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# World Oilfield Chemicals

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Industry Study with Forecasts for **2012 & 2017**

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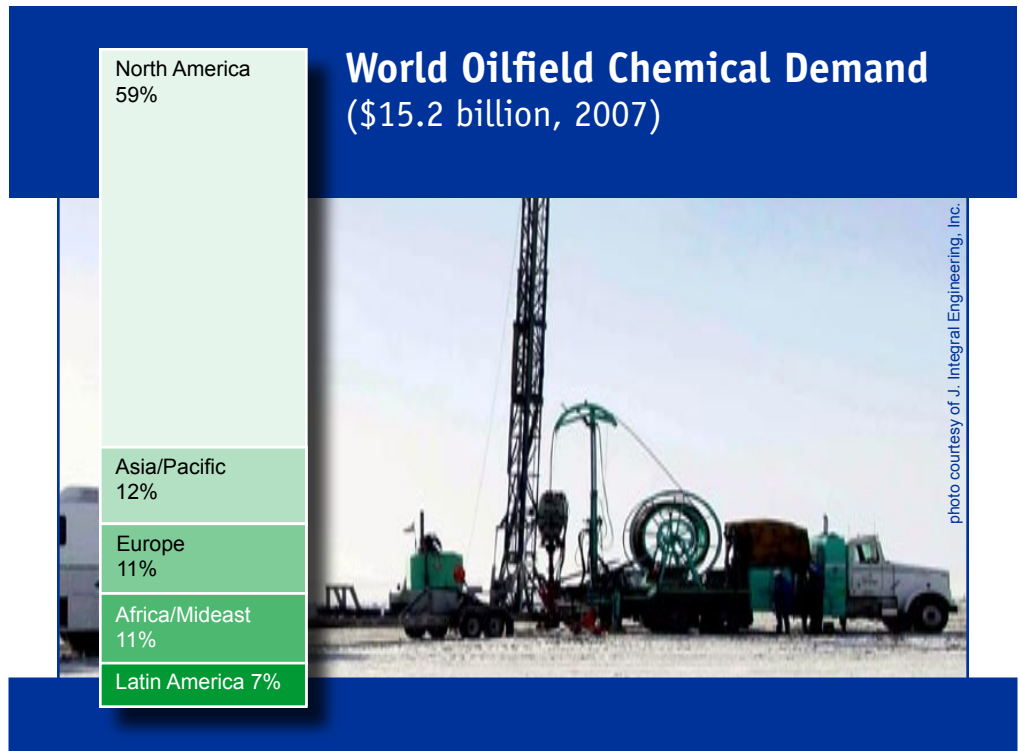
*Gains in global oilfield chemical demand through 2012 will be driven by continuing growth in oil and gas production, and high levels of rotary drilling rigs in use and of wells drilled.*

## Global demand to grow 5.7% yearly through 2012

Following a period of sensational growth powered by record high energy prices and fervent oilfield activity, the market for oilfield chemicals is expected to return to a period of relative normalcy. Demand is projected to increase 5.7 percent annually to more than \$20 billion in 2012, driven by continuing growth in oil and gas production, and high levels of rotary drilling rigs in use and of wells drilled. Forecasts are based on the expectation that oil prices will remain well below the record levels of 2008.

## Latin America, Asia/Pacific offer best growth prospects

Latin America offers the best prospects for oilfield chemicals through 2012. The region is home to a number of countries, such as Brazil and Bolivia, that have begun to more fully develop their oil and gas resources. This will boost demand for oilfield chemicals, as will efforts on the part of the Venezuelan and Argentine governments to increase drilling and other oilfield activity in an attempt to sustain production levels in mature fields. The Asia/Pacific region will also offer above average growth -- in part due to relative newcomers among major oil and gas producers such as some of the former Soviet republics, and to more established producing nations, such as Indonesia and Malaysia, attempting to counter declines in output. China, the largest market in the region, will experience strong growth due to the greater



use of enhanced oil recovery and well stimulation techniques to satisfy rapidly growing domestic energy requirements.

North America will remain by far the largest regional outlet for oilfield chemicals, accounting for nearly 60 percent of demand in 2012, despite accounting for less than 20 percent of oil production and less than 25 percent of natural gas production. All three North American countries are significant markets for oilfield chemicals. The US is easily the largest market, due to the large number of rigs and wells used to maximize production from generally mature fields. Growth in Canada will result from continuing efforts to develop the immense oil sands areas in Alberta, and Mexico's traditionally underfunded

national oil company should benefit from recent legislative action that is likely to spur greater foreign investment.

In the Africa/Mideast region, oilfield chemical demand is expected to grow based on increased natural gas production in many previously underdeveloped areas, and a greater share of oilfield activity taking place in more demanding environments. In Europe, oilfield chemical demand is expected to expand the slowest. Nevertheless, while demand in Norway and the United Kingdom is expected to grow at a rate well below the regional average, growth in Russia will be strong due to sustained production growth and efforts to remediate wells that were previously mismanaged.

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**Sample Text,  
 Table & Chart**

**EUROPE**

**Russia: Oil & Gas Outlook**

Russia has a vast petroleum production complex. Its 3.0  
 rels of output in 2007 trailed ... oil p  
 Over the course of the next ... ss Sa  
 as the world's leading produ ... ssia's  
 economic growth over the 2 ... in la  
 the double benefit of surging ... oil p

**SAMPLE  
 TEXT**

However, discovery and ... as in R  
 lagging the depletion rate of resources at existing fields, due  
 measure to the aging and outmoded petroleum infrastructure  
 country. This, in turn, reflects a lack of investment, which is partially  
 a result of scarcity of capital (along with noneconomic factors such as  
 corruption, mismanagement and government interference). Russia has,  
 however, been successful at garnering significant foreign investment into  
 the important Sakhalin I, II and III oil and gas projects off its eastern  
 coast, near Sakhalin Island.

Crude oil production in Russia is expected to increase 1.6 percent  
 per year through 2012 to 3.9 billion barrels. Following a more dramatic  
 expansion in output over the 2002-2007 period (average annual growth  
 of over five percent per year, compared with a global average of less than  
 two percent), production growth is expected to slow as a result of aging  
 and damaged fields in the Western Siberia region.

Limitations in export capacity will also curtail production growth,  
 as the country has become reliant on exporting petroleum products by  
 rail and water routes due to a limited pipeline capacity. Large amounts  
 of investment are needed to repair damaged wells and continue produc-  
 tion increases, although investor confidence has been somewhat shaken  
 by the government's handling of the Yukos tax situation. Going forward,

**TABLE VII-4**

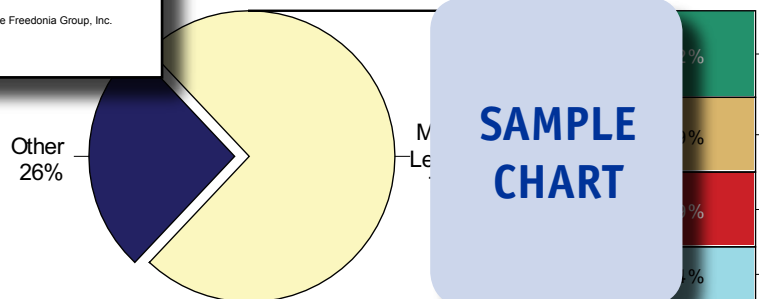
**RUSSIA: OILFIELD CHEMICAL DEMAND  
 (million dollars)**

Item	1997	2002	2007	2012	2017
Oil & Gas Production (quad Btu) \$ chemical/bil Btu					
Oilfield Chemical Demand					
Drilling Fluids					
Cement & Additives					
Production Chemicals					
Stimulation & EOR Chemicals					
Completion & Workover Fluids					
% Russia					
Europe Oilfield Chemical Demand					

**SAMPLE  
 TABLE**

**CHART X-4**

**ORLD COMPLETION & WORKOVER FLUID  
 MARKET SHARE, 2007  
 (\$1.3 billion)**



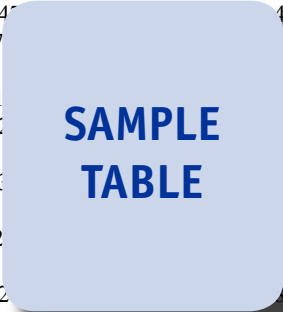
**SAMPLE  
 CHART**

## Sample Profile, Table & Forecast

**TABLE VII-3**

**RUSSIA: KEY INDICATORS FOR  
OILFIELD CHEMICAL DEMAND**

Item	1997	2002	2007	2012	2017
Population (million persons)	147	147	147	147	142
GDP/capita	7	7	7	7	90
Gross Domestic Product (bil 2006\$)	1	2	2	2	40
000 Btus/\$ GDP	2	2	2	2	7
Oil & Gas Production (quad Btu)	3	3	3	3	6
Crude Oil Production (mil bbl)	2	2	2	2	5
Dry Natural Gas Production (tril cu ft)	2	2	2	2	0



### COMPANY PROFILES

**Enerchem International Incorporated**

450, 630 Six Avenue Southwest  
 Calgary, Alberta T2P 0S8  
 Canada  
 403-269-1500  
 http://www.enerchem.com



Revenues:  
 Employment:  
 Key Products:

Enerchem International Inc. manufactures and distributes hydrocarbon-based well servicing fluids for the oil and gas production and processing industries. In addition, the Company is a provider of energy marketing services, fluid transportation and related oilfield services. Enerchem operates in three segments: Oilfield Services, Energy Marketing and Transportation Services.

The Company participates in the world oilfield chemicals industry via the Oilfield Services industry, which reported 2007 revenues of US\$48 million. Through this segment, Enerchem manufactures and sells a variety of hydrocarbon products, including hydrocarbon-based drilling and fracturing fluids. These oilfield chemicals are designed for use in deep well drilling and workover activities at well depths greater than 1,850 meters. Among the Company's drilling fluids are DRILLSOL and DRILLSOL PLUS oil-based, biodegradable varieties. These products, which are formulated to enhance borehole stability, are suitable for use in deep wells affected by shale sloughing. DRILLSOL and DRILLSOL PLUS drilling fluids are also designed to reduce overall drilling costs, and ensure environmental and worker safety. Fracturing fluids from Enerchem include FRACSOL oil-based products, which are used to stimulate oil production by inducing fractures and fissures in the formation.

“Demand for oilfield chemicals in Russia is projected to increase 6.1 percent per year to \$1.1 billion in 2012, well above the regional average, and somewhat above the global average. Gains will be due to ongoing efforts by the Russian government and the country's energy industry to increase output of crude oil and natural gas, aided by growing outside investment from international companies.”

--Section VII, pg. 169



**OTHER STUDIES**

**World Well Stimulation Materials**

This study analyzes the global well stimulation material industry. It presents historical demand data for the years 1997, 2002 and 2007, and forecasts for 2012 and 2017 by material type (e.g., base fluid materials, additives, proppants, gases), key national market (e.g., US, Russia, Canada, China) and world regional market (e.g., North America, Asia/Pacific, Africa/Mid-east). The study also considers market environment factors, details industry structure, evaluates company market share and profiles industry participants.

#2458 ..... 01/2009..... \$5700

**World Catalysts**

Global catalyst demand will expand 6% annually through 2012. Polymerization catalysts will grow the fastest based on rapid expansion in polymer capacity in developing regions and a shift toward higher cost/more efficient catalysts. Enzyme and organometallic catalysts will be the fastest growing materials. This study analyzes the \$12 billion world catalyst industry, with forecasts for 2012 and 2017 by material, product, market, world region and for 28 countries. It also evaluates market share and profiles industry players.

#2407 ..... 10/2008..... \$5900

**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

**Oilfield Chemicals**

US oilfield chemical demand will rise 4.3% per year through 2011. Gains will be driven by a rise in rig counts, more use of well stimulation and enhanced oil recovery (EOR) methods and more deepwater drilling and production. Best prospects include EOR chemicals, drilling fluids and well stimulation chemicals. This study analyzes the \$6 billion US oilfield chemical industry, with forecasts for 2011 and 2016 for formulated products and their raw materials. It also details market share and profiles major players.

#2253 ..... 10/2007..... \$4500

**Well Stimulation Materials**

Buoyed by historically high oil and gas prices, US demand for well stimulation materials will grow 14% annually through 2012. All important product types will register strong growth as US oilfield operators struggle to sustain production levels. Proppants, the largest category, will double in market value. This study analyzes the \$2.8 billion US well stimulation material industry, with forecasts for 2012 and 2017 by product and regional market. It also evaluates market share and profiles industry competitors.

#2358 ..... 06/2008..... \$4600

**About The Freedonia Group**

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