



The Catalyst Group Resources

Gwynedd Office Park P.O. Box 680 Spring House, PA 19477 Phone: 215-628-4447 Fax: 215-628-2267

E-mail: tcg@catalystgrp.com Web Site: www.catalystgrp.com

PRESS RELEASE . . .

For Immediate Release.... June 14, 2005



An Insider's Look At The PRC – The Petrochemical/Chemical Catalyst Segment Report -- Part Two of a Four Part Series (Just Completed)

Global competition for participation in China's increasingly important markets for petrochemical/chemical catalysts is well underway. Multinational companies continue the fight for market share; earlier this month Engelhard Corp. announced its acquisition of Nanjing Chemical Industry, a synthesis gas catalyst unit. Is your company informed enough to make an equally important decision? The Catalyst Group Resources has just released part two in a series which addresses these concerns as they relate specifically to the petrochemical/chemical catalytic process area. The 110 page report entitled "**The Catalytic Process Industries in China: Markets, Technologies & Strategic Implications – Petrochemical/Chemical Catalyst Segment Report --**" is an in-depth, intriguing report which provides the industry with vital information including:

- The PRC currently has in excess of 80 specialized producers of petrochemical and chemical catalysts. Of this 50 are producers for syngas and derivatives, 20 are producers for oxidation applications, and about 30 produce other types of catalysts. The total consumption of petrochemical and chemical catalysts within this burgeoning country was approximately 59.5 kt in 2003 and 68 kt in 2004 growing to 91kt by 2008, a 33% increase in just four years. The syngas and derivatives catalysts account for around 46% of that total and chemical fertilizer catalysts (which according to Chinese classification includes methanol and sulfuric acid catalysts) accounts for 58% of consumption.
- To date, within the PRC, there is no production of α -olefins using ethylene as a raw material. The 75kt/ a α -olefin unit that is still in production uses the wax cracking process without any consumption of catalysts. The output of α -olefins using the wax cracking process in China was only 11kt in 2003. The import volume was around 13kt, the export volume was very small and the apparent consumption was around 24kt.
- According to governmental regulations requiring joint ventures with foreign suppliers be with a particular set of domestic suppliers, there is an opportunity to introduce more advanced technology such as combined Ru and/or Ba catalysts that could provide entry and further consolidation, as well as higher productivity solutions for fertilizer manufacture. Alternatively, there might be an opportunity to convert some of the smaller capacity NH_3 reactors for other uses like MeOH, DME and/or GTL plants.
- Competition from foreign (mostly Western and other Asian) suppliers has been blunted by the monopolies of SINOPEC and CNPC as well as reluctance by foreigners to expose leading-edge technologies to the lack of protection for technology and intellectual property (IP). As some have shown, there are ways to control access to, and use of, particular technologies, although these are involved and require detailed oversight. It is worth noting that China is now able to meet almost 80% of its internal demands for petrochemical catalysts as they are applied in around 100 distinct processes.
- Recognizing the opportunities surrounding its coal and gas resources, China is developing its own conversion technologies to serve domestic needs for liquids (e.g., GTL and CTL) as well as one-step routes to key intermediates and products, such as direct ethane to acetic acid and propane to acrylonitrile. Although not yet "world class," these are expected to be competitive with alternatives developed globally.

The Catalytic Process Industries in China: Markets, Technologies & Strategic Implications – Petrochemical/Chemical Catalyst Segment Report – provides a comprehensive look at the structure and key players of the petrochemical/chemical catalyst industry in China broken down by particular application, and consumption and growth rates of the industry. In addition the study details the key economic and governmental factors which influence both domestic and international companies within this sector including what role China's Chemical Industry Association plays; and outlines the current opportunities and threats in this exciting developing economy. With the new international catalyst community beginning to take shape in China companies cannot afford to be without this indispensable report.

The study is available in printed format as well as electronically (as a PDF file), allowing unlimited use/distribution of the report on a site-license basis. A presentation and order form, as well as the report's actual Table of Contents can be obtained from our website at <http://www.catalystgrp.com/CatalyticProcessIndustriesInChina.html> or you may contact John J. Murphy at 215-628-4447 (jjm@catalystgrp.com).

The Catalyst Group Resources (TCGR), a member of The Catalyst Group, is dedicated to monitoring and analyzing technical and commercial developments in catalysis as they apply to the global refining, petrochemical, fine/specialty chemical, pharmaceutical, polymer/elastomer and environmental industries. The Catalyst Group Resources' assessment is based on information obtained from the public domain as well as internal sources and industry interviews. TCGR's analysis will report factual information, as well as hypotheses/interpretations based on this information, in order to derive a reasonable set of expectations. Factors could cause actual results to differ from our forward-looking statements and The Catalyst Group Resources undertakes no obligation to publicly revise these forward-looking statements to reflect events or circumstances after the date hereof.