I-3 Current Production Situation of Aniline in China

In recent years, China's aniline production has maintained a strong growth rate. As of Jan.2008, there have been mainly 20 aniline producers in China, with a total output of 690.5kt in 2007. The CAGR (compound average growth rate) of aniline production was 24.08% from 2000 to 2007.

Along with the strong growth of aniline production in China, aniline production became surplus in the market in 2007. To deal with this, China has to export large quantity of aniline. For example, China increased the exported volume of aniline from 692 tonnes in 2006 to 47,699 tonnes in 2007.

Currently, aniline manufacturers pay more attention to the market dynamic, especially the MDI market, and duly adjust their aniline production. In other words, Chinese aniline production grows rational.

Figurel-3-1 The output of aniline in China from 2000 to 2007

In 2007, China's aniline production capacity has increased by 110kt over previous year.

Table I-3-1 The capacity expansion situation of producers in 2007

Company	Province	Expansion capacity, tonnes	Schedule
	Shandong		Mar. 2007
	Jiangsu		Middle of 2007
	Jiangsu		In 2007
Total			

In 2008, new production facilities of aniline with the capacity kt are under construction in China according to the current plan.

> Situation of manufacturers

As of Jan. 2008, CCM has totally contacted 27 aniline manufacturers who claimed that they produce aniline. The production status for them is listed as follows:

Table I-3-2 The aniline production status for 27 manufacturers

Status	Active	Idle	Stopped	Not	Total	
	manufacturers	manufactures	manufacturers	produce		
Quantity	20	1	4	2	27	

The production of aniline is mainly controlled by large-scale manufacturers. The detailed information is listed as follows.

Table I-3-3 The production concentration of aniline in 2006 and 2007

Classification	Top 3 companies		Top 5 companies		Top10 companies		Total,
Year	Quantity, Kt	Percentage, %	Quantity, Kt	Percentage, %	Quantity, Kt	Percentage, %	kt
2006							
2007							

I-4 New Aniline Projects under Construction or Projects to Be Constructed

Even though aniline supply began to exceed its demand gradually, most domestic companies hold positive attitude towards the market prospect of aniline and plan to expand or build new aniline production.

Generally speaking, minor aniline manufacturers in China tend to keep their current capacity stable. Some big aniline manufacturers tend to expand their capacity to improve their competitiveness. Meanwhile, the new aniline manufactures that have launched aniline production have their own sales channel and don't worry about their aniline sales. However, along with the expanding aniline capacity and intense market competition, some small-scale manufacturers would be washed out in the market.

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The newly increased capacity of aniline reaches kt in 2008. The detailed progresses are listed as follows.

Table I-4-1 The new built aniline production

Company Location		Planned capacity, kt	Schedule	Remark	
	Shandong			Failed on its trial run in 2007 because of catalyzer; no nitrobenzene equipment	
	Jilin			They don't worry about the sales of aniline	
	Jiangsu			Under construction; Nitrobenzene 50kt/a	
Total					

I-6 Raw material of aniline

I-6-1 Nitrobenzene

In China, nitrobenzene production could use coking benzene and petroleum benzene (pure

benzene) as raw material. The product of former one is called coking nitrobenzene, and the latter one is called petroleum nitrobenzene. The coking nitrobenzene cannot be used to produce aniline because of the high impurity content.

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As of January 2008, there have been 26 active nitrobenzene producers, 20 producers of which produce both nitrobenzene and aniline.

About 96% of nitrobenzene is produced by aniline producers, and most of them are consumed internally. This also means that most of nitrobenzene is used to produce aniline.

Tablel-6-1-1 List of the nitrobenzene producers that produce aniline and nitrobenzene (Unit: tonne)

Code English name Abbreviation Location Status'08 Cap.'08 Output'07 Raw material 1 Jiangsu Active Image: Imag		tonne)						
Shanxi Active pure benzene Jiangsu Active pure benzene Gansu Active pure benzene Hebei Active pure benzene Shandong Active pure benzene Hebei Active pure benzene Jiangsu Active pure benzene Liangsu Active pure benzene Jiangsu Active pure benzene Liangsu Active pure benzene Jiangsu Active pure benzene Liangsu Active pure benzene	Code	English name	Abbreviation	Location	Status'08	Cap.'08	Output'07	Raw material
Jiangsu Active pure benzene Gansu Active pure benzene Hebei Active pure benzene Shandong Active pure benzene Jiangsu Active pure benzene Jiangsu Active pure benzene Pure benzene Jiangsu Active pure benzene Shandong Active pure benzene Jiangsu Active pure benzene Shandong Active pure benzene Shandong Active pure benzene Active pure benzene Jiangsu Active pure benzene Jiangsu Active pure benzene Jiangsu Active pure benzene Henan Active pure benzene Le Chongqing Active pure benzene Jiangsu Active pure benzene Shandong Active pure benzene Jiangsu Active pure benzene	1			Jiangsu	Active			pure benzene
Gansu Active pure benzene Hebei Active pure benzene Shandong Active pure benzene Hebei Active pure benzene Jiangsu Active pure benzene Shanghai Active pure benzene Jiangsu Active pure benzene Le Jiangsu Active pure benzene	2			Shanxi	Active			pure benzene
Hebei Active pure benzene Shandong Active pure benzene Jiangsu Active pure benzene Hebei Active pure benzene Hebei Active pure benzene Hebei Active pure benzene Jiangsu Active pure benzene Jiangsu Active pure benzene Jiangsu Active pure benzene Shandong Active pure benzene Shandong Active pure benzene Henan Active pure benzene Lea Diangsu Active pure benzene Jiangsu Active pure benzene Henan Active pure benzene Henan Active pure benzene Henan Active pure benzene Shandong Active pure benzene Hebei Active pure benzene Hebei Active pure benzene Hebei Active pure benzene Jiangsu Active pure benzene	3			Jiangsu	Active			pure benzene
Shandong Active pure benzene Jiangsu Active pure benzene B Hebei Active pure benzene Shanghai Active pure benzene Jiangsu Active pure benzene Jiangsu Active pure benzene Shandong Active pure benzene Jiangsu Active pure benzene Liangsu Active pure benzene Shandong Active pure benzene Chongqing Active pure benzene Jiangsu Active pure benzene Jiangsu Active pure benzene Leange Acti	4			Gansu	Active			pure benzene
Jiangsu Active pure benzene B Hebei Active pure benzene 9 Shanghai Active pure benzene 10 Jiangsu Active pure benzene 11 Shandong Active pure benzene 12 Jiangsu Active pure benzene 13 Shandong Active pure benzene 14 Henan Active pure benzene 15 Chongqing Active pure benzene 16 Jiangsu Active pure benzene 17 Hebei Active pure benzene 18 Shandong Active pure benzene 19 Hebei Active pure benzene 19 Hebei Active pure benzene 20 Jiangsu Active pure benzene 21 Jiangsu Active pure benzene 22 Jiangsu Active pure benzene 23 Jiangsu Active pure benzene 24 Jiangsu Active pure benzene 25 Jiangsu Active pure benzene 26 Jiangsu Active pure benzene 27 Jiangsu Active pure benzene 28 Jiangsu Active pure benzene 29 Jiangsu Active pure benzene 20 Jiangsu Active pure benzene 20 Jiangsu Active pure benzene	5			Hebei	Active			pure benzene
Hebei Active pure benzene Shanghai Active pure benzene Jiangsu Active pure benzene Active pure benzene Jiangsu Active pure benzene Jiangsu Active pure benzene Active pure benzene Jiangsu Active pure benzene Jiangsu Active pure benzene Active pure benzene Jiangsu Active pure benzene Active pure benzene Jiangsu Active pure benzene Active pure benzene Jiangsu Active pure benzene	6			Shandong	Active			pure benzene
Shanghai Active pure benzene 10 Jiangsu Active pure benzene 11 Shandong Active pure benzene 12 Jiangsu Active pure benzene 13 Shandong Active pure benzene 14 Henan Active pure benzene 15 Chongqing Active pure benzene 16 Jiangsu Active pure benzene 17 Hebei Active pure benzene 18 Shandong Active pure benzene 19 Hebei Active pure benzene 19 Jiangsu Active pure benzene 20 Jiangsu Active pure benzene 21 Jiangsu Active pure benzene 22 Jiangsu Active pure benzene	7			Jiangsu	Active			pure benzene
Jiangsu Active pure benzene Shandong Active pure benzene Jiangsu Active pure benzene Jiangsu Active pure benzene Shandong Active pure benzene Henan Active pure benzene Chongqing Active pure benzene Jiangsu Active pure benzene Active pure benzene Benzene Thebei Active pure benzene Shandong Active pure benzene Hebei Active pure benzene Hebei Active pure benzene Jiangsu Active pure benzene	8			Hebei	Active			pure benzene
Shandong Active pure benzene Jiangsu Active pure benzene Shandong Active pure benzene Shandong Active pure benzene Henan Active pure benzene Chongqing Active pure benzene Jiangsu Active pure benzene Hebei Active pure benzene Shandong Active pure benzene Hebei Active pure benzene Hebei Active pure benzene Jiangsu Active pure benzene Zhejiang Idle pure benzene	9			Shanghai	Active			pure benzene
Jiangsu Active pure benzene 13	10			Jiangsu	Active			pure benzene
Shandong Active pure benzene Henan Active pure benzene Chongqing Active pure benzene Jiangsu Active pure benzene Hebei Active pure benzene Shandong Active pure benzene Hebei Active pure benzene Jiangsu Active pure benzene Zhejiang Idle pure benzene	11			Shandong	Active			pure benzene
Henan Active pure benzene Chongqing Active pure benzene Jiangsu Active pure benzene Hebei Active pure benzene Shandong Active pure benzene Hebei Active pure benzene Jiangsu Active pure benzene Jiangsu Active pure benzene Zhejiang Idle pure benzene	12			Jiangsu	Active			pure benzene
Chongqing Active pure benzene 16 Jiangsu Active pure benzene 17 Hebei Active pure benzene 18 Shandong Active pure benzene 19 Hebei Active pure benzene 20 Jiangsu Active pure benzene 21 Zhejiang Idle pure benzene	13			Shandong	Active			pure benzene
Jiangsu Active pure benzene Hebei Active pure benzene Shandong Active pure benzene Hebei Active pure benzene Hebei Active pure benzene Jiangsu Active pure benzene Zhejiang Idle pure benzene	14			Henan	Active			pure benzene
Hebei Active pure benzene Shandong Active pure benzene Hebei Active pure benzene Jiangsu Active pure benzene Zhejiang Idle pure benzene	15			Chongqing	Active			pure benzene
18 Shandong Active pure benzene 19 Hebei Active pure benzene 20 Jiangsu Active pure benzene 21 Zhejiang Idle pure benzene	16			Jiangsu	Active			pure benzene
19 Hebei Active pure benzene 20 Jiangsu Active pure benzene 21 Zhejiang Idle pure benzene	17			Hebei	Active			pure benzene
20 Jiangsu Active pure benzene 21 Zhejiang Idle pure benzene	18			Shandong	Active			pure benzene
21 Zhejiang Idle pure benzene	19			Hebei	Active			pure benzene
	20			Jiangsu	Active			pure benzene
Total	21			Zhejiang	Idle			pure benzene
		Total						