



Market Insights: Polyhydroxyalkanoates - 2024

Market Insights: Polyhydroxyalkanoates (PHAs) - 2024 is one in a series of reports published as part of **NexantECA Markets & Profitability** program.

NexantECA's Market Insights report provides a comprehensive review of the global polyhydroxyalkanoates (PHA) market, with historic data from 2005 and forecasts to 2035. The report includes:

- Discussion regarding key market drivers and constraints for each region.
- Supply, demand trade for nine regions: North America, South America, Western Europe, Central Europe, Eastern Europe, Middle East, Africa, Asia Pacific, and China.
- End-use analysis includes: flexible and rigid packaging, agricultural and horticulture, coatings & adhesives, consumer products and others including medical, fibre and additives etc.
- Competitiveness analysis, including competitive landscape, who's who of suppliers and cost competitiveness
- Price history and forecast with commentary regarding latest trends.

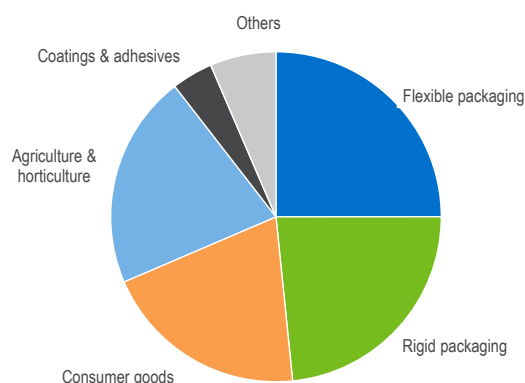
Along with the written report, data is provided in Excel including global capacity listings.

Report Abstract:

Polyhydroxyalkanoates or PHAs are polyesters produced in nature by numerous microorganisms, including through bacterial fermentation of sugars or lipids (fats). When produced by bacteria they serve as both a source of energy and as a carbon store. More than 150 different monomers can be combined within this family to give polymers with varying properties. Features of PHAs can differ from brittle thermoplastics to gummy elastomers depending on the type of the utilized carbon source, bacterial host and fermentation conditions. The production method for PHAs depends on various factors including carbon source (defined e.g. glucose, lipids or complex waste materials), microbial culture (pure or mixed), mode of fermentation (batch, fed-batch, continuous), bioreactor type (air-lift reactor, and continuous stirred tank reactor (CSTR)). Common substrates for the synthesis of PHAs include simple sugars and oils, such as glucose and soybean oil. Over 300 bacterial species have been reported to be capable of producing PHAs, in both aerobic (with oxygen) and anaerobic (without oxygen) environments.

The versatility of PHAs lends them to a wide range of potential market applications. The main markets where PHAs have already achieved a limited degree of penetration are packaging, consumer goods, agriculture. PHAs have application potential in both low value, high volume markets (such as compost bin liners) as well as low volume, high value markets (such as absorbable surgical film).

Global PHAs Demand by End Use



PHAs pricing and margins are reviewed and a cash cost analysis is performed for the major regional suppliers. In addition, the market drivers, key challenges, and potential barriers are evaluated including regulatory framework and policies for stimulating biodegradable polymers demand.

For more information, please visit www.NexantECA.com



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Each region section in Chapter 3 includes:

- Market Overview
- Market Drivers
- Market Constraints
- Competitive Landscape
- Supply and Demand

Report License Details:

Access to **Market Insights: PHAs - 2024** is via a report license agreement and includes:

- 12 month access to the PDF report via NexantECA website, with unlimited downloads of PDF reports
- Excel file
- Consultation time with the project team

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The **Markets and Profitability** program tracks over 60 feedstocks, petrochemicals, polymers, chemical intermediates and fertilizers on an ongoing basis and provides regularly updated reports covering all commercial aspects of these global industries. The accompanying database, provides global analysis and forecasts in two major inter-related areas: **Markets and Profitability**.

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