

**Titanium Dioxide Nanomaterials Market Report by Type (Rutile Nanoparticles, Anatase Nanoparticles, Combination of Rutile and Anatase Nanoparticles, Nanowires and Nanotubes, and Others), Application (Paints and Coatings, Cosmetic and Personal Care, Paper and Ink, Catalysts, and Others), and Region 2024-2032**

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**Report description:**

The global titanium dioxide nanomaterials market size reached US\$ 21.9 Billion in 2023. Looking forward, IMARC Group expects the market to reach US\$ 33.4 Billion by 2032, exhibiting a growth rate (CAGR) of 4.6% during 2024-2032.

Titanium dioxide (TiO<sub>2</sub>) nanomaterial, or nanocrystalline titanium dioxide, refers to the particles of TiO<sub>2</sub> with dimensions between 1 and 100 nanometers (nm). Some of the commonly used TiO<sub>2</sub> nanomaterials include rutile, anatase and combination nanomaterials. They are generally used in photovoltaic, photocatalyst and electrochromic sensors, and the manufacturing of cosmetics and household products. They are also used as a dispersing agent, flocculent and whitening agent in surface coatings and plastics for enhanced performance and production of aesthetically appealing surfaces.

Significant growth in the cosmetics industry across the globe is one of the key factors creating a positive outlook for the market. TiO<sub>2</sub> nanoparticles are extensively used in personal care products, such as sunscreens, perfumes, deodorants, anti-aging creams and moisturizers for improved performance. Furthermore, the increasing demand for TiO<sub>2</sub> nanomaterials from the paints and coatings industry is also driving the market growth. They are primarily used as a white pigment due to their ultraviolet (UV) absorption and photocatalytic sterilizing properties. They are also coated with silica and alumina and covered with metals for other industrial applications. Additionally, various technological advancements, such as improvements in nanotechnology, and growing requirement for lightweight automotive components, are acting as other growth-inducing factors. These nanoparticles are used in polycarbonate coatings that are used as a substitute for metal and glass automobile components. Other factors, including rapid industrialization, especially in developing economies, along with extensive research and development (R&D) activities, are

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anticipated to drive the market further.

**Key Market Segmentation:**

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

**Breakup by Type:**

- Rutile Nanoparticles
- Anatase Nanoparticles
- Combination of Rutile and Anatase Nanoparticles
- Nanowires and Nanotubes
- Others

**Breakup by Application:**

- Paints and Coatings
- Cosmetic and Personal Care
- Paper and Ink
- Catalysts
- Others

**Breakup by Region:**

- North America
  - o□United States
  - o□Canada
- Asia Pacific
  - o□China
  - o□Japan
  - o□India
  - o□South Korea
  - o□Australia
  - o□Indonesia
  - o□Others
- Europe
  - o□Germany
  - o□France
  - o□United Kingdom
  - o□Italy
  - o□Spain
  - o□Russia
  - o□Others
- Latin America
  - o□Brazil
  - o□Mexico
  - o□Others
- Middle East and Africa

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## Competitive Landscape:

The report has also analysed the competitive landscape of the market with some of the key players being ACS Material LLC, Altair Nanotechnologies Inc., Dupont De Nemours Inc., Huntsman Corporation, Kronos Worldwide Inc. (Valhi Inc.), Sigma-Aldrich Corporation (Merck KGaA), Skyspring Nanomaterials Inc., Tronox Limited, US Research Nanomaterials Inc. and Xuancheng Jingrui New Material Co. Ltd.

## Key Questions Answered in This Report

1. How big is the global titanium dioxide nanomaterials market?
2. What is the expected growth rate of the global titanium dioxide nanomaterials market during 2024-2032?
3. What are the key factors driving the global titanium dioxide nanomaterials market?
4. What has been the impact of COVID-19 on the global titanium dioxide nanomaterials market?
5. What is the breakup of the global titanium dioxide nanomaterials market based on the type?
6. What is the breakup of the global titanium dioxide nanomaterials market based on the application?
7. What are the key regions in the global titanium dioxide nanomaterials market?
8. Who are the key players/companies in the global titanium dioxide nanomaterials market?

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