

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

ASIAN SPECIALTY CHEMICALS NEWSLETTER

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INTRODUCTION

Demand for Chinese dyes and pigments has substantially increased over the last three years. Major Western and Japanese manufacturers are investing in China, both through greenfield and local partnerships. We profile the China dyes and pigments market in this issue.

We hope you find *Asian Specialty Chemicals Newsletter* informative. BDA is a corporate finance advisory firm which helps clients to identify and to execute acquisitions and JVs in Asia. If you think that BDA's services may be useful to you, please contact us in New York at (212) 265-5300, Singapore at (65) 533-8500 or via e-mail at erellie@bdallc.com.

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CHINA/HK

Chevron Phillips Chemical of the US will increase its production capacity of polystyrene (PS) in China upwards of 100,000tpa by 2004. The PS plant in Shanghai, **Chevron Chemical (Zhangjiangang) Co Ltd**, was established in April 2000 and has an installed capacity of 100,000tpa. The decision results from rising demand of PS in China, fueled by electronics and appliance production that is being transplanted from Japan and western countries. (June 2, 2001)

Degussa AG of Germany will set up a holding company in China. **Degussa (China) Holding** aims to expand the company's operations in China, where Degussa generated US\$200m revenues in 2000. Degussa operates in more than 10 locations in China and employs over 700 people. It is represented in China by its feed additives, C4-chemistry, advanced fillers and pigments as well as construction chemicals additives. (June 2, 2001)

Degussa AG and **Nanning Only Time Pharmaceuticals Co Ltd** of China will establish a JV to produce pharmaceutical amino acids. The total investment will be US\$22m. The JV will manufacture and market amino acids for infusion, nutrition and pharmaceutical applications. The new plant is scheduled to commence operation in mid- 2003. (May 10, 2001)

INDIA

Borregaard of Norway is eyeing acquisitions and contract research opportunities in India. The company is negotiating with small and medium-sized chemical companies to acquire controlling stakes in them. Borregaard has already entered into alliances with local companies **Ipca Laboratories** and **Zandu Pharma** for contract research. The company also acquired a 15% equity stake in Hyderabad-based **Suven Pharmaceuticals** for Rup240 (US\$5.11) per share. (May 24, 2001)

Dead Sea Bromine of Israel, the world's largest manufacturer of bromine, will outsource manufacturing work to at least six Indian companies. Products will include specialty chemicals used in plastics, semi-conductors and paints. Dead Sea will supply raw materials and technology. (May 28, 2001)

Hercules Inc of the US will invest US\$3m to establish a new production facility and laboratory in Bangalore. The new facility will provide a complete range of specialty chemicals for the power, petrochemicals refinery and pulp and paper industries. (May 16, 2001)

The merger of **Indo Swiss Textile Chem** and **Pigment Specialties India** with **Ciba Specialty Chemicals India (Ciba)** was approved by the Mumbai High Court. Indo Swiss Textile Chem and Pigment Specialties India are both 100% subsidiaries of Ciba. (April 2, 2001)

Thirumalai Chemicals Ltd (Thirumalai) will enter the phthalic anhydride and maleic anhydride-based specialty chemical segment by producing phthalic anhydride and maleic anhydride. The company also proposed to restructure its debt structure. Thirumalai is facing price pressure from the other Indian producers and SE Asian manufacturers. (May 10, 2001)

INDONESIA

Mitsui Chemical of Japan plans to build a 10,000tpa acrylamide plant, adjacent to its existing 35,000tpa acrylamide plant in Merak, West Java. Construction is scheduled to commence in 2002 or 2003, with completion scheduled two years later. (May 18, 2001)

Petrowidada of Indonesia will postpone the construction of its third phthalic anhydride (PA) plant due to funding difficulties. The plant was scheduled to commence PA production in October 2001. Once completed, Petrowidada will be the largest PA producer in Southeast Asia. Petrowidada is 75.72% owned by public-listed **Eterindo Wahanatama**. Petrowidada has two other PA plants located at Gresik, Indonesia. One has a production capacity of 30,000tpa and the other 40,000tpa. They supply raw materials for plasticiser and specialty chemical plants operated by Eterindo Group companies Eterindo Buana Chemical Industry, Petronika and Eterindo Nusa Graha. (May 27, 2001)

JAPAN

Asahi Glass announced plans to expand its capacity for fluorochemicals in the US, shrink its soda ash capacity in Japan and expand capacities in Southeast Asia. The company has been acquiring specialty chemicals plants in the US while shrinking its commodity chemicals operations in Japan. (May 11, 2001)

Degussa AG of Germany plans to double revenues in Japan over the next three years through investments, acquisitions and JVs. **Degussa Japan**, its wholly owned Japanese subsidiary, will become both an operating and holding company by 2002. Degussa will base its growth on specialty chemicals, construction chemicals, nylon 12, copolymerised nylon, microfine anhydrous silica and feed additives. (April 18, 2001)

Itochu Fine Chemicals of Japan will focus on high margin products, predominantly specialty chemicals. Over the next four years, Itochu plans to increase net profits to ¥100bn, increase return on assets to 2.1% (currently 0.9%), reduce the debt/equity ratio to 350% (920%), and reduce total assets to ¥4,800bn (¥5,550bn) by Mar 31, 2003. (May 21, 2001)

Kanebo of Japan has established a sales partnership with **Ciba Specialty Chemicals (Ciba SC)** of Switzerland for its anti-microbials. The deal calls for both companies to distribute products under their names using their respective sales channels in Asia. Ciba SC will be the sole distributor of Kanebo's anti-microbials outside Asia using Ciba's brand name. (April 26, 2001)

The **Japanese Ministry of Economy, Trade and Industry (METI)** is drawing up a restructuring plan for the country's petrochemical industry. The aim is to encourage a shift towards specialty chemicals, thus boosting profitability and reducing exposure to market fluctuations. The Japanese petrochemical industry is witnessing a steady decline in demand for its traditional products. METI is also looking at ways to cut logistics costs for Japanese producers, which are currently some of the highest in the world. (May 21, 2001)

Sumitomo Mitsui Chemical (SMC), the operation that will arise from the merger of **Sumitomo Chemical** and **Mitsui Chemicals**, will comprise seven business units: petrochemicals, basic chemicals, speciality polymers, speciality chemicals, information technology and electronic materials, agchems, and drugs. The operations will be merged to create SMC at the end of March 2004. The polyolefin businesses will be combined to form **Sumitomo Mitsui Polyolefin (SMP)** on October 1, 2001. SMP will have initial sales of ¥250bn (US\$2.05bn), but sales of the combined polyolefins business will rise to ¥300bn (US\$2.46bn) in FY2004. The polyolefin merger will result in cost savings of ¥26bn (US\$212.9m) p.a. from FY2004. (April 26, 2001)

KOREA

LG Chemical has signed a global alliance agreement with **M. Dohmen GmbH** of Germany, where LG Chemical's dye business in Korea and its 75% share in **Tianjin LG Specialty Chemical** in China will be transferred to the German firm for US\$33.7m while acquiring a 49% stake in M. Dohmen in return. The deal is expected to give the partners a 4% share in the global market with annual revenues of approximately US\$140m. (May 23, 2001)

MALAYSIA

Eastman Chemical of the US, which has a 30,000tpa polyester facility in Kuantan, Malaysia, intends to expand its product range at the site. It will launch two new specialty copolyesters in 2001. Eastman Chemical considers the Asia Pacific region to be a key part of its business. The company has reported record sales of US\$5.3bn in 2000, US\$547m of which came from the Asia Pacific region. (June 7, 2001)

SINGAPORE

Mitsui Chemicals has completed plans for its delayed *Tafmer* alpha-olefin copolymers and ethylene propylene terpolymer (EPT) complex in Singapore which has been in development since September 1999. Mitsui Chemicals has established a new local subsidiary known as **Mitsui Elastomer Singapore** to implement the project. Development plans call for building a plant with installed production capacities of 100,000tpa of *Tafmer* and 40,000tpa of EPT. The new manufacturing base will be sited at Pulau Merbau, Singapore. (June 2, 2001)

TAIWAN

Ashland Specialty Chemicals of the US has established a subsidiary of its electronic chemicals division, **Ashland Taiwan** based in Hsinchu, Taiwan. The new company will sell photo-resist strippers produced by **Ashland-ACT** in the US, Taiwan and other Asian countries. It will also provide technical support. (April 23, 2001)

THAILAND

Mitsui Chemicals plans to build an acrylamide plant in Thailand for **Thai Mitsui Specialty Chemical**. The company expects an increase in demand for acrylamide. (May 11, 2001)

Shin-Etsu Chemical of Japan will commence operations of a 140,000tpa silicone plant in Map Ta Phut, Thailand, in 2003 in a JV with **GE Silicones**. The company is also increasing its chlorosilane capacity at Ehime, Japan, from 180,000tpa to 210,000tpa in 2002. The product is a precursor for silicone production. (May 24, 2001)

REGIONAL

Degussa AG declared its intention to expand in China and Asia. The company plans to increase its Asian revenues from current 12% to 25% of total revenues over the next three to five years. Management aims to achieve this through international growth in China and by firming partnerships and acquisitions. Investment in China is forecasted at US\$65m over the next two years. (May 9, 2001)

Heubach of Germany will further expand its inorganic pigment capacities in Asia. The company plans to construct a 20,000tpa iron oxide production

facility with an initial capacity of 10,000tpa. The facility will also be the site for further inorganic pigment production facilities. Heubach has a wide network of partners in China and operates an advanced organic pigments production facility in India. Heubach will relocate the organic pigments production of **Avecia** (formerly **ICI**) from Grangemouth, Scotland (UK) to India. (June 13, 2001)

Inabata and Co of Japan plans to strengthen its resin coloring and compounding operations in China, Thailand, Singapore and Indonesia in mid 2001. It will increase its capacity in Asia by 158,000tpa to anticipate the growing demand for colored compounds of engineering plastics in Asia. Capacity at **SIK**, Thailand, will be expanded to 4,300tpa and at **PT S-IK**, Indonesia, to 2,900tpa in April 2001. **Sanyo IK Color**, Singapore, expanded its capacity to 8,600tpa in April-May 2001 while **Sanyo-IK Color**, Hong Kong, China, will expand its capacity to 9,700tpa in May-August 2001. (May 10, 2001)

Ondeo Nalco, previously **Nalco Chemical Co**, of the French **Suez Group**, reported revenues of US\$2.4bn in 2000 with the Asia-Pacific region accounting for 13%. The company, through its Nalco Japan and Nalco Pacific divisions, is aiming for 15% annual growth in revenues and profits. This would double Asian sales to US\$600m within five years. The first phase of a new large-scale water treatment chemicals plant in South Korea is due to be on-stream in Q3 2001. (May 23, 2001)

FOCUS

Dyestuffs and Pigments in China

China is a major supplier of fine chemicals, producing more than 20,000 derivatives with a total output value of more than RMB120bn (US\$14bn) in FY00. Dyestuffs and pigments are a key subsector within fine chemicals. Demand for Chinese dyes and pigments has increased substantially in the last three years. Growth is being driven both by foreign and

domestic demand (from the building, textile, printing, coating, auto, electronics and plastics industries). Western and Japanese producers are beginning to invest in China by building new plants or via JVs with local producers.

(A) Dyestuffs

China produces a wide range of sulphur dyes, dispersion dyes, reducing dyes, acid dyes, active dyes, direct dyes, and ice dyes. The quality of local production is rapidly improving. China's dyestuff output is 180,000tpa, making it a leading producer in the global market. Half of the country's total output is exported, making China the world's number one exporter in Asia. Despite these positive trends, local products still tend to lack color variety as well as solubility, brightness and color sharpness.

China produces 33% of the world's dyestuffs, contributes 35% of world dyestuff exports and receives 20% of world dyestuff imports. In 2000, dye production was 12% higher than in 1999 at 315,000 tons. Exports were up 15% to 174,000 tons but the value of exports dropped by 2% to US\$464m due to low prices. (Source: BDA estimates, Japan Chemical Week Nov 2000).

Textile products that require high quality dyestuffs are one of China's major exports. China needs to import a large amount of dyestuffs to meet the demands of the textile market. The major imported dyes are active dyes, direct dyes and dispersion dyes. Production of dyes causes serious pollution. China's entry into the World Trade Organization is beginning to stimulate uptake of environmentally friendly and advanced production technologies, which are urgently needed by China's domestic market.

Chinese R&D will concentrate on dispersed dyes for ultra-fine fibres, high-grade organic dyes, azo cyclic compounds and intermediates, flame retardant for dyes and waterproofing agents.

(B) Pigments

Pigments include organic and inorganic varieties. The main varieties produced in China include lithophone,

titanium dioxide, iron oxide red, zinc oxide, lead tetraoxide and iron oxide yellow.

In 1998, the inorganic pigment output was 450,000 tons. Organic pigments output was 23,000 tons. By 2000, the output of inorganic and organic pigments had reached 734,000 tons. This represents a 55% increase over two years. [Source: BDA estimates, Chemical Business, May 21, 2001].

Inorganic pigment exports make up 45% of output. China was not (until recently) able to produce rutile titanium dioxide. Local production remains small, forcing it to import 50,000tpa -60,000tpa.

Organic pigments are dominated by phthalocyanine pigments, which account for 40% of total output. Locally-made low-grade pigments, such as phthalocyanine pigments and red pigments, are mainly exported. However, high-grade organic pigments are in high demand by the automotive, aviation, printing, coating and bank notes industries. To fulfill this demand, China imports the requisite organic pigments. The bulk of yellow organic pigments is also dependent on importing. As the chemical fiber, coating and electronics industries have become more developed, the demand for rutile titanium dioxide and high-grade titanium dioxide has increased. Yellow and red organics and intermediates (DCB) are needed to satisfy demand from the auto, aviation, printing ink, plastics, and coating industries.

(C) New developments

New developments will include increased use of compounding technology to aid production, development of matching assistants based on fiber types, development of environmentally friendly products and the substitution of traditional products by high tech assistants. Over the next five years, China plans to promote large-scale blue chip companies, remove uncompetitive small-scale companies, produce sulphur dyes in place of reactive pigments and emphasize environmental measures.

(D) Asian manufacturers active in China

(I) Shanghai Coking & Chemical Industrial Development Co

This company received technical approval for the use of carbon black as a hydro-anthroquinone medium-high pigment. Among the product's characteristics include high colouring ability, strong dispersion and stable colour. The facility has a capacity of 4,000tpa.

(II) Chongjing Jiangju Chemical Industrial Co

This company is a JV between Japan-based **Kikuchi Pigment Mfg Co** and **Chongqing Jiangnan Chemical Plant**. It manufactures inorganic chrome pigments, particularly chrome yellow pigments. This JV will manufacture 3,500tpa to address the increasing demand for yellow colorants to be used in Chinese tractor and engineering equipment coatings. Kikuchi is a major Japanese pigment producer, with production capability of 6,000tpa of yellow pigments. Jiangnan Chemical plant is a producer of chrome yellow pigments. It exports chromium-based inorganic pigments to Japan and the US. The JV expects to record exports of RMB8m (US\$1m) in FY00, an increase of 100% from FY99. It has the capacity to produce 3,500tpa of high-quality chromium-based inorganic pigments, with chrome yellow as its key product. Production reached 2,000 tons in 1999 and 3,000 tons in 2000. Management seeks to achieve RMB32m (US\$4m) in exports by 2005. (April 10, 2001).

(III) Zhuhai Skyhigh Chemicals Co Ltd.

The company is a share-holding limited company located in Zhuhai City, Guangdong Province. The company develops and produces performance organic pigments, colorants, chemical intermediates and specialty chemicals. The company has established itself as one of the leading organic pigment and specialty chemical producers in China.

(IV) Jinan Yuxin Chemical General Plant

This 15,000tpa rutile titanium dioxide pigment plant was set up in February 2000 at a cost of RMB337m (US\$41m). The plant is expected to achieve revenues of RMB270m (US\$33m) with a profit of RMB76m. (US\$9m).

(V) Changshu Pigment Chemical Plant

Founded in 1984, the facility produces organic pigments through two companies: **Changshu Jianqiao Fine Chemical Plant** (1990) and the sino-foreign JV **Co-star Chemical Co., Ltd.** (1998). The factory is located in Changshu, an economically developed city in the center of the Yangtze River Delta. The factory has a production capacity of 1,000tpa. Its organic pigment *Changsheng* is well recognized in the market.

(VI) Dainippon Ink and Chemicals Inc

The company plans to produce organic pigment and ink intermediates as materials used to make ink in China. The company will be spending ¥5bn (US\$40m) to build a new plant, operational by September 2002 in Jiangsu province. The new plant is expected to have initial production capacity of 2,500tpa of organic pigment and 4,500tpa of ink intermediates. Capacity at the plant will be raised to 10,000tpa of organic pigment and 9,000tpa of ink intermediates by 2010. Dainippon will set up a wholly owned company in Nantong, Jiangsu Province in July 2001, which will be capitalized at ¥2.4bn (US\$20m). (May 20, 2001)

(E) JVs with Western Companies

BASF has set up a metal complex dyestuff manufacturing facility in March 2001 as its colorants and chemicals plant in Shanghai, China. The facility will supply *Neozapon* products to the world market for non-textile dyestuffs and pigments for printing inks. *Neozapon* products are used in bicycle and furniture finishes as well as in wood staining. BASF also announced that it will set up **BASF Dyestuff and Chemical Industrial**, its first fully owned manufacturing venture in China. The 40,000tpa enterprise will be located in Shanghai Pudong New District. It will be BASF's second acrylic acid dispersion facility in China. The venture will produce products for a range of industries, including those for building, textile, papermaking and pressure-sensitive adhesives.

To submit stories to future editions of the *Asian Specialty Chemicals Newsletter* please contact Gesche Heinje on (44) 20-7655-3660 or via email at gheinje@bdallc.com.

Bayer Chemicals' production facilities in China include the following: a 20,000tpa iron oxide mixing and grinding plant in Shanghai. **Bayer Shanghai Pigments Co**, a plant for textile dyestuffs, is managed by Bayer's dyes JV, **Dystar**. In Wuxi, Bayer operates **Dystar Wuxi Colours Co**.

increased demand for azo pigments in Asia. Clariant's renewed investment in the Tianjin facility is a direct result of the rising azo pigments demand.

Tianjin Bohai Chemical Industrial Group announced in March 2001 that it will invest US\$9.5m in a 2,500tpa organic pigment plant to be owned by **Tianjin No. 8 Dyestuff & Chemical Plant** and **Clariant** of Switzerland. In 2000, Clariant's Pigments and Additives division recorded a 19% increase in EBIT to SF333m (US\$184m), aided by synergies between pigments and additives in key markets and

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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 and acquisitions. BDA helps clients to find local business and has senior advisors in Bangkok, Jakarta, Kuala Lumpur, Manila, Seoul, Shanghai, Taipei and Tokyo. For further information on BDA's services or on any of the articles in this newsletter, please contact Charles Maynard in New York, Euan Rellie in London, Andrew Huntley in Singapore, Simon Wu in Shanghai or Paul DiGiacomo in Hong Kong.

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