

Dodecanedioic Acid Market Size Analysis Report - Market Share, Forecast Trends and Outlook (2025-2034)

Market Report | 2025-08-13 | 168 pages | EMR Inc.

AVAILABLE LICENSES:

- Single User License \$3599.00
- Five User License \$4249.00
- Corporate License \$5099.00

Report description:

The global dodecanedioic acid market was estimated to be at 83.49 Kilo Tons in 2024. The market is further anticipated to grow at a CAGR of 5.80% between 2025 and 2034 to reach a value of 146.72 Kilo Tons by 2034.

Dodecanedioic Acid Market Growth

Dodecanedioic acid (DDDA) is a dicarboxylic acid with the formula $(CH_2)_{10}(CO_2H)_2$. It has a variety of applications, including the manufacturing of nylon 6,12, adhesives, powder coatings, and paints. DDDA is also used in the production of corrosion inhibitors, which are extensively used for water treatment, pulp and paper, and other industrial facilities. Additionally, it can be used as a complexing agent for lithium complex grease, increasing dropping grades and boosting the dodecanedioic acid market opportunities. It can also be produced from renewable plant-oil feedstocks. In the medical field, DDDA has been studied for its metabolic effects in non-insulin-dependent diabetic patients.

The rapid industrialisation is expected to increase the need for lubricants, adhesives, and nylons in emerging economies, which, in turn, will increase the market demand. The rising demand for paints and coatings is expected to stimulate the need for DDDA, especially in powder coatings. Increased demand for nylon from emerging economies like China and India can also be attributed to the need for the product's advantageous features such as durability, heat tolerance, and high scratch resistance in the automotive industry.

Key Trends and Developments

Rapid growth of industries, rising adoption of synthetic processes, and increasing preference for biotech production are driving the market expansion.

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

January 2024

Vaporox has developed a new wound care device, the VHT-200. The device was made using polycarbonate, which is biocompatible, sterilisable, and durable, making it ideal for specialised equipment that enhances skin recovery in chronic wounds.

September 2023

As per the dodecanedioic acid market dynamics and trends, Honda R&D and Toray Industries initiated a trial for the closed-loop recycling of nylon resin obtained from end-of-life vehicles (ELVs). The material's strength, heat resistance, and chemical resistance make it suitable for automotive parts exposed to heat, petrol, and oils. The companies aim to commercialise the process by 2027.

January 2023

Goodyear Lubricants launched a new range of engine oil products in India, aiming to meet the increased demand for more sustainable automotive lubricants. The new product line is designed to meet the diverse lubricant oil needs of commercial and passenger vehicles.

February 2022

BASF SE marketed several polyamides (PA) and polyphthalamide (PPA) grades in Europe as part of the takeover of Solvay's PA66 business. The new range of engineered plastic products will be offered in the European Economic Area and Switzerland under the Ultramid brand.

Rapid growth of industries

The escalating growth of the plastic industry, as well as the elevating textile and automotive industries, which are major consumers of resins and nylons, are anticipated to boost the demand of dodecanedioic acid market.

Rising adoption of synthetic processes

Dodecanedioic acid (DDDA) is produced using butadiene through a multi-step chemical process. Butadiene is first converted to cyclododecatriene through cyclotrimerisation, and then the triene is hydrogenated to cyclododecane, which is further oxidised to make DDDA. This type of acid can be used in musk fragrances.

Shift towards biotech production of DDDA

An innovative method of producing DDDA using yeast is gaining attention, offering a biotech production alternative. This method involves the biotransformation of low-cost plant-oil derivatives using yeast strains such as *Candida tropicalis*.

Ongoing research and development efforts

The ongoing research and development efforts in the dodecanedioic acid market are focused on improving the production process and reducing costs through advanced technologies. Recent technological innovations include the use of biotechnology and use of eco-friendly raw materials.

Dodecanedioic Acid Market Trends

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

The market is also expected to grow significantly in the forecast period due to the growing demand for electric vehicles and the increasing number of pharmaceutical companies utilising DDDA acid in top-grade antiseptics and surfactants. In addition, rise in the number of market players across the globe is contributing to the dodecanedioic acid market value.

It is further expected that the increasing demand for bio-adhesives will bring lucrative opportunities for bio-dodecanedioic acid in the forecast period. Renewable feedstock (bio-adhesives) has provided DDDA producers with incentives for cost reduction and expanded penetration in heavily regulated markets such as North America and Europe. Additionally, the growing use of nylon in the production of high-performance thermoplastics is a rising dodecanedioic acid market trend due to its heating capabilities.

Industry Outlook

As per the dodecanedioic acid industry analysis, innovative research focuses on sustainable production methods, such as bioengineering microorganisms (e.g., yeast or bacteria) to synthesize DDDA from renewable sources. This approach helps reduce dependency on petrochemical sources and aligns with green chemistry principles. There is ongoing work on improving catalysts and refining the process to make production more efficient and cost-effective, often using novel materials or innovative chemical pathways.

DDDA is studied for its potential in treating metabolic disorders, as it can serve as an energy source similar to glucose and has shown promise in managing insulin resistance, which can boost the growth of the dodecanedioic acid industry. Research also explores using DDDA in biomedical polymers due to its stability, aiming to develop materials that are both biocompatible and resistant to microbial growth.

DDDA enhances the performance of resins used in coatings, improving resistance to corrosion and environmental stress, useful in outdoor and industrial applications. Studies focus on using DDDA to develop environmentally friendly lubricants, which can reduce the ecological footprint of industries that require high-performance lubrication as well as offer opportunities for boosting dodecanedioic acid industry revenue.

Superior chemical properties of Dodecanedioic Acid (DDDA) and increasing demand for durable materials in the automotive and industrial machinery sectors is supporting the market growth.

- Dodecanedioic Acid (DDDA) is widely used in the production of high-performance polyamides, adhesives, resins, and coatings, catering to multiple industries such as automotive, textiles, and electronics, ensuring consistent demand.
- DDDA provides excellent thermal stability, corrosion resistance, and durability, making it a valuable component in the production of engineering plastics and other high-performance materials.
- Increasing demand for durable materials in the automotive, aerospace, and industrial machinery sectors is driving the need for DDDA in high-performance coatings and polymers, which aids dodecanedioic acid demand growth.
- DDDA plays a critical role in the production of nylon 6,12, a key material in several industrial applications, particularly in automotive fuel lines and electrical component.

High production costs and availability of substitutes may hinder the market growth.

- The high production cost of DDDA can be a barrier to widespread adoption, especially in cost-sensitive industries.
- The availability of substitutes, such as other dicarboxylic acids, can limit the growth of the DDDA market.
- Environmental concerns related to the production processes of DDDA can impact the growth of the dodecanedioic acid market.
- Limited awareness and understanding of the benefits of DDDA in certain regions can hinder market penetration.
- Fluctuations in raw material prices, particularly petrochemical-based feedstocks, can affect production costs and pricing.

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

Expanding applications and growing demand for high-performance materials present growth opportunities.

- Increasing applications of DDDA in high-performance materials, such as engineering plastics and resins, offer significant growth opportunities.
- As industries push for sustainability, the demand for DDDA in producing biodegradable polymers is on the rise, opening new market avenues and impacting the dodecanedioic acid demand forecast.
- Development of innovative DDDA-based products with enhanced properties can attract new customers and open up new markets.

Dodecanedioic Acid Industry Segmentation

Global Dodecanedioic Acid Market Report and Forecast 2025-2034 offers a detailed analysis of the market based on the following segments:

Market Breakup by Application

- Resins
- Powder Coatings
- Adhesives
- Lubricants

Market Breakup by Region

- North America
- Europe
- Asia Pacific
- Latin America
- Middle East and Africa

Dodecanedioic Acid Market Share

The resins segment is expected to grow at a CAGR of 6.2% in the forecast period and is increasing the global dodecanedioic acid market share due to the increase in demand for nylon from various end-use industries, especially automotive and paints industry. The emergence of the United States and Canada as a textile hub is anticipated to spur the penetration of production bases for resins, which will ultimately open lucrative opportunities for DDDA.

The powder coatings segment is expected to grow with the fastest CAGR of 6.6% in the forecast period as it offers flexibility to polyesters and have excellent heat resistance. Moreover, they are solvent free and produce negligible emissions of VOC, which makes it eco-friendly in nature. The growing powder sector in developing economies due to increasing applications in the automotive, construction, and chemical industry is expected to augment the demand for DDDA.

The share of adhesives and lubricants in the dodecanedioic acid market is expected to grow due to increasing demand and various applications. DDDA is widely used in adhesives to improve bonding strength and flexibility, whereas in the lubricants sector, it acts as a corrosion inhibitor and enhances overall performance.

Competitive Landscape

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

The market players are engaged in developing new products to gain a competitive edge in the market.

Koch Industries, Inc.

Koch Industries, Inc. is headquartered in United States and was founded in 1940. It operates in various industries, including oil and gas, fertilisers, metals and mining, refining, chemicals, biofuels, commodity trading, and polymers and fibres. The company has a global operational presence across the Americas, Europe, the Middle East, Asia-Pacific, and Africa.

Koch Industries, Inc.

BASF SE was founded in 1865 and is headquartered in Germany. BASF is a leading chemical company with a focus on a wide range of products, including chemicals, plastics, performance products, crop protection products, and fine chemicals. The company is involved in various industries and has a significant global presence.

Ube Industries, Ltd.

Ube Industries, Ltd. was founded in 1897 and is headquartered in Japan. Ube Industries is a diversified company with business segments that include chemicals, pharmaceuticals, cement and construction materials, machinery, energy and environment, and others. The company operates globally and is involved in various industrial sectors.

Other key players in the global dodecanedioic acid market include Zibo Guangtong Chemical Co., Ltd., Evonik Industries AG, and Cathay Industrial Biotech Ltd., among others.

Key Players and their Competitive Strategies:

BASF SE:

- BASF is a major competitor in the DDDA market, leveraging its vast resources and global presence. BASF prioritises technological advancements and operational efficiency to maintain its competitive edge and enhance dodecanedioic acid market expansion.
- The company also focuses on sustainable production practices and expanding its application areas through collaborations with key industry players.

Evonik Industries AG:

- Evonik emphasizes innovation and customer-centric solutions, leveraging its strong R&D capabilities which can aid dodecanedioic acid demand.
- The company invests in developing high-performance DDDA products and expanding its production capacity to meet growing demand.

Cathay Industrial Biotech Ltd.:

- Cathay Industrial Biotech is known for its bio-based DDDA products, focusing on sustainable and renewable resources.
- The company highlights the environmental benefits of its bio-based DDDA and targets industries seeking sustainable solutions.

Dodecanedioic Acid Market Regional Analysis

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

Asia Pacific is expected to account for a major share in the global market with a CAGR of 6.7% between 2025 and 2034 due to a rise in demand for dodecanedioic acid in various applications such as nylon and painting. Countries such as India, China, Australia, and Japan are expected to exhibit CAGRs of 7.0%, 5.7%, 4.5%, and 4.0% between 2025 and 2034 which can also enhance the dodecanedioic acid market revenue. China is a major producer of dodecanedioic acid and holds a significant share of the market in Asia Pacific. Companies like Cathay Industrial Biotech Ltd contribute to the region's rising demand for dodecanedioic acid.

In addition, Europe is also a prominent region of the global market. An increase in demand for dodecanedioic acid in nylon, engineering plastics, and painting materials is contributing to the market growth in Germany. In the forecast period, the increasing use of nylon in the manufacture of high-performance thermoplastics due to its heating abilities is expected to be a key trend in the market growth and is predicted to offer lucrative opportunities for all the regions.

Table of Contents:

- 1 Executive Summary
 - 1.1 Market Size 2024-2025
 - 1.2 Market Growth 2025(F)-2034(F)
 - 1.3 Key Demand Drivers
 - 1.4 Key Players and Competitive Structure
 - 1.5 Industry Best Practices
 - 1.6 Recent Trends and Developments
 - 1.7 Industry Outlook
- 2 Market Overview and Stakeholder Insights
 - 2.1 Market Trends
 - 2.2 Key Verticals
 - 2.3 Key Regions
 - 2.4 Supplier Power
 - 2.5 Buyer Power
 - 2.6 Key Market Opportunities and Risks
 - 2.7 Key Initiatives by Stakeholders
- 3 Economic Summary
 - 3.1 GDP Outlook
 - 3.2 GDP Per Capita Growth
 - 3.3 Inflation Trends
 - 3.4 Democracy Index
 - 3.5 Gross Public Debt Ratios
 - 3.6 Balance of Payment (BoP) Position
 - 3.7 Population Outlook
 - 3.8 Urbanisation Trends
- 4 Country Risk Profiles
 - 4.1 Country Risk
 - 4.2 Business Climate
- 5 Global Dodecanedioic Acid Market Analysis
 - 5.1 Key Industry Highlights
 - 5.2 Global Dodecanedioic Acid Historical Market (2018-2024)
 - 5.3 Global Dodecanedioic Acid Market Forecast (2025-2034)
 - 5.4 Global Dodecanedioic Acid Market by Application

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

- 5.4.1 Resins
 - 5.4.1.1 Historical Trend (2018-2024)
 - 5.4.1.2 Forecast Trend (2025-2034)
- 5.4.2 Powder Coatings
 - 5.4.2.1 Historical Trend (2018-2024)
 - 5.4.2.2 Forecast Trend (2025-2034)
- 5.4.3 Adhesives
 - 5.4.3.1 Historical Trend (2018-2024)
 - 5.4.3.2 Forecast Trend (2025-2034)
- 5.4.4 Lubricants
 - 5.4.4.1 Historical Trend (2018-2024)
 - 5.4.4.2 Forecast Trend (2025-2034)
- 5.4.5 Others
- 5.5 Global Dodecanedioic Acid Market by Region
 - 5.5.1 North America
 - 5.5.1.1 Historical Trend (2018-2024)
 - 5.5.1.2 Forecast Trend (2025-2034)
 - 5.5.2 Europe
 - 5.5.2.1 Historical Trend (2018-2024)
 - 5.5.2.2 Forecast Trend (2025-2034)
 - 5.5.3 Asia Pacific
 - 5.5.3.1 Historical Trend (2018-2024)
 - 5.5.3.2 Forecast Trend (2025-2034)
 - 5.5.4 Latin America
 - 5.5.4.1 Historical Trend (2018-2024)
 - 5.5.4.2 Forecast Trend (2025-2034)
 - 5.5.5 Middle East and Africa
 - 5.5.5.1 Historical Trend (2018-2024)
 - 5.5.5.2 Forecast Trend (2025-2034)
- 6 North America Dodecanedioic Acid Market Analysis
 - 6.1 United States of America
 - 6.1.1 Historical Trend (2018-2024)
 - 6.1.2 Forecast Trend (2025-2034)
 - 6.2 Canada
 - 6.2.1 Historical Trend (2018-2024)
 - 6.2.2 Forecast Trend (2025-2034)
- 7 Europe Dodecanedioic Acid Market Analysis
 - 7.1 United Kingdom
 - 7.1.1 Historical Trend (2018-2024)
 - 7.1.2 Forecast Trend (2025-2034)
 - 7.2 Germany
 - 7.2.1 Historical Trend (2018-2024)
 - 7.2.2 Forecast Trend (2025-2034)
 - 7.3 France
 - 7.3.1 Historical Trend (2018-2024)
 - 7.3.2 Forecast Trend (2025-2034)
 - 7.4 Italy

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

- 7.4.1 Historical Trend (2018-2024)
- 7.4.2 Forecast Trend (2025-2034)
- 7.5 Others
- 8 Asia Pacific Dodecanedioic Acid Market Analysis
 - 8.1 China
 - 8.1.1 Historical Trend (2018-2024)
 - 8.1.2 Forecast Trend (2025-2034)
 - 8.2 Japan
 - 8.2.1 Historical Trend (2018-2024)
 - 8.2.2 Forecast Trend (2025-2034)
 - 8.3 India
 - 8.3.1 Historical Trend (2018-2024)
 - 8.3.2 Forecast Trend (2025-2034)
 - 8.4 ASEAN
 - 8.4.1 Historical Trend (2018-2024)
 - 8.4.2 Forecast Trend (2025-2034)
 - 8.5 Australia
 - 8.5.1 Historical Trend (2018-2024)
 - 8.5.2 Forecast Trend (2025-2034)
 - 8.6 Others
- 9 Latin America Dodecanedioic Acid Market Analysis
 - 9.1 Brazil
 - 9.1.1 Historical Trend (2018-2024)
 - 9.1.2 Forecast Trend (2025-2034)
 - 9.2 Argentina
 - 9.2.1 Historical Trend (2018-2024)
 - 9.2.2 Forecast Trend (2025-2034)
 - 9.3 Mexico
 - 9.3.1 Historical Trend (2018-2024)
 - 9.3.2 Forecast Trend (2025-2034)
 - 9.4 Others
- 10 Middle East and Africa Dodecanedioic Acid Market Analysis
 - 10.1 Saudi Arabia
 - 10.1.1 Historical Trend (2018-2024)
 - 10.1.2 Forecast Trend (2025-2034)
 - 10.2 United Arab Emirates
 - 10.2.1 Historical Trend (2018-2024)
 - 10.2.2 Forecast Trend (2025-2034)
 - 10.3 Nigeria
 - 10.3.1 Historical Trend (2018-2024)
 - 10.3.2 Forecast Trend (2025-2034)
 - 10.4 South Africa
 - 10.4.1 Historical Trend (2018-2024)
 - 10.4.2 Forecast Trend (2025-2034)
 - 10.5 Others
- 11 Market Dynamics
 - 11.1 SWOT Analysis

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

- 11.1.1 Strengths
- 11.1.2 Weaknesses
- 11.1.3 Opportunities
- 11.1.4 Threats
- 11.2 Porter's Five Forces Analysis
 - 11.2.1 Supplier's Power
 - 11.2.2 Buyer's Power
 - 11.2.3 Threat of New Entrants
 - 11.2.4 Degree of Rivalry
 - 11.2.5 Threat of Substitutes
- 11.3 Key Indicators for Demand
- 11.4 Key Indicators for Price
- 12 Price Analysis
- 13 Competitive Landscape
 - 13.1 Supplier Selection
 - 13.2 Key Global Players
 - 13.3 Key Regional Players
 - 13.4 Key Player Strategies
 - 13.5 Company Profiles
 - 13.5.1 Koch Industries, Inc.
 - 13.5.1.1 Company Overview
 - 13.5.1.2 Product Portfolio
 - 13.5.1.3 Demographic Reach and Achievements
 - 13.5.1.4 Certifications
 - 13.5.2 BASF SE
 - 13.5.2.1 Company Overview
 - 13.5.2.2 Product Portfolio
 - 13.5.2.3 Demographic Reach and Achievements
 - 13.5.2.4 Certifications
 - 13.5.3 Ube Industries, Ltd.
 - 13.5.3.1 Company Overview
 - 13.5.3.2 Product Portfolio
 - 13.5.3.3 Demographic Reach and Achievements
 - 13.5.3.4 Certifications
 - 13.5.4 Zibo Guangtong Chemical Co., Ltd.
 - 13.5.4.1 Company Overview
 - 13.5.4.2 Product Portfolio
 - 13.5.4.3 Demographic Reach and Achievements
 - 13.5.4.4 Certifications
 - 13.5.5 Evonik Industries AG
 - 13.5.5.1 Company Overview
 - 13.5.5.2 Product Portfolio
 - 13.5.5.3 Demographic Reach and Achievements
 - 13.5.5.4 Certifications
 - 13.5.6 Cathay Industrial Biotech Ltd.
 - 13.5.6.1 Company Overview
 - 13.5.6.2 Product Portfolio

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

13.5.6.3 Demographic Reach and Achievements

13.5.6.4 Certifications

13.5.7 Others

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

Dodecanedioic Acid Market Size Analysis Report - Market Share, Forecast Trends and Outlook (2025-2034)

Market Report | 2025-08-13 | 168 pages | EMR Inc.

To place an Order with Scotts International:

- Print this form
- Complete the relevant blank fields and sign
- Send as a scanned email to support@scotts-international.com

ORDER FORM:

Select license	License	Price
	Single User License	\$3599.00
	Five User License	\$4249.00
	Corporate License	\$5099.00
		VAT
		Total

*Please circle the relevant license option. For any questions please contact support@scotts-international.com or 0048 603 394 346.

** VAT will be added at 23% for Polish based companies, individuals and EU based companies who are unable to provide a valid EU Vat Numbers.

Email*	<input type="text"/>	Phone*	<input type="text"/>
First Name*	<input type="text"/>	Last Name*	<input type="text"/>
Job title*	<input type="text"/>		
Company Name*	<input type="text"/>	EU Vat / Tax ID / NIP number*	<input type="text"/>
Address*	<input type="text"/>	City*	<input type="text"/>
Zip Code*	<input type="text"/>	Country*	<input type="text"/>
		Date	<input type="text" value="2026-03-06"/>
		Signature	

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

