

Titanium Dioxide Nanomaterials Market: Global Industry Trends, Share, Size, Growth, Opportunity and Forecast 2023-2028

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Abstracts

The global titanium dioxide nanomaterials market size reached US\$ 20.8 Billion in 2022. Looking forward, IMARC Group expects the market to reach US\$ 28.4 Billion by 2028, exhibiting a growth rate (CAGR) of 5.3% during 2022-2028.

Titanium dioxide (TiO₂) nanomaterial, or nanocrystalline titanium dioxide, refers to the particles of TiO₂ with dimensions between 1 and 100 nanometers (nm). Some of the commonly used TiO₂ 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. TiO₂ 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 TiO₂ 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 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 2023-2028. 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
 - 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

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 2023-2028?
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?

Contents

1 PREFACE

2 SCOPE AND METHODOLOGY

- 2.1 Objectives of the Study
- 2.2 Stakeholders
- 2.3 Data Sources
 - 2.3.1 Primary Sources
 - 2.3.2 Secondary Sources
- 2.4 Market Estimation
 - 2.4.1 Bottom-Up Approach
 - 2.4.2 Top-Down Approach
- 2.5 Forecasting Methodology

3 EXECUTIVE SUMMARY

4 INTRODUCTION

- 4.1 Overview
- 4.2 Key Industry Trends

5 GLOBAL TITANIUM DIOXIDE NANOMATERIALS MARKET

- 5.1 Market Overview
- 5.2 Market Performance
- 5.3 Impact of COVID-19
- 5.4 Market Forecast

6 MARKET BREAKUP BY TYPE

- 6.1 Rutile Nanoparticles
 - 6.1.1 Market Trends
 - 6.1.2 Market Forecast
- 6.2 Anatase Nanoparticles
 - 6.2.1 Market Trends

- 6.2.2 Market Forecast
- 6.3 Combination of Rutile and Anatase Nanoparticles
 - 6.3.1 Market Trends
 - 6.3.2 Market Forecast
- 6.4 Nanowires and Nanotubes
 - 6.4.1 Market Trends
 - 6.4.2 Market Forecast
- 6.5 Others
 - 6.5.1 Market Trends
 - 6.5.2 Market Forecast

7 MARKET BREAKUP BY APPLICATION

- 7.1 Paints and Coatings
 - 7.1.1 Market Trends
 - 7.1.2 Market Forecast
- 7.2 Cosmetic and Personal Care
 - 7.2.1 Market Trends
 - 7.2.2 Market Forecast
- 7.3 Paper and Ink
 - 7.3.1 Market Trends
 - 7.3.2 Market Forecast
- 7.4 Catalysts
 - 7.4.1 Market Trends
 - 7.4.2 Market Forecast
- 7.5 Others
 - 7.5.1 Market Trends
 - 7.5.2 Market Forecast

8 MARKET BREAKUP BY REGION

- 8.1 North America
 - 8.1.1 United States
 - 8.1.1.1 Market Trends
 - 8.1.1.2 Market Forecast
 - 8.1.2 Canada
 - 8.1.2.1 Market Trends
 - 8.1.2.2 Market Forecast
- 8.2 Asia Pacific

- 8.2.1 China
 - 8.2.1.1 Market Trends
 - 8.2.1.2 Market Forecast
- 8.2.2 Japan
 - 8.2.2.1 Market Trends
 - 8.2.2.2 Market Forecast
- 8.2.3 India
 - 8.2.3.1 Market Trends
 - 8.2.3.2 Market Forecast
- 8.2.4 South Korea
 - 8.2.4.1 Market Trends
 - 8.2.4.2 Market Forecast
- 8.2.5 Australia
 - 8.2.5.1 Market Trends
 - 8.2.5.2 Market Forecast
- 8.2.6 Indonesia
 - 8.2.6.1 Market Trends
 - 8.2.6.2 Market Forecast
- 8.2.7 Others
 - 8.2.7.1 Market Trends
 - 8.2.7.2 Market Forecast
- 8.3 Europe
 - 8.3.1 Germany
 - 8.3.1.1 Market Trends
 - 8.3.1.2 Market Forecast
 - 8.3.2 France
 - 8.3.2.1 Market Trends
 - 8.3.2.2 Market Forecast
 - 8.3.3 United Kingdom
 - 8.3.3.1 Market Trends
 - 8.3.3.2 Market Forecast
 - 8.3.4 Italy
 - 8.3.4.1 Market Trends
 - 8.3.4.2 Market Forecast
 - 8.3.5 Spain
 - 8.3.5.1 Market Trends
 - 8.3.5.2 Market Forecast
 - 8.3.6 Russia
 - 8.3.6.1 Market Trends

- 8.3.6.2 Market Forecast
- 8.3.7 Others
 - 8.3.7.1 Market Trends
 - 8.3.7.2 Market Forecast
- 8.4 Latin America
 - 8.4.1 Brazil
 - 8.4.1.1 Market Trends
 - 8.4.1.2 Market Forecast
 - 8.4.2 Mexico
 - 8.4.2.1 Market Trends
 - 8.4.2.2 Market Forecast
 - 8.4.3 Others
 - 8.4.3.1 Market Trends
 - 8.4.3.2 Market Forecast
- 8.5 Middle East and Africa
 - 8.5.1 Market Trends
 - 8.5.2 Market Breakup by Country
 - 8.5.3 Market Forecast

9 SWOT ANALYSIS

- 9.1 Overview
- 9.2 Strengths
- 9.3 Weaknesses
- 9.4 Opportunities
- 9.5 Threats

10 VALUE CHAIN ANALYSIS

11 PORTERS FIVE FORCES ANALYSIS

- 11.1 Overview
- 11.2 Bargaining Power of Buyers
- 11.3 Bargaining Power of Suppliers
- 11.4 Degree of Competition
- 11.5 Threat of New Entrants
- 11.6 Threat of Substitutes

12 PRICE ANALYSIS

13 COMPETITIVE LANDSCAPE

13.1 Market Structure

13.2 Key Players

13.3 Profiles of Key Players

13.3.1 ACS Material LLC

13.3.1.1 Company Overview

13.3.1.2 Product Portfolio

13.3.2 Altair Nanotechnologies Inc.

13.3.2.1 Company Overview

13.3.2.2 Product Portfolio

13.3.3 Dupont De Nemours Inc.

13.3.3.1 Company Overview

13.3.3.2 Product Portfolio

13.3.3.3 Financials

13.3.4 Huntsman Corporation

13.3.4.1 Company Overview

13.3.4.2 Product Portfolio

13.3.4.3 Financials

13.3.4.4 SWOT Analysis

13.3.5 Kronos Worldwide Inc. (Valhi Inc.)

13.3.5.1 Company Overview

13.3.5.2 Product Portfolio

13.3.5.3 Financials

13.3.5.4 SWOT Analysis

13.3.6 Sigma-Aldrich Corporation (Merck KGaA)

13.3.6.1 Company Overview

13.3.6.2 Product Portfolio

13.3.7 Skyspring Nanomaterials Inc.

13.3.7.1 Company Overview

13.3.7.2 Product Portfolio

13.3.8 Tronox Limited

13.3.8.1 Company Overview

13.3.8.2 Product Portfolio

13.3.9 US Research Nanomaterials Inc.

13.3.9.1 Company Overview

13.3.9.2 Product Portfolio

13.3.10 Xuancheng Jingrui New Material Co. Ltd.

13.3.10.1 Company Overview

13.3.10.2 Product Portfolio

List Of Tables

LIST OF TABLES

Table 1: Global: Titanium Dioxide Nanomaterials Market: Key Industry Highlights, 2022 and 2028

Table 2: Global: Titanium Dioxide Nanomaterials Market Forecast: Breakup by Type (in Million US\$), 2023-2028

Table 3: Global: Titanium Dioxide Nanomaterials Market Forecast: Breakup by Application (in Million US\$), 2023-2028

Table 4: Global: Titanium Dioxide Nanomaterials Market Forecast: Breakup by Region (in Million US\$), 2023-2028

Table 5: Global: Titanium Dioxide Nanomaterials Market: Competitive Structure

Table 6: Global: Titanium Dioxide Nanomaterials Market: Key Players

List Of Figures

LIST OF FIGURES

Figure 1: Global: Titanium Dioxide Nanomaterials Market: Major Drivers and Challenges

Figure 2: Global: Titanium Dioxide Nanomaterials Market: Sales Value (in Billion US\$), 2017-2022

Figure 3: Global: Titanium Dioxide Nanomaterials Market: Breakup by Type (in %), 2022

Figure 4: Global: Titanium Dioxide Nanomaterials Market: Breakup by Application (in %), 2022

Figure 5: Global: Titanium Dioxide Nanomaterials Market: Breakup by Region (in %), 2022

Figure 6: Global: Titanium Dioxide Nanomaterials Market Forecast: Sales Value (in Billion US\$), 2023-2028

Figure 7: Global: Titanium Dioxide Nanomaterials (Rutile Nanoparticles) Market: Sales Value (in Million US\$), 2017 & 2022

Figure 8: Global: Titanium Dioxide Nanomaterials (Rutile Nanoparticles) Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 9: Global: Titanium Dioxide Nanomaterials (Anatase Nanoparticles) Market: Sales Value (in Million US\$), 2017 & 2022

Figure 10: Global: Titanium Dioxide Nanomaterials (Anatase Nanoparticles) Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 11: Global: Titanium Dioxide Nanomaterials (Combination of Rutile and Anatase Nanoparticles) Market: Sales Value (in Million US\$), 2017 & 2022

Figure 12: Global: Titanium Dioxide Nanomaterials (Combination of Rutile and Anatase Nanoparticles) Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 13: Global: Titanium Dioxide Nanomaterials (Nanowires and Nanotubes) Market: Sales Value (in Million US\$), 2017 & 2022

Figure 14: Global: Titanium Dioxide Nanomaterials (Nanowires and Nanotubes) Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 15: Global: Titanium Dioxide Nanomaterials (Other Types) Market: Sales Value (in Million US\$), 2017 & 2022

Figure 16: Global: Titanium Dioxide Nanomaterials (Other Types) Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 17: Global: Titanium Dioxide Nanomaterials (Paints and Coatings) Market: Sales Value (in Million US\$), 2017 & 2022

Figure 18: Global: Titanium Dioxide Nanomaterials (Paints and Coatings) Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 19: Global: Titanium Dioxide Nanomaterials (Cosmetic and Personal Care)

Market: Sales Value (in Million US\$), 2017 & 2022

Figure 20: Global: Titanium Dioxide Nanomaterials (Cosmetic and Personal Care)

Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 21: Global: Titanium Dioxide Nanomaterials (Paper and Ink) Market: Sales Value (in Million US\$), 2017 & 2022

Figure 22: Global: Titanium Dioxide Nanomaterials (Paper and Ink) Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 23: Global: Titanium Dioxide Nanomaterials (Catalysts) Market: Sales Value (in Million US\$), 2017 & 2022

Figure 24: Global: Titanium Dioxide Nanomaterials (Catalysts) Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 25: Global: Titanium Dioxide Nanomaterials (Other Applications) Market: Sales Value (in Million US\$), 2017 & 2022

Figure 26: Global: Titanium Dioxide Nanomaterials (Other Applications) Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 27: North America: Titanium Dioxide Nanomaterials Market: Sales Value (in Million US\$), 2017 & 2022

Figure 28: North America: Titanium Dioxide Nanomaterials Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 29: United States: Titanium Dioxide Nanomaterials Market: Sales Value (in Million US\$), 2017 & 2022

Figure 30: United States: Titanium Dioxide Nanomaterials Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 31: Canada: Titanium Dioxide Nanomaterials Market: Sales Value (in Million US\$), 2017 & 2022

Figure 32: Canada: Titanium Dioxide Nanomaterials Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 33: Asia Pacific: Titanium Dioxide Nanomaterials Market: Sales Value (in Million US\$), 2017 & 2022

Figure 34: Asia Pacific: Titanium Dioxide Nanomaterials Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 35: China: Titanium Dioxide Nanomaterials Market: Sales Value (in Million US\$), 2017 & 2022

Figure 36: China: Titanium Dioxide Nanomaterials Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 37: Japan: Titanium Dioxide Nanomaterials Market: Sales Value (in Million US\$), 2017 & 2022

Figure 38: Japan: Titanium Dioxide Nanomaterials Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 39: India: Titanium Dioxide Nanomaterials Market: Sales Value (in Million US\$), 2017 & 2022

Figure 40: India: Titanium Dioxide Nanomaterials Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 41: South Korea: Titanium Dioxide Nanomaterials Market: Sales Value (in Million US\$), 2017 & 2022

Figure 42: South Korea: Titanium Dioxide Nanomaterials Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 43: Australia: Titanium Dioxide Nanomaterials Market: Sales Value (in Million US\$), 2017 & 2022

Figure 44: Australia: Titanium Dioxide Nanomaterials Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 45: Indonesia: Titanium Dioxide Nanomaterials Market: Sales Value (in Million US\$), 2017 & 2022

Figure 46: Indonesia: Titanium Dioxide Nanomaterials Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 47: Others: Titanium Dioxide Nanomaterials Market: Sales Value (in Million US\$), 2017 & 2022

Figure 48: Others: Titanium Dioxide Nanomaterials Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 49: Europe: Titanium Dioxide Nanomaterials Market: Sales Value (in Million US\$), 2017 & 2022

Figure 50: Europe: Titanium Dioxide Nanomaterials Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 51: Germany: Titanium Dioxide Nanomaterials Market: Sales Value (in Million US\$), 2017 & 2022

Figure 52: Germany: Titanium Dioxide Nanomaterials Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 53: France: Titanium Dioxide Nanomaterials Market: Sales Value (in Million US\$), 2017 & 2022

Figure 54: France: Titanium Dioxide Nanomaterials Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 55: United Kingdom: Titanium Dioxide Nanomaterials Market: Sales Value (in Million US\$), 2017 & 2022

Figure 56: United Kingdom: Titanium Dioxide Nanomaterials Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 57: Italy: Titanium Dioxide Nanomaterials Market: Sales Value (in Million US\$), 2017 & 2022

Figure 58: Italy: Titanium Dioxide Nanomaterials Market Forecast: Sales Value (in

Million US\$), 2023-2028

Figure 59: Spain: Titanium Dioxide Nanomaterials Market: Sales Value (in Million US\$), 2017 & 2022

Figure 60: Spain: Titanium Dioxide Nanomaterials Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 61: Russia: Titanium Dioxide Nanomaterials Market: Sales Value (in Million US\$), 2017 & 2022

Figure 62: Russia: Titanium Dioxide Nanomaterials Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 63: Others: Titanium Dioxide Nanomaterials Market: Sales Value (in Million US\$), 2017 & 2022

Figure 64: Others: Titanium Dioxide Nanomaterials Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 65: Latin America: Titanium Dioxide Nanomaterials Market: Sales Value (in Million US\$), 2017 & 2022

Figure 66: Latin America: Titanium Dioxide Nanomaterials Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 67: Brazil: Titanium Dioxide Nanomaterials Market: Sales Value (in Million US\$), 2017 & 2022

Figure 68: Brazil: Titanium Dioxide Nanomaterials Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 69: Mexico: Titanium Dioxide Nanomaterials Market: Sales Value (in Million US\$), 2017 & 2022

Figure 70: Mexico: Titanium Dioxide Nanomaterials Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 71: Others: Titanium Dioxide Nanomaterials Market: Sales Value (in Million US\$), 2017 & 2022

Figure 72: Others: Titanium Dioxide Nanomaterials Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 73: Middle East and Africa: Titanium Dioxide Nanomaterials Market: Sales Value (in Million US\$), 2017 & 2022

Figure 74: Middle East and Africa: Titanium Dioxide Nanomaterials Market: Breakup by Country (in %), 2022

Figure 75: Middle East and Africa: Titanium Dioxide Nanomaterials Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 76: Global: Titanium Dioxide Nanomaterials Industry: SWOT Analysis

Figure 77: Global: Titanium Dioxide Nanomaterials Industry: Value Chain Analysis

Figure 78: Global: Titanium Dioxide Nanomaterials Industry: Porter's Five Forces Analysis

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