

# **Green Chemicals Market by Type (Bio-alcohols, Bio-organic Acids, Bio-ketones, Biopolymers, and Others), Application (Construction, Pharmaceuticals, Packaging, Food and Beverages, Paints and Coatings, Automotive, Textile, and Others), and Region 2023-2028**

<https://marketpublishers.com/r/GCAEB754E906EN.html>

Date: June 2023

Pages: 144

Price: US\$ 2,499.00 (Single User License)

ID: GCAEB754E906EN

## **Abstracts**

The global green chemicals market size reached US\$ 10.91 Billion in 2022. Looking forward, IMARC Group expects the market to reach US\$ 18.96 Billion by 2028, exhibiting a growth rate (CAGR) of 9.74% during 2023-2028. The growing environmental concerns, implementation of stringent government regulations and policies supporting the use of green technologies, and continual technological advancements in the formulation of green chemicals represent some of the key factors driving the market.

Green chemicals, also known as sustainable or eco-friendly chemicals, refer to substances that are produced using environmentally friendly processes and have minimal negative impact on human health and the environment throughout their life cycle. These chemicals are designed to reduce or eliminate the use of hazardous substances, conserve resources, and provide higher performance and functionality while being more environmentally benign throughout their entire life cycle. Additionally, they have similar or superior properties compared to conventional petroleum-based products and processes. Green chemicals are derived from renewable raw materials, such as agricultural crops, biomass, or waste streams, by using improved natural synthesis processes. They are biodegradable and undergo rigorous testing to reduce or eliminate hazardous properties, thereby making them safer for humans and the environment. Some of the advantages offered by these chemicals include substitution of

hazardous substances in industrial processes, enhance worker safety, efficient building blocks for bioplastics and biofuels, environmental remediation of contaminated soil, air, or water.

#### Green Chemicals Market Trends:

The global market is primarily driven by the growing environmental concerns with an enhanced focus on reducing carbon emissions. This can be attributed to the implementation of stringent government regulations and policies supporting the use of green technologies and sustainable development practices. In line with this, the increasing consciousness among consumers regarding the long-term consequences of conventional chemical products on their health is providing an impetus to the market. Moreover, continual technological advancements in the formulation of green chemicals, such as the use of enzymatic processes and nanotechnology resulting in the advent of value-adding product variants, is fueling the market. The market is further driven by the rising integration of digital technologies, such as machine learning (ML) algorithms, artificial intelligence (AI), and real-time data collection in the green chemical production process. Furthermore, strategic partnerships and collaborations among chemical manufacturers, research institutions and government sectors facilitating the development of innovative green chemical applications are creating a positive market outlook. Some of the other factors contributing to the market include rapid product utilization in numerous corporate strategies, rising emphasis on supply chain sustainability, numerous campaigns promoting green chemicals, and increased investor interest in numerous green technologies.

#### Key Market Segmentation:

IMARC Group provides an analysis of the key trends in each segment of the global green chemicals market, along with forecasts at the global, regional, and country levels from 2023-2028. Our report has categorized the market based on type and application.

#### Type Insights:

- Bio-alcohols
- Bio-organic Acids
- Bio-ketones
- Biopolymers
- Others

The report has provided a detailed breakup and analysis of the green chemicals market based on the type. This includes bio-alcohols, bio-organic acids, bio-ketones,

biopolymers, and others. According to the report, bio-alcohols represented the largest segment.

#### Application Insights:

- Construction
- Pharmaceuticals
- Packaging
- Food and Beverages
- Paints and Coatings
- Automotive
- Textile
- Others

A detailed breakup and analysis of the green chemicals market based on the application has also been provided in the report. This includes construction, pharmaceuticals, packaging, food and beverages, paints and coatings, automotive, textile and others. According to the report, construction 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, which 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 the Middle East and Africa. According to the report, North America was the largest market for green chemicals. Some of the factors driving the North America green chemicals market included growing environmental concerns, implementation of stringent government regulations and policies supporting the use of green technologies, presence of several key players, etc.

#### Competitive Landscape

The report has also provided a comprehensive analysis of the competitive landscape in the global green chemicals market. Detailed profiles of all major companies have also been provided. Some of the companies covered include Arkema S.A, BASF SE, BiologiQ, Braskem S.A. (Odebrecht), Cargil Incorporated., Conagen Inc, Ecochem, GFBiochemicals Ltd., Global Green Chemicals Public Company Limite (PTTGC Group), Vertec BioSolvents Inc., 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:

How has the global green chemicals market performed so far, and how will it perform in the coming years?

What are the drivers, restraints, and opportunities in the global green chemicals market?

What is the impact of each driver, restraint, and opportunity on the global green chemicals market?

What are the key regional markets?

Which countries represent the most attractive green chemicals market?

What is the breakup of the market based on the type?

Which is the most attractive type in the green chemicals market?

What is the breakup of the market based on the application?

Which is the most attractive application in the green chemicals market?

What is the competitive structure of the global green chemicals market?  
Who are the key players/companies in the global green chemicals 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 GREEN CHEMICALS 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 Bio-alcohols
  - 6.1.1 Market Trends
  - 6.1.2 Market Forecast
- 6.2 Bio-organic Acids
  - 6.2.1 Market Trends
  - 6.2.2 Market Forecast
- 6.3 Bio-ketones

- 6.3.1 Market Trends
- 6.3.2 Market Forecast
- 6.4 Biopolymers
  - 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 Construction
  - 7.1.1 Market Trends
  - 7.1.2 Market Forecast
- 7.2 Pharmaceuticals
  - 7.2.1 Market Trends
  - 7.2.2 Market Forecast
- 7.3 Packaging
  - 7.3.1 Market Trends
  - 7.3.2 Market Forecast
- 7.4 Food and Beverages
  - 7.4.1 Market Trends
  - 7.4.2 Market Forecast
- 7.5 Paints and Coatings
  - 7.5.1 Market Trends
  - 7.5.2 Market Forecast
- 7.6 Automotive
  - 7.6.1 Market Trends
  - 7.6.2 Market Forecast
- 7.7 Textile
  - 7.7.1 Market Trends
  - 7.7.2 Market Forecast
- 7.8 Others
  - 7.8.1 Market Trends
  - 7.8.2 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 DRIVERS, RESTRAINTS, AND OPPORTUNITIES**

- 9.1 Overview
- 9.2 Drivers
- 9.3 Restraints
- 9.4 Opportunities

## **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 Arkema S.A

13.3.1.1 Company Overview

13.3.1.2 Product Portfolio

13.3.1.3 SWOT Analysis

13.3.2 BASF SE

13.3.2.1 Company Overview

13.3.2.2 Product Portfolio

13.3.2.3 SWOT Analysis

13.3.3 BiologiQ

13.3.3.1 Company Overview

13.3.3.2 Product Portfolio

13.3.4 Braskem S.A. (Odebrecht)

13.3.4.1 Company Overview

13.3.4.2 Product Portfolio

13.3.4.3 SWOT Analysis

13.3.5 Cargil Incorporated.

13.3.5.1 Company Overview

13.3.5.2 Product Portfolio

13.3.5.3 SWOT Analysis

13.3.6 Conagen Inc

13.3.6.1 Company Overview

13.3.6.2 Product Portfolio

13.3.7 Ecochem

13.3.7.1 Company Overview

13.3.7.2 Product Portfolio

13.3.8 GFBiochemicals Ltd.

13.3.8.1 Company Overview

13.3.8.2 Product Portfolio

13.3.9 Global Green Chemicals Public Company Limited (PTTGC Group)

13.3.9.1 Company Overview

13.3.9.2 Product Portfolio

13.3.10 Vertec BioSolvents Inc.

13.3.10.1 Company Overview

13.3.10.2 Product Portfolio Kindly note that this only represents a partial list of companies, and the complete list has been provided in the report.

## List Of Tables

### LIST OF TABLES

Table 1: Global: Green Chemicals Market: Key Industry Highlights, 2022 & 2028

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

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

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

Table 5: Global: Green Chemicals Market: Competitive Structure

Table 6: Global: Green Chemicals Market: Key Players

## List Of Figures

### LIST OF FIGURES

Figure 1: Global: Green Chemicals Market: Major Drivers and Challenges

Figure 2: Global: Green Chemicals Market: Sales Value (in Billion US\$), 2017-2022

Figure 3: Global: Green Chemicals Market Forecast: Sales Value (in Billion US\$), 2023-2028

Figure 4: Global: Green Chemicals Market: Breakup by Type (in %), 2022

Figure 5: Global: Green Chemicals Market: Breakup by Application (in %), 2022

Figure 6: Global: Green Chemicals Market: Breakup by Region (in %), 2022

Figure 7: Global: Green Chemicals (Bio-alcohols) Market: Sales Value (in Million US\$), 2017 & 2022

Figure 8: Global: Green Chemicals (Bio-alcohols) Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 9: Global: Green Chemicals (Bio-organic Acids) Market: Sales Value (in Million US\$), 2017 & 2022

Figure 10: Global: Green Chemicals (Bio-organic Acids) Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 11: Global: Green Chemicals (Bio-ketones) Market: Sales Value (in Million US\$), 2017 & 2022

Figure 12: Global: Green Chemicals (Bio-ketones) Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 13: Global: Green Chemicals (Biopolymers) Market: Sales Value (in Million US\$), 2017 & 2022

Figure 14: Global: Green Chemicals (Biopolymers) Market Forecast: Sales Value (in Million US\$), 2023-2028

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

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

Figure 17: Global: Green Chemicals (Construction) Market: Sales Value (in Million US\$), 2017 & 2022

Figure 18: Global: Green Chemicals (Construction) Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 19: Global: Green Chemicals (Pharmaceuticals) Market: Sales Value (in Million US\$), 2017 & 2022

Figure 20: Global: Green Chemicals (Pharmaceuticals) Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 21: Global: Green Chemicals (Packaging) Market: Sales Value (in Million US\$), 2017 & 2022

Figure 22: Global: Green Chemicals (Packaging) Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 23: Global: Green Chemicals (Food and Beverages) Market: Sales Value (in Million US\$), 2017 & 2022

Figure 24: Global: Green Chemicals (Food and Beverages) Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 25: Global: Green Chemicals (Paints and Coatings) Market: Sales Value (in Million US\$), 2017 & 2022

Figure 26: Global: Green Chemicals (Paints and Coatings) Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 27: Global: Green Chemicals (Automotive) Market: Sales Value (in Million US\$), 2017 & 2022

Figure 28: Global: Green Chemicals (Automotive) Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 29: Global: Green Chemicals (Textile) Market: Sales Value (in Million US\$), 2017 & 2022

Figure 30: Global: Green Chemicals (Textile) Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 31: Global: Green Chemicals (Other Applications) Market: Sales Value (in Million US\$), 2017 & 2022

Figure 32: Global: Green Chemicals (Other Applications) Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 33: North America: Green Chemicals Market: Sales Value (in Million US\$), 2017 & 2022

Figure 34: North America: Green Chemicals Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 35: United States: Green Chemicals Market: Sales Value (in Million US\$), 2017 & 2022

Figure 36: United States: Green Chemicals Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 37: Canada: Green Chemicals Market: Sales Value (in Million US\$), 2017 & 2022

Figure 38: Canada: Green Chemicals Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 39: Asia-Pacific: Green Chemicals Market: Sales Value (in Million US\$), 2017 & 2022

Figure 40: Asia-Pacific: Green Chemicals Market Forecast: Sales Value (in Million

US\$), 2023-2028

Figure 41: China: Green Chemicals Market: Sales Value (in Million US\$), 2017 & 2022

Figure 42: China: Green Chemicals Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 43: Japan: Green Chemicals Market: Sales Value (in Million US\$), 2017 & 2022

Figure 44: Japan: Green Chemicals Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 45: India: Green Chemicals Market: Sales Value (in Million US\$), 2017 & 2022

Figure 46: India: Green Chemicals Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 47: South Korea: Green Chemicals Market: Sales Value (in Million US\$), 2017 & 2022

Figure 48: South Korea: Green Chemicals Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 49: Australia: Green Chemicals Market: Sales Value (in Million US\$), 2017 & 2022

Figure 50: Australia: Green Chemicals Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 51: Indonesia: Green Chemicals Market: Sales Value (in Million US\$), 2017 & 2022

Figure 52: Indonesia: Green Chemicals Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 53: Others: Green Chemicals Market: Sales Value (in Million US\$), 2017 & 2022

Figure 54: Others: Green Chemicals Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 55: Europe: Green Chemicals Market: Sales Value (in Million US\$), 2017 & 2022

Figure 56: Europe: Green Chemicals Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 57: Germany: Green Chemicals Market: Sales Value (in Million US\$), 2017 & 2022

Figure 58: Germany: Green Chemicals Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 59: France: Green Chemicals Market: Sales Value (in Million US\$), 2017 & 2022

Figure 60: France: Green Chemicals Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 61: United Kingdom: Green Chemicals Market: Sales Value (in Million US\$), 2017 & 2022

Figure 62: United Kingdom: Green Chemicals Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 63: Italy: Green Chemicals Market: Sales Value (in Million US\$), 2017 & 2022

Figure 64: Italy: Green Chemicals Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 65: Spain: Green Chemicals Market: Sales Value (in Million US\$), 2017 & 2022

Figure 66: Spain: Green Chemicals Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 67: Russia: Green Chemicals Market: Sales Value (in Million US\$), 2017 & 2022

Figure 68: Russia: Green Chemicals Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 69: Others: Green Chemicals Market: Sales Value (in Million US\$), 2017 & 2022

Figure 70: Others: Green Chemicals Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 71: Latin America: Green Chemicals Market: Sales Value (in Million US\$), 2017 & 2022

Figure 72: Latin America: Green Chemicals Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 73: Brazil: Green Chemicals Market: Sales Value (in Million US\$), 2017 & 2022

Figure 74: Brazil: Green Chemicals Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 75: Mexico: Green Chemicals Market: Sales Value (in Million US\$), 2017 & 2022

Figure 76: Mexico: Green Chemicals Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 77: Others: Green Chemicals Market: Sales Value (in Million US\$), 2017 & 2022

Figure 78: Others: Green Chemicals Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 79: Middle East and Africa: Green Chemicals Market: Sales Value (in Million US\$), 2017 & 2022

Figure 80: Middle East and Africa: Green Chemicals Market: Breakup by Country (in %), 2022

Figure 81: Middle East and Africa: Green Chemicals Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 82: Global: Green Chemicals Industry: Drivers, Restraints, and Opportunities

Figure 83: Global: Green Chemicals Industry: Value Chain Analysis

Figure 84: Global: Green Chemicals Industry: Porter's Five Forces Analysis



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