

Nanocellulose Market Report by Product Type (Nanofibrillated Cellulose (NFC), Nanocrystalline Cellulose (NCC), Bacterial Cellulose, Microfibrillated Cellulose (MFC), and Others), Application (Pulp and Paperboard, Composites, Pharmaceuticals and Biomedical, Electronics, Food and Beverages, and Others), and Region 2024-2032

https://marketpublishers.com/r/NA3D59D2DBF6EN.html

Date: March 2024 Pages: 144 Price: US\$ 3,899.00 (Single User License) ID: NA3D59D2DBF6EN

Abstracts

The global nanocellulose market size reached US\$ 574.7 Million in 2023. Looking forward, IMARC Group expects the market to reach US\$ 2,479.8 Million by 2032, exhibiting a growth rate (CAGR) of 17.11% during 2024-2032. Growing product demand in numerous end-use industries, stringent regulations levied by government of several countries banning non-biodegradable packaging, and increasing usage of nanocellulose as a suitable ingredient in manufacturing healthcare products represent some of the key factors driving the market.

Nanocellulose is a type of nanostructured cellulose material that has unique physical and chemical properties which makes it suitable for a wide range of industrial applications. The material is derived from the refining of cellulose fibers and results in nanoscale materials with a high strength-to-weight ratio and remarkable thermal and mechanical stability. Nanocellulose can be sourced from natural sources such as wood, plants, bacteria, or algae. The separation process involves the use of high-pressure homogenizers to isolate nanosized fibrils or acid hydrolysis to produce hard nanoparticles. It is characterized by properties such as high tensile strength, biocompatibility, and stiffness as well as high viscosity. Nanocellulose is biodegradable and is produced from renewable resources and has a lower environmental impact compared to traditional materials. The versatility of nanocellulose makes it suitable for



various applications across a wide range of end-use industries.

Nanocellulose Market Trends:

The growing product demand in numerous end-use industries, such as paper and packaging, healthcare, and cosmetics, is a significant factor driving the market. This can be attributed to the escalating demand for sustainable and environmentally friendly materials and the shifting preference toward bio-based goods. In line with this, stringent regulations levied by the government of several countries banning non-biodegradable packaging, particularly for food and beverages, are propelling the demand for durable and lightweight packaging material, which, in turn, is driving the market. Moreover, the rapid product utilization in sheets for windows and electrical displays is creating lucrative growth opportunities in the market. Besides this, the growing adoption of nanocellulose-based sensors to monitor bridges and other structures to measure their degrees of stress is also impacting the market positively. The market is further fueled by the increasing usage of nanocellulose as a suitable ingredient in manufacturing wound dressings and sanitary napkins due to its non-toxicity and high adsorption capacity. Apart from this, continual technological advancements in the manufacturing of nanocellulose with increased paper machine efficiency and better filler content are creating a positive market outlook. Some of the other factors contributing to the market include rapid industrialization, growing product usage in construction activities, rising awareness regarding the adverse effects of using singular-use plastic packages, and extensive research and development (R&D) activities.

Key Market Segmentation:

IMARC Group provides an analysis of the key trends in each segment of the global nanocellulose market, along with forecasts at the global, regional, and country level from 2024-2032. Our report has categorized the market based on product type and application.

Product Type Insights

Nanofibrillated Cellulose (NFC) Nanocrystalline Cellulose (NCC) Bacterial Cellulose Microfibrillated Cellulose (MFC) Others

The report has provided a detailed breakup and analysis of the nanocellulose market based on the product type. This includes Nanofibrillated Cellulose (NFC),



Nanocrystalline Cellulose (NCC), bacterial cellulose, Microfibrillated Cellulose (MFC) and others. According to the report, Microfibrillated Cellulose (MFC) represented the largest segment.

Application Insights

Pulp and Paperboard Composites Pharmaceuticals and Biomedical Electronics Food and Beverages Others

A detailed breakup and analysis of the nanocellulose market based on the application has also been provided in the report. This includes pulp and paperboard, composites, pharmaceuticals and biomedical, electronics, food and beverages, and others. According to the report, pulp and paperboard accounted for the largest market share.

Regional Insights

North America United States Canada Asia Pacific China Japan India South Korea Australia Indonesia Others Europe Germany France United Kingdom Italy Spain Russia Others



Latin America Brazil Mexico Others Middle East and Africa

The report has also provided a comprehensive analysis of all the major regional markets that include North America (the United States and Canada); Asia Pacific (China, Japan, India, South Korea, Australia, Indonesia, and others); Europe (Germany, France, the United Kingdom, Italy, Spain, Russia, and others); Latin America (Brazil, Mexico, and others); and Middle East and Africa. According to the report, Europe was the largest market for nanocellulose. Some of the factors driving the Europe nanocellulose market include the rising awareness regarding the adverse effects of single-use plastic, rapid industrialization, shifting consumer preference for bio-based goods, etc.

Competitive Landscape:

The report has also provided a comprehensive analysis of the competitive landscape in the global nanocellulose market. Detailed profiles of all major companies have also been provided. Some of the companies covered include Borregaard AS, Cellucomp Ltd, CelluForce, FiberLean Technologies Ltd, GranBio Technologies, Kruger Inc., Nippon Paper Industries Co. Ltd., Oji Holdings Corporation, Sappi Ltd, Stora Enso Oyj, etc. Kindly note that this only represents a partial list of companies, and the complete list has been provided in the report.

Key Questions Answered in This Report

1. How big is the global nanocellulose market?

2. What is the expected growth rate of the global nanocellulose market during 2024-2032?

- 3. What are the key factors driving the global nanocellulose market?
- 4. What has been the impact of COVID-19 on the global nanocellulose market?
- 5. What is the breakup of the global nanocellulose market based on the product type?
- 6. What is the breakup of the global nanocellulose market based on the application?
- 7. What are the key regions in the global nanocellulose market?
- 8. Who are the key players/companies in the global nanocellulose market?



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