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# Soy Chemicals

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US Industry Study with Forecasts for **2013 & 2018**

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Study #2538 | September 2009 | \$4700 | 208 pages

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*Despite concerns that biodiesel may harm the environment, reduce world food supplies and face increasing competition from alternative feedstocks, biodiesel will remain a key soy chemicals market.*

## US demand to grow 7.8% annually through 2013

Demand for soy chemicals is forecast to increase 7.8 percent per year to \$2.7 billion in 2013. The success of the soy chemicals industry is dependent on the continued penetration of biodiesel, as well as the adoption of alternatives to traditional, petrochemical-based materials in the manufacture of industrial products. Despite recent concerns regarding the impact of biodiesel on the environment and world food supplies, and increased competition from alternative feedstocks, growth in soy chemicals will continue to be supported by the biodiesel market.

## Oil/petrochemical prices, environmental concerns to benefit soy chemicals

A spike in crude oil and petrochemical prices in the 2007-2008 period, along with growing environmental concerns, have created opportunities for renewable/sustainable raw materials. While these factors bode well for chemicals derived from soybeans, they also provide opportunities for newly developed chemicals (or those in development) derived from other renewable materials, such as corn, algae and sunflowers. Nevertheless, as long as soy chemicals perform as well or better than their petrochemical counterparts, and crude oil/petrochemical prices remain relatively high, market penetration will likely expand.

## US Soy Chemicals Demand, 2008 (\$1.9 billion)

Biodiesel  
61%

Foods &  
Beverages  
16%

Plastics  
10%

Other Markets  
13%



photo: NAZCO Distributors, LLC

## Methyl soyate, polyols have good opportunities

Methyl soyate is by far the most established soy chemical due to its current dominance of the biodiesel market, although it will begin to face competition from other raw materials. Methyl soyate is also finding greater use as a solvent in a variety of markets, including cleaning products and paint and coatings. Other soy oil derivatives, such as polyols, will benefit from corporate initiatives to use more renewable feedstocks, as well as from consumer demands for "greener" products, particularly in the plastics (e.g., foam products) and paint and coatings markets. Intense research will further fuel growth in soybean oil derivatives, as

new products enter the market over the next five to ten years.

Growth in natural extracts will primarily depend on their health benefits, expanding their use in foods, and on increased demand for natural ingredients in consumer goods such as cosmetics. However, as the bulk of usage is in the mature food and beverage market, further growth will be limited. Refined industrial soybean oil is set to post below-average gains due to its use in established, mature or declining applications (e.g., newspaper inks and alkyd resins). However, increasing regulations have led the lubricant industry to develop products derived from plant-based sources, such as soybeans.

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## Sample Text, Table & Chart

### PRODUCTS

#### Soybean Oil Derivatives

Demand for soybean oil derivatives is forecast to rise 8.4 billion per year to \$2.1 billion in 2013. Derivatives of soybean oil include waxes, fatty acids, sucrose esters from both corporate moves and as from consumer demands in petrochemicals have benefited up opportunities in higher volume consideration.

Gains in the soybean oil derivative category are driven by soyate's use in biodiesel. While methyl soyate will continue dominance of the biodiesel market, it will begin to face competition from other raw materials in biodiesel production, limiting gains. Methyl soyate is finding greater use as a solvent in a variety of products including cleaning products, and paints and coatings.

Among soybean oil derivatives, polyols will register the fastest growth through 2013. Polyols will benefit from continued market penetration of soy-based foamed plastics, particularly when incorporated in motor vehicles, furniture and agriculture equipment. In addition, soy-based foamed plastics are finding greater use in spray insulation applications, promoted by the Leadership in Energy and Environmental Design, or LEED program, which requires the use of "green" building products.

Soybean oil derivatives, such as waxes, fatty acids and newly developed chemicals (or chemicals still under development) will provide fast growth rates, albeit from a small base. Increased consumer demand for consumer goods such as candles, cleaning products, and cosmetics and toiletries that incorporate "natural" (non-petrochemical) ingredients will provide gains for fatty acids and waxes. Intense research will further fuel

SAMPLE  
TEXT

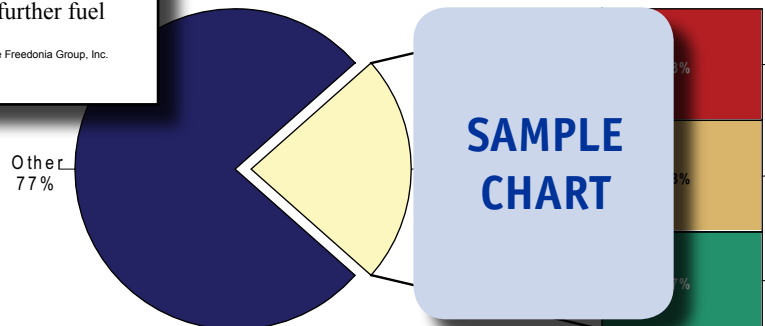
TABLE III-8  
POLYOLS DEMAND  
(million dollars)

Item	1998	2003	2008	2013	2018
Plastic Resin Production (bil lbs) lbs polyol/000 lbs plastics	87.1	85.8	91.5	100.0	113.0
Polyols Demand (mil lbs)					
\$/lb					
Polyols Demand					
By Market:					
Plastics					
Other					
By Application:					
Transportation					
Insulation					
Furniture					
Other					
% polyols					
Soybean Oil Derivatives Demand	146	177	1415	2090	3120

SAMPLE  
TABLE

CHART V-1

SOY CHEMICALS MARKET SHARE, 2008  
(\$1.9 billion)

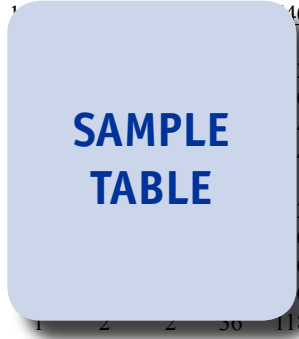


SAMPLE  
CHART

## Sample Profile, Table & Forecast

**TABLE IV-10**  
**PLASTICS MARKET: SOY CHEMICALS DEMAND**  
**BY PRODUCT & APPLICATION**  
 (million dollars)

Item	1998	2003	2008	2013	2018
Plastics Soy Chemicals Demand	1	2	2	30	118
By Product:					
Epoxidized Products					2
Industrial Soybean Oil					0
Polyols					4
Other					4
By Application:					
Polyvinyl Chloride					2
Alkyd Resins					0
Flexible Polyurethane Foams					0
Rigid Polyurethane Foam					0
Other Plastics					0



**COMPANY PROFILES**

**Columbus Foods Company**  
 30 East Oakton Avenue  
 DesPlaines, IL 60018  
 773-265-6500  
 http://www.co

Annual Sales:  
 Employment:  
 Key Products:

**SAMPLE PROFILE**

Columbus Foods Company is a leading supplier of oils and shortenings. The Company's product line encompasses a broad range of offerings, ranging from commodity vegetable oils to exotic specialty oils. Products are used in the retail and foodservice industry, and for a variety of chemical and manufacturing applications.

The Company is active in the US soy chemicals industry via the production of soy methyl esters and soybean oil soap base. Columbus Foods' soy methyl esters, which are marketed under the ENVIRO-SAVER brand name, are manufactured as an extension of the Company's cooking oil product line. ENVIRO-SAVER soy methyl esters are designed to be environmentally friendly and biodegradable alternatives to standard solvents and other chemicals. These products are also non-toxic and formulated to have low volatile organic compound emissions. Typical applications for Columbus Foods' soy methyl esters include adhesive removers, paint and graffiti removers, hand cleaners, oil spill cleanup and bioremediation products, parts cleaners and degreasers, and asphalt cleanup products. In addition to cleaning chemicals, these products can also be used to make automobile waxes, corrosion preventatives, metalworking lubricants, pesticide carriers and adjuvants, and mold release agents. The Company also manufactures a wide range of

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"Demand for soy chemicals in the plastic resins market is forecast to increase 14.1 percent per year to \$365 million in 2013. Growth will be stimulated by government and industry efforts to reduce dependence on offshore petroleum supplies while increasing use of renewable biobased raw materials. Consumer demand for plastic products exhibiting better environmental profiles will also provide opportunities for soy chemicals in the production of various plastic resins."  
 --Section IV, pg. 110

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**OTHER STUDIES**

**World Enzymes**

Global enzyme demand will rise 6.3% yearly through 2013, driven by strong demand in the specialty enzymes segment and good growth in animal feed and ethanol markets. North America and Western Europe will see healthy market gains while the fastest growth remains in developing countries. This study analyzes the \$5.1 billion world enzyme industry, with forecasts for 2013 and 2018 by product, market, world region and for 16 countries. It also evaluates market share and profiles industry players.

#2506 ..... 08/2009 ..... \$5800

**Waxes**

Demand for waxes in the US is forecast to reach \$2.5 billion in 2013. Value gains will be based on a shift to more expensive types. Volume growth will be driven by use of waxes in building boards, coatings, adhesives, plastics and rubber. Petroleum waxes will stay the largest market but will lose share to faster growing synthetic and natural types. This study analyzes the 2.3 billion pound US wax industry, with forecasts for 2013 and 2018 by product and market. It also evaluates market share and profiles industry players.

#2456 ..... 04/2009 ..... \$4600

**Printing Inks**

US printing ink demand will reach \$4.8 billion in 2013, supported by shifts toward more environmentally friendly ink formulations and digital inks. Among raw materials, additives and colorants will benefit from demand for better performing printing inks with brighter colors. Packaging will remain the largest and fastest-growing market. This study analyzes the US printing ink industry, with forecasts for 2013 and 2018 by raw material, product and market. It also evaluates company market share and profiles industry players.

#2462 ..... 02/2009 ..... \$4700

**World Lubricants**

Global lubricant demand is forecast to reach 40.5 million metric tons in 2012. Gains will be strongest in the Asia/Pacific, Africa/Mideast and Latin American regions due to ongoing rapid industrialization and rising car ownership rates. Engine oils will remain the largest segment while process oils grow the fastest. This study analyzes the \$48.8 billion world lubricant industry, with forecasts for 2012 and 2017 by formulation, product, market, world region and for 31 countries. It also evaluates market share and profiles industry players.

#2454 ..... 02/2009 ..... \$5700

**Specialty Fuel Additives**

US demand for specialty additives used in gasoline and other fuels will grow 2.9% annually through 2012. Above average growth for deposit control agents--the largest segment--will continue to support the market. Corrosion inhibitors and additives used in diesel fuel such as cold flow improvers will show the fastest growth. This study analyzes the \$1.1 billion US specialty fuel additives industry, with forecasts for 2012 and 2017 by type, application and market. It also evaluates market share and profiles industry players.

#2440 ..... 01/2009 ..... \$4500

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