Notes: Key data/information is included in the complete report while hidden in the sample page.

### 1 Organic acids

#### 1.1 Citric acid

### ♦ Production

China is the most important production base of citric acid around the world, taking up more than half of the world's total output of citric acid. Around % of China's citric acid is exported to other countries in 2011. Output of citric acid has jumped to tonnes in 2011, from tonnes in 2008, with a CAGR of % in 2008-2011.

In the past few years, the downstream demand has increased in China driven by improvement of international economy, continuously growing economy in China and improvement of people's living condition. In addition, some competitive manufacturers have been continually expanding their capacity and output.

Some of the citric acid manufacturers have been washed out because they failed to meet the standards of national environmental protection and pollutant discharge.

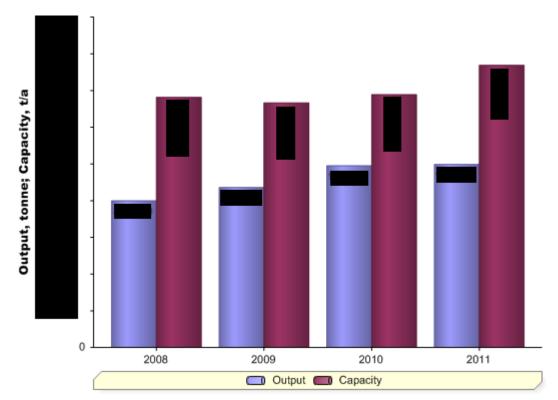


Figure 1.1-1 Capacity and output of citric acid in China, 2008-2011

Source: CCM

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♦ Key players

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Table 1.1-2 Capacity and output of major citric acid manufacturers in China, 2008-June 2012

No	Abbreviation	Status	Capacity, t/a					Output, tonne			
No.		June2012	June2012	2011	2010	2009	2008	2011	2010	2009	2008
1	ShandongTTCA	Active	300,000								
2		Active									
3		Active									
4		Active									
5		Active									
6		Active									
7		Active									
8		Active									
9		Active									
10		Active									
11		Active									
12		Active									
13		Active									
14		Active									
15		Stop									
16		Stop									
17		Stop									
18		Stop									
Others		1									
Total		1									800,000

Source: CCM

# ♦ Consumption

In China, main application fields of citric acid are food industry, chemical industry, pharmaceutical industry and cosmetic industry. Thereinto, the largest field is food industry (especially beverage industry), with consumption volume of tonnes in 2011 and a CAGR of % in 2008-2011. The second largest application field is chemical industry (especially detergent industry), with consumption volume of tonnes in 2011 and a CAGR of % in 2008-2011.

With the increasing consumption volume of beverage industry and detergent industry, the citric acid industry will see a bright future.

2008 2009 2010 2011

Apparent\_Consumption

Figure 1.1-3 Apparent consumption of citric acid in China, 2008-2011

Source: CCM

## ♦ Forecast

The domestic apparent consumption for citric acid is expected to reach over tonnes in 2016, with a CAGR of % in 2012-2016, attributed to the rising downstream demand in China.

The rising domestic apparent consumption will make the citric acid output hit about tonnes in 2016, with a CAGR of % in 2012-2016.

Table 1.1-3 Forecast on output and apparent consumption of citric acid in China, 2012-2016, tonne

Year	Output	Domestic apparent consumption
2012	1,077,516	
2013		
2014		
2015		503,885
2016		

Source: CCM

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