

Production and Market of Paraformaldehyde in China

The Seventeenth Edition

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Kcomber Inc.

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1. Introduction

This 17th edition PF report, formulated in May 2020, focuses on the situation of China's paraformaldehyde (PF) industry in 2020 and Q1 2021, as well as forecasting its future development trend. The report aims to disclose the latest production and market information of China's PF industry. The data for 2020 and before are based on CCM's database and other various sources as mentioned in the section of methodology below.

2. Approach for this report

The report is based on data sourced by diverse methods, which are listed as follows:

- Desk research

Desk research includes access to published magazines, journals, government statistics, industry statistics, customs statistics, association seminars as well as information on the Internet. Much work has gone into the compilation and analysis of the information obtained. Where necessary, information has been checked and discussed internally related to market structure and performance characteristics as key producers, key end users, production levels, end user demand and so on.

- Field survey

CCM has conducted an extensive field survey using telephone interviews in order to survey the PF market in China.

The interviewees included the following groups:

- Key producers
- Key end users
- Key traders
- Material suppliers
- Associations involved
- Industry experts

- Network search

CCM employs a network to contact industry participants by using B2B websites and software.

- Data processing and presentation

The data collected and compiled was variously sourced from:

- CCM's database
- Published articles from periodicals, magazines, journals and third party databases
- Statistics from governments and international institutes
- Telephone interviews with domestic producers, joint ventures, service suppliers and government agencies
- Third-party data providers
- Customs statistics
- Comments from industrial experts
- Professional databases
- Information from the Internet

The data has been combined and cross-checked to ensure that this report is as accurate and methodologically sound as possible. Throughout the process, a series of discussions were held within CCM to systematically analyze the data and draw appropriate conclusions.

3. Executive summary

China's paraformaldehyde (PF) industry has witnessed a fast development in the past ten years. The output of PF increased greatly, with a CAGR of XXX% from 2011 to 2020.

- Production

Domestic PF production is mainly distributed in Hebei, Jiangsu, and Shandong, relying on abundant supply of methanol and convenient transportation.

The number of PF producers in China decreased from XXX in 2017 to XXX in 2018 and XX in 2019, and the national capacity of PF decreased from XXX t/a in 2017 to XXX t/a in 2018 and increased a little to XXX t/a in 2019. And in 2020, the number of PF producers in China increased to XXX, and the capacity of PF also rise to XXX t/a. Because of stricter environmental protection policies or poor performance, XXX companies stopped PF production completely in 2018 and XXX companies stopped production in 2019 and 2020, respectively.

China's PF output increased to XXX tonnes in 2020, driven by the increasing demand at home and abroad.

- Import and export

Before 2020, China is a net PF importer. However, China's PF import volume was less than export for the first time in 2020, and China imported XXX tonnes of PF. The top two import origins were XXX and XXX, with the share of XXX% of the total import volume. China also imported XXX tonnes from XXX in 2020, a new but vigorous comer in the past three years.

China's export volume of PF has kept decreasing since 2015. But the trend reversed in 2019, with PF export volume jumping by XXX% from XXX tonnes in 2018 to XXX tonnes, due to the decline in supply from PF production in XXX. In 2020, foreign production of PF was affected by the COVID-19, which promoted China's PF export volume to increase to XXX tonnes.

The PF export volume of the top four destinations (XXX, XXX, XXX and XXX, over XXX tonnes each) in 2020 together accounted for XXX% of year's national total.

- Technology

In China, there are two main technologies to produce PF, namely rake drying method and spray drying method. Although the rake drying method still lags behind the spray drying method both in quality and environmental friendliness, it is adopted by most Chinese PF producers due to its low investment amount. In 2020, XXX PF producers adopted rake drying method with a share of XXX% by capacity.

- Price

Generally, the price fluctuation of PF in China is greatly influenced by raw materials, methanol or formaldehyde. In Jan.–Aug. 2020, the ex-works price of PF decreased. Later, it showed a general upward trend, following the increasing prices of formaldehyde and methanol.

- Consumption

In China, PF is mainly consumed in agrochemical, resin and pharmaceutical industries, etc. The agrochemical industry is the largest consumption field of PF, taking up XXX% of the total domestic PF consumption in 2020. Glyphosate technical (AEA pathway) is the largest end-use segment, and the consumption of PF in glyphosate accounted for XXX% of the national total in 2020. The consumption of PF in resin industry accounted for XXX% of the national total in 2020.

4. What's in this report?

Note: Key data/information in this sample page is hidden, while in the report it is not.

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2 Production situation of PF in China

2.1 Producers of PF in China

XXX companies related to PF were studied. As of March 2021, CCM finds,

- XX of them are active producers;
- XX of them suspended production;
- XXX of them stopped production completely;
- XXX of them are potential producers.

These XXX potential producers include those finished construction but have not put into production yet, those under construction and those have just published environment impact assessment of PF projects as of March 2021.

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Table 2.1-2 Capacity and output of major PF producers in China, 2018–Q1 2021

No.	Producer	Capacity, t/a				Output, tonne			
		2018	2019	2020	Q1 2021	2018	2019	2020	Q1 2021
1	Zhenjiang LCY Performance Materials Co., Ltd.	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX
2	Fuhua Tongda Agro-chemical Technology Co., Ltd.	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX
3	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX
4	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX
5	...	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX

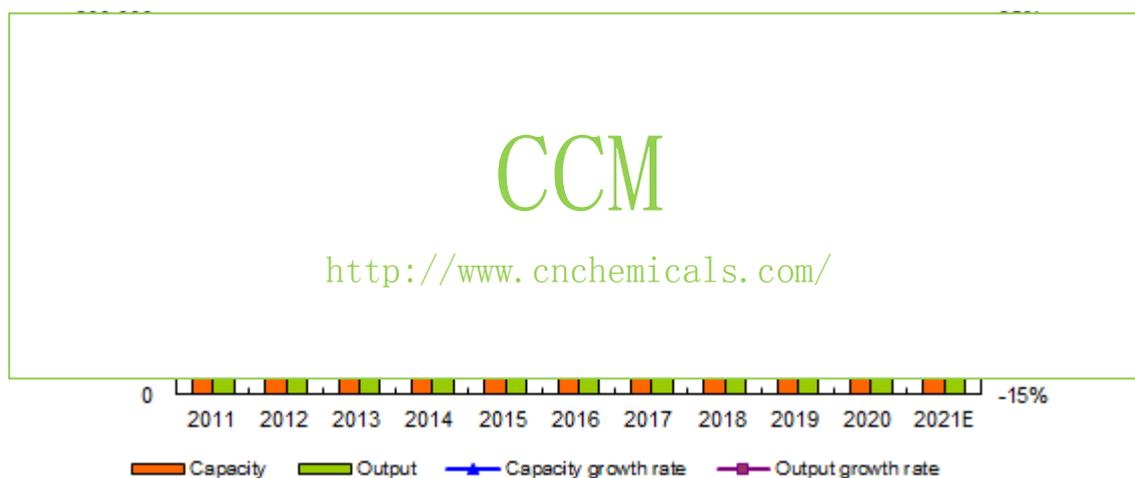
Source: CCM

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2.2 Capacity and output of PF

After years of rapid growth, China's PF capacity kept increasing from XXX t/a in 2006 to XXX t/a in 2011, but it decreased to XXX t/a in 2012 because several small PF producers, which had weak competitiveness under the circumstances of overcapacity and sluggish PF market, stopped PF production. The PF capacity increased sharply in 2013 along with the launch of some new PF production lines and had a slight increase to XXX t/a in 2014 because Jiangsu Sanmu launched its XXX t/a PF project.

Figure 2.2-1 Capacity and output of PF in China, 2011–2021E



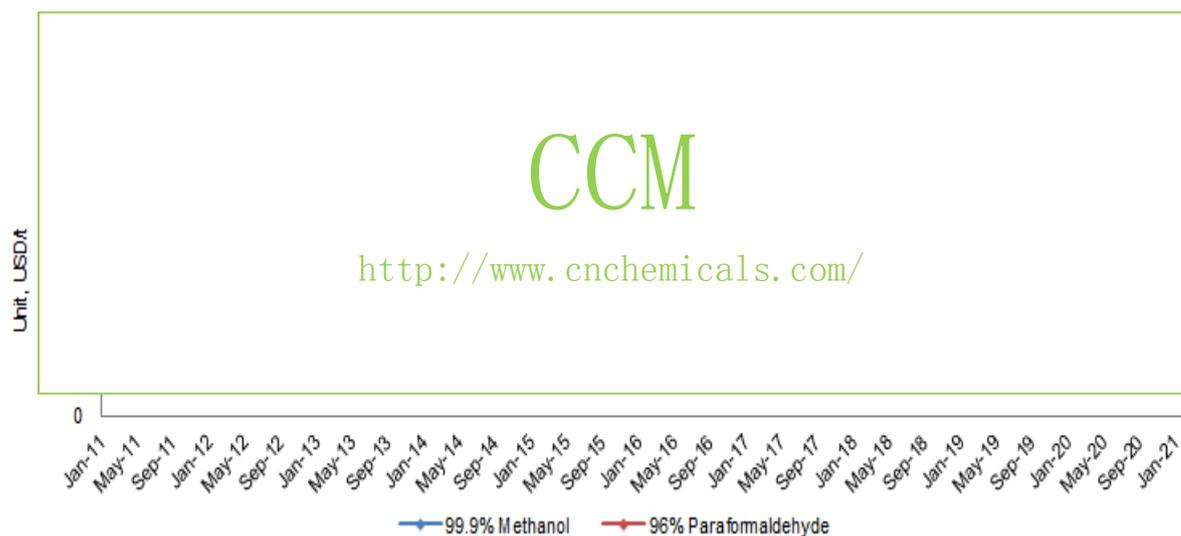
Note: "E" means estimated.
Source: CCM

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2.3 Price of PF

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Figure 2.3-1 Monthly ex-works price of 96% PF and 99.9% methanol in China, Jan. 2011–March 2021



Source: CCM

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2.4.1 Supply of formaldehyde in China

Table 2.4.1-1 Production, import, export and apparent consumption of formaldehyde in China, 2011–2020

Year	Capacity, t/a	Output, tonne	Growth rate of output	Import volume, tonne	Export volume, tonne	Apparent consumption, tonne
2011	XXX	XXX	XXX	XXX	XXX	XXX
2012	XXX	XXX	XXX	XXX	XXX	XXX
...	XXX	XXX	XXX	XXX	XXX	XXX
2019	XXX	XXX	XXX	XXX	XXX	XXX
2020	XXX	XXX	XXX	XXX	XXX	XXX

...

3 Import & export analysis of PF

3.1 Overall situation of PF trading

The domestic PF is more and more popular with customers at home and abroad, because of its high quality and low price in recent years. From 2010 to 2014, the export volume of PF in China kept increasing, while the import volume of PF fluctuated.

In 2015, both export volume and import volume of PF in China decreased, down by XXX% and XXX% respectively compared with those in 2014.

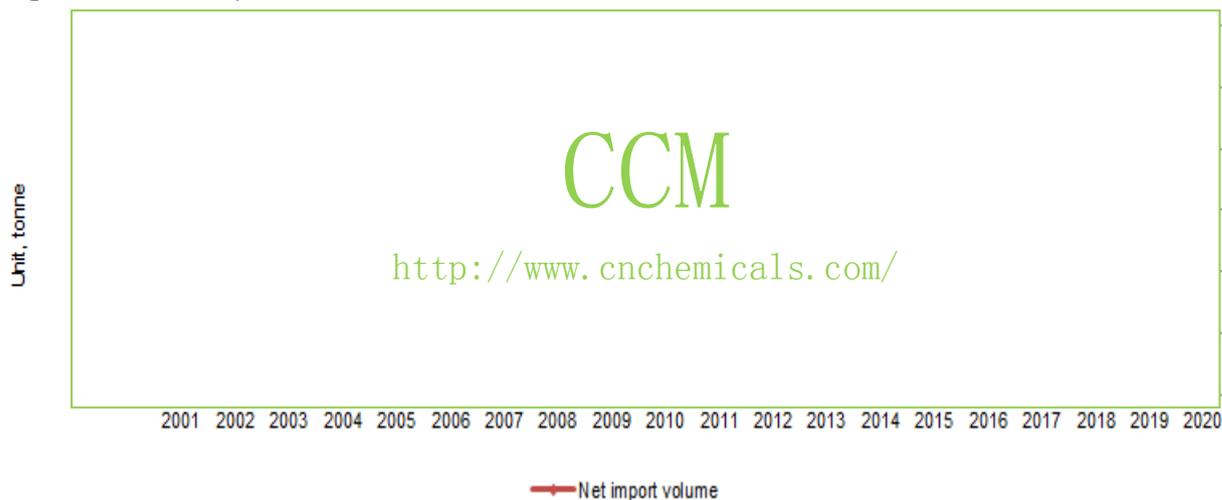
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Table 3.1-1 China's imports and exports of PF, 2001–2020

Year	Import			Export		
	Volume, tonne	Value, USD	Average price, USD/t	Volume, tonne	Value, USD	Average price, USD/t
2001	XXX	XXX	XXX	XXX	XXX	XXX
2002	XXX	XXX	XXX	XXX	XXX	XXX
...	XXX	XXX	XXX	XXX	XXX	XXX
2019	XXX	XXX	XXX	XXX	XXX	XXX
2020	XXX	XXX	XXX	XXX	XXX	XXX

Source: China Customs & CCM

Figure 3.1-1 Net import volume of PF in China, 2001–2020



Source: China Customs & CCM

3.2 Import analysis of PF 2020

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- Import origin

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Figure 3.2-2 Share of imported PF volume to China by origin, 2011–2020



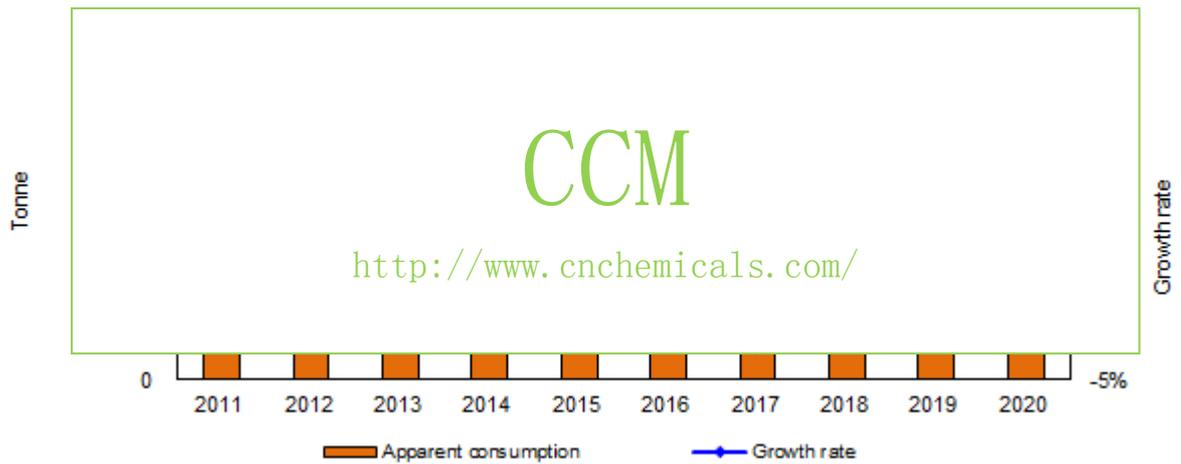
Source: China Customs & CCM

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4 End use segments of PF in China

On the whole, the apparent consumption of PF in China is increasing fast and steadily, at a CAGR of XXX% during 2011–2020.

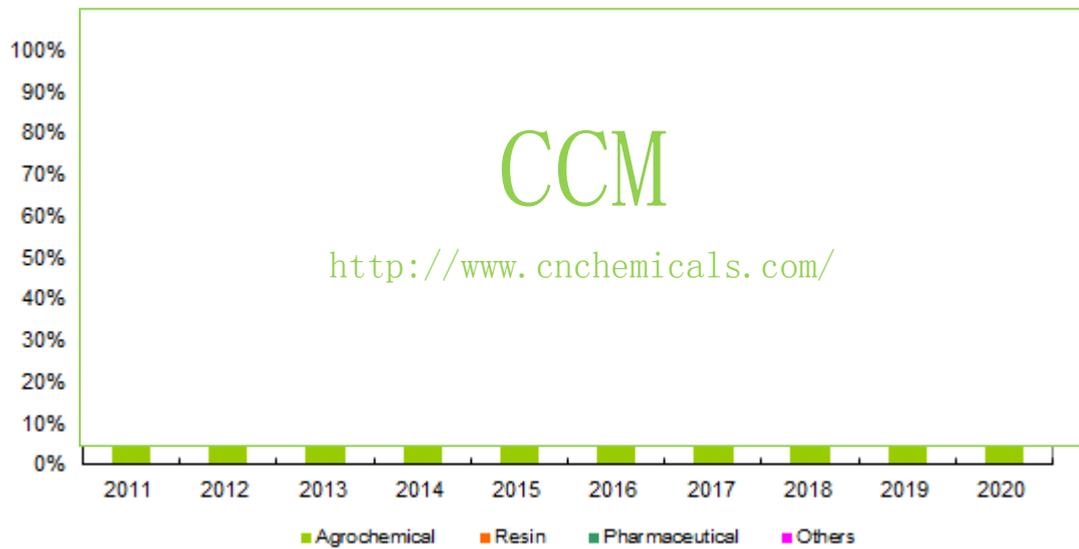
Figure 4-1 Apparent consumption of PF and its growth rate in China, 2011–2020



Source: CCM

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Figure 4-2 Consumption pattern of PF in China by downstream industry, 2011–2020



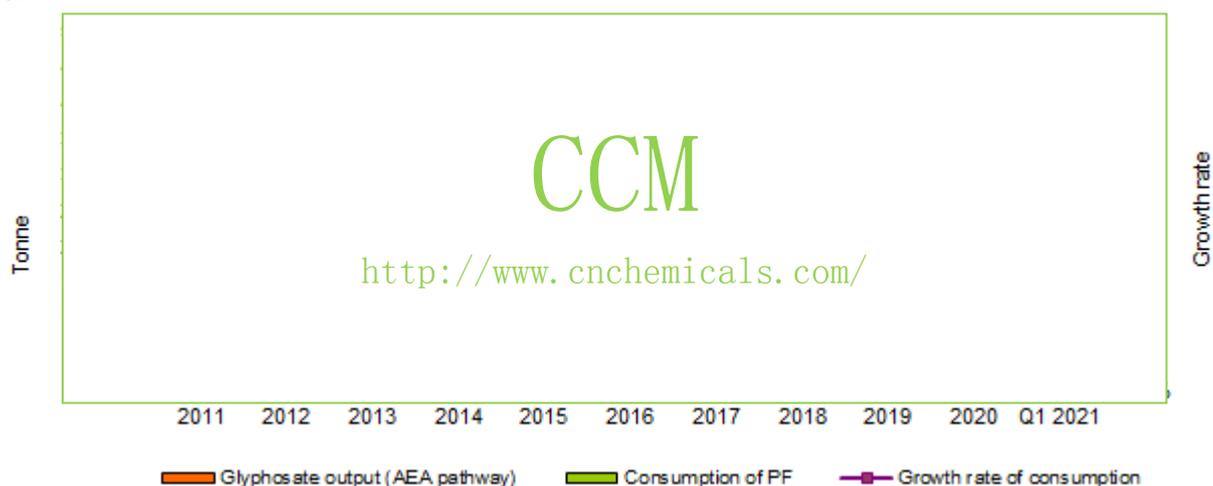
Source: CCM

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4.1 Consumption of PF in glyphosate

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Figure 4.1-1 Consumption of PF in glyphosate production (AEA pathway) in China, 2011–Q1 2021



Source: CCM

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4.1.2 Routes for glyphosate production

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Table 4.1.2-2 Capacity and output of glyphosate technical by pathway in China, 2011–2020

Pathway		2020	2019	2018	2017	2016	2015	2014	2013	2012	2011
AEA	Capacity, t/a	XXX									
	Output, tonne	XXX									
	Growth rate of output	XXX									
	Operating rate	XXX									
IDA	Capacity, t/a	XXX									
	Output, tonne	XXX									
	Growth rate of output	XXX									
	Operation rate	XXX									
Total	Capacity, t/a	XXX									
	Output, tonne	XXX									
	Growth rate of output	XXX									
	Operating rate	XXX									

Note: Total capacity (output) = Capacity (output) of AEA pathway + Capacity (output) of IDA pathway

Total growth rate of output = (Total output this year / Total output last year) - 1

Total operating rate = Total output / Total capacity

Source: CCM

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4.3 Consumption situation of PF in resin industry

Figure 4.3-1 Consumption of PF in resin industry in China, 2011–2020



Source: CCM

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China's PF consumption in resin industry was about XXX tonnes in 2020 with a year-on-year growth rate of XXX%, taking up about XXX% of the total domestic PF consumption.

Table 4.3-1 List of some key end users of PF in resin industry in China, 2020

No.	End user	Location	PF consumption, tonne	Product consuming PF	Ownership	Telephone
1	Chang Chun Chemical (Jiangsu) Co., Ltd.	XXX	XXX	XXX	XXX	XXX
2	XXX	XXX	XXX	XXX	XXX	XXX
...	XXX	XXX	XXX	XXX	XXX	XXX
16	XXX	XXX	XXX	XXX	XXX	XXX
Total		/	XXX	/	/	/

Source: CCM

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5 Forecast on PF industry in China

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5.2 Supply and demand forecast on PF 2021–2025

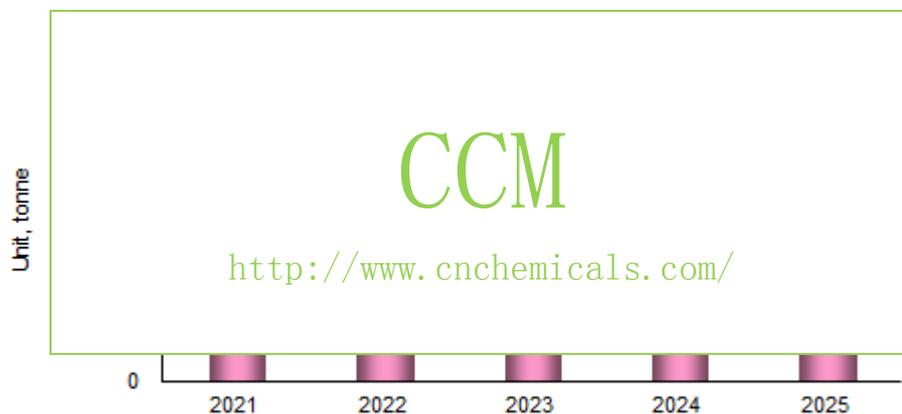
Demand forecast to 2025

In 2020, the domestic glyphosate industry contributes to about XXX% of the domestic demand for PF. The future trend of PF demand in China will be similar with the development trend of the domestic production of glyphosate technical.

Demand for PF in China is expected to keep increasing from 2021 to 2025. It's predicted that demand for PF will be XXX tonnes in China in 2025, at a CAGR of XXX% in 2021–2025.

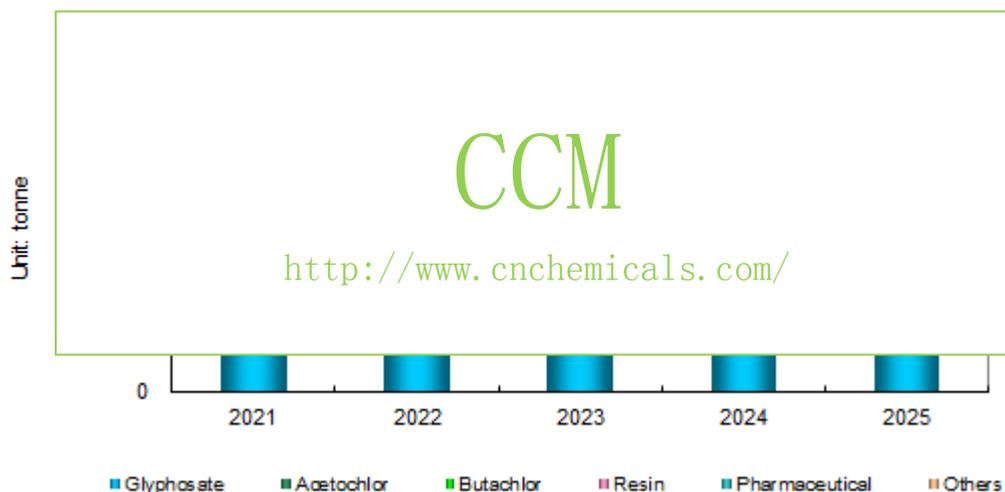
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Figure 5.2-1 Forecast on demand for PF in China, 2021–2025



Source: CCM

Figure 5.2-2 Forecast on PF consumption by product in China, 2021–2025



Source: CCM

Supply forecast to 2025

The future trend of PF production in China is almost the same as the development trend of the domestic demand for PF. Both the increasing domestic demand and the overseas demand (export) for PF will be the drivers for PF production in China.

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Figure 5.2-3 Forecast on PF output in China, 2021–2025



Source: CCM

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Table 5.2-1 New/expansion projects of PF in China, as of March 2021

No.	Company	Location	Technology source	Technology	Capacity, t/a	Remark
1	XXX	XXX	XXX	XXX	XXX	XXX
2	XXX	XXX	XXX	XXX	XXX	XXX
...	XXX	XXX	XXX	XXX	XXX	XXX

Source: CCM

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If you want more information, please feel free to contact us.

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