Specialty Chemicals in China: Catalysts for Growth
## Contents

<table>
<thead>
<tr>
<th>Page</th>
<th>Section</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Key findings</td>
</tr>
<tr>
<td>3</td>
<td>Introduction</td>
</tr>
<tr>
<td>4</td>
<td>Industry overview</td>
</tr>
<tr>
<td>11</td>
<td>Key trends and challenges</td>
</tr>
<tr>
<td>19</td>
<td>Outlook</td>
</tr>
<tr>
<td>20</td>
<td>About KPMG</td>
</tr>
</tbody>
</table>
Acknowledgments

This report was researched and written principally by Andrew Thomson, Director, KPMG in China and Hong Kong SAR and Alexis Zirah, Manager in the Industrial Markets practice of KPMG in China and Hong Kong SAR.

We would also like to thank those industry executives who so generously contributed their time, knowledge, and insights to this report.
Key findings

- Driven by the expansion of the country’s manufacturing industry, China’s specialty chemicals sector will grow faster than the economy as a whole over the next several years. In some product categories, revenues may rise by up to 50 percent per annum.

- There are tens of thousands of chemical producers in China, but most are small and manufacture just one or two products. In the long term, the sector will not be able to support so many businesses, making eventual consolidation likely. In the shorter term, the sheer number of these businesses will keep the industry highly competitive, although it may not prevent prices for many lower-end products being highly volatile.

- Foreign companies occupy much of the higher end of the market. In the medium term, and maybe beyond, they are unlikely to see their dominance eroded to any sizeable degree due to their strengths in services and support — the principal source of added value in the sector.

- Stronger enforcement of existing environmental and other regulations reflects a growing concern on the part of the government to clean up the industry and improve health and safety standards. Compliance will be more of an issue for domestic companies than for foreign ones, which have built in higher standards from the start.

- The poor quality of infrastructure and logistics support remains a problem for supply chain management, although there are signs that the railway ministry and other organisations are looking to tackle some of the biggest shortcomings.

- China offers some potential for specialty chemicals research and development, although the emphasis is more likely to be on the development, application and customisation of products than basic research.

- Skill levels in China are increasing steadily. However, the relative numbers of qualified staff are still low. Finding and retaining the right people, as well as managing staff expectations are, and will remain, major issues for most businesses in China, including specialty chemicals companies.
Introduction

Specialty chemicals are going to play a key role in the development of China’s manufacturing industries over the next decade and beyond. To date, much of the country’s economic success has stemmed from taking full advantage of low-cost inputs of labour, land and in some cases raw materials. However, for China to continue developing strongly, manufacturers, especially domestic ones, are going to have to look at improving the quality and sophistication of their products, and the underlying processes by which they are made. It is here that specialty chemicals will play a key role.

Specialty chemicals are those additives and ingredients at the higher end of the chemicals value chain, which tend to be used in relatively small amounts on the basis of some performance-improving property, and which often require supporting services to ensure that their application produces the desired result. They comprise everything from dyestuffs and pigments, through the active ingredients in pharmaceuticals and cosmetics, to the materials used to produce integrated circuits and computer chips.

China is moving up the manufacturing value chain, but this process cannot happen overnight. At present, the specialty chemicals sector is relatively unregulated and fragmented. Many companies in the sector are privately owned and make just one or two products. With few barriers to entry at the lower end, every year, hundreds, possibly thousands of new businesses start up. In turn many close, or are forced to close by the government. Only a handful of these domestic companies have established names for themselves at the national level, or have contemplated investing overseas.

Looking at the multinational players, all of the major international chemicals companies have a manufacturing presence in one form or another in China and are approaching the market with relatively aggressive growth strategies. However, many are concerned by China’s weak supply chain and poor record of intellectual property protection.

Given both China’s continuing economic expansion, and in particular growing demands from the government to increase productivity and product quality, the general prospects for the sector are good. However, as this report makes clear, specialty chemicals is very much an industry in its early stages of development. A large-scale restructuring and consolidation of the industry would seem to be inevitable at some point; key intellectual property issues will have to be addressed to create the space for companies to move up the value chain, while stronger enforcement of environmental and safety regulations will be a particular challenge to domestic companies. On top of all these challenges, the difficulty in forecasting costs are making some foreign companies wonder whether they should rethink their longer-term investment plans. So while growth is assured for the sector, its size and nature will depend upon a range of variables, the most important of which will be the rate at which the industry consolidates and the degree to which environmental and intellectual property rules are enforced.
Industry overview

The global specialty chemicals market was worth around USD 485 billion in 2006, according to industry analysts SRI Consulting. The industry is dominated by sales in North America, Western Europe and Japan, with China occupying a distant fourth place (Figure 1), with around 8 percent of the total, worth some USD 39 billion.

![Figure 1: Global specialty chemicals industry (Market share, %)](image)

Source: SRI Consulting

What companies find exciting about China, however, is its growth. While Western Europe, North America and Japan are expected to see their specialty chemicals markets grow by about 3 percent annually between now and 2011, China’s will increase by 9 percent annually and as a result will see its global market share rise by more than 50 percent to approximately 12 percent. For any international company looking to establish or maintain a leading position worldwide, this means that China cannot be ignored.

Interviews conducted by KPMG for this report indicated that the demand in most industrial product segments is expanding by 10-30 percent a year, and for some specific products by up to 50 percent. Underlying this rise is the demand for more high value consumer and industrial products, many of which are ultimately destined for export.

The outlook for the market will be shaped by long-term costs trends for materials and labour, and by the ability of companies to overcome key challenges and risks, many of which are unique to China. “We underestimated the size and growth of the market when we first came to China, but we also underestimated how prices would change,” commented one European manager. So while the growth in demand was far higher than foreseen, the advantage of this was offset by an increase in output capacity that, in turn, pushed down prices.
China’s industry structure
Chinese companies produce a large range of commoditised chemicals such as vitamins and pharmaceutical inputs. Many international specialty chemicals companies have stopped producing these products because of their lower margins. However, growth in these areas is strong in China and may provide the foundation for the development of more specialised products in years to come.

One estimate of the size of the sector comes from California-based industry analysts SRI, which put total turnover in the sector at USD 38-39 billion in 2006, and its total number of companies at around 6,000. Other observers, however, estimate the size of the sector at more than 50,000 companies. As noted above, such a discrepancy in figures is largely a matter of definition. The vast majority of domestic companies are tiny firms producing usually one, sometimes two products, for consumption locally; almost all of these are lower-end products, supplied with either no or negligible supporting services — the source of most value in the industry. While their output may technically fall into the specialty category, the nature of their business has more in common with commodity producers.

Most of these businesses have been created to meet an immediate local need, and are built extremely cheaply, with comparatively little investment to meet safety or environmental standards. Factories cost a fraction of what a multinational business might expect to spend. Some of these new businesses are established by a research chemist looking to develop one or two specialties, but many others are nothing more than low-cost manufacturers offering to supply materials with few if any of the supporting services that multinationals see as the foundation of their specialties businesses.

A consequence of this is that, in almost every segment of the specialty chemicals sector, there is a divide between a domestic sector feeding the lower end of the market and a foreign-invested part supplying the higher end. For foreign companies, production in China has largely been developed to supply demand within the country, with sourcing from China being a relatively minor element of the business, except to buy commodity inputs for more sophisticated products.

Many domestic companies focus relentlessly on reducing costs — for example by looking to increase capacity — rather than investing in the development of product support services. As a result, margins in the sector, particularly for domestic companies, are likely to fall further. Only a consolidation of the industry and an emphasis on developing skills and processes aimed at delivering not just performance-improving products but the support in customising and effectively applying these products will see this trend reversed.
While active pharmaceutical ingredients represent the biggest single segment of the Chinese specialty chemicals sector (see Table 1), the domestic industry is particularly strong in the areas of textile chemicals and dyestuffs — unsurprising given China’s position as the world’s leading textiles producer. Exports are an important part of the synthetic dyestuffs segment, with more than one-third of the 700,000 or so tons produced a year sent abroad.

With China’s position in the world textile industry already well established, production of specialty chemicals for the sector will continue to rise, but at less than the rate of overall economic growth. SRI Consulting forecasts that textile chemical production will grow by around 7 percent in the next few years, and dyestuffs by only about half that rate.²

### Table 1: China’s leading specialty chemicals products

<table>
<thead>
<tr>
<th>Product</th>
<th>Sales revenues 2006 USD billion</th>
<th>Forecast annual growth 2006-11 %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Active pharmaceutical ingredients</td>
<td>5.0</td>
<td>10</td>
</tr>
<tr>
<td>Electronic chemicals</td>
<td>2.7</td>
<td>13</td>
</tr>
<tr>
<td>Pesticides</td>
<td>3.6</td>
<td>4</td>
</tr>
<tr>
<td>Construction chemicals</td>
<td>3.3</td>
<td>11</td>
</tr>
<tr>
<td>Specialty coatings</td>
<td>2.8</td>
<td>9</td>
</tr>
<tr>
<td>Specialty surfactants</td>
<td>2.3</td>
<td>15</td>
</tr>
<tr>
<td>Food additives</td>
<td>2.2</td>
<td>6</td>
</tr>
<tr>
<td>Flavours and fragrances</td>
<td>2.1</td>
<td>7</td>
</tr>
<tr>
<td>Plastics additives</td>
<td>1.8</td>
<td>11</td>
</tr>
<tr>
<td>Textile chemicals</td>
<td>1.7</td>
<td>7</td>
</tr>
<tr>
<td>Printing inks</td>
<td>1.4</td>
<td>6</td>
</tr>
<tr>
<td>Adhesives and sealants</td>
<td>1.4</td>
<td>11</td>
</tr>
<tr>
<td>Synthetic dyes</td>
<td>1.3</td>
<td>4</td>
</tr>
<tr>
<td>Cosmetic chemicals</td>
<td>1.0</td>
<td>7</td>
</tr>
<tr>
<td>Industrial and institutional cleaners</td>
<td>1.0</td>
<td>8</td>
</tr>
</tbody>
</table>

Source: SRI Consulting³

---

Specialty Chemicals in China: Catalysts for Growth

Active pharmaceutical ingredients (APIs)
Growth prospects in China’s pharmaceutical industry — where annual sales are currently around USD 12 billion⁵ — are promising, with the potential for growth of up to 20 percent annually.⁶ Most of the rise in domestic production is coming from increased manufacture of generic and non-branded drugs and vitamins, produced both to feed rising domestic demand and for export (APIs account for around half of all China’s medical exports). Domestic production is mostly of bulk and commodity products — including 50 percent of the world’s aspirin, 35 percent of its paracetamol and 70 percent of its penicillin. Foreign companies dominate the branded market in China, with their output largely produced in joint ventures with Chinese partners.

While the government is keen to encourage the development of the domestic pharmaceuticals sector, weak intellectual property protection and fierce price competition between companies making largely the same range of generic products has contributed to declining profitability in the last few years. This is making it hard for companies to afford or justify long-term investments in research and development. While various foreign companies in the sector have established research facilities in China, few domestic businesses have invested significantly in researching or developing new drugs.

Electronic chemicals
Developing the electronic chemicals sector is key for China’s electronic and semiconductor aspirations. Foreign companies remain the dominant businesses in the segment, with Germany’s BASF the single leading company since it bought the electronic chemicals arm of Merck in 2005. According to BASF, demand for chemicals used in the manufacture of integrated circuits is forecast to expand particularly strongly, growing by around 25 percent annually until the end of the decade.⁷

Construction chemicals
Much of the investment in China over the last decade has been channeled into real estate and construction. As a result, the construction chemicals sector has more than quadrupled in size since the mid-1990s. The main segments for growth are coatings, sealers, cement and asphalt additives and polymers used in flooring materials, according to industry research firm Freedonia.⁸

Specialty surfactants
Foreign companies, particularly France’s Rhodia and Cognis and Japan’s Kao, have a strong presence in China’s specialty surfactants segment. At the commodity end of the segment, however, domestic companies have found a niche partnering with international companies to reach global markets. In 2006, for example, Akzo Nobel formed a 50-50 joint venture with China’s leading specialty surfactants supplier, Zhangjiagang-based Feixiang chemicals, with the Dutch company becoming the exclusive distributor of Feixiang’s goods outside China.

“Competition is fierce between domestic companies — with increases in capacity being their typical response.”
A senior executive at a European specialty chemicals company

---

Plastics additives
The rapid expansion of China’s manufacturing industry over the last decade has seen the demand for plastics additives grow at well above China’s overall economic growth rate of 10 percent, and far above the 1-4 percent rates of North America, Western Europe and Japan. As with specialty chemicals in China in general, the segment is highly fragmented, with few domestic companies working across different categories of plastics additives.

Adhesives and sealants
China’s adhesives market, with a total output approaching 4.5 million tonnes a year, is growing by around 11 percent annually according to SRI, and a little higher according to government calculations. Foreign companies have been particularly active in the sector, with recent major investments including Lubrizol’s USD 40 million commitment to a plant at Songjiang in Shanghai to make printing related materials, and Sika of Switzerland earlier this year inaugurating its sixth plant in China in Suzhou. Sealants are seeing strong growth on the back of China’s heavy investment in construction.

Domestic players
 Barely a handful of domestic companies can be classified as large. Aside from subsidiaries of the country’s three oil giants (China National Petroleum Corp, Sinopec and China National Offshore Oil Corp), China National BlueStar (Group) Corp is the most well-known and practically the only one to have undertaken overseas purchases (see Table 2).

Although Chinese companies are growing, and likely will become stronger as the industry eventually consolidates, the process may take many years. To date, domestic companies have tended to integrate towards the upstream end of the value chain — looking to buy-up suppliers of their inputs in order to reduce and control their costs, rather than develop more sophisticated products and services and thereby raise margins.

Although foreign companies are shielded from this to some extent because of the different nature of their products, this has made for an industry where many more basic products show a high degree of price volatility. New capacity can send prices falling; companies respond by stopping production, which in turn can lead prices to rise as fast as they dropped.

China’s gradual development of intellectual property protection has proved a hindrance to the development of the domestic industry. “The IP issues just won’t go away,” said one Western specialty chemicals executive. “Chinese companies will only get more advanced equipment with better protection.” This reluctance to transfer technology contributes further to the tendency noted above of domestic companies expanding upstream rather than downstream.
Table 2: Some large Chinese specialty chemicals companies

<table>
<thead>
<tr>
<th>Name</th>
<th>Based</th>
<th>Main products</th>
</tr>
</thead>
<tbody>
<tr>
<td>China National BlueStar (Group) Corp</td>
<td>Beijing</td>
<td>Multiple</td>
</tr>
<tr>
<td>Dymatic Chemical Co</td>
<td>Foshan, Guangdong</td>
<td>Textile chemicals</td>
</tr>
<tr>
<td>Jiangsu Sopo Co</td>
<td>Zhenjiang, Jiangsu</td>
<td>Blowing agents</td>
</tr>
<tr>
<td>North China Pharmaceutical Co</td>
<td>Shijiazhuang, Hebei</td>
<td>Pharmaceuticals, feed additives, vitamins</td>
</tr>
<tr>
<td>Charna Chemical</td>
<td>Beijing</td>
<td>Fine chemicals, pharmaceuticals</td>
</tr>
<tr>
<td>Yaxing Chemical Co</td>
<td>Weifang, Shandong</td>
<td>Chlorinated polyethylene</td>
</tr>
<tr>
<td>Yibin Tianyuan</td>
<td>Yibin, Sichuan</td>
<td>Chlorinated polyethylene</td>
</tr>
</tbody>
</table>

Source: SRI

China National BlueStar (Group) Corporation

Among China’s plethora of specialty chemicals businesses, one company stands out by virtue of both its size and ambition — China National BlueStar (Group).

Founded in 1984 in the far northwestern city of Lanzhou as a private industrial cleaning company, BlueStar expanded rapidly through the 1980s and 1990s, as its president, Ren Jianxin, acquired chemical and other businesses. Such was the scale of its success that in 2004, the government approached Mr Ren to suggest he make the company an arm of state-owned China National Chemical Corporation (ChemChina), with himself at the helm of this newly formed giant.

Despite the merger, BlueStar has maintained a distinct and separate existence, itself running a host of subsidiaries in specialty chemicals, new materials and related industries. Now headquartered in Beijing, among its many businesses are Shenyang Chemical, China’s largest producer of paste PVC, fumed silica and chlorinated paraffin, and Blue Star Chemical Materials, the country’s largest producer of organic silicon, bisphenol A and colour developing agents.

With annual revenues now greater than RMB 30 billion, or around half the total of the whole ChemChina group, BlueStar is almost the only specialty chemicals company in China with the scope to expand overseas. In addition to running 25 chemical plants and four research and development institutes in China, it also operates 15 factories and seven R&D facilities at locations around the world. These include the plants of France’s Adisseo Group, a specialised animal feed business, and the organic silicon arm of Rhodia, another French specialty chemicals company, both of which it bought in 2006.

In mid-2007, US private equity firm Blackstone Group, itself the beneficiary of USD 3 billion of investment from the Chinese government when it floated itself in June, was reported to be planning to take a 30 percent stake in BlueStar for around USD 500 million. This news came amidst plans for BlueStar to list on the Hong Kong Stock Exchange to raise money for, among other things, further overseas purchases.

11 "BlueStar seeks overseas expansion for growth," China Daily, 10 August 2007
12 "Blackstone May Buy Three Listed Arms of BlueStar Group," SinoCast China Financial Watch, 21 August 2007
International specialty chemicals companies in China

All of the major international makers of specialty chemicals have a presence in China. Performance has been strong due to high and growing demand on the one hand, and relatively weak local competition on the other. This situation is likely to continue for at least the next several years.

Among the leading players are Germany’s BASF, Henkel, Degussa and Bayer, Akzo Nobel of the Netherlands, Switzerland’s Ciba Specialty Chemicals and Clariant, France’s Rhodia, and the US’s Dow, DuPont, Hercules and Huntsman. Each of these companies has multiple joint ventures or wholly owned enterprises in China, most of them set up since the mid-1990s.

For most of these companies, China has become a key component of their growth. In the first quarter of 2007, Clariant reported an increase in China revenues of 27 percent from the previous year, compared with 5 percent for its business overall.\(^\text{13}\) Ciba Specialty Chemicals is seeing a growth of around 20-30 percent annually, and expects the company to be its second biggest market by 2008.\(^\text{14}\)

With the growth of China’s industrial production encouraging companies to relocate factories from Europe or North America where manufacturing is in decline, international companies are increasingly looking at building plants for products they have traditionally imported.

For the most part, foreign companies have moved from working with joint venture operations to expanding their presence wherever possible with wholly owned operations. Investments, while typically measured in the tens of millions of dollars, can be larger in some sectors. The US’s Huntsman, for example, has investments totalling more then USD 1 billion directed at serving China’s textiles industry, reporting annual sales in the country of around USD 2 billion.\(^\text{15}\)

Companies with more diverse interests serving industries that are still emerging tend to have comparably smaller — though still sizeable — commitments. Dutch company Akzo Nobel reported China revenues of just under USD 890 million, with its investment in the country totalling USD 400 million.\(^\text{16}\)

While many of the other large specialty chemicals companies have similar sized investments, and share similar expectations that revenues from China will continue to grow considerably faster than elsewhere worldwide, there is also a shared feeling that the sector has yet to mature. This reflects the speed with which China has emerged as a manufacturing giant, and the challenges that have been thrown up as a result; be they in logistics, local competition, intellectual property protection, the commoditisation of previously valuable products, or the inconsistent application of rules and regulations.

Consequently, while everyone can foresee a major consolidation of the sector in China, no one knows when this will happen or how it will play out. “Change will be continuous,” says one former manager of an American chemicals company, remarking that even for foreign companies with strong technology and product ranges, the number of variables they will have to handle will make negotiating the challenges of the China business environment a major task.

\(^\text{13}\) Elsevier Engineering Information; “Clariant 1Q 2007: Key financial group figures,” 8 May 2007.
\(^\text{14}\) “Ciba develops in Shanghai: soaring sales mean China’s importance rises for additives firm,” Urethanes Technology, 1 December 2006.
\(^\text{15}\) Asia in Focus; “US co Huntsman to raise investment in China’s chemicals market,” 24 August 2006.
Key trends and challenges

China’s specialty chemicals sector is still at an early stage of its development. However, the rate at which demand for its products is growing, and the speed at which key industries dependent on its products — particularly textiles, automotive and high-tech manufacturing — are changing, mean that its evolution over the next several years is likely to be highly compressed.

One manager at a European specialty chemicals firm compares the structure of China’s industry, and the appearance of many of its factories, to Europe in the 1950s. However, changes which took place in Europe over 40 or 50 years are likely to happen within a decade in China.

The following are the key areas where change is likely to manifest itself:

Consolidation
The obvious logical step for such a fragmented industry is consolidation via mergers, acquisitions and closures. Some Chinese companies are buying stakes in each other, or starting to join forces to make complementary products. While in the long term, consolidation is inevitable, nobody expects this to happen fast — certainly not to a major extent within the next half decade. However, the government is encouraging moves in this direction with some closures of small-scale plants where there is a clear breach of environmental or safety regulations.

With demand still rising, financing being readily available, and local government support strong for operations officials see as contributing to economic growth in their local areas, there is little pressure on most businesses to merge or be forced into closure. Foreign companies report that a typical response when prices drop is for a local plant simply to halt production until the market strengthens.

Regulatory enforcement
As with many industries in China, a body of regulations has been built up to govern the specialty chemicals sector, including a host of environmental and safety measures. Enforcement, however, remains problematic, particularly at the local level. With demand for specialty chemicals so strong, officials in many locations are often keener to allow a plant to get up and running, rather than ensure it has all the necessary safety and environmental equipment in place. This is a factor that also serves to explain how it is possible for entrepreneurs to set up factories for a fraction of the price it would cost an international company.

Foreign companies acknowledge, however, that the situation is slowly improving. In richer areas, particularly in the lower Yangtze region around Shanghai, officials have been stepping up efforts to make businesses more “green” by getting them to relocate to special chemicals parks, points out a manager at a European specialty chemicals company. Also, in the long run, such measures should encourage the consolidation process, as domestic companies operating on the tightest of margins struggle to afford the installation of cleaning, safety and other equipment. All the same, it remains a common complaint with foreign companies.
that enforcement is inconsistent, with one set of rules for domestic businesses and another for international companies, and with Chinese rules often at variance with internationally accepted norms.

Logistics
While China’s transport industry has been transformed in the last decade, logistics deficiencies plague almost all industries, and pose particular challenges for the chemicals sector. The country’s road network is expanding, but road remains the least preferred way to move many types of chemicals. While trucking companies are growing fast both in number and size, almost all lack the capabilities to transport many types of chemicals.

Further adding to the headaches are central government regulations. While the motive behind such rules is sound — to increase safety in an industry where accidents can have devastating results — directives are often vaguely phrased, said a manager at a European specialty chemicals company. The outcome is that rules are applied inconsistently in different regions, and because they are not aligned with international practices, bringing materials into the country and then moving them to their final destination can involve additional or unforeseen bureaucracy.

Costs
Today, other factors are changing prices. Costs of land, factories, raw materials and labour have been rising in the last two years, with the result that the cost advantages of setting up and operating new plants in China have declined.

“A few years ago I would have thought that everything would be migrating here,” said an executive at an American chemicals company. “But I am less certain now — we’ve seen double digit growth in demand, but also for wages and raw materials.” Plant costs are also rising; just two years ago, building a new factory would have cost around 40 percent less than in a developed country; rising land and materials costs have reduced that differential to 20 percent, explained the same executive.

Mergers and acquisitions
Given the fragmented nature of the domestic specialty chemicals sector, and the fact that most Chinese companies produce basic products and have little market reach, only a limited number of companies present attractive targets for foreign companies. “We’re always looking, but we are so specialised it’s hard to find a company where we can realise synergies,” said an executive from a European coatings company.

There are, however, other reasons for acquisition. One is to gain access to sites — as regulations and zoning controls are tightened, finding prime sites near to key industrial districts is becoming increasingly difficult.
M&A issues in the chemicals industry in China

Any successful deal requires careful preparation, planning, performance and post-deal integration. It can prove challenging to identify acquisition targets in China that align with the buyer’s ideal acquisition criteria. Foreign investors need to be flexible in this regard as potential targets are likely to be relatively small and unfamiliar with the M&A process.

Decision-making within Chinese companies can be an onerous and time consuming process and the time to complete deals can vary greatly. Key considerations during the due diligence processes include:

- **Ensuring an investment is valued correctly** — Many domestic companies tend to rely on asset based valuation approaches rather than income or cash flow based; reaching consensus can be difficult. In addition, if the target is state-owned, a statutory valuation is compulsory. (See “Monitoring the statutory valuation process” on page 14)

- **Evaluation of the company’s tax position** — Unidentified tax liabilities can prove costly. If they are picked up in due diligence they can significantly alter deal negotiations.

- **Assessment of liability regarding legacy issues** — Although investors may opt for an asset deal to minimise legacy issues, the direct acquisition process may be simpler to execute if the acquirer is satisfied that it fully understands the risks involved.

- **Post-deal integration** — As with in most industries in China, integration is challenging. Speed and rigorous project management are critical. A well-prepared business and integration plan can avoid integration issues. Measures planned well in advance need to be put in practice immediately after the deal.
There are opportunities for acquisition, but you need a disciplined approach as many companies operate in an ‘entrepreneurial’ way, making it difficult to measure what they are doing in a way we can support."

A senior executive at an American specialty chemicals company

Monitoring the statutory valuation process

When state-owned assets change hands, for example, when a state-owned enterprise enters into a joint venture with a foreign company or when there is any change in the equity structure of an existing Sino-foreign joint venture, the asset contribution or net worth of the company is subject to a statutory valuation according to regulatory requirements in the PRC. It is essential that foreign chemicals companies investing in China understand the Chinese statutory valuation process.

PRC statutory valuations

Statutory valuations can only be performed by government approved asset valuations firms (a "local valuer"). In performing the valuation, local valuers are required to follow the rules and regulations issued by the State Council and/or its designated authorities.

Valuations reports issued by the local valuers are submitted to the state-owned Assets Administration Bureau for review and formal endorsement. Theoretically, it is only after this endorsement is obtained that the Chinese party can commence negotiations with the foreign party. Once valuations are endorsed by the Bureau, it is very difficult to have them altered. Transactions will not be approved by the relevant authorities if the negotiated purchase price differs significantly from the endorsed valuation report.

It is therefore advisable for the foreign party to be involved in the valuation process to the finalisation of the statutory valuation report and to be well informed of its progress. In practice, the negotiations are an integral part of the statutory valuation process.

KPMG has developed a methodology to assist chemicals companies understand and deal with China’s statutory valuation requirements.
Outbound investment
The domestic industry is principally domestically focused — unsurprising, given that China is the fastest area of growth worldwide.

There have been some overseas purchases. China National BlueStar Corp agreed to buy a silicone plant in the French city of Lyon from France’s Rhodia in October 2006. No price was announced for the purchase, but reports valued the company at around 400 million euros.17 Earlier in 2006, BlueStar had bought another French company, Adisseo Group, the world’s second largest producer of methionine, a poultry feed supplement.18 Such deals, however, remain more the exception than the norm, due to the small size of most domestic specialty chemicals companies. However, as domestic companies look to enhance the quality of their products, acquiring technologies and greater services know-how is likely to be done primarily through acquisitions rather than organic growth, with businesses looking to move up the value chain step by step.

Research and development
Few foreign specialty companies have yet to approach China as a major centre for their research and development. The domestic sector’s commodity orientation has led to local companies investing little in research that foreign companies could buy or license, and so there is a case of specialist researchers focused on specialty chemicals.

Those R&D centres that have opened focus primarily on developing or customising products for the China market, tailoring them to suit local conditions and needs. Many of these facilities are small, with around 50 scientists or researchers working in them. For example, in 2005 DuPont established a research centre focused on developing tailored products for the China market.19

In the long run, the body of researchers being produced by universities and technical schools should allow China to develop a significant research presence; a priority for enabling this, however, will be stronger intellectual property protection.

Taxation
• New unified enterprise income tax — The National People’s Congress (NPC) passed a new unified enterprise income tax law in March 2007. The new law will take effect on 1 January 2008. The new law seeks to unify the application scope, tax rate, tax deductions, and preferential tax policies for both foreign-invested enterprises (FIEs) and domestic enterprises. Foreign specialty chemicals companies that intend to invest in China need to take into consideration the potential impact of the significant changes to income tax law on their future investments or mergers and acquisitions in China. Additionally, FIEs operating in China need to consider the tax implications of the changes and re-visit their tax planning strategies.

18 “China’s BlueStar signs a deal to acquire French Adisseo Group”, People’s Daily Online, 20 January 2006.
R&D taxation — A large number of international specialty chemicals companies have established R&D centres in China to develop products tailored to the Chinese market and provide technical support. A foreign invested R&D centre can take the forms of a joint venture (equity or co-operative), a wholly foreign-owned enterprise of a branch or an international division of a legal PRC entity with at least 25% foreign investment (FIE), including a PRC holding company in China. Each model must be considered thoroughly as they present different tax and other benefits.

Transfer pricing — Transfer pricing continues to be one of the most important tax issues faced by specialty chemicals companies in China. The Chinese tax authorities now require more thorough documentation related to transfer pricing activities and have increased the number of audits. Additionally, increase in cross border transactions, creates a new set of challenges including the migration of tangible property, plant or the licensing of intellectual property. Transfer pricing continues to be a fundamental issue that needs to be addressed and managed effectively by specialty chemicals companies in China.

Finding and retaining the right people
As with most companies operating in China, finding and retaining staff are major challenges for specialty chemicals companies. China presents some major human resources issues. Although the number of graduates is increasing every year, most students have not developed the necessary skills and qualities, especially required by foreign companies.

Given the highly specific skills and capabilities needed in the sector, competition to recruit qualified staff with the desirable qualifications and experience is acute. Staff poaching by competitors, managing staff expectations, or salary inflation are some of the daunting human resources issues for the industry players. Even locating lesser skilled staff is getting harder, with labour costs far higher than five years ago.

Intellectual property
Strengthening intellectual property (IP) protection remains a key issue for foreign companies, many of which remain reluctant to transfer technology or know-how to China for fear of seeing it leaking into the hands of local competitors. At the same time, however, Chinese companies are increasingly in need of more advanced equipment in order to strengthen their competitive positions vis-a-vis each other, pointing towards themselves becoming a force for improved IP enforcement. The turning point is likely to come when companies start to abandon their focus on the commodity end of the market, suggests one specialty chemicals executive.

Environmental issues
Environmental concerns have moved steadily up the agenda at chemicals plants in China over the last few years — both because of the potential costs to human health and safety, and increasing awareness of the environment’s role in relation to sustaining the country’s economic growth.
Health and safety risks were highlighted recently, for example, when significant leaks and accidents occurred in both North-eastern and Western China. In the Northeast, a spillage of benzene into the Songhua river in late 2005 led to severe pollution of drinking water, while a chlorine leak in the Western province of Ningxia in July 2006 led to 160 people being hospitalised.

At the same time, in a statement made at a press conference to release a government white paper on environmental protection, Zhu Guangyao, a Deputy Director of China’s State Environmental Protection Administration (SEPA), has estimated that environmental pollution may be costing China up to 10 percent of GDP.

The fact that environmental issues are widespread and challenging in the chemicals sector is widely recognised and largely undisputed. In July 2006, after reviewing 7,555 chemical plants across China, SEPA announced that 45 percent of them posed an environmental threat. It ordered 3,745 of them to increase safety measures and 49 plants to relocate.

As awareness of the issues is raised, companies are finding it harder to locate new plants within urban areas, and many of them are being directed towards, or choosing to relocate in specialty chemicals parks outside of cities. Western companies also report that officials, especially in the wealthier parts of the country, have stepped up environmental inspections and monitoring over the last 18 months.

Such pressure to increase environmental monitoring is also coming from outside China. The European Union’s Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) regulations, which came into force in June 2007, require that all imports into Europe of more than 1 tonne of chemicals be registered with the EU Chemicals Agency. To comply, importers must identify appropriate risk management measures and procedures for each material, which will increase the pressure on low-end manufacturers that may attempt to ‘cut corners’ to keep costs down.

China is also developing its own measures to encourage companies to clean up their businesses. In August 2007, for example, SEPA stated that financial disincentives to curb growth in chemical and other high polluting industries would include it being granted powers to assess the environmental performance of companies seeking to list on China’s stock markets. It also stated that it was working with the country’s Insurance Regulatory Commission to make it mandatory for all chemicals and other industrial companies to have environmental accident insurance.

---

22 “Pollution costs equal 10% of China’s GDP” Shanghai Daily, 6 June 2006; available at: http://www.chinadaily.com.cn/china/2006-06/06/content_609350.htm
Is your business ready for REACH?

REACH (Registration, Evaluation and Authorisation of Chemicals) is a new European Union (EU) directive, which requires chemical manufacturers and importers in the EU to prove the safety of their products. This new regulation took effect on June 1, 2007 and is expected to have far-reaching effects on chemical suppliers in Europe and beyond.

All substances need to be pre-registered within eighteen months of 1 June 2007. For substances that are brought to the market in volumes over 1,000 tonnes and for substances of very high concern, the registration deadline is three and a half years after REACH came into force. From producer to retailer, all parties in the supply chain need to demonstrate that certain chemicals are properly registered.

The European Union is one of China’s largest trading partners, with rapid annual growth in bilateral trade volume, particularly in the markets for chemical products. Statistics from China’s General Administration of Quality Supervision Inspection and Quarantine (GAQSIQ) show that China’s exports to the European market may fall USD 4.8 billion if chemical substances and relevant products manufactured in China fail to meet the new REACH requirements.24 REACH’s requirements are critical, in terms of the ability of China-made chemicals to access the EU market. The regulation has been regarded as one of the largest technical barriers to trade that Chinese companies have ever faced. The China Chamber of Commerce of Metals, Minerals and Chemicals Importers and Exporters (CCCMC) estimates that about 5 million kinds of products will be impacted by REACH.24 The Ministry of Commerce is cooperating with domestic industrial associations to provide consultation and training services for domestic enterprises. The country has also established 10 laboratories in import-intensive regions to test chemical substances for potential dangers to health and the environment and to maximise compliance. The Ministry is also in talks with the EU about establishing registration agencies in Europe to facilitate the process for Chinese exporters of chemicals to Europe.

Chinese enterprises must make adequate REACH preparations early, as the new directive can affect the continuity of business operations as well as the tax, finance, legal, IT and environmental/Health Safety and Environment (HSE) departments.

KPMG member firms have been actively advising companies and European government agencies in preparing for compliance with REACH requirements.

24 Companies still not aware of EU rules, China Daily, 8 June 2007.
China’s specialty chemicals sector remains at a relatively early stage of development. Continuing growth in demand will see more entrants attracted to the sector, which may in turn delay consolidation, at least between now and the end of the decade. There is a risk that this will deter the kind of investments that are necessary to allow companies to move up the value chain.

For domestic companies, one key strategy for moving up the value chain is to tie up with a foreign partner. In some instances this is happening — as with Akzo Nobel’s joint venture with Feixiang — but, in general, foreign companies prefer to develop wholly-owned operations.

Acquisitions are another possible route, but with most companies extremely small, buying companies in China remains difficult, while overseas purchases are only viable for the very biggest domestic companies, such as BlueStar or the specialty subsidiaries of China’s three oil majors.

The government’s largely hands-off approach to the sector means that official encouragement for consolidation remains limited, with the exception of a handful of sectors it has earmarked for special attention. China’s semiconductor aspirations, for example, have seen encouragement for specialty materials businesses to be set up in Leshan in Sichuan Province, the centre of the country’s silicon production.

Other sectors, including the biggest, active pharmaceutical ingredients, are likely to see continued fierce competition based almost solely on price, with the goal of most businesses being to increase market share of the commodity and generic materials they produce, rather than investing in research to produce new ingredients or applications.

Stricter enforcement of environmental and intellectual property laws will help eventual moves both towards greater spending on research, and the consolidation of the sector into fewer, larger and more efficient producers. However, putting the bureaucratic machinery in place to realise this will take time, especially where buy-in from local officials is needed.

Another factor that will have an impact is improved logistics services and transport infrastructure. As companies find themselves able to extend their market reach beyond the local customers most of them now serve, pressure will increase on the less efficient businesses to close or sell out.

For foreign companies, the short to medium-term prospects are good. Almost all of the major specialty producers are expanding their plants and making new investments, both in production and, to a lesser extent in the development and application of new and existing products. While they find themselves under pricing pressure at the lower end of the market, their proprietary technologies and products allow them to maintain margins and see considerable growth at the higher end.
KPMG is a global network of professional firms providing Audit, Tax, and Advisory services. We operate in 148 countries and have more than 113,000 professionals working in member firms around the world.

KPMG in China and Hong Kong SAR
In 1992, KPMG was the first international accounting firm to be granted a joint venture licence in China, and our Hong Kong operations have been established for over 60 years. This early commitment to the China market, together with our unwavering focus on quality, has been the foundation for accumulated industry experience that is difficult to rival.

With our expanding number of offices and more than 7,000 professionals, our single management structure across China and Hong Kong SAR allows efficient and rapid allocation of resources wherever you are located. We have the largest audit market share, by market capitalisation, of the top 100 Hong Kong listed companies.25

Industrial Markets
KPMG is organised by industry lines of business across our member firms to provide in-depth industry knowledge and professionals highly experienced in their sector. We are committed to providing quality services to our clients. Our Industrial Markets line of business has a global network comprising the major practices around the world. This network gives us the ability to provide consistent services to our clients, share best practice and provide thought leadership, while always maintaining a strong knowledge of local issues and markets.

KPMG’s Chemicals Practice
Through its member firms, KPMG has invested extensively in developing an experienced chemicals industry team with over 1,000 professionals. Our understanding of the industry is both current and forward looking, thanks to global experience, knowledge sharing, industry training, and use of professionals with direct experience in the chemicals industry.

KPMG member firms serve the market leaders within the chemicals sector. The member firms provide audit services to over 30 percent of the companies in the Chemical Week list of the world’s 140 largest chemicals companies, and are a major provider of other services to many more. Our strengths lie in our professionals, and their knowledge and experience gathered from working with our member firms’ large and diverse client base. Our industry experience helps our team understand both your business priorities and the strategic issues facing your company.

KPMG’s presence in many major international markets, combined with our industry knowledge, positions us well to assist you in recognising and benefiting from opportunities, as well as implementing change.

Contact us

Please contact a KPMG member firm for more information.

KPMG in China and Hong Kong SAR

Nelson Fung
Partner in Charge
Industrial Markets
China and Hong Kong SAR
Tel: +86 (21) 2212 2801
e-Mail: nelson.fung@kpmg.com.cn

Norbert Meyring
Head of Industrial Markets, Shanghai
Asia Pacific Chair, Chemicals
Tel: +86 (21) 2212 2707
e-Mail: norbert.meyring@kpmg.com.cn

Melvin Guen
Head of Industrial Markets, Beijing
Tel: +86 (10) 8508 7019
e-Mail: melvin.guen@kpmg.com.cn

Ronald Sze
Head of Industrial Markets, Guangzhou
Shenzhen and Macau
Tel: +86 (20) 2547 1063
e-Mail: ronald.sze@kpmg.com.cn

Andrew Thomson
China and Hong Kong Executive
Industrial Markets
Tel: +86 (21) 2212 2877
e-Mail: andrew.thomson@kpmg.com.cn

Paul Brough
Head of Financial Advisory Services
China and Hong Kong SAR
Tel: +852 3121 9800
e-Mail: paul.brough@kpmg.com.hk

Lloyd Deverall
Head of Tax
China and Hong Kong SAR
Tel: +852 2826 7295
e-Mail: lloyd.deverall@kpmg.com.hk

Stephen Lee
Head of Risk Advisory Services
China and Hong Kong SAR
Tel: +852 2826 7267
e-Mail: stephen.lee@kpmg.com.cn

Thomas Stanley
Head of Commercial Due Diligence Unit
China and Hong Kong SAR
Tel: +86 (21) 2212 3884
e-Mail: thomas.stanley@kpmg.com.cn

KPMG Global Chemicals

John Morris
Global Chair, Chemicals
KPMG LLP
8 Salisbury Square, London, EC4Y 8BB
United Kingdom
Tel: +44 (0) 20 7311 8522
e-Mail: john.morris@kpmg.com.uk

Mervyn Myers
Global Executive, Chemicals
KPMG LLP
1-2 Dorset Rise, London, EC4Y 8EN
United Kingdom
Tel: +44 (0) 20 7311 8531
e-Mail: mervyn.myers@kpmg.com.uk

© 2007 KPMG Huazhen, a Sino-foreign joint venture in the People’s Republic of China and a member firm of the KPMG network of independent member firms affiliated with KPMG International, a Swiss cooperative. All rights reserved. Printed in the People’s Republic of China.

KPMG and the KPMG logo are registered trademarks of KPMG International, a Swiss cooperative.

Publication date: September 2007

The information contained herein is of a general nature and is not intended to address the circumstances of any particular individual or entity. Although we endeavour to provide accurate and timely information, there can be no guarantee that such information is accurate as of the date it is received or that it will continue to be accurate in the future. No one should act upon such information without appropriate professional advice after a thorough examination of the particular situation.
Northern China

Beijing
8th Floor, Tower E2, Oriental Plaza
1 East Chang An Avenue
Beijing 100738, China
Tel : +86 (10) 8508 5000
Fax : +86 (10) 8518 5111

Qingdao
4th Floor, Inter Royal Building
15 Donghai West Road
Qingdao 266071, China
Tel : +86 (532) 8907 1688
Fax : +86 (532) 8907 1689

Eastern and Western China

Shanghai
50th Floor, Plaza 66
1266 Nanjing West Road
Shanghai 200040, China
Tel : +86 (21) 2212 2888
Fax : +86 (21) 6288 1889

Chengdu
18th Floor, Tower 1, Plaza Central
8 Shuncheng Avenue
Chengdu 610016, China
Tel : +86 (28) 8673 3888
Fax : +86 (28) 8673 3838

Hangzhou
8th Floor, West Tower, Julong Building
9 Hangda Road
Hangzhou 310007, China
Tel : +86 (571) 2803 8000
Fax : +86 (571) 2803 8111

Southern China

Guangzhou
29th Floor, Guangzhou International Electronics Tower
403 Huanshi Dong Road
Guangzhou 510095, China
Tel : +86 (20) 8732 2832
Fax : +86 (20) 8732 2883

Shenzhen
9th Floor, China Resources Building
5001 Shennan East Road
Shenzhen 518001, China
Tel : +86 (755) 2547 1000
Fax : +86 (755) 8266 8930

Fuzhou
25th Floor, Fujian BOC Building
136 Wu Si Road
Fuzhou 350003, China
Tel : +86 (591) 8833 1000
Fax : +86 (591) 8833 1188

Special Administrative Regions

Hong Kong
8th Floor, Prince’s Building
10 Chater Road
Central, Hong Kong
Tel : +852 2522 6022
Fax : +852 2845 2588

Macau
23rd Floor, D. Bank of China Building
Avenida Doutor Mario Soares, Macau
Tel : +853 2878 1092
Fax : +853 2878 1096