*

Market Estimates & Forecast for 10 years from 2022 to 2032.

Annualized revenues and regional level analysis for each market segment.

Detailed analysis of geographical landscape with Country level analysis of major regions.

Competitive landscape with information on major players in the market.

Analysis of key business strategies and recommendations on future market approach.

Analysis of competitive structure of the market.

Demand side and supply side analysis of the market.

## Contents

### **CHAPTER 1. GLOBAL ARACHIDONIC ACID MARKET EXECUTIVE SUMMARY**

- 1.1. Global Arachidonic Acid Market Size & Forecast (2022-2032)
- 1.2. Regional Summary
- 1.3. Segmental Summary
  - 1.3.1. By Form, Source & Application
- 1.4. Key Trends
- 1.5. Recession Impact
- 1.6. Analyst Recommendation & Conclusion

### **CHAPTER 2. GLOBAL ARACHIDONIC ACID MARKET DEFINITION AND RESEARCH ASSUMPTIONS**

- 2.1. Research Objective
- 2.2. Market Definition
- 2.3. Research Assumptions
  - 2.3.1. Inclusion & Exclusion
  - 2.3.2. Limitations
  - 2.3.3. Supply Side Analysis
    - 2.3.3.1. Availability
    - 2.3.3.2. Infrastructure
    - 2.3.3.3. Regulatory Environment
    - 2.3.3.4. Market Competition
    - 2.3.3.5. Economic Viability (Consumer's Perspective)
  - 2.3.4. Demand Side Analysis
    - 2.3.4.1. Regulatory Frameworks
    - 2.3.4.2. Technological Advancements
    - 2.3.4.3. Environmental Considerations
    - 2.3.4.4. Consumer Awareness & Acceptance
- 2.4. Estimation Methodology
- 2.5. Years Considered for the Study
- 2.6. Currency Conversion Rates

### **CHAPTER 3. GLOBAL ARACHIDONIC ACID MARKET DYNAMICS**

- 3.1. Market Drivers
  - 3.1.1. Increasing Demand from Infant Nutrition

- 3.1.2. Advancements in Fermentation and Extraction Technologies
- 3.1.3. Rising Consumer Awareness in Nutritional Science
- 3.2. Market Challenges
  - 3.2.1. High Production Complexities and Extraction Costs
  - 3.2.2. Regulatory Scrutiny on Infant Formula Ingredients
  - 3.2.3. Price Sensitivity and Supply Chain Constraints
- 3.3. Market Opportunities
  - 3.3.1. Expansion in Therapeutic Nutrition and Functional Foods
  - 3.3.2. Technological Innovations for Sustainable Production
  - 3.3.3. Strategic R&D Investments and Joint Ventures

## **CHAPTER 4. GLOBAL ARACHIDONIC ACID MARKET INDUSTRY ANALYSIS**

- 4.1. Porter's 5 Force Model
  - 4.1.1. Bargaining Power of Suppliers
  - 4.1.2. Bargaining Power of Buyers
  - 4.1.3. Threat of New Entrants
  - 4.1.4. Threat of Substitutes
  - 4.1.5. Competitive Rivalry
  - 4.1.6. Futuristic Approach to Porter's 5 Force Model
  - 4.1.7. Porter's 5 Force Impact Analysis
- 4.2. PESTEL Analysis
  - 4.2.1. Political
  - 4.2.2. Economical
  - 4.2.3. Social
  - 4.2.4. Technological
  - 4.2.5. Environmental
  - 4.2.6. Legal
- 4.3. Top Investment Opportunity
- 4.4. Top Winning Strategies
- 4.5. Disruptive Trends
- 4.6. Industry Expert Perspective
- 4.7. Analyst Recommendation & Conclusion

## **CHAPTER 5. GLOBAL ARACHIDONIC ACID MARKET SIZE & FORECASTS BY SEGMENT 2022-2032**

- 5.1. Segment Dashboard
- 5.2. Global Arachidonic Acid Market: Segment Revenue Trend Analysis, 2022 & 2032



(USD Million)

5.2.1. By Form

5.2.2. By Source

5.2.3. By Application

## **CHAPTER 6. GLOBAL ARACHIDONIC ACID MARKET SIZE & FORECASTS BY REGION 2022-2032**

6.1. Segment Dashboard

6.2. Global Arachidonic Acid Market: Regional Revenue Trend Analysis, 2022 & 2032

(USD Million)

6.2.1. North America Arachidonic Acid Market

6.2.1.1. U.S. Arachidonic Acid Market

6.2.1.2. Canada Arachidonic Acid Market

6.2.2. Europe Arachidonic Acid Market

6.2.2.1. UK Arachidonic Acid Market

6.2.2.2. Germany Arachidonic Acid Market

6.2.2.3. France Arachidonic Acid Market

6.2.2.4. Spain Arachidonic Acid Market

6.2.2.5. Italy Arachidonic Acid Market

6.2.2.6. Rest of Europe Arachidonic Acid Market

6.2.3. Asia-Pacific Arachidonic Acid Market

6.2.3.1. China Arachidonic Acid Market

6.2.3.2. India Arachidonic Acid Market

6.2.3.3. Japan Arachidonic Acid Market

6.2.3.4. Australia Arachidonic Acid Market

6.2.3.5. South Korea Arachidonic Acid Market

6.2.3.6. Rest of Asia-Pacific Arachidonic Acid Market

6.2.4. Latin America Arachidonic Acid Market

6.2.4.1. Brazil Arachidonic Acid Market

6.2.4.2. Mexico Arachidonic Acid Market

6.2.4.3. Rest of Latin America Arachidonic Acid Market

6.2.5. Middle East & Africa Arachidonic Acid Market

6.2.5.1. Saudi Arabia Arachidonic Acid Market

6.2.5.2. South Africa Arachidonic Acid Market

6.2.5.3. Rest of Middle East & Africa Arachidonic Acid Market

## **CHAPTER 7. COMPETITIVE INTELLIGENCE**

- 7.1. Key Company SWOT Analysis
  - 7.1.1. Cargill, Incorporated
  - 7.1.2. BASF SE
  - 7.1.3. Koninklijke DSM N.V.
- 7.2. Top Market Strategies
- 7.3. Company Profiles
  - 7.3.1. Cargill, Incorporated
    - 7.3.1.1. Key Information
    - 7.3.1.2. Overview
    - 7.3.1.3. Financial (Subject to Data Availability)
    - 7.3.1.4. Product Summary
    - 7.3.1.5. Market Strategies
  - 7.3.2. Avanti Polar Lipids, Inc.
  - 7.3.3. Cabio Biotech (Wuhan) Co., Ltd.
  - 7.3.4. Suntory Beverage & Food Limited
  - 7.3.5. Guangdong Runke Bioengineering Co., Ltd.
  - 7.3.6. Kingdomway Nutrition Inc.
  - 7.3.7. Bio-Techne Corporation
  - 7.3.8. Nu-Mega Ingredients Pty Ltd
  - 7.3.9. Zhejiang NHU Co., Ltd.
  - 7.3.10. A&Z Food Additives Co., Ltd.
  - 7.3.11. Wuhan Hezhong Bio-Chemical Manufacturing Co., Ltd.
  - 7.3.12. Merck KGaA

## **CHAPTER 8. RESEARCH PROCESS**

- 8.1. Research Process
  - 8.1.1. Data Mining
  - 8.1.2. Analysis
  - 8.1.3. Market Estimation
  - 8.1.4. Validation
  - 8.1.5. Publishing
- 8.2. Research Attributes

## List Of Tables

### LIST OF TABLES

TABLE 1. Global Arachidonic Acid Market, Report Scope

TABLE 2. Global Arachidonic Acid Market Estimates & Forecasts by Region 2022-2032 (USD Million)

TABLE 3. Global Arachidonic Acid Market Estimates & Forecasts by Segment 2022-2032 (USD Million)

TABLE 4. Global Arachidonic Acid Market by Segment, Estimates & Forecasts, 2022-2032 (USD Million)

TABLE 5. Global Arachidonic Acid Market by Region, Estimates & Forecasts, 2022-2032 (USD Million)

TABLE 6. Global Arachidonic Acid Market by Segment, Estimates & Forecasts, 2022-2032 (USD Million)

TABLE 7. Global Arachidonic Acid Market by Region, Estimates & Forecasts, 2022-2032 (USD Million)

TABLE 8. Global Arachidonic Acid Market by Segment, Estimates & Forecasts, 2022-2032 (USD Million)

TABLE 9. Global Arachidonic Acid Market by Region, Estimates & Forecasts, 2022-2032 (USD Million)

TABLE 10. Global Arachidonic Acid Market by Segment, Estimates & Forecasts, 2022-2032 (USD Million)

TABLE 11. Global Arachidonic Acid Market by Region, Estimates & Forecasts, 2022-2032 (USD Million)

TABLE 12. Global Arachidonic Acid Market by Segment, Estimates & Forecasts, 2022-2032 (USD Million)

TABLE 13. Global Arachidonic Acid Market by Region, Estimates & Forecasts, 2022-2032 (USD Million)

TABLE 14. Global Arachidonic Acid Market by Segment, Estimates & Forecasts, 2022-2032 (USD Million)

TABLE 15. U.S. Arachidonic Acid Market Estimates & Forecasts, 2022-2032 (USD Million)

TABLE 16. U.S. Arachidonic Acid Market Estimates & Forecasts by Segment 2022-2032 (USD Million)

TABLE 17. Canada Arachidonic Acid Market Estimates & Forecasts, 2022-2032 (USD Million)

TABLE 18. Canada Arachidonic Acid Market Estimates & Forecasts by Segment 2022-2032 (USD Million)

TABLE 19. Canada Arachidonic Acid Market Estimates & Forecasts by Segment  
2022-2032 (USD Million)

TABLE 20. Canada Arachidonic Acid Market Estimates & Forecasts by Segment  
2022-2032 (USD Million)

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This list is not complete; the final report does contain more than 100 tables. The list may be updated in the final deliverable.

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