III-2 Character of Chinese production of urotropine

Chinese urotropine industry has the total capacity of 204,200t/a in 2006 while the output of urotropine was about 76,800t in 2005. We must mention that the figures are obtained from the claimed capacity and output of the total 27 active manufacturers. But it is convinced and obvious that the domestic market of urotropine had changed and enlarged rapidly in the past several years. Some producers have expanded or are going to expand its urotropine production line, and many others had built new line to engage in the urotropine production in the past 3 years. So the capacity of urotropine in China enlarged rapidly from 45,000t/a in 2003 to 204,200t/a in 2006.

The reason for rapid changes of urotropine market may be as follows:

- The demand for urotropine enlarged rapidly, especially in the field of glycine, phenolic resin.
- The import of urotropine decreases sharply. Before 2003, the quantity of imported urotropine was almost equal to the domestic output every year. But now the imported quantity of urotropine is negligible in the total urotropine consumption. It greatly stimulated domestic production of urotropine. We will explicate it in detail in the part of Export & Import analysis.

From the current situation, Chinese urotropine industry is relative superfluous in production capacity, which hasn't been utilized fully due to market problem of urotropine. But with the increase of supplying of raw materials such as formaldehyde and liquid ammonia, the production cost will decrease. In addition, since the demand for downstream products of urotropine is mounting up in recent years, the demand for urotropine is increasing step by step.

The character of Chinese urotropine industry in 2006 is as follows.

- At present, the production scale of most domestic producers is larger than that in 2001 and 2004. According to the report in 2001, production scale of most domestic producers is small. There are few units with capacity above 3,000t/a. For most units, the production capacity is 1,500t/a. In 2004, among the 9 active producers, 5 of them only have the capacity less than 5,000t/a. But in 2006 among the total 27 active producers, 9 of them have capacity of above 10,000t/a, and only 3 enterprises have capacity of below 3,000t/a.
- At present, most of urotropine producers produce jointly urotropine and its raw materials, which will decrease influence on production situation of urotropine from market supply-and-demand situation of raw materials. But in 2001, most Chinese producers did not produce formaldehyde and liquid ammonia by themselves, and they are affected by market situation of raw materials. At the same time, this jointly production mode will cut down the production cost of urotropine.
- The production technology in most Chinese manufacturers is not advanced. E.g. only two Chinese producers which are Shandong Ruixing and Lanzhou Zhongkai are using the

vapor phase technology to produce urotropine. The rest are using the liquid phase technology, which is rather old. In production of urotropine, liquid phase technology decreases consumption of raw materials, and it also can improve product's purity and degree of crystallization.

We must mention that in past 3 months, the price of urotropine rose sharply. The price of urotropine was always under RMB7,500/t before August, 2006, and kept stable round about RMB6,500/t for several years. But now this price has raise to RBM9,000-10,000/t in 3 months. The leading reason is the rapid increase of price of methanol which is the primary raw material of formaldehyde. Another reason may rest with the increasing demand for urotropine. Whereas the high price of urotropine and the supply of urotropine are falling short of demand in almost every manufacturers.

IV-1 Import of urotropine in recent three years

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Findings of import situation:

From the first 3 tables, we can see that almost all importers are located in the two provinces of Heilongjiang and Inner Mongolia. That is because it is very convenient for these provinces to import urotropine from Russia with the fact that Russia is the only importing origin of urotropine for China, and the two provinces mentioned above border on with Russia.

Russia is the only country from which China imports urotropine, since that Russia has the largest output of urotropine in the world, and the price is rather competitive.

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V-1 Market size in major end use segments

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Figure V-1.1 Consumption pattern of urotropine in China in 2005

