

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. The chemicals industry is booming in Asia and BDA has helped many companies like SigmaKalon to build their position in the market (see page 3).

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.

If you think that BDA's services may be useful to you, please contact us at any one of our offices or email me at erellie@bdallc.com. Contact details for our offices are at the back of this newsletter.

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China

Akzo Nobel will spend €250m (US\$336m) on building two chemicals plants at a new site in Ningbo. A 500,000 m² plot has been reserved in the Ningbo Chemical Industry Zone (NCIZ) for the facilities, to manufacture ethylene amines and chelating agents. The chelating agents plant will start up in 2009, followed by the ethylene amines plant in 2010. Akzo's subsidiary, Akzo Powder Coatings, has opened its fifth manufacturing plant in China. The new entity will be located in Chengdu, Sichuan province and will employ 33 people. (May 7, 2007)

BASF broke ground for two new plants in Pudong, Shanghai, to manufacture polyacrylate polymers and specialty chemicals for leather tanning. The facilities are expected to be completed in Q1 2008. The polyacrylate polymers plant will have capacity of at least 30,000 tpa. The plant for specialty chemicals for leather tanning will have a 12,000 tpa minimum capacity for products in liquid or powder form. BASF also inaugurated its polyisocyanate plant at the Shanghai Chemical Industrial Park in Caojing, which will serve the entire Asia Pacific market with 8,000 tpa capacity. (March 20, 2007)

BASF has opened the first polyamide and polybutylene terephthalate (PBT) compounding plant in China. With capacity of 45,000 tpa, the engineering plastics compounding plant is the first such facility in China and the fourth in Asia. With the new plant, BASF's total compounding capacity in Asia exceeds 100,000 tpa. (May 18, 2007)

Celanese (China) Holding will form a 50:50 JV with **Hebei Shield Technology**, a subsidiary of **Tianjin Shield Fine Chemical Company**, to manufacture, distribute and sell vinyl-based emulsion chemicals in China. The JV will construct a plant in Bazhou City, Hebei Province, with an initial capacity of 5,000 tpa. Commercial production is expected to begin by Q1 2008. (April 18, 2007)

Ciba has invested in a new facility in Qingdao. The facility will manufacture high performance pigments and additives and will become the regional HQ for the Coating Effects Division. Start-up is scheduled in Q1 2008. The investment will complement the R&D activities of Ciba in Shanghai as well as the pigment production in an existing facility in Qingdao. (March 7, 2007)

DuPont is considering building a global class titanium dioxide plant in Dongying, China. The project, estimated to require investment of US\$1bn, would be set up at the Economic Development Zone of Dongying. A decision on whether to pursue the project will be disclosed before July 2007. The facility would represent DuPont's biggest single investment outside the US, and is intended to cater to the plastics and paper markets in China. (March 31, 2007)

Hitachi Chemical (Suzhou) has begun production at its new unit producing photosensitive dry film for printed wiring boards. The company built the 50 million m²/year unit in Suzhou for ¥3bn (US\$25m) and started commercial operations in May 2007. Hitachi now has capacity to produce 150 million m²/year of the product in China. (May 8, 2007)

ICI has begun construction of a new 45,000 tpa specialty polymers and acrylic adhesives plant. The US\$20m facility will be built at Shanghai's Songjiang industrial development zone, with completion slated for H2 2007. The facility will cater to the packaging and decorative coatings sectors as well as the company's paints operations in China and **ICI Swire Paints**. It will also manufacture adhesives for high end tapes and labels. ICI also expects to complete a new emulsion polymerization facility, polymers plant and technical centre in 2008. (February 28, 2007)

Invista plans to build adiponitrile, hexamethylene diamine, nylon 6,6 polymer and specialty chemicals plants in Shanghai to be completed in 2010. The company has signed a LOI for the transfer of land use rights at SCIP (Shanghai Chemical Industry Park). Invista broke ground for a nylon 6,6 yarns plant in the Qingpu Industrial Zone at Shanghai which will manufacture a high-tenacity grade used to make airbags for cars. The plant is expected to start production by mid-2008. It will cost US\$50m and will have 11,000 tpa capacity. (May 11, 2007)

Jilin Petrochemical, a subsidiary of **PetroChina**, abandoned its JV polycarbonate and bisphenol-A projects with **GE Plastics**. PetroChina and GE Plastics had entered into a 51:49 JV agreement in May 2006 to build a world-scale polycarbonate resin plant near Jilin Petrochemical's complex in northern China. PetroChina also set aside its previous plans to construct a 250,000 tpa phenol-acetone plant at the complex. (March 16, 2007)

Lanxess opened a new plant in Shanghai, the Group's second inorganic pigments facility in China. The 20,000 tpa plant will supply raw materials for the production of inorganic pigments in Shanghai, which started in 1996. (April 30, 2007)

Lanxess is building a plant for the production of lubricant additives in Qingdao, China. The plant belongs to Lanxess' subsidiary, Rhein Chemie, and will come onstream in 4Q 2008 with 50 employees. Investment is forecast to be €5m to €7m (US\$7m to US\$10m). (April 10, 2007)

Lenzing has overtaken the Indian conglomerate **Adytia Birla (AVB)** to become the leading producer worldwide of viscose fibres. The group has brought online a 60,000 tpa plant at Nanjing, China and is building an 80,000 tpa plant near Mumbai, India, due online in 2010. Lenzing is to own a majority in both plants, each being built with local conglomerates, **Nanjing Chemical Fibre Co (NCFC)** in China and **Modi Fibers** in India, a subsidiary of **Modi**. Lenzing has 550,000 tpa capacity for viscose fibres, due to rise to 650,000 tpa in 2010. (April 30, 2007)

Nanjing No1 Pesticide Group, a subsidiary of the **Nanjing Redsun Group**, has acquired a 49% stake in its parent from the **Gaochun County**

State-owned Asset Management Holdings. The purchase by Nanjing No1 Pesticide, which is involved in the production and R&D of pesticides and their intermediates, will facilitate future growth. (March 16, 2007)

SigmaKalon has entered into a transaction to merge its Chinese Decorative business with **Shanghai IVY Chemical**, resulting in an 85% ownership by SigmaKalon in the merged entity, to be called **SigmaKalon IVY (Shanghai) Paints (SK IVY)**. SK IVY will make and sell decorative coatings in the Chinese market. *BDA acted as exclusive financial advisor to SigmaKalon from identification of the opportunity through to its execution.* (May 11, 2007)

Sika, the Swiss specialty chemicals firm, has opened a sixth plant in China to produce PU (polyurethane) adhesives, concrete admixtures and mortars. A newly set up warehouse at the site in Suzhou, Jiangsu province, will supply to the East of China. The operations in Suzhou are under Chinese management and will employ 150 people, less than 10 of them foreigners. Suzhou is also home to a Sika technology centre and its HQ in China. (March 15, 2007)

Tokuyama Corp will start up a dry silicon dioxide (silica) factory in China by year-end, raising its total capacity for the compound to 25,000 tpa, a 25% increase from the current level. By adding capacity, the company seeks to expand its global silica share to 15% from 10% today. The new factory, located in Zhejiang Province, will be Tokuyama's second silica plant. The other is in Japan. Construction of the factory is expected to cost US\$40m, US\$10m more than the 2005 estimate. (May 16, 2007)

Valspar announced that it has completed its investment in **Huarun Paints Holdings Company Limited**. Under the terms of the transaction, Valspar acquired an 80% interest in Huarun Paints from **Champion Regal Limited**, a Hong Kong based investment company, and certain other shareholders. Huaren Paint is China's leading domestic supplier of wood and furniture coatings and a rapidly growing supplier of architectural coatings. (May 18, 2007)

India

Asian Paints (Asian PPG) has tied up with Japanese paint company **DNT (Dai Nippon Toryo)** to sell to Japanese auto companies. Asian PPG sells limited quantities to **Honda Motors** in India. The company is also setting up its first facility in Sriperumbudur, to service Hyundai as well as tap the **Mahindra-Renault-Nissan** facility that is being built near Chennai and the Mahindra-Renault plant in Maharashtra. (May 13, 2007)

DSM Engineering Plastics held a ground-breaking ceremony for its new greenfield compounding site in Pune. The new site will triple the company's capacity for engineering plastics in India. The products in India include Stanyl PA46, a high-temperature polyamide and Arnite TPE thermoplastic elastomer as well as a range of specialty Akulon PA6 and Arnite PBT and PET resins. (April 1, 2007)

DuPont will spend US\$23m to set up a biotech R&D centre at Hyderabad, India. The Indian facility, to be named DuPont Knowledge Center, will specialize in designing biotech traits and technologies for use in crops. It is slated for completion in 2008. (March 21, 2007)

Lanxess is considering setting up a greenfield ion exchange resin manufacturing plant in India and is evaluating prospective acquisitions in Gujarat and West Bengal. The company has held discussions with the respective state industry departments. (March 30, 2007)

The Lenzing Group will build a new viscose fiber plant in India in cooperation with the **Indian Modi Group**. Capacity for textile and nonwoven viscose fibers of the first phase of the new Lenzing plant will be 80,000 tpa. Start-up is scheduled in 2010/11. (April 18, 2007)

Mitsui Chemicals plans to build five plants, in India and other emerging markets, by 2015 to boost its global production of resin used in automobiles, such as for bumpers and interiors. The investment

is expected to surpass ¥10bn (US\$83m), which will help the firm raise its capacity by 25% worldwide. With **Toyota Motor** and **Honda Motor** boosting overseas production, Mitsui plans to open manufacturing bases closer to major clients' production sites. Two factories will be built in India, with the first, a 15,000 tpa facility, to come onstream in 2009 near Delhi. The second plant is likely to be built in the south. (May 21, 2007)

Nippon Paint Group's Nippon Bee Chemical has entered into a 51:49 JV with **Berger Paints India** in Noida, northern India. The JV will make plastic coatings for vehicle dashboards and bumpers. (April 30, 2007)

Nova Chemicals Corp (NCX), a US-based plastics and petrochemicals major, is in advanced talks for a partnership with **Reliance Industries Ltd.** The tie-up is likely to include product swaps, infrastructure sharing and the joint exploration of business opportunities. The two companies may also later consider an equity partnership. (March 18, 2007)

Rohm and Haas and **Reliance Industries** have signed a memorandum of understanding (MoU) to build an acrylic acid and esters plants in India. The proposed 200,000 tpa acrylic acid and esters complex in Jamnagar will serve domestic market needs, but some output could also be exported. The companies did not disclose financial details or the start-up date. (March 22, 2007)

Sherwin-Williams will acquire Indian specialty paints and coatings maker **Nitco Paints**. The business to be acquired serves customers in western India, with sales of US\$18m. The transaction signals Sherwin-Williams' entry into India's paints and coatings market. (April 5, 2007)

Japan

Air Liquide, the French gases group, and its partner **Denka Group** are to invest €30m (US\$41m) to expand their monosilane unit in Japan

in response to growing global demand. The capacity at JV **Denal's** plant in Omi, 350 km from Tokyo, will increase to 500 tpa, and it will be operational by 2008. It will enable Air Liquide Electronics to cater to the growing demand in the US, Europe, and throughout Asia. Monosilane is a material used by semiconductor, flat panel display and photovoltaic industries. (May 8, 2007)

Hexa Chemical formed a 51:49 JV with **Hightech Chem**, a synthetic resins coloring/compounding company and a 100% subsidiary of **Sojitsu Placenet Corp.** Hexa Chemical aims to consolidate its compounding bases in west and east Japan, with Hightech Chem's operations becoming its basic plant in west Japan. The company has also announced it will expand its total compounding capacity from the current 12,000 tpa to 18,000 tpa in 2009. (May 10, 2007)

Honshu Chemical Industry Co will increase production of specialty bisphenols, for which Germany's **Bayer AG** is its primary customer, by 27%. The Japanese manufacturer will invest ¥1bn (US\$8.2m) at its Wakayama plant to increase output capacity by 160% to 2,600 tons a year. The expansion is expected to be completed by July. Combined with the 5,000 tons a year at **Hi-Bis GmbH** - a JV with **Mitsui & Co** and Bayer - Honshu Chemical will have a total annual capacity of 7,600 tons. Bayer buys 90% of the specialty bisphenols produced by Honshu Chemical, using it in reflective plates for automotive headlamps and other parts for which heat resistance is required. (April 10, 2007)

Lintec Corp is increasing production of protective film used in liquid crystal panels amid expectations of a sharp upturn in orders from main customer **Sumitomo Chemical**. The expansion will cost ¥3.2bn (US\$26m) and is expected to quadruple output to 4 million m² per month. Start-up will begin in October, with full operation in early 2008. The company will add a new building equipped with film adhesive coating equipment at its plant in Tatsuno, Hyogo Prefecture. The new facilities will be used almost exclusively to make the film. The width of the film will be increased more than 30% to 2,000mm to accommodate larger panels. (June 1, 2007)

Mitsui Chemicals will construct a plant to expand capacity for APEL, an amorphous cycloolefin copolymer used for information and electronic materials, including DVD recorder pick-up lenses and camera phone lenses. The plant will be established in Osaka Works with investment of ¥6bn (US\$50m). It will have capacity of 3,000 tpa and will commence commercial production in May 2008. (May 31, 2007)

Mitsui Chemicals and **Sumitomo Chemical** plan to increase OEL (organic electroluminescent)-panel-related businesses in anticipation of market expansion. **Sony Corp** has announced plans to begin sales of an OEL-based flat-panel television this year. Sumitomo aims to spend ¥5bn (US\$41m) and set up an OEL panel factory in Japan, with plans to begin production as early as 2008. The firm, which already makes a luminescent material used in OEL panels, hopes to tie up with an electronics manufacturer upon its entry into the OEL panel market. Mitsui Chemicals intends to invest several hundred million yen in an Osaka Prefecture production unit by 2008 and boost output of a luminescent material for OEL panels. (April 14, 2007)

Tohto Kasei Co will expand capacity for specialty resins used in printed circuit board materials by 66%. The wholly owned subsidiary of **Nippon Steel Chemical** will raise capacity at its Chiba plant to 7,000 tpa from the current 6,000 tpa. It will also install equipment that can turn out 3,000 tpa at its Kobe plant, boosting combined capacity at the plants to 10,000 tpa. The expansion will be completed by 2010 at a cost of ¥5bn (US\$41m). Capacity will be expanded for epoxy resins that contain no halogen compounds. The company aims to ship 8,000 tons of non-halogen epoxy resins in 2010, 2,000 tons more than in 2006. (April 11, 2007)

Japanese film and fibres producer **Toyobo** plans to build a new unit producing cast polypropylene (CPP) film for flat panel display (FPD) applications at its factory in Tsuruga, Fukui prefecture, for ¥2bn (US\$16m). The unit, with 4,000 tpa capacity, is scheduled to start production in Q3 2008. Demand for the protective film, or masking film, for FPD is

expected to continue to increase more than 10% a year with the growth in demand for flat-screen televisions. (May 9, 2007)

Sakata Inx Corp, a Japanese printing inks producer, has bought all shares of US ink jet printer developer **Innovative Solutions Inc** for an undisclosed sum, through its US subsidiary **Inx Group**. Sakata Inx will set up a new subsidiary named **Innovative Solution Inx Co** to take over the operations of Innovative Solutions. (April 3, 2007)

Sumitomo Bakelite Group has bought **Neopreg AG**, a Swiss firm specializing in long fibre reinforced epoxy and bismaleimide (BMI) compounds. Neopreg will retain its name and be combined with **Vyncolit NV**, a Sumitomo subsidiary in Gent, Belgium that manufactures mouldable composites. The company's Neonite epoxy moulding compounds are used in switches and contact terminals. (April 16, 2007)

Ube Industries will increase its polyimide film capacity to 41 million tpa from 26 million tpa by H2 2008 due to the expected rapid increase in demand for flat panel display (FPD) televisions. Ube will increase capacity at its plant in Ube, Yamaguchi prefecture by 5 million tpa by October 2007. The company is also building a new factory in Sakai, Osaka, with a polyimide capacity of 10 million tpa, which will be completed in H2 2008. (April 12, 2007)

Korea

Ebara-Udylite will establish its wholly owned subsidiary in Korea. The new company, **Ebara-Udylite (Korea)** will manufacture and distribute surface treatment chemicals and devices. Initial

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capital of W1bn (US\$1m) will be contributed by Ebara-Udylite. The company will start operating on August 1, 2007. (May 25, 2007)

ICI has agreed to buy the 30% it does not own in **Dongsung NSC**, a specialty adhesives maker, from **Dongsung Chemical** for US\$29m. The transaction is expected to be completed by H2 2007. Dongsung NSC supplies specialty adhesives to the footwear industry, and has established sales and manufacturing activities in Korea, Indonesia, Thailand, Vietnam, and Mexico, and China. (May 10, 2007)

Mitsui Chemicals will raise production of urethane material, methylene diphenyl diisocyanate (MDI), at a JV in Korea, doubling its capacity to 130,000 tpa by June 2009. The move comes in response to growing local demand for MDI for use in luxury car interiors and construction materials. More than ¥10bn (US\$82m) will be invested to boost the MDI capacity at a South Jeolla Province factory of **Kumho Mitsui Chemicals Inc**, a 50:50 JV of Mitsui Chemicals subsidiary **Mitsui Chemicals Polyurethanes Inc** and Korea **Kumho Petrochemical Co**. (April 14, 2007)

Samsung Total Petrochemicals plans to start up its new polypropylene (PP) plants in early September. Samsung Total will have an additional 300,000 tpa PP capacity in Daesan after the expansion, bringing total PP capacity to 700,000 tpa. The company's existing facility is producing yarn, injection moulding, film, impact co-polymer, and random co-polymer grades. The new plant will produce terpolymer and high-isotactic polypropylene (HIPP) grades. Over two-thirds of the new capacity will be exported to China, mainly to the converters. The company is a JV between **Total Petrochemicals** and the Samsung Group. (May 21, 2007)

Korea's **Songwon** has begun production at its new US\$120m antioxidant plant in Maeam. The 20,000 tpa facility, completed ahead of schedule, gives Songwon a total antioxidants capacity of 50,000 tpa, second only to Switzerland's Ciba Specialty Chemicals. The plant may reach full capacity in two years, depending on supply and demand conditions in the polyolefins markets. The plant

has capacity for another production line, which could more than double capacity to 45,000 tpa if activated. The unit is located close to its existing plant. (May 3, 2007)

SINGAPORE

ExxonMobil is planning to build its first specialty elastomers plant in Asia as part of its planned second multi-billion dollar petrochemicals complex in Singapore. The proposed new downstream plant at the Jurong Island complex will be significantly larger than ExxonMobil's plant in Baton Rouge, Louisiana, which produces 100,000 tpa of the specialty elastomers. ExxonMobil's move is part of the growing trend by petrochemical players here to move from basic commodity chemicals to higher-value specialty chemicals. (May 28, 2007)

TAIWAN

Air Products has expanded nitrous oxide (N₂O) capacity at its Nanke plant in Taiwan to support the semiconductor and thin film transistor-liquid crystal display (TFT-LCD) markets in Asia. The new capacity, which has been on-stream since Q1 2007, doubles N₂O capacity and produces high purity N₂O products to meet existing and potential customers' requirements. Air Products did not release the amount of the capacity expansion or its cost. (May 2, 2007)

THAILAND

Lion Corp of Japan plans to mass-produce methyl ester sulfonate, an environmentally friendly laundry detergent ingredient, in Malaysia starting from December 2008. The firm will initially spend ¥4.3bn

(US\$35m) to build capacity of 25,000 tpa in the southern state of Johor. Production will eventually be raised to 100,000 tpa by 2014. Investment is expected to total ¥10bn (US\$82m). MES is a detergent ingredient made from palm and coconut oils. The Malaysian operation is expected to be profitable by 2010. Lion is targeting sales of ¥10bn per annum. (June 1, 2007)

Vietnam

Sakata Inx Vietnam inaugurated an US\$8m factory and head office building in the Vietnam-Singapore Industrial Park in the southern province of Binh Duong. The new plant will produce 6,000 tpa of printing ink for corrugated box and flexible packaging films. The Japanese-invested company will sell 90% of the products in the country and the rest overseas. (April 19, 2007)

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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, divestments and capital raising. 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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