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CCR - China Chemical Reporter

Sample 2

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China's Foreign Trade

China turned around its trade deficit for the first quarter and achieved a surprising US\$100 million surplus in the first four months of this year.

The total import and export reached US\$243.96 billion, up 39.8 per cent; China exported US\$122.03 billion and imported US\$121.93 billion in January-April, up 33.5 per cent and 46.8 per cent respectively year-on-year, according to the General Administration of Customs.

Monthly imports and exports reached record highs in April at US\$34.60 billion and US\$35.62 billion, up 34.4 per cent and 33.3 per cent respectively year-on-year.

But imports and exports for April grew at a much slower rate' down 10.7 and 1.3 percentage points respectively than in March.

A trade deficit of between US\$2 billion-3 billion is expected this year due to SARS.

This year's deficit is predicted to be the largest annual trade deficit for China since 1993, when it was US\$12.2 billion. If SARS is contained within another three months, China's trade deficit would peak at US\$5 billion for the May-July period.

It is also reported China's actual foreign direct investment (FDI) in the first four months of this year increased by 51.03 per cent from the same period last year to US\$17.8 billion.

The contracted FDI reached US\$30.5 billion in January-April, rising 50.13 per cent from the same period last year. 12 198 foreign funded enterprises were newly approved in the first four months, a rise of 34.19 per cent year-on-year.

In April this year, actual foreign di-

rect investment rose 37.24 percent year-on-year to US\$4.7 billion, while contractual foreign investment rose 27.18 percent over the same period last year to US\$7.5 billion. 3 574 foreign-funded enterprises were approved to set up business in China, up 28.7 per cent year-on-year.

By the end of April, the accumulative total approved foreign funded enterprises in China reached 436 394, with actual FDI rising to US\$465.7 billion, while contracted FDI rose to US\$858.5 billion.



Circular for the Price Readjustment of Oil Products

In accordance with the current methods for the price control of oil products and the changes in the recent international oil price trend and the domestic supply and demand of oil products, the National Development and Reform Commission has recently issued a

circular. It is decided in the document that an appropriate reduction of oil product prices is made from May 10, 2003.

The ex-factory price of aviation kerosene will be down by RMB250 per ton. The ex-factory price of gasoline and diesel will be down by

RMB290 per ton and RMB260 per ton and the benchmark retail sale price will be reduced in proportion with the ex-factory price. The price of aviation fuel will be down by RMB250 per ton.

PetroChina and SINOPEC are requested to strictly implement the pricing

policy of the state and ensure a normal and stable market supply. According to the requirements of the document, PetroChina and SINOPEC have made readjustments to the wholesale and retail sale prices of gasoline and diesel in areas within their jurisdiction.

Uniqema on May 6 announced the launch of its Solutions Center for refrigeration lubricants in Mandarin. The Solutions Center is a web site at www.emkarateRL.com that supplies the information and expertise that make it possible for air conditioning and refrig-

Uniqema Launches Refrigeration Lubricants "Solutions Center"

eration professionals to take advantage of all the benefits synthetic lubricant technology has to offer.

The move to provide

greater service in China comes at a time when the region has witnessed growth in its domestic air conditioning and refrigeration use.

Uniqema is a global business designed for a new era in specialty chemicals and is part of the ICI group of companies. (reported by Bari Lyn Gerber)



China Rules on Anti-dumping Investigation

On May 12, China leveled dumping accusations against imports from the United States, Japan, South Korea, Russia and Taiwan region of polyvinyl chloride and ordered importers to make cash deposits with Chinese customs as a temporary anti-dumping measure.

The Ministry of Commerce (MOC) said in a preliminary ruling that it had found an anti-dumping margin of 10 to 115% on imports from the named countries. Interested parties can appeal to the MOC within 20 days, said the ministry.

Five domestic producers applied for an anti-dumping investigation on March 1 last year on behalf of China's polyvinyl chloride (PVC) industry.

Impact of dumping to China's PVC industry

The MOC investigation found these imports were sold below the normal value and thereby caused

damage to domestic industries.

China's imports of polyvinyl chloride from the five investigated economies soared by 12.36% and 31.27% year-on-year in 2000 and 2001.

The investigated imports occupied 34.38% of China's total market of polyvinyl chloride in 2001 and accounted for more than 80% of China's total imports.

Meanwhile, the price of polyvinyl chloride imports from those concerned has been falling, and as a result domestic prices have been kept low.

The preliminary judgment concluded that huge low-priced imports from the five investigated have slowed the growth of domestic industries and curbed the expansion of their production capacity.

The alleged dumping has also driven down the local industry's market shares, profits, and pushed up unemployment

and stockpiles.

A glaring example of the impact can be seen by the industry's pre-tax profits, which not only

dropped by 148.11% in 2001, but went into the red with losses of RMB 300 million (US\$36.2 million).

PVC Dumping Extent

Country / Company	Dumping extent
U.S.A	
Shintech Incorporated	83%
Formosa Plastics Corporation Texas	25%
All others	83%
South Korea	
LG CHEM, LTD	10%
HANWHA Chemical Corporation	13%
All Others	76%
Japan	
Shinetsu Chemical Co., Ltd.	54%
V-Tech Corporation	50%
TAIYO VINYL Corporation	32%
SHIN DAI-ICHI VINYL Corporation	70%
KANEKA Corporation	62%
All Others	115%
Russia	
J/S Co. Kaustik	34%
Joint Stock Company (SAYANSKCHIMPLAST)	67%
All Others	82%
Taiwan Region	
China General Plastics Corporation	15%
Formosa Plastics Corporation	10%
Ocean Wide Plastics Incorporation	23%
All Others	27%

Source: MOC

China has launched an investigation into the dumping of monoethanolamine and diethanolamine in the Chinese market by Japan, the United States, Germany, Iran, Malaysia, Mexico as well as the Taiwan region.

The move was announced on May 14 by the Ministry of Commerce and became effective the same day.

The investigation relates to imported monoethanolamine and diethanolamine, basic chemical

China Starts Anti-Dumping Investigation on Ethanolamine

materials, respectively listed under "2922.1100" and "2922.1200" in the tariffs of the General Administration of Customs.

The investigation was requested by two Chinese chemical companies.

The Ministry will do research to judge whether the products have

been dumped in China or not, and if yes, how serious it is. It will also look into the damages the practice has caused to the Chinese industry if there is any.

The investigation usually lasts for one year and can be extended to 18 months if necessary.



Warren Buffett Makes a Drastic Increase of PetroChina H Shares

Attracted by the great profit-earning power and the high return on investment

Warren Buffett, the famous "stock market prodigy" in the United States, has focused his latest investment target on PetroChina. In a matter of a few Hong Kong stock market transaction days in late April, he increased PetroChina H shares in hand four times through his listed company with 1.0 billion Hong Kong dollars. He has now held 13.35% of PetroChina H shares and become the third biggest shareholder.

It is a "handshake" between two of the world 500 top enterprises. PetroChina is a listed company of CNPC, the biggest Chinese enterprise in the world 500 top enterprises. Berk-

shire Hathaway under Warren Buffett is the only company with investment as main business listed in the world 500 top enterprises. Its average annual net book value has increased by 22.2% since 1965, from a per-share net value of US\$19 in 1965 to more than US\$40 000 today. The total profit reached US\$4.29 billion in 2002 with an average per-share profit of US\$2 795. Investments made by Warren Buffett through Berkshire Hathaway have involved enterprises engaged in telecommunication, public facilities and energy.

BP is the second biggest shareholder of PetroChina. Templeton Fund that is also well known for the value investment concept holds 2% of PetroChina shares. HSBC holds 0.5% of PetroChina shares. Due to the involvement of these long-term investors, the actual circulating H shares of PetroChina only account for 5% of the total. According to securities analysts, Warren Buffett has

a long-term interest in PetroChina stock. Compared with other international oil companies, PetroChina has relatively low market profit rate and high dividend. The net profit accomplished by PetroChina last year reached RMB46.9 billion, the growth margin being 3.17%. Besides, China is the energy market with the most rapid growth in the world. All these factors are extremely attractive to Warren Buffett.

According to Mao Zefeng, Chief Representative of PetroChina in Hong Kong, Warren Buffett is attracted by the great profit-earning power and the high return on investment of PetroChina. Some analysts say that the move shows that the "stock market prodigy" attaches great importance to the Chinese economy with high growth. It indicates his agreement to the policy of developing market economy and promoting reform being adopted in Chinese mainland.

On May 15, 2003 CNOOC Limited, the internationally listed subsidiary of China National Offshore Oil Corporation (CNOOC), has successfully issued bonds worth US\$500 million in the US capital market.

The issue comprises US\$200 million in bonds due to mature in 2013 and US\$300 million worth in 2033.

The latter is the longest bond term ever offered by a Chinese company in the US capital market.

The 2013 Notes were priced at 77 basis points over the benchmark 10-year U.S. Treasury (with a yield of 4.294%), while the 2033 Notes were priced at 118 basis points over the benchmark 30-year U.S. Treasury (with a yield of 5.682%). The Notes are rated Baa1 with positive outlook by Moody's Investors Service

CNOOC Ltd. Issues \$ 500 Million Bonds

and "BBB" by Standard & Poor's Ratings Services.

CNOOC floated the initial public offering overseas two years ago. CNOOC Limited intends to use the net proceeds of the bond offer for general corporate purposes.

Commenting on the offering, Mr. Wei Liucheng, CNOOC Limited's Chairman and Chief Executive Officer, said, "We are very pleased with the outcome of this offering, which has been even more successful than our inaugural bond offering last year. The high level of demand for this offering underscores investors' confidence in our sound business fundamentals,

solid financials and strong credit profile."

Dr. Mark Qiu, Chief Financial Officer and Senior Vice President, added, "We are proud to have achieved one of the lowest coupon rates among comparable offerings by PRC companies. Through the offering of the 30-year term, first ever by a PRC corporate, we establish a benchmark for PRC corporate issuers in this maturity bracket. In addition, we have been able to secure low-cost funding that complements our asset profile nicely."

Credit Suisse First Boston and Merrill Lynch & Co. are acting as the joint book-runners for the offering.



CNOOC LTD Acquires a Stake in the Australian North West Shelf

On May 15, 2003 CNOOC Limited signed an equity sale and purchase agreement with the existing North West Shelf partners to acquire an interest in the upstream production and reserves of Australia's North West Shelf Project (NWS Project).

CNOOC Limited will acquire a 25% stake in the China LNG Joint Venture, a new joint venture to be established within the NWS Project. Under the terms of the transaction, CNOOC Limited will also acquire an approximate 5.3% interest in certain production license, retention leases and an exploration permit of the NWS Project, and a right to participate in future exploration undertaken over and above the proven reserves. Should the final quantity of LNG committed under the LNG supply agreement to Guangdong be increased, the final percentage interest to be acquired by CNOOC Limited will increase with a corresponding increase in the consideration payable. CNOOC Limited will pay US\$348 million for the acquisition of its interest in the NWS Project, payable on completion once certain conditions, including the LNG supply agreement to Guangdong becoming unconditional, have been fulfilled. It is anticipated that completion will occur prior to the end of 2003.

"We are pleased to formalize our entry into this world-class gas project with world-

class partners. This is CNOOC Limited's first investment in Australia, and we believe it is a critical component of our natural gas strategy to supply the rapidly growing market in China," commented Mr. Wei Liucheng, Chairman and CEO of CNOOC Limited.

Merrill Lynch (Asia Pacific) Limited and Credit Suisse First Boston (Hong Kong) Limited were financial advi-

sors to CNOOC Limited in connection with the acquisition.

The NWS Project is a joint venture between the NWS Project partners and is Australia's largest resource project. The NWS Project partners comprise of BHP Billiton Petroleum (North West Shelf) Pty Ltd, BP Developments Australia Pty Ltd, ChevronTexaco Australia Pty Ltd, Japan Australia LNG

(MIMI) Pty Ltd (Mitsubishi and Mitsui), Shell Development (Australia) Pty Ltd and Woodside Energy Ltd (Operator). The China LNG Joint Venture will be established to supply LNG from the NWS Project to the Guangdong LNG terminal commencing 2006, pursuant to the 25-year LNG supply agreement to Guangdong signed on 18 October 2002. (CCR 2002 No.26).

Two Oil Giants' Overseas Oil Deal Fail

On May 12, 2003 BG International Limited (BG), a wholly owned subsidiary of BG Group, has informed CNOOC Limited (the Company) of a decision by certain of the existing owners of the North Caspian Sea Project in Kazakhstan (the Project) to exercise their preemptive rights and acquire the 1/12th (8.33%) interest in the Project which BG had agreed to sell to the Company. In accordance with the terms of the Sale and Purchase Agreement, the Company will terminate its agreement with BG with respect to the Company's acquisition of this interest.

"The decision is consistent with owners' rights, driven by the consideration of self-interests and not that unexpected even though we would have liked a different one. But the event itself has no adverse impact on the strategy and operating fundamentals of CNOOC Limited," said Mr. Wei Liucheng, Chairman and CEO of CNOOC Limited.

"We continue to stick to our strategy and to look out opportunistically for quality assets that add value to our shareholders," commented Dr. Mark Qiu, CFO of the Company.

BG decided to sell its 1/6 shares to CNOOC and Sinopec, China's second oil company dated 7 March 2003. The cost to each company would have been US\$615 million (CCR 2003 No.8).

The completion of the agreement was subject to the satisfaction of a number of conditions including the waiver of certain pre-emptive rights.

On May 15, Sinopec's final effort is of no effect. Sinopec has given up 8.33% share in the North Caspian Sea Project in Kazakhstan, which is seized of BG.

Kureha Chemicals Singapore Renamed

On May 7, 2003 Rohm and Haas of USA formally announced that Kureha Chemicals Singapore Pte. Ltd will be renamed as Rohm and Haas Chemicals Singapore Pte. Ltd. At present Kureha Chemicals are reorganizing to merge into the global additives business of

Rohm and Haas.

In November 2002 Rohm and Haas has successfully completed the acquisition of KCS. This acquisition will add by US\$ 70 million per year in sales revenue of plastic additives business.



China's 2nd Largest LNG Project

In the beginning of 2002, the State Council approved the Letter of Project Proposal of China's second largest LNG project – Fujian LNG project, and now the feasibility study report is preparing intensely. According to the plan, it will start construction in the second half of 2003, run trial operation in 2006 and commerce operation at the beginning of 2007. After 3 year, 5 cities' people in Fujian province can use clean energy.

The project is designed to provide LNG of 5 million t/a, and 2.5 million t/a in the first phase with a total investment of RMB11.98 billion.

On September 26, 2002, China National Offshore Oil Corporation (CNOOC) signed a 25-year LNG Sale & Purchasing Agreement with PERTAMINA on behalf of Tangguh gas field in Jakarta to be upstream product cooperator. In the agreement, Fujian LNG project is the second largest following Guangdong LNG Project. Fujian LNG receiving station will be co-invested by CNOOC and Fujian Investment and Development Company.

From 1990's Fujian province has

been considering to import LNG and cooperating actively with CNOOC to carry out the "Coastal Districts LNG Layout Study in Southeast China". In November 1997, Fujian provincial government and CNOOC jointly organized the Fujian LNG project leading group, and with the suggestions from experts, Xiuyu County in Putian was finalized as the best location for the project.

On January 3, 2003, preparatory committee of Fujian LNG project Putian office was established. According to the plan, before June 20, 2003 the feasibility study report should be finished and passed the experts' final examination, gas station projects be concluded and reported, the feasibility study report of general project should be edited and reported to the government on the basis of fixing the gas market, and the contract should be signed through the business negotiations.

Fujian LNG project included one receiving station, gas transferring pipe project and seven gas utilization projects. The storage tank of 120 000 cubic meters, a dock which can anchor LNG freight of 136 000m³, 340 kilometers gas pipeline

(main pipe of 311.9 kilometers and branch pipe of 28.6 kilometers) will be set up in first phase construction, and in the second phase another 120 000 cubic meters storage tank will be built.

At present, the feasibility study report for constructing Huian (Dun'nan) LNG Power Plant in north of Quanzhou Bay is editing tensely and is expected to start the construction of the 1.5 million KW LNG power plant before the end of the year. As for the Jinjiang LNG power Plant in south Quanzhou Bay is undergoing the feasibility study editing and location choosing, and the special layout is under discussion. The construction of 2 LNG power plants mentioned are included in the Fujian LNG project.

The experimental LNG projects in Guangdong and Fujian show that China's energy and environment industry is developing towards the international advanced level and exploring the new methods to solve the problems between energy and environment.

Sources show that 70% of the LNG in Fujian province is applied to generate electricity.

Taiwan Chinese Petroleum to Explore Oil/Gas in China Mainland

Recently Taiwan Chinese Petroleum decided to invest US\$727 million together with Phillips Company of USA, bidding for exploration of natural gas in the deep water of exterior sea continental shelf at mouth of the Pearl River. It is the first time for Taiwan Chinese Petroleum to make an exploration in Chinese mainland

if it wins tender this time. Taiwan Chinese Petroleum plans to bid for No. 29 / 26 and 42 / 05 diggings. It is estimated that the two gas fields have 53.6 billion cubic meters gas reserves with 20 year's exploitation. Taiwan Chinese Petroleum is planning to invest 2.55 billion New Taiwan dollars (1 U. S. dollar

equal to 34.8 New Taiwan dollars) to develop exploitation business this year. It is reported that with the impact of SARS Taiwan Chinese Petroleum and CNOOC have decided to delay the plan of submarine oil exploration.

In February this year CNOOC and Taiwan Chinese Petroleum have started to implement the

plan of submarine oil exploration in the Taiwan Strait. In March the State Council of the Chinese Government has approved the application for the founding of "Tainan Chaoshan Depression Oil Operation Co., Ltd." jointly funded by CNOOC and Chinese Petroleum. (CCR 2003 No. 6 and No.9).



China to Decrease Crude Oil Import in June and July

Influenced by SARS China's demand for oil product went down, accordingly SINOPEC and CNPC reduced the oil processing amount, which led to crude oil demand drop, so the main crude oil trade companies in China decreased the import of crude oil in June and July.

PetroChina Limited (PetroChina), China's second largest crude oil importer with a monthly import amount of 0.6 million tons, is going to reduce the import of crude oil in the next two months by 8%, about 50 000 tons every

month.

SARS impacted not only the demand for crude oil, but also the demand for gasoline and aviation gasoline.

One official from Sinopec revealed that the company has taken emergency measures to decrease the crude oil processing amount in the coastal refineries, whose feedstock mainly are imported. In May the processing amount in these refineries will fall by 10%.

China's biggest refining Company -Sinopec Zhenhai Refining Company de-

creased 10 000 tons of the crude oil processing amount to 1.04 million tons; Maoming Petrochemical Company reduced more, at present the processing amount has gone down to 25 000t/d from 32 000t/d of the beginning of this month. However, the processing amount in the light distillate refining plants producing raw materials for petrochemical products were not influenced by SARS, such as Yangzi Petrochemical increased the processing amount to 570 000 tons from scheduled

520 000 tons in May. Yangzi Petrochemical Company has several naphtha cracking units with a total capacity of 650 000t/a.

At present, most regions in China have been hit by SARS, for which China's demand for oil product went down, and it is said that this effect will not disappear in a short time, as a result, the oil product market showed a descendent trend.

The experts expressed that the lasting time of SARS will be the decisive factor of its effect on the oil product.

Advertisement



8.9% Growth Rate Achieved by China's Economy in April

Statistics from China National Bureau of Statistics show in April 2003, China's economy grew by a sparkling 8.9 per cent. In April fixed-asset investment jumped 28.9%, industrial output rose 14.9% and retail sales gained 7.7% growth.

China's Oil Import from West Asia and Africa Soared

In the first quarter of this year, the crude oil imported from West Asia and Africa increased dramatically by 90.9% over the same period last year to reach 13.65 million tons, taking 61.4% of the total oil import. The value of oil import from these regions added up to US\$3.1 billion, a rise of 194% and holding 61.1% of the total.

The fast increase is attributed to the price rise result from the tension in the middle-east region, which led to the soaring of the import value of the oil. Simultaneously, the domestic enterprises put more emphasis on the diverse markets and African market because of the rising domestic energy consumption is also a factor for this.

Matching Project for "East-west gas transmission" in Zhengzhou

Recently the Matching project in Zhengzhou region for "East-west gas transmission" invested by Zhengzhou Gas Co., Ltd. started construction, which is expected to be finished in 2006 to meet the demand of Zhengzhou for 520 million cubic meter gas.

Breakthrough in Xinjiang Tarim Oil Field Exploitation

On May 11, 2003, Xinjiang Tarim Oil Field Branch Company discovered high-yield industrial oil airflow when they made drilling test to the Wushen 1# well, as another important discover and regional breakthrough after Dila

and Kela structure. Wushen1# well, as an index well of Tarim Oil Field Company, was designed to be 5 950 meters deep, and later was deepened 200 meters. At the depth of 6009.93, blowing happened and on 11 May, high-yield industrial oil airflow gained. At present the depth of the oil gas level is 9 meter and the well is going to be deepened again.

4.8 billion m³ Proved Natural Gas Reserve in TUHA

Sources from CNPC Xinjiang TUHA Oilfield say that great breakthrough made in natural gas exploitation. At present there are 4.8 billion m³ of new adding proved geographical reserves natural gas, 5.4 billion m³ of estimated reserves and 15 billion m³ of trapped reserves.

In recent years, TUHA Oilfield broke the trapped concept and adjusted the plan to accelerate the natural gas exploitation. By the technical measures such as boring and description, they proved new natural gas reserve of 4.8 billion m³ and 4.19 million tons of crude oil reserve.

Cost of Import Oil Drop in Qilu

From the very beginning of 2003, Sinopec Qilu Petrochemical Company Limited took the decrease of import oil as an important measure to increase the profit. In the first quarter of this year, there are total 1.121 million tons (about 8.2717 million barrels) import crude oil arrived, with an average CIF of US\$30.72 per barrel, US\$ 1.05 lower than that of SINOPEC.

Sales Soared in Baling Petrochemical

Recently Sinopec Baling Petrochemical Company Limited Olefin Plant made new management reform in Sales Department, which increased the first quarter's sale of environmen-



tal friendly solvent oil to 14 500 tons, nearly as many as 2002's annual sales. Only in March the sales reached 7 147 tons with a new profit of RMB2.4 million.

First Chemical Industry Park in Hefei

Hefei's first chemical industry park was built in Shuangdun town, Changfeng County.

The first phase of the park covered an area of 5.2 square kilometers and the total investment will reach RMB2 billion. The first 5 fine chemical and agrochemical enterprises have moved into the park, following which the chemical enterprises in Hefei will move into the park successively. By 2008 the park is expected to be a RMB10 billion sized one.

China's Kazakhstan Oil Imports Normal

An oil industry official says crude oil imports from Kazakhstan are normal despite the temporary closure of the passenger railway traffic between the countries.

Kazakhstan suspended air, rail and road traffic with China on Monday due to the SARS virus.

But the Chinese official says since cargo trains don't transport people, the suspension shouldn't affect cargo transport.

He says China now imports an average of 100 000 metric tons of crude oil from Kazakhstan a month with 50% processed at PetroChina's Dushanzi subsidiary in Xinjiang.

And the balance is processed by CNOOC refineries in central China.



Dow's Epoxy Resin Plant in Operation

The Dow Chemical Company announced on May 7, 2003 that its 41 000 metric tons per annum converted epoxy resin plant at the Dow Zhangjiagang site in the

People's Republic of China has started up on schedule and with the first production within specification.

The plant will produce solid epoxy resin used pri-

marily to produce powder coatings; solid solution epoxy resin for marine and protective liquid paints; and brominated epoxy resin for the production of electrical laminates.

"All these applications have experienced double-digit growth in China," said Phil Cook, business vice president for Epoxy Products and Intermediates (EP&I). "This is due to both the buoyant domestic market and the migration of many applications to China for local use and export to the world. Our epoxy resin plant in Zhangjiagang expands our global presence and demonstrates our commitment to the growing epoxy industry in China and the broader Asia Pacific region."

The new plant will supply resins to Greater China, Asia and Australia.

"It joins our epoxy facilities in Kumi, Korea (30 000 metric tons per annum) and Kinu Ura, Japan (40 000 metric tons per annum) to provide a superior network of epoxy resin facilities in the largest global concentration of demand," said Graham Daley, EP&I Commercial Director, Pacific.

The Dow Chemical Company announced on Oct. 17 2000 it has received government approval to construct a 40 000 t/a converted epoxy resins production facility at the company's existing site in Zhangjiagang, Jiangsu Province. The plant is scheduled to begin production in the first half of 2003 (CCR 2000 No.30).

Dow has another two plants to produce SBR latex and polystyrene, which put on stream in 2002, in Zhangjiagang (CCR 2002 No.33).

"Epoxy resins are very important raw materials for many high value, downstream industries, including electronics, marine, automotive and appliances," said Daley. "With Dow's efforts over the years to build up strong sales throughout the Asia Pacific region, this new Zhangjiagang facility will quickly approach full capacity utilization."

The new Zhangjiagang plant will effectively meet the demand for high quality epoxy products in this region and will generally replace products currently being imported from Dow facilities elsewhere in the world. As product becomes commercially available in the May/June timeframe, the plant's high operating rates will boost efficiency."

Daley said that the electronics in-

Chinese Epoxy Market Expanding

industries have been gravitating to China and the pace actually quickened during the global electronic downturn during the past two years. During 2002, personal computer and mobile phone purchases in China were phenomenal. He added that China is by far the largest manufacturer of shipping containers and significant large tonnage vessel construction takes place in Northern China. The appliance industry in China is also very large and automobile production is soaring.

The epoxy resin markets of China are concentrated around Shanghai in Eastern China and Guangzhou in Southern China. The Zhangjiagang site, located along the Yangtze River near Shanghai, is central to these locations and is ideally situated to service both the domestic and export markets. The new facility joins a Dow styrene butadiene latex facility and a joint venture polystyrene resin facility, which began operations in 2002. All three facilities are world-scale and state of the art.



CSPC Project Celebrates First Pile of Nanhai Petrochemical Project

CSPC Nanhai Petrochemicals Project witnessed another major milestone – the first pile being driven into the ground of the 800 000 t/a ethylene cracker – in the morning of May 12, 2003.

In his remarks during the pile driving ceremony, CSPC CEO Mr. Simon Lam said the ethylene cracker plays an important role in the development of CSPC Nanhai Petrochemicals project, as it will produce feedstock for the other downstream units. As such, the first pile not only marked the start of ethylene cracker construction, but also began a new page in the project's implementation phase (see *CCR No.36, 2002*).

JGC Corporation, a world-renowned leader in the engineering and construction of oil, gas and petrochemicals facilities, together with Stone & Webster have been selected to carry out the engineering, equipment/material procurement, construction and commissioning for the ethylene cracker of the project.

According to the project schedule, the LOP will start operations at the end of 2005.

CSPC Nanhai Petrochemicals Project (formerly called Nanhai petrochemical project or CNOOC Shell project), the biggest Chinese-foreign joint venture project located in China, was launched in Guangdong Huizhou on Jan. 11, 2003 and is planned to start production in 2005.

The project has a total investment of US\$ 4.05 billion. It is not only the biggest Chinese-foreign joint venture project located in China, but also the biggest overseas project of Shell Group and one of the biggest petrochemical projects in the world.

The core of the integrated project is an ethylene cracker based on condensate oil or naphtha and with a capacity of 800 000 t/a ethylene and 430 000 t/a propylene (See *CCR No.3, 2001*)

China's biggest Tylosin project launched

A 500 t/a tylosin project recently formally launched in Shaanxi Province. Tylosin is a specific antibiotic for poultry and livestock and can avoid the problems of cross infection caused by mixed usage of drugs for human and animals. China has to depend on import tylosin for a long time. Xi'an Hengtong Guanghua pharmaceutical Co. Ltd. introduced key technologies from foreign countries and produced "TAILEXING" brand tylosin.

Fudao second phase to be put on stream in September

CNOOC Fudao Co., Ltd. invested nearly RMB3.0 billion in Fudao second phase chemical project that will become the biggest chemical fertilizer production base in China. The project includes 800 000 t/a urea, 600 000 t/a compound fertilizers and methanol and formaldehyde production unit (see *CCR10, 2002*).

At present the installation of the pipeline has almost been completed, and 92% of the synthetic ammonia unit and 90% of the urea unit have been finished. Statistics show that by the end of April, 86.43% of the total plan and 74.87% of the construction had been accomplished. The training and production preparations are carrying out smoothly. It will be fully put on stream in September this year, two month ahead of plan, despite the SARs crisis.

CNPC accomplished overhaul of heavy oil catalytic unit in Sudan

The heavy oil catalytic cracking unit overhaul project undertaken by CNPC No.1 Construction Company Sudan Project Department ran successfully wet commission, as another success after the oil product store, 3# stationary and 4# pumping station project in Sudan.

Khartoum Refinery is a joint venture of Sudanese Petroleum Corporation (Sudapet) and CNPC (50% each). Designed and built by CNPC, it is a modern and sophisticated refinery with a production capacity of 50 000 barrels per day. Khartoum Refinery is the principal refinery in Sudan, providing the country with its needs of oil products



PC expansion postponed

Taiwan Chi Mei and Japan Asahi Kasei decided to put off the expansion project of their PC JV in south Taiwan. Sources from Chi Mei said according to the original plan, they would increase the capacity from 50 000 t/a from 75 000 t/a and finish it in the end of last year, but the oversupply in the PC market has forced the plan postponed.

Neither of them revealed whether they would cancel the project of establishing the second 75 000 t/a PC production line in 2004 or not.

China launched 85 anti-SARs technical projects

SARs-fighting technical projects are carrying out in China. 85 projects have been launched with an input of RMB108 million and thousands of scientific personnel.



180 000 t/a ABS renovation project launched

A 180 000 t/a ABS renovation project recently was carried out in Synthetic Resin Factory of CNPC Jilin Petrochemical Company.

In September 1997, the factory built up China's biggest 100 000t/a ABS complex as a ABS production base with introducing ABS patent technology from Japan Synthetic Rubber Company (JSR). In June 2002, the capacity was expanded to 158 000 t/a after the first renovation. The factory decided to expand the capacity to 180 000 t/a and carried out the second turn renovation, which started construction in April and is expected to be put on stream in November this year.

Biggest Alkyl Benzene Production Base in Asia

Nanjing Jintong Chemical Company Limited co-funded by Jinling Petrochemical Company and Virgin Islands (British) Baozhi Company with a total investment of US\$29.7 million entered to ending phase recently. After its completion, Nanjing will be the Asia's biggest and the world's third largest alkyl benzene production base.

The sewage farm in Dalian Petrochemical applied

PetroChina Dalian Petrochemical Company's sewage farm with a sewage treating capacity of 500t/h completed the intermediate handing-over and put into application formally af-



ter 11 months' construction.

The sewage farm introduced international advanced technology and equipment from French. At the end of the "Tenth Five-year Plan"(2001-2005), the oil process capacity will reach 20 million t/a, as the biggest refining base of PetroChina, so the establishment of this sewage farm will prevent the surrounding sea area from pollution.

PVDC coating film production line put on stream

A PVDC coating film production line recently pass the appraisal in Hainan Shinyday Enterprise Stock Co., Ltd., which raised the company's PVDC coating film production capacity to 45 000 t/a.

PVDC coating film is a high-tech product, featured high-barrier, fragrance retaining and environment friendliness. The product is widely applied in the product package of cigarette, food, pharmaceutical and other industries.

The Fifth PP Complex in Cangzhou Refinery Started Production

The fifth PP complex of Cangzhou Refinery recently put on stream and outlet qualified products. It will bring a profit of RMB 3 million to the refinery. Until now, its PP capacity doubled in these two years to exceed 40 000 t/a.

DRP's rubber extension production line installed successfully in Vietnam

A large rubber extrusion line designed and made by China DaLian Bingshan Rubber & Plastics Co., Limited (DRP) was installed and debugged smoothly in Vietnam Gold Star Company.

Vietnam Gold Star Company, as one of the three largest tyre rubber producers in Vietnam, introduced an S-type four-roller extrusion production line of dual-purpose rubber for steel wire and cord use. The produc-



tion line is 48 meters long and 7meters high and more than 200 tons weight with a value of RMB 12 million. This project is one of the key constructions of Vietnam and attracts the chemical sector's attention. The 6 kind of products made all reached the international level after technical approval.

Southwest China's first citric acid started construction in Guiyang

Guizhou Lianqiao Citric Acid Plant started construction on May 18, 2003 in Xiuwen County, Guiyang, as the first citric acid plant in southwest China.

The plant is expected to put on stream in June 2004 with an investment of RMB 120 million. The capacity of the first phase will be 10 000 t/a and reach 50 000t/a finally, and the product will mainly exported to Europe, America and Southeast Asia.

Guizhou is abundant in potato, corn and has rich resources of water, electricity and coal, which provide priorities for citric acid production in this region. The average cost of every ton of citric acid produced here is RMB 200 lower than that made in the coastal regions.

Citric acid is mainly applied in the food, beverage, pharmaceutical, chemical industry, and its production process in China has ranked the leading position in the world. At present, the international market's demand for the citric acid is nearly 1 million t/a, and China is the biggest supplier with a capacity of less than 0.6 million t/a.



PVC Aluminum-plating Film Developed in Fuzhou

Fuzhou GT No. 1 Plastic Co., Ltd., a foreign-funded company, has recently developed a new patent product PVC aluminum-plating film. The product uses PVC film as base material and is produced through special treatment and vacuum aluminum plating. The aluminum layer has strong adhesion and great gloss. Aluminum powder does not shed in printing and twisting and printed patterns have bright color. The product is therefore upgraded and its application scope is extended.

PVC aluminum-plating film not only includes base materials PVC film and aluminum layer, but also a cross-linking layer made of special materials and through special process. The cross-linking layer sticks to the PVC film on one side and to the aluminum layer on the other. The stability of product performance is therefore ensured.

New Nanometer Paint Passes Appraisal

A new nanometer paint that can replace traditional paints has recently passed the appraisal conducted by the experts' committee in Changchun.

Jointly developed by the research team headed by Prof. Zhang Wanxi from Jilin University and China No. 1 Automotive Manufacturing Corporation, the environment-friendly product uses water as solvent. Hazards caused by harmful organic solvents to human bodies are reduced

and hidden dangers of fire caused by solvent volatilization in the production, transportation and operation of solvent coatings are removed. The nanometer paint is produced through using nanometer polymer emulsion as base material and adding conventional pigments as fillers. It has the features of convenient water washing, extremely long service life, smooth and graceful film, self cleaning and stain prevention, no toxicity, no foreign odor and resistance to bacteria, mildews and alga. It also has excellent resistance to mechanical shearing and freeze melting and excellent properties in operation, protection and decoration. A 15.0 million t/a production line of "Saina" brand water-based nanometer environment-friendly paint is already put on stream in Changchun Saina Nanometer Paint Co., Ltd. The output value can reach RMB45 million and the profit and tax can be more than RMB10 million this year.

"Tianzhu Fiber" Cover Material Developed in Henan

Henan Xinye Textile Co., Ltd. has made great efforts in making readjustments to the product structure according to the market demand and developed "Tianzhu Fiber" cover material for clothes. The material has many advantages such as bright color, tender feel, good air permeability, moisture absorption, sweat dispersion and bacteria repellency. The added value of the product is high and the market prospect is bright.

New Bromochloroglycolylurea Antiseptic Developed in Tianjin University

Researchers in College of Chemical Technology of Tianjin University has successfully developed new product bromochloroglycolylurea, a new antiseptic of both bromine and chlorine extensively used in the world in recent years. It is especially suitable for large-area sterilization in public environments. Flake product is synthesized in Tianjin University using a new process. 50g bottled tablets can get a 500 m² built-up area or a 1 000 m² conventional area thoroughly sterilized. Its effect is 20 times higher than traditional sterilization fluids.

Experts point out that traditional sterilization fluids such as acetic peroxide have strong corrosion and irritation and cause considerable inconveniences to normal life. Besides, ambient environments have a great impact on the formulation process and the content of effective ingredients can not be ensured. The new product developed by Tianjin University is in the form of flake and effective ingredient bromochloroglycolylurea can be fully released when the product is dissolved in water and the effect can also be long lasting. The new product is convenient for use in households because it is in the form of flake. It is the only flake product of chlorine dioxide in China. With one tablet dissolved in water, the indoor air can keep sterilized for one day through natural volatilization of the solution. A method of changing the molecular structure is used to make the mo-

lecular state more stable and adsorptive. Its low-concentration solution causes little damage to human cells. It has therefore become a high-effect environmental antiseptic recognized by the World Health Organization and recommended by the Ministry of Public Health in China.

New Composite Antibiotic Packing Material Developed

College of Material Science and Engineering of Southwest communication University has used ZnO crystalline composite antibiotic agent in plastic packing materials and developed antibiotic packing bags with an antibiotic effect of over 99%.

ZnO crystalline composite antibiotic agent is colorless. When it is added into base materials, it does not change their color. Transparent PC and PE antibiotic materials can therefore be produced. As ZnO crystalline has multiple functions, plastic packing materials added with ZnO crystalline composite antibiotic agent have the features of great strength and good preservation effect. Besides the application in plastic packing, ZnO crystalline composite antibiotic agent can also be used in paper packing and surface coating of metal packing materials. The development of such antibiotic packing material has induced a strong response in market. Many packing material producers have expressed their willingness for cooperation. The product has started production in Chengdu Dayu Science and Technology Co., Ltd. and also applied for invention patent in China.



Good Performance Against SARs

China's petroleum and chemical industry gains a large jump in April production

Reported by Shen Haihong of CPCIA

In April, Iraq war and SARS became the main reason influencing the global economy, gave significantly impact on the sales of oil product and import/export for China's petroleum and chemical players. Report from China Petroleum and Chemical Industry Association (CPCIA) disclosed that the production status showed a good performance. During the first four months, the total industrial added value actualized by China's petroleum and chemical industry reached RMB 171.425 billion, rising 42.7%, and the total sales revenue is RMB 539.28 billion, an increase of 45.37%, and the total profit jumped by 253.85% over the same period of 2002 and counted to RMB 62.572 billion. Among 106 products being counted, 79 have a production growth.

A April production supply

The total amount of refined oil is 19.813 million tons, rising 4.1% compared to April 2002. The output of gasoline, kerosene and diesel is 3.934 million tons, 0.721 million tons and 7.077 million tons, increasing 12.4%, -0.1% and 4.9% respectively. According to the data from the Statistic Bureau of China, the April's personnel transportation amount (including airline, highway and railway) decreased 6.9% due to SARs, which resulted to a slack demand on oil products. The oil refined in April fell by 5% than March.

Agrochemicals remained a stable production in April. Chemical fertilizers gained a growth of 6.2% and reached 3.571 million tons that was counted in pure NPK. Pesticides decreased 12.7% in total. Fungicide, a main killer of SARs, also moved down by 14.5% to 7 000 tons, it implied that the figure did not include disinfectants used in hospital and household.

For inorganic materials, the growth

rate in production nearly remained unchanged with the previous three months. Sulfuric acid, soda ash and caustic soda reached two-digit growth. Phosphorus-based products seemed to cut down output in the month.

Basic organic materials gains a lot, especially for those concerned with disinfectants, for instance, formaldehyde production reached 255 000 tons, an increase of 18.7%. As raw materials of formaldehyde, methanol outlet followed with a growth of 35.5%. Butyl alcohol continuously occupied the top growth with 48.3% due to the new added capacity. Ethylene and propylene remains a stable increasing rate, 9.7% and 10.0% respectively.

Resins output steadily climbed up by 6.9% in April. Benefited from the increasing demand on plastics package, polyethylene and propylene production remained a growth of around 10%. While some construction projects and room modifying actions were interrupted by SARs, demand on PVC was blocked, which resulted to only 1.2% increase in PVC output.

Chemical fibers gained 3.0% although the demand from textile industry is experiencing a dull period that is expected to rebound at the end of May. On the contrast, personnel automobile consumption showed a good performance because people do not like to contact SARs in public traffic cars, tire production increased by 10.1%. Rubber shoe, major export point of China's chemical sector, cut down its production by 10.1%.

B Prices

Recently the State Develop and Reform Committee announced that since May 10, 2003 the ex-factory price of gasoline cut down by RMB 290/t to RMB 2 920/t, but still rising 35.46% over the same period of 2002, while diesel prices fell from RMB

2 900/t to RMB 2 640/t.

In April inorganic materials prices remained a decreasing trend. Market price of soda ash was averaged at RMB 1270/t, a down of 5.22% than in March and 1.17% lower than April 2002. The price for caustic soda with a purity of 98% was RMB 1 893/t, a down of 0.37% than March and 9.86% than last April respectively. Sulfuric acid and nitric acid also declined.

In April the domestic prices of organic materials fell slightly compared with March but surely lifted over the same period of 2002 due to the higher crude oil prices. Propylene price was counted to RMB 4 817/t, an increase of 29.83% compared with the same period of 2002. The bulk prices of methanol, formaldehyde and benzene are RMB 2 612/t, RMB 1 435/t and RMB 4 863/t, a growth of 45.09%, 28.10% and 56.11% respectively. Styrene monomer price fell 18.63% than last April although experienced a strong lift during the first quarter this year.

When the summer is coming, fertilizers prices picked up in April. Urea was sold at RMB 1 452/t, rising 5.19% over March and 19.28% over last April, but the price climbing was mainly attributed to the cost pushing by coal, oil and natural gas. The prohibition for the use of ammonia nitrate also helped the price lifting.

Resins prices started to climb down in April in China's market. Polystyrene price ranked the first in falling list, it was RMB 7 200/t, a down of 16.36% than March and 25.96% than last April.

Rubber prices continued the falling trend in March. Styrene-butadiene rubber price was RMB 10 450/t in April, decreasing 5.69% than March but increasing 53.68% than last April.

It is expected that the negative impact from SARs will end in September, although we can not control it this year. China's economy may wake up from the fearful disease soon and continue to edge up.



General Status of the Pesticide Market in 2002 and Prospect in 2003

Review of the pesticide market in 2002

In the domestic market the growing awareness of environmental protection has led to an increasing demand of "green" food. In the international market more stringent requirements have been raised on pesticide residue in agricultural products exported by China. The Chinese Government has therefore decided to complete the replacement of high-toxicity pesticides as soon as possible. After the examination by the National Pesticide Registration Evaluation Committee, the Ministry of Agriculture issued No. 194 Announcement on April 22, 2002. It was specified in the document that after the control on the registration of 5 high-toxicity organophosphorus pesticides including methamidophos in 2000 applications for the temporary registration of 11 high-toxicity and acute-toxicity pesticides (blends) including phorate and omethoate would no longer be handled. It was also specified that from June 1, 2002 the registration of omethoate on cabbage, isofenphos-methyl on fruit trees, aldicarb on apple trees and

carbofuran on citric trees would be canceled and the packaging registration of high-toxicity and acute-toxicity pesticides would no longer be approved.

On May 24, 2002 the Ministry of Agriculture issued No. 199 Announcement, forbidding the production and use of BHC, DDT, toxaphene and dibromochloropropane. It was specified in the document that the use of 19 high-toxicity pesticides including methamidophos, parathion methyl, parathion and monocrotophos on vegetables, fruit trees, tea trees and traditional medicinal herbs would be prohibited. No pesticides should be used beyond the scope approved in the registration. These provisions greatly reduced the output of high-toxicity pesticides such as parathion.

The output of pesticides (based on effective ingredients) was 821 700 tons in 2002, an increase of 14.0% over the previous year. Of the total, the output of insecticides was 459 300 tons, an increase of 6.8%, the output of fungicides was 74 700 tons, a rise of 8.3% and the output of herbicides was 202 300 tons, an increase of 33.2%. As the production capacity was as high as

800 000 t/a, much more than the demand in both domestic and international markets, the market competition was fierce. The pesticide market continued to be slack and the price kept going down.

The product structure of insecticides made relatively big changes, some fungicides were in great need and the demand of herbicides had a rising trend in both variety and quantity. Methods for the control of high-toxicity pesticides were proposed in various places in China. The implementation of these policies led to a drastic reduction in the use of high-toxicity pesticides. The market share of mid-toxicity pesticides such as acephate, chlorpyrifos and trizophos increased by a big margin. With further readjustments to the planting structure in agriculture, the planting area of vegetables, melons, fruit trees and flowers was expanded and the demand of fungicides had an increase. Carbendazim, thiophanate methyl, diniconazole and triadimefon had a brisk market demand and the price made a recovery. Herbicides became more and more popular with farmers. Herbicides pro-

duced in China however had few varieties and acetochlor, butachlor, glyphosate, atrazine and 2,4-DB still held the major market share. The total import of pesticides declined in recent years, but more herbicides were imported to bridge the supply shortage in the domestic market.

China imported 21 600 tons of pesticides (commodity amount) in 2002, a drop of 14.48% from the previous year. The import value was US\$105.2812 million, a drop of 12.43%. China exported 201 700 tons of pesticides (commodity amount) in 2002, basically equal to the previous year. The export Value was US\$535.9446 million, a rise of 6.08%.

Prospect in 2003

The total demand of pesticides in 2003 will be basically equal to the demand in 2002. According to the analysis made by 30 provincial plant protection and inspection stations, the demand of pesticides (based on effective ingredients) is expected to be around 257 900 tons in 2003 (not including the amount for export and non-agricul-



Rapid Development of the Printing and Dyeing Sector in 2002

By Xing Hullu

With the further implementation of domestic demand expansion policies, the active promotion of structural readjustments and the deep going of institutional reforms, the national economy in China maintained a sound momentum in 2002. The printing and dyeing sector made a rapid development. The output of printed and dyed cloth was more than 20.0 billion meters, main economic indexes hit a new historical high and the economic functioning presented a benign picture.

1 Co-existence of several types of ownership with non-state economy as the lead

The printing and dyeing sector was always a production sector with relatively rapid and extensive process of market orientation since 1979. The emergence and the withdrawal of enterprises were totally the outcome of market competition. It can be seen from Table 1 that state-owned and state-held enterprises in the printing and dyeing sector held no leading position either in number and scale or in employment. On the contrary, enterprises funded by foreign companies or companies from Hong Kong, Macao and Taiwan, private enterprises/enterprises of other nature and collective enterprises played a decisive role. The value of delivered export goods in enterprises funded by foreign companies or companies from Hong Kong, Macao and Taiwan, in particular, accounted for nearly a half and the product sales revenue and the total profit accounted for more than one third.

The number of large and medium

scale enterprises only accounted for 14.61% of the total enterprises with a considerable scale. Their net value of fixed assets, employment and product sales revenue, however, accounted for more than 40%, their value of delivered export goods accounted for 58.23% and their total profit accounted for 73.65%. Large and medium scale enterprises played a key and leading role in the printing and dyeing sector.

2 Sound functioning in production

(1) Concentration of production capacity

The mutual promotion of industrial clusters in eastern coastal areas such as Zhejiang, Jiangsu, Guangdong, Shandong and Fujian led to a rapid development of the printing and dyeing sector in recent years. The production was more and more concen-

trated in these areas. The output of printed and dyed cloth in these areas accounted for 85% of the national total. (See Table 2) The greatest development was made in Zhejiang. The output of printed and dyed cloth in Zhejiang reached 10.119 billion meters in 2002, a rise of 23.96% over the previous year and accounting for 47.99% of the national total.

(2) Readjustment to product structure

Remarkable readjustments were made to the product structure of printed and dyed cloth in 2001. Dyed cloth still held the major proportion. In terms of finished products, the output of printed cloth was nearly doubled whereas the output of dyed cloth made a considerable reduction. In terms of fibers, the output of pure chemical fiber cloth made a drastic reduction whereas the output of cotton blended cloth had a considerable increase. It shows that the printing

Table 1 Enterprises with Various Types of Ownership in the Printing and Dyeing Sector in 2001 (RMB million)

	Total enterprises	State-owned and state-held	Collective	Funded by foreign or HK, Macao and Taiwan	Private
Number of enterprises	965	128	166	264	407
Proportion (%)	100	13.26	17.20	27.36	42.18
Fixed assets	25 585	6 575	2 511	9 606	6 893
Proportion (%)	100	25.70	9.81	37.55	26.94
Employment ('000 person)	287.0	77.3	39.3	80.6	89.8
Proportion (%)	100	26.93	13.69	28.08	31.29
Sales revenue	61 196	10 193	8 986	22 935	19 082
Proportion (%)	100	16.66	14.68	37.48	31.18
Value of delivered export goods	28 748	6 058	3 298	13 838	5 554
Proportion (%)	100	21.07	11.47	48.14	19.32
Total profit	1 522	-92	485	521	608
Proportion (%)	100	-6.05	31.87	34.23	39.95

Source: CNCIC ChemData

*. Considerable scale: enterprise with an annual production value exceeding RMB 5 million

Table 2 Output of Printed and Dyed Cloth in Major Areas in 2002 (billion m)

Area	Whole country	Zhejiang	Jiangsu	Guangdong	Shandong	Fujian	Others
Output	21.087	10.119	2.920	2.348	1.335	1.203	3.162
Proportion (%)	100	47.99	13.85	11.13	6.33	5.70	15.00

Source: CNCIC ChemData



and dyeing sector made readjustments to the product structure according to the market demand and the market adaptability in enterprises was improving.

(3) Rapid growth in production and sales

(4) Stable improvement of economic performance

The total profit achieved in the printing and dyeing sector was RMB1.887 billion in 2002, a rise of 18.20% over the previous year. The per-capita profit was RMB6 290, an increase of 18.61%. The industrial added value (current price) was RMB16.321 billion, an increase of 15.60%. The proportion of losing enterprises dropped by 6.17 percentage points and the total loss was down by 4.24%. The assets-liabili-

ties ratio was 63.21%, a drop of 1.84 percentage points. The economic performance of the entire sector in 2002 was sound and the profit made a steady growth, reaching the highest level in recent years.

3 Favorable balance in import and export

The import and export volume of major varieties of printed and dyed cloth was US\$7.314 billion in 2002. The import volume was US\$3.274 billion and the export volume was US\$4.040 billion with a favorable balance of US\$766 million. It was the first time for the printing and dyeing sector to have a favorable balance in import and export.

(1) Drop in import volume

China imports great quantities of cover materials from abroad each year for export clothes. According to customs statistics, the import amount of major varieties of printed and dyed cloth was 3.398 billion meters in 2002, a rise of 0.6% over the previous year. The import volume was US\$3.274 billion, a drop of 6.40%. The fluctuations in international economy and trade led to a sustained price drop of industrial goods. The average import price of printed and dyed cloth was US\$0.96 per meter in 2002, a drop of US\$0.07 per meter from 2001. The major variety imported by China was chemical filament fiber cloth and the import amount accounted for nearly three-quarters of the total.

(2) Drastic increase in export

The export of printed and dyed cloth maintained a rising trend in 2002. According to customs statistics, the export amount of major varieties of printed and dyed cloth was 5.576 billion meters and the export volume was US\$4.040 billion, a rise of 28.21% and 28.58% respectively over the previous year. The average export price of printed and dyed cloth was US\$0.72 per meter, equal to 2001. The price of industrial goods in the international market made a sustained downturn, but the price of printed and dyed cloth exported by China did not go down. It shows that the ability of product development and innovation in China's printing and dyeing sector was improved. The major variety exported by China was also chemical filament fiber cloth and the export amount accounted for nearly a half of the total.

Major varieties of printed and dyed cloth imported by China were high-grade products mostly used in the processing of export clothes and high-grade clothes. Varieties exported by China are of lower grade.

4 Future development focus

With the further improvement of

Table 3 Production and Sales in the Printing and Dyeing Sector in Recent Years

Year	(RMB billion)				
	1998	1999	2000	2001	2002
Output (billion m)	14.7	16.0	15.8	17.8	21.1
Total industrial output value	39.5	43.6	51.4	56.0	65.8
Total industrial output value	45.6	47.6	55.1	66.2	74.3
Sales revenue	40.9	43.5	51.3	61.2	69.0
Value of delivered export goods	21.4	21.5	24.2	28.7	31.2

Source: CNCIC ChemData

Table 4 Import of Major Varieties of Printed and Dyed Cloth in 2002

Variety	Amount (million m)	Growth over the previous year (%)	Value (million USD)	Growth over the previous year (%)
Pure cotton dyed cloth	543	6.65	714	3.49
Pure cotton printed cloth	53	-8.48	101	-15.32
Cotton blended dyed cloth	106	0.39	193	1.37
Cotton blended printed cloth	9	-8.48	14	-16.45
Chemical filament fiber cloth	2 468	-0.72	2 015	09.42
T/C printed and dyed cloth	219	-3.73	237	-8.29
Total	3 398	0.60	3 274	-6.40

Source: CNCIC ChemData

Table 5 Export of Major Varieties of Printed and Dyed Cloth in 2002

Variety	Amount (million m)	Growth over the previous year (%)	Value (million USD)	Growth over the previous year (%)
Pure cotton dyed cloth	1 046	40.49	1 070	29.06
Pure cotton printed cloth	450	44.96	331	37.71
Cotton blended dyed cloth	74	39.94	78	32.76
Cotton blended printed cloth	59	129.54	37	76.84
Chemical filament fiber cloth	2 750	44.25	1 959	49.20
T/C printed and dyed cloth	1 197	-8.63	565	-16.92
Total	5 576	28.28	4 040	28.58

Source: CNCIC ChemData



people's living standard and housing conditions and the application expansion of textiles in industrial sectors, the demand of textile clothes, household textiles and industrial textiles will have a constant increase. It is a new growth point in the textile industry.

(1) Use high and new technologies to renovate and upgrade traditional sectors

The printing and dyeing sector in China has made a rapid development since reform and opening up. The overall level of the sector is however not high and there is a considerable gap with advanced countries. 1.854 billion U. S. dollars has been spent in recent years in introducing advanced printing and dyeing and post-treatment equipment from abroad. Nevertheless, the printing and dyeing sector is a technology-intensive sec-

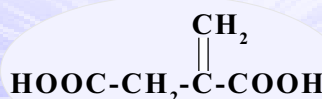
tor and stable product quality has to be ensured by advanced process technology and equipment.

(2) Rely on technical innovation to enhance enterprise competitiveness

In the printing and dyeing sector the output value of new products accounted for 3.36% of the total output value in 2001, being 1.68 percentage points lower than the textile industry and 6.38 percentage points lower than the entire industrial sectors. The ability of new product development in the printing and dyeing sector is lower than the textile industry. Only through the innovation conducted with our own efforts and the assimilation of advanced foreign technologies and equipment can enterprises in the printing and dyeing sector hope to make a rapid development.

(3) Accelerate product development

Printed and dyed products in China are still based on medium and low-grade varieties. There are not many raw material compositions, product varieties and product specifications. The processing capacity of medium and low-grade products is in surplus and the output of such products in 2002 was 17.22% higher than the previous year. The rate of profit on sales in the printing and dyeing sector was 2.49% in 2001, being 0.49 percentage points lower than the textile industry and 2.56 percentage points lower than the entire industrial sectors. It is therefore imperative for the printing and dyeing sector to accelerate the development of products such as facsimile fabrics, elastic fabrics, pure cotton fabrics, multi-component blended and union fabrics, coated fabrics, green fiber fabrics and various functional fabrics.



Qingdao Langyatai (Group) Co., Ltd., an ISO9002 certificated company situated at Qingdao City, is the largest acknowledged plant of itaconic acid in China, annual output is 4,500 tons. During the production, we utilize advanced technology of fermentation and refined process, and actualize strict quality control, which make the quality of product always has a leadership in the world.

Itaconic acid, also named methylene succinic acid, assay is 99.5%min. is mainly used in Styrene-Butadiene Latex, Synthetic Resins, Adhesives, Acrylic fibers, and so on. Besides we also produce itaconic anhydride, dimethyl itaconate, tartaric acid, succinic acid, which all have high performance quality.

For more details about us please feel free to contact us, we welcome you to visit our website: www.langyatai.com, your inquiries will be very much appreciated.

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ITACONIC ACID



China Strengthens Inspection on the Import of Cosmetics

With the improvement of people's living standard, the demand of cosmetics in China is increasing. As cosmetics belong to the few luxury goods, China has imposed relatively high tariff on the import of cosmetics. The import tariff rate was maintained at 22.5 - 25.5% in 2002, the value added tax was 17% and the excise tax was 30% (8% for skin-care products).

The import tariff rate for cosmetics has made a constant reduction in recent years. It dropped from 35% in 1998 to 20.5 - 25.5% in 2002. The import value has also increased by a big rate in recent years. The import in 2002 was however somewhat different from the import in previous years.

Take Guangdong for instance. The import volume of cosmetics started to go down from February 2002 and made an increase only in the last two months in the year. The import volume of cosmetics in Guangdong was US\$14.9 million in 2002, a drop of 40.1% from the previous year. The main reason was the drastic drop of the import made in the form of general trade. The import volume of cosmetics in the form of general trade in 2002 was US\$9.06 million less than in 2001 and the import value in the form of processing trade was US\$820 000 less. The reduction of the import value in

these two trade forms accounted respectively for 91% and 8.3% of the total reduction.

According to experts, the mad bull disease in some countries and regions was the main reason for the drastic import reduction of cosmetics in 2002. To prevent the disease from spreading into China, the Ministry of Public Health and the State Quality Inspection Administration jointly issued an announcement on March 6, 2002. The sale of cosmetics with bull/sheep raw materials as ingredients imported from countries and regions having mad bull disease was prohibited. 18 such countries and regions including Britain, Ireland, France and Japan were listed in the initial period. Related products already put in the domestic market should be recovered before April 20. The import of cosmetics was therefore seriously affected and a drastic reduction started from February that year. Foreign enterprises made a timely readjustment to their export product structure and began to export to China cosmetics with plant raw materials as ingredients. The import of cosmetics started to pick up in the last two months of 2002.

It is expected that the import tariff rate for cosmetics will further reduce to 18.3 - 22.3% and the im-

port amount will have a considerable increase. There are numerous cosmetics producers in China, but the production scale is small and the product grade is low. Great quantities of imports will occupy the domestic market of medium and high-grade cosmetics. What should also be noted is that there is a brisk domestic market demand of high-grade cosmetics imported from abroad. There are in the domestic market

a lot of cosmetics with uncertain sources. Cosmetics feature small size and high price and there is a great price difference between domestic and overseas markets. Cosmetics can therefore easily become target goods for smuggling. Experts suggest that relative departments should strengthen the inspection on the import of cosmetics and make more efforts in cracking down smuggled imports.

Organic Phosphate Type Flame Retardant, Plasticizer

Tianjin Lianrui Chemical Co., Ltd., a new and high-tech enterprise, is the largest manufacturer of the organic phosphate type flame retardant, antioxidant and plasticizer in China. It has obtained ISO9001: 2000 International Quality System Authentication & Autonomous Management Import & Export Right.

We produce non-toxic, odorless environmental friendly products, no wastes discharged, used for paint, grease, plastics, rubbers, textile etc.

Products Provided:

Tricresyl phosphate	(TCP)
Triphenyl phosphate	(TPPa)
Triphenyl phosphite	(TPPi)
Triethyl phosphate	(TEP)
Tributyl phosphate	(TBP)
Tris(1,3-dichloro-2-propyl)phosphate	(TDCPP)
Tris(1-chloro-2-propyl)phosphate	(TCPP)
Tris(2-chloroethyl)phosphate	(TCEP)
Tri(2,3-dibromopropyl)phosphate	
Isopropylphenyl diphenyl phosphate	(IPPP)
Cotton fabric flame retardant agent	(CP)

Address: Huifeng Industrial Area, Xianshuigu Town, Jinnan District, Tianjin City, China. Post Code: 300350
 TEL: +86-22-88917792/28510005 FAX: +86-22-28513338
 Website: www.lianruichem.com E-mail: wdcpl@lianruichem.com



Better Than Expected - Improvement on Previous Years

Analysis of economic function in the tire sector, 2002

Reported by LI Songfa

2002 was the first year in which China met challenges after the WTO accession. It is necessary to briefly review and analyze the economic functioning in the tire sector in China that year.

The tire sector in China suffered an overall loss in 2000 and the quality of economic functioning hit bottom. The tire sector reversed loss to profit and economic functioning improved in 2001. According to statistics made of 50 tire producers in China Rubber Industry Association Tire Sub-Association, main economic indexes in the tire sector in 2002 were turned better than had been expected. They were an improvement on previous years, and showed a strong recovery. The output value of tires in 2002 was RMB46.878 billion and the output was 92.64 million pieces in 2002, an increase of 18.86% and 11.91% respectively over the previous year. The output of radial tires was 35.29 million, an increase of 18.80% and the output of all-steel radial tires was 6.227 million pieces, a rise of 65.38%. The sales revenue of tires was RMB33.377 billion, a rise of 20.52%. Top producers in terms of sales revenue include Anhui GT, Rongcheng Rubber, Triangular Group, Shanghai Tire, Qingdao Yellow Sea, Hangzhou Zhongce, Shuangding Huaqing, Guizhou Tire, Henan Tire and Shandong Linglong. The inventory was 16.22% less than the previous year. The total profit was RMB1.186 billion, 2.74 times that of the previous year. Top 10 producers in terms of total profit include Xiamen Cheng Shin, Anhui GT, Triangular Group, Rongcheng Rubber, Hangzhou Zhongce, Michelin Shenyang, Nanjing Kumho, Shuangxing Huaqing, Henan Tire and Qingdao Yellow Sea. The total profit and tax was RMB3.703 billion, an in-

crease of 39.21%. It can therefore be said that in the first year to meet challenges after the WTO accession the tire sector in China not only stood the test of the global competition and maintained a sustained and sound development trend, but also entered a new phase of growth. We cannot of course say that the WTO accession had no impact on the tire sector. In the 50 tire producers of the Tire Sub-Association, 15 enterprises suffered loss and 11 of them were state-owned enterprises. Some of them were large state-owned tire producers.

Data shows that the economic functioning in the tire sector in 2002 had the following features:

(1) Demand Increase formed a stable and sustained driving force for the development of the tire sector.

The tire sector experienced a setback and realignment in the previous two years. It started to recover and entered a new growth period in 2002. The major reason for this was that owing to the policy of expanding domestic demand there were more activated factors from the market demand. The vigorous development of the automobile industry and the rapid development of highway construction, in particular, brought a broad market space to the tire sector.

According to statistical data from the State Economic and Trade Commission, the automobile industry in 2002 accomplished three years ahead of schedule the output target of 2.9 million vehicles defined in the Tenth Five-year development program. The output reached 3.48 million, the growth rate being 35%, and the growth rate of sedans reached as high as 55%. The automobile industry will continue

grow in the next 2 - 3 years. According to experts, the growth margin will still be around 20% this year. Furthermore, data from the State Statistics Bureau shows that China has accelerated highway construction. The total highway mileage reached 1.70 million km in 2001 and the mileage of high-grade highways was 1.34 million km, including 194 000 km of expressways. The speed of highway construction was even greater in 2002. The total mileage of expressways reached 25 000 km and the mileage in Jiangsu alone increased by 298 km. These favorable factors combined to promote the economic growth of the tire sector in China.

(2) Investment increase has become a basis for the production development and product upgrading of the tire sector.

State-owned enterprises, private enterprises and foreign-funded enterprises are all making investments in radial tire production. According to information from the tire sector, the focus in state-owned enterprises is on the development of all-steel radial tires. For example, Shanghai Tire Group and Shandong Triangular Group are making expansions, trying to acquire a capacity of 2.5 million sets/a all-steel radial tires. Qingdao Yellow Sea Group plans to invest RMB1.6 billion in the construction of Qingdao Rubber Industry Park and launch a project of 1.0 million sets/a all-steel radial tires and 3.0 million sets/a sedan and light-duty truck tires. Qingdao Shuangxing Huaqing Group is ready to invest in the expansion of the existing 300 000 sets/a all-steel radial tire unit to 1.5 million sets/a all-steel radial tires and 1.0 million sets/a sedan and light-duty truck tires. Shandong Linglong Group has also expanded the capacity of their all-steel radial tire unit



from 600 000 sets/a to 1.0 million sets/a. Shandong Chengshan Group, Henan Tire and Guizhou Tire are also trying hard to expand their all-steel radial tire projects.

Private tire enterprises are also speeding up readjustments to the product structure and develop radial tires. They have increased their investments with the support from state policies. Due to large investments, high technical requirements and great manufacturing complexity, the production of all-steel radial tires was a field almost closed to private tire enterprises in the past. In the tide of constructing all-steel radial tires, however, 6 private tire enterprises in Shandong Dongying Guangrao have made investments in all-steel radial tire projects at the same time. Zhejiang Fuyang Bull Tire Co., Ltd., another private enterprise, plans to invest RMB300 million in a 300 000 sets/a all-steel radial tire project and the capacity of the project will reach 1.8 million sets/a in 2007. The investment made by private enterprises in radial tire projects became a focus in the tire sector in 2002. In an environment of diversified investments, of course, measures should be taken to avoid blind investment and to standardize the all-steel radial tire market to avoid unhealthy competition.

Furthermore, foreign tire enterprises also focus on the Chinese tire market and continue to expand their investment. Besides the investment expansion made in Shanghai, Shenyang, Tianjin and Dalian by Michelin of France, Bridgestone of Japan and Goodyear of the United States, Yokohama of Japan has constructed a 750 000 sets/a high-performance sedan radial tire project in Hangzhou. Jiangsu Hankook has put an investment of US\$80 million in the construction of a 300 000 sets/a all-steel radial tire unit. Taiwan Cheng Shin has invested US\$99 million in the production expansion in Jiangsu Kunshan and US\$90 million in the construction of a 2.5 million sets/a radial tire unit including 300 000 sets/a

all-steel radial tires in Fujian Xiamen. Besides, Jiangxi Taifeng has invested RMB350 million in the expansion of the sedan and light-duty truck production line.

It can therefore be seen that the vigor of domestic and overseas tire markets has already been activated. It also indicates that the diversified development trend in the tire sector will become a basis for product upgrading and stable economic growth of the tire sector.

(3) New development modes have been formed after readjustment and reformation and the inherent strength has been enhanced.

Tire enterprises in China have speeded up restructuring since WTO accession. The structure of tire producers has formed a new diversified development mode after opening, reform, readjustment and reformation. (i) Qingdao Yelow Sea Group was listed in 2002 following Shanghai Tire, Hualin Tire and Guizhou Tire. It is said that state-owned tire producers such as Triangular Group are also prepared to be listed in the stock market. They will have an institutional environment functioning according to commercial rules and the strength of enterprises will be further enhanced. (ii) Some medium and small enterprises are faced with pressure from fierce competition. They have been shifted to private shareholding enterprises, or private contracted or trusted enterprises. The equity structure has become more diversified and new capital and vitality has been injected into these enterprises. For example, Hebei Tire and Shandong Taishan have been shifted to private shareholding enterprises. Changchun Tire has been shifted to a private trusted enterprise. Zhuzhou Tire and Fujian Jiuzhou have been shifted to private contracted enterprises. It can be seen that WTO accession has not only provided development space for private enterprises, but has also promoted the equity flow. (iii) Some tire enterprises are seeking large domestic groups as par-

ent companies. For example, Beijing Tire Factory, Liaoning Tire Factory and Jiangsu Xuzhou Tire Factory have taken Beijing Shouchuang Group, Linggang Group and Xugong Group as their parent companies. They make use of the strong economic force and management advantages in these groups to develop their own competitive advantages and enhance their comprehensive competitiveness.

Furthermore, although the world economy maintained a mild rehabilitation and the rubber stock price had a gradual increase in 2002, main economic indexes in the tire sector showed a two-digit growth. The export delivery amount and the export delivery volume rose 11.8% and 20.8% over the previous year. The export delivery volume of radial tires rose 39%. This illustrates that the quality of economic functioning in the tire sector has improved considerably. The rapid growth of radial tires in particular indicates that the readjustment and upgrading of the product structure in the tire sector has made considerable achievements and the tire sector has entered a new development stage and changed a traditional manufacturing sector into a modern manufacturing sector. The core competitiveness in domestic tire enterprises has become stronger in market competition and provided a solid foundation for the sustained and stable growth of the tire sector.

Based on the above analysis, we can say that 2002 was a year with great improvements in economic performance in the tire sector and also a year in which the tire sector achieved new developments in global competition. An optimistic attitude is taken towards domestic tire enterprises. It is estimated that 2003 will also be a year of growth. A relatively strong growth will be maintained, but there will also be some uncertain factors such as the continuous rise of rubber stock price, readjustments in policies and market environments and the impact of domestic and overseas economic situations.



Import Data During the First Quarter 2003

The following six chemicals listed in the leading position among the imported fine chemical for China

Import source	Import quantity kg	Import amount US\$	CIF price US\$/ton
29224110 Lysine			
Japan	12	2139	178250.0
Taiwan prov	5832	10288	1764.1
India	17000	32807	1929.8
Thailand	35000	73500	2100.0
Vietnam	58700	82875	1411.8
Brazil	70000	109200	1560.0
United States	820530	1430665	1743.6
Indonesia	1462000	2898363	1982.5
Korea, Rep	1583050	3189475	2014.8
World Total	4052124	7829312	1932.2
29304000 Methionine			
Korea, Rep	100	140	1400.0
Taiwan prov	100	260	2600.0
Spain	940000	1439200	1531.1
France	1262000	2533000	2007.1
Germany	1671560	4039019	2416.3
Belgium	3680000	8043865	2185.8
United States	4238000	6624948	1563.2
Japan	6586650	14917712	2264.8
World Total	18378410	37598144	2045.8
29333100 Pyridine and its salts			
Netherlands	60	485	8083.3
Korea, Rep	415	706	1701.2
Switzerland	544	14110	25937.5
Belgium	1850	18500	10000.0
Hong Kong	2000	1718	859.0
United Kingdom	20793	58494	2813.2
Germany	23316	147828	6340.2
Russia	33820	94020	2780.0
Ireland	44464	785884	17674.6
India	418604	1127378	2693.2
Japan	433670	1366973	3152.1
Taiwan prov	464088	1433070	3087.9
United States	652871	1796613	2751.9
World Total	2096495	6845779	3265.3
32081000 Paints based on polyesters			
Indonesia	416	874	2101.0
New Zealand	783	313	399.7
Sweden	833	7680	9219.7
Austria	1900	7966	4192.6
Mexico	2805	12990	4631.0
Brazil	3773	23268	6167.0
Thailand	5514	3860	700.0
Australia	5597	11117	1986.2
Spain	15239	11724	769.3
India	17495	28104	1606.4
Netherlands	21705	37434	1724.7
Greece	23100	62326	2698.1
Switzerland	26964	59491	2206.3
France	58416	174365	2984.9
United Kingdom	60460	195842	3239.2
Malaysia	148377	299480	2018.4
Canada	221040	446299	2019.1
Belgium	270242	747179	2764.9
United States	504683	1650674	3270.7
Germany	587412	3223596	5487.8
Italy	601014	1133780	1886.4
Hong Kong	918983	2115805	2302.3
Japan	1022838	5045264	4932.6
China	1060762	2382721	2246.2

Import source	Import quantity kg	Import amount US\$	CIF price US\$/ton
Singapore	1140841	2665434	2336.4
Taiwan prov	3361302	6003092	1785.9
Korea, Rep	3866483	8385063	2168.7
World Total	13948977	34735741	2490.2
32041600 Acid dyes			
Australia	170	170	1000.0
Portugal	210	3043	14490.5
Argentina	730	6205	8500.0
Czecho	800	7372	9215.0
Italy	1236	13831	11190.1
Sweden	4800	17120	3566.7
Macao	7901	36474	4616.4
France	3930	61454	15637.2
Brazil	11110	69036	6213.9
Belgium	5310	69832	13151.0
Netherlands	27770	243129	8755.1
United Kingdom	57383	289391	5043.1
Spain	51946	425756	8196.1
Singapore	61035	480043	7865.0
China	232430	507223	2182.3
Thailand	145215	507651	3495.9
United States	51001	605169	11865.8
Indonesia	164085	818931	4990.9
Germany	246491	1576551	6396.0
India	965310	2497875	2587.6
Japan	301619	2698974	8948.3
Hong Kong	610633	3007493	4925.2
Switzerland	454415	3225754	7098.7
Korea, Rep	1031250	3396852	3293.9
Taiwan prov	1674482	5495842	3282.1
World Total	6111262	26061171	4264.4
32041700 Pigment and its preparations			
Bulgaria	20	80	4000.0
Sweden	80	5820	72750.0
Finland	175	481	2748.6
Turkey	687	2220	3231.4
Macao	845	850	1005.9
Philippines	900	2070	2300.0
Norway	1950	5860	3005.1
South Africa	2534	1629	642.9
Portugal	3605	30145	8362.0
Austria	3634	20956	5766.6
Denmark	4615	58727	12725.2
Mexico	8504	154440	18160.9
Brazil	12380	43057	3477.9
Canada	17364	93823	5403.3
Malaysia	36540	121066	3313.2
France	49683	321548	6472.0
Spain	53356	57223	1072.5
Thailand	54687	146026	2670.2
Netherlands	56077	311279	5550.9
Australia	60698	218446	3598.9
Italy	94588	343937	3636.2
India	121410	489816	4034.4
Singapore	160902	674364	4191.1
Belgium	177028	562753	3178.9
Switzerland	189445	1798378	9492.9
United Kingdom	216502	960932	4438.4
China	284593	903719	3175.5
Indonesia	328202	870974	2653.8
United States	467903	2346861	5015.7
Germany	518979	4265023	8218.1
Hong Kong	793604	2200189	2772.4
Korea, Rep	808152	3644511	4509.7
Japan	1120346	6524570	5823.7
Taiwan prov	2258947	7447045	3296.7
World Total	7908935	34628818	4378.4

Source: CCR



SHOUGUANG FUKANG PHARMACEUTICAL CO., LTD

(BEST QUALITY, COMPETITIVE PRICE, EXCELLENT SERVICE) **TMP**
THE WORLD-BIGGEST MANUFACTURER OF

PRODUCTS CATALOGUE

Product Name	Quality	Capacity	Packing	Chinese name
◆ Pharmaceutical Raw Material				
1. Trimethoprim (micronized)	BP98/BP2000/EP3/ USP24/ EP4/CP2000	1 200 mt/year	25 kg/ fibre drum	甲氧苄啶
2. Trimethoprim lactic acid	Assay min. 99.0%	50 mt/year	5*5 kg/25kg/drum	乳酸甲氧苄啶
3. Itraconazole	BP2000	5 000 kg/year	25 kg/ fibre drum	伊曲康唑
4. Hydroxyurea	BP98/USP24	15 mt/year	25 kg/ fibre drum	羟基脲
5. Tramadol Hydrochloride	BP2000	6 mt/year	25 kg/fibre drum	盐酸曲马多
6. Telmisartan	EP3	10 mt/year	5 kg/drum	替米沙坦
7. Amiodarone HCL	EP2000			盐酸胺碘酮
◆ Intermediates				
8. 3,4,5-Trimethoxytoluene	Assay min. 98.0%	100 mt/year	250 kg/plastic drum	3,4,5-三甲氧基甲苯
9. 3,4,5-Trimethoxybenzaldehyde	Assay min. 99.0%	1 000 mt/year	25 kg /fibre drum	3,4,5-三甲氧基苯甲醛
10. 2,4,5-Trimethoxybenzaldehyde	Assay min. 98.0%	5 mt/year	25 kg/bag	2,4,5-三甲氧基苯甲醛
11. Cis-[2-(2,4-Dichlorophenyl)-2-(1H-1,2,4-triazol-1-ylmethyl)-1,3-dioxolan-4-yl] methyl methanesulfonate	Assay:>98.0%GC M.P.: 98℃	5 000 kg/year	25 kg/drum	甲磺酸活性酯
12. 2,4-Dihydro-4-[[4-(4-hydroxyphenyl)-1-piperazinyl]-phenyl]-2-(1-methyl propyl)-3H-1,2,4-triazol-3-one	Assay:>98.0% (HPLC) M.P.:213-215℃	5 000 kg/year	25 kg/drum	三氮唑酮
13. 1,3,5-Trimethoxybenzene	Assay min. 99.0%	200 mt/year	25 kg/fibre drum	1,3,5-三甲氧基苯
14. 3,5-Dibromo-4-Hydroxy benzaldehyde	Assay min. 99.5%	2 000 mt/year	50 kg/plastic woven bag	3,5-二溴-4-羟基苯甲醛
15. 3-Bromoanisole	Assay min. 99.0%	100 mt/year	200 kg/ rigid plastic drum	间溴苯甲醚
16. 3-Bromonitrobenzene	Assay min. 99.0%	100 mt/year	25 kg/rigid plastic drum	间溴硝基苯
◆ Bromide				
17. Sodium bromide	Assay min. 99.0%	5 000 mt/year	25 kg/plastic woven bag	溴化钠
18. Hydrobromic acid	Assay min. 47.0%	5 000 mt/year	300 kg/plastic drum	氢溴酸
19. Bromoethane(Ethyl Bromide)	Assay min. 98.0%	2 000 mt/year	300 kg/rigid plastic drum	溴乙烷
20. N-Propyl Bromide	Assay min. 99.%	5 000 mt/year	250 kg/rigid plastic drum	溴丙烷
21. Isopropyl Bromide	Assay min. 98.0%	2 000 mt/year	250 kg/rigid plastic drum	2-溴丙烷
22. Ethylene Bromide	Assay min. 99.0%	2 000 mt/year	400 kg/rigid plastic drum	1,2-二溴乙烷
23. (β -bromoethyl)benzene	Assay min. 99.0%	200 mt/year	250 kg/rigid plastic drum	β -溴乙基苯
24. 1-bromo-3-chloropropane	Assay min. 98.0%	200 mt/year	250 kg/rigid plastic drum	1,3-溴氯丙烷
25. m-bromoaniline	Assay min. 99.0%	100 mt/year	200 kg/drum	间溴苯胺

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<http://www.shouguangpharm.com> Contact: Mr.Feng Shuhai



Suzhou Worldbest Agro-Biochemical Co., Ltd.

Suzhou Worldbest Agro-Biochemical Co., Ltd. is a subsidiary of Shanghai Worldbest Co., Ltd. It is a high-tech enterprise and mainly producing pesticides (Insecticide, Fungicide, Herbicide, Plant Regulation Agent), fine chemicals, pharmaceutical intermediate series, health foods and derivatives of phosgene. Suzhou Agrochem has already gained the certificate of ISO9001: 2000. Now customers of Suzhou Agrochem are all over the world including many multinational corporations.

Suzhou Agrochem is located in Mudu of Suzhou, about 80 kilometers from Shanghai Hongqiao Airport in the east, Shanghai-Nanjing Highway in the north with convenient transportation. It is a good place for customers to develop domestic and overseas business.

Suzhou Agrochem warmly welcome customers all over the world to contact and negotiate with us for joint development.

PRODUCTS LIST

CHEMICAL PRODUCTS

- | | |
|--|--|
| 1. CYANAMIDE 95%, 50%, 25% | 18. P-ISOPROPYL PHENYL ISOCYANATE |
| 2. DICYANDIAMIDE 99%, 99.5% | 19. P-CHLORO PHENYL ISOCYANATE |
| 3. O-DIAMINO BENZENE | 20. n-BUTYL ISOCYANATE |
| 4. SODIUM SARCOSINATE | 21. ISOPROPYL ISOCYANATE |
| 5. N-n-OCTYL-D-GLUCAMINE | 22. 2-CHLORO-3-METHYLPYRIDINE |
| 6. N-METHYLGLUCAMINE | 23. 6-CHLORO-3-METHYLPYRIDINE |
| 7. BENZYLAMINE | 24. 2-CHLORO-5-CHLOROMETHYLPYRIDINE |
| 8. CREATINE MONOHYDRATE 99% | 25. 3-PICOLINE-N-OXIDE |
| 9. ANALGIN | 26. P-NITROBENZOYL CHLORIDE |
| 10. DIETHYL (DIMETHYL) CARBONATE | 27. METHYLAMINO FORMYL CHLORIDE |
| 11. LAURYL CHLOROFORMATE | 28. DIMETHYL (DIETHYL) AMINO FORMYL CHLORIDE |
| 12. ISOPROPYL (ISOBUTYL) CHLOROFORMATE | 29. STEAROYL CHLORIDE |
| 13. n-BUTYL CHLOROFORMATE | 30. CALCIUM CYANAMIDE |
| 14. METHYL (ETHYL) CHLOROFORMATE | 31. METHYLAMINO FORMYL CHLORIDE |
| 15. BENZYL (PHENYL) CHLOROFORMATE | 32. DIMETHYLAMINO FORMYL CHLORIDE |
| 16. 3, 4-DICHLORO PHENYL ISOCYANATE | 33. 2-HYDROXY QUINOXALINE |
| 17. 3, 5-DICHLORO PHENYL ISOCYANATE | 34. PHOSGENE |

PESTICIDE PRODUCTS

- | | |
|--|--|
| (1) FUNGICIDE | (3) INSECTICIDE |
| 1. CARBENDAZIM TECH, SC, WP (GREY OR WHITE) | 1. IMIDACLOPRID TECH, WP, WS, EC, SL, SC |
| 2. BENOMYL TECH, WP | 2. ACETAMIPRID TECH, WP, EC, SL |
| 3. THIOPHANATE-METHYL TECH, WP (GREY OR WHITE) | 3. QUINALPHOS TECH, EC |
| (2) HERBICIDE | (4) PLANT REGULATION AGENT |
| 1. ISOPROTURON TECH, WP, SC | 1. ETHEPHON TECH, SL |
| 2. DIURON TECH, WP | 2. CYANAMIDE WSC |
| 3. OXADIAZON TECH, EC | |

ALL KINDS OF PROCESSING AND CUSTOMIZING CHEMICALS

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Spot prices in Zhejiang, East China quoted on May 16, 2003

Product	Grade	Producer	Price RMB/ton	Product	Grade	Producer	Price RMB/ton
LDPE	Q281	Shanghai Petrochemical	6600	PP	K8303	Yanshan Petrochemical	7300
LDPE	Q200	Shanghai Petrochemical	6500	PP	K7726	Yanshan Petrochemical	7100
LDPE	N220	Shanghai Petrochemical	6500	PP	M1600	Hyundai Petrochem of Korea	7600
LDPE	N150	Shanghai Petrochemical	6500	PP	J340	Hyosung of Korea	7800
LDPE	112A-1	Yanshan Petrochemical	6600	PP	BJ730	Samsung of Korea	9000
LDPE	LD100	Yanshan Petrochemical	6300	PP	AP03B	Singapore	8000
LDPE	1150A	Yanshan Petrochemical	7800	PP	R370Y	SK of Korea	9200
LDPE	LD605	Yanshan Petrochemical	6900	PP	344R	Daelim of Korea	9200
LDPE	18D	Daqing Petrochemical	6350	PP	HJ730	Samsung of Korea	9000
LDPE	2100TN00	Qilu Petrochemical	6450	PP	M800E	Shanghai Petrochemical	8100
LDPE	2102TN26	Qilu Petrochemical	6400	PP	M1600E	Shanghai Petrochemical	8100
LDPE	FD0274	Qatar	6800	PP	Powder	Zhenhai Petrochemical	5800
LDPE	200GG	Malaysia	6450	PP	Powder	Jinling Petrochemical	5800
LLDPE	DFDA7042	Daqing Petrochemical	6100	PVC	WS800-1300	Shanghai Chlor-Alkali	6400
LLDPE	DFDA7042	Jilin Petrochemical	6000	PVC	P-1000	Hanwa of Korea	6300
LLDPE	DFDA7042	Tianjin United Petrochem	6050	PVC	LS-100	LG Chem of Korea	6300
LLDPE	DFDA7042	Yangzi Petrochemical	6000	PVC	TK1000	Shin-Estu of Japan	6400
LLDPE	DFDC7050	Zhongyuan Ethylene	6350	PVC	S-02	Shanghai Chlor-Alkali	7800
LLDPE	218W	Saudi Arabia	6300	PVC	EB101	Shanghai Chlor-Alkali	10200
LLDPE	1002	Singapore	6200	PVC	R02	Shanghai Chlor-Alkali	6700
LLDPE	SF414	Hyundai Petrochem of Korea	6400	GPPS	666D	Yanshan Petrochemical	6700
LLDPE	3305	Hanwa of Korea	6350	GPPS	525	Panjin Ethylene	6700
LLDPE	149M	Yukong of Korea	6600	GPPS	200D	Daqing Petrochemical	6700
HDPE	5000S	Daqing Petrochemical	6400	GPPS	SG-23	Shantou Ocean	6650
HDPE	5000S	Yanshan Petrochemical	6400	GPPS	158K	Yangzi -BASF	7000
HDPE	5000S	Yangzi Petrochemical	6300	GPPS	PG33	Zhejiang Chimei	7400
HDPE	5000S	Honam of Korea	6300	GPPS	3100	Chevron	6900
HDPE	E308	Korea Petrochemical	6300	HIPS	666H	Dow of USA	10100
HDPE	E52009	India	6200	HIPS	825	Panjin Ethylene	7400
HDPE	2200J	Daqing Petrochemical	6450	HIPS	825	Fushun Petrochemical	7400
HDPE	5070	Panjin Ethylene	6400	HIPS	SH-65	Shantou Ocean	7900
HDPE	6070	Dushanzi Petrochemical	6400	HIPS	6025	Chevron	7800
HDPE	2908	Fushun Petrochemical	6400	HIPS	476L	Yangzi-BASF	8000
HDPE	5018	India	6100	HIPS	466F	Yangzi-BASF	8000
HDPE	M6007L	India	6200	HIPS	PH88H	Zhejiang Chimei	7750
HDPE	MH602	Shanghai Petrochemical	6100	HIPS	492J	Dow of USA	9600
HDPE	TR144	Jinfei Petrochemical	6700	ABS	0215A	Jilin Petrochemical	8500
HDPE	7000F	Yangzi Petrochemical	6400	ABS	750A	Daqing Petrochemical	8500
HDPE	6098	Qilu Petrochemical	6700	ABS	510	Panjin Ethylene	8500
HDPE	F600	Korea Petrochemical	6400	ABS	121H	LG Yongxing	8700
HDPE	CH2802	Shanghai Petrochemical	6200	ABS	D180	Zhejiang Grand Pacific	8550
HDPE	5200B	Yanshan Petrochemical	6450	ABS	757K	Zhejiang Chimei	8900
HDPE	5502	Jinfei Petrochemical	6800	ABS	757	Chimei of Taiwan	10200
HDPE	5502	Daelim of Korea	7200	ABS	15A1	Taiwan Chemical Fiber	9200
HDPE	B303	Korea Petrochemical	6500	ABS	121H	LG Chem of Korea	9400
HDPE	400	LG Chem of Korea	6700	ABS	750	Kumko of Korea	9300
HDPE	TR480	Jinfei Petrochemical	7500	ABS	660	Samsung of Korea	9300
HDPE	YGH041T	Shanghai Petrochemical	7000	ABS	700	Toray of Japan	9400
PP	T30S	Shanghai Petrochemical	6450	ABS	GP22	BASF of Korea	9200
PP	T30S	Tianjin United Petrochem	6400	ABS	121H/L862	LG Yongxing	9100
PP	T30S	Zhongyuan Ethylene	6400	ABS	D120	Zhejiang Grand Pacific	9800
PP	T30S	Dalian Petrochemical	6400	ABS	747S White	Chimei of Taiwan	10800
PP	T30S	Fushun Petrochemical	6400	ABS	747S Titanium white	Chimei of Taiwan	12000
PP	T30S	Daqing Petrochemical	6600	ABS	TE-10	Japan	16200
PP	2401	Yanshan Petrochemical	6500	ABS	758	Chimei of Taiwan	17100
PP	F401	Panjin Ethylene	6450	ABS	SM050	Guangzhou	12800
PP	F401	Yangzi Petrochemical	6500	ABS	650M	Kumko Sunny	18500
PP	S1004	Yangzi Petrochemical	6200	ABS	777E	Chimei of Taiwan	20200
PP	570P	Saudi Arabia	6750	ABS	650SK	Kumko Sunny	17000
PP	Y2600	Shanghai Petrochemical	6850	ABS	777D	Chimei of Taiwan	17100
PP	4540	Hyundai Petrochem of Korea	7200	ABS	H2938SK	Kumko Sunny	15000
PP	M700R	Shanghai Petrochemical	6650	ABS	777B	Chimei of Taiwan	15000
PP	M180R	Shanghai Petrochemical	6650	ABS	HFA700	Kumko Sunny	15000
PP	M2101R	Shanghai Petrochemical	6750	ABS	HFA707	Kumko Sunny	15000
PP	J340	Yangzi Petrochemical	6400	ABS	765B	Chimei of Taiwan	15000
PP	K8003	Yangzi Petrochemical	6800	ABS	8245	Kumko Sunny	23000



Product	Grade	Producer	Price RMB/ton
ABS	8250	Kumko Sunny	25000
AS	HF		8500
AS	178LB	Zhenjiang Grand Pacific	7900
AS	178L200	Zhenjiang Grand Pacific	7900
AS	D168	Zhenjiang Grand Pacific	8100
AS	128	Zhenjiang Chimei	9000
AS	128H	Zhenjiang Chimei	9000
AS	117L200	Chimei of Taiwan	10600
AS	127L200	Chimei of Taiwan	10600
AS	127H	Chimei of Taiwan	10400
AS	368R	BASF of German	11000
AS	783	Asahi of Japan	10800
AS	80HF	LG Chem of Korea	9000
AS	82TR	LG Chem of Korea	9100
AS	5330S	Samsung of Korea	9500
PA6	2400I	Guangzhou Xinhui Meida	17200
PA6	BG6J	Nanjing Julong	17500
PA6	1013B	Ube of Japan	19200
PA6	1013NW8	Ube of Japan	18800
PA6	CM1017	Toray of Japan	17600
PA6	1010C2	Mitsubishi of Japan	18800
PA6	M223D	Akzo of Holland	18600
PA6	B3S	BASF of German	19000
PA66	AG6J	Nanjing Julong	23000
PA66	EPR	Shenma of Henan	18500
PA66	1300S	Asahi of Japan	21000
PA66	A3K	BASF of German	24800
PA66	101L	Dupont of USA	25000
PC	K1300	Teijin of Japan	24700
PC	IR2200	Idemitsu of Japan	19300
PC	201-10	Dow of USA	19800
PC	201-15	Dow of USA	19800
PC	S3001R	Mitsubishi of Japan	19200
PC	S3000UR	Mitsubishi of Japan	19800
PC	141R-1111	GE of USA	21500
PC	PK2870-21317	GE of USA	19700
PC	110	Chimei of Taiwan	18000
PC	2805	Bayer of German	21200
PC	2865	Bayer of German	22500
PC	3208	Bayer of German	23000
POM	M90	YUNTIANHUA	14800
POM	M270	YUNTIANHUA	14800
POM	M25	YUNTIANHUA	15500
POM	F20-02	Engineering of Korea	16200
POM	F20-03	Mitsubishi of Thailand	16700
POM	F30-03	Engineering of Korea	16000
POM	M90-04	Polyplastics of Japan	16900
POM	M90-44	Polyplastics of Japan	16800
POM	100P	Dupont of USA	26500
POM	500P	Dupont of USA	19500
POM	900P	Dupont of USA	19500
PPO	WR-801	Sumitomo	32000
PPO	SE1-802	GE of USA	35000
PET	SE5030	Suzhou Chenguang	26500
PET	SE3030	Suzhou Chenguang	21500
PET	CB608	Far East of Taiwan	10800
PET	CB651	Far East of Taiwan	10900
PMMA	CM205	Chimei of Taiwan	17800
PMMA	CM207	Chimei of Taiwan	17800
PMMA	CM211	Chimei of Taiwan	17600
PMMA	IF850	LG Chem of Korea	17900
PMMA	MF001	Mitsubishi of Japan	18200
PMMA	VH001	Mitsubishi of Japan	18300

*prices including VAT
Source: CNCIC ChemData

Liaoning Qingyang Chemical Industries Group Corporation

We produce more than 100,000mt/y dye-stuff and pharmaceutical intermediates, 50,000mt/y civil demolition materials and 70% of them was exported to over 40 countries and regions such as EEC, Japan, USA, Southeast Asia, Russia, Australia and South Africa etc.

C E M C A L P R O C S

Ailine oil

phenyamine

ther antioxidant LE

Pitrotoluene

Mitrotoluene

S Acid

itrocellulose

P-itrobenzoic Aid

P-itrobenzoic Aid

P-oluidne

O-oluidne

2-industrial

2-iamine oluene

Mnitro enzene

Mphenyenedamine

2 Acid

Acid

Silent bac o.

I S R I A L E E R

I S O C C L I R A E

Q I L E M L I O M A E A L

P E

A M M O I A E L A I A M E

2 A M M O I M I R A E R O C E P L O S I E

W E R - R E S I S A A M A Q L R O C E P L O

S I E

O O S E R S

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The Output of China Petroleum and Chemical Products in April 2003

	April		January-April	
	Output 000 tons	Growth over April 2002, %	Total output 000 tons	Growth over the same period of 2002, %
Crude oil	14159.4	3.0	56130.4	1.9
Natural gas(billion m ³)	2.7	7.2	11.4	5.5
Pyrite(containing 35% sulfur)	783.3	-0.6	2517.0	11.6
Phosphorus ore(containing 30% P ₂ O ₅)	2011.3	5.4	7177.0	15.3
Oil processed	19812.6	4.1	76760.4	10.6
Gasoline	3934.3	12.4	15504.1	14.3
motor gasoline	3766.3	13.3	14741.1	14.1
Solvent oil	168.9	-5.4	781.0	26.9
Kerosene	720.5	-0.1	3019.7	17.0
Diesel	7076.5	4.9	27066.8	9.2
Lubricating oils	356.4	-12.5	1228.9	7.4
Fuel oils	1564.5	0.5	5978.7	-4.2
Petroleum bitumen	834.1	45.5	2328.9	40.9
LPG	1166.8	15.6	4465.7	19.9
Coke	11045.5	23.2	41730.3	18.8
Sulfuric acid (containing 100% H ₂ SO ₄)	2773.9	10.9	10204.7	10.7
Nitric acid (containing 100% HNO ₃)	86.8	2.2	371.7	7.8
Hydrochloric acid (containing 31% HCl)	429.7	4.9	1659.2	4.4
Caustic soda (100%)	780.3	12.7	2979.8	18.2
Ionic membrane	166.7	5.5	671.2	15.4
Soda ash	948.5	14.4	3640.0	11.5
Light calcium carbonate	214.2	24.6	720.9	9.7
Sodium sulfide	39.3	48.3	125.0	50.1
Sodium triphosphate	71.6	-21.0	267.3	-12.0
Sodium borates	37.1	21.6	133.6	25.1
Sodium silicate (including metasilicates)	105.0	3.5	383.9	4.8
Sodium dicromate	15.7	31.6	54.1	21.1
Calcium carbide	415.7	24.2	1642.8	29.1
Phosphorus (yellow)	50.9	-12.7	197.4	-10.4
Chlorine (for sale)	223.2	7.8	849.4	12.2
Synthetic ammonia	3308.2	4.2	12407.1	7.3
Chemical fertilizers (100% NPK)	3570.7	6.2	12794.3	8.7
Nitrogenous(100% N)	2631.8	8.4	9695.7	9.3
Urea (100% N)	1367.0	3.2	5344.6	3.5
Phosphorus (100% P ₂ O ₅)	809.0	-0.1	2728.5	5.5
Potash(100% K ₂ O)	136.4	7.0	390.0	14.5
DAP and MAP	297.3	58.6	926.6	25.7
Chemical pesticides	88.2	-12.7	295.5	-3.0
Insecticide	49.4	-11.0	154.6	-9.2
Bactericide	7.1	-14.5	23.6	3.3
Herbicide	21.4	-13.1	85.7	8.2
Pesticide emulsion	43.6	20.6	109.9	4.7
Ethylene	482.4	9.7	1981.8	16.2
Propylene	465.1	10.0	1903.1	17.1
Butadiene	74.1	17.4	296.0	26.9
Pure benzene	188.0	5.3	792.5	14.0



	April		January-April	
	Output 000 tons	Growth over April 2002, %	Total output 000 tons	Growth over the same period of 2002, %
p-Xylene	144.6	15.3	569.5	14.7
Styrene	62.3	-18.5	296.7	2.9
Alkylbenzene	35.8	3.5	131.4	8.2
Methanol	239.1	35.5	915.0	45.4
Butanol	17.5	48.3	75.0	41.0
Octanol	21.3	-9.4	81.4	-1.7
Mono ethylene glycol	81.3	12.6	344.8	22.1
Formaldehyde	254.7	18.7	860.9	18.6
Acetaldehyde	33.1	8.2	123.8	6.4
Glacial acetic acid	84.3	15.6	312.8	11.8
Phthalic anhydride	46.3	-7.2	195.5	9.7
Paint	129.3	-1.0	476.6	25.2
Building coatings	67.4	6.8	225.6	24.4
Ink	16.2	-6.9	72.4	34.6
Pigments	95.8	10.0	339.5	14.8
Dyestuffs	70.6	25.4	244.0	27.9
Plastic resins and copolymers	1221.9	6.9	5017.4	15.8
PVC resin	307.8	1.2	1272.4	15.1
PE resin	313.9	10.8	1321.4	15.5
PP resin	324.1	8.8	1355.4	16.9
Synthetic rubber	161.0	56.5	486.7	29.5
cis-Polybutadiene Rubber	31.8	0.3	118.3	0.8
Synthetic fiber monomers	397.6	42.0	1628.7	46.8
Caprolactam	19.2	62.7	68.0	42.9
Synthetic fiber polymers	393.7	-0.6	1758.3	19.7
Polyester	292.0	1.4	1330.0	22.2
Chemical fibers	835.4	3.0	3409.4	13.7
Viscose rayon	64.1	9.2	248.4	16.4
Synthetic fibers	757.9	2.3	3105.8	13.4
Polyamide fiber	48.4	19.2	173.4	18.4
Polyester staple fiber	625.5	0.6	2628.7	13.8
Acrylic fiber	52.4	10.3	196.9	8.5
Polyvinyl alcohol fiber	2.5	-12.2	10.9	-6.7
Polypropylene fiber	25.0	-2.7	81.5	-0.4
Tyre ('000PCS)	15332.1	10.1	53863.6	13.3
Radial tyre ('000 PCS)	5687.3	40.1	19319.6	42.1
Plastics auxiliary	89.8	-0.2	343.1	19.7
Dye auxiliary	63.3	13.6	219.7	12.2
Rubber auxiliary	21.3	29.1	99.5	74.6
Carbon black	84.0	16.8	288.6	20.4
Surface-active agents	28.7	-9.7	102.9	-3.4
Adhesives	77.1	6.5	246.8	11.0
Feed additives	39.4	31.8	152.9	38.0
Food additives	45.3	20.8	163.4	20.6
Synthetic detergents	330.0	24.3	1213.1	8.4
Plastic products	1337.6	12.2	4718.1	15.1
Plastic film	253.5	12.6	1009.4	14.3
Aluminium oxide	499.0	12.0	1918.6	11.0

Source: the Statistics Bureau of China

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MIXED CLEVES ACID	5-FLUOROINDOLE
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1,8-NAPHTHALENE SULTONE	2,4-DIHYDROXY ACETOPHENONE
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3,4-DICHLOROANILINE	



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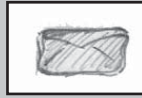
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