

ASIAN SPECIALTY CHEMICALS NEWSLETTER

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A Quarterly newsletter of developments in the chemicals industry

We hope you find the Asian Specialty Chemicals Newsletter informative.

BDA is an investment banking advisory firm which assists multinational clients to identify, assess and execute cross-border transactions involving Asia, including acquisitions, divestments, JVs, capital raising, and restructuring. We have offices and professional staff throughout Asia, the Middle East, 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. We look forward to speaking with you in the future.

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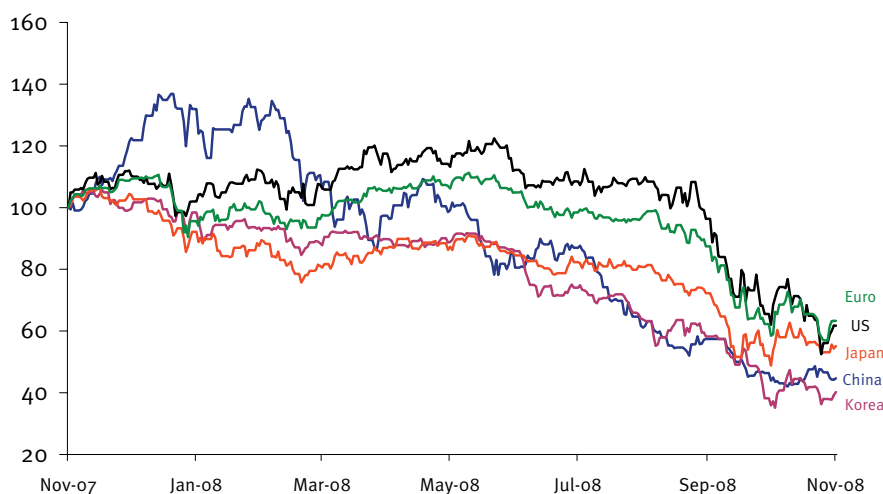
China

American Oriental Bioengineering Inc., an OTC NYSE listed, US-based manufacturer of pharmaceutical and healthcare products in China, has acquired **Nuo Hua Investment Company Ltd**, a Chinese pharma distributor, for US\$40m. American Oriental also acquired **GuangXi HuiKe R&D Co.**, a Chinese pharmaceuticals R&D and product development firm, for US\$14m.

October 21, 2008

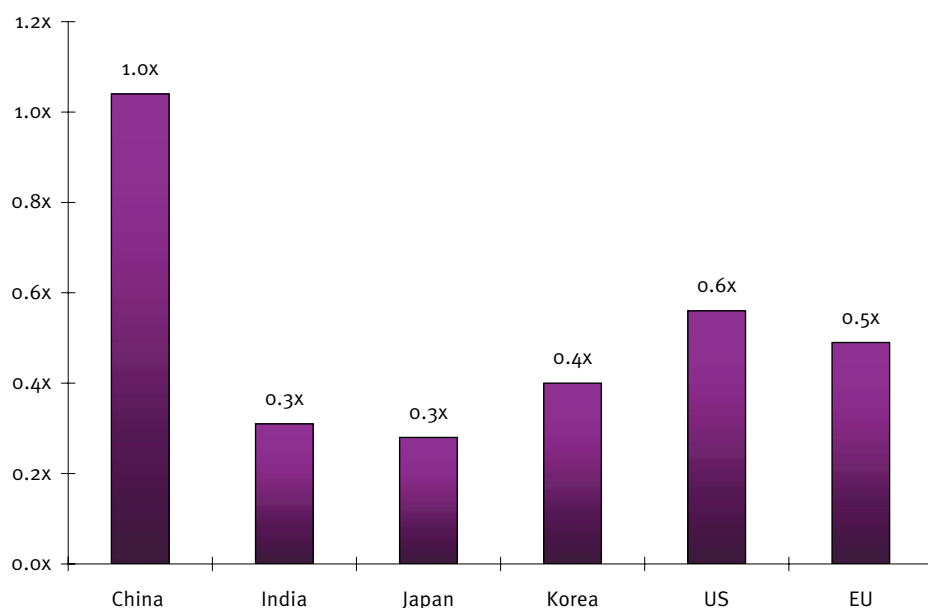
A year after the initial announcement, **Blackstone** has acquired 20% of **China National BlueStar**, a Chinese chemical new materials and specialty chemicals maker, for US\$600m. BlueStar is a subsidiary of **China National Chemical Corp**, the state-owned Chinese specialty

Chemical Sector Stock Indices (12 months ending Nov 2008)



Source: Bloomberg, BDA

Specialty Chemicals P/R Ratios (Dec 2008)



Source: Bloomberg, BDA

chemicals group. *October 10, 2008*

Borouge, an olefins and polyolefins maker based in Abu Dhabi, has signed a contract with **Enpro Supply Chain Management** to build a logistics hub for Borouge in the Nansha area of Guangzhou, China. Borouge is a JV between **Abu Dhabi National Oil Co**, one of the world's largest oil and gas companies, and **Borealis**, an Austrian plastic resin maker. *October 21, 2008*

China Biologic Products Inc, a Chinese plasma-based pharmaceutical company, will pay US\$28.5m for 90% of **Chongqing Dalin Biologic Technologies Co**. Dalin owns 54% of **Qianfeng Biological Products Co**, one of the largest plasma-

based biopharmaceutical companies in China. *October 2, 2008*

China Biologic Products Inc will acquire 35% of **Xi'an Huitian Blood Products Co**, a Xian-based biopharmaceutical company specializing in plasma collection, for US\$6.4m. *October 10, 2008*

Kingfa Science & Technology Co, a China-based modified plastic products manufacturer, has agreed to acquire **Mianyang East Oriental Special Engineering Plastics Co**, a Sichuan-based manufacturer of anticorrosive materials for buried steel pipelines, for US\$26.3m. Listed on the Shanghai Stock Exchange, Kingfa is engaged in the R&D, production and sale of modified plastic products

under five categories: flame retardant resins, reinforced and toughened resins, polymeric alloys, functional master batches and degradable plastics.

November 27, 2008

Linde Gas (Hong Kong), a subsidiary of German gases company **Linde AG**, and **Sinopec Fujian Petrochemical Co Ltd** (FPCL), a unit of Chinese petroleum group **Sinopec**, have established a 50:50 JV that will manufacture and supply industrial gases to customers in Fujian Province, China. The JV, named **Fujian Linde-FPCL Gases Co**, will be based at the Quangang Petrochemical Industrial Park in Fujian and will make argon, nitrogen and oxygen. FPCL and Linde Gas will invest US\$140m in the JV. *September 15, 2008*

Oxea, a German oxo products and olefin derivatives company, and **Chengxing Group**, a listed Chinese phosphorus chemicals manufacturer, will form a JV with Oxea as the majority shareholder. The JV, located in the Changzhou Yangtze River Chemical Industrial Park, will produce amines and other chemicals. Terms of the JV were not disclosed. *September 23, 2008*

PPG Industries, the US-based supplier of paints, coatings, chemicals, optical products, specialty materials, glass and fiber glass, has acquired the automotive refinish coatings business of **Bonny Coating-Made Co**, a Chinese based chemicals company. Terms were not disclosed. The acquired business will operate as an indirect subsidiary of PPG. *October 6, 2008*

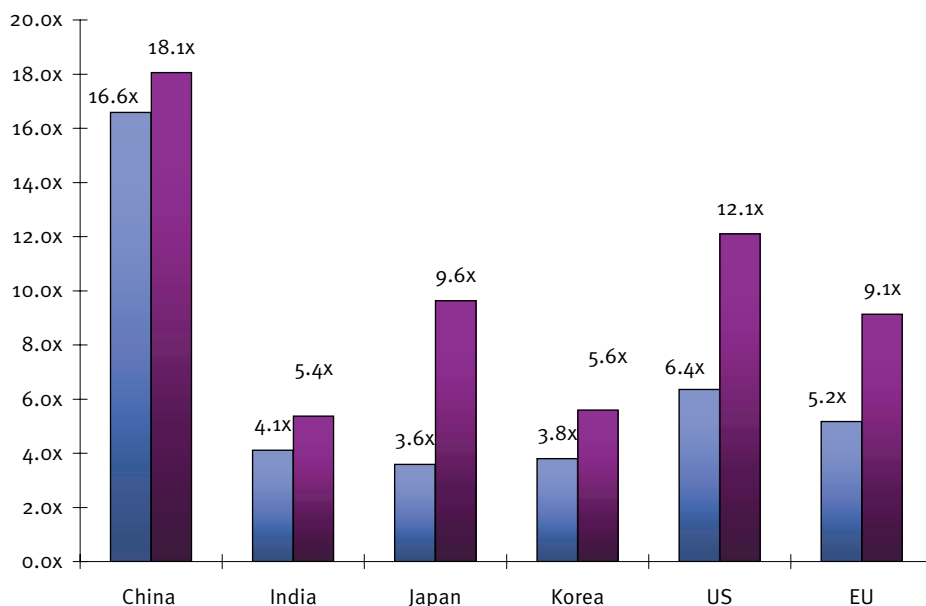
Showa Denko, a Japanese chemical engineering firm, plans to establish a JV in Zhejiang province to produce high-purity ammonia for the electronics industry. Showa Denko will own 51% of the JV, named **Zhejiang Quzhou Juhua Showa Electronic Chemical Materials**, and Chinese chemical firms **Zhejiang Juhua** (Quzhou) and **Zhejiang Jinju Chemical** (Quzhou) will hold 20% and 29% respectively. The plant will be operational in June 2009. Zhejiang Jinju Chemical will supply industrial ammonia as well as electricity and other utilities to the new plant, and the JV will use Showa Denko's purification technology for the production of high-purity ammonia. *November 21, 2008*

Sichuan Languang Industry Group, a Chinese manufacturing and trading company, will acquire 30% of **Sichuan Dikang Sci & Tech Pharmaceutical Industry Co**, a developer, manufacturer, and wholesaler of traditional Chinese medicines, for US\$47m. *September 30, 2008*

Sun Chemical Corp, a US-based producer of printing inks and pigments, and its Japanese parent **DIC Corp**, have formed a JV with **Lianyungang Haidi Chemicals Co**, a China-based pigment manufacturer. The JV company, **Lianyungang DIC Color Co**, will manufacture pigments and sell them through the sales network of DIC and Sun Chemical. Terms of the JV were not disclosed. *October 21, 2008*

Toray Industries Inc has formed a US\$75m, 50:50 JV with **China National**

Specialty Chemicals Trading Multiples for Selected Countries (Dec 2008)



Source: Bloomberg, BDA

BlueStar to produce water treatment membranes used for purifying industrial wastewater discharge. The new venture will erect a greenfield plant, which is expected to be operational in 2010. *November 25, 2008*

Wacker Chemie AG, a German producer of chemicals used in photovoltaics, electronics, pharmaceuticals and household products, and US-based **Dow Corning** have jointly established an integrated organosilicon production base in Zhangjiagang. The combined investment is US\$1.2bn. The combined capacity for siloxane and pyrogenic silica is expected to be 200,000 MT and the project is scheduled to reach full capacity in 2010. *November 18, 2008*

India

Akzo Nobel is building a coatings plant at its Hoskote premises in southwestern India as part of its strategy to increase the revenues it generates in India. Akzo Nobel has 1,500 employees, six production sites, two research and a dozen sales outlets in India. *November 12, 2008*

Dhabriya Agglomerates Pvt Ltd, an Indian PVC producer, has formed a 60:40 JV with Chinese chemical conglomerate **Dalian Shide Group** to set up a US\$20.4m PVC plant at Coimbatore in southern India. DAPL has plants in Bangalore, Chennai, Jaipur and Kolkata and has a

20% market share in the PVC doors and windows market in India. *November 28, 2008*

Gujarat government-owned companies **Gujarat Alkalies and Chemicals, Gujarat State Fertilizers and Chemicals** and **Gujarat Narmada Valley Fertilizers Co** will form a JV with an estimated investment of US\$600m to manufacture phenol, bisphenol and polycarbonate at Dahej. The proposed project would have capacity of 150,00 tpa of phenol, 20,000 tpa of bisphenol and 100,000 tpa of polycarbonate. *October 24, 2008*

Indian petroleum and natural gas companies **IndianOil** and **Gail India** will form a 50:50 petrochemical JV in Barauni, India. The firms will spend US\$2.5bn on the complex, which will be operational in 2014. The JV will have a design capacity of 900,000 tpa of ethylene and 500,000 tpa of propylene. The complex will include a mixed-feed cracker and facilities for making low-density polyethylene, linear low-density PE, polypropylene and ethylene glycol. *November 10, 2008*

Shree Renuka Sugars Ltd and **Hindustan Petroleum Corp** have formed a sugar JV in Maharashtra to produce ethanol. With an investment of US\$110m, the JV will include a 30MW co-generation power plant and will produce 200,000L of ethanol a day. *October 16, 2008*

Japan

Dutch chemicals group **Akzo Nobel NV**

has acquired the 25% it does not already own in its JV with **Nippon Paint**. Financial details of the deal were not disclosed. **Akzo Nobel Nippon Paint Holding**, which was set up in 1993, manufactures and sells coil coatings in Europe. *December 8, 2008*

Mitsubishi Rayon will purchase all the issued shares of **Lucite International Group**, a UK-based manufacturer of MMM (methyl methacrylate monomer), for US\$1.6bn. The acquisition of the entire 81.6% stake of majority shareholder **Charterhouse Capital Partners**, a UK investment fund, has been approved by Lucite's board of directors. The acquisition will lift Mitsubishi Rayon's sales to US\$6.5bn, making it the world's largest producer. *November 20, 2008*

Korea

Korea's **Tonen Specialty** has established a facility to manufacture battery separator films for the lithium-ion battery market. The investment amount was not disclosed. *October 10, 2008*

Kuwait

Kuwait Petroleum Corp (KPC) wants to reduce its portion of the cost of a planned petrochemical JV with **Dow Chemical** by US\$2bn, in the face of a global slump in chemical demand. This would reduce the deal value to US\$17bn from an originally planned US\$19bn.

Under the previous arrangement, KPC's Petrochemical Industries Co was to pay Dow US\$9.5bn to contribute five of the US company's units to the 50:50 JV. The JV will make chemicals used in a variety of products ranging from plastic bottles to agricultural compounds. *December 2, 2008*

Malaysia

Toyochem Corp Bhd received a conditional takeover offer from **Toyo Ink Manufacturing**, a Japanese manufacturer of commercial printing inks, color and media materials, polymer chemicals, and graphic arts supplies. Toyo Ink has offered to acquire the remaining 49% in Toyochem which it doesn't already own for US\$0.8 per share. Toyochem is a Malaysian company principally engaged in manufacturing and marketing of printing inks, printing supplies, printing chemicals and the provision of services to the graphic art industry. *November 28, 2008*

Pakistan

Engro Chemical Pakistan Ltd has expressed its interest in forming a JV with **FERPHOS**, the **National Iron Ore & Mining Company of Algeria**, to build a phosphatic fertilizer complex in Algeria. The complex will consist of one 3,000 metric tons per day unit of DAP, three 4,500 metric tons per day units of sulphuric acid, and three 1,500 metric

tons per day units of phosphoric acid. The complex is expected to be completed by 2012. *December 8, 2008*

Qatar

China Petroleum Jilin Chemical Engineering & Construction Co has signed a US\$17.4m deal with the **Hyundai Engineering and Construction Co** to build synthetic ammonia pipelines for a local power plant in Qatar. *November 21, 2008*

Singapore

Finland's **Neste Oil** has announced its US\$780m second-generation biodiesel plant in Singapore will come online in 2011. *November 12, 2008*

Tata Chemicals Asia Pacific Pte Ltd, a wholly-owned subsidiary of **Tata Chemicals Ltd**, the Indian manufacturer of inorganic chemicals, will invest US\$16.4m in **JOil (Singapore) Pte Ltd**,

a jatropha seedling company, for which it will receive a 35% equity interest. In addition, Tata Chemicals will receive exclusive marketing rights for JOil's Jatropha seedlings in India and East Africa, and a preferential price for seedlings. JOil, a Singapore-based JV of **Temasek Life Sciences Laboratory** and other investors in Singapore, has developed the technology to produce seedlings with standardized yield and consistent output. *November 25, 2008*

Thailand

Bangkok Synthetics Ltd, a Thai MTBE, Butene-1 and Butadiene maker, has acquired **Dow Reichhold Specialty Latex's** nitrile butadiene synthetic latex product recipes, equipment and technology, for an undisclosed consideration. Dow Reichhold, a JV between **Dow Chemical** and **Reichold**, previously announced the cessation of all business activities and closure of its facilities before the end of 2008. The assets purchased include

process equipment located in two Dow Reichhold plants in the US. Bangkok Synthetics will relocate the equipment to Thailand. *November 1, 2008*

Vietnam

Russia and **Vietnam** have signed an agreement to form a 50:50 fertilizer JV. The US\$1.5bn natural gas-based fertilizer complex will be constructed in Kalmykia, Russia. Construction of the JV, which will have the capacity to produce 850,000 tpa of ammonia and 750,000 tpa of nitrogen fertilizers, will start in 2009. The complex is scheduled to come online in 1H 2013. *November 17, 2008*

Selected Asian Specialty Chemicals Transactions with Multiples (12 months ending Nov 2008)

Announce Date	Target Name	Target Country	Acquirer Name	Acquirer Country	Deal Value	Acquisition Type	EV / EBITDA	EV / Revenue	P/E
16-Nov-08	Hempel-Hai Hong (China) Limited	HK	Hempel AS	Denmark	\$148.0	64% ACQ	N.A.	N.A.	7.6x
11-Nov-08	Lucite International Ltd	UK	Mitsubishi Rayon Co Ltd	JP	\$1,600.0	100% ACQ	7.1x	0.9x	N.A.
22-Jul-08	Cognis Oleochemicals Group	Malaysia	PTT Chemical International Private L	Thailand	\$164.0	50% ACQ	N.A.	0.4x	N.A.
21-May-08	TK Chemical Co Ltd	SK	North Asia Strategic (Singapore) Pte	SI	\$50.0	33.7% ACQ	1.9x	N.A.	N.A.
28-Apr-08	Deuchem Co Ltd	TW	Elementis Holdings Limited	UK	\$81.0	100% ACQ	7.2x	1.1x	11.0x
28-Mar-08	ICI India Ltd (Adhesive business)	IN	HENKEL AG & CO KGAA VORZUG	GE	\$65.2	DIV	N.A.	2.1x	N.A.
			Median		\$114.5		7.1x	1.0x	9.3x

Source: Mergermarket, BDA

Business Development Asia is an investment banking 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 listed.

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