



SASOL to Sell Former Condea Business • VALERO to Halt MTBE Production •  
ALTANA Boosts Pigments; Plans Chemicals Spin-off

[www.chemweek.com](http://www.chemweek.com)

# chemicalweek

The Worldwide News Source for Chemicals Makers and Processors • August 10, 2005 • \$12.00 U.S., \$15.00 elsewhere • PMA 40051509 • 2 Parts

ALSO IN THIS ISSUE:

## Catalysts

Enjoying Buoyant  
Market Conditions



# Chemtura

## Making a Merger Work

ROBERT L. WOOD  
*Chairman, President, and CEO*

 Access  
Intelligence

# where?

You'll find us wherever you need us. By combining Borden Chemical, Bakelite, Resolution Performance Products and Resolution Specialty Materials, we now operate from 86 production and distribution facilities located strategically around the world. This means we can serve our customers virtually anywhere they are located. Bringing you the most complete range of thermoset resins, adhesives and coatings technologies to solve virtually any bonding, binding or coating need. With the best in technical service and innovation, backed by the resources and reach of a global organization. We're Hexion.

**HEXION™**

**Specialty Chemicals**

The new thermoset resins leader



**COVER STORY: CHEMTURA**

## 17 Making a Merger Work

Chemtura, the company formed by the merger of Crompton and Great Lakes Chemical, looks to have a great deal going for it. It is the third-largest publicly traded U.S. specialty chemical firm by revenues and the world's largest plastic additive maker. Chairman, president, and CEO Robert L. Wood intends to make sure the merger generates value with a strong post-merger integration plan, and a focus on raising prices, reducing costs, and rallying staff under the new name.

[www.chemweek.com](http://www.chemweek.com)

### Newsbriefs

- 6 CNOOC drops bid for Unocal • Pipe failure may have caused BP blast • Fab workers' cancer risk probed • Tillerson to head ExxonMobil • UOP combines chemical units • Rhodia writes off ChiRex • BASF, Clariant, Total post profit hikes



- 13 Mitsu starts Florida-Asia container service
- 13 Gas suppliers raise prices for argon and helium

### EUROPE/MIDEAST

- 14 Industri Kapital receives bids for Dyno Nobel
- 14 Süd-Chemie says takeover offer "inappropriate"
- 14 ICI targets more job reductions

### ASIA/PACIFIC

- 15 Reliance board approves plan to split company
- 15 Japanese firms post mixed quarterly results



### Top of the Week

- 8 Sasol to sell most of former Condea business
- 8 Altana to spin off chemicals; buys pigments maker



### Business & Finance News

#### UNITED STATES/AMERICAS



- 9 Flint to merge with German inks firm
- 9 U.S. chemical industry credit ratings strengthen
- 12 Valero to quit MTBE production
- 12 Higher volumes lift late-reporting firms
- 13 PPG plans membrane cell chlor-alkali conversion



## Clear the air with SOLVAir™ Products!

Compliance with the Clean Air Act demands innovative applications from a knowledgeable source.

At Solvay Chemicals, the SOLVAir™ portfolio of products provides the products and technologies designed to efficiently and cost-effectively help you remove SO<sub>2</sub>, HCl, HF, NO<sub>x</sub> and heavy metals including Hg from flue gas emissions.

Used by industries as varied as glass, cement, waste incineration, gold and other precious metal refining, petroleum refineries, power generation and pulp & paper mills for many years, SOLVAir products have a proven track record of success in cleaning the air.

The SOLVAir portfolio includes INTEROX® Hydrogen Peroxide, soda ash, sodium bicarbonate, sodium sulfite and T-50® and T-200® Trona. Each of these products helps to make the air that we breathe clean, fresh and free of industrial pollutants.

For the highest quality products, from the experienced single source for clean air chemicals, the name to remember is SOLVAir!

**Solvay Chemicals.**  
**Focusing on fundamentals.**

Solvay Chemicals, Inc.  
3333 Richmond Avenue  
Houston, Texas 77098  
1.800.SOLVAY C (800.765.8292)  
713.525.6500 FAX: 713.525.7806  
[www.solvaychemicals.us/solvair](http://www.solvaychemicals.us/solvair)

**Solvay  
Chemicals**



Interox, Fluorides & Minerals

Copyright 2005, Solvay Chemicals, Inc. All Rights Reserved.

**TO SUBSCRIBE GO TO WWW.CHEMWEED.COM**



## High Performance Catalysts for Chemicals

Our catalyst portfolio covers a broad range of industrial applications. Committed to ongoing research and development, we supply superior technology to our customers.

Providing comprehensive process and application knowledge in combination with global customer service, we offer to you more than just the catalyst.

**BASF is Your partner in catalyst solutions.**

 **BASF**

The Chemical Company

For further information and to find your nearest local contact please visit our website at [www.basf.de/catalysts](http://www.basf.de/catalysts)

## Catalysts

### 21 Firms Enjoy Buoyant Market Conditions

The catalyst industry is benefiting from buoyant market conditions, driven by the need to supply catalysts to a wave of petrochemical plants being built in China and the Mideast, and to meet clean air regulations in Europe, Japan, and North America, analysts say. Executives at many of the leading catalyst producers say they plan to extend their global reach and introduce novel technologies to cater to demand in fast-growth regions, particularly China.

[www.chemweek.com](http://www.chemweek.com)

## New Construction Projects

- 16 Total eyes PP line in U.S.; ups capacity in Europe • Sumitomo, Aramco sign Saudi JV deal; costs exceed estimates • Iran selects Basell technology for LDPE plant ... Awards Olefins 8 to Pidec and Lumus • Fortron to double PPS production in the U.S.



## Companies



- 39 Airgas reaps the benefits of its plan to expand via acquisitions

## CW75

- 44 Positive earnings news lifts chemical stocks

## Departments

- 5 **Viewpoint**
- 41 **Leading Indicator:**  
A slight decline

## Features

- 35 **Country Focus:**  
U.K.
- 42 **Marketplace**



## Specialty Chemicals

- 21 PPG acquires Asian coatings maker
- 21 ISP buys U.K. food stabilizer units
- 21 Omnova Solutions expands in Asia

## Pharmaceuticals & Fine Chemicals

- 29 Custom manufacturers' results improve
- 29 Aerojet acquisition fits with AmPac's strategy
- 29 FDA bans Bayer's Baytril poultry antibiotic
- 29 Making biocatalysts from genetically modified plants



## Basic Chemicals & Plastics

- 31 HCI producers seek record price hike
- 31 Petchem output falls; inventories rise
- 33 **CW Price Report**

TO SUBSCRIBE GO TO [WWW.CHEMWEEK.COM](http://WWW.CHEMWEEK.COM)

## UPCOMING FEATURES IN **chemicalweek**

★ **Agchem Industry Executive Compensation**

★ **Polypropylene**  
August 17th

★ **China**

★ **Readex ad study issue**  
August 24th / 31st





# Petrochemical Outlook Conference

Silver Sponsor



**October 25-26, 2005 · St. Regis Hotel · Houston, TX**

Now in its 23rd year, Chemical Week and Nexant's ChemSystems will once again provide the latest information on the issues the industry is now facing. The 23rd Annual Petrochemical Outlook Conference will feature the following top industry leaders:



**FRAN KEETH**, *Global Executive Vice President Chemicals, Shell Chemicals Ltd. & President and Chief Executive Officer, Shell Chemicals LP*

Ms. Keeth will address the critical pressures facing the petrochemical industry today.



**TERRY A. SUTTER**, *President, Tyco Plastics and Adhesives*

Mr. Sutter will offer a downstream olefins consumer's perspective.



**DAVID N. WEIDMAN**, *President and CEO, Celanese Corporation*

Mr. Weidman will explore the role of Private Equity in the industry.



**WARREN W. WILDER**, *Vice President Olefins and Styrene, Westlake Chemical Corporation*

Mr. Wilder will be addressing North America's position in the world market.



**JAS GILL**, *President Building Blocks, Cytec Industries*

Mr. Gill will uncover the magnitude of energy cost increases over recent years and its impact on petrochemical plant economics.



**MITCHELL HELD**, *Chief Economist, Smith Barney*

Mr. Held will review the current economic situation and opines on the outlook and its impact on the petrochemical industry's prospects.

*New This Year!*

**ONE-DAY ENERGY OUTLOOK CONFERENCE**  
**OCTOBER 24, 2005 · ST. REGIS HOTEL · HOUSTON, TEXAS**

Pay one low rate and attend both the Petrochemical Outlook and our Energy Outlook Conference. This one day event will focus on the industry's dependence on natural gas, and address the concerns this causes.

Featured speakers include:

- Senior Fellow, John F. Kennedy School of Government, Harvard University
- Director of Government Relations, Rohm and Haas
- Senior Consultant, Chemicals & Energy Practice, SRI Consulting
- Manager, Generation & Development, American Electric Power

Visit [www.chemconference.com](http://www.chemconference.com) for details and pricing! \*additional fee applies

For more information or to register, visit [www.chemconference.com](http://www.chemconference.com) or call 212-621-4978. Mention code: CW810AD. For sponsorship opportunities contact Dana Carey at 212-621-4972 or [dcarey@chemweek.com](mailto:dcarey@chemweek.com)

**Editor-in-Chief** Andrew Wood 212-621-4956  
**Managing Editor/Specialties, Logistics, and IT** Esther D'Amico 212-621-4954  
**Senior Editor/News** Robert Westervelt 212-621-4944  
**Senior Editor/Environment, Regulatory Issues, and Latin America** Kara Sissell 212-621-4831  
**Senior Associate Editor/Basic Chemicals and Plastics, and Chlor-Alkali Marketwire** Peck Hwee Sim 212-621-4953  
**Senior Associate Editor/Specialties and Finance** Kerri Walsh 212-621-4931  
**Associate Editor/Regulatory Issues and IT, and Editor/Daily Newswire** Nancy Seewald 212-621-4915  
**Associate Editor** Veronica MacDonald 212-621-4983  
**Copy Editor** Edmund Berrigan 212-621-4665  
**Editorial Assistant** Ryan W. Smith 212-621-4847

## LONDON

**24-25 Scala Street, London W1T 2HP**  
**+44 20 7436-7676; Fax: +44 20 7436-3749**  
**Executive Editor** Natasha Alperowicz +44 20 7692-5282  
**Managing Senior Editor** Ian Young +44 20 7692-5280  
**Senior Associate Editor/Pharmaceuticals, Fine Chemicals, and Environment** Alex Scott +44 1494 564316  
**Designer/Office Manager** Monika Haeferli

## CORRESPONDENTS

**NORTH AMERICA:** TORONTO, Peter Fairley; NEW YORK CITY, Ray Pospisil; PHILADELPHIA, Ken Cottrill.  
**EUROPE:** AUSTRIA, George Hamilton; ITALY, John Glover; IRELAND, Robert Allen; FINLAND, Gerard O'Dwyer; GERMANY, Don Kirk; SWITZERLAND, Laura Pilarski; RUSSIA, Alexander Bykov; SPAIN, Marco Achon.  
**ASIA/PACIFIC:** THAILAND, Jonathan Sikes; CHINA, Nick Driver; INDIA, C. Veeraraghavan; INDONESIA, Gary Nageri Munthe; JAPAN, Andrew Mollet; KOREA, Hyung-Jin Kim; PAKISTAN, Rauf Siddiqi; PHILIPPINES, Bernardo Ronquillo; TAIWAN, John R. Westbrook; AUSTRALIA, Christine Forster.  
**LATIN AMERICA:** MEXICO, Carmen Alvarez; VENEZUELA, Jack Sweeney; CHILE, Raul Ferro

## PUBLISHER AND GROUP VICE PRESIDENT

Lyn Tattum +44 20 7692-5275  
 ltattum@chemweek.com 212-621-4809

## ADVERTISING

**Global Sales Director** Joseph Mennella 212-621-4918  
**Global Sales Manager/Directories/Classified** John G. Markovic 212-621-4914  
**Worldwide Sales Manager, Buyers' Guide/Profiles** Chantal Onelien 212-621-4928  
**Regional Sales Manager, Europe/Asia** David Ricketts +44 20 7692-5278  
**Regional Sales Manager** Alexandra Sheppard 212-621-4828  
**Sales/Marketing Assistant International** Nanette Santiago 212-621-4809  
**Italy** Ferruccio Silvera ferruccio@silvera.it  
**Japan** Katsuhiko Ishii amskatsu@dream.com  
**Taiwan** Rudy Teng idr808@seed.net.tw  
**China** Lijuan Wang lwang@fengwei.com.cn  
**India** Dipali Dhar ddhar@chemweek.com

## MARKETING

**Marketing Manager** Deirdre M. Smith  
**Senior Graphic Designer** Tara Zaino

## ART/PRODUCTION

**Vice President of Production & Manufacturing** Michael D. Kraus  
**Director of Production & Manufacturing** Steven Olson  
**Art Director** Mario Sotolongo  
**Advertising Production Director** John Blaylock-Cooke 212-621-4655  
**Art/Production Manager** Gen Yee  
**Art/Production Manager** Cindy Martinez  
**Assistant Production Manager** George E. Bourous

## FINANCE/ADMINISTRATIVE

**Vice President of Information Technology** Robert Paciorek  
**Director of Financial Planning** Steve Barber 301-354-1502

## CONFERENCES/TRADE SHOWS

**Director of Global Events** Seth H. Kerker 212-621-4959  
**Director, Global Event Sponsorships** Dana D. Carey 212-621-4972  
**Conference Registration Manager** Carla Gutierrez 212-621-4978

## CIRCULATION

**Vice President of Circulation** Sylvia Sierra 301-354-1661  
**Sr. Fulfillment Manager** Velma Artis 301-354-1706  
**Circulation Director** Stuart Bonner 301-354-1707  
**Circulation Manager** Ben Cross 301-354-1765  
**Subscription Services** 815-734-5806; Fax: 815-734-1246  
**List Rentals** Jennifer Booher, Worldata 561-393-8200  
**Reprints** Darla Curtis 800-211-6356; 301-354-1709  
**Customer Service Line (International)** +44 114 220-2440  
 Fax: +44 114 278-0666



AN ACCESS INTELLIGENCE PUBLICATION

**Divisional President** John Pearson

## Security on the Rails

The focus of concern about chemical security is shifting from the plant site to the nation's rail network. Senator Joe Biden (D., DE) recently proposed federal legislation that would require railroads to reroute cars carrying certain hazardous chemicals, including anhydrous ammonia, chlorine, and propane, away from heavily populated areas. The bill would require the Department of Homeland Security (DHS) to draw up a protocol for classifying the most hazardous substances, which carriers would then have to ship through less-populated areas. It is one of several rail security bills introduced this year.

Biden wrote an editorial in *The Washington Post* last week, charging that the Bush administration "continues to turn a blind eye" to the threat posed by toxic chemicals carried by rail cars through densely populated areas. Toxic chemicals "represent a potential for mass casualties that is rivaled only by nuclear devices, bioterrorism, and the collapse of large, occupied buildings," Biden says. "Yet, 90-ton rail tankers filled with deadly chemicals and other hazardous materials roll slowly through our major cities every day over unprotected and unguarded rails, with no warning to those communities."

Since the terror attacks of 9/11, focus in the U.S. has been on the potential of chemical plants as targets. However, following recent attacks on passenger rail and subway systems in Europe, concern is growing about the potential for attacks on trains carrying hazardous cargoes. "Terrorists understand the destruction they could unleash by blowing up these tankers," Biden says. "The FBI and CIA have uncovered evidence that terrorists have targeted our domestic rail system. This shouldn't be a surprise. As we've seen recently in Madrid and London, rail systems are among the most frequently attacked terrorist targets worldwide."

ACC, Socma, and several other trade groups support federal plant security, but these groups do not support legislation that would require rerouting of hazardous cargoes. The Association of American Railroads (AAR; Washington) says it is "opposed to any legislation that could require rerouting of hazardous materials." Increased transportation time leads to additional exposure, and increased handling of the materials at railway switching yards, AAR says. Several U.S. cities, including Washington, DC, have proposed or are considering legislation that aims to ban certain hazmats through densely populated areas.

AAR says that only 1 in 300 rail cars carries hazmats, but supporters of the Biden bill say that is still more than enough to cause concern. A rail crash in rural South Carolina earlier this year led to a release of chlorine that killed nine people. A terrorist attack on a rail tanker in an urban area could kill or injure up to 100,000 people, Biden said in his editorial. As Biden considers his potential bid for president, the public is going to be hearing a lot more about rail security. That is going to put industry in a difficult spot when it supports federal legislation for plant security, but not for rerouting of hazmat shipments.



—ANDREW WOOD



Chemical Week, ISSN 0009-272X (including Chemical Specialties and Chemical Industries), copyright© 2005 by Access Intelligence LLC, 4 Choke Cherry Rd., 2nd Floor, Rockville, MD 20850, is published weekly except for ten combination issues—1/5-12, 2/23-3/2, 4/6-13, 5/25-6/1, 6/29-7/6, 7/20-27, 8/24-31, 9/28-10/5, 11/30-12/7, 12/21-28—and the annual Chemical Week Buyers' Guide, published in October. **SUBSCRIPTIONS:** One-year rates are \$159 in the U.S. and Possessions; \$180 in Canada & Mexico; \$319 South America & the Caribbean; \$499 International. \$20.00 Single copy/Back issue sales.

Postmaster send address changes to: Fulfillment Manager, Chemical Week, P.O. Box 748, Mt. Morris, IL 61054-0748 USA. Tel: 1-800-774-5733, Fax: 815-734-5883, e-mail: wkch@kable.com. For information regarding article reprints only, please contact Darla Curtis, Reprint Sales Manager, 4 Choke Cherry Rd., 2nd Floor, Rockville, MD 20850. 800-211-6356, 301-354-1709, fax 301-340-3819, e-mail: dcurtis@accessintel.com. Periodicals postage paid at Rockville, MD and additional mailing offices. Postage paid at Montreal, PQ, GST Account No. 133670737. Publication Sales Agreement #40558009. Return undeliverable Canadian addresses to: P.O. Box 1632, Windsor, ON N9A7C9. Title registered in U.S. Patent Office. Registered with the British Post Office as a newspaper. Printed in the U.S.



## ■ Tillerson Tapped as ExxonMobil CEO



**Tillerson: Expected to take the top spot.**

ExxonMobil says that chairman and CEO Lee R. Raymond will retire at the end of this year after 12 years in that position. The company says it expects to elect president Rex W. Tillerson as chairman and CEO to succeed Raymond. Tillerson has served as senior v.p. of ExxonMobil since August 2001, and was elected president of ExxonMobil and a member of its board in March 2004.

## ■ Albemarle CFO to Step Down

Albemarle senior v.p. and CFO Paul Rocheleau will resign from the company in February 2006 "to pursue other personal and professional interests," the company says. Richard Diemer, currently a partner at KPMG, will succeed Rocheleau, effective September 1. Rocheleau will remain with Albemarle over the next six months "to ensure a smooth transition and to assist me with a number of strategic efforts," says Mark Rohr, president and CEO.

## ■ ENI Invests in U.S. LNG Project

Eni (Milan) says it has signed an agreement with Sempra (San Diego) to acquire processing capacity at Sempra's liquefied natural gas (LNG) terminal under construction south of Lake Charles, LA. The contract is for 20 years; other terms were not disclosed. Eni will acquire regasification capacity of 6 billion cu meters/year, 40% of the overall capacity of the terminal. Sempra says it will begin construction of the terminal within two months, and expects it to be completed by late 2008.

## ■ GE Names Lexan Chief

GE Plastics has named Brian T. Gladden as v.p. and general manager of Lexan Resin and Global Product Companies. Gladden was previously v.p. and CFO at GE Advanced Materials. He will have responsibility for GE Plastics' Lexan polycarbonate, polybutylene terephthalate, polyetherimide, and polyphenylene ether-based polymers, as well as the LNP engineering plastics compounds unit. He replaces John Dineen, who was recently named president and CEO of GE Rail (*CW*, July 13, p. 18).

## CNOOC Drops its Bid for Unocal

China National Offshore Oil Co. (CNOOC) says it has dropped its \$18.5-billion bid for Unocal, citing "the political environment" in the U.S. The bid clears the way for Chevron to complete its proposed acquisition of Unocal, pending approval by Unocal shareholders at a meeting set for August 10 (*CW*, April 10, p. 6). Chevron expects to close the deal shortly after the vote. Chevron's cash and stock bid is valued at roughly \$1 billion less than CNOOC's offer, but Chevron contends that its bid is superior because U.S. approvals are in hand, and it provides an accelerated close to the deal. CNOOC's bid faced congressional opposition, and would have been subject to an extended review by several federal agencies. "The unprecedented political opposition that followed the announcement of our proposed transaction was regrettable and unjustified," CNOOC says. "This political environment has made it very difficult for us to accurately assess our chance of success."

## Pipe Failure May Have Caused BP Blast

BP and federal safety investigators say that a failed pipe likely caused the explosion and fire on July 28 at BP's Texas City refinery (*CW*, Aug. 3, p. 6). The broken pipe caused the release of hydrogen, which ignited and caused the explosion and fire. The hydrogen is used to convert crude oil to lighter products, says the Chemical Safety and Hazard Investigation Board (CSB; Washington). CSB has interviewed employees who say no alarms or other warnings were heard prior to the explosion. The United Steelworkers of America (Pittsburgh) says it is asking BP to release information on the company's safety procedures, but that the company's concern about confidentiality and "legal foot dragging" have slowed the release of information. "If BP spent as much time working on safety as it does on blaming workers and stonewalling our union on information we need to address the scope of the problem, we'd be seeing real progress instead of more explosions," says Gary Beevers, director of USW Region 6. A blast at the Texas City site in March killed 15 contractors.

## Cancer Risk of Fab Workers to be Evaluated

The Semiconductor Industry Association (SIA; San Jose, CA) says it is launching an epidemiological study to determine if there is an increased risk of cancer among semiconductor wafer fabrication workers compared to the general population. SIA member companies are privately funding the \$5-million study, which is being conducted by Vanderbilt University's Ingram Cancer Center (Nashville). The study will review records of approximately 85,000 workers who have worked at least one year at SIA member companies in the past 30 years. The SIA says it commissioned Johns Hopkins University (Baltimore) to determine the feasibility of the study in 2004. SIA's interest in a study followed soon after IBM settled a lawsuit with the child of a former worker at IBM's Fishkill, NY plant who was born with a brain disorder and severe physical deformities (*CW*, March 10, 2004, p. 9). Results of the Vanderbilt study will be released in the spring of 2009, SIA says.

## UOP Combines Chemical Operations

UOP says it has combined its catalysts and advanced materials business unit with its adsorbents and specialties unit. The combined business unit will be called catalysts, adsorbents, and specialties (CA&S). Norm Gilsdorf, senior v.p. and general manager/catalysts and advanced materials, will head the CA&S business. The unit will be composed of UOP's alumina, catalyst, and molecular sieve adsorbent product lines. It has responsibility for UOP's six wholly owned manufacturing facilities, and oversight for UOP's joint venture manufacturing facilities in Japan and China, UOP says. UOP's other business units are process technology and equipment, which includes UOP's process licensing and engineering activities, and ventures and business development.

## Henkel to Boost R&D in China

Henkel says it is breaking ground this month on a €10-million (\$12.3 million) R&D center in the Pudong district of Shanghai. The center will focus on adhesives and sealants, as well as surface treatment products for the Chinese and Asia/Pacific market, Henkel says. Completion is scheduled for May 2006. Henkel announced plans late last year to invest \$500,000 over two years to launch an R&D cooperation program on applied adhesives research with six research groups from five Chinese universities. The program will focus on developing a new generation of adhesives and sealants based on silicone modified materials, Henkel says. The company says the program is its most extensive R&D project yet within China.

## Rhodia Writes off Chirex; Losses Deepen

Rhodia says it has fully written off the net book value of its money-losing Rhodia Pharma Solutions division, and included a €101-million (\$123 million) impairment charge in its second-quarter accounts. The write-off relates mainly to the Chirex fine chemicals business, which Rhodia acquired in 2000 for \$545 million. Rhodia included charges totaling €263 million related specifically to Chirex in its 2004 accounts. "Rhodia Pharma Solutions has not demonstrated the expected signs of improvement," Rhodia says. "Therefore, a strong focus is now on delivering a sustainable long-term solution." Possible solutions could involve heavy restructuring, forming a joint venture, or an outright sale, analysts say. France's stock market regulator AMF (Paris) recently criticized Rhodia's valuation of Chirex and said that Rhodia should have written down Chirex's value earlier (*CW*, June 29/July 6, p. 15). The second-quarter write-off caused Rhodia to post a €69-million operating loss for that period, compared with a €21-million loss a year earlier, on sales up 9%, to €1.4 billion.

## BASF Posts Strong Profits; Nafta Restructuring Ahead of Schedule



**Hambrecht: Much higher earnings.**

BASF reported second-quarter earnings before interest and taxes (Ebit), before special items, up 31%, to €1.66 billion (\$2 billion), on sales 14% higher, at €10.6 billion. The earnings figure includes a €70-million charge related to the previously announced closure of most of the company's operations at Feluy, Belgium, and the restructuring of its fine chemicals vitamin C business. Sales were boosted by strong demand, which allowed BASF to sell 3% more volume. For the full year, the company expects "significantly higher sales and an increase in Ebit before special items compared with our already strong performance in 2004," says chairman Jürgen Hambrecht. Ebit in North America before special items was 65% higher at €351 million, as a result of restructuring. "We achieved our targeted savings there of \$250 million one year ahead of schedule," Hambrecht says. BASF is not satisfied with the performance of its fine chemicals business, Hambrecht adds. Sales declined 7% and earnings fell almost 80%. "This was primarily due to the low price of lysine, which fell by half compared with the second quarter of 2004," he adds. BASF plans to bring its fine chemicals business "back on course," Hambrecht says. Meanwhile, BASF and Shell Chemicals have completed the €4.4-billion sale of their Basell polyolefins joint venture to Nell Acquisition (Luxembourg) (*CW*, June 29/July 6, p. 7). Separately, BASF says it is raising capacity for ethanolamines from a combined 182,000 m.t./year, to 230,000 m.t./year, at Ludwigshafen and Antwerp by fall 2006. The company says it is responding to increased demand, particularly from the agricultural and detergent sectors. Ethanolamines are used to make surfactants for detergents and cleaning agents, as well as wood preservatives and herbicides.

## Clariant and Total Post Profit Hikes; BOC's Earnings Fall

Clariant posted a 28% increase in second-quarter net profits, to SF74 million (\$58 million), on sales down 5%, to SF2.1 billion. The earnings figure exceeded analysts' expectations of about SF40 million. The company cites price increases, which partly offset higher raw material costs, and restructuring. The sales decline is due to divestments. Total says net profits at its chemicals business more than doubled in the second quarter, to €266 million (\$323 million), on sales up 17%, to €5.7 billion. Petrochemical market conditions weakened compared with the first quarter, especially in Europe, however, Total says. BOC reported a 9% decrease in pretax profits for its fiscal third quarter, ended June 30, to £119 million (\$209 million), on sales down 6%, to £1.1 billion. The company cites the divestment of its Afrox health care business in South Africa; the cost of complying with Sarbanes-Oxley rules in the U.S.; and the weak performance of its BOC Edwards high-purity gases business.

## Environmentalists Concerned over Wild GM 'Superweed'

U.K. environmentalists are concerned that a relative of genetically modified (GM) canola may have survived herbicide application and is growing in the wild. The possible "wild" relative of the GM canola was discovered at a site in the U.K. used earlier for GM crop trials during a study by the Centre for Ecology and Hydrology (Swindon, U.K.). Environmental groups say there is a possibility of wild plants and GM plants cross-breeding to create wild plants with GM traits. "We're seeing the real possibility of GM superweeds being created, with serious consequences for farmers and the environment," says Friends of the Earth (London). There is a "need to improve our understanding of all aspects of gene transfer," says U.K. environment minister Elliot Morley.

### ■ Carbon Emissions Market Heats Up

The global carbon emissions market may be worth more than €5 billion (\$6.2 billion)/year by the end of this year, according to carbon emissions data company Point Carbon (London). The company earlier predicted that the market would be 2.5 times smaller. The higher estimate takes account of price rises in the European Union's (EU) emissions trading scheme (ETS), Point Carbon says. Companies traded 134.5 million m.t. of carbon dioxide (CO<sub>2</sub>), or CO<sub>2</sub> equivalent, in the first half of this year, at a value of about €1.62 billion. "The EU ETS is now firmly established as the engine of the global carbon market," Point Carbon says.

### ■ LG Denies Nigerian Interest

LG Chem has denied a Nigerian government announcement that LG is planning to bid for a 51% stake in olefins producer Eleme Petrochemicals Co. (EPC; Port Harcourt, Nigeria) (*CW*, Aug. 3, p. 7). LG says it has "absolutely no idea" why the government named the company as a potential bidder. Dangote Chemical (Lagos) and Indorama Group (Jakarta) were also named as potential bidders for EPC. Nigeria's Bureau of Public Enterprises (BPE; Abuja) says it has documents "proving" that LG is interested in EPC, but last week BPE removed the announcement from its Web site.

### ■ Altana Plans U.S. Acquisition

Altana Chemie (Wesel, Germany), the specialty chemicals subsidiary of Altana (Bad Homburg, Germany), will announce "in the next month or two" an acquisition in the U.S. to strengthen its coatings and sealants business, says Matthias Wolfgruber, CEO of Altana Chemie. The business to be acquired has sales of about €50 million/year (\$61 million), Wolfgruber says. Further details were not disclosed. Altana announced plans last week to spin off Altana Chemie (p. 8).

### ■ Brussels Okays Ship Merger

The European Commission has given conditional approval to AP Møller-Maersk's (Copenhagen) proposed acquisition of P&O Nedlloyd (London) (*CW*, May 18, p. 5). The conditions are that P&O Nedlloyd divest its shipping operations between Europe and South Africa, and withdraw from several "conferences and consortia," the commission says. The deal will create the biggest container shipping company with sales of €28 billion/year (\$34 billion).

## Sasol to Sell Former Condea Business

Sasol says it plans to sell most of its olefins and surfactants (O&S) unit, excluding alpha olefins activities in South Africa. The business largely comprises the operations of the former Condea, which Sasol acquired from RWE-DEA for €1.3 billion (\$1.59 billion) in March 2001. It is a leading producer of alcohols, alpha olefins, alumina-based inorganic specialty chemicals, surfactants, and surfactant intermediates (table), and generated sales of R17.1 billion (\$2.63 billion) in the fiscal year ended July 31, 2004, 28% of Sasol's total. More than 85% of O&S sales are in Europe and North America (chart).

Sasol expects to complete the deal in 2006. "There is no immediate pressure," a Sasol spokesperson says. "We are seeking the best possible value. This is not a forced sale." Deutsche Bank has been retained to assist in the divestment.

The former Condea's solvents business will be retained, and become part of Sasol Solvents, the company says. Sasol says it will also keep the O&S unit's South Africa-based,

prior to announcing plans to sell the business. "With crude oil prices stabilizing at higher levels in recent months, margins have been maintained and benefits from some product price increases have flowed through to the business," the report said.

Sasol announced earlier this year that its O&S unit is planning a joint venture with Wilmar (Singapore) for production of oleochemical-based fatty alcohols in China. The partners are planning to build a 60,000 m.t./year plant in Lianyungang, China, due to start production in mid-2007. Sasol's O&S unit also announced in May that it had signed a letter of intent with Nizhnekamskneftekhim (Nizhnekamsk,

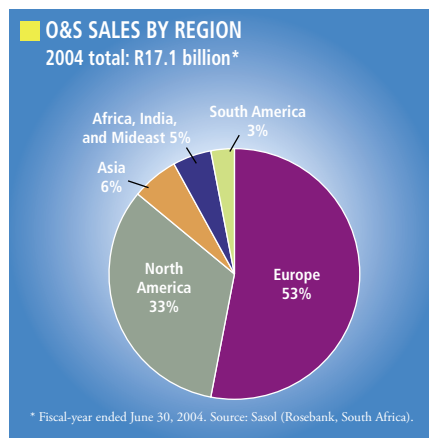
Russia) to explore surfactant and related manufacturing and marketing opportunities in Russia. Sasol O&S recently restarted an idled 100,000-m.t./year linear alkylbenzene (LAB) unit at Porto Torres, Italy, citing improvements in LAB demand.

Sasol's O&S unit has production in China, Dubai, Germany, Italy, Slovakia, South Africa, and the U.S. Its assets include a 455,000-m.t./year ethane-based cracker at Lake Charles, LA. Some ethylene production is used internally to make alcohols, and a significant portion is sold under long-term contract to Georgia Gulf for vinyls production, analysts say.

—ROBERT WESTERVELT

FOR SALE (thousands of m.t./year)	
Product	Capacity
Surfactants	1,000
Paraffins and olefins	800
C <sub>6</sub> + alcohols	600
LAB	550
Ethylene	455
Inorganics	170

Source: Sasol (Rosebank, South Africa).



255,000-m.t./year alpha olefins activities.

"The O&S business is only partially integrated upstream into feedstocks, and has not adequately provided the integration benefits which Sasol requires," says Sasol deputy chief executive Trevor Munday. The company says it will focus chemical investments on activities that have integration with gas- or coal-to-liquid complexes, or where it sees a sustainable feedstock advantage.

High feedstock and energy prices have hurt margins for most of the surfactants and other products made by the O&S unit, Sasol said in an investor newsletter issued in July,

### Altana Plans to Spin Off Chemicals; Acquires Pigments Maker

Altana (Bad Homburg, Germany) says it plans to spin off its Altana Chemie (Wesel, Germany) specialty chemicals business via a separate share listing in 2006, and focus on pharmaceuticals. Meanwhile, Altana has agreed to acquire Eckart (Fürth, Germany), a family owned manufacturer of metallic effect pigments and metallic printing inks, for €630 million (\$765 million) in cash. That deal is due for completion in the fourth quarter.

Altana says it decided on the spin-off because of a lack of synergies between its pharma and chemical businesses, and because buying Eckart will give Altana Chemie sufficient critical mass to be a stand-alone entity. "Our chemicals division is now positioned in such a way that it will make sense to separate it as an independent and listed company," says Nikolaus Schweickart, president and CEO of Altana. The company will decide late this year whether to spin off Altana Chemie to Altana shareholders or via an initial public offering of shares, says Altana Chemie CEO Matthias Wolfgruber.

Eckart is "one of the most profitable specialties companies," Altana says. Eckart generated Ebitda of €65 million last year on sales of €302 million, giving it an Ebitda margin of 21%. Eckart says it is the leading manufacturer of metallic effect pigments, which it supplies to the paints and printing inks industries, as well as to manufacturers of plastics and cosmetics. It has eight production sites.

Eckart will become the fourth business unit of Altana Chemie. The other units are additives and instruments; coatings and sealants; and electrical insulation. Altana Chemie's sales will rise to €1.2 billion/year, and its Ebitda margin from 19%, to 20%, as a result of the acquisition, Altana says. Altana Chemie posted a 17% decrease in first-half pretax profits, to €54 million, on sales down 5%, to €422 million. Second-quarter figures were not disclosed. The results reflect restructuring of the coatings and sealants business, Altana says. Altana Pharma reported a 19% increase in first-half pretax earnings, to €312 million, on sales up 9%, to €1.1 billion.

Meanwhile, Altana plans to expand its pharmaceuticals business, Altana Pharma (Constance, Germany), via "acquisitions, cooperations, and alliances," Schweickart says. The company has more than €1 billion available for pharma acquisitions, part of which may be raised through divestments, he says. Altana is 50.1% owned by Susanne Klatten, a member of the billionaire Quandt family. The rest is traded on the Frankfurt and New York stock exchanges.

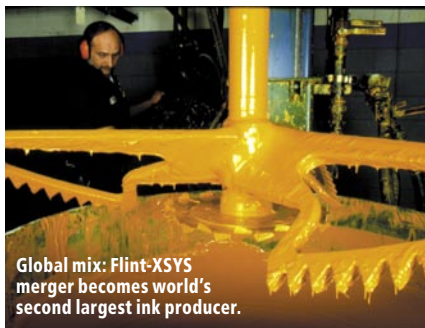
—IAN YOUNG

## Flint to Merge with German Inks Firm

Privately owned Flint Ink (Ann Arbor, MI) and XSYS Print Solutions (Stuttgart, Germany) say they have agreed to merge for an undisclosed sum. The merger will create the second-largest inkmaker, after Sun Chemical, with combined sales of \$2.6 billion, the companies say. Terms were not disclosed. The deal is pending regulatory approval, and completion is expected by September 30.

Private equity firm CVC Capital Partners (London) controls XSYS, which was formed in late 2004 by the merger of BASF Printing Systems and ANI Printing (*CW*, Oct. 6, 2004, p. 7). CVC recently issued senior debt to purchase all of the outstanding shares of Flint from the Flint family. However, the deal is labeled as a merger because Flint is a larger company with 2004 revenues of \$1.5 billion, compared to XSYS's 2004 sales of \$1.1 billion, the companies say.

Flint-XSYS will have an employee base of 8,000, with "only a few" workers in the overlapping regions of Western Europe possibly affected by transfers or downsizing, the companies say. There is "great synergy" to the geographical spread of the two companies, as Flint has a larger presence in Asia and the



Global mix: Flint-XSYS merger becomes world's second largest ink producer.

Americas, while XSYS covers Africa, Russia, and Scandinavia, the companies say. XSYS has only one U.S. business segment—the narrow web label market—that Flint is not involved in, they add.

Only a handful of companies in the ink business have more than \$1 billion in annualized sales, says Ron Cimmino Sr, director/business development at Chemark Consulting Group (Southern Pines, NC). Sun, a subsidiary of Dainippon Ink and Chemicals (Parsippany, NJ) with annualized sales of \$4 billion, and the combined Flint-XSYS "will control about 70%-80% of commercial printing in the world," excluding digital,

inkjet, and specialty printing, Cimmino says.

Newspapers are the largest segment in the commercial printing sector, but the razor-thin margins of just 5%-10% in the ink industry have forced M&A activity in the sector to a new peak, Cimmino says. Other recent major deals include Altana's (Bad Homburg, Germany) agreement to purchase privately owned Eckart (Furth, Germany), a manufacturer of metallic effect pigments and metallic printing inks, for €630 million (\$765 million) in cash.

"Beyond the top 3-4 players, there are few mid-level companies," Cimmino says. "The market drops down to hundreds of mom-and-pop type of businesses. These businesses are having to merge to compete globally and get the economies of scale they need," he says. Flint and XSYS are merging to better compete against Sun, he adds.

—RYAN W. SMITH

## U.S. Chemical Industry Credit Ratings Strengthen in an Improved Economy

Credit ratings for U.S. chemical companies have improved during the first seven months of 2005, driven by favorable U.S. economic conditions, and improved selling prices, according to a recent study by Standard & Poor's (S&P; New York) analysts. U.S. chemical firms are prospering despite high energy costs, reflecting healthy operating rates and constraint on capacity expansions, the report says.

"Through the first seven months of 2005, rating trends remained substantially more favorable than at any point in the past several years," says S&P analyst Kyle Loughlin. The chemical sector reached its low point during 2001-2003, with an average credit quality score of BB-, which "marked the bottom" for the industry, Loughlin says.

S&P upgrades have outpaced downgrades 8 to 6 during 2005, Loughlin says. "This is not

to say that every chemical company is now heading for higher ground, as high oil and natural gas prices continue to pressure some of the most basic material companies, and some end markets, such as automotive, have weakened somewhat," Loughlin says. Sustained economic conditions, however, have "added to an overall healthy supply and demand balance for chemical products," he says. Upgrades are expected to outpace downgrades for the remainder of the year, he adds.

Most business indicators point to favorable conditions for basic chemical makers, with "modest" demand this year, and "sufficient" pricing power to help offset raw material costs, Loughlin says. Specialty chemical companies will benefit from economic growth, but they will continue to fight high costs and slow demand growth in Europe, he says.

—KERRI WALSH

### ■ 3M Completes Cuno Acquisition

3M says it has completed its \$1.35-billion acquisition of Cuno (Meriden, CT), a maker of filtration products for the separation, clarification, and purification of fluids and gases. Cuno will operate a subsidiary of 3M, maintaining its headquarters at Meriden.

### ■ Octel Appoints CFO

Octel says that it has appointed James F. Lawler as executive v.p. and CFO. Lawler joined Octel as acting CFO in May, and succeeds Paul Jennings, who was recently named Octel's president and CEO (*CW*, July 6, p. 5). Lawler had previously served as CFO, executive director, and chairman of Xerox Capital Europe, and as a consultant to the U.K. government.


### ■ Dow Awards Contract to Accenture

Dow Chemical has awarded Accenture a multi-year contract, under which Accenture will provide services including business application development, and implementation and support, extending to 2011, Accenture says. The agreement expands an existing contract in which Accenture provides Dow with IT development and support. Dow is also developing a shared services center in Shanghai, leveraging resources and processes developed with the consulting firm, Accenture says.

The idea shapes the particle.

The particle shapes the technology.

The technology shapes the



Our people shape business and touch life in countless ways. Cleaner water, purer air. Better ways to generate fuel for heat, power and transport. New finishes and effects for papers, paints, plastics and fabrics. People-safe, earth-friendly coatings for healthier crops. In fact, you'll find our ideas at work in nearly any product or process you can think of. Or challenge us with.

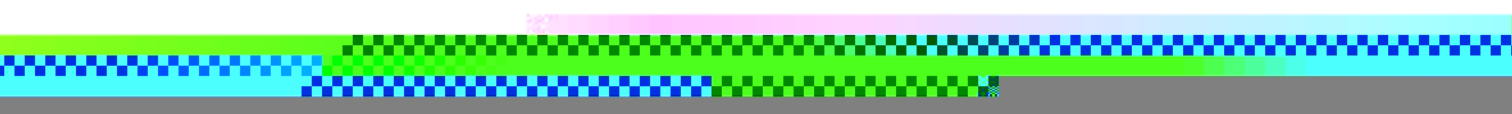
At Engelhard, our ingenuity in applying surface and materials science begins at the molecular level. And it's changing the nature of products, markets and the world. Take the full measure of what we can do for you by visiting [www.engelhard.com](http://www.engelhard.com).



# world

**ENGELHARD**

Change the nature of things.



### Valero to Quit MTBE Production

Valero, the second-largest methyl *tert*-butyl ether (MTBE) producer in the U.S., says it will stop producing and blending MTBE because Congress has refused to grant limited liability protection. The company says it will no longer produce MTBE once the oxygen mandate expires, 270 days after the energy bill takes effect.

The U.S. House and Senate passed legislation recently that excluded liability relief for MTBE producers from defective product lawsuits and eliminated the Clean Air Act mandate that fuel in densely populated areas contain 2% oxygenate by weight (*CW*, Aug. 3, p. 11).

Valero has capacity for about 1.16 million m.t./year of MTBE from its refineries, about 14% of the U.S. market. Lyondell Chemical is the top MTBE producer in the U.S., with about 22% of the market.

Valero says its decision will remove about 60,000 bbls/day, 1%, of gasoline from the U.S. market. If other companies follow Valero's lead, the U.S. market could lose up to 259,000 bbls/day of gasoline, comparable

to five world-scale refineries, the company says.

Valero says it is studying the options of converting MTBE units to the production of iso-octene, which is subsequently converted to iso-octane gasoline blendstock, or to continue exporting MTBE to Europe, where demand is still strong.

It may be difficult for Valero to convert all of its refinery MTBE units at the same time because by-products from the refinery streams that were fed into MTBE production would have to be placed somewhere else, says Rich Lamberth, v.p./fuels and energy and MTBE at DeWitt & Co. (Houston). Valero, and most other refiners, will likely transition out of MTBE in phases, Lamberth says. Many refiners are already in the process of turning mixed butylenes from the refinery stream into alkylates or iso-octanes. That transition will likely accelerate in the next few months, he says.

Other U.S. MTBE producers may not stop MTBE production because current strong demand in the U.S. and Europe and tight

supply have driven up margins, Lamberth says. MTBE is currently commanding a premium of about 95 cts/gal over gasoline, he says. "MTBE producers have had an incredible run this year," he adds. "In the past, they would have been happy to get MTBE premiums of 20 cts-22 cts/gal over gasoline."

Lyondell, which produces MTBE as a co-product of its propylene oxide production, says it will continue to produce and market MTBE. The company's second-quarter MTBE margins rose 33% from the year-ago quarter because of strong demand and higher prices. It says it expects strong market conditions to continue into the third quarter.

Texas Petrochemical (TPC; Houston) reportedly restarted a dehydrogenation unit at Houston with capacity for 8,000 bbls/day of MTBE. TPC will be running the plant for about a month, sources say. TPC did not comment on the status of the plant, but says its "MTBE production is based on the need to support refiners."

"MTBE will likely continue to have incredibly good margins till September," Lamberth says. Beyond that, MTBE fortunes will depend on the strength of demand, and how refiners in the U.S. will react to the energy bill, he says.

—PECK HWEE SIM

### Higher Volumes Help Lift Late-Reporting Firms

Most late-reporting chemical companies posted higher second-quarter earnings compared to the year-ago period, helped by stronger volumes and improved selling prices, although some missed analysts' targets.

Huntsman's earnings of \$169.5 million (76 cts/share) fell 6 cts/share short of the consensus of analysts' estimates as reported by First Call (Boston). Huntsman reported earnings of \$64.4 million before charges in the year-ago period. The company's second-quarter 2005 earnings exclude \$16.4 million in charges, and losses of \$40.4 million from divested businesses. Lower than expected profits from Huntsman's base chemicals business led to the shortfall, says Merrill Lynch (New York) analyst Don Carson. All other business units were in line with estimates, Carson says. Higher average selling prices within the base chemicals business were offset by higher raw material and energy costs along with turnaround and

maintenance costs, Huntsman says.

Westlake Chemical says higher prices and volumes for vinyls products boosted second-quarter net income by 41%, to \$48.5 million. Income from its vinyls segment jumped 82%

posting a 17% year-on-year drop in segment income, to \$32 million. Westlake says it saw signs of improvement in its olefins segment in June and July, with healthier demand, higher prices, and reduced industry inventories.

FMC reported second-quarter net income of \$31.2 million (80 cts/share), compared with net income of \$30.7 million (82 cts/share) in second-quarter 2004. FMC says it recorded restructuring and other income and charges of \$21.6 million after-tax (55 cts/share) in the quarter, versus \$11.9 million after-tax (32 cts/share) in the prior-year quarter. Sales increased 6%, to \$565.6 million. FMC's earnings were driven by the industrial chemicals segment, where income more than doubled prior-year results, says FMC chairman and CEO William Walter. Price improvement in soda ash, both domestically and internationally, accounted for a significant rise in earnings for the segment, the company says.

—KERRI WALSH

#### MOSTLY STRONG FINISH\*

(in millions of dollars)

COMPANY	SALES	% CHANGE	EARNINGS	% CHANGE
Huntsman <sup>1</sup>	\$3,339.5	21%	\$169.50	NM
Westlake Chemical	580.7	30	48.5	41
FMC	565.6	6	31.2	2
Kronos <sup>2</sup>	311.7	5	27.5	70
Compass Minerals	82.2	11	-700,000.0	NM
Albany Molecular	51.8	23	7.3	NM
NL Industries <sup>3</sup>	45.8	-1	4.7	-90

\*Second-quarter results. 1) Second-quarter 2005 results exclude \$16.4 million in charges and a \$40.4-million loss from discontinued operations. Second-quarter 2004 results exclude \$121 million in charges. 2) Second-quarter 2005 excludes \$5.4-million gain. Second-quarter 2004 excludes \$268.6-million tax benefit. 3) Operating income figures. Net income fell 95%, to \$10 million. Sources: Company reports.

from last year's quarter, to \$51 million, driven by strong demand in end-use markets, and the acquisition of Bristolpipe (Elkhart, IN) last year, the company says. Its olefins segment suffered from higher feedstock costs and lower sales volumes for ethylene and polyethylene,

## PPG to Convert Chlor-Alkali Unit to Membrane Cell Process

**P**PG Industries says it will spend more than \$90 million to replace mercury cells with membrane cells at its Lake Charles, LA chlor-alkali plant by mid-2007. The new membrane unit will have essentially the same capacity as the mercury unit, the company says.

The Lake Charles site is PPG's largest chlor-alkali plant, with capacity to produce 275,000 tons/year of chlorine based on mercury cell technology. In addition to the mercury cell unit, PPG operates six diaphragm cell circuits at Lake Charles, with a capacity for about 1.1 million ton/year of chlorine.

U.S. chlor-alkali makers face significantly more stringent requirements on

mercury emissions scheduled to take effect in December 2006. EPA expects that the rule will reduce mercury air emissions from existing emission points within mercury cell chlor-alkali plants by 1,500 lbs/year, a 74% reduction from 2003 levels.

Most producers of mercury cell-based chlor-alkali production must switch to newer nonmercury processes or invest in air emission equipment to meet the new standards.

"Discontinuing the use of mercury at Lake Charles is in line with our company's goal of continually improving our environmental performance," says Michael McGarry, v.p./chlor-alkali and derivatives. Membrane technology also uses about 25% less electricity than mercury cells, and reduces maintenance

and operating costs, McGarry says.

"Membrane technology will ensure our Lake Charles facility remains a major chlorine producer, maintaining our leadership position in the chlor-alkali industry," McGarry says. The cost of the conversion project will average more than \$30 million/year over the next three years, PPG says.

The company also has 100,000 ton/year of mercury-based chlor-alkali production at Natrium, WV, but says there are currently no plans to switch from mercury cell production there. PPG is the number three chlor-alkali producer in North America, behind Dow Chemical and OxyChem.

—PECK HWEE SIM

## Mitsui to Start Container Service from Florida to Asia and Latin America

**O**cean carrier and logistics firm Mitsui O.S.K. Lines (MOL; Tokyo) says it has signed a 30-year lease agreement with the Jacksonville, FL, port authority to build and operate the first direct container ship service between Jacksonville and Asia, as well as Latin America. The \$200-million project will include building a 160-acre container

ports and terminals, particularly those at Los Angeles and Long Beach, CA, says John Gurrad, v.p./business planning and e-commerce at MOL America. Congestion at those ports has eased somewhat since last year, when shippers had to wait for up to five days for berth space, but it is still a problem, Gurrad says.

"As a result of the congestion at California ports, some shippers are using East Coast ports," so congestion issues have begun to surface at those ports as well, says John Chinn, executive director of U.S. Shippers Association (Allentown, PA), an organization of chemical container shippers. "Having another port to relieve some of the congestion should be a positive," Chinn says.

Once expanded, Jacksonville will have one of the largest container ports on the East Coast, Gurrad says.

"We are looking at becoming a gateway for the Southeast U.S. for trade to and from Asia and Latin America," he says. Currently, the Port of Miami is the main Florida hub covering those routes, and the Port of Jacksonville will be a direct competitor once the expansion is completed.

—ESTHER D'AMICO



Asia connection: Jacksonville container port will be one of the largest on the East Coast.

handling facility at the port's Dames Point marine terminal that includes infrastructure to load and unload two large vessels concurrently, MOL says. Completion is scheduled for the end of 2007 or beginning of 2008.

The move is in response to ongoing congestion and price "inefficiencies" at West Coast

### Gas Suppliers Raise Prices for Argon and Helium

Industrial gases suppliers say they have implemented price increases for argon and helium. Air Liquide says it raised argon prices as much as 20% in liquid and gaseous forms starting July 1. The company cites a combination of argon shortages and higher transportation costs. Praxair says it also increased bulk and cylinder argon prices by up to 20% in the U.S. and Canada on June 14 due to higher production and distribution costs. Airgas says it has raised prices of packaged and bulk argon by 10%-20%

Argon is often produced at air separation units that produce pipeline oxygen for steel and chemicals, says Tom Thoman, v.p./gases at Airgas. A softening in the steel market has recently led to decreased demand, causing a reduction in argon production in the U.S., Thoman says.

Praxair, meanwhile, has raised bulk and helium gas prices by 10%, citing increasing manufacturing costs from crude helium gas and refined liquid, the company says.

Air Products recently announced price increases of 5%-25% on liquid and bulk oxygen, nitrogen, argon, hydrogen and helium, effective July 15, or as contracts allow. The company cites production, feedstock, and distribution cost increases. Separately, Air Products says it also expects to raise prices of certain electronic chemicals by \$40 per container, effective September 1, to offset higher costs.

—VERONICA MACDONALD



## Industri Kapital Receives Bids for Dyno Nobel

Private equity capital company Industri Kapital (Stockholm) says it has hired Citigroup as advisers “to help explore all options in relation to” explosives producer Dyno Nobel (Oslo), including divesting the business. Industri Kapital says it has sent an “information memorandum” to a number of potential buyers of Dyno Nobel, and that it has received “indicative bids.” Industri Kapital will most likely seek to sell Dyno Nobel for \$1 billion-\$1.5 billion, analysts say.

A number of parties have been selected to enter a second round of bidding, which also involves meetings with the Dyno Nobel management, Industri Kapital says. Second-round bids are due by the end of this month. Industri Kapital declined to name the bidders, but it says they include industrial companies and private equity firms.

Industri Kapital says it has not made a final decision on whether to sell Dyno Nobel or seek an initial public offering for the business. “We hope to be in a position in mid-September to review all options and come to a decision,” Industri Kapital says.

Private equity firm Permira and UEE Explosives (Brisbane, Australia), a subsidiary of Union Española de Explosivos (Madrid), have teamed up to bid for Dyno Nobel, according to press reports last week. Other bidders include private equity firms Bain Capital and Carlyle Group, as well as Macquarie Bank (Sydney) and industrial conglomerate Wesfarmers (Perth, Australia), reports say. All of the companies declined to comment.

Macquarie is partnering with Orica to bid for Dyno Nobel, according to an earlier report in the *Sydney Morning Herald*. Both companies declined to comment on that report. Orica would face a struggle to obtain

regulatory approval for a bid to acquire Dyno Nobel, however, analysts say. The companies tie for leadership of the explosives industry, and each has a market share of about 40%. Teaming up with another bidder and splitting Dyno Nobel’s assets would make more sense for Orica, analysts say.

Industri Kapital announced earlier this year that it was considering plans to divest Dyno Nobel (*CW*, Feb. 16, p. 13). It has owned Dyno Nobel since 1999.

Dyno Nobel posted a 25% increase in first-half earnings before interest and taxes, to \$65 million, on sales up 20%, to \$706 million. Second-quarter figures were not disclosed. The result reflects “improved performance across all markets, as well as the increased ability of the company to leverage its global service, raw material, and production base,” says Dyno Nobel president and CEO Dag Mejdell.

—IAN YOUNG



Mejdell: Improved performance.

### ICI Targets More Job Cuts

ICI says it has “extended” a previously announced restructuring, and will cut 266 more jobs than originally planned. The program, launched in 2003, targeted 2,268 job losses and £127 million (\$224 million) in annualized cost reductions by 2007. ICI will cut 2,534 jobs and aims for annualized cost cuts of £140 million by 2007, under the revised plan. The additional cuts will improve “supply chain and administrative productivity mainly in Europe and the U.S.,” says ICI CEO John McAdam. Further details were not disclosed. ICI says it currently employs 33,000.

ICI posted flat second-quarter pretax profits, before exceptional items, of £123 million, on sales up 2%, to £1.5 billion. The earnings figure beat the forecasts of analysts, who had predicted a fall to about £118 million. The company made “good progress” in raising prices to offset higher raw material costs, but it suffered from slower growth in Europe and North America, McAdam says. ICI, meanwhile, says it has agreed to sell €18-million/year (\$22 million) wood finishes business Zweihorn (Hilden, Germany) to Akzo Nobel for an undisclosed amount. —IV

## Süd-Chemie Boards Reject ‘Inappropriate’ Takeover Bid

Süd-Chemie’s management and supervisory boards say they have recommended that shareholders not accept the takeover bid for the company made recently by SC-Beteiligungsgesellschaft (Frankfurt), a subsidiary of private equity capital firm One Equity Partners (OEP; New York) (*CW*, June 22, p. 19). Süd-Chemie says it rejects OEP’s bid because the offer price of €35/share (\$43) “is inappropriate.”

Süd-Chemie says the reasons for the decision are based on the management board’s “current strategic and financial planning, as well as other relevant assumptions.” OEP has also given no assurance that it will “maintain the independence” of Süd-Chemie, the company says. “There is, therefore, no guarantee that the managing board will be able to pursue its present strategy following a takeover,” Süd-Chemie says. Deutsche Bank and Goldman Sachs are advising Süd-Chemie.

OEP agreed in June to purchase a 39%

stake in Süd-Chemie from three shareholders for a combined €162 million, and announced plans for a public offer to purchase all outstanding shares, with the aim of building a majority stake in Süd-Chemie. OEP says it would back the Süd-Chemie management to further develop the company’s market position with “additional capital contributions to fund acquisitions and future growth,” and that Süd-Chemie’s headquarters would remain in Munich, if OEP became the majority shareholder.

The shareholders that have agreed to sell their Süd-Chemie stakes to OEP are AZ-SDC Vermögensverwaltungsgesellschaft (Munich) with 19%; Possehl Beteiligungsverwaltung (Lübeck, Germany) with 10%; and BLB-Beteiligungsgesellschaft (Munich) with 10%, OEP says. OEP manages \$3.5 billion of investments and commitments for J.P. Morgan Chase in direct private equity transactions, as well as venture and management buyout funds. —ALEX SCOTT

### ■ Japanese Results are Mixed

Leading Japanese companies posted mixed results for their fiscal first quarter, ended June 30. Mitsubishi Gas Chemical posted a 23% increase in net profits, to ¥7.1 billion (\$63 million), on sales up 11%, to ¥101.6 billion. Kuraray reported an 18% decline in net profits, to ¥3.7 billion, on sales down 2%, to ¥84.6 billion. Kureha Chemical reported a 72% drop in net profits, to ¥187 million, on sales down 3%, to ¥27.9 billion. Taiyo Nippon Sanso (TNS) posted net profits of ¥3.1 billion on sales of ¥91.2 billion. Comparable figures are not available for the year-earlier period because TNS was formed in the second half of last year via the merger of Nippon Sanso and Taiyo Toyo Sanso.

### ■ Lanxess Opens Technical Center

Lanxess says its technical rubber products business unit has inaugurated a €5-million (\$6 million) technical center in the Pudong district of Shanghai. The center will focus on product application and development, and "intensive customer and employee training" for China and the rest of Asia/Pacific, Lanxess says.

### ■ DIC Completes Resins Plant

Dainippon Ink & Chemicals (DIC) says it has completed an 18,000-m.t./year resins plant at Zhangjiagang, China. The plant produces resins for applications including paints, DIC says.

## Reliance Board Approves Plan to Split Company Assets

The board of Reliance Industries has approved previously announced plans to divide up the company's assets between feuding brothers Mukesh and Anil Ambani (*CW, June 29/July 6, p. 16*). Reliance has also announced a big expansion of its Jamnagar, India refinery that likely will lead to an expansion of petrochemicals capacity there.

Reliance chairman Mukesh Ambani will have responsibility for Reliance Industries and the company's Indian Petrochemicals Corp. Ltd. subsidiary; and Anil Ambani will have responsibility for the group's financial services; power generation and distribution; and telecommunication businesses, under terms of the asset split. Speaking at Reliance's annual meeting, held recently in Mumbai, Mukesh Ambani told shareholders that the Reliance board has approved the restructuring "in principle." The board "has proposed to demerge from Reliance the three businesses," he says. "Reliance shareholders will be entitled to equity shares in these entities, in the same proportion of their equity holdings in Reliance." The company has

appointed law firm Amarchand Mangaldas & Suresh A. Shroff & Co. (New Delhi); Credit Rating Information Services of India (Mumbai); accounting firm Deloitte Haskins & Sells (Mumbai); and JM Morgan Stanley (Mumbai) "to assist in working out the details of the demerger," he adds. They will help prepare a detailed proposal, which will be subject to board and shareholder approval. The demerger should lead to a "significant unlocking of shareholder value," Ambani says.

Meanwhile, Reliance will invest Rs250 billion (\$5.7 billion) to double capacity of the Jamnagar refinery, to 60 million m.t./year, making it the biggest refinery worldwide, Mukesh Ambani says.

The expansion is due onstream fully in the fiscal year ending March 31, 2010, he says.

Reliance is scheduled to complete next year a major expansion of petchem capacity at Jamnagar. *Para*-xylene capacity will rise by 300,000 m.t./year to 1.7 million m.t./year; benzene will increase by 100,000 m.t./year to 550,000 m.t./year; and *ortho*-xylene will increase by 100,000 m.t./year to about 250,000 m.t./year. —IAN YOUNG

**The demerger should lead to a 'significant unlocking of shareholder value.'**



江苏裕廊化工有限公司

JIANGSU JURONG CHEMICAL CO., LTD

Jiangsu Jurong Chemical Co., Ltd. is one of the largest manufacturer with a series of **Acrylic Acid and Acrylates** products in China.

The capacity of acrylic acid and acrylates is 400 kt per year.

Address: ChenJiaGang Chemical Zone, Xiangshui, Yanchen City, Jiangsu Province China (224631)

Contact person: Mr.Waley Zhu

Tel: 0086-510-7509978,7508878

Fax: 0086-510-7506293

E-MAIL: waleyzhu@jurongchem.com

Http: //www.jurongchem.com

- ACRYLIC ACID(AA)
- BUTYL ACRYLATE(BA)
- 2-HYDROXYETHYL ACRYLATE(HEA)
- METHYL ACRYLATE(MA)
- ETHYL ACRYLATE(EA)
- 2-ETHYLHEXYL ACRYLATE(2EHA)
- 2-HYDROXYPROPYL ACRYLATE(HPA)
- PROPYLENE GLYCOL MONOMETHYL ETHER(PM)
- PROPYLENE GLYCOL MONOMETHYL ETHER ACETATE(PMA)

# new construction projects

## Total Eyes PP Line in U.S.; Raises Capacity in Europe

Total Petrochemicals is planning to increase its polypropylene (PP) capacity significantly, *CW* has learned. Total will build a PP line at its La Porte, TX site or at another, undisclosed location, with a "minimum capacity for 300,000 m.t./year," by 2008 or 2009, Jean-Bernard Lartigue, president of Total Petrochemicals, tells *CW*. "After a recent expansion at La Porte, we are running at full capacity and will need additional tonnage," Lartigue says. A decision is expected early next year. The company will use Spherizone or Spheripol PP technology licensed by Basell, he says. Samsung Total Petrochemicals, Total's joint venture in Korea, recently selected Spherizone technology for a previously announced 300,000-m.t./year PP plant at Daesan, Korea. "We are very happy with Basell's technology," he adds. Total added 100,000 m.t./year of PP capacity at La Porte at the end of last year, raising the total there to 1.06 million m.t./year and making La Porte the world's largest PP site.

Total has also debottlenecked its Feluy, Belgium plant by 10%, to 800,000 m.t./year of PP and the unit "is working a bit higher than that," Lartigue says. The expansions at La Porte and Feluy, as well as some capacity creep at Gonfreville and Lavéra, France, have given Total 2.2 million-2.3 million m.t./year of PP capacity worldwide, he says. That makes it the fourth-largest player in capacity terms, trailing Basell, Sinopec, and Innovene. Total's PP capacity will rise to 2.5 million m.t./year by the end of 2007 after Samsung Total Petrochemicals completes its plant, which will raise the total at Daesan to 500,000 m.t./year.

Total will add a further 300,000 m.t./year of PP capacity in Europe by 2008-09, Lartigue says. The company plans to rationalize some capacity in that region, however, so the net increase will be 200,000 m.t./year, he says. But, "if the market expands faster," Total will add more, he says. The additional capacity is likely to be at Feluy, he adds. Total is running its PP operations at close to capacity and "beating capacity utilization records in the U.S.," Lartigue says.

Total is a net seller of propylene in Europe, supplying "a large amount," and it is a net buyer in the U.S., Lartigue says. "We have a cracker and a refinery in the U.S. and purchasing contracts in place there," he says. Samsung Total is raising ethylene capacity at Daesan by 200,000 m.t./year, to 850,000 m.t./year and it is building a metathesis unit to maximize propylene output. The JV will be balanced in propylene when of the metathesis unit is completed, he adds.

The Daesan plant will supply the Korean and Chinese markets but, longer term, Total wants to have an aromatics- and propylene-based complex in China, Lartigue says. The company is in talks to form a JV there, which could come onstream in 2010, he says. That complex is likely to be built in the "east rather than west of China," and include a world-scale PP plant with capacity for "at least 300,000 m.t./year," he adds.



Lartigue: Beating capacity utilization records.

—NATASHA ALPEROWICZ

construction costs, and additional power and water desalination plants." Sumitomo declined to comment on reports that the cost will reach \$8 billion. The final investment figure "has not been decided," it says.

## Iran Selects Basell Technology for LDPE Plant ...

Kurdistan Petrochemical, an affiliate of National Petrochemical Co. (NPC; Tehran), has selected Basell to provide Lupotech T technology for a previously announced 300,000-m.t./year low-density polyethylene (LDPE) plant at Sanandaj, Iran, Basell says. Tecnimont and Petrochemical Industries Design & Engineering Co. (Shiraz, Iran) have been awarded the engineering, procurement, and construction contract for the project, which will be completed in 2008. The plant will receive feedstock from NPC's Olefins 11 complex at Bandar Assaluyeh, Iran via a 1,500-kilometer pipeline (*CW*, July 6, p. 40). Basell was earlier awarded a contract to provide Hostalen high-density polyethylene technology for a 300,000-m.t./year plant being built at Kermanshah that will also be linked to the pipeline.

## ... Awards Olefins 8 to Pidec and Lummus

National Petrochemical Co. (NPC; Tehran) says it has selected Petrochemical Industries Design & Engineering Co. (Pidec; Shiraz, Iran) to build NPC's previously announced Olefins 8 complex at Bandar Imam, Iran (*CW*, July 6, p. 40). The complex will be built for NPC's Arvand Petrochemical affiliate, and be based on an ethane cracker with capacity for 1.1 million m.t./year of ethylene. The cracker will use technology licensed from ABB Lummus Global. Pidec's contract is valued at €267 million (\$320 million). Completion is due within 48 months.

## Fortron Doubles PPS Production in the U.S.

Fortron Industries (Wilmington, NC), a joint venture between Ticona and Kureha Chemical Industry (Tokyo), says it will double linear polyphenylene sulfide (PPS) capacity at Wilmington, to 15,000 m.t./year by the first half of 2007. The total investment is \$65 million. Demand for PPS is growing at about 10%/year, and is expected to reach 50,000 m.t./year by 2008, Fortron says. The Wilmington facility will be the world's largest PPS plant after the expansion, the company says.

## Sumitomo, Aramco Sign Saudi JV Deal; Cost Exceeds Estimates

Saudi Aramco and Sumitomo Chemical say they have signed a joint venture agreement for a previously announced refining and petrochemical complex at Rabigh, Saudi Arabia (*CW*, Feb. 9, p. 14). The JV, Rabigh Refining and Petrochemical Co. (Petro-Rabigh), will be equally owned by the two partners. The agreement follows a feasibility study for the project, which includes a high olefins-yield fluidized catalytic cracker integrated with an ethane cracker, producing about 1.3 million m.t./year of ethylene; 900,000 m.t./year of propylene; 60,000 bbl/day of gasoline; and other refined products. Downstream units will include three

polyethylene plants, each with capacity for 300,000 m.t./year; two polypropylene facilities, each with capacity for 350,000 m.t./year; a 200,000-m.t./year propylene oxide unit; a 600,000-m.t./year ethylene glycol plant; and a butene-1 unit. Engineering, procurement, and construction contracts for three packages totaling \$2 billion are expected soon. JGC and Stone & Webster are building the cracker. Foster Wheeler is the project management contractor. Construction is scheduled to begin early next year and completion is expected in the second half of 2008. Meanwhile, Sumitomo has confirmed Japanese press reports that the project's cost will "greatly exceed" original estimates of \$4.3 billion because of "higher steel and

# Chemtura

## Making a Merger Work



**C**hemtura (Middlebury, CT), the company formed by the merger of Crompton and Great Lakes Chemical, looks to have a great deal going for it. Chemtura is the third-largest publicly traded U.S. specialty chemical firm by revenues after Rohm and Haas and Engelhard, with sales of \$3.7 billion, says Robert L. Wood, chairman, president, and CEO (*bottom chart, p. 19*). It is the world's largest plastic additive maker, ahead of Ciba Specialty Chemicals; a leader in petroleum additives, flame retardants, and pool chemicals; and has "strong positions" in castable urethanes and crop protection chemicals, Wood says.

But Chemtura still has to prove that the merger will generate value. Previous deals by Crompton, including the 1996 acquisition of Uniroyal Chemical and the 1999 merger with Witco, were not deemed successful, and Crompton had been battered by several years of poor earnings or losses when Wood joined in January 2004. However, he engineered a dramatic turnaround at Crompton, and says he is determined to make the deal with Great Lakes work with a strong post-merger integration plan, and a focus on raising prices, reducing costs, and rallying staff under the new name.

**DIFFERENT DEAL.** "There are three things that make this different from past deals," Wood says. "First, we didn't pay a high premium or incur debt—in fact we improved our balance sheet," as Great Lakes had a better debt-equity position than Crompton, he says. "Second, we obtained complementary businesses, rather than moving into new areas, which gives us real synergies," he adds. "Thirdly, we are making sure there is discipline and accountability for meeting the merger goals," Wood says. "The integration teams will design organizations based on achieving those goals, rather than designing first, then figuring out how to reach them."

Experts say they like the deal. "Previous Crompton mergers were costly and lacked significant market overlap," says Joseph L. Coote, v.p. and director/chemical and petroleum practice at consulting firm CRA

Bouncing back: EPDM and rubber chemical plant at Geismar, LA.



International (Boston) “This is a sweetheart deal by comparison. Crompton paid only about a 10% premium for control of Great Lakes, and the all-stock structure of the transaction and strong Great Lakes balance sheet served to further deleverage Chemtura,” Coote says. “There is also a significant cost-reduction potential, and a well-structured, post-merger integration effort. There’s real potential for significant improvement in earnings,” he says.

**MORE SAVINGS.** The integration teams have already identified additional cost-saving opportunities, and the company has increased its annualized cost-saving estimate from the original target of \$90 million, to \$150 million, Wood says. About 30% of the total will come from 600 job cuts, about 6% of the combined workforce; and a further 60% will come from supply chain improvements, including combined purchasing, warehouse reduction, and transport initiatives, he says. About \$10 million of the savings will be realized this year, rising to \$100 million in 2006, and achieving the full target in 2007, he adds.

Rallying staff under the Chemtura name is an essential part of the post-merger process, Wood says. “When I arrived in 2004, people would still tell me they were with Witco or Uniroyal,” he says. “Those names may have brand value for particular products,” but not for a corporate identity, he adds. There are also “legacy issues” including Crompton’s previous involvement in price fixing, and Great Lakes’ poor financial performance, Wood says. “I thought it was essential to have a new name to reflect the fact we are one company, and make everyone feel that they are on the same footing.”

Chemtura will be organized into three divisions, each of which will include operations from both companies: performance chemicals; pool spa and home care; and crop protection. The performance chemical unit is by far the largest, accounting for about three quarters of total sales (*top chart, p.19*) It is made up of four business units: plastic additives; flame

retardants; performance specialties, which includes urethanes and petroleum additives; and process chemicals and polymers, which includes rubber chemicals, ethylene propylene diene monomer (EPDM) rubber, and industrial water treatment. The company has not yet finalized its new financial reporting structure, however.

The deal has the biggest market impact in plastic additives, giving Chemtura a leading 12% worldwide market share, number-one positions in six major additive segments, and expanded access to key buyers worldwide, Wood says. It will give Chemtura significant clout in a business that has been slow to accept price increases, and where margins are still under 10%, he says. There are also many cross-selling possibilities, particularly for petroleum additives and olefins additives, and captive sourcing opportunities in ultraviolet stabilizers and antioxidants, he says.

Crompton and Great Lakes both performed well in the first quarter, beating analysts’ earnings estimates. The former Crompton businesses beat estimates again in the second quarter, posting net income of \$17.0 million, versus \$1.1 million in the same period in 2004, on sales up 3.5%, to \$602 million. Earnings from continuing operations were \$10.2 million, versus a loss of \$872,000 in the year-ago quarter. The results include charges of \$23.9 million for facility closures, severance, and related costs; \$8.7 million of merger costs; and \$3.3 million of antitrust costs. Operating profit almost tripled, to \$44.8 million.

The results reflect the restructuring effort instigated by Wood, in particular an effort to boost margins by aggressively raising prices. The second-quarter sales increase included a 14% contribution from higher selling prices, the company says. The former Crompton business has already met Wood’s target of reducing sales, general, and administrative costs to 11% of sales, and is within a whisker of its gross margin target of 30%. Operating profit margins excluding charges stand at 13.4%, close to the target of 15%, he says.

“Our intense focus on restoring acceptable sustainable operating earnings is continuing to yield results,” he adds.

There was a continued strong performance in the former Crompton crop protection, urethane polymer, and petroleum additive businesses in the second quarter, Wood says. The rubber chemical and EPDM rubber businesses, meanwhile, have undergone a “dramatic turnaround,” thanks to successful price increases, he says. Price increases have been harder to achieve in the plastic additive and urethane additive business, however, and they continue to be a drag on performance, with margins of less than 10%, he adds.

The former Great Lakes business stumbled in the second quarter, however, missing analysts’ earnings targets. Net losses totaled \$91.2 million, versus net earnings of \$13.6 million in the prior-year quarter, on sales up 11%, to \$491 million. Losses from continuing operations were \$88 million, versus earnings of \$26.2 million in the year-ago quarter. The results included charges of \$135.9 million for merger costs. Operating profit almost doubled, to \$44.4 million. “Results from Great Lakes’ second quarter were improved, but did not meet our expectations,” Wood says.

Analysts applaud the improvement at the former Crompton, but say there is a lot to do to fix the former Great Lakes business. “With Crompton handily beating and Great Lakes missing second-quarter estimates, the key issue is how long it will take to repair the damage at Great Lakes caused by the disruptive merger process,” says David Begleiter, an analyst at Deutsche Bank (New York). “But if management can apply the same strategies and action to Great Lakes that it successfully applied to its own dramatic turnaround, we believe Chemtura shares could substantially exceed our price target,” Begleiter says.

**NO EXCUSES.** At Great Lakes, “there has been too much focus on excuses instead of results,” Wood says. “That is a function of not having a well-developed strategy, a timid approach to pricing, a bloated cost structure, poor productivity, and a lack of accountability,” he says. “But lest you think me too harsh, those are the exact circumstances Crompton faced last year.” Operating profit margins at the former Great Lakes business are only 9%, but there is a great deal of scope for improvement, particularly by increasing prices in the key flame retardant and BioLab pool chemical businesses, he adds.

“The flame retardant business is close to being sold out, but there has been a market

share battle that has hurt pricing," Wood says. "There is a lot of potential for price gains," he says. "Albemarle announced an 11% increase a couple of months ago, but even with that, prices for these products are still well-below where they were historically." The pool chemical business, meanwhile, has suffered from a price war with Arch Chemicals in an effort to get products into "big-box" retailers, rather than its traditional domain of pool stores and distributors, he adds.

The focus on big-box retailers derived from Great Lakes' move into household products, including its purchases of Lime-O-Sol (Ashley, IN) and A&M Cleaning Products (Clemson, SC), which was not universally popular with investors. "Marketing decisions in that business have conspired to raise costs and lower prices," Wood says. The household products business is not a good fit in Chemtura, but the company has not yet decided whether to sell it, he says. "We will spend the next 90 days deciding whether to invest in it, divest it, or maintain it as is."

The clean-up of poorly performing former Crompton businesses is almost complete, following the recent divestment of refined products, and placement of the Davis-Standard plastics processing business into a joint venture. The only remaining problem is the glycerin and fatty acids operation. Several steps have been taken to improve results, including installation of a vegetable-based kosher glycerine line, but it still "doesn't look like it's doing well," Wood says. "The business is under review and needs to be fixed. If we can't fix it we will have to find some alternatives," he says.

High-value businesses account for 60% of Chemtura's sales, and they will be targeted for investment and expansion, Wood says. They include plastic additives, petroleum additives, urethane polymers, flame retardants, pool and spa chemicals, and crop protection. Priorities include: expanding the application of existing urethane polymers and increasing the business's presence in Asia; boosting the geographic penetration of crop protection and increasing registrations, particularly for third-party products; and geographic expansion and new production introductions for the petroleum additive business, he says.

The company has already had considerable success introducing new petroleum additives to meet new standards related to

engine wear, Wood says. New product successes in other businesses include the first heavy metal-free polyvinyl chloride stabilizer, and a new coupling agent used in the wood-plastic composites that are gaining in popularity for fencing and decking. It also has an effort under way to develop more applications for its specialty organometallic products (*CW*, July 27, p. 32). Development of new products will be key to delivering top-line

Debt reduction will be another priority for Chemtura as part of an effort to obtain an investment-grade credit rating. Standard & Poor's (S&P; New York) raised Chemtura's corporate credit rating to one notch below investment grade following completion of the merger. "The upgrades reflect an immediate strengthening of Chemtura's business mix, and cash flow protection and debt leverage measures as a result of the equity-financed

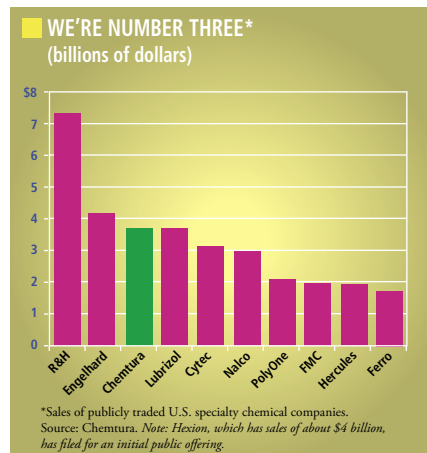
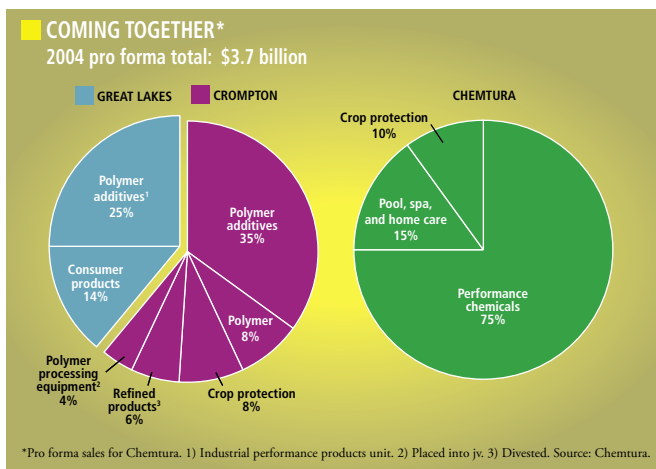
acquisition of a much higher-rated company," says S&P credit analyst Wesley E. Chinn. Chemtura recently announced plans to retire a further \$110 million of bonds, reducing its total debt to \$1.2 billion.

Wood is confident that the combined company can continue increasing profitability with its focus on pricing discipline, eliminating unprofitable customers, and making sure that pricing includes items such as the cost of R&D and technical service. The company recently signed a contract to use price analysis software

from Vendavo (Palo Alto, CA), that it says will enhance its efforts to track pricing by individual transactions. Chemtura has also switched the incentive program for its sales staff from one based on volume, currently the industry norm, to one based on margin, he says.

**THUMBS UP.** Investors are already positive on the merger, analysts say. "The market has given the transaction a hearty thumbs up—Chemtura's market capitalization is 21% higher today than the combined market caps of Crompton and Great Lakes before the merger," says Robert Ottenstein, analyst at Morgan Stanley (New York). "We remain excited by this combination, and look to Bob Wood to maximize shareholder value by eliminating redundant costs, optimizing the new firm's portfolio, and unlocking the combined entity's latent pricing power," Ottenstein says.

"Customers have to understand value in use for our products," Wood says. "Companies like Lubrizol couldn't make their products without our specialty chemicals. But as an industry we don't know how to raise prices. We've been intimidated by the customer, and we've been saying 'woe is me' for too long," he says. "You can raise prices if you believe you can. It's like when I came to Crompton, and people said, 'Why bother going there, it's a mess?' You can either wallow in that kind of limited thinking, or you can believe that you can make a significant improvement." —ANDREW WOOD



growth, as well as generating higher margins at Chemtura, Wood says.

The overall goal is to raise the share of sales from new products from a current level of 15%-20%, to 25% in 3-4 years, but at the same time Wood plans to reduce R&D spending for the combined company from 2.5% of sales, to 2%. "Innovation is another area for productivity improvement," he says. "We've reduced R&D spending, but made it much more focused. You can get comfortable spending money as a surrogate for success. Our industry doesn't have a focus on speed like other industries. If we faced the technology industry's challenge, we would die. We are not fast enough."



With attentive service  
and proven expertise,  
our catalysts are always  
the perfect fit.

In the catalyst industry, the men and women of CRI are renowned problem solvers. Customers count on us to innovate when they need tailored solutions and to be there with expert support down the road. Whether you need catalysts for ethylene oxide, fuel processing, styrene, environmental applications or KataLeuna™ hydrogenation catalysts, the people at CRI are always there with the right answers.

+1.800.452.4550  
catalystsales@cricatalyst.com  
www.cricatalyst.com



### ■ PPG Buys Asian Coatings Maker

PPG Industries says it has acquired privately held Crown Coating Industries (Singapore), a maker of specialty wood coatings. Financial terms of the deal were not disclosed. Crown Coating leads the Asian flooring industry in radiation-cured coatings, PPG says. PPG says it has retained Crown's managing director, Lim Seng Phong, and its director, Ricky Wong. Crown employs about 40 people, and operates plants at Shanghai and Singapore, PPG says.

### ■ ISP Buys Food Stabilizer Unit

International Specialty Products (ISP) says it has acquired the food stabilizer systems business of Creative Food Systems (CFS; Marlow, U.K.) for an undisclosed sum. ISP says the business will be integrated into its food ingredients division. CFS develops and produces stabilizing functional systems for applications including dairy desserts, chilled foods, and ready meals, as well as soups and sauces. ISP says the acquisition will strengthen its market position within the fermented dairy sector.

### ■ Omnova Expands in Asia

Omnova Solutions says it has established Omnova Performance Chemicals Trading Co. Ltd. (Shanghai) to serve the Asia/Pacific market. Omnova has named Sherry Xia as Asia/Pacific business manager for the unit. The unit will market specialty products including vinylpyridine latex for tire cord, floor polish polymers, textile chemicals, paper coating additives, certain fluorosurfactants, and emulsion polymers for nonwoven, tape, and adhesive applications. It will also strengthen Omnova's supply and distribution capabilities in the region through partnerships and potential joint ventures, the company says.

### ■ Specialty Price Watch

Dow Chemical says it will raise off-list prices of chelating agents by 4 cts/lb in the U.S., effective August 15. Dow says it is also increasing prices of all latex products sold to the carpet industry by 3 cts/lb in the U.S. and Canada, effective August 15. Air Products says it will assess a price increase on certain electronic chemicals and gases, effective September 1. An increase of \$40/container will be imposed, the company says.

## Producers Enjoy Buoyant Market Conditions Worldwide

The catalyst industry is benefiting from buoyant market conditions, driven by the need to supply catalysts to a wave of petrochemical plants being built in China and the Mideast, and to meet clean air regulations in Europe, Japan, and North America, analysts say. Executives at many of the leading catalyst producers say they plan to extend their global reach and introduce novel technologies to cater to demand in fast-growth regions, particularly China.

The catalyst sector is worth about \$12 billion/year and will grow 3.7%/year through 2008, says a report by SRI Consulting (SRIC; Menlo Park CA). Catalyst sales outside Europe, North America, and Japan are likely to grow about 5%/year, from \$2.8 billion in 2003, on the back of petrochemical production growth in Asia and Latin America, says SRIC report co-author and senior consultant Uwe Fink. That compares with growth of 3%/year in North America, from \$4.2 billion in 2003. Sales in Western Europe are expected to grow 3.7%/year from \$3.3 billion in 2003, and sales in Japan are likely to increase 3.2%/year from \$1.7 billion in 2003, SRIC says.

Polymerization catalysts accounted for combined 2003 sales of about \$1.8 billion in the three major regions, SRIC says. Key components of the market include catalyst polyethylene (PE), polypropylene (PP), polyethylene terephthalate (PET), polyvinyl chloride, and polystyrene. Polyolefin catalysts are the largest single sector with a share of about 55% of the polymerization market, equivalent to about \$1 billion/year. Catalyst consumption in that sector is virtually flat, however. Growth of 6%-7% in polyolefin production is offset mostly by the development and use of "higher-mileage" catalysts, SRIC says.

"This year is developing into a solid but not quite spectacular year for the PP catalyst market," says Steve Stanley, business director/Unipol PP licensing and catalyst at Dow Chemical. Volumes have improved over last

year but not as much as the industry originally predicted, Stanley says. "With an increase in the number of available catalysts and PP catalyst suppliers—including established process licensors and independent catalyst companies—as well as new suppliers from emerging geographies, market competition is at an all-time high," he says. "Polymer producers are likely to value new catalyst systems that can provide increased plant throughput while avoiding costly capital investment. The rate of innovation in the PP catalyst industry could slow as suppliers trim R&D expenditures to boost investment returns," he adds.

In contrast to SRIC's findings, demand for PP and PE catalysts is growing at 5%-8%/year, and is strongest in China and the Mideast, says Grace Davison, a division of W.R. Grace. The company says it is investing heavily in Ziegler/Natta and metallocene catalysts. Obstacles for profitability exist, however. "There is a lot of pressure on our margins from rising raw material and energy prices," says James R.D. Nee, global marketing director/Grace Davison refining technologies. "We announced a price increase in January, as did some of our competitors, mainly to recover the cost of raw materials, particularly alumina-based materials and sodium hydroxide, Nee says.

"The catalyst industry is running at high utilization rates, which makes customers more mindful of planning ahead," says Charles C. Wear, director of marketing of Advanced Refining Technologies (ART), a refining catalysts joint venture between Grace Davison and Chevron. ART has gone from primarily a "spot" sales business to more long-term, multi-year contracts, Wear says. ART is developing a new generation of CATfeed hydrotreating catalysts that are likely to be commercially available next year. Customers want to increase the "cycle time" of catalysts in order to lengthen the period between changeovers at their plants,



Fink: Strongest growth outside U.S.



Nee: Investing in alumina sol.



Wear: Customers are planning ahead.



## catalysts

so catalyst makers are focusing R&D efforts on developing more active, longer-lasting catalysts, Grace says. The company also plans to invest in its alumina sol catalyst platform, Nee says.

A decline in the quality of feedstocks, increased demand for petroleum, and the introduction of more stringent environmental regulations, will drive hydroprocessing catalyst sales growth by as much as 30%-40% by 2010, Wear says.

CRI Catalysts, the chemical catalysts business of Shell Chemical, says its ethylene oxide (EO) and environmental catalyst businesses are growing fastest. The company does not break out its sales and profits, but says revenues from the EO business are growing at 8%-10%/year, and from the environmental business at 7%-8%/year, depending on the end use, says Robert Trout, president of CRI Catalysts.

The EO market is driven by demand for ethylene glycol and polyester fibers, especially

in China, Trout says. Tight emission controls are driving demand for environmental catalysts, especially in factories that are forced to reduce nitrogen oxide and dioxin emissions, he says.

CRI's hydrogen and specialties business also is growing rapidly, Trout says. The business

sales to rise by about 20% this year, says Robert Bundens, catalyst technologies manager for the company. ExxonMobil does not break out sales and profits for its catalysts business, Bundens says. The strong growth can be attributed to the expected upturn in many chemicals markets, he says. "This has prompted many companies to replace their catalysts in order to be in a position to take full advantage of the upturn," he adds.

Demand for ExxonMobil's catalysts is mostly coming from the petrochemicals sector, including xylenes, ethylbenzene, and cumene, Bundens says. Demand for advanced hydroprocessing catalysts for hydrodearomatization and desulfurization from the refining industry is also strong, he says.

Engelhard, another leading refinery catalyst player, recently launched NaphthaMax II, a catalyst technology that it says enables refiners to "significantly boost the amount of gasoline they can produce from a barrel of crude

■ CATALYST SALES ON RISE*						
In millions of dollars						
	NORTH AMERICA	WESTERN EUROPE	JAPAN	OTHER	TOTAL GROWTH	% GROWTH
Refining catalysts	\$1,005	\$404	\$151	\$800	\$2,360	2.0%-2.5%
Chemical processing catalysts	1,533	1,300	413	1,450	4,698	2.5-3.0
Emissions control catalysts	1,660	1,620	1,171	575	5,025	4.5
Total	4,198	3,324	1,735	2,825	12,083	3.7

\*For the period of 2003-08. Source: SRI Consulting.

invents catalysts for customers' future investments such as fuel cells, typically 3-5 years out, he says. Customers include ExxonMobil and other parts of Shell, he adds.

Both CRI and ExxonMobil say the biggest challenge they face is to get a customer to use a catalyst for the first time. ExxonMobil's catalyst revenues grew 10% in 2004, and it expects



# IN PRECIOUS METALS CHEMISTRY ONE STEP AHEAD

The Precious Metals Chemistry business unit is your global partner for:



- bulk scale production of high specification precious metals chemicals and catalysts
- state of the art precious metal refining and separation technologies
- extensive know-how in organometallic chemistry and catalysis
- together with **Solvias** a unique offering for "Enantioselective catalysis"



### Inorganic Compounds

#### For applications in:

- Supported catalysts
- Homogeneous catalysts
- Electroplating
- Fuel cells

### Organometallic Chemicals and Catalysts

#### Used in:

- Life Science industry
- Silicone industry
- Bulk, specialties and Polymers
- Petrochemicals

### Refining Technologies

- High PGM return rates
- Fast recovery times
- Wide range of materials being processed

Contact our dedicated team of catalytic chemists and marketing experts! [ecolyst@eu.umicore.com](mailto:ecolyst@eu.umicore.com) [www.umicore.com](http://www.umicore.com)

oil." NaphthaMax II is based on Engelhard's distributed matrix structure technology platform. The company says the new catalyst can enable a refinery to produce up to 50,000 gal/day of additional gasoline from the same amount of crude.

**BUILDING PRESENCE.** Engelhard is seeking to build its presence in Asia, and recently purchased the synthesis gas catalyst business of Nanjing Chemical Industry Co. (NCIC; Nanjing, China) for an undisclosed sum. Engelhard acquired all of NCIC's syngas business operations and catalyst technology, as well as its production facilities at Nanjing, under terms of the deal. Syngas is used in the production of ammonia and methanol, and in the gas-to-liquid (GTL) and methanol-to-olefins processes. "We can now further assist companies with their GTL plans," Engelhard says. "Syngas is becoming a crucial intermediate in the emerging gas economy. It is our belief that the world will shift to cleaner fuels. These new gas economy technologies are a major opportunity for us," the company says.

UOP says it has made good progress lately at the refining and petrochemical end of the catalyst market, particularly in catalysts and adsorbents for *para*-xylene production, with the introduction of the company's R-264 and TA-20 catalyst. The R-264 and TA-20 catalysts enable producers to generate additional xylenes from naphtha, UOP says. *P*-xylene prices and demand have risen throughout the past year, boosting demand for *p*-xylene production catalysts that mainly convert naphtha to *p*-xylene.

Johnson Matthey (JM), meanwhile, is also building its presence in Asia, and says it is targeting growth in China with the expansion of its vehicle catalysts plant at Shanghai. The company says it achieved "good growth" in profits from vehicle catalysts with all of that growth coming from Asia and Europe. However, vehicle catalyst sales and profits in the U.S. were down, the company says.

JM says it is investing in new production capacity to manufacture catalyzed soot filters (CSFs) for removing diesel exhaust emissions in vehicles. Car producers in Europe are required by law to fit CSFs by 2010, but are planning to fit them ahead of the deadline, the company says.

Total operating profit from JM's catalyst business for the year ended March 31, increased 2%, to £111.5 million (\$198 million), on sales up 4%, to £1.2 billion. JM says

its process catalysts and technologies division "performed well" with undisclosed sales and profits "comfortably ahead" of performance in the previous year. Financial specifics for the division were not disclosed.

The business outlook is good, the company says. "The dramatic rise in the price of oil has continued to focus investment on improving the efficiency of chemical processes, and has provided a stimulus to large parts of the process catalysts sector. Investment has also been focused on using natural gas more economically. Coupled with increased demand for hydrogen in oil refineries worldwide driven by the need to reduce the sulfur content of fuels, this has and will continue to drive demand for the ammonia, methanol, oil and gas catalyst business and will maintain growth ahead of general economic indicators," the company says.

Acrylic acid is one chemical product where environmental regulations have driven catalyst improvements, BASF says. BASF has 800,000 m.t./year of acrylic acid capacity and, as a result of improved catalysts, says that in recent years it has reduced carbon dioxide (CO<sub>2</sub>) emissions by 230,000 m.t./year, allowing for better energy efficiency and saving enough electricity required to power 140,000 homes.

BASF says it offers 250 catalysts, most of which are for chemical synthesis to produce specialty chemicals. That market is highly diversified, highly specialized, and constantly changing, the company says.

Improvements to catalysts are also coming in other areas, BASF says. The company says it has developed an oxidation catalyst that enables a more direct method for producing styrene via the UOP/Lummus Smart Technology. BASF says the first plant using a new dual catalyst combination will open in September. Separately, the company says it has developed an improved catalyst for Linde's propane dehydrogenation process. The catalyst has been tested by Linde, and is ready for production, BASF says. No date has been fixed for the product's launch, the company says.

BASF also announced recently that it has struck a deal with Degussa, under which

Degussa will take over responsibility for marketing and technical services for BASF's polyurethane (PU) foam catalyst triethylene diamine (TEDA). The company says it commissioned a TEDA catalysts plant at Antwerp last April. BASF "works with the most innovative PU catalyst manufacturing process" at the Antwerp plant, says Walter Gramlich, president of BASF's intermediates division. It also has PU catalyst plants at Geismar, LA and Ludwigshafen.

Degussa says it expects that its recently launched homogenous catalysts business will generate double-digit growth this year, due to strong demand for chiral molecules in which a higher number of catalytic steps are involved. Demand growth in China and India is expected to be in double digits for all catalysts, the company says.

Degussa recently commercialized a heterogenous catalyst for the selective hydrogenation of acetylene in the hydrochloric acid recycle stream of the vinyl chloride monomer production process. The catalyst uses 50% less precious metal than the previous generation catalyst and improves the yield, Degussa says. The company also recently launched a spherical magnesium ethoxide technology using Ziegler/Natta catalysts. Degussa says the process improves polymer properties. The company commercializes "several new custom designed catalysts," particularly fixed-bed catalysts, every year, it says. Degussa says its best-selling catalysts are precious metal powder catalysts, and catalysts used to produce vinyl acetate monomer. There is also "a lot of interest" in new homogenous catalysts and in dehydrogenase technology, a biocatalytic process to produce chiral alcohols and amino acids.

Efforts to develop enhanced catalysts for polymers include Eastman Chemical's development of a novel polyester catalyst for producing PET. The catalyst forms part of Eastman's IntegRex polyester technology, and was developed via an R&D collaboration with high-throughput experimentation firm HTE (Heidelberg, Germany). Screening by HTE led to the discovery of improved catalytic systems, Eastman says. PET is a key market for Eastman. The project has delivered value through expanded process options and intellectual property positioning, the company says.



**Double-digit demand growth expected in China and India.**

Chinese firms say that they too plan to take advantage of potential business opportunities in catalysts in China and overseas. Sinopec recently announced that it has unified its six independent catalyst businesses to establish a single catalyst unit, and that the business will focus on supplying Sinopec subsidiaries as well as Chinese competitors and foreign companies. Sinopec's catalyst business "has been exploring and developing international markets in a broad range of products, from

Asia to Europe and the U.S.," the company says. Sinopec is looking to "build up long-term collaborative partnerships in China and abroad," it adds. Sinopec's catalysts operation has manufacturing facilities at several locations across China, with a combined capacity of 92,500 m.t./year, of which 85,000 m.t. is for fluid-cracking catalysts. It has more than 1,000 staff, including 49 PhD chemists.

—NANCY SEEWALD with ALEX SCOTT,  
KERRI WALSH and RYAN W. SMITH

main technology is its award-winning EnCat micro-encapsulated homogeneous immobilized catalyst system. The company recently introduced its Quadrapure system for the removal of metal contaminants.

Catalyst manufacturer Umicore also has been developing novel capability via collaborations with universities. Umicore says it has been granted a licence for a palladium-based cross-coupling catalyst by the University of New Orleans for use in fine chemical applications. The technology, which broadens Umicore's technology capability, is based on homogenous palladium N-heterocyclic carbene (Pd-NHC). Pd-NHC catalysts are homogeneous palladium catalysts coordinated with N-heterocyclic carbenes as ligands, instead of phosphine ligands. These catalyst systems show equal or superior reactivity in cross-coupling reactions when compared to most systems containing phosphine ligands, Umicore says. The licence includes exclusive rights to Pd-NHC catalyst technologies, which have proven to be efficient for cross-coupling reactions such as Suzuki, Heck, Kumada, or amination reactions.

Rhodia also is strengthening its portfolio, and in the past few weeks has added a chiral catalyst ligand, Xuphos, to its range of phosphine ligands for the asymmetric hydrogenation of ketones used in the manufacture of pharmaceuticals and fragrances. Rhodia developed Xuphos in a collaboration with the University of Warwick (Coventry, U.K.). Rhodia says that recently it also successfully scaled up its manufacture of BINAP ligands.

The activities of ChiralQuest, a VioQuest Pharmaceuticals (Monmouth Junction, NJ) subsidiary, include developing catalysts for the asymmetric hydrogenation of fine chemicals used by the pharma industry. Competition is heating up, however. "We have initiated some partnerships with top Chinese manufacturers for the production of chiral building blocks and APIs," to become more cost competitive, says Mike Cannarsa, v.p./business development at ChiralQuest. The business is also building up an operation that supplies the chiral building blocks.—AS

## Novel Catalysts Cut Costs, Increase Capability

The emergence of novel technology approaches to catalysts, including the application of nanotechnology, is leading to the development of catalyst systems with ever-higher levels of performance. Companies including Haldor Topsoe, Reaxa (Manchester, U.K.), Rhodia, and catalyst R&D firms Avantium Technologies (Amsterdam) and HTE (Heidelberg, Germany) say they are all rolling out novel technologies that will have significant impact on the market.

The development of novel nanotechnology presents opportunities for catalysts via new performance properties, according to the university of (Urbana-Champaign). Research at the university based on the application of high-intensity ultrasound has yielded the first hollow nanospheres and nanocrystals that, among other applications, could be used for drug delivery and microelectronics, as well as for producing environmentally friendly fuels. The hollow nanospheres, which are made from molybdenum disulfide, could serve as a superior catalyst for removing sulfur-containing compounds from gasoline and other fossil fuels, says Ken Suslick, professor of chemistry at the University of Illinois and a researcher at the Beckman Institute for Advanced Science and Technology (Urbana-Champaign).

Meanwhile, a team of scientists led by Jens Norskov, a professor at the Technical University of Denmark (Lyngby), in association with Haldor Topsoe, has applied quantum theory to calculate the performance of catalysts in applications ranging from car exhaust systems to hydrogen production. The application of quantum physics is expected to significantly reduce the cost of identifying and testing novel catalysts. "We will

soon be capable of reducing the number of experiments necessary to develop new heterogeneous catalysts," says Jens Rostrup-Nielsen, director of research at Haldor Topsoe.

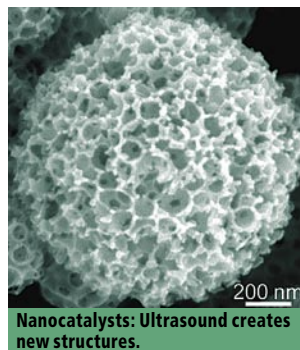
HTE is also developing systems to reduce time and expense associated with the development of novel catalysts. "We are seeing a great deal of interest from oil, gas, and bulk chemical companies," says Jason King, business director at HTE.

Privately owned Avantium says its sales are growing "in the range of 50%/year." Specific figures were not disclosed. The chemical industry's adoption of high-throughput techniques for catalyst R&D is increasing, says Tom van Aken, v.p./global marketing and sales at Avantium. "We expect significant growth of our business in the refinery arena," van Aken says.

Reaxa, which was recently spun off fully from Avecia (Manchester, U.K.), is developing a "busy pipeline" of technologies and products including catalysts featuring osmium and nickel, says chief technology officer David Pears. Additional products in the pipeline include an immobilized, enzymatic-based system for fine chemical applications. The company is in talks to supply the system to enzyme manufacturers, Pears says. Reaxa says it supplies off-the-peg and custom catalyst systems, and that it is on target to generate sales of \$20 million/year by 2009. About 90% of Reaxa's customers are in the pharma sector, but increasingly the company is looking to apply its products in the specialty and petrochemical sectors. Reaxa's



King: Better catalyst R&D.



# Focus: Catalytic Technologies

**S**üd-Chemie Group (Munich, Germany) is a worldwide leading supplier of catalysts, adsorbents and additives. It has ambitious targets for growth. From current sales of approximately €862 million, the 148-year old German group aims to reach a turnover of €1.2 billion by the end of the decade. 1993 sales of €450 million grew 91% by 2004. The indicated turnover of 1.2 billion in 2010 will be achieved solely by organic growth - any acquisition to complement the portfolio would come on top.

Its portfolio includes products as diverse as catalysts for the refining, petrochemical, chemical industries and for environmental protection; rheological products for paints and coatings; functional packaging to protect pharmaceutical and electronic products; nanomaterials, and hydrogen processors for fuel cells.

Acquisitions over the last three decades have helped the organic growth of the two businesses: 'Catalysts' and 'Adsorbents and Additives' positioning the company in key international markets. Süd-Chemie's major share of growth rests with its catalysts business, which currently represents about 40% of total sales. It is also the best example of

how performance technology can and does create value for customers. Three pillars of growth for catalysts will include moving into new markets, further strategic acquisitions, and a stronger penetration of markets already served.

The Business Unit Catalytic Technologies serves a variety of

markets in the chemical, refinery and petrochemical sectors. Süd-Chemie offers its customers Performance Technology within three industry groups that serve these markets.

#### Industry Group Chemicals

The chemical industry group offers catalytic solutions for many chemical processes

including ammonia, methanol, direct reduced iron, ethylene dichloride, phthalic anhydride, sulphuric acid, PTA, hydrogen peroxide, and formaldehyde.

Furthermore, the portfolio includes catalysts for a wide variety of hydrogenation and amination reactions as well as custom catalysts used in the



© Süd-Chemie

Süd-Chemie's market-leading LDP Reformer Catalyst shape.

production of various specialty chemicals and purification processes. Süd-Chemie is a market leader for most of the applications listed above.

Just recently Süd-Chemie introduced PHTHALIMAX®, a new catalyst for the production of phthalic anhydride, and SoMax® for the production of sulphuric acid.

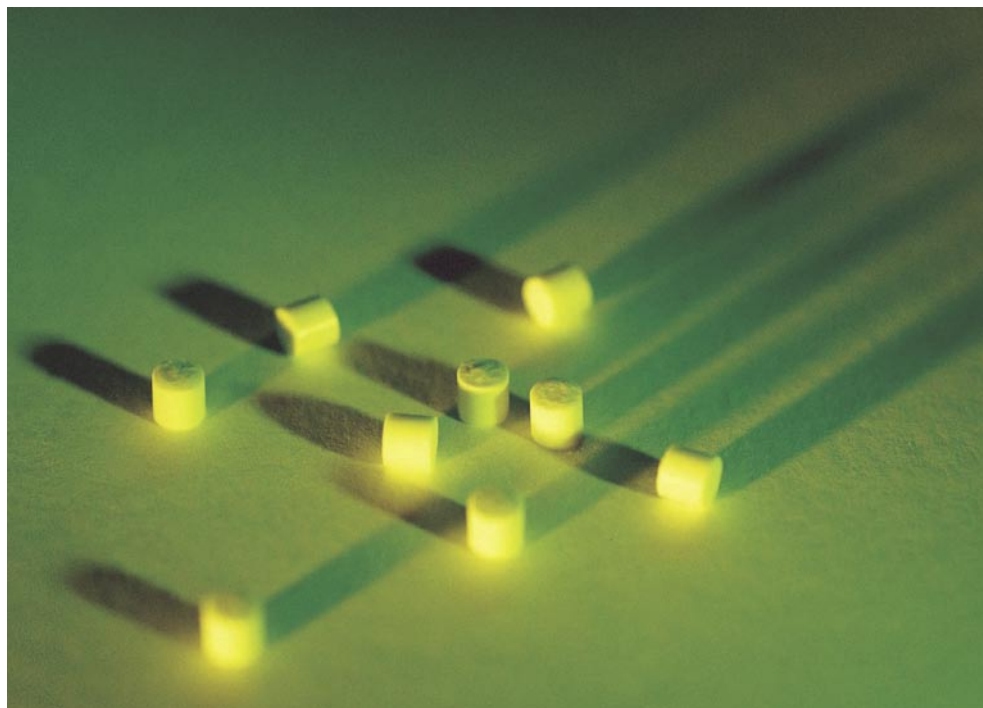
Furthermore, Süd-Chemie supplies the catalyst required for Lurgi's MegaMethanol® process, making use of natural gas that might otherwise be flared or stranded. Atlas, the first MegaMethanol® plant with a rated capacity of 5000 tonnes/day, was started last year in Trinidad. Up to now, seven more MegaMethanol® plants have been licensed by Lurgi. One of them was started up earlier this year and the rest is either under construction or in design phase. 100 billion cubic metres of natural gas flared each year could serve to operate 74 MegaMethanol® plants, providing 130 million m.t./year of methanol.

### Industry Group Refinery

Süd-Chemie provides a wide and diverse portfolio of products for the world's refinery market. Products include catalysts for the production of hydrogen, gasoline, and clean fuels. Also, a large selection of guards and traps are provided to protect valuable downstream catalysts and improve the reliability of refinery operations.

### Qatar: GTL capital of the world

With a strong commitment to R&D, Süd-Chemie has developed innovative catalysts for the emerging gas-to-liquid (GTL) and coal-to-liquids (CTL) industries. Based on having the third largest gas reserves and the most important natural gas based industry world-wide, Süd-Chemie recently announced a joint-venture agreement with local partners in Qatar to construct a catalyst plant. Based on an initial investment of about €10 million, the production plant will eventually be able to supply the full range of catalysts for the GTL



© Süd-Chemie

plants under construction and planned in Qatar.

### Industry Group Petrochemicals

For the petrochemicals sector Süd-Chemie offers catalysts used to produce or purify basic chemicals, notably olefins such as ethylene and propylene, and aromatics such as styrene. Among the various products of the industry group are HOUDRY Catofin® catalysts that are being used to produce isobutylene or propylene and STYROMAX®, Süd-Chemie's catalyst for styrene production.

Furthermore, to capitalize on the much more economical route to produce methanol with a MegaMethanol® plant, Lurgi and Süd-Chemie have developed a methanol-to-propylene (MTP) synthesis chain that uses a highly specific zeolite catalyst to produce propylene.

### R&D for added customer value

Thanks to extensive R&D efforts, Süd-Chemie continuously improves catalyst selectivities and achieves longer lifetimes. For example, the company is

the world leader in ethylbenzene-to-styrene dehydrogenation catalysts. Süd-Chemie catalysts add value to clients, easily translating to millions of dollars of savings to its customers. Süd-Chemie operates six R&D centres around the world — Germany, the U.S., Japan, Italy, India, and China — and in addition has technical centers around the globe to provide service to its customers. Süd-Chemie has added expertise through pinpointed acquisitions aimed at extending know-how or better market access for the benefit of Süd-Chemie customers.

For example Süd-Chemie customers in the refining industry are faced with increasingly stringent regulations. This is reflected in R&D-intensive projects aimed at saturation of benzene and aromatics, desulfurization of gasoline and use of zeolites for isomerisation catalysts to meet the market need for higher octane. Taking advantage of its broad customer base, Süd-Chemie is continuously working on product developments with leading refiners. The acquisition of Alsi-Penta Zeolithe GmbH

(Schwandorf, Germany) in 2003 was another step to broaden Süd-Chemie's portfolio in the refining sector as well as offering zeolite products for environmental applications and the petrochemicals industry.

Süd-Chemie and SABIC (Riyadh, KSA) jointly acquired in 2003 Scientific Design Company (Little Ferry, NJ, USA) from German company Linde. Since then, SABIC and Süd-Chemie are fostering Scientific Design's position by utilizing the worldwide sales, marketing and expertise network of both parents. Scientific Design is a leader in oxidation catalysts, particularly ethylene oxide (EO) and maleic anhydride (MA) catalysts, and has supplied technology for the majority of EO/ethylene glycol plants worldwide. SABIC gives Scientific Design access to their operational expertise on running EO plants and Süd-Chemie adds value to the venture by its extensive know-how on catalyst manufacturing and development.

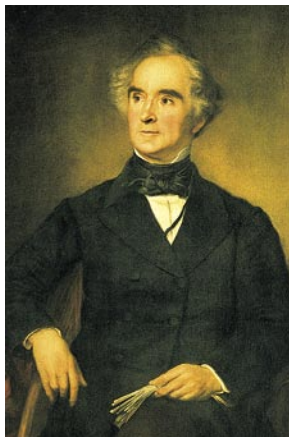
In addition, Süd-Chemie is widely engaged in the clean-up of stationary and mobile emis-

sions. The catalysts offer solutions to meet most stringent requirements.

In 2003, Süd-Chemie became the first catalyst company to be awarded the Presidential Green Chemistry Challenge Award in the U.S. for its wastewater-free, nitrate-free process for preparing solid catalysts, GREENCAT™. The technology also reduces consumption of water and energy and can be used to produce varieties of solid catalysts for applications such as synthesis of ultra-clean fuels, hydrogen generation, production of chemicals through oxidation and dehydrogenation, and other reactions. Süd-Chemie has filed patents on the new GREENCAT™ process and is operating a 100-lb-scale pilot plant at its Louisville, Kentucky site. In contrast to conventional precipitation methods, the new process requires only 5% of process water. The only emissions are water vapour, and small quantities of hydrogen and carbon dioxide. Every ton of oxide catalyst made with the new GREENCAT™ process saves 75 tons of wastewater, 3 tons of salt freight and about 0.8 tons of NOx emissions.

### Süd-Chemie Customer Service

For the catalysts business, high performance products and technical service are the key differentiators. Süd-Chemie has



**Süd-Chemie's co-founder, Justus von Liebig, developed superphosphate fertilizers. The former fertilizer manufacturing company has become a global organization in the field of catalysts, adsorbents and additives.**

sales representatives around the world to address specific customer needs.

### What's next? – Defining the future

The Asian-Pacific Region and the Middle East are seen as the main areas of future opportunities and growth. Süd-Chemie is active in this region since half a century as for example joint ventures in Japan and India have successfully operated since the 1960s.

Recently, Süd-Chemie invested in China in the formation of

Süd-Chemie Liaohu Catalyst Company Ltd., a joint venture with the Liaoning Huajin Chemical Group Corporation in Panjin, China. The company supplies catalysts mainly for the fertilizer industry and for methanol plants, making Süd-Chemie the first western enterprise to set up a joint venture in China for the production of process catalysts. The China venture complements Süd-Chemie's existing position in Asia. Other activities in China will follow soon.

To underline the importance of the Middle East and the Asian region Süd-Chemie is organizing several customer conferences. Under the title "Süd-Chemie Defining the Future®" a first conference was held in 2004 providing the audience with insights into current and future developments and applications of catalysts and process technologies. After the success of the first conference in Bahrain a second conference will be held in Shanghai later this year.

### For more information on the Defining the Future Conference in Shanghai please contact:

Ms. Kate Ireland  
Fon: +65 – 6779 1189 Ext. 112  
Fax: +65 – 6779 2281  
kate.ireland@sud-chemie.com  
[www.sud-chemie.com/defining-the-future](http://www.sud-chemie.com/defining-the-future)



**The Heufeld site: Süd-Chemie's European center for catalyst production and research.**

## For further information contact:

### Business Unit Catalytic Technologies

Dr. Hans-Joachim Müller  
Süd-Chemie AG  
Lenbachplatz 6  
80333 Munich, Germany  
Fon: +49-89-5110-318  
Fax: +49-89-5110-516  
e-mail:  
hans-joachim.mueller@sud-chemie.com

### Petrochemicals

Art Hausberger  
Süd-Chemie Inc.  
P.O. Box 32370  
Louisville, KY 40232, USA  
Fon: +1 (502) 634-7209  
Fax: +1 (502) 634-7739  
e-mail:  
a.hausberger@sud-chemieinc.com

### Refinery

Tom Pusty  
Süd-Chemie Inc.  
P.O. Box 32370  
Louisville, KY 40232, USA  
Fon: +1 (502) 634-7229  
Fax: +1 (502) 634-7739  
e-mail:  
t.pusty@sud-chemieinc.com

### Chemicals

David Rice  
Süd-Chemie AG  
Lenbachplatz 6  
80333 Munich, Germany  
Fon: +49 89 5110 378  
Fax: +49 89 5110 516  
e-mail:  
drice@sud-chemieinc.com

### Business Unit Energy and Environment

Dr. Michael Gnann  
(Business Unit Manager  
Energy and Environment)  
Stefan Fuss  
(Industry Group Manager Air  
Purification)  
Süd-Chemie AG  
Waldheimer Strasse 15  
83052 Bruckmühl, Germany  
Fon: +49-8061-4903-517 or -514  
Fax: +49-8061-4903-530 or -519  
e-mail:  
michael.gnann@sud-chemie.com  
stefan.fuss@sud-chemie.com



what's next?

## Defining the Future

### Süd-Chemie Conference 2005, Shanghai

The economy in Asia is growing with an unparalleled dynamic. Enormous opportunities as well as challenges stand side-by-side. The potential for the refining, petrochemical and chemical industries is extensive: what does this mean for the market?

Answers to this and other such questions will be provided at Süd-Chemie's Defining the Future Conference, which will take place from **7<sup>th</sup> to 9<sup>th</sup> November 2005** in Shanghai. Approximately 300 participants are expected to attend, including key representatives from the leading industries in China, Japan, Korea and the SE Asia region, and potential investors and distinguished speakers, such as the Chemistry Nobel Prize Laureate, Prof. Dr. Robert Huber.

**The focus will be on the following fields:**

- Catalytic Technologies for Refinery, Chemical & Petrochemical Operations
- Water Treatment
- Energy and Environment

Would you like to attend?

Register by logging on to [www.sud-chemie.com/defining-the-future](http://www.sud-chemie.com/defining-the-future). Should you have any questions or require further details, please contact Ms. Kate Ireland, who will be glad to help you. You can contact her directly at:

**SÜD-CHEMIE SOUTH EAST ASIA PTE LTD**

10 Science Park Road  
The Alpha #03-03  
Singapore Science Park II  
Singapore 117684  
Fon: +65 - 6779 1189 Ext. 112  
Fax: +65 - 6779 2281  
kate.ireland@sud-chemie.com  
[www.sud-chemie.com/defining-the-future](http://www.sud-chemie.com/defining-the-future)

**SÜD-CHEMIE**  
Creating Performance Technology



### Custom Manufacturers' Results Improve

Several leading manufacturers of custom pharmaceutical intermediates posted improvements in sales and earnings in recent financial reports. Analysts say the improved performance of many companies in the sector reflects growth in the contract biopharmaceuticals market, and the execution of cost-cutting programs.

Lonza increased first-half Ebit by 26%, to SF135 million (\$107 million), on sales up 13%, to SF1.2 billion (*CW*, Aug. 3, p. 14). Second-quarter figures were not disclosed. Lonza says that it is "fully on track" financially following a series of disappointing results, and that it expects to increase its annual Ebit to more than SF300 million by 2007.

"The main reason for the positive trend was a marked improvement in the performance of the biopharmaceuticals business sector," Lonza says. The company says it achieved a higher plant utilization rate for its 2,000-liter and 5,000-liter bioreactors. Sales generated by Lonza's custom manufacturing activities increased 33% across the whole company, to SF429 million. Sales of small-molecule pharma intermediates, which have faced a "persistently difficult market environment," increased slightly as a result of higher capacity utilization and an ongoing program of "intensive" R&D, the company says.



Leone: Biopharma sales 'unpredictable.'

Financial specifics for that unit were not disclosed, however.

Cambrex's net earnings for the second quarter increased 11%, to \$7.1 million, on sales up 7%, to \$116.2 million. The company cites higher sales in all of its business segments, although biopharma sales increased only slightly, rising 3.6%, to \$11.7 million. Cambrex's gross margin from biopharma activities turned negative, however, falling to -5.2%, compared to 8.5% in the year-ago period. The company cites "the unfavorable mix of higher labor and materials reimbursements, and lower suite and process development fees." Biopharma sales

will be "unpredictable" until the company secures more commercial-scale projects, says Cambrex CEO John R. Leone.

Cambrex's sales from bioproducts, including services for research and therapeutic applications, increased 13%, to \$38 million. Sales in the companies human health division, including production of intermediates and active pharma ingredients (API), increased 4%, to \$66.5 million.

Privately owned custom fine chemicals firm Hovione (Lisbon) says its pretax profits declined slightly, to \$16 million for the fiscal year ended March 31, although sales increased 8%, to \$81.4 million. Hovione's sales have

increased by more than 50% in the past four years, says CEO Guy Villax. Profit levels represent a "good performance when the harsh environment we face is considered," Villax says. He warns that tough times lie ahead, however. "In generics, both in the U.S. and in Europe, companies are facing aggressive price-cutting from new entrants, mainly from India," he says. "Our success is primarily due to the increasing differentiation of the products Hovione offers."

Jubilant Organysis (Noida, India), one of India's largest contract pharma intermediate manufacturers, says its operating profits for the quarter ended June 30 declined 37%, to Rs425 million (\$9.8 million), on sales up 23%, to Rs3.3 billion. —ALEX SCOTT

## PHARMA INTERMEDIATES

### Aerojet Buy Fits AmPac's Strategy

American Pacific (AmPac; Las Vegas) says that its previously announced agreement to purchase pharmaceutical intermediates firm Aerojet Fine Chemicals (AFC; Rancho Cordova, CA) fits well within its core strategy in reactive, energetic chemicals (*CW*, July 27, p. 12).

"We aren't trying to understand something new, we believe that AFC and AmPac have very similar skill sets and core technologies," says Seth Van Voorhees, v.p. and CFO of AmPac. "They just have different end-customers." AmPac specializes in developing reactive, energetic chemicals for applications

in the aerospace automotive and fire retardant sectors, while Aerojet supplies energetic intermediates to the pharmaceutical industry, Van Voorhees says. AmPac has also been a supplier of sodium azide to AFC and its parent company GenCorp "for decades," he says.

AmPac is paying \$119 million for Aerojet, plus the assumption of certain liabilities. The companies expect to close the purchase in the fall, pending regulatory approval. AFC generated sales of \$66 million in 2004, up from \$58 million in 2003 (*CW*, July 27, p. 12).

—RYAN W. SMITH

#### ■ FDA Bans Bayer Poultry Antibiotic

FDA has banned the use of Bayer's Baytril poultry antibiotic in an attempt to halt the rise of resistance in humans to antibiotics. Baytril is part of the fluoroquinolones family of antibiotics, which are used to treat serious infections in humans. Bayer had not announced by *CW*'s press time last week whether it would mount a legal challenge to FDA's ruling.

#### ■ Catalysts Made from GM Plants?

Icon Genetics (Munich, Germany) says it plans to produce an enzyme from a genetically modified (GM) tobacco plant for use as a biocatalyst in the manufacture of fine chemicals, including chiral molecules. The enzyme may also be used as an active pharmaceutical ingredient, Icon says. The company says it is testing the biocatalyst in a field trial, in collaboration with the Kentucky Tobacco Research and Development Center (Lexington).

#### ■ Microbia Agrees on Asian Contract

Biocatalyst firm Microbia (Cambridge, MA), says it has agreed to collaborate with A Star's Bioprocessing Technology Institute (Singapore) to improve the efficiency of secondary metabolite production from actinomycete bacteria. The metabolites have applications as anticancer compounds. Financial terms of the deal were not disclosed.



**FREE  
TRIAL  
OFFER!**

**CHEMICAL WEEK'S  
CHLOR-  
ALKALI  
MARKETWIRE**

**A Product of the  
Chemical Week  
Newsletter Group**

*Chemical Week's Chlor-Alkali Marketwire* is a weekly electronic newsletter that provides the critical information you need to keep abreast of market supply and demand, pricing fluctuations and production changes in the caustic soda and chlorine marketplaces, as well as related industries including vinyls and soda ash.

In *Chlor-Alkali Marketwire* you'll receive the latest market assessments on:

- Contract and spot prices for caustic soda and chlorine market prices of a range of derivatives and related products, including ethylene, ethylene dichloride, vinyl chloride monomer and polyvinyl chloride, soda ash, sodium chlorate, and hydrogen peroxide
- Weekly updates of the vinyls industry and how they impact demand-supply balances and pricing within the chlor-alkali industry
- Whether or not producers are placing customers on order control and how that's affecting distributors and buyers

Plus, you'll read about how the major chemical companies are faring financially and what that means for their business plans—including which plants are expanding, which are closing and which are being modernized to capitalize on newer technologies and better efficiencies.

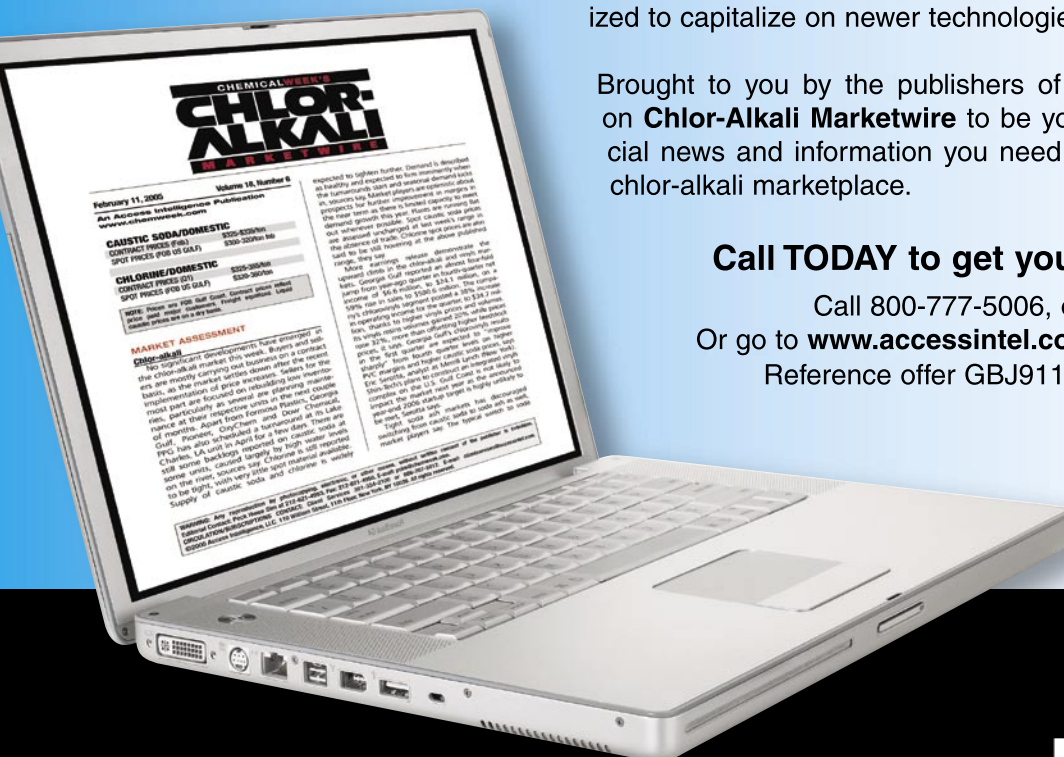
Brought to you by the publishers of *Chemical Week*, you can rely on *Chlor-Alkali Marketwire* to be your weekly source for the financial news and information you need to capitalize on the recovering chlor-alkali marketplace.

**Call TODAY to get your 6 FREE ISSUES.**

Call 800-777-5006, or 301-354-2100.

Or go to [www.accessintel.com/cgi/catalog/trial?CAM](http://www.accessintel.com/cgi/catalog/trial?CAM).

Reference offer GB911 to get your free issues.



**chemicalweek**

## INORGANICS

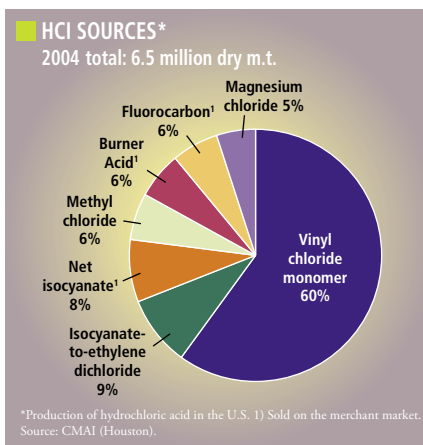
### HCl Producers Seek Record Hike

**S**ellers of hydrochloric acid (HCl) have announced a \$25/ton, or 30%-35%, contract price hike, citing tight supply. It is the largest increase in HCl prices in more than 10 years, market players say.

Basic Chemical Solutions (BCS; Redwood City, CA), and Reagent Chemical and Research (Ringo, NJ), distributors and major merchant sellers of HCl in the U.S., were first to announce the price hike. Olin says it announced a similar increase last week, and OxyChem, Pioneer, and other merchant sellers of HCl will likely follow, observers say.

The HCl market has become tight following the recent closures of Bayer's 100-million lbs/year toluene diisocyanate (TDI) plant at New Martinsville, WV, and Huntsman's 90-million lbs/year TDI plant at Geismar, LA (*CW*, May 25/June 1, p. 12; July 13, p. 16). HCl is a co-product of isocyanate production (*chart*).

HCl supply started to tighten last year as tight chlorine supply and rising chlorine prices prompted producers to reduce on-purpose burner HCl production in favor of selling chlorine, sources say. Also, the increased channeling of HCl by-product from isocyanate production into ethylene dichloride production in the past few years has shrunk the availability of merchant HCl, says



Steve Brien, director/chlor-alkali and vinyls studies at CMAI (Houston). The closure of the two TDI plants has accelerated that process, however, Brien says. "The HCl market is definitely moving up," he says. "The market is changing faster than buyers and sellers have anticipated." The tightness in the HCl market may be sustained for the next couple of years, he adds.

Production cutbacks caused by the recent softening in isocyanate demand have also kept a lid on HCl supply, sources say. BCS says it has put its HCl customers on order con-

trol because deliveries from its suppliers will be curtailed "substantially" in the short term.

HCl prices have risen \$10/ton this year, to about \$80/ton, market sources say. This translates to a chlorine value of roughly \$250/ton fob, far below current chlorine prices of \$345-\$375/ton on the contract market, and \$320-\$350/ton on the spot market, they say. If HCl sellers succeed in raising prices beyond \$100/ton, HCl values will be equivalent to about \$300/ton, bringing it close to current chlorine value, they say. Higher HCl prices may prompt more on-purpose HCl production, however, which could alleviate the tightness in the market, sources say. —PECK HWEE SIM

## PETROCHEMICALS

### Second-Quarter Output Falls; Inventories Rise

**S**econd-quarter production of 15 petrochemicals tracked by the National Petrochemical and Refiners Association (NPRa; Washington) fell 5% from the previous quarter, and declined 3% from the year-ago period, to 50.4 billion lbs, NPRa says. Inventories for six petrochemicals tracked by NPRa rose by 8%, however, from the first quarter, and 24% from second-quarter 2004, to 4.2 billion lbs, it says. The petrochemicals surveyed include olefins, aromatics, and related derivatives.

The drop in production and rise in inventories reflect a slowdown of demand in the industry during the quarter, as buyers destocked, producers say. Petrochemical demand is showing signs of rebounding, however, they say. Several companies report in

earnings statements that demand and prices for basic chemicals have improved in the past several weeks as inventories have fallen to low levels and demand picked up.

"The adjustment period is very clearly over," says J. Pedro Reinhard, executive v.p. and CFO at Dow Chemical. North American industry hopper car data shows that customer inventories have been significantly reduced, while other industry reports show polyethylene producer inventories down markedly, from 54 days, to 47, Reinhard says.

July ethylene contracts started to settle last week at a penny increase, to 38 cts/lb del, the first since last December. Polymer producers have announced a series of price increases for the third quarter in light of lower inventories (*CW*, Aug. 3, p. 34). —PHS

#### Georgia Gulf Keeps VCM Unit Down

Georgia Gulf says it will keep its 910-million lbs/year vinyl chloride monomer (VCM) plant at Lake Charles, LA shut for more than a month to control inventories. The plant was idled in early July because of mechanical problems, market sources say. Georgia Gulf says it expects the plant to resume operation later this month. The company has planned a maintenance turnaround at its PHH Monomers VCM joint venture plant with PPG industries, also at Lake Charles, for two weeks, in September. The plant has capacity for 1.15 billion lbs/year of VCM. Georgia Gulf's 1.6-billion lbs/year VCM plant at Plaquemine, LA is running at full capacity, it says.

#### PCS Cracker on Turnaround

Petrochemical Corp. of Singapore (PCS), a 50-50 joint venture of Shell Chemicals and Sumitomo Chemical, says it will take down its 465,000-m.t./year ethylene plant on Jurong Island, Singapore at the end of August for 2-3 weeks because of problems at the plant's heat recovery unit. The company will take down its aromatics unit at Jurong during the shutdown. PCS also has a 615,000-m.t./year ethylene plant at the same site.

#### Ticona Drops GE Plastics

Ticona says it will no longer distribute its engineering thermoplastics in North America through GE Plastics, and will distribute through Entec Polymers (Orlando, FL) and Channel Prime Alliance (Norwalk, CT). There will be no changes in its direct sales activities, Ticona says.

# PABORD05

PHARMACEUTICAL & BIOTECH OUTSOURCING, RESEARCH & DEVELOPMENT EXPO & CONFERENCE

**14 - 15 September 2005**

**Olympia 2 | London | UK**

## FEATURING:

- ▶ **Over 250 world class exhibitors**
- ▶ **30 FREE conference sessions**
- ▶ **Top quality speakers**
- ▶ **International keynote presentations by**
  - **Kenneth Getz**, Research Fellow, Tufts Center for the Study of Drug Development, USA
  - **Mike Gardner**, Director of Chemistry, Pfizer
  - **Michael Edwards**, Senior Manager - Health and Life Sciences, Accenture
  - **John Overington**, Senior Vice President - Drug Discovery, Inpharmatica

## AND IT'S ALL FREE!

**Register before September 14th and we will give you:**

- ▶ CD-Rom of the conference programme\*
- ▶ FREE copy of the show catalogue worth £10
- ▶ FREE Outsourcing Supplement
- ▶ FREE copy of Speciality Chemicals Magazine

**REGISTER FREE ONLINE**

**[www.pabord.com](http://www.pabord.com)**

\*Conditions apply - register online for details

## COMMENTARY

U.S. **ethylene** contracts have settled up a penny for July, to 38 cts/lb del. Spot prices held steady last week after rising 10 cts/lb since their trough in late May. Offers were quoted at 36 cts/lb del, sources say. Strong demand boosted European ethylene spot prices by \$10/m.t. last week; propylene by €10/m.t.; and **butadiene** by about \$10/m.t. despite lower feedstock prices. **Benzene** prices slipped about 2 cts/gal in the U.S., and \$10/m.t. in Europe. August benzene contracts settled down by 20 cts-25 cts/gal in the U.S., to \$2.75/gal fob, and €61/m.t. in Europe, to €669/m.t. fob, reflecting lower spot prices. Short-term aromatics prices are lower despite high crude-oil prices because refineries are running flat out and supplies are plentiful, sources say.

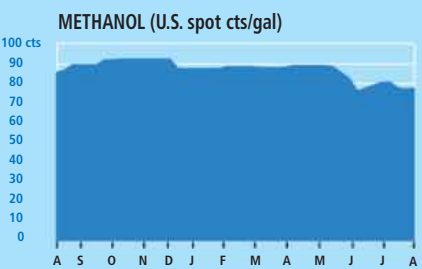
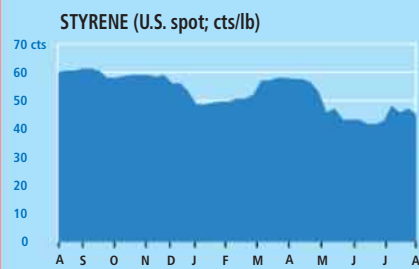
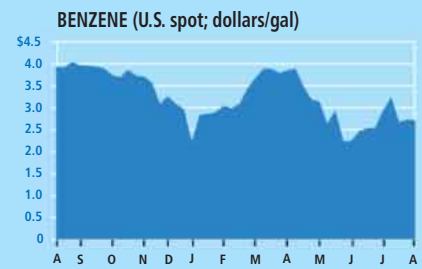
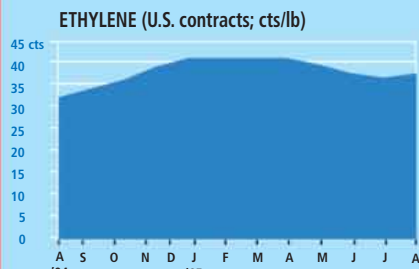
**Toluene** and **mixed xylenes** prices advanced about 5 cts/gal and 3 cts/gal, respectively, last week on demand strength from the gasoline pool. August xylenes contracts rose 9 cts/gal, to \$2.18/gal fob. European toluene and xylenes spot prices lost about \$10/m.t. and \$20/m.t., respectively.

**Styrene** contracts in Europe rose €13/m.t., to €940/m.t., despite the drop in benzene contracts. Strong demand lifted styrene spot prices, and gave support to the contract increase, sources say. European styrene spot trade was reported at \$50/m.t. above the previous week as buyers are having trouble securing prompt cargoes, sources say. U.S. styrene spot prices fell by 2 cts/lb last week, however, in line with lower benzene prices.

**Para-xylene** contracts settled at a 2-cts/lb increase for July, to 39.25 cts/lb del, as a result of on firmer demand. Producers are seeking increases of 3.75 cts/lb for August. European *p*-xylenes contracts gained €15/m.t. for August, to €720/m.t. del. Spot *p*-xylenes have softened in the last two weeks, by about \$30/m.t., on muted buying interest. Market sentiment is firming, however, as demand is showing signs of picking up, sources say. **Ortho-xylenes** contract negotiations concluded with a 2 cts/lb increase for July, bringing contract prices to 35 cts/lb del. *O*-xylene producers are eyeing a 4-cts/lb increase for August contracts.

**Ethylene glycol** producers in Europe say they have secured a €40/m.t. increase for August contracts, to €777/m.t., because of strengthening demand. Market watchers say the price has not been universally accepted, however. Third-quarter **acrylonitrile** contracts in Europe are expected to decrease by around €70/m.t., sources say.

	U.S.		EUROPE	
	SPOT	CONTRACT	SPOT	CONTRACT
ETHANE	56-57 cts/gal fob ▲			
NAPHTHA	155-156 cts/gal fob ▲		\$450-460/m.t. cif ▼	
GASOIL	120-124 cts/gal fob		\$460-470/m.t. cif ▼	
PROPANE	87-88 cts/gal fob ▲			
BUTANE	119-120 cts/gal fob ▲			
ETHYLENE	35-36 cts/lb del	38 cts/lb del July ▲	\$770-780/m.t. cif ▲	€640/m.t. del Q3
PROPYLENE				
chemical-grade	33-34 cts/lb del	32.5 cts/lb del July	€580-600/m.t. cif ▲	€640/m.t. del Q3
polymer-grade	34-35 cts/lb del	34 cts/lb del July	€610-630/m.t. cif ▲	
BUTADIENE	50-55 cts/lb fob	45 cts/lb del July	\$930-940/m.t. fob ▲	€720/m.t. del Q3
BENZENE	268-273 cts/gal fob ▼	275 cts/gal fob Aug. ▲	\$780-790/m.t. fob ▼	€669/m.t. fob Aug. ▼
TOLUENE <sup>1</sup>	220-223 cts/gal fob		\$630-640/m.t. cif ▲	
MIXED XYLENES	218-222 cts/gal fob ▲	218 cts/gal fob Aug. ▲	\$600-620/m.t. cif ▼	
STYRENE	45-50 cts/lb fob ▲	57-61 cts/lb fob June	\$1,100-1,120/m.t. fob ▲	€940/m.t. del Aug. ▲
METHANOL	77-80 cts/gal fob	90 cts/gal fob July	€215-225/m.t. fob	€220/m.t. fob Q3
MTBE	253-254 cts/gal fob ▼		\$950-1,000/m.t. fob	



	SPOT	CONTRACT	SPOT	CONTRACT
PARA-XYLENE	\$750-770/m.t. fob ▼	39.25 cts/lb del July ▲	\$750-760/m.t. fob ▼	€720/m.t. del Aug. ▲
ORTHO-XYLENE	33-35 cts/lb fob ▼	35 cts/lb fob July ▲	\$710-720/m.t. fob ▼	€610/m.t. del Q3
ETHYLENE GLYCOL				
antifreeze	40-45 cts/lb fob			
fiber-grade		45 cts/lb del May	€620-650/m.t. cif	€777/m.t. del Aug. ▲
ACRYLONITRILE	\$1,170-1,180/m.t. fob	60-63 cts/lb del	\$1,250-1,300/m.t. cif ▲	€1,385-1,400/m.t. del Q2
EDC	23-24 cts/lb fob		\$450-460/m.t. fob	
INORGANICS				
CHLORINE	\$320-350/ton fob	\$345-375/ton fob Q2		€200-230/m.t. del
CAUSTIC SODA	\$320-340/ton fob	\$365-375/ton fob June	\$300-320/m.t. fob	€310/m.t. del Aug. ▲
SODA ASH		\$96-105/ton fob		€170-180/m.t. del.

<sup>1)</sup> Nitration-grade. CW Price Report is compiled the Wednesday prior to publication through consultation with producers, consumers, and traders. Prices are quoted fob (free-on-board), cif (cost, insurance & freight), c&f (cost & freight), or frtq (freight equalized). References are NWE (Northwest Europe) port for Europe and USG (U.S. Gulf) port for the U.S., and reflect recent large-volume transactions.



**Wilton**  
INTERNATIONAL

Wilton International, in the North East of England, is Europe's leading chemical and manufacturing complex.

Over 70 companies are already benefiting from the extensive infrastructure, utilities and support available here. There is easy access to raw materials, first class communications throughout the UK, Europe and beyond, and an exceptional community of successful businesses including some of the world's biggest names.

It's a site where you can simply plug into what is already here, saving money and time in significant amounts.

There's a place here waiting for you. The site offers 400 acres of development land, plus a variety of building and office accommodation.

for **lower costs** & **shorter** lead times

**Connect** to the **uk's**  
**leading** manufacturing site



Wilton International, PO Box 1985, Wilton, Middlesbrough, Cleveland, TS90 8WS, UK

**For more information, contact the Site Development Manager.**

tel: +44 (0)1642 459955 fax: +44 (0)1642 212690

email: [sdm@wiltoninternational.co.uk](mailto:sdm@wiltoninternational.co.uk) [www.wiltoninternational.co.uk](http://www.wiltoninternational.co.uk)

# Industry Output Slows in the U.K.

## Difficult Start to the Year; Gas Prices are a Concern

The U.K. chemical industry performed strongly in 2004. Output rose across all sectors to levels that exceeded analysts' expectations. The industry has made a poor start to 2005, however, causing analysts to revise their forecasts downward. The U.K. chemical industry generates sales of more than £50 billion/year (\$88 billion), and is the world's sixth largest, according to the Chemical Industries Association (CIA; London).

Output of chemicals, including pharmaceuticals, increased 3.2% in the U.K. last year despite a "weak" second half, according to Oxford Economic Forecasting (OEF; Oxford, U.K.). That compared with growth of 1.3% in 2003. "The main strength was in basic chemicals, where restocking provided extra support, and in other chemicals, where the recovery in the electronics sector played a key part," OEF says.

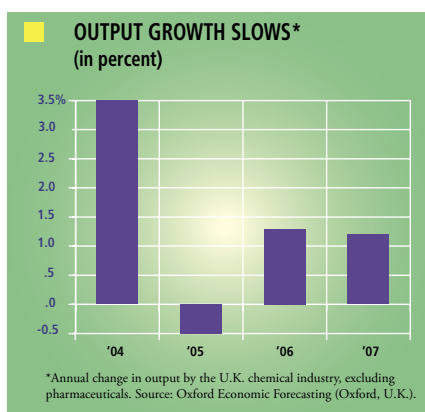
The U.K. has a healthy trade surplus in chemicals, which hit a record £5.2 billion in 2003 and fell to £4.1 billion in 2004. U.K. chemical producers failed to capitalize last year on buoyant world demand for chemical products, especially in the Asia/Pacific region, OEF says. Chemical export volumes increased by just 3.5% and imports increased 7%, it says. The industry is, nevertheless, the U.K.'s top export earner, CIA says.

**INVESTMENT DECLINE.** Investment by the U.K. chemical industry "had another poor year" in 2004, falling 5%, OEF says. Investment in the sector has been in decline since 1998, CIA says. An upturn is anticipated given higher chemical industry earnings, however. "Recovery is expected over the next few years as profits improve," OEF says. "Margins are stronger despite sharp rises in raw material costs, and major cost cutting continues."

Chemical prices rose 5% in the U.K. in 2004, offsetting raw material price hikes, OEF says. "However, some of the specialty producers have had difficulty raising prices in certain areas," it says. "The improvement in margins evident in basic chemicals in the fourth quarter of last year should spread to downstream industries as this year progresses, boosting profitability."

OEF expects chemical investment to increase 6.7% in the U.K. this year and 7.3% in 2006. "Investment intentions are well-above their lows of early 2004, and prospects look brighter

despite the ongoing overseas investment program of much of the industry," OEF says. The biggest project to be announced in the past year was Huntsman's plan to build a



400,000-m.t./year, low-density polyethylene (LDPE) plant at Wilton, U.K. (*CW*, Sept. 15, 2004, p. 15). It will be the world's biggest LDPE unit, costing £180 million and creating 117 permanent jobs, Huntsman says. The project

also involves £20 million of investments in logistics and infrastructure.

The U.K. consumes about 500,000 m.t./year of LDPE, Huntsman says. The Wilton project will "help turn the country into a net exporter of the product," the company says.

Huntsman says its decision to move ahead with the facility was "due in large part" to a £16.5-million grant under the U.K. government's Regional Selective Assistance (RSA) scheme. "It is a project that will have a major impact on the chemical industry and the U.K. economy both locally and nationally," says Patricia Hewitt, former U.K. secretary of state for trade and industry.

The government is also providing assistance to another major investment in the U.K. basic chemical industry. It is providing a grant toward the £390-million cost of a previously announced modernization of the Runcorn, U.K. chlor-alkali plant of Ineos Chlor, an Ineos subsidiary, also under the RSA scheme (*CW*, Nov. 3, 2004, p. 13). The project involves building a 400,000-m.t./year, membrane-cell chlor-alkali plant.



**Hackitt: Companies will adopt the vision.**



**Porritt: Wants zero carbon emissions.**

### A Vision for Sustainable Development

The Chemistry Leadership Council (CLC), an industry-environment forum, laid out in a recent report its vision for a sustainable chemical industry in the U.K. (*CW*, July 13, p. 11). The report details a series of performance targets relating to environmental, social, and economic activities that the sector should be looking to adopt by 2010. Targets include developing a database of chemical substances marketed in the U.K., and prioritizing those that should be phased out during the next five years. Long-term goals that form part of the report include moving away from the use of hydrocarbon feedstocks, and shifting away from non-renewable energy sources, to help achieve zero carbon emissions.

The combined effects of the Kyoto Protocol on climate change and the European Union's proposed Reach chemicals policy "could kill off the European chemical industry" or could be its salvation, the report says. "Innovation for sustainability is the key to survival," it adds.

CLC was established two years ago to identify in which direction the industry should be heading to ensure its long-term survival. CLC is U.K. government-funded. Its board members include Chemical Industries Association (London) director general Judith Hackitt and Jonathon Porritt, environmentalist and founder of environmental think tank and consulting firm Forum for the Future (London).

The chemical industry has been one of the main driving forces behind CLC's vision, and chemical companies are expected to adopt the recommendations outlined in the report, Hackitt says. "The vision is certainly challenging, but rooted in today's reality," says David Sainsbury, U.K. minister for science and technology.

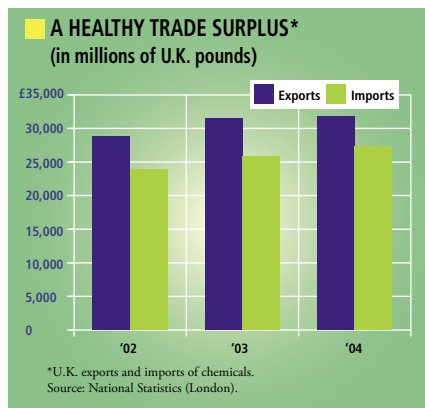
—ALEX SCOTT

The U.K. chemical sector's performance weakened during the second half of 2004 and in the early part of this year. Chemicals output "collapsed" in the U.K. in the first quarter compared with overall production growth of 0.8% in Western Europe, OEF says. Specific figures were not disclosed. "The change mainly reflects sluggishness in the pharmaceuticals sector, but the weakness of the dollar and poor performance of U.K. manufacturing have not helped," OEF says. The U.K. pharma sector is suffering from competition from imported generic drugs, and from the withdrawal of existing products due to health concerns.

The U.K. market for paints and specialties has also weakened in 2005, says ICI CEO John McAdam. "It has been pretty sluggish since the turn of the year," McAdam says. "April and May were awful, but things improved in June." Conditions in the U.K. are nevertheless "more buoyant" than in other big European markets such as Germany and France, he says.

OEF has cut its 2005 output growth forecast for the U.K. chemical industry twice this year.

It predicts a 1.1% decline in chemicals output, including pharmaceuticals, having forecast growth of 2.3% at the start of the year. OEF



forecasts a smaller decrease in full-year output for the chemical industry excluding pharmaceuticals, reflecting the weakness of the U.K. pharma industry (chart, p. 35). "Chemicals output is expected to grow a little slower than GDP through 2008, reflecting a recent lack of

investment and a less buoyant view of pharmaceuticals," OEF says.

Chemical industry employment fell by more than 6% in the U.K. last year, to 215,000, and is expected to fall to 205,000 in 2005, OEF says. "The oil majors and private equity capital companies, as well as the original U.K. chemical companies, are now all cutting jobs," it says. U.K.-based chemical producers owned by private equity firms include Avecia (Manchester), Lucite International (Southampton), and Petrochem Carless (Leatherhead), as well as distributor Albion Chemicals (Yeaton). Private equity firm Texas Pacific Group (San Francisco) is in the process of acquiring British Vita (Manchester) (CW, March 30, p. 9).

U.K. chemical companies, meanwhile, are struggling with rising energy prices that have had "a significant effect" on the industry's competitiveness, CIA says. CIA member companies faced price increases of up to 70% on renewing fixed-term gas contracts last fall, filtering through to increases of 60% in fixed-term electricity contracts. The U.K. industry is "globally exposed" to rising energy prices due to liberalization of the country's energy markets, CIA says. Other European Union (EU) governments have failed to liberalize their energy markets fully, CIA says. Industrial consumers of gas in the U.K. say they pay 30% more for gas supplies than their counterparts in other EU countries.

**GAS SHORTAGES.** The U.K. is also becoming vulnerable to gas shortages because its reserves of North Sea gas are running out, and the country will soon become a net gas importer. An unexpected cold snap in Europe last March almost caused the U.K. to run out of gas supplies as consumers in continental Europe bought up volumes that otherwise would have been exported to the U.K.

Chemical companies in the U.K. say the prospect of higher gas prices next winter means chemical plants may have to halt operations. "If we get hit with a cold snap next December or January we've got a big problem on our hands," says Tom Crotty, CEO of Ineos Chlor. "[Gas] network operators say there are additional measures that can be taken to protect vital U.K. supplies. However, one of these measures could be to shut off large industrial users," he says. The U.K. government's Trade & Industry Select Committee published a report earlier this year highlighting the need to put in place infrastructure to ensure that adequate gas supplies can be imported into and stored in the U.K., and for other EU countries to complete energy market liberalization.

—IAN YOUNG




### Determined drive for excellence

**Deepak Nitrite Ltd. is a manufacturer of various Inorganic, Organic, Fine & Speciality Chemicals used in Agrochemicals, Pharmaceuticals, Imaging, Colourants and Rubber Chemicals.**

**Our range of chemicals include:**

- Sodium Nitrite / Nitrate
- Methoxy Amine HCl
- Ortho / Para Nitro Chloro Benzene
- Ortho / Para Nitro Toluene
- Ortho / Para Toluidine
- 2,4 / 2,6 Xylidine
- Para Cumidine
- Hydroxylamine Sulphate / Hydrochloride
- Resorcinol / 1,3 CHD
- SMIA: SIN-Methoxylmino Furanylacetic Acid Ammonium Salt
- 4-Methoxy 2-Methyl Diphenyl Amine



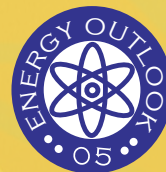


**Contact Details :**  
 Deepak Complex, National Games Road, Yerwada, Pune - 411 006. INDIA  
 Phone: +91-20-56090200, 26685739  
 Fax: +91-20-2668 5448, +91-20-26685749.  
 Email: export@deepaknitrite.com Web: www.deepaknitrite.com

# CHEMICAL INDUSTRY ENERGY OUTLOOK

OCTOBER 24, 2005

ST. REGIS HOTEL — HOUSTON, TX



The Chemical Industry Energy Outlook will focus on the industry's dependence on natural gas, and address the concerns this causes. With rising prices as such, reliance has proved to be difficult and costly for the chemical sector.

This one day Outlook will consider the issues which have had major implications for the US energy market. These issues include supply and demand trends, economic performance, advances in technologies related to energy production and consumption, and how these implicate the chemical sector.

#### INDUSTRY EXPERTS INCLUDE:

- William G. Rosenberg, Senior Fellow, John F. Kennedy School of Government, **Harvard University**
- Geoffrey Hurwitz, Vice President of Government Relations, **Rohm and Haas**
- Ron Smith, Senior Consultant, Chemicals & Energy Practice, **SRI Consulting**
- Michael Mudd, Manager, Generation & Development, **American Electric Power**
- Dr. Peter Botschek, Manager Petrochemistry & Energy, **European Chemical Industry Council (Cefic)**

#### 2005 FEATURED TOPICS:

- Considerations for Improvements in Energy Costs & Supply
- Refinery Expansion: An Option For Increased Energy Supply
- Onshore & Offshore Construction of LNG Terminals
- Gas Reserves: The Potential of the Gas To Liquids (GTL) Process
- Electricity Deregulation: A Short Term Energy Solution
- National Gasification Strategy –Refining Coal To Make Syngas To Enhance Natural Gas Supplies

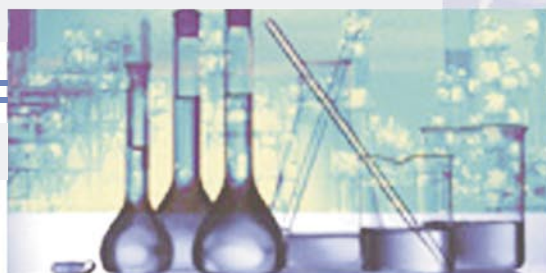


**CALL FOR PAPERS IS STILL OPEN!**

Interested in speaking on one of these topics? Contact Sarah Ashmore  
at [sashmore@chemweek.com](mailto:sashmore@chemweek.com) or 212-621-4662

FOR MORE INFORMATION OR TO REGISTER, VISIT [WWW.CHEMCONFERENCE.COM](http://WWW.CHEMCONFERENCE.COM) OR CALL 212-621-4978.  
PLEASE MENTION CODE: **CW810AD**. FOR SPONSORSHIP OPPORTUNITIES, CONTACT DANA CAREY AT  
212-621-4972 OR [DCAREY@CHEMWEEK.COM](mailto:DCAREY@CHEMWEEK.COM).





**MARKETING**



**&**  
**business  
research**

## Chemical Economics Handbook:

*SRI Consulting's Chemical Economics Handbook is the world's leading chemical marketing and business research service. CEH studies provide evaluation of supply/demand relationships and analysis of the industry competitive environment for about 300 chemical products and product groups.*

### *Presenting Highlights from Recent Reports*

#### **POLYPROPYLENE RESINS**

Polypropylene (PP) resins are the fastest-growing category of commodity thermoplastic resins in the world, surpassed only by combined polyethylenes (LDPE, LLDPE and MWPE, HDPE) in production volume. Injection molding and fiber and filament are the world's largest end uses for PP, at 33% and 29%, respectively, followed by film uses at 18%. The injection molding end-use category tends to be inversely related to the maturity and overall growth of consumption in countries and region.

*Visit our website for more information on this and other reports.*

[www.sriconsulting.com/CEH](http://www.sriconsulting.com/CEH)

**Smart Research. Smart Business.**

[www.sriconsulting.com](http://www.sriconsulting.com)



A Division of Access Intelligence, LLC

# Airgas Reaps Benefits of Expansion

## Aggressive Acquisitions Build National Density

For more than 20 years, CEO Peter McCausland has built packaged gasses firm Airgas (Radnor, PA) through an aggressive acquisition strategy. "We would buy a company and then build density in that region through filler acquisitions," he says. "But, we didn't feel compelled to be everywhere." This strategy has been the core of McCausland's business model since he first acquired Connecticut Gas and Oxygen for \$5.3 million in 1982.

Airgas revenues hit \$2.4 billion in its fiscal year ended March 31, up 26% from the prior year. Net income was up 15%, to \$92 million. "The economy was slow in 2002 and 2003, but we maintained a flat Ebitda when everyone else's was reduced dramatically," McCausland says. Fiscal 2005 saw the company's Ebitda rise dramatically from \$200 million in fiscal 2004, to \$370 million in 2005, however, a strong indication the strategy is working, he says.

McCausland knows that growing a business through acquisition requires the smart management of debt. Acquisitions have left the company with more than \$900 million in long-term debt. Airgas had roughly \$740 million in debt in January 2002 before acquiring Air Products' cylinder business, increasing its debt to more than \$1 billion. "We can support more debt than most [similar-size] companies because of our strong cash flow," McCausland says. Airgas will have more than \$250 million in after-tax cash flow in fiscal 2006. "Our business is not as cyclical, as other chemical companies," he says. "We feel recession-resistant."

Airgas whittled its billion-dollar debt to \$750 million by April 2004, even with some small acquisitions along the way. The acquisition of BOC's packaged gas business, completed in August 2004, was almost entirely financed by senior debt and other long-term instruments, however, and brought the company's debt back to more than \$950 million by July 2004 (*CW*, Aug. 4, 2004, p. 6).



"This [packaged gases] sector is very comfortable with a 50% debt-to-equity ratio, like Airgas has," says John Campbell, president of J.R. Campbell Associates (Lexington, MA). "Creditors are comfortable too with that higher level of debt, though they would like to see the ratio at about 35%." More than

With guaranteed revenues, McCausland says that Airgas has lowered its debt-Ebitda threshold, an indication he is willing to finance future acquisitions with debt. "We're in talks with quite a few potential sellers, we will get our fair share at reasonable prices," he says.

Airgas's largest competitors appear committed to remaining in the business, but the company still sees acquisition opportunities. "Linde and Praxair seem to like their packaged gas businesses," McCausland says. "There are, however, about 50 companies with sales between \$25-\$150 million, many of which are very attractive [acquisition candidates]. We have plenty of opportunities in our core business," he says.

After more than 320 acquisitions over the past 20 years, there are still many regions in the U.S. where Airgas can strengthen its position, McCausland says. "We feel that Denver and the western states are important," he says. "Iowa, Kansas, and Texas are places where we could use more density. I would also like to expand more into Ohio, western Pennsylvania and the northern New England area," he adds.

"Our core strategy has evolved to follow a geographic-based model to give responsibility to our front-line people," McCausland says. The most recent of the geographical companies, Airgas Gaspro, stems directly from the BOC acquisition. It is the company's 13th regional division, covering the Hawaiian islands. "We want to stay decentralized, and allow our customer-facing personnel to have the authority and autonomy to deal with the needs of our customers," he says.

Its core packaged gas distribution business is yielding opportunities in other areas, McCausland says. Airgas's recent acquisition of LaRoche's ammonia product line is a case in point, he says. "We've always distributed ammonia," he adds. "LaRoche was one of our primary suppliers." Ammonia-based products are specialized, sold in small quantities to a dispersed but

### ■ COMPANY SNAPSHOT

#### AIRGAS (RADNOR, PA)

**Financials:** FY2005 sales: \$2.4 billion; net income: \$92 million

**Key businesses:** Packaged distribution of industrial, medical, and specialty gases through 13 regional companies.

**Positives:** Distribution network has national U.S. presence; strong same-store sales growth; strong cash flow.

**Negatives:** High debt-equity ratio; sales growth tied to softening manufacturing sector.

**Outlook:** Sales target of \$3 billion by 2008 through combination of acquisitions, regional expansion, and growth in share at existing customers.

1) Fiscal year ended March 31.

one-third of long-term contracts have a "high take," making them less risky, Campbell says. These contracts, usually running for 15-20 years, typically have 65%-80% of the revenue streams guaranteed. These are numbers that creditors love to see, he says.

large group of corporate buyers. "No company is better suited than Airgas to get these products to this highly dispersed segment," McCausland says. "The most attractive part was that it was not only profitable, but the acquisition allows us to cross-sell to existing customers."

Airgas also sees opportunities as customers seek cost savings by reducing the number of suppliers, McCausland says. "It makes distribution that much easier." He says that companies were starting to talk about vendor reduction in the late-1990s, but Y2K and 9/11 forced them to put those concerns aside until recently. "Vendor reduction is a tremendous opportunity for cost reduction," he says. "It's in our best interests to help our customers reduce costs. We've been able to show that cost savings don't necessarily mean price reductions."

One example has been the move to larger containers, what Campbell calls "mode changes." Instead of using traditional 50 lb cylinders, distributors like Airgas are installing "microbulk" containers that can hold up to 1,000 gallons. "This will reduce the distributor's costs greatly," he says. Microbulk containers cost one-third to one-quarter as much per gallon as the traditional cylinders.

Cost reductions, such as the mode changes, are on the mind of many of Airgas's customers, McCausland says, even though he sees great growth in U.S. manufacturing. "I see many similarities between the early 1990s and right now," he says. "These include: high oil prices, war in an oil-producing country, a weaker dollar, and the beginning of a big energy investment cycle." McCausland expects the economic upcycle to be longer than normal, because the decline was longer than normal.

"We're not back to factory capacity utilization levels of 1998," he says. "That was really the last peak year. But, we're currently in the middle of a long period of solid performance." McCausland expects the growth to continue throughout the rest of 2005. "Our customers are telling us that growth will level out this year, but we haven't seen it. It's anybody's guess, really."

McCausland's strategy continues to pay dividends into fiscal 2006. For the fiscal first quarter ended June 30, revenues increased 27%, to \$691 million, versus the first quarter of fiscal 2005, while earnings rose 34% to 29.6 million. "All our targets will be met," he says, "if the economy continues to cooperate."

—RYAN W. SMITH

The leading indicator for the chemical industry fell 0.2% in July, after a slight gain in June. Chemical output slowed to a 1.1% rate in the first quarter of this year, and 1.8% in the second after expanding at an annualized rate of 4.7% in the final three months of last year. Total manufacturing output has also experienced a deceleration in growth. In the second half of last year, overall industrial production expanded at an annualized 4.5%. The gain was only 3.5% in the first quarter of 2005, followed by 1.1% in the second.

Real GDP gained 3.8% in both the final quarter of last year and the first three months of 2005. Total payroll employment grew somewhat faster in the second quarter relative to the first, as did total hours worked in the economy.

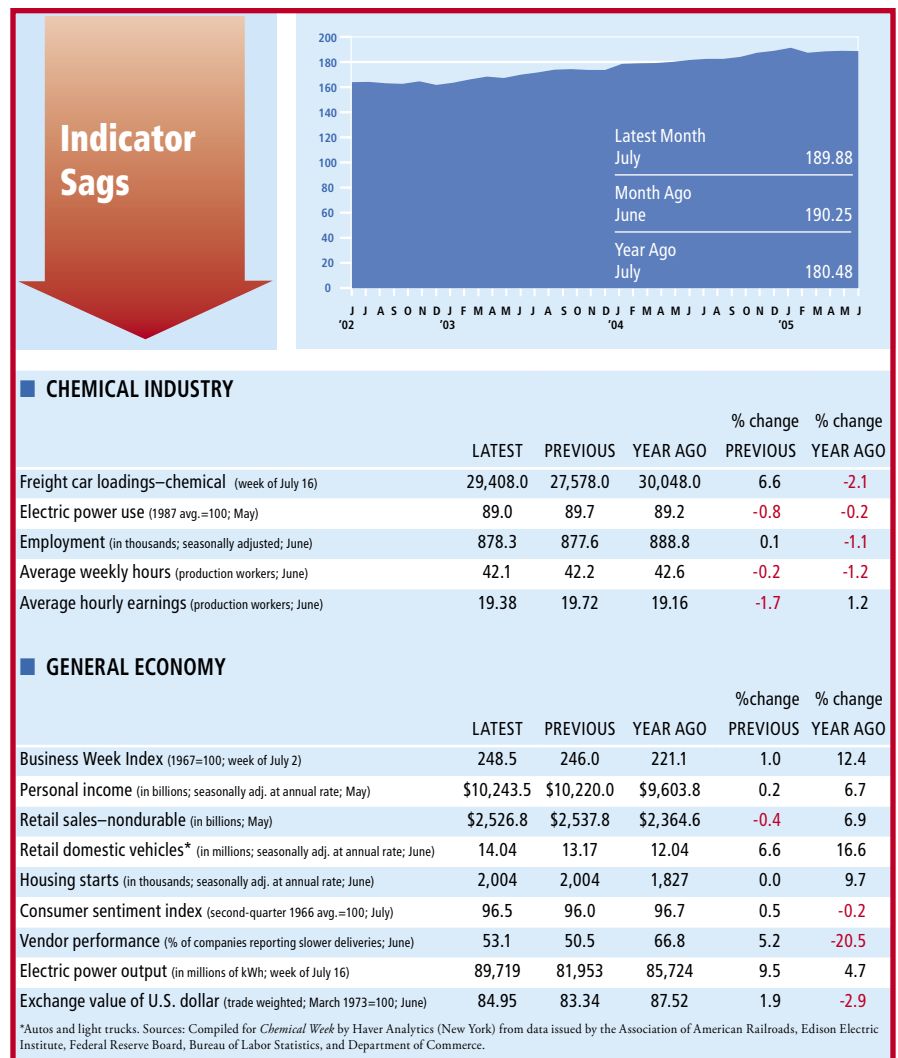
The average chemical industry stock price dropped in July for the third consecutive

month, and production in the chemical process industries declined 0.4%. Output was off sharply in paper and in the rubber and plastics component, while gains were recorded in nonferrous metals and petroleum refining. The other component—building materials—was flat.

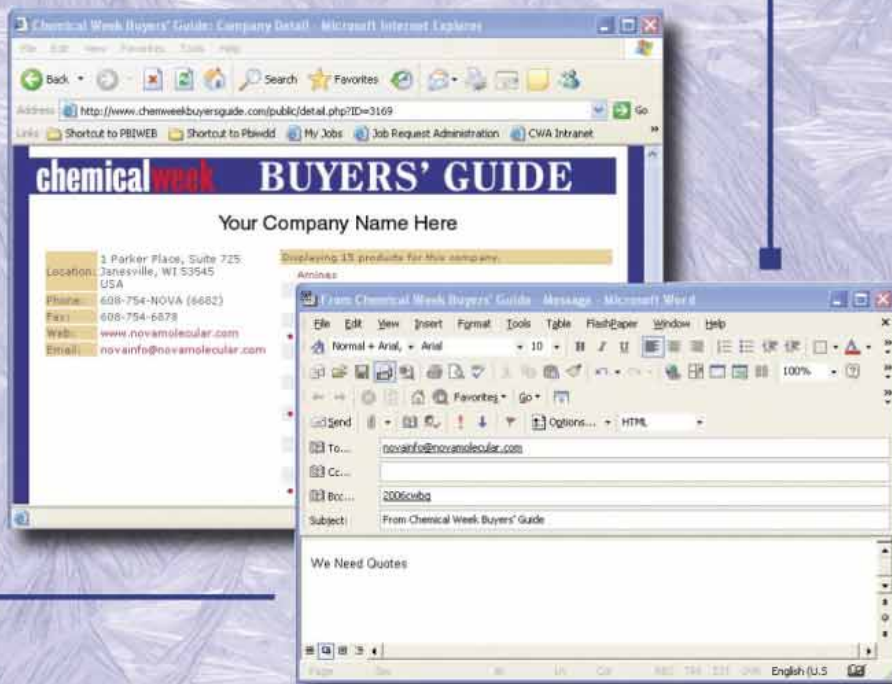
New orders for manufactured products were up 2.9% in July. Non-defense aircraft orders more than doubled, while defense bookings rose a strong 16.9%. Orders for nondurable goods, however, rose only 0.1%. Orders for construction materials and supplies were unchanged, and consumer durables advanced a more rapid 3.3%.

Producer prices of finished goods declined at a 0.3% rate over the past three months, compared with a 5.1% gain in the first quarter. Consumer prices were up an annualized 1.9% in the second quarter, after rising 3.3% during 2004.

—ARNOLD PEARLMAN



# Did you know that **Chemical Week's Buyers' Guide** gives you direct access to suppliers?



Get quotes and product information in real time from multiple suppliers when you use Chemical Week's Online Buyers' Guide

No need to waste time navigating difficult websites looking for answers to your questions—[www.chemweekbuyersguide.com](http://www.chemweekbuyersguide.com) brings the answers directly to you

Chemical Week's Buyers' Guide connects buyers with sellers all over the world, all year long.

For more information please contact:

John Markovic  
Tel: 212-621-4914  
[jmarkovic@chemweek.com](mailto:jmarkovic@chemweek.com)

Chantal Onelien  
Tel: 212-621-4928  
[conelien@chemweek.com](mailto:conelien@chemweek.com)

**chemicalweek**

[www.chemweek.com](http://www.chemweek.com)  
[www.chemweekbuyersguide.com](http://www.chemweekbuyersguide.com)

## CHEMICALS WANTED

**A SURPLUS COMPANY** that will buy your excess chemicals, resins, oils, plasticizers pharmaceuticals, pigments, dyes, etc. JF Chemical Sales, Inc. 227 Main St., Huntington, NY 11743, 631-424-6880, Fax: 631-424-6884; Email: Jfchemical@CS.com

## CHEMICALS WANTED

**CASH FOR OFFGRADE, SURPLUS**-resins, plastics, chemicals, colors, plasticizers, oils, rubbers, silicones, etc. Morgan Materials, Inc., P.O. Box 68, Buffalo, N.Y. 14207. Ph: 716-873-2000, Fax: 716-873-2181, E-mail: dsadkin@morganmaterials.com

## CHEMICALS WANTED

**SURPLUS AND SALVAGE IS OUR SPECIALTY** With 50+ years in the chemical industry we can offer immediate payment for your surplus, excess inventory, chemical raw materials. We are #1 source for surplus materials. Visit us @ [www.rambachcorp.com](http://www.rambachcorp.com) or call 973-589-7774 Fax 973-589-2615 THE AHART/RAMBACH CORPORATION

## SERVICES



## KnightHawk Engineering

*Specialist in Design, Failure Analysis, and Troubleshooting of Static and Rotating Equipment*

Phone: 281-282-9200  
Fax: 281-282-9333  
[www.knighthawk.com](http://www.knighthawk.com)

24/7 Around the World - Houston, Texas USA

- Failure Investigations
- Forensic Analysis
- 3rd Party Design Audit
- Field Services
- Testing

## CUSTOMER SERVICE



Est. 1962

### PARTICLE SIZE PROBLEMS ?

*FINE GRINDING CORP. HAS BEEN SOLVING THEM SINCE 1962 USING AIR JET & MECHANICAL MILLS, BLENDERS & SCREENS.*

*RECENTLY UPGRADED PROCESS SUITES INCLUDES TEMPERATURE AND HUMIDITY CONTROL WITH HEPA FILTER.*

H. TIMOTHY EVERETT  
FINE GRINDING CORP.  
241 E. ELM ST.  
CONSHOHOCKEN, PA 19428

PH: 800-726-7429  
FAX: 610-828-2584

## Chemical Week's marketplace

- Promote Auctions
- Sell New & Used Equipment
- Buy & Sell Materials
- Offer Your Professional Services
- Publicize open positions

For more information contact:

**John Markovic**

**Tel: 212-621-4914 • Fax: 212-621-4949**

**E-mail: [jmarkovic@chemweek.com](mailto:jmarkovic@chemweek.com)**

Missed the **OPPORTUNITY** to list your products in this year's issue?

Start **EARLY** and have access to our early bird package rates!

Register on-line at [www.chemweekbuyersguide.com/odes/](http://www.chemweekbuyersguide.com/odes/) for **Chemical Week's 2006 Buyers' Guide.**

For more information contact:

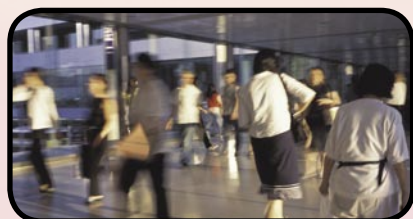
Chantal Onelien  
Tel: 212 621 4928  
Fax: 212 621 4949  
[conelien@chemweek.com](mailto:conelien@chemweek.com)

John Markovic  
Tel: 212 621 4914  
Fax: 212 621 4949  
[jmarkovic@chemweek.com](mailto:jmarkovic@chemweek.com)

**chemical week**  
[www.chemweekbuyersguide.com](http://www.chemweekbuyersguide.com)

# @chemicalweekCHINA

NEWSLETTER



## THE BEST MEDIA TO PROMOTE YOUR BRAND IN CHINA

Chemical Week is offering premium online sponsorship opportunities via our NEW eChemicalWeekCHINA newsletter and website.

Reaching over 20,000 registered members active in plastics, adhesives, soap and cosmetics, pharmaceuticals, specialty chemicals, agrochemicals and many others, eChemicalWeekCHINA is the premier vehicle to reach buyers in China and increase brand awareness.

eChemicalWeekCHINA contains critical editorial on chemical industry developments from around the world, gathered by *Chemical Week's* expert editors and translated into Chinese for electronic delivery.

**Deliver maximum impact and visibility through a multi-channel package of high-response email marketing, exclusive sponsored content and premium web advertising.**

For sponsorship information contact Lyn Tattum, Publisher, [ltattum@chemweek.com](mailto:ltattum@chemweek.com), +44 207 692 5275, or visit [www.chemweek.com](http://www.chemweek.com) or [www.echemicalweekchina.com](http://www.echemicalweekchina.com)

# CW75 stock performance

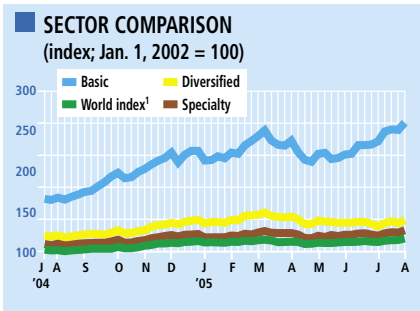
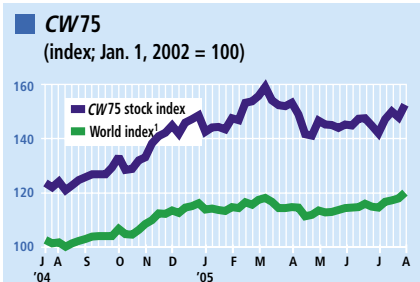


The CW75 Index outpaced broader markets for the week ending August 3, rising 2.8%. The Morgan Stanley global composite and Standard & Poor's 500 indexes rose 1.8%, and less than 1%, respectively. Basic chemical stocks jumped 3.9%; diversifieds, 2.8%; and specialty chemical stocks, 2.4%.

Stocks rose on a positive earnings season from the chemical industry, and expected improvement in volume and pricing trends during the third quarter, analysts say.

Airgas topped the leaders list, rising about 15%, to \$29.59/share, on news that earnings for the company's fiscal first-quarter, ended June 30, beat analysts' consensus estimates, and the company raised fiscal second-quarter estimates to 37 cts-39 cts/share. Analysts' consensus estimates were for 37 cts/share.

Shares for Chemtura rose on news that the company reported a 21% hike in earnings (CW, Aug. 3, p. 6).



Company	Ticker	Category*	Marketcap (\$ millions)	Closing price	1-Week change	1-Week change vs. CW75 index	YTD % change	YTD change vs. CW75 index	Trailing P/E	Dividend yield	52-week high	52-week low	Weekly volume
3M	MMM	D	56,763	74.19	0.7%	-2.1%	-8.6%	-11.4%	19.0x	2.26%	86.97	71.03	1.9%
Dow Chemical	DOW	D	46,272	47.97	0.8	-2.1	-1.7	-4.5	10.9x	2.79	55.95	36.88	1.7
DuPont	DD	D	42,882	43.05	3.2	0.4	-10.9	-13.7	16.7x	3.44	54.47	38.99	2.6
BASF	BF	F	39,286	73.39	6.2	3.4	5.4	2.6	13.3x	3.09	74.69	50.38	0.1
Bayer	BAY	D	27,123	37.14	4.9	2.1	11.8	9.1	24.8x	1.97	37.29	23.78	0.0
Sasol	SSL	B	19,654	32.02	8.0	5.1	50.0	47.3	17.2x	2.31	32.18	15.87	0.1
Monsanto	MON	D	17,964	66.88	3.0	0.2	21.5	18.7	54.4x	1.02	69.23	33.72	3.9
Praxair	PX	S	16,653	51.51	7.0	4.1	17.6	14.8	22.5x	1.40	51.71	37.04	2.2
Air Products	APD	S	14,400	61.23	3.3	0.4	6.7	4.0	20.3x	2.09	65.13	48.14	2.5
Syngenta (ADR)	SYT	D	12,466	22.15	11.9	9.0	6.0	3.2	25.5x	1.90	22.77	16.38	0.2
Akzo Nobel	AKZOY	D	12,125	42.38	2.6	-0.2	2.4	-0.3	9.3x	1.77	45.60	29.76	0.1
PotashCorp	POT	B	11,948	110.02	4.0	1.1	33.1	30.4	26.4x	0.55	111.47	48.48	1.8
PPG Industries	PPG	D	11,281	66.40	1.5	-1.4	-1.3	-4.1	16.3x	2.83	74.22	55.09	1.5
Rohm and Haas	ROH	S	10,668	47.71	3.0	0.2	9.1	6.4	17.9x	2.43	49.67	36.87	1.6
BOC Group	BOX	S	9,597	38.45	2.5	-0.3	4.8	2.1	13.9x	4.89	38.97	30.10	0.0
Solvay	SVVSY	D	8,841	104.50	0.0	-2.8	-1.6	-4.4	NA	NA	118.70	80.50	0.0
Clorox	CLX	D	8,617	55.88	1.9	-0.9	-3.8	-6.6	9.5x	2.00	65.42	47.97	2.6
Ecolab	ECL	S	8,612	33.72	0.3	-2.5	-3.5	-6.3	27.0x	1.04	35.31	28.74	1.5
DSM (ADR)	DSMKY	D	7,393	19.30	4.2	1.3	21.4	18.6	NA	NA	19.40	11.39	0.1
Lyondell Chemical	LYO	B	6,987	28.39	-0.4	-3.2	-0.2	-3.0	20.9x	3.17	35.32	16.43	3.7
Sherwin-Williams	SHW	S	6,660	47.88	1.0	-1.8	8.3	5.5	15.2x	1.71	48.84	37.29	2.0
Mosaic	MOS	B	6,574	17.11	1.5	-1.3	4.8	2.1	36.4x	0.00	18.58	12.36	0.8
Avery Dennison	AVY	S	6,237	56.44	0.6	-2.2	-4.6	-7.4	18.6x	2.69	65.28	49.25	2.0
ICI	ICI	S	5,690	19.10	4.4	1.5	5.1	2.3	14.0x	2.88	21.65	14.64	0.1
Huntsman	HUN	D	5,198	23.50	4.1	1.3	NA	NA	0.00	0.00	30.00	18.15	0.9
Ashland Inc	ASH	D	4,552	62.47	2.4	-0.5	30.9	28.1	2.2x	1.76	65.25	39.16	5.2
Eastman Chemical	EMN	D	4,495	55.15	-2.3	-5.2	-3.0	-5.8	9.7x	3.19	61.09	40.83	6.2
Sigma-Aldrich	SIAL	S	4,410	64.04	-1.4	-4.2	6.6	3.8	17.9x	1.19	65.99	52.77	4.2
Ciba (ADR)	CSB	S	4,393	31.00	5.4	2.6	-15.7	-18.5	15.0x	4.94	36.92	28.35	0.0
Chemtura	CEM	S	3,951	16.94	12.2	9.4	45.2	42.4	NA	NA	17.04	5.46	4.0
MEMC	WFR	S	3,588	17.16	-1.9	-4.8	29.5	26.7	14.5x	0.00	18.50	7.33	5.3
IFF	IFF	S	3,576	37.97	-1.5	-4.4	-10.5	-13.3	18.9x	1.95	42.80	34.90	2.2
Engelhard	EC	D	3,466	28.74	0.6	-2.2	-5.5	-8.3	15.3x	1.67	31.24	26.17	1.5
Agrium	AGU	B	3,132	23.55	5.6	2.7	40.2	37.4	9.5x	0.47	24.53	13.75	2.9
Lubrizol	LZ	S	2,980	43.97	0.1	-2.7	20.9	18.1	17.9x	2.37	44.51	31.46	2.3
Celanese	CE	D	2,947	18.59	-0.9	-3.7	NA	NA	NM	0.22	19.00	13.51	0.9
Nova Chemicals	NCX	B	2,866	34.81	1.8	-1.0	-25.8	-28.6	11.2x	0.92	51.89	28.98	2.6
Nalco Holding	NLC	S	2,783	19.64	-3.6	-6.5	0.6	-2.1	NA	0.00	22.03	15.15	0.7
Shanghai Petrochemical	SHI	B	2,745	38.12	9.3	6.4	9.2	6.5	5.7x	NA	42.28	28.33	0.6
Valspar	VAL	S	2,507	49.23	0.2	-2.6	-0.7	-3.5	19.0x	1.63	50.40	40.64	1.2
Church & Dwight	CHD	D	2,371	37.35	-1.2	-4.0	11.5	8.7	25.8x	0.64	38.69	26.71	2.1
FMC	FMC	D	2,337	62.30	3.9	1.1	29.0	26.2	10.8x	0.00	63.87	41.52	4.8
Airgas	ARG	S	2,252	29.59	14.9	12.0	12.1	9.3	22.8x	0.81	29.99	20.63	6.0
RPM International	RPM	S	2,191	18.65	-0.2	-3.0	-2.8	-5.5	14.9x	3.22	19.46	14.28	1.5
Cabot Corp.	CBT	D	2,164	34.37	-3.3	-6.1	-10.2	-13.0	NM	1.86	40.22	27.51	2.8
Cytec Industries	CYT	S	2,137	46.49	4.7	1.9	-9.2	-12.0	24.7x	0.86	54.53	39.25	5.0
Westlake Chemical	WLK	B	2,080	32.00	-2.1	-4.9	-4.1	-6.8	12.0x	0.19	37.67	14.50	1.9
Methanex	MEOH	B	1,913	16.27	1.1	-1.8	-10.0	-12.8	7.1x	2.70	20.09	12.08	1.1
Albemarle	ALB	S	1,768	37.96	-0.4	-3.3	-1.1	-3.9	22.7x	1.69	40.16	29.61	1.9
Hercules	HPC	S	1,576	13.95	-1.6	-4.4	-6.1	-8.8	NM	0.00	15.55	11.33	2.7
Rhodia	RHA	D	1,331	2.12	10.4	7.6	-21.5	-24.2	NA	0.00	3.20	1.13	0.3
Olin	OLN	D	1,293	18.11	-4.9	-7.8	-16.2	-18.9	11.5x	4.42	25.08	15.48	10.5
Minerals Technologies	MTX	S	1,265	61.66	-1.8	-4.6	-7.4	-10.2	21.0x	0.32	69.45	53.37	4.1
ATMI	ATMI	S	1,195	32.18	1.2	-1.6	42.8	40.1	32.2x	0.00	33.62	17.18	7.0
Georgia Gulf	GGC	B	1,100	32.25	-6.3	-9.1	-35.0	-37.8	10.3x	0.99	58.44	29.41	12.4
H.B. Fuller	FUL	S	1,015	35.10	0.9	-2.0	24.6	21.8	24.2x	1.40	36.12	24.82	2.4
MacDermid	MDR	S	1,004	33.15	0.6	-2.2	-7.8	-10.6	19.7x	0.72	37.02	26.26	1.3
Symyx Technologies	SMMX	S	957	29.35	-1.9	-4.7	-2.3	-5.1	NM	0.00	32.20	16.51	2.4
Ferro	FOE	S	934	22.29	-0.9	-3.8	-2.4	-5.2	40.5x	2.60	23.22	16.64	1.6
Sensient Technologies	SXT	S	893	18.90	-1.4	-4.2	-20.1	-22.9	12.8x	3.17	23.91	18.56	2.2
NL Industries	NIL	B	810	16.69	-0.4	-3.2	-22.4	-25.1	3.7x	5.99	24.32	11.95	0.5
Compass Minerals	CMP	B	805	25.64	0.7	-2.1	8.3	5.5	19.4x	4.29	26.51	18.01	1.5
Cabot Microelectronics	CCMP	S	751	30.40	-5.0	-7.8	-24.1	-26.9	18.2x	0.00	41.98	25.50	16.9
Rogers	ROG	S	674	41.00	0.1	-2.7	-4.9	-7.6	58.6x	0.00	49.15	33.87	1.9
PolyOne	POL	D	673	7.33	8.0	5.1	-19.1	-21.9	15.3x	0.00	10.25	6.00	1.6
OM Group	OMG	S	632	23.00	-2.1	-5.0	-29.1	-31.8	5.4x	0.00	37.76	19.35	5.0
Arch Chemicals	ARJ	S	624	26.40	2.3	-0.5	-6.8	-9.6	30.7x	3.03	30.38	22.63	2.3
A. Schulman	SHLM	S	586	19.13	1.8	-1.0	-8.4	-11.2	23.3x	3.03	22.01	15.80	1.2
Cambrex	CBM	S	507	19.22	-5.5	-8.4	-28.8	-31.5	NM	0.62	27.05	17.27	4.9
Albany Molecular	AMRI	S	506	15.69	0.9	-1.9	40.8	38.1	NA	0.00	16.35	8.01	2.3
American Vanguard	AVD	S	431	23.62	-3.2	-6.0	28.8	26.0	29.5x	0.47	24.65	13.57	0.6
Wellman	WLM	B	265	8.17	-8.1	-10.9	-22.9	-25.7	NA	2.45	15.35	6.25	6.0
Stepan	SCL	S	237	26.35	-0.2	-3.1	10.1	7.4	21.8x	2.96	26.72	20.54	0.6
Aceto	ACET	S	194	7.99	-0.1	-3.0	-36.3	-39.0	18.2x	1.88	13.20	6.46	1.3
Quaker Chemical	KWR	S	175	18.03	-2.5	-5.3	-25.1	-29.0	20.0x	4.77	25.02	17.10	1.6

\*D = Diversified. S = Specialty. B = Basic. Source: CW research.

LEADERS		
COMPANY NAME	TICKER	1-WEEK CHANGE (%)
Airgas	ARG	14.9%
Chemtura	CEM	12.2
Syngenta (ADR)	SYT	11.9
Rhodia	RHA	10.4
Sasol	SSL	8.0
PolyOne	POL	8.0
Praxair	PX	7.0
BASF	BF	6.2
Agrium	AGU	5.6

LAGGARDS		
COMPANY NAME	TICKER	1-WEEK CHANGE (%)
Wellman	WLM	-8.1%
Georgia Gulf	GGC	-6.3
Cambrex	CBM	-5.5
Cabot Microelectronics	CCMP	-5.0
Olin	OLN	-4.9
Nalco Holding	NLC	-3.6
Cabot Corp.	CBT	-3.3
American Vanguard	AVD	-3.2
Quaker Chemical	KWR	-2.5
Eastman Chemical	EMN	-2.3



# STRATEGIC ANALYSIS

# &

# insight

## Specialty Chemicals:

*The Specialty Chemicals Update Program (SCUP) focuses on the business environment and market dynamics for major specialty chemicals segments. Brought to you by SRI Consulting, SCUP presents comprehensive information that is critically important in developing a strategy for success in the rapidly changing specialty chemicals business.*

### *Presenting Highlights from a Recent Report*

#### **CATALYSTS**

This report focuses on the \$12 billion-per-year worldwide Catalysts industry. The value of products dependent on catalysts, including petroleum products, automobiles, chemicals, pharmaceuticals, synthetic rubber and plastics, is around \$500-600 billion per year. The catalyst industry will experience moderate growth over the next several years, driven by the increased industrialization of developing economies and the worldwide emphasis on reducing objectionable industrial and transportation emissions. This report presents a detailed assessment of the industry by major region.

*Visit our website for more information on these and other reports.*

[www.sriconsulting.com/SCUP](http://www.sriconsulting.com/SCUP)

**Smart Research. Smart Business.**



A Division of Access Intelligence, LLC

MENLO PARK • HOUSTON • BEIJING • TOKYO • ZURICH