

ASIA IS A BUSINESS IMPERATIVE... NOW MORE THAN EVER

# ASIAN SPECIALTY CHEMICALS NEWSLETTER

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A quarterly newsletter of developments in the chemicals sector

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## INTRODUCTION

We hope you find the *Asian Specialty Chemicals Newsletter* informative.

BDA is a corporate finance and advisory firm, which assists multinational clients to identify, assess and execute cross-border transactions involving Asia, including acquisitions, divestments, JVs and restructuring. We have offices and professional staff throughout Asia, and in the US and Europe.

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## China

**Akzo Nobel** has gained full control of its **Akzo Nobel Chang Cheng Coatings JV** after acquiring the remaining 16.66% shares owned by main partner **Chang Cheng Securities**. **Akzo Nobel** now wholly owns its powder coatings operations in China, Taiwan and Hong Kong. The transaction, which is subject to regulatory approvals, involves a total of six sites, four of which are located in China. (June 5, 2006)

**Albemarle** announced that it will build a new phosphorus-based flame retardant manufacturing facility at its technology and business centre in Nanjing, China. The new plant is expected to be fully operational in H2 2007. The plant will supply phosphorus flame retardants for rigid and flexible polyurethane foams used in insulation and for resin blends such as PC/ABS and PPE/HIPS, used in electronic enclosures. (June 20, 2006)

**Arkema** will double its hydrogen peroxide capacity, operated under a JV with **Shanghai Coking**, to 80,000 tpa in Shanghai by Q1 2008. Together with a 20,000 tpa expansion of its Becancour, Canada, plant to 93,000 tpa, the Shanghai investment will boost Arkema's global H<sub>2</sub>O<sub>2</sub> capacity to 385,000 tpa, making **Arkema** the third largest H<sub>2</sub>O<sub>2</sub> producer behind **Solvay** and **Degussa**. (March 27, 2006)

**Ashland** formed a new entity, **Ashland (Nanjing) Chemical**, to integrate newly acquired **Nanjing Clear Environment Protection** into its water technologies business in China. The company will manufacture products for water, wastewater and environmental protection, as well as feed, control

and monitoring equipment. The entity is part of **Ashland Water Technologies**, itself part of **Ashland Specialty Chemical**. (April 6, 2006)

**BASF** will invest €4m in its first electronic chemicals manufacturing facility in Asia. The 10,000 tpa unit in Shanghai, which is designed to purify and mix electronic chemicals, will go onstream in Q3 2006. BASF said the Chinese market for chemicals used in integrated circuits was forecasted to grow by 25% YOY until 2010. BASF wants to achieve 70% of its chemical sales in Asia-Pacific from locally produced products by 2010. (June 5, 2006)

**Blue Star New Chemical Materials**, an affiliate of state-owned **China National Blue Star (Group)**, plans to build a 30,000 tpa epichlorohydrin (ECH) plant in Jiangsu province, mainly for captive use. The ECH plant will most likely be built at Yan Cheng, north of Jiangsu, for environmental reasons, although its 40,000 tpa BPA production and 35,000 tpa epoxy resins plant are in the southeast of Jiangsu. (March 20, 2006)

**Cabot**, the Boston-based global specialty chemicals company, will expand its rubber carbon black lines in Tianjin with an additional investment of US\$60m. **Cabot Chemical (Tianjin) Co Ltd**, a JV with **Shanghai Coking & Chemical Corp**, will begin production in August 2006 and has already received orders from Bridgestone and Michelin based on trial production. With an additional of two production lines, capacity will increase to 140,000 tpa. (June 19, 2006)

**Ciba Specialty Chemicals** announced it will collaborate with Chinese company **Jiangsu Feiya Chemical Co Ltd** for the construction of a facility near Shanghai to manufacture alkylated diphenyl amines for use in lubricant applications. Under the terms of the agreement, Jiangsu Feiya will construct the facility and manufacture the products utilizing Ciba's proprietary process technology. In turn, Ciba will exclusively market all products manufactured, which it will sell under its Ciba and Irganox trade names. No financial details were

given. The plant is expected to commence production in Q4 2006. (June 23, 2006)

**Degussa** may build a PMMA unit downstream of its 100,000 tpa MMA project in Shanghai Chemical Industry Park, Caojing, China, which will start up in 2008. The company is yet to decide on the PMMA capacity or the start-up date. (May 1, 2006)

**Degussa and Lynchem Co** of Dalian, China have signed a contract to establish a JV to produce custom-manufactured fine chemicals. **Degussa (China)** will acquire 51% of Lynchem and the remaining 49% will be held by the current owners. Closing of the transaction is expected in Q4 2006. The new company will operate under the name of **Degussa Lynchem Co Ltd**. (June 2, 2006)

**Dow Chemical** signed a LOI with the local authorities at the Zhangjiagang Free Trade Zone and expressed its intention to significantly step up investment in China. The LOI covers glycol ethers in Specialty Chemicals, styrene butadiene latex in Dow Latex, and insulation in Dow Building Solutions. Dow currently operates three world-scale, state-of-the-art facilities in the Yangtze River International Chemical Park in Zhangjiagang Free Trade Zone: a converted epoxy resin plant, a styrene butadiene latex facility, as well as a polystyrene resin plant. Total investment so far is about US\$300m. The facilities under the LOI would bring an additional US\$200m investment to this strategic site in China. (June 5, 2006)

**DSM** doubled its Chinese capacity for engineering plastics with the opening of a compounding facility at Jiangyin in Jiangsu province in May 2006. Before the expansion, the plant produced about 15,000 tpa of Stanyl polyamide 46, Akulon polyamide 6 and Arnite polybutylene terephthalate (PBT). Output from the plant, which first opened in 1998, is sold mostly to China. (April 24, 2006)

**DSM Eternal Resins** will expand its production facility for polyester powder coating resins in Kunshan, China. The new facility is expected to come onstream in Q4 2006. In addition **DSM Resins Far East** will debottleneck its powder coating resins production in Ping Tung, Taiwan. This capacity is

expected to come onstream in Q3 2006. It represents a further step towards the realization of DSM's ambition to double its total turnover of US\$500m in 2004 in China to US\$1bn by 2010. (May 29, 2006)

**DuPont** and the city of Dongying (Shandong Province) signed a project agreement to build a world-class titanium dioxide (TiO<sub>2</sub>) plant. Wholly-owned by **DuPont**, the plant will be the company's largest single investment project outside the US. Total investment is projected at more than US\$1bn, including DuPont's initial costs, facilities installed by the city and suppliers and eventual expansion. **DuPont Titanium Technologies** has selected **Huatai Group** to supply liquid chlorine and other products for the new site. Under the LOI, **Huatai** will build a chlor-alkali plant adjacent to the **DuPont** plant site, and will also supply **DuPont** with caustic soda, hydrochloric acid and steam. (April 10, 2006)

**DuPont** has begun construction of a new world-class coatings plant in the Jiading district of Shanghai. When completed in 2007, it will serve a variety of automotive and industrial markets in China. Products will include coatings for use in automotive and a range of industrial applications. DuPont has already invested US\$20m in an automotive finishes manufacturing site in Changchun, acquired in 2004. The company also operates four powder coatings plants in China that are part of a JV; a refinish technical centre in Shanghai; and training centers for automotive aftermarket customers in Beijing and Shanghai. (May 22, 2006)

**GE Toshiba Silicones**, a JV between **GE Advanced Materials** and **Toshiba**, plans to build a silicones manufacturing facility in Nantong, Jiangsu province in China. With a total investment of US\$78m, the facility is scheduled for completion in Q4 2007 and will be the largest **GE Toshiba Silicones** factory in China. The plant will allow the JV to supply advanced silicone technologies to China via a shortened supply chain, helping ramp up the development of silicones in China. (March 20, 2006)

**Hercules** has agreed to acquire the remaining 40% ownership interest of its consolidated JV, **Shanghai Hercules Chemicals Company** from its partner **Shanghai Chlor-Alkali Chemical Co.** (April 25, 2006)

**INEOS** is considering a world scale Phenol plant in Zhangjiagang, Jiangsu Province near Shanghai. The company, which has extensive manufacturing facilities in Europe and the North America has a relatively undeveloped base in Asia. INEOS has 68 manufacturing facilities across 14 countries throughout the world. It generates more than 30 million tonnes of petrochemicals, 20 million tons per annum of crude oil refined products (fuels) and sales of around US\$33bn. (June 13, 2006)

**Kuibyshevazot**, the Russian fertilizer and caprolactam producer, has again delayed the construction of an engineering plastics JV plant in China. Construction is now due to start in June-July 2006, with completion expected in 2007. The delay was caused by the lengthy procedures involved in securing a land lease in Chingpu special economic zone near Shanghai. The US\$9m JV was established with the aim of producing 10,000 tpa of plastic compounds. (May 15, 2006)

**PPG** is expanding its presence in the Chinese architectural coatings market with the acquisition of certain assets of **Shanghai Sunpool Building Material Co**, and its associated companies, including **IDI International**, and a group of Shanghai-based businesses that manufacture and distribute coatings and building materials. The acquisition will include the "O'need" and "Kaleidoscope" brands as well as certain manufacturing assets at IDI's production facility and a network of warehouses throughout China. Xun Wang, who founded IDI in 1993, will join PPG as its managing director of architectural coatings in China. (May 8, 2006)

**Shanghai Gaoqiao Petrochemical**, a **Sinopec** subsidiary, plans to expand its production in the phenolic chain. After starting up a 200,000 tpa phenol/acetone plant at the Shanghai Chemical

Industry Park (SCIP) last year, the company plans to expand this capacity and produce downstream products such as methyl isobutyl ketone and more bisphenol-A. (May 15, 2006)

**Sichuan Meifeng Group**, a Chinese melamine producer, plans to triple its capacity by Q4 2007. It plans to start construction work on a 30,000 tpa unit at Zuning, Sichuan Province in Q4 2006. (March 20, 2006)

**SigmaKalon** has opened its new R&D Center in Kunshan, China. The R&D center, employing 28 professional chemists, will service SigmaKalon's Marine and Protective coatings business in Northern Asia. In 1998, SigmaKalon opened a dedicated protective and marine coating manufacturing plant in Kunshan. In Q2 2005, a second expansion to this plant was commissioned, upgrading its capacity to 35,000 tpa. (March 13, 2006)

**Taiyuan Qiaoyou Chemical Industrial** plans to build a 100,000 tpa maleic anhydride (MA) unit. The company is also planning to build a unit to process crude benzene into 160,000 tpa of pure benzene, which will be used as feedstock for the MA unit. Local technology will be used for the Rmb400m (US\$50m) project at Taiyuan, Shanxi Province, China. (April 24, 2006)

**Treatt**, the European flavour manufacturer, will open an office in Shanghai to expand its presence in the Chinese market. Scheduled to begin operation mid-2006, the firm's Shanghai office will support Treatt's existing sales and marketing efforts in the region and work alongside its current agent **Ter Chemicals Hong Kong** and its local distributor. China accounted for 3% to 4% of Givaudan's SF2.8bn (US\$1.8bn) revenue in 2005 but represents a significant opportunity for future growth, according to the company. (June 16, 2006)

**WR Grace** plans to open a technical services laboratory in Shanghai, China for its Grace Davison Discovery Sciences product group, to improve its ability to support life sciences R&D across Asia. (March 17, 2006)

**Yule Catto** subsidiary, **Holliday Pigments Ltd**, a manufacturer of ultramarine blue pigments, has announced the joint opening of its rep office with its parent company. Holliday Pigments is a part of the performance chemicals division of **Yule Catto**, an international specialty chemicals company. With more than 50% market share globally, Holliday Pigments' ultramarines are used extensively in the coloration of surface coatings, plastics, and cosmetics. (April 17, 2006)

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## India

**Asian Paints**, based in Mumbai, has commissioned a new manufacturing facility at Baddi in Himachal Pradesh through its wholly owned subsidiary, **Asian Paints Industrial Coatings Ltd (APICL)**. This is Asian Paints' first Greenfield facility commissioned exclusively for manufacturing powder coatings. The new facility is expected to cater to the growing demand for industrial powder coatings and will have initial capacity to produce 1,200m tpa. The total capacity will be scaled up to 5,000m tpa. The plant is Asian Paints' seventh paint manufacturing facility in the country and the second manufacturing facility for powder coatings. The other powder coating facility is located at Sarigam-Gujarat. (May 29, 2006)

**Ciba Specialty Chemicals** has formed a JV with India-based **Virchow Drugs**, a leading Indian pharmaceutical company based in Hyderabad, in an effort to expand its share of the growing cosmetics market in Asia and further improve its position in the region. Ciba will supply technology and expertise to upgrade the existing Virchow Triclosan manufacturing facilities. Triclosan is used

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in a variety of consumer and personal care products, primarily as a bacterial agent. (June 15, 2006)

**Filatex India** is planning an 180,000 tpa polycondensation plant, at Dadra in the Union Territory of Dadra & Nagar Haveli, to produce feedstock for its polyester business. The company also intends to increase its partially oriented yarn (POY) capacity by 54,000 tpa to 103,700 tpa. (March 20, 2006)

**Supreme Petrochem (SPL)** plans to expand further its styrenics business after recently acquiring a majority stake in **Shinbo Petrochemical India's (SHPIL)** expandable polystyrene (EPS) business. The company plans to double **SHPIL's** capacity in Chennai, India, from the current 6,000 tpa by Q1 2007. The company is also considering building a 100,000 tpa ABS plant in Maharashtra, by 2008, although it is currently still seeking partners and technology for this project. **SPL** currently operates three polystyrene (PS) lines at its Raigad complex with a total capacity of 272,000 tpa. It plans to boost its PS capacity, by adding a new 100,000 tpa line in 2007. (April 3, 2006)

**Tata Group** has purchased the outstanding 36.5% of UK-based **Brunner Mond** that it did not already own for Rup290m (US\$65m). The purchase of **Brunner Mond** makes **Tata Chemicals** the third largest soda ash producer in the world with combined capacity of 2m tpa. (March 13, 2006)

**DSM**, the Dutch industrial chemicals, performance materials and life sciences group, has agreed to sell its display coatings business to Japan's **JSR Corp.** The business, part of DSM's Netherlands-based **Desotech** subsidiary, consists of coatings used in the production of flat panel displays for protection, anti-reflection and related purposes. JSR will acquire patents and business rights to the business on a global basis, with related technologies. No physical assets are involved in the acquisition. Financial terms of the deal were not disclosed. The deal will result in a book gain for DSM of €10m (US\$12.2m) after tax. DSM Desotech has been cooperating with display coatings major JSR for some time through a 50/50 JV, **Japan Fine Coatings Co.** (March 27, 2006)

**Kuraray** plans to move its production base to Kamisu, Ibaraki Prefecture, where it will build a thermoplastic polyurethane (TPU) plant. Kuraray plans to close its existing production base, a 1,400 tpa TPU unit in Kurashiki, Okayama Prefecture, once the slated 2,000 tpa Kamisu plant goes onstream. Total investment for the project is ¥1.5bn (US\$13m). (April 17, 2006)

**Mitsui Chemicals** plans to increase its overseas production capacity for high-performance resins by 30%. It will invest ¥1.2bn (US\$11m) to raise the production of polypropylene compounds to 300,000 tpa from 237,000 tpa by May 2007. This increase will take place at five factories in the US, Mexico, China and Thailand, in response to demand from overseas Japanese car manufacturers. (June 5, 2006)

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## Japan

**AG International Chemical (AGIC)**, a subsidiary of **Mitsubishi Gas Chemical**, will complete a purified isophthalic acid (PIA) plant in Japan to meet growing regional demand by early 2008. The 100,000 tpa facility at Mizushima, Okayama prefecture, will compliment a 120,000 tpa plant on site. (May 22, 2006)

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## Korea

**Foster Wheeler** has won a basic engineering contract to build a 40,000 tpa butanediol (BDO) plant for **SK Corp** in Ulsan, South Korea. The basic engineering design is scheduled to be completed in Q4 2006. The contract was awarded to **Foster Wheeler** by **Invista Textiles (UK)**, an affiliate of the BDP process licensor. (May 22, 2006)

**Honam Petrochemical** and **Mitsubishi Rayon** could form a 50/50 JV, **Daesan MMA**, by the end of June 2006 for MMA and PMMA projects in South Korea. A 90,000 tpa MMA plant and a 40,000 tpa PMMA unit are planned to complete by 2009. (May 22, 2006)

**Lotte Daesan Petrochemical**, a 100% subsidiary of **Honam Petrochemical**, has selected **Univation Technologies** for its linear low-density polyethylene (lldPE) plant expansion. The company plans to expand the capacity of its 160,000 tpa lldPE plant in Daesan, Korea to 300,000 tpa to meet growing demand. (June 12, 2006)

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## Middle East

**Abu Dhabi National Oil Co** and Austria-based **AMI Agrolinz Melamine International GMBH** established a 60/40 JV to build a melamine plant in the UAE with installed capacity of 80,000 tpa. The new facility will be located in Al Ruwais about 250 km west of Abu Dhabi. Melamine is a specialty chemical used in a wide range of applications such as surfaces, adhesives and as a flame retardant. (May 1, 2006)

**Maire Tecnimont** has won a contract worth over US\$1bn to build a series of polymer plants at the Rabigh petrochemicals complex in Saudi Arabia. The units are expected to be completed by Q3 2008. The polypropylene, easy-processing polyethylene and linear low density polyethylene units will use **Sumitomo Chemical** technology. **Basell's** technology will be employed for the high density polyethylene unit and the butene-1 unit will use **Axen's** technology. (April 3, 2006)

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## Taiwan

**Chi Mei** is expanding its PMMA production in Tainan to 125,000 tpa with the construction of a 35,000 tpa unit, which will start up in Q3 2006. A 50,000 tpa PMMA plant at Zhenjiang, Jiangsu Province, will startup by Q4 2006. (May 15, 2006)

Taiwan's **Formosa Chemicals & Fibre Corp (FCFC)** will double the capacity of its 150,000 tpa acrylonitrile butadiene styrene plant in Ningbo, China by Q4 2006. The acrylonitrile, butadiene and styrene monomer feedstocks will be shipped from Taiwan to China. FCFC is to start up a 600,000 tpa SM plant at Mailiao, Taiwan, and a 120,000 tpa polystyrene unit at Ningbo in the second half of this year. The company also has a 120,000 tpa plant at Mailiao and a 240,000 tpa plant at Hsinkang. (May 15, 2006)

**Hopax Fine Chemicals** is to build new plant by Q3 2006 to raise its capacity of water-borne polyurethane (WBPU) additives by six folds in Kaohsiung, Taiwan. **Hopax's** WBPU hydrophilizing agents are broadly applied in various fields of CASE (coating, adhesive, sealant, and elastomers). By the end of 2006, **Hopax** will also introduce a new series of WBPU additives. (April 24, 2006)

**Nan Ya Plastics**, a unit of Taiwan's **Formosa Plastics Group**, will build its first maleic anhydride (MA) unit by 2008. Engineering design work has started on the 40,000 tpa unit in Mailiao, using **Mitsubishi Chemical's** technology. **Nan Ya** will also start up a 60,000 tpa 1,4-butanediol (BDO) unit in Mailiao in February 2007 also using technology from Mitsubishi Chemical. (June 12, 2006)

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## Vietnam

**Vietnam National Chemical (Vinachem)** is considering building a 60,000 tpa high-impact PS/general-purpose PS plant at the Dunq Quat special economic zone, and should make a decision in Q4 2006. The project's partners will be state-owned energy major **Vietnam Oil and Gas (PetroVietnam)** and **Vietnam Plastic (Vinaplast)**. (June 5, 2006)

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## ABOUT BDA

Business Development Asia is a corporate finance advisory firm which assists multinational companies in expanding their businesses in Asia through JVs, acquisitions and divestments. For further information on BDA's services or on any of the articles in this newsletter, please contact the offices below.

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