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World Specialty Silicas

Industry Study with Forecasts for **2016 & 2021**

Study #2906 | July 2012 | \$6100 | 303 pages

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Precipitated silica will remain dominant, with the adoption of “green tires” in North America and the Asia/Pacific regions, plus new tire labeling regulations in the EU, Japan and South Korea.

Worldwide demand to rise 5.6% yearly through 2016

World demand for specialty silicas -- which include precipitated silica, fumed silica, silica gel, and silica sol -- will rise at a healthy 5.6 percent annual pace to 2.8 million metric tons in 2016. In value terms, the market will grow 7.5 percent per year to \$6.4 billion. Volume demand will be bolstered by rising use in the rubber market due to increased use of silica in tire treads and higher levels of tire production, and by recovery in the manufacturing sector. In both value and volume terms, the market will improve from the 2006-2011 period, when it was negatively impacted by the worldwide economic recession of 2009.

“Green tires” to fuel precipitated silica demand

Precipitated silica, the dominant specialty silica product, will continue to account for over two-thirds of global demand through 2021. Above average growth will be fueled by the adoption of “green tires,” especially in North America and the Asia/Pacific region. New tire labeling regulations in the EU, Japan, and South Korea will increase demand for precipitated silica in tire treads, where precipitated silica lowers rolling resistance (improving fuel economy) and improves wet grip.

Demand for fumed silica will be boosted by an acceleration in non-tire rubber demand -- and in particular silicone



rubber -- in industrial applications. Silica sol will increase at an average pace, benefiting from the acceleration in the manufacturing sector, which will boost demand for silicas in refractories, metals, and textiles. Demand growth for silica gel will be limited by market maturity in applications such as food and beverages and cat litter, restraining overall growth.

Tire rubber to be fastest growing rubber market

Rubber will continue to account for the majority of demand and will continue to be the fastest growing market. Tire rubber will realize the most rapid gains, driven by higher levels of tire production as the motor vehicle industry continues

to recover and as green tires are increasingly utilized in North America and the Asia/Pacific region. The rate of adoption will be positively influenced as tire makers pursue consumer-education marketing efforts and tire labeling regulations are enacted (or come under consideration) in various regions.

Silica demand in non-tire rubber applications will be in line with average silica demand, as the economic recovery will aid industrial rubber products demand. Strong gains will also exist in the chemical and industrial processing markets. The cosmetics and toiletries, food and feed, and smaller markets will post less rapid gains, as those markets have realized maturity in developed countries.

Sample Text, Table & Chart

ASIA/PACIFIC

India: Products

SAMPLE TEXT

percent per year to 60,000 metric tons in 2016. India is a minor exporter of precipitated silica but imports nearly all of its silica gel and silica sol requirements. Some of the areas to which India exports its precipitated silica are Europe, Sri Lanka, Nepal, China, Indonesia, South Africa, and South America. China, Germany, and the US are among the sources of supply for silica imports. Precipitated silica dominates the specialty silica industry in India. Multinational producers include Evonik Industries and JM Huber. To meet rising demand, JM Huber has plans to increase precipitated silica capacity in India to 35,000 metric tons at its site by the end of 2012. Evonik Industries produces precipitated silica at its subsidiary, Insilco, in Gajraula. As of June 2012, the company had a 15,000 metric tons of annual capacity and was in the process of expanding to 21,000 metric tons per year. Also, Cabot Sanmar, a 50-50 venture between Cabot and Sanmar Holdings, manufactures

Production of specialty silicas in India will rise more than 10 percent per year to 60,000 metric tons in 2016. India is a minor exporter of precipitated silica but imports nearly all of its silica gel and silica sol requirements. Some of the areas to which India exports its precipitated silica are Europe, Sri Lanka, Nepal, China, Indonesia, South Africa, and South America. China, Germany, and the US are among the sources of supply for silica imports. Precipitated silica dominates the specialty silica industry in India. Multinational producers include Evonik Industries and JM Huber. To meet rising demand, JM Huber has plans to increase precipitated silica capacity in India to 35,000 metric tons at its site by the end of 2012. Evonik Industries produces precipitated silica at its subsidiary, Insilco, in Gajraula. As of June 2012, the company had a 15,000 metric tons of annual capacity and was in the process of expanding to 21,000 metric tons per year. Also, Cabot Sanmar, a 50-50 venture between Cabot and Sanmar Holdings, manufactures

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TABLE VI-12

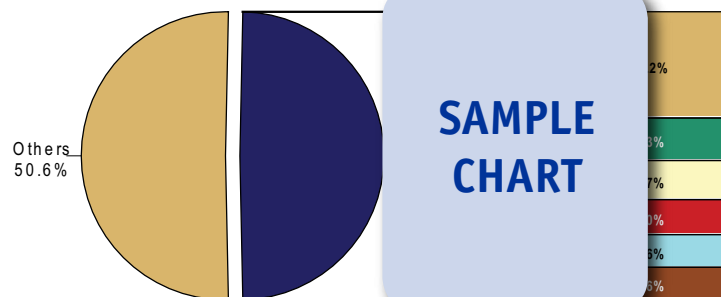
INDIA: SPECIALTY SILICA SUPPLY & DEMAND

Item	2001	2006	2011	2016	2021
Population (million persons)					
per capita GDP					
Gross Domestic Product (bil 2010\$)					
Manufacturing Value Added (bil 2010\$)					
Chemical Mfg Value Added (bil 2010\$)					
Rubber Demand (000 metric tons)					
kg silica/capita					
kg silica/000\$ MVA					
Specialty Silica Demand (000 m tons)					
net exports					
Specialty Silica Production (000 m tons)					

SAMPLE TABLE

CHART VIII-1

WORLD SPECIALTY SILICA MARKET SHARE (\$4.5 billion, 2011)



SAMPLE CHART

Sample Profile, Table & Forecast

COMPANY PROFILES

Fuso Chemical Company Limited

Nissei Fushimi-machi Building Shinkan
3-10, Koraibashi 4-chome

Chuo-ku

Japan

816-620

http://ww

Sales: \$

Employ

Key Pro

**SAMPLE
PROFILE**

Fuso Chemical is a diversified chemical manufacturer that produces fruit acids, colloidal silicas, and resin additives. The Company operates through three segments: Electronic Materials, Life Science, and Functional Chemicals.

The Company participates in the world specialty silica industry through the Electronic Materials segment, which produces and sells colloidal silicas and alkyl silicates. Through the segment, Fuso manufactures and sells colloidal silicas under the QUARTRON PL brand name. High purity grades of QUARTRON PL colloidal silicas are dispersible in various organic solvents, including alcohol, ketone, toluene, and ether. These silicas are intended for use in semiconductor and liquid crystal display applications. Ultra high purity grades of QUARTRON PL colloidal silicas are prepared via the particle growth method using hydrolysis and condensation with high purity alkoxysilane as a starting material. These grades are typically utilized in chemical mechanical planarization process, silicon wafer polishing, and coating applications. The Company produces colloidal silicas and other products at plants in Kyoto, Juso, and Osaka, Japan. Outside of

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TABLE VI-14

INDIA: SPECIALTY SILICA DEMAND BY MARKET (thousand metric tons)

Item	2001	2006	2011	2016	2021
Specialty Silica Demand					
Rubber:					
Tire					
Non-Tire					
Chemicals					
Cosmetics & Toiletries					
Food & Feed					
Industrial Processing					
Other					
% India					
Asia/Pacific Specialty Silica Demand	337	397	720	1330	1680

**SAMPLE
TABLE**

"Specialty silica demand in India will rise 9.8 percent per year to 59,000 metric tons in 2016, accounting for four percent of the total demand in the Asia/Pacific region. India is one of the largest tire producers in the world; however, adoption of green tires is limited. Despite the resulting ample opportunity for improved penetration, production of silica-reinforced tires (which are more expensive) will be limited to some degree because of ..."

--Section VI, pg. 175

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OTHER STUDIES

World Industrial Rubber Products

The global market for industrial rubber products is projected to increase 5.8 percent per year to \$140 billion in 2016. The Asia/Pacific region -- the largest market -- is also forecast to post the best annual growth, led by China. The motor vehicle market will grow the fastest while industrial equipment remains the largest market. This study analyzes the \$105.5 billion world industrial rubber product industry, with forecasts for 2016 and 2021 by market, product, world region and for 27 countries. The study also evaluates company market shares and profiles industry players.

#2888..... May 2012..... \$6100

World Activated Carbon

World demand for activated carbon will rise 10.3 percent annually through 2016 to 1.9 million metric tons. Gains will be driven mainly by more government controls on power plant and factory emissions in the US and China. India will surpass Germany to become the fourth largest market, behind Japan. This study analyzes the 1.2 million metric ton global activated carbon industry, with forecasts for 2016 and 2021 by type, application, market, world region and for 17 countries. The study also evaluates company market share and profiles industry participants.

#2878..... April 2012..... \$6200

World Rubber Processing Chemicals

Global demand for rubber processing chemicals will rise 4.7 percent yearly to 1.4 million metric tons in 2015. China will remain the largest and fastest growing market. Accelerators and processing aids will be among the fastest growing types, while antidegradants will remain the largest segment. This study analyzes the 1.1 million metric ton world rubber processing chemical industry, with forecasts for 2015 and 2020 by type of rubber, chemical, market, world region and for 27 countries. The study also evaluates company market shares and profiles industry players.

#2863..... March 2012..... \$6100

World Tires

World tire demand will rise 4.7 percent yearly through 2015 to 3.3 billion units. The large motor vehicle market will grow faster as motor vehicle industries rebound. Stronger growth will occur among industrial and other tires, including bicycle, motorcycle and off-road types. The Asia/Pacific region will remain the largest and fastest growing market. This study analyzes the 2.6 billion unit world tire industry, with forecasts for 2015 and 2020 by market, world region and for 30 major countries. The study also evaluates company market share and profiles industry competitors.

#2860..... February 2012..... \$5800

World Rubber

Global rubber consumption is forecast to rise 4.3 percent annually through 2015 to 30.5 million metric tons, driven by increasing tire output as global motor vehicle production accelerates from a weak base. The Asia/Pacific market will remain dominant and grow the fastest. Non-tire rubber sales will outpace growth in tire rubber sales. This study analyzes the 24.8 million metric ton world rubber industry, with forecasts for 2015 and 2020 by market, world region and for 30 countries. The study also evaluates company market shares and profiles industry players.

#2843..... March 2012..... \$5800

About The Freedonia Group

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