

## Executive Summary

### ■ Production and Producers

After fast expansion driven by increasing demand in 2000~2010, especially in 2006~2010, China has become the world's largest producer of PF in the world. As in May 2010, China owns the total PF capacity of [REDACTED] t/a, increasing by over 10% than that at the end of 2009. However, the operation rate is low due to the gloomy demand from glyphosate, the most important downstream product of PF. In 2009, the total PF output is [REDACTED] tonnes in China only, up [REDACTED] over 2008, which is far lower than that in 2008, up [REDACTED] over 2007.

With the output increase of China's PF, market share of domestic PF has been growing steadily from 2002, hitting the history peak at [REDACTED] in 2009.

As in May 2010, there are [REDACTED] PF producers in China, including [REDACTED] active and [REDACTED] idle. Despite the gloomy market, [REDACTED] companies are still planning to engage in PF production with the potential capacity of [REDACTED] t/a. Zhenjiang LCY, Hebei Yinhe and Shandong Guoguang are still the top [REDACTED] PF producers in China in 2010.

### ■ Pricing

In 2009, affected by the sluggish glyphosate market and unrecovered price of methanol, domestic PF's mainstream price had been kept at a low level of about USD [REDACTED]/t~[REDACTED]/t (RMB [REDACTED]/t~[REDACTED]/t).

Since the end of 2009, along with a rally of methanol price, PF price has been going up slowly. However, as the market of glyphosate, PF's most important downstream product, has not begun to recover significantly yet and glyphosate price is suppressed due to the fierce competition, most of PF production lines are still running at a low operating rate and PF price is not able to go up.

### ■ Production technology of PF in China

The traditional PF technology in China is the rake-drying method, and it uses 37% industrial formaldehyde as the raw material. Chinese PF producers have also introduced foreign technology in the production of PF from abroad. The foreign technology adopts 50%-55% industry formaldehyde as raw material.

By May 2010, there are [REDACTED] PF producers adopting rake-drying method in PF production, with total capacity of [REDACTED] t/a capturing [REDACTED] % of the total in China. And the rest [REDACTED] PF manufacturers with total capacity of [REDACTED] t/a adopt spray drying method, including China's largest PF producer Zhenjiang LCY.

### ■ Import & Export

PF import volume had been large from 2000~2005, which was around [REDACTED] to [REDACTED] tonnes,

accounting for more than █% of the national apparent consumption of this year. And in 2003, import volume of PF hit historical record, reaching █ tonnes, accounting for █% of the total apparent consumption of PF in 2003. But since 2006, PF import volume has gradually fallen, leading to decreasing market share of imported PF in China, to █ tonnes and █% in 2009 respectively.

At present, PF's export volume is still small compared with its import volume. However, the situation is changing since the past few years, and more and more producers are planning to break into oversea market. In 2009, China's PF export volume increased greatly from █ tonnes in 2008 to █ tonnes, up █%.

## ■ Consumption & Demand

On the whole, PF consumption volume in China is increasing steadily and fast with the CAGR of █% from 2000 to 2009. However, the growth is slowing down. In 2009, China consumed █ tonnes PF, up █% over the previous year, and the growth rate is much lower than that in 2008, when PF consumption in China increased by █% over 2007.

Impacted by the financial crisis and the unrational business ventures in investing glyphosate industry, the glyphosate industry witnessed a serious downturn in 2009, which greatly slowed down the demand for PF.

## I Production & Market Information

### I-3 Current Production Situation of PF in China

#### I-3.1 Summary of producers

Table I-3.1-2 Capacity of major producers in China from 2004 to May 2010, unit: tonne -1

No.	Abbr.	Status '10	Cap. '04 t/a	Output '04 tonne	Cap. '05 t/a	Output '05 tonne	Cap. '06 t/a	Output '06 tonne	Cap. '07 t/a	Output '07 tonne	Cap. '08 t/a	Output '08 tonne	Cap. '09 t/a	Output '09 tonne	Cap. '10 t/a	Output '10 tonne est
II-1.01	Zhenjiang LCY															
II-1.02																
II-1.03																
II-1.04																
II-1.05																
II-1.06			3,000													
II-1.07																
II-1.08																
II-1.09																
II-1.10																
II-1.11																
II-1.12																
II-1.13																
II-1.14		Active														
II-1.15																
II-1.16																
II-1.17															20,000	
II-1.18																
II-1.19					3,000											
II-1.20																
II-1.21																
II-1.22									1,500							

Source: CCM International

### I-8.1 Consumption Situation in Brief

Some characteristics of PF have facilitated its wide application:

- Easy for shipping and storage because of its granular form
- High content of formaldehyde
- No water content (only trace amount)

The excellent properties of PF decide that this material can be used in various situations.

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- ✓ Financial crisis
- ✓ Overstock of glyphosate in oversea market
- ✓ Price fall of crude oil

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