

Global Renewable Chemicals Market (2009 - 2014)

https://marketpublishers.com/r/GF065DF1B6AEN.html Date: August 2009 Pages: 152 Price: US\$ 5,650.00 (Single User License) ID: GF065DF1B6AEN

Abstracts

The global renewable chemicals market is estimated to reach US\$ 59 billion in 2014 from about US\$ 45 billion in 2009. The driving behind the growth of the renewable chemicals market is the low requirement of capital for both production as well as feedstock. Moreover, consumer demand for 'green' products has also been driving the market for renewable chemicals, along with governmental support to the industry for reducing dependence on finite non-renewable petroleum feedstock as well as reducing greenhouse gas emissions. The growth of industrial biotechnology has also contributed to the growth of the overall renewable chemicals market due to their innovations in biocatalysis for manufacturing renewable chemicals. Apart from their industrial applications, renewable chemicals are also used in pharmaceutical and consumer products. In light of all these factors, the renewable chemicals industry is expected to weather the recent economic recession.

Foreseeing the rising importance of renewable chemicals, major players in the chemicals industry such as Dow and BASF have already begun focusing on this market. Though the alcohols segment holds the largest share in the overall renewable chemicals market, the polymers segment is expected to gain the maximum growth rate for the next five years. Bio-polymers are expected to command a significant share in the overall polymers market mostly due to their applications in the manufacture of biodegradable and compostable plastics and consumer goods such as cell phones and laptops. Platform chemicals also play an important role in the renewable chemicals market since their multiple functional groups can be converted to families of other highly useful chemicals.

Market estimates and forecast

The report provides in-depth market estimates and forecast for global renewable chemicals market as follows:



Products: Alcohols, organic chemicals, ketones, polymers, and other markets.

Application: Industrial, transportation, textiles, food safety, environment, communication, housing, recreation, health and hygiene, and other applications.

Catalysis: Biocatalysis and chemical catalysis

Technology: Thermo-chemical conversion, fermentation and bioconversion, product separation and bioconversion, enzymatic hydrolysis, gasification-fermentation, acid hydrolysis, biochemical-thermochemical, biochem-organisolve, fischer-tropsch diesel, reductive transformation, dehydrative transformation, and other technologies.

Platform Chemicals: 1, 4-diacids, 2, 5-furan dicarboxylic acid, 3-hydroxypropionic acid, aspartic acid, glucaric acid, glutamic acid, itaconic acid, levulinic acid, glycerol, and other chemicals.

Bio feedstock: Starch, cellulose, lignin and oil/fats/protein.

Source: Plant biomass, animal biomass, and marine biomass.

Each section will provide market data, market drivers, trends and opportunities, topselling products, key players, and competitive outlook. This report will also provide more than 100 market tables for various geographic regions covering the sub-segments and micro-markets. In addition, the report also provides 50 company profiles for each of its sub-segments.

What makes our reports unique?

• We provide the longest market segmentation chain in this industry- not many reports provide market breakdown upto level 5.

• Each report is about 250 pages with 100+ market data tables, 40 competitive company profiles, minimum 50 micro markets analysed which are collectively exhaustive and mutually exclusive, 300 patents analyzed,

• No single report by any other publisher provides market data for all the segments viz products, services, applications, ingredients, technology, stakeholders in a single report for all the four geographies together- US, Europe, APAC, ROW.



• We provide 10% customization- normally it is researched that clients do not specific market intelligence what they are looking for. Our customization will ensure that you necessarily get the market intelligence you are looking for and we get a loyal customer.

• 15 pages of high level analysis including benchmarking strategies, best practices and the market's cash cows (BCG matrix). We conduct detailed market positioning, product positioning and competitive positioning. Entry strategies, gaps and opportunities are identified for all the stakeholders.

• Comprehensive market analysis for biomass processing companies, chemical producers, bioenergy generating companies, biochemical technology consulting companies, R&D laboratories and government organizations for biomass conversion.

Key questions answered

• Which are the high growth segments/cash cows; how is the market segmented in terms of applications, products, services, ingredients, technologies, stakeholders.

• What are market estimates and forecast; which are markets are doing well and which are not?

• Where are the gaps and opportunities; what is driving the market;

• Which are the key playing fields? Which are the winning edge imperatives?

• How is the competitive outlook; who are the main players in each of the segments; what are the key selling products; what are their strategic directives, operational strength and product pipelines? Who is doing what?

Powerful Research and analysis

The analyst working with MarketsandMarkets come from the renowned publishers and market research firms globally adding their expertise and domain understanding. We get the facts from over 22,000 news and information sources, a database of hundred thousand of key industry participants and draw on our relationship with more than 900 market research companies globally. We, at MarketsandMarkets, are inspired to help our clients grow by providing apt business insight with our huge market intelligence repository



Contents

1. INTRODUCTION

- 1.1. Key takeaways
- 1.2. Report description
- 1.3. Market covered
- 1.4. Stakeholders

2. SUMMARY

3. MARKET OVERVIEW

- 3.1. Driving factors analysis for renewable chemicals market
- 3.2. Drivers
 - 3.2.1. Economic and environmental pressure on petroleum-derived feedstock
 - 3.2.2. Growing popularity of platform chemicals and biopolymers
 - 3.2.3. Growing industrial responsibility
 - 3.2.4. Consumer awareness and end-product acceptance
 - 3.2.5. Increased decoupling from food supply chain
- 3.3. Restraints
 - 3.3.1. Problems associated with the production process
 - 3.3.2. Cost of production inhibiting growth of polymers

3.4. Opportunities

- 3.4.1. Improvement in chemical conversion can improve yields
- 3.4.2. Opportunities presented by lignin
- 3.4.3. Under-penetration in Asian countries

4. RENEWABLE CHEMICALS PRODUCTS

- 4.1. Alcohols
 - 4.1.1. Drivers
 - 4.1.1.1. Multiple sources eco-friendly receive governmental support
 - 4.1.1.2. 'green image' garners public favor
 - 4.1.1.3. Relatively lower price-sensitivity
 - 4.1.2. Restraints
 - 4.1.3. C1 and C2
 - 4.1.3.1. Methanol



- 4.1.3.2. Ethanol
- 4.1.4. C3 and above
- 4.1.4.1. 1-propanol
- 4.1.4.2. Isobutanol
- 4.1.4.3. 1-pentanol
- 4.1.4.4. 2-propanol
- 4.1.4.5. 2-ethyl-1-hexanol
- 4.1.4.6. 1-nonanol
- 4.1.4.7. 2-octanol
- 4.1.4.8. 1-octanol
- 4.1.4.9. 1-decanol
- 4.1.4.10. 1-dodecanol
- 4.2. Organic acids
 - 4.2.1. C1 and C2 acids
 - 4.2.1.1. Formic acid
 - 4.2.1.2. Acetic acid
 - 4.2.1.3. Glycolic acid
 - 4.2.2. C3 and above
 - 4.2.2.1. Propionic acid
 - 4.2.2.2. Butyric acid
- 4.3. Ketones
 - 4.3.1. Acetone
- 4.3.2. Methyl ethyl ketone
- 4.4. Polymers
 - 4.4.1. Market drivers
 - 4.4.1.1. Technology push
 - 4.4.1.2. Economical benefit
 - 4.4.1.3. Reduced correlation with food supply
 - 4.4.1.4. At par with conventional petrochemical derived polymers
 - 4.4.2. Restraints
 - 4.4.2.1. Lack of cost competitiveness
 - 4.4.2.2. Limited potential in certain high growth areas
 - 4.4.3. Opportunities
 - 4.4.3.1. Wider range of applications
 - 4.4.3.2. Biotechnology companies
 - 4.4.4. Polylactic acid
 - 4.4.5. Polyhydroxyalkanoates
 - 4.4.6. Polyvinyl acetate
 - 4.4.7. Polyamino acids



- 4.4.8. Polyglycolic acid
- 4.4.9. Polyacrylamide

5. RENEWABLE CHEMICALS APPLICATION

- 5.1. Industrial
 - 5.1.1. Drivers
 - 5.1.2. Restraints
 - 5.1.3. Corrosion inhibitor
 - 5.1.4. Emission abatement
 - 5.1.5. Specialty lubricants
- 5.2. Transportation
 - 5.2.1. Drivers
 - 5.2.2. Restraints
 - 5.2.3. Fuels
 - 5.2.4. Oxygenates
 - 5.2.5. Anti-freeze
 - 5.2.6. Wiper fluids
- 5.3. Textiles
 - 5.3.1. Carpets
 - 5.3.2. Fabrics
 - 5.3.3. Fabric coatings
 - 5.3.4. Foam cushions
- 5.4. Food preservation & production enhancement
 - 5.4.1. Drivers
 - 5.4.2. Restraints
 - 5.4.3. Food packaging
 - 5.4.4. Antimicrobial packaging
 - 5.4.5. Fertilizers
 - 5.4.6. Beverage bottles
- 5.5. Environment
- 5.6. Housing
- 5.7. Recreation
- 5.8.Health & hygiene

6. CATALYSIS

6.1. Biocatalysis



6.1.1. Drivers

- 6.1.1.1. Improved enzymes help in better industrial processes
- 6.1.1.2. Benefits over chemical catalysis
- 6.1.1.3. High specificity and multi-step reactions yield improved results
- 6.1.1.4. Governmental concern over environmental issues
- 6.1.2. Restraints
- 6.1.2.1. Slower process increases production costs
- 6.1.2.2. Limited 'biocatalyst inventory'
- 6.1.2.3. Limited knowledge of industrially significant reactions
- 6.1.3. Opportunities
- 6.1.3.1. Cost-effective preparation of biocatalysts
- 6.1.3.2. Lower water and energy consumption
- 6.1.4. Enzymes
- 6.2. Chemical catalysis
 - 6.2.1. Drivers
 - 6.2.1.1. Faster and simpler processes
 - 6.2.1.2. Development of heterogeneous catalysts
 - 6.2.2. Restraints & Opportunities
 - 6.2.2.1. High energy requirements

7. TECHNOLOGY

- 7.1. Thermochemical conversion
- 7.2. Gasification
- 7.3. Pyrolysis
- 7.4. Hydrothermal upgrading
- 7.5. Fermentation and bioconversion
- 7.6. Product separation and upgrading
- 7.7. Enzymatic hydrolysis
- 7.8. Gasification-fermentation
- 7.9. Acid hydrolysis
- 7.10. Biochemical-thermochemical
- 7.11. Biochem-organisolve
- 7.12. Fischer tropsch diesel
- 7.13. Reductive transformation
- 7.14. Dehydrative transformation

8. PLATFORM CHEMICALS



- 8.1. 1, 4-diacids
 - 8.1.1. Succinic acid
 - 8.1.1.1. Drivers
 - 8.1.1.1.1. Commercial use for derivatives
 - 8.1.1.1.2. Application in varied industries
 - 8.1.1.1.3. Demand expected to see double digit rise
 - 8.1.1.2. Restraints and opportunities
- 8.2. Fumaric acid
 - 8.2.1. Drivers
 - 8.2.2. Restraints
- 8.3. 2, 5- furan dicarboxylic acid
 - 8.3.1. Drivers
 - 8.3.1.1. Fdca derivatives have wide-ranging applications
 - 8.3.2. Restraint
 - 8.3.2.1. Non-selective dehydration of sugar
 - 8.3.2.2. Lack of knowledge about polymer formation
 - 8.3.3. Opportunities
 - 8.3.3.1. Problem of non selective production of FCDA to be removed
 - 8.3.3.2. Overcoming technological barriers
- 8.4. 3- Hydroxypropionic acid
 - 8.4.1. Drivers
 - 8.4.1.1. Uses only via renewable feedstock route
 - 8.4.1.2. Wide ranging applications
 - 8.4.2. Restraints
 - 8.4.2.1. Fermentation routes still expensive
 - 8.4.2.2. New catalysts increase R&D costs
- 8.5. Aspartic acid
 - 8.5.1. Drivers
 - 8.5.1.1. Several benefits to producers
 - 8.5.1.2. Market potential for amino analogs
- 8.5.2. Opportunities
 - 8.5.2.1. An alternative direct fermentation route
 - 8.5.2.2. Better quality products
- 8.6. Glucaric acid
- 8.7. Glutamic acid
- 8.8. Itaconic acid
- 8.9. Levulinic acid
 - 8.9.1. Drivers
 - 8.9.1.1. All derivatives of levulinic acid of significant value



8.9.2. Opportunities

8.10. Glycerol

8.10.1. Drivers

- 8.10.1.1. Demand associated with that of biodiesel
- 8.10.1.2. Cost effectiveness and biodegradable products
- 8.10.2. Restraints
- 8.10.3. Opportunities

9. BIOFEEDSTOCK AND SOURCE

10. GEOGRAPHIC ANALYSIS

- 10.1. The u.s. Renewable chemicals market
- 10.2. The european renewable chemicals market
- 10.3. The asian renewable chemicals market

11. COMPANY PROFILES

- 11.1. Abengoa bioenergy
- 11.2. Altus pharmaceuticals
- 11.3. Archer-daniels-midland company
- 11.4. Arkenol
- 11.5. Avantium technologies
- 11.6. Basf
- 11.7. Bio-amber
- 11.8. Bio-mer
- 11.9. Bluefire ethanol
- 11.10. Braskem
- 11.11. Cargill inc.
- 11.12. Chevron corporation
- 11.13. Codexis, inc.
- 11.14. Croda inc.
- 11.15. Degussa evonik
- 11.16. Dow chemical company
- 11.17. Dsm
- 11.18. Dupont
- 11.19. Eastman chemicals
- 11.20. Ensyn technologies inc.
- 11.21. Genecor international, inc.



- 11.22. General biomass company
- 11.23. Greenfield ethanol, inc.
- 11.24. Gushan environmental energy
- 11.25. Ineos bio
- 11.26. Innovia films
- 11.27. Inventure chemicals
- 11.28. logen corporation
- 11.29. Materia, inc.
- 11.30. Nature works llc
- 11.31. Novozymes
- 11.32. Panda ethanol
- 11.33. Purac biochem bv
- 11.34. Pure vision technology
- 11.35. Sapphire energy, inc.
- 11.36. Seambiotic
- 11.37. Solvay chemicals
- 11.38. Spartan chemical company inc.
- 11.39. Uop Ilc
- 11.40. Verenium corporation

12. PATENT ANALYSIS

- 12.1. Appendix
 - 12.1.1. U.s. Patents
 - 12.1.2. E.u. Patents
 - 12.1.3. Asia patents



I would like to order

Product name: Global Renewable Chemicals Market (2009 - 2014)

Product link: <u>https://marketpublishers.com/r/GF065DF1B6AEN.html</u>

Price: US\$ 5,650.00 (Single User License / Electronic Delivery) If you want to order Corporate License or Hard Copy, please, contact our Customer Service: <u>info@marketpublishers.com</u>

Payment

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page <u>https://marketpublishers.com/r/GF065DF1B6AEN.html</u>