Petroleum and Petrochemicals Economics Program: Petrochemical Market Dynamics

China Petrochemicals 2013

China Petrochemicals 2013 is one in a series of country focused reports published as part of the Petroleum and Petrochemical Economics program.

This report provides an in-depth analysis and forecast of key petrochemical products including olefins, polyolefins, aromatics, vinyls, derivatives of butadiene and propylene and other select petrochemicals.

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Abstract

Introduction

Following the global economic downturn in 2008-2009, China maintained good growth with real GDP increasing by 9.2% in 2009, 10.3% in 2010 and 9.1% in 2011. Investment, exports and domestic demand are the engines of growth for the Chinese economy. Chinese government The has invested in infrastructure and increased benefits for citizens with the 'Economic Stimulus Plan'. The country is forecast to grow at 8.2% in 2013 and an average annual growth rate of 8.5% a year is expected from 2012-2017.

China's consumption of chemicals has increased significantly to meet the demand of the country's industries. The automotive industry and construction are heavy users of a wide range of chemicals and their performance is crucial to stimulate demand.

Market Dynamics - Butadiene

Consumption of butadiene in China doubled from 2002 to 2010 following massive capacity development of synthetic rubber and latex, styrene-butadiene-styrene (SBS) and acrylonitrile butadiene styrene (ABS), in the country.

China's own butadiene industry grew rapidly along with the development of new steam crackers, but has now slowed, creating the requirement for on-purpose butadiene production in China.

Butadiene consumption in China grew by 8% in 2012 as a result of new butadiene rubber (BR) and styrene butadiene rubber (SBR) capacity coming onstream. The huge developments in tyre manufacturing in China have created a substantial import requirement for butadiene derivatives – BR and SBR, while imports of butadiene itself are less significant. Demand growth is set to accelerate over the coming years as a result of major downstream expansion both in rubbers and ABS.

On going development of butadiene derivatives is also supported by the Chinese government, but is limited to some extent by butadiene availability.

Supplier Landscape – Butadiene

Butadiene capacity in China has grown very rapidly through a rise in the number of butadiene plants and expansion of some butadiene units.

Despite the emergence of a viable local butane/butylene dehydrogenation technology, the economics of BDH in China remain challenging due to 2013 butadiene price levels. Developments are also underway in regions such as Europe and Saudi Arabia to extract previously unexploited butadiene. However, investors have bet heavily on BDH in China; one plant entered production in 2012, and four more will be operating by the end of 2013, with another five plants expected in 2014.

Aside from the upcoming dehydrogenation developments, capacity growth from conventional sources is considerable. New large scale butadiene extraction units by BASF-YPC, Daqing Petroleum and Chemical and Fushun Petrochemical came onstream over 2011-2012. Other new units are being commissioned by Wuhan Petrochemical and Chengdu Petrochemical in 2013. There are five other firm butadiene extraction projects set to enter the market from 2014 and beyond.



Butadiene Derivative Production and Consumption

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Contact Us:

Anna Ibbotson Global Manager, Petroleum & Petrochemical Economics Tel: +44 (0)20 7950 1528 Fax: +44 (0)20 7950 1550 E-mail: aibbotson@nexant.com

Heidi Junker Coleman Global Programs Support Manager Tel: +1 914 609 0381 Fax: +1 914 609 0399 E-mail: hcoleman@nexant.com

