Global Markets and Technologies for Bioplastics

Description: The global bioplastic market totaled 1.6 million metric tons in 2015 and should total nearly 6.1 million metric tons in 2020, a compound annual growth rate (CAGR) of 30.0% for the five-year period, 2015 to 2020.

This report provides:

- An overview of the global markets for bioplastics
- Analyses of global market trends with data from 2014, 2015, and projections of CAGRs through 2020
- Identification of trends that will affect the use of bioplastics and their major end-use application markets
- Information on specific end markets for bioplastics by material types, with sections devoted to each type of renewably sourced plastic
- Analysis of market developments regarding major applications for bioplastics, including packaging, automotive, electrical/electronic, medical, building and construction
- Profiles of major players in the industry

The focus of this report is on plastics made from renewable resources such as biomass or food crops. There is even some potential development of bioplastics from animal resources. Plastics that may be potentially made from waste carbon dioxide are reviewed because of their potential impact on bioplastics, but their data are not included in the forecasts presented here. Bioplastics are further defined here as polymer materials that are produced by synthesizing - chemically or biologically - materials that contain renewable organic materials. Natural organic materials that are not chemically modified (e.g., wood composites) are excluded. The report includes the use of renewable resources to create monomers that replace petroleum-based monomers, such as feedstocks made from sugarcane that are used to manufacture polyester and polyethylene. Ethanol, a major product in Brazil, is one small chemical step from ethylene.

The focal point is on the following resin chemistries:

- Polylactic acid.
- Thermoplastic starch.
- Biopolyamides (nylons).
- Polyhydroxyalkanoates.
- Biopolylols and polyurethane.
- Cellulosics.
- Biopolytrimethylene terephthalate.
- Biopolyethylene.
- Biopolyethylene terephthalate.
- Polybutylene succinate.

Biodegradable and photodegradable polymers made from petrochemical feedstocks are not included. Other renewable resin chemistries are also covered but in less detail, as their roles are not as well developed. These include collagen and chitosan.

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