

Production and Market of Monosodium Glutamate (MSG) in China

The Sixth Edition

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1. Introduction

Hot topics in China's monosodium glutamate (MSG) market during 2016 and 2018:

- MSG industry in China has experienced many pressures and challenges from environmental policies and market competition in recent years.
- Most small-scale MSG manufacturers had been eliminated because of the outdated technology and strict policies, while large-scale manufacturers kept expanding capacities.
- As of 2018, there were only 15 active producers left in China and most of them are located in northern China.
- Over 500,000 tonnes of MSG were exported in China annually in 2017 and 2018.
- The percentage of MSG directly edible use (catering and cooking) in total MSG consumption was decreasing in the past few years.

Purpose of report:

Production, export, raw material, production technology and price changes of China's MSG, dynamics of leading manufacturers, and environmental issues were analyzed in this report, in order to clearly describe and better understand the status and future trend of China's MSG industry.

What to report:

- An overview of China's MSG industry, 2016–2018;
- Environmental issues and policies and their impacts on the MSG market;
- Production and export of China's MSG, 2016–2018;
- Price changes of China's MSG, 2016–2018;
- Consumption pattern of MSG in China;
- Dynamics of leading MSG manufacturers, including background information and product structure, 2018.

Forecasts:

- Environmental pressure will continue to be the key factor that influences MSG industry in China;
- Capacity and output of China's MSG are predicted to grow slightly in the future;
- The supply of main raw material (corn) in domestic market is expected to decline in the next few years;
- The consumption share of direct use in total consumption of MSG will keep decreasing in next few years.

2. Approach for this report

The report is drafted by diverse methods as follows:

- Desk research

The sources of desk research are various, including published magazines, journals, government websites and statistics, industrial statistics, association seminars as well as information from the Internet. A lot of work has gone into the compilation and analysis of the obtained information.

- Internet

CCM visited government websites and contacted with players in the domestic agrochemical industry through B2B websites and software.

- Data processing and presentation

The data collected and compiled are sourced from:

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

The data from various sources have been combined and cross-checked to make this report as precise and scientific as possible. Throughout the process, a series of internal discussions were held in order to analyse the data and draw the conclusions.

3. Executive summary

In recent years, the monosodium glutamate (MSG) industry in China has experienced many pressures and challenges from environmental policies and market competition. Many small-scale MSG manufacturers had been eliminated because of the outdated technology and strict policies. But MSG capacity still showed an increasing trend due to the expansion of large-scale MSG manufacturers during 2016 and 2018. China's MSG capacity reached XXX t/a in 2018, with a CAGR of XXX%. While the output of MSG was fluctuated during the same period and it was XXX tonnes in 2018, down by XXX% year on year.

After elimination of backward MSG capacity, most of manufacturers in southern China have been stopped. As of 2018, there were only XXX active producers left in China and most of them are located in Inner Mongolia Autonomous Region, Shandong Province, Ningxia Hui Autonomous Region and Xinjiang Uygur Autonomous Region.

Appropriate sub-type biotin pathway is the most popular method to produce MSG, accounting for XXX% of the total MSG capacity in China in 2018. Corn starch and rice starch are raw materials to produce glutamic acid (GA) in China.

As the largest exporter of MSG all over the world, China exports a large amount of MSG annually. Compared with the export volume, China imports a relatively small amount of MSG from other regions every year. In 2018, XXX tonnes of MSG were exported in China, while only XXX tonnes were imported in the same year. It's worth for MSG producers focusing on the foreign market due to the increasing demand from abroad.

In domestic market, MSG is mainly used in family cooking, catering, compound condiment and other food use. The percentage of MSG directly edible use (catering and cooking) in total MSG consumption was decreasing in the past few years. On the contrary, MSG used in food and condiment manufacturing develops steadily.

It's estimated that both the capacity and output of MSG in China will continue to grow in the next few years to meet the increasing demand from at home and abroad. Besides, more MSG is expected to be consumed in food manufacturing industry in the next few years. However, direct use of MSG in family cooking and catering is predicted to decrease gradually.

4. What's in this report?

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

1 Key factors affecting the development of MSG industry

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2 Supply & demand of MSG in China

2.1 Technology of MSG industry

Production of MSG has a long history of more than ninety years in China. At the very beginning, MSG was produced by the acid hydrolysis method in 1923. Not until in 1958 did the fermentation method using starch sugar as raw material come into use. From then on, reform and innovation in the fermentation technology have been continuing. Nowadays, the acid production rate and conversion rate of the fermentation technology can reach XXX% and XXX% respectively. The technology gap between China and advanced countries in the world is narrowing gradually.

Figure 2.1-1 Milestones of technological development for MSG production in the world



Source: CCM

...

2.2 Current production situation

In recent years, MSG backward capacity has been eliminated due to environmental protection and related policies. The concentration ratio of China's MSG industry has further improved.

2.2.1 Summary of MSG production (capacity, output, key players, etc.), 2018

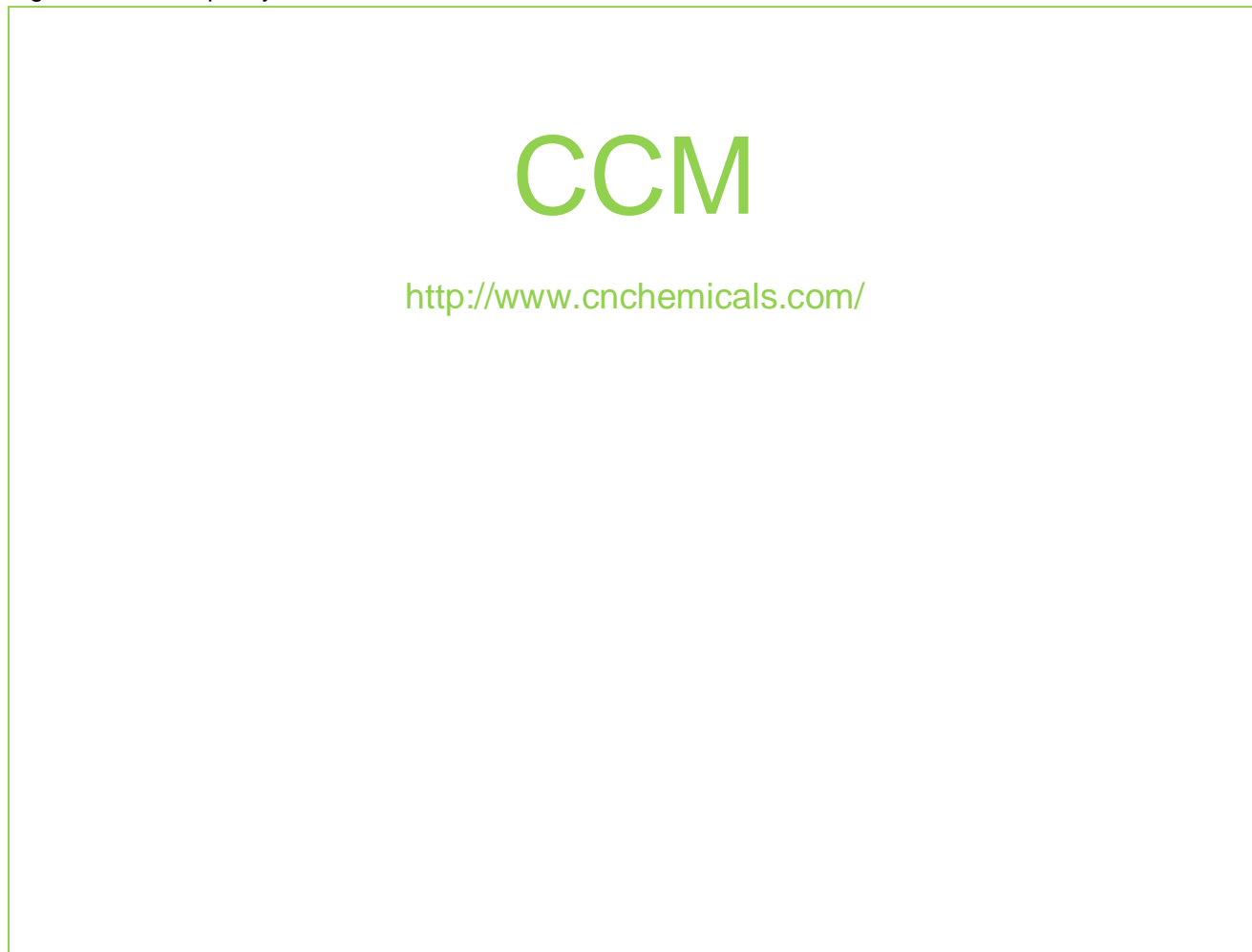
As the largest producer and exporter, China accounts for XXX of the world's MSG capacity and supplied over XXX MSG all over the world in 2018. As of 2018, there were about XXX active MSG producers in China. Their production sites are mainly located in Inner Mongolia

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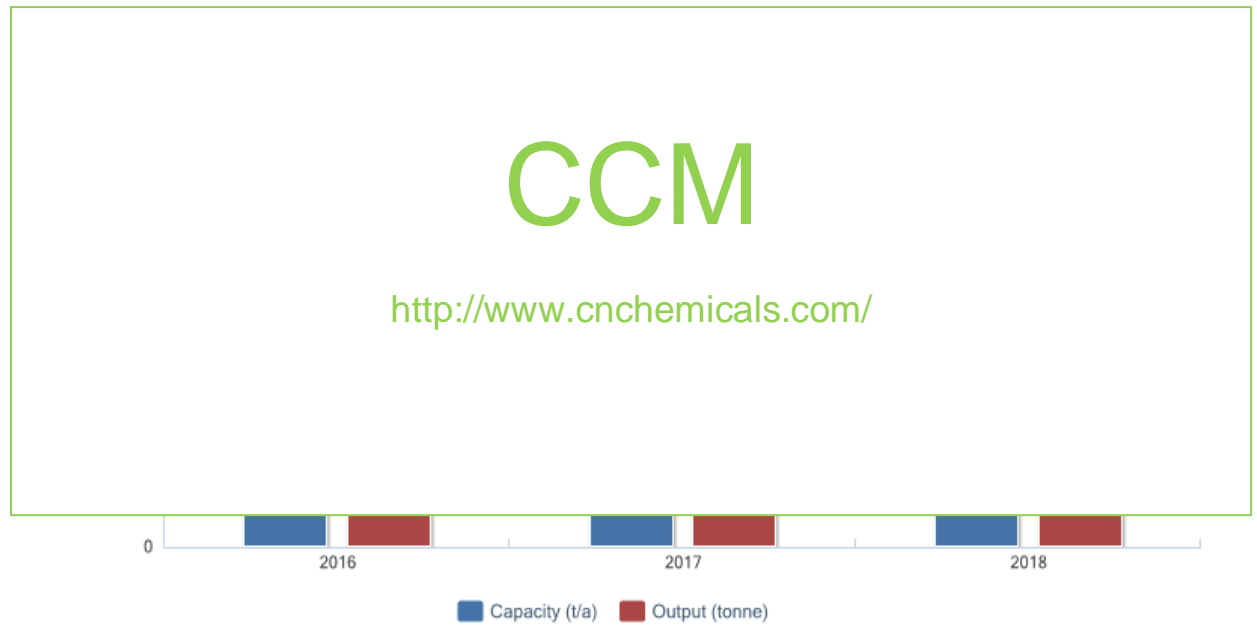
Autonomous Region, Shandong Province, Ningxia Hui Autonomous Region and Xinjiang Uygur Autonomous Region because of the abundant raw material resources. Southern provinces like Fujian and Guangdong only produce a small amount of MSG.

Figure 2.2.1-1 Capacity distribution of MSG in China, 2018



Source: CCM

Figure 2.2.1-2 Capacity and output of MSG in China, 2016–2018



Source: CCM

...

Table 2.2.1-1 Capacity and output of active MSG producers in China, 2016–2018

No.	Producer	Production site	Status, 2018	Capacity, t/a			Output, tonne		
				2018	2017	2016	2018	2017	2016
1	Fufeng Group Co., Ltd.	Shaanxi Province, Inner Mongolia Autonomous Region	Active	xxx	xxx	xxx	xxx	xxx	xxx
2	xxx	xxx	Active	xxx	xxx	xxx	xxx	xxx	xxx
...	xxx	xxx	Active	xxx	xxx	xxx	xxx	xxx	xxx

...

2.2.2 Major analysis of economy index of MSG production

Production cost is one of the most important economy indexes of MSG production. And the production cost consists of raw material cost, energy cost and other costs, such as employee welfare, staff management cost, equipment depreciation expense, etc.

Table 2.2.2-1 Cost information of MSG production in northern China, 2018

Item	Proportion of cost, %
Corn	xxx
xxx	xxx
xxx	xxx
xxx	xxx
xxx	xxx
Total	100%

Source: CCM

2.3 Raw material supply situation

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Table 2.3-1 GA consumption of key MSG producers in China, 2018

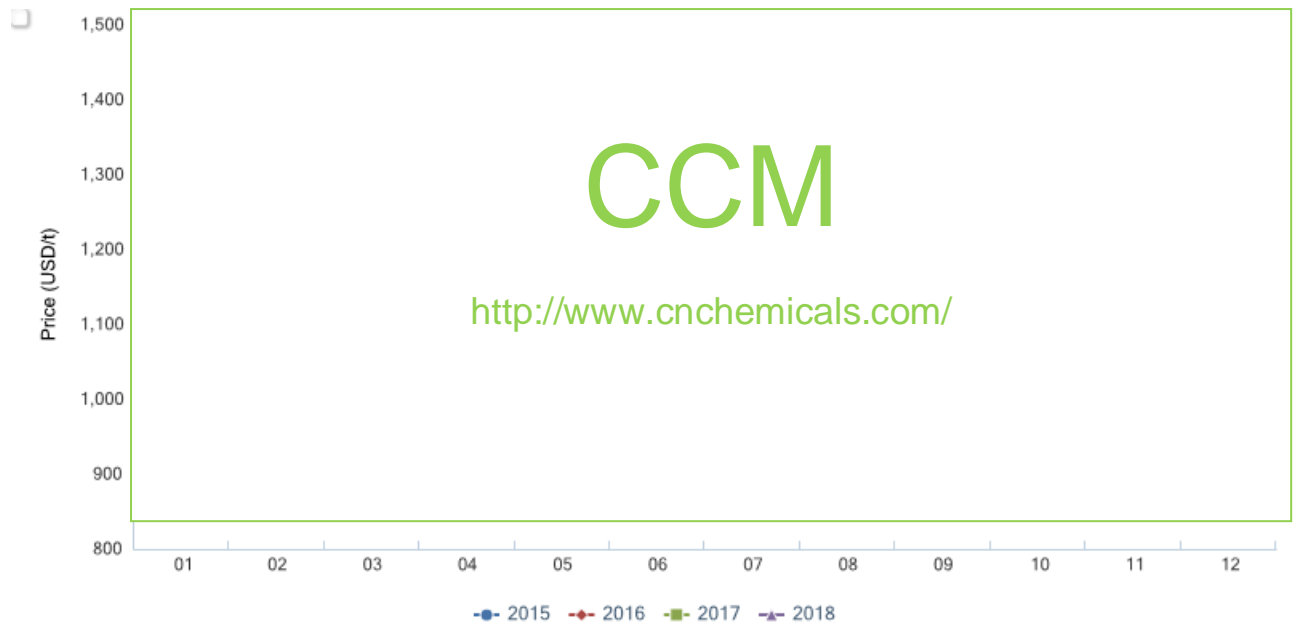
No.	Producer	Raw material	Total GA consumption , '000 tonne	GA source
1	Fufeng Group Co., Ltd.	xxx	xxx	xxx
2	xxx	xxx	xxx	xxx
...	xxx	xxx	xxx	xxx

Source: CCM

2.4 Price of MSG in China, 2015–2018

During 2015–2018, the price of MSG in China showed significant fluctuations. In H1 2015, the price remained high due to high costs and higher export tax rebate rate. In Aug. 2015, it hit a record high since 2013, because leading producers raised the price. However, it started to fall in Sept. 2015 and remained low until H1 2017. The reasons for continuous low MSG price were low corn price and excessive MSG capacity in domestic market. In late 2017, MSG's price began to increase due to the low MSG stock caused by low operating rates and rising demand from downstream industries. In H2 2018, some MSG producers were forced to limit production because of environmental problems and overhauls in summer, which reduced MSG supply and pushed up its price.

Figure 2.4-1 Monthly ex-works price of MSG in China, Jan. 2015–Dec. 2018



Source: CCM

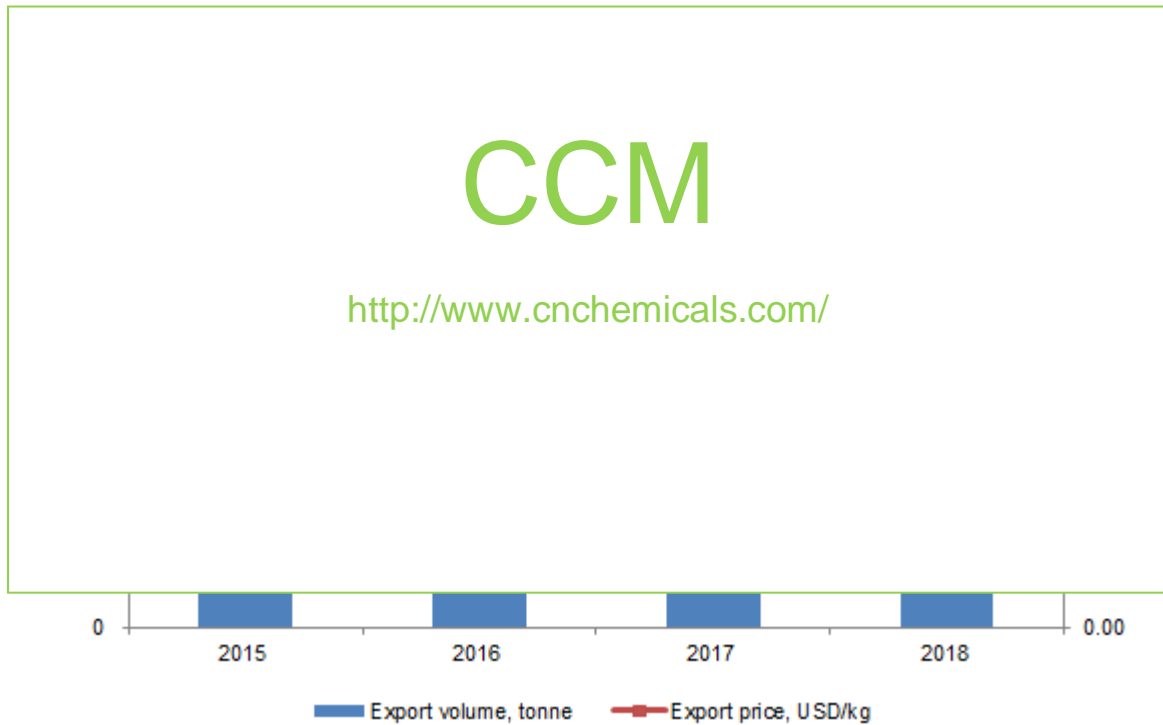
...

2.5 Import and export of MSG, 2018

2.5.1 Export situation

As the largest MSG producer in the world, China exports a large amount of MSG every year. During 2015 and 2018, more than XXX tonnes MSG were exported from China to other countries annually. What's more, the percentage of MSG export volume in the total MSG output increased from 2016 to 2018 in China. In 2016, XXX% of the total MSG output in China was exported and the figure increased to XXX in 2018.

Figure 2.5.1-1 China's exports of MSG, 2015–2018



Source: China Customs

...

2.6 MSG consumption in China

2.6.1 Consumption summary of MSG in China (volume and value), 2015–2018

During 2015 to 2017, the MSG consumption maintained an upward trend because of the increasing demand from downstream industries. As of 2017, the consumption volume increased from about XXX tonnes in 2015 to about XXX tonnes, with a CAGR of about XXX.

...

Figure 2.6.1-1 Apparent consumption of MSG in China, 2015–2018



Source: CCM

...

2.6.2 Market segmentation

MSG is consumed in catering business and family cooking as a condiment directly, while it is also used in food manufacturing industry.

Table 2.6.2-1 Apparent consumption volume of MSG by application field in China, 2018

Consumption field		Consumption volume, tonne
Directly edible	XXX	XXX
	XXX	XXX
Indirectly edible	XXX	XXX
	XXX	XXX
Total		XXX

Source: CCM

...

3 Future prospect of MSG in China

Influencing factors

Policy

...

Economy

...

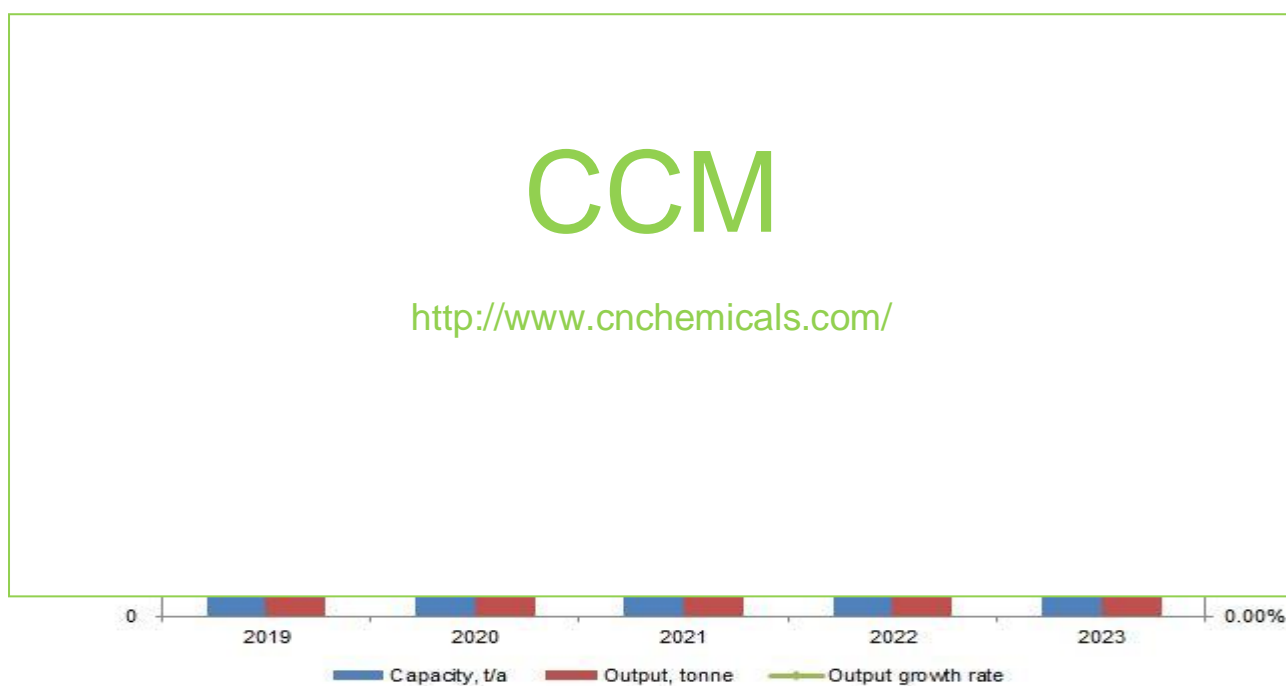
Population

...

Raw materials

...

Figure 3-1 Forecast on capacity and output of MSG in China, 2019–2023



Source: CCM

...

5 Appendix (profile of major MSG manufacturers)

5.1 Fufeng Group Co., Ltd.

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Address: West of Huaihai Road, Junan County, Shandong Province 276600, P. R. China

Tel: +86-539-7217799

Fax: +86-539-7398969

Person to contact: Mr. Shi

Website: www.fufeng-group.com

Table 5.1-1 Information about Fufeng Group

Item	Content	Remark
Year of establishment	2005	/
Location	Shandong Province	XXX
Ownership	Private	Listed on Hong Kong Stock Exchange (Stock Code: 00546)
Registered capital	XXX	/
Staff, as of Dec. 201 8	XXX	/
Certification	ISO 9001, ISO 22000, ISO 14001 and OHSAS18001	/
Product list	MSG (XXX t/a) - Starch sugar (XXX t/a) - Xanthan gum (XXX t/a) - Threonine (XXX t/a) - Fertilisers (XXX t/a) - Glutamic acid (XXX t/a) - Etc.	XXX

Source: CCM and Fufeng Group Co., Ltd.

Table 5.1-2 MSG situation in Fufeng Group, 2018

Item	Content	Remark
Production	Capacity, 2018	XXX t/a /
	Output, 2018	XXX tonnes /
	Expansion plan, 2019	XXX /
Technology	XXX	/
Raw material	XXX	XXX
Market sales	More than XXX of its MSG is exported to regions such as Europe, Africa, North America and South America, while the rest is sold to the domestic MSG end users.	The export sales down by XXX% year on year to USDXXX 2018.
Brand	Fufeng	/

Source: CCM and Fufeng Group Co., Ltd.

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