

The Global Market for Biodegradable Microbeads 2024-2035

<https://marketpublishers.com/r/G59966558FBBEN.html>

Date: March 2024

Pages: 127

Price: US\$ 1,250.00 (Single User License)

ID: G59966558FBBEN

Abstracts

Plastic microbeads are a multi-billion dollar market, with applications in markets ranging from cosmetics to oil & gas. However, their use is limited in some applications, and regulatory curbs regarding use are likely to increase. Replacement of plastic microbeads with biodegradable and non-toxic alternatives is increasingly important and the market will grow to meet both regulatory demands and increased use of microbeads in healthcare (e.g. pharmaceuticals and drug delivery), food and beverages), paints and coatings, and cosmetics and personal care sectors.

Microplastics can be separated into primary and secondary microplastics. Primary microplastics are mostly thermoset and thermoplastic materials that have been added to products to fulfil a certain function. For example, these synthetic non-degradable polymers are used in personal care and cosmetics for exfoliation, film formation, sorbents for delivering active ingredients, skin conditioning etc.. While some of these microbeads are clearly visible, others are in the micro- or nanometre range. Personal care and cosmetic products since the 1990s have been increasingly formulated to include microbeads to improve their abrasive and other qualities. Many companies have curtailed their use or pivoted to natural alternatives, but it still represents a sizeable global market.

Secondary microplastics are formed by the fragmentation of macroplastics (>5 mm) by processes such as weathering of plastic litter and paint layers, as well as wear of car tyres and are the main focus of environmental concerns. However, primary microplastics also raise issues and are a target for regulation. Therefore the developments of biobased and natural alternatives has grown in recent years.

The Global Market for Biodegradable Microbeads 2024-2035 offers an in-depth analysis of the market dynamics, key players, and future opportunities within this rapidly evolving sector, covering the period from 2017 to 2035. The report examines the current state of the microplastics market, providing a detailed classification of microplastics and their

applications across various industries, and the potential of biodegradable materials as replacements for conventional microplastics. Biodegradable microbead materials types covered include natural polymers, polysaccharides, proteins, and polyesters. The report assesses the likelihood of these materials penetrating different sectors, such as personal care, cosmetics, agriculture, paints & coatings, detergents, oil & gas, and medical products.

One of the key highlights of this report is its comprehensive analysis of microplastic usage and the potential for biodegradable alternatives across these sectors. By providing a detailed breakdown of the current market size and forecasts for both primary microparticles and biodegradable microbeads, segmented by sector and region (in tonnes and USD), the report enables stakeholders to identify lucrative opportunities and make informed strategic decisions. Moreover, the report features profiles of leading producers and developers of biodegradable microbead materials, offering valuable insights into their product portfolios, production capacities, and growth strategies. This information is crucial for companies seeking to establish partnerships, collaborate on research and development, or stay ahead of the competition in this dynamic market. Companies profiled include Ajinomoto Co., Inc., Andritz Oy, Asahi Kasei Corporation, BASF, Bioweg, CELLiCON, CH-Bioforce Oy, Croda, Daicel Corporation, Green Science Alliance, Lactips, LignoPure GmbH, Naturbeads and TerraVerdae BioWorks.

As concerns about the environmental impact of microplastics continue to mount, the demand for sustainable and biodegradable alternatives is expected to soar. This report serves as an essential resource for companies, researchers, and investors looking to capitalize on this trend and contribute to a greener future. By providing a comprehensive understanding of the market landscape, key players, and growth prospects, this report empowers stakeholders to navigate the challenges and seize the opportunities presented by the global shift towards eco-friendly microbeads and microplastic alternatives.

Contents

1 REPORT METHODOLOGY

2 MICROPLASTICS MARKET

2.1 Microplastics added to products

2.1.1 Classification

2.1.2 Function and applications

2.2 Microplastics legislation

2.2.1 REACH

3 BIODEGRADABLE MICROBEADS MATERIALS

3.1 Use as an alternative to microplastics

3.2 Natural hard materials

3.3 Natural polymers

3.3.1 Polysaccharides

3.3.1.1 Starch

3.3.1.1.1 Applications and commercial status

3.3.1.1.2 Companies

3.3.1.2 Cellulose

3.3.1.2.1 Microcrystalline cellulose (MCC)

3.3.1.2.1.1 Applications and commercial status

3.3.1.2.1.2 Companies

3.3.1.2.2 Regenerated cellulose microspheres

3.3.1.2.2.1 Applications and commercial status

3.3.1.2.2.2 Companies

3.3.1.2.3 Cellulose nanocrystals

3.3.1.2.3.1 Applications and commercial status

3.3.1.2.3.2 Companies

3.3.1.2.4 Bacterial nanocellulose (BNC)

3.3.1.2.4.1 Applications and commercial status

3.3.1.2.4.2 Companies

3.3.1.3 Chitin

3.3.1.3.1 Applications and commercial status

3.3.1.3.2 Companies

3.3.2 Proteins

3.3.2.1 Collagen/Gelatin

- 3.3.2.1.1 Applications and commercial status
- 3.3.2.2 Casein
 - 3.3.2.2.1 Applications and commercial status
- 3.3.3 Polyesters
 - 3.3.3.1 Polyhydroxyalkanoates
 - 3.3.3.1.1 Applications and commercial status
 - 3.3.3.1.2 Companies
 - 3.3.3.2 Polylactic acid
 - 3.3.3.2.1 Applications and commercial status
 - 3.3.3.2.2 Companies
- 3.3.4 Other natural polymers
 - 3.3.4.1 Lignin
 - 3.3.4.1.1 Description
 - 3.3.4.1.2 Applications and commercial status
 - 3.3.4.1.3 Companies
 - 3.3.4.2 Alginate
 - 3.3.4.2.1 Applications and commercial status
 - 3.3.4.2.2 Companies

4 MARKETS FOR BIODEGRADABLE MICROBEADS

- 4.1 Likelihood of market penetration of natural microplastic alternatives, by market
- 4.2 Personal care
 - 4.2.1 Market overview
 - 4.2.2 Applications
 - 4.2.3 Total quantity of microplastics present 2023 (tonnes), by scale
- 4.3 Cosmetics
 - 4.3.1 Market overview
 - 4.3.2 Applications
 - 4.3.3 Total quantity of microplastics present 2023 (tonnes), by scale
- 4.4 Agriculture and horticulture
 - 4.4.1 Market overview
 - 4.4.2 Applications
 - 4.4.3 Total quantity of microplastics present 2023 (tonnes), by scale
- 4.5 Paints & coatings
 - 4.5.1 Market overview
 - 4.5.2 Applications
 - 4.5.3 Total quantity of microplastics present 2023 (tonnes), by scale
- 4.6 Soap, detergents and maintenance products

- 4.6.1 Market overview
- 4.6.2 Applications
- 4.6.3 Total quantity of microplastics present 2023 (tonnes), by scale
- 4.7 Oil and gas
 - 4.7.1 Market overview
 - 4.7.2 Applications
 - 4.7.3 Total quantity of microplastics present 2023 (tonnes), by scale
- 4.8 Medical products
 - 4.8.1 Market overview
 - 4.8.2 Applications
 - 4.8.3 Total quantity of microplastics present 2023 (tonnes), by scale
- 4.9 Global market size
 - 4.9.1 Primary microparticles (volume in tonnes)
 - 4.9.1.1 By sector
 - 4.9.1.2 By region
 - 4.9.2 Biodegradable microbeads (volume in tonnes)
 - 4.9.2.1 By market
 - 4.9.2.2 By region
 - 4.9.3 Global revenues
 - 4.9.3.1 By market
 - 4.9.3.2 By region

5 PRODUCER PROFILES 87 (36 COMPANY PROFILES)

6 REFERENCES

List Of Tables

LIST OF TABLES

- Table 1. Summary of functions and applications for microplastics.
- Table 2. Biodegradable polymers.
- Table 3. Companies developing starch microspheres/microbeads.
- Table 4. Companies developing microcrystalline cellulose (MCC) spheres/beads.
- Table 5. Companies developing cellulose microbeads.
- Table 6. CNC properties.
- Table 7. Applications of cellulose nanocrystals (NCC).
- Table 8. Companies developing cellulose nanocrystal microbeads.
- Table 9. Cellulose nanocrystal production capacities and production process, by producer.
- Table 10. Applications of bacterial nanocellulose (BNC).
- Table 11. Companies developing bacterial nanocellulose microbeads.
- Table 12. Companies developing chitin microspheres/microbeads.
- Table 13. Types of PHAs and properties.
- Table 14. Polyhydroxyalkanoates (PHA) producers.
- Table 15. Companies developing PHA for microbeads.
- Table 16. PLA producers and production capacities.
- Table 17. Technical lignin types and applications.
- Table 18. Properties of lignins and their applications.
- Table 19. Production capacities of technical lignin producers.
- Table 20. Production capacities of biorefinery lignin producers.
- Table 21. Companies developing lignin for microbeads (current or potential applications).
- Table 22. Likelihood of market penetration of natural microplastic alternatives.
- Table 23. Personal care products containing primary microplastics.
- Table 24. Agriculture and horticulture products containing microplastics.
- Table 25. Soaps, detergents and maintenance products containing microplastics.
- Table 26. Example microsphere products in drug delivery.
- Table 27. Medical products containing microplastics.
- Table 28. Global market for primary microparticles 2017-2023, by sector, (tonnes).
- Table 29. Global market for primary microparticles 2024-2035, by sector, tonnes.
- Table 30. Global market for primary microparticles 2017-2023, by region, (tonnes).
- Table 31. Global market 2017-2035, for biodegradable microbeads, by market (tonnes).
- Table 32. Global market 2017-2035, for biodegradable microbeads, by region (tonnes).
- Table 33. Global market 2017-2035, by sector (millions USD), by microbead type.

Table 34. Global market 2017-2035, by region (millions USD), by microbead type.
Table 35. Lactips plastic pellets.

List Of Figures

LIST OF FIGURES

Figure 1. Typical sources of primary microplastics.

Figure 2. Bacterial nanocellulose shapes.

Figure 3. Total quantity of microplastics present in personal care products 2023 (tonnes), by scale.

Figure 4. Toothpaste incorporating microbeads.

Figure 5. Total quantity of microplastics present in cosmetics 2023 (tonnes), by scale.

Figure 6. Total quantity of microplastics present in agriculture and horticulture 2023 (tonnes), by scale.

Figure 7. Total quantity of microplastics present in paints and coatings 2023 (tonnes), by scale.

Figure 8. Total quantity of microplastics present in Soaps, detergents and maintenance products 2021 (tonnes), by scale.

Figure 9. Total quantity of microplastics present in soap & detergents 2023 (tonnes), by scale.

Figure 10. Total quantity of microplastics present in oil and gas 2021 (tonnes), by scale.

Figure 11. Total quantity of microplastics present in medicinal products 2023 (tonnes), by scale.

Figure 12. Global market by sector, primary microparticles, 2023 (tonnes).

Figure 13. Global market for primary microparticles 2017-2023, by sector, (tonnes).

Figure 14. Global market for primary microparticles 2024-2035, by sector, tonnes.

Figure 15. Global market size by region 2023, primary microparticles, (tonnes).

Figure 16. Global market for primary microparticles 2017-2023, by region, (tonnes).

Figure 17. Global market 2017-2035, for biodegradable microbeads, by market (tonnes).

Figure 18. Global market 2017-2035, for biodegradable microbeads, by region (tonnes).

Figure 19. Global market 2017-2035, by sector (millions USD), by microbead type.

Figure 20. Global market 2017-2035, by region (millions USD), by microbead type.

Figure 21: CNC produced at Tech Futures' pilot plant; cloudy suspension (1 wt.%), gel-like (10 wt.%), flake-like crystals, and very fine powder. Product advantages include:

Figure 22: NCCTM Process.

Figure 23. Pressurized Hot Water Extraction.

Figure 24. BELLOCEA™.

Figure 25. VIVAPUR® MCC Spheres.

Figure 26. Viscoparl®.

Figure 27. The Proesa® Process.

I would like to order

Product name: The Global Market for Biodegradable Microbeads 2024-2035

Product link: <https://marketpublishers.com/r/G59966558FBBEN.html>

Price: US\$ 1,250.00 (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/G59966558FBBEN.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**

Customer 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