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Pulp & Paper Chemicals

US Industry Study with Forecasts for **2011 & 2016**

Study #2293 | February 2008 | \$4500 | 293 pages



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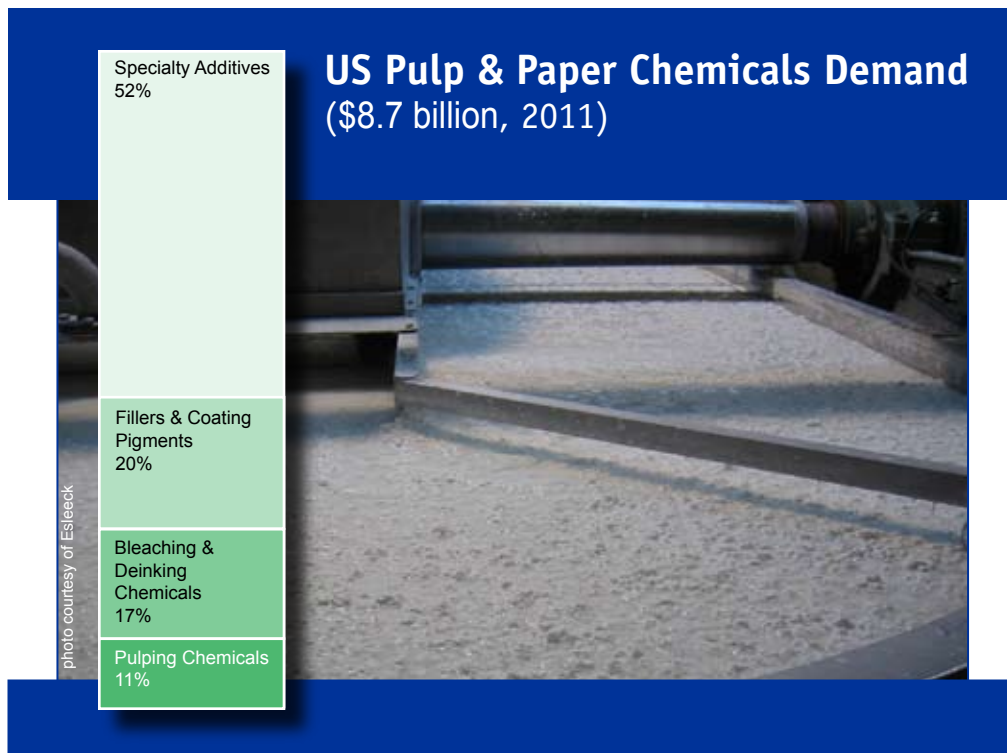
The fastest gains are expected in the specialty additives segment, due to their ability to reduce paper production costs and improve environmental compliance and product quality.

US demand to reach 19.8 million tons in 2011

Demand for pulp and paper chemicals in the US is forecast to advance 1.0 percent annually to 19.8 million tons in 2011. A shift in product mix toward higher-priced chemicals will support growth in market value, which will reach \$8.7 billion. In general, pricing for pulp and paper chemicals jumped abnormally during the 2004 to 2006 period due to a rise in energy costs (i.e., natural gas, crude oil and petroleum). However, price increases should moderate going forward. The fastest gains are expected in the specialty additives segment, due to the paper industry's desire to reduce production costs and improve environmental compliance and product quality -- objectives that can be achieved through the use of multifunctional specialty chemicals. Increases in paper and board production will support overall demand for chemicals, as will the use of recycled paper and trends toward brighter paper and board products that meet international standards.

Fillers and coating pigments to remain dominant by volume

Fillers and coating pigments will continue to represent the largest pulp and paper chemical segment in terms of volume. In particular, fillers are widely used by papermakers to reduce the amount of fibers, thereby reducing costs as fibers are much more expensive than fillers.



Growth will largely be centered in calcium carbonates (especially precipitated varieties), which are the principal filler and coating chemicals in use. Clays will remain widely used, although growth will be below average as kaolins lose ground to both precipitated and ground calcium carbonate. Good opportunities exist for chemical suppliers that can develop new fillers, allowing higher loading levels without reducing paper strength and overall quality.

Specialty additives to be fastest growing market

Specialty additives are generally the most expensive chemicals, and as such this segment accounts for half of total

chemical demand in the US pulp and paper industry in sales value, but only one-quarter of the total volume. Growth factors include the increasing demand for whiter, brighter and glossier paper. The use of recycled paper and continuing efforts to reuse process water will support demand for water treatment chemicals such as biocides, coagulants and flocculants. Specialty products also help to improve the strength, water resistance, opacity, and other performance and aesthetic characteristics of paper and can be used to improve productivity (e.g., allowing faster operating speeds on machinery), protect equipment and machinery, and reduce waste and emissions.

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**Sample Text,
 Table & Chart**

DEMAND BY END-USER

Paper Mills

Demand for pulp and paper chemicals consumed in paper mills is forecast to increase from 1.1 million tons in 2006 to 1.2 million tons in 2016, valued at \$1.2 billion in 2006 and \$1.3 billion in 2016. Demand is expected to increase over the next five years, when the market is expected to be characterized by a number of negative factors, including weaker demand for chlorine products, a decline in chlorine prices, and the increasing use of chlorine-free chemicals, such as hydrogen peroxide, but at a slower rate. Through the end of the forecast period, demand is supported by increasing prospects for paper production and trends toward brighter paper grades. Growth will be supported by a shift in product mix toward higher specialty chemicals.

Paper mills account for a large share of almost all pulp and paper chemicals. In particular, paper mills consume the vast majority of fillers and coating pigments (89 percent of total demand in volume, in 2006) and specialty additives (68 percent, same basis) in the overall pulp and paper industry.

Printing and writing papers will continue to account for the majority of the chemicals used in paper mill operations, and will record more rapid growth than other paper grades. This is due to the increasing use of specialty chemicals and higher loadings of fillers and opacifiers to create smoother, brighter printing grade papers. Although coated papers will continue to account for most of the demand, uncoated printing papers are also increasing their share of the chemicals consumed, as papermakers look to produce higher quality uncoated grades. Tissue paper will record above-average gains, supported by production growth of these paper grades, which include paper towel, facial tissue, napkins and toilet paper. The production of newsprint consumes smaller amounts of chemicals, since the demand for higher gloss and opacity is not as great in these lower price uncoated grades. Demand for chemicals in newsprintmaking

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**SAMPLE
 TEXT**

TABLE VI-3

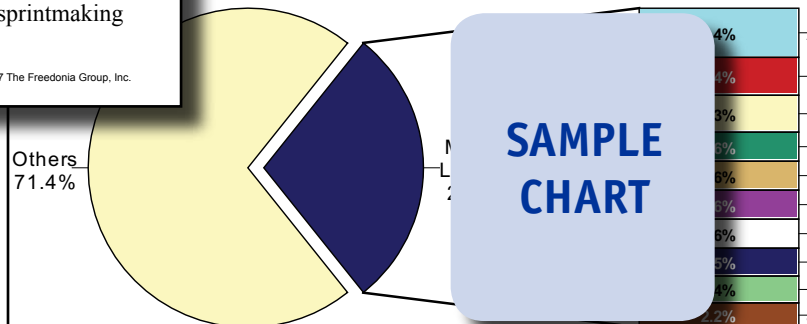
**OXYGEN & OZONE DEMAND IN PULP BLEACHING
 (thousand tons)**

Item	1996	2001	2006	2011	2016
Wood Pulp Production tons chem/000 tons pulp	642	642	642	642	642
Oxygen & Ozone Demand Paper Mills Paperboard Mills Pulp Mills & Deinking Plants					
\$/ton					
Oxygen & Ozone Demand (mil \$)					
% oxygen & ozone Bleaching & Deinking Chems (mil \$)	8.1	7.1	10.0	10.0	7.00

**SAMPLE
 TABLE**

CHART IX-1

**MARKET SHARE OF PAPER CHEMICALS MARKET SHARE, 2006
 (\$7.65 billion)**



**SAMPLE
 CHART**

**Sample Profile,
 Table & Forecast**

TABLE VII-7
SODIUM SULFITES DEMAND IN PULPING
 (thousand tons)

Item	1996	2001	2006	2011	2016
Wood Pulp Production tons chems/000 tons pulp	6430	6700	7000	7300	7700
Sodium Sulfites Demand					3
By Type:					
Sodium Sulfite					8
Sodium Bisulfite					3
Sodium Metabisulfite					2
By End-Use:					
Paper Mills					8
Paperboard Mills					7
Pulp Mills & Deinking Plants					8
\$/ton					0
Sodium Sulfites Demand (mil \$)					5
% sodium sulfites					2
Pulping Chemical Demand (mil \$)	601	577	525	590	1110

**SAMPLE
 PROFILE**

COMPANY PROFILES

GEO Specialty Chemicals Incorporated
 401 South Earl, Suite 3A
 Lafayette, IN 47904
 765-448-9412
 http://www.gespecialty.com

Sales: \$
 Employe

Key Proc
 methylol

GEO is a manufacturer of over 300 special... and cable, pulp and paper processing, oil and gas production, coatings, construction and electronics applications. The Company operates through four segments: Trimet Products, Water Treatment Chemicals, Process Industries and Peroxy Chemicals.

The Company participates in the US pulp and paper chemicals market via the Water Treatment Chemicals and Trimet Products segments. The Water Treatment Chemicals segment supplies an extensive range of water treatment chemicals and related products to paper mill, municipal water, industrial wastewater, oil and gas production, and agricultural customers. These products include ULTRAFLOC and ULTRAPAC aluminum-based flocculants and coagulants, which include aluminum sulfate, aluminum chloride solution, polyaluminum chloride and aluminum chlorohydrate, as well as custom blends of these chemicals. In paper mills, ULTRAFLOC and ULTRAPAC chemicals are used for influent and effluent water clarification, retention, formation, anionic trash charge neutralization, pH control, pitch control, alkaline papermaking contaminant scavenging, rosin sizing and wet strength

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“Demand for sulfur in the pulp and paper industry will advance 1.8 percent per year to 120,000 tons in 2011, valued at \$4 million. Demand is primarily centered on the addition of sulfur to cooking liquors in the sulfate pulping process and for cooking liquor pH control. Gains will also stem from the use of sulfur (and sulfur-containing chemicals) to dissolve impurities in wood pulp to improve the paper quality.”
 --Section VII, pp. 161-2

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OTHER STUDIES

Food & Beverage Additives

This study analyzes the US food additive industry. It presents historical demand data (1997, 2002, 2007) and forecasts for 2012 and 2017 by product (e.g., flavors and flavor enhancers, texturizers and fat replacers, emulsifiers, preservatives, nutraceuticals, colorants, enzymes, alternative sweeteners, acidulants); and application (e.g., processed foods, dairy products, bakery products, candy). The report also considers market environment factors, evaluates company market share and profiles industry players.

#2305 03/2008..... \$4500

Mining Chemicals

US mining chemicals demand will reach \$2.5 billion in 2011 based on gains in key markets such as coal mining and aggregate quarrying, which will boost demand for blasting agents. Explosives are the most important chemicals used in the mining industry and will provide the best opportunities. This study analyzes the 21 billion pound US mining chemical industry, with forecasts for 2011 and 2016 by product, function, application and market. It also evaluates company market share and profiles major producers.

#2267 11/2007..... \$4500

Wood Protection Coatings & Preservatives

US demand for wood protection coatings and preservatives will grow 3.4% annually through 2011, driven in part by a shift toward higher value formulations. Interior applications such as flooring and cabinets will lead gains. Exterior uses will continue to suffer from wood's gradual market losses to lower-maintenance alternatives. This study analyzes the \$2.9 billion US wood protection industry, with forecasts for 2011 and 2016 by product, application and market. It also details market share and profiles major firms.

#2243 10/2007..... \$4500

World Enzymes

World demand for enzymes will grow 7.6% annually through 2011. Gains will be driven by continued robust growth in pharmaceutical enzyme demand, double-digit increases in demand for biocatalysts for drug and fine chemical production, and the rapid expansion in bioethanol production from grains. This study analyzes the \$4.1 billion world enzyme industry, with forecasts for 2011 and 2016 by product, market, world region and for 15 countries. It also evaluates market share and profiles major players.

#2229 09/2007..... \$5400

Pigments: Inorganic, Organic & Specialty

US color pigment demand will grow 4.4% yearly through 2011, driven by a shift toward high-performance organic pigments and specialty types. Metallic, pearlescent and other specialty pigments will lead gains based on the need for more novel, eye-catching optical effects in automotive coatings, printing inks, plastics, cosmetics and toiletries. This study analyzes the \$3 billion US pigments industry, with forecasts for 2011 and 2016 by type and market. It also details market share and profiles major players.

#2232 08/2007..... \$4500

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