Bio-plasticisers Market Size Analysis Report - Market Share, Forecast Trends and Outlook (2025-2034)

Market Report | 2025-07-21 | 176 pages | EMR Inc.

AVAILABLE LICENSES:

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

Report description:

The global bio-plasticisers market reached a value of USD 1.53 Billion in 2024. The market is further estimated to grow at a CAGR of 5.70% during 2025-2034 to reach a value of USD 2.66 Billion in 2034.

Bio-plasticisers Market Growth

Bio-plasticisers are safe and sustainable materials that are used to turn stiff synthetic polymers, such as PVC into soft resins for various applications that demand flexibility. These plasticisers are digestible and are extensively used as an alternative to conventional plasticisers, such as phthalates without any alteration in processing. Factors such as these bolster the bio-plasticisers demand growth over the forecast period.

Key Trends and Recent Developments

Increased efficiency, escalating eco-consciousness, stringent government regulations, and the rising need to reduce the dependency on fossil fuels shape the bio-plasticisers market dynamics and trends.

April 2021

BASF introduced the bio-plasticisers, such as Hexamoll DINCH BMB and Palatinol 10-P BMB made of organic waste or vegetable oils for the polyvinyl chloride industry.

Multiple advantages of bio-plasticisers

The bio-plasticisers offer multiple advantages, such as superior technical and processing characteristics, enhanced flexibility,

improved chemical properties of plastic products, and oil resistance, among others. Such energy efficiency provided by the bio-plasticisers is a key trend of the bio-plasticisers market.

Rising eco-consciousness

The surging eco-consciousness and the growing awareness about the harmful impacts of conventional plasticisers on the environment are leading to the increased use of bio-plasticisers.

Reducing the dependency on fossil fuels

The emerging need to reduce the dependency on fossil fuels is leading to the replacement of conventional petroleum-based phthalate plasticisers with bio-plasticisers.

Strict government regulations

There are stringent government regulations, such as the ban on fossil fuel-made conventional plasticisers to reduce the environmental impacts and to ensure the safe packaging of food products, affecting the bio-plasticisers market opportunities.

Bio-plasticisers Market Trends

Availability of Different Types of Eco-friendly Plasticisers to Aid the Bio-plasticisers Market

Epoxidized soybean oil is a nontoxic and yellow-coloured liquid, which is developed from soybean oil through the process of epoxidation. Epoxidized soybean oil is easily available, renewable, and cost-effective, thus resulting in its wider utilisation across various end-use sectors.

The castor-oil-based bio-plasticisers are extensively used in various natural and synthetic resins, like polyvinyl chloride, nitrocellulose, ethylcellulose, and rubber polymers for improved elongation. They provide superior electrical insulating properties, excellent lubricity, cold-crack resistance, and improved heat stability.

Citrate plasticisers provide an improved toxicological profile and are compatible with various polymers, which leads to their increasing use as an alternative to phthalate plasticisers in different technical applications. There is expanding availability of non-VOC citric bio-plasticisers that are approved for food contacts and are used in interior applications where no emission is required, augmenting the bio-plasticisers industry growth.

There is an increasing demand for succinate acid-made plasticisers of average molecular weight owing to their reduced viscosity, enhanced paste stability, and low-temperature flexibility in synthetic polymer compounds. The market players are making strong efforts to offer plasticisers made from succinic acid, a naturally occurring substance as they have a reduced environmental footprint when compared to adipic acid-based plasticisers.

Industry Outlook

Rising Production of Bio-Plastics Globally Supports the Demand for Bio Plasticisers

According to European Bioplastics e.V., worldwide production capacity of bioplastics is expected to increase significantly between 2022 and 2028 due to the increasing demand for sustainable alternatives. In 2022, the total production capacity for all types of bioplastics stood at 1,813 thousand tonnes, wherein 949 thousand tonnes were biobased/non-biodegradable and 864 thousand

tonnes were biodegradable. This capacity is likely to reach 7,432 thousand tonnes by the year 2028, where biodegradable is foreseen to reach 4,605 thousand tonnes and biobased/non-biodegradable would be 2,827 thousand tonnes.

The total production capacity for bioplastics was 1,813 thousand tonnes in 2022, of which 1,507 thousand tonnes were used, meaning a capacity utilisation of 83%. By 2023, production reached 1,799 thousand tonnes while capacity utilisation was 82% of the extended capacity at 2,182 thousand tonnes. This small reduction in capacity utilisation from 83% down to 82% shows that production is increasing, but not with the same speed as capacity extension, leading onto new trends of the bio-plasticisers market.

In 2023, the total production capacity for bioplastics reached 2,182 thousand tonnes, with 52.1% for fully biodegradable bioplastics and the remaining 47.9% accounted for biobased/non-biodegradable bioplastics. Correspondingly, PLA makes up 31.0% of the entire capacity, while SCPC-or starch/cellulose-based plastics-makes up 6.4%, and PBAT-or polybutylene adipate terephthalate-4.6%. Other less important biodegradable bioplastics include PHA at 4.8% and PBS at 0.9%.

For the biobased/non-biodegradable bioplastics, PA polyamides leads the way at 18.3%, followed by PTT polytrimethylene terephthalate at 13.5%, PE polyethylene at 12.3%, while PET polyethylene terephthalate stands at 2.2%. Other bioplastics cumulatively makeup 1.1%. The growth in capacity for bioplastic production reflects progress in bio-based material technology to make durable bioplastic possible. As production of bioplastics goes up, demand for bio plasticisers, without which one cannot achieve elasticity and resistance within a bioplastic, is growing accordingly.

Bio-plasticisers Industry Segmentation

"Bio-plasticisers Market Report and Forecast 2025-2034" offers a detailed analysis of the market based on the following segments:

On the basis of products, the market can be divided into:

- Epoxidized Soybean Oil (Esbo)
- Castor Oil-Based Plasticisers
- Citrates
- Succinic Acid
- Others

On the basis of application, the market can be segmented into:

- Packaging Materials
- Consumer Goods
- Automotive And Transport
- Building And Construction
- Textiles
- Agriculture And Horticulture
- Others

On the basis of region, the market can be divided into:

- North America
- Europe
- Asia Pacific

- Latin America
- Middle East and Africa

Bio-plasticisers Market Share

Rising Utilisation in the Packaging Sector to Support the Bio-plasticisers Market Expansion

The expanding e-commerce channels owing to advantages, like convenience, are leading to the increasing use of bio-plasticisers in the packaging sector, particularly in the case of food products. The stringent regulations regarding the safe packaging of food items are resulting in the application of non-toxic bio-plasticisers as they do not have an impact on the taste of packaged food. Also, the lightweight bio-plasticisers result in the reduced use of fuel during transportation, thus being economical and reducing the environmental footprint.

As per bio-plasticisers industry analysis, the bio-plasticisers are extensively used as additives in consumer goods, such as cosmetics, to provide a smooth texture. Also, there is expanding use of bio-plasticisers in the production of consumer goods, such as toys, to obtain more flexibility and address the growing safety concerns. The increasing production of automobiles due to improved living standards and the surging demand for environment-friendly vehicles are leading to the increasing use of bio-plasticisers in automotive production. Also, automobile producers are adopting bio-plasticisers to reduce the dependency on fossil fuels.

The increasing construction of buildings owing to rapid urbanisation is leading to the growing use of bio-plasticisers in cement mortar mixes to reduce viscosity and boost performance with more flexibility.

Demand for Sustainability Aids the Growth of Bio Plasticisers.

- The source of bio plasticisers is renewable; hence, the dependence on fossil fuel and the carbon footprint associated with it is reduced.
- Governmental regulations and policies governing eco-friendly materials set the pace of demand for bio plasticisers.
- In many instances, bio plasticisers are less toxic compared to traditional plasticisers and hence can be used in products that come in contact with humans, resulting in bio-plasticisers market growth.

Difficulty in procurement of raw materials, along limitations of bio plasticisers over conventional plasticisers are the factors that will slow down the pace of the bio-plasticisers market.

- The production cost of conventional plasticisers is generally low in comparison to bio plasticisers, which makes these products more uncompetitive, particularly against price-sensitive markets.
- The raw material availability regarding the production of bio plasticisers can be inconsistent, which consequently affects the production stability of these materials.
- The performance characteristics in specific applications by bio plasticisers may not be satisfactory when compared to traditional plasticisers. This factor limits their use in respective industries.
- Advanced technologies and infrastructure are required to produce cost-effective bio plasticisers, which may not be readily available for every region.

The advancement in technology for bio plasticisers and increased industrialisation acts as a catalyst to the market.

- Growing markets in Asia, Africa, and Latin America offer potential demand opportunities based on increasing industrialization and environmental regulations.

- As per bio-plasticisers market analysis, emerging innovative improvements in formulation and processing technologies concerning bio plasticizers provide potential for better performance and wider applications.
- Strategic alliances with research institutions and other companies accelerate the development and market penetration process.
- Increasingly sustainable growth and ecological awareness together with increasing demand for green products could be reasons for a good market demand for bio plasticisers.

Bio-plasticisers Market Regional Analysis

The bio-plasticisers industry in the Asia-Pacific region will gain the maximum demand. This demand will be driven by fast industrialization, growing consumer awareness related to sustainability, and tough environmental regulations in countries such as China, India, and Japan. Further investments in green technologies and expansion of the manufacturing sectors increase the consumption of bio-plasticisers. In addition, growing disposable incomes and changing lifestyles result in greater focus on eco-friendly products. Hence, the Asia-Pacific region is considered a significant growth region for the bio-plasticisers industry.

Competitive Landscape

The strong presence of market players and their efforts to launch superior quality bio-plasticisers that meet customer expectations support the market growth.

Evonik Industries AG

Evonik Industries AG, founded in 2007 and headquartered in Essen, Germany, this specialty chemicals manufacturer maintains 27 production plants in over 100 countries worldwide. Its five key divisions are specialty additives, performance materials, nutrition and care, smart materials, and technology and infrastructure.

BASF SE

BASF SE, founded in 1865 in Ludwigshafen, Germany, manufactures chemicals, materials, industrial solutions, surface technologies, nutrition, care, and agriculture. The company is listed on the Frankfurt Stock Exchange, and its listings are under the symbol BAS, while its operations are run in more than 90 countries of the world.

Solvay S.A.

Solvay S.A., founded in 1863 and headquartered in Brussels, Belgium, hhas been a leading chemical company whose solutions contribute to making a safer and more sustainable future. The company focuses on innovations across various industries to make them more sustainable.

Other key players profiles in the bio-plasticisers industry report include Lanxess AG, and Vertellus Specialties Inc., among others.

Competitive Factors in the Global Bio-Plasticisers Market

- Investment in research and development in developing advanced, more efficient formulation of bio plasticiser.
- Development and optimization of the production process to increase efficiency, cost reductions, and improvement in the quality of the products will eventually boost the bio-plasticisers market revenue.
- Securing reliable and cost-competitive sources of bio-based raw materials with which to feed the production process.
- Increasing output levels has two-fold benefits in such cases: cost per unit decreases, so that prices can be provided at an appropriate competitive level.

- Ensuring a strong distribution network capable of providing timely and effective delivery of the products to market.
- Highlight the environmental benefits to eco-conscious consumers and sustainable credentials of bio plasticisers.
- Optimise specific marketing campaigns that aim to increase awareness and promote the benefits of using bio plasticisers.

Key Price Indicators of the Global Bio-Plasticisers Market

- Raw Material Costs: The feedstock price-vegetable oils, starch, and other bio-based materials-are considered the leading cost determinant in the price of bio plasticisers.
- Production Technology: Emerging technologies that boost production yield and efficiency or reduce energy use may serve to reduce production costs and, therefore, bio-plasticisers industry revenue accordingly.
- Regulatory Compliance Costs: Additional cost that compliance to environmental and safety regulations impose on manufacturers. These include certification costs and quality testing costs.
- Market Dynamics of Demand-Supply: If demand is high with low supply, prices tend to increase, whereas oversupply results in price cuts.
- Energy Costs: Energy price fluctuations, especially on production processes dependent on bio-based raw materials, would affect the overall price of the bio plasticisers.
- Prices of Substitute Products: Competitive pricing strategies can be undertaken to make the bio plasticisers look more attractive than their conventional counterparts.
- Transportation and logistics: The cost of transporting the raw materials to the site of production and finished products to the end users determines the final market price, affecting the growth of the bio-plasticisers market.

Table of Contents:

Bio-plasticisers Market Size Analysis Report - Market Share, Forecast Trends and Outlook (2025-2034)

Market Report | 2025-07-21 | 176 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*		Phone*	
First Name*		Last Name*	
Job title*			
Company Name*		EU Vat / Tax ID / NIP number*	
Address*		City*	
Zip Code*		Country*	
		Date	2026-02-20
		Signature