

Price Trend of Haloxyfop-P-methyl in China to 2024

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Executive summary

In 2021, the ex-works price of haloxyfop-P-methyl technical in China rebounded sharply, owing to the rising cost of raw materials: the ex-works price of methanol and CCMP soared by nearly 60% and 30% YoY respectively. Besides, demand from abroad boosted—China's 2021 export of haloxyfop-P-methyl products increased by nearly 30% YoY and reached a 5-year record. Moreover, the price of haloxyfop-P-methyl technical in Nov. 2021 was about USD41,282/t, showing explosive growth.

During 2017–2021, the varieties of haloxyfop-P-methyl for export decreased. As of 2021, haloxyfop-P-methyl export products included 90% technical, 95% technical, 97% technical, 98% technical, 108g/L EC, 480g/L EC and 22% EC.

From 2017 to 2021, China's total export volume (converted to 100% AI) of haloxyfop-P-methyl products reached the peak in 2021. China's total export volume (converted to 100% AI) of haloxyfop-P-methyl products increased from 1,543.272 tonnes in 2020 to 2,039.959 tonnes in 2021, up 32.18% YoY. The price of haloxyfop-P-methyl products also showed an upward trend from 2020 to 2021. In 2022, the export volume is expected to be flat or increase further.

With the implementation of the *14th Five-Year (2021–2025) Development Plan for Pesticide Industry*, the expansion of herbicide industry will be limited by the requirements for environmental protection, while manufacturers with strong innovation ability will gain greater advantages in the future.

With more demand at home and abroad, the ex-works price of haloxyfop-P-methyl technical rebounded in 2021. The ex-works price of haloxyfop-P-methyl in China may see further growth in the two years to come (2023–2024).

Introduction and methodology

Introduction

Price Trend of Haloxyfop-P-methyl in China to 2024. It attaches importance to the following parts:

- Price of haloxyfop-P-methyl in China, 2017–2021
- Influencing factor analysis of price of haloxyfop-P-methyl, including registration, export and policies
- Forecast on price of haloxyfop-P-methyl in China to 2024

The data is based on various sources as mentioned in the methodology below.

Methodology

Desk research

Sources of desk research are various including published magazines, journals, government statistics, industrial statistics, customs statistics, associated seminars as well as information from the Internet. A lot of work has been done to compile and analyse the information obtained. When necessary, checks were made with Chinese market players regarding market information such as production, demand, consumption, competition, etc.

Telephone Interview

The interviewees cover:

- Pesticide producers
- Agricultural experts
- Traders
- Local governments
- Researchers
- Peasants
- Associations

CCM carried out extensive telephone interviews with all producers of haloxyfop-P-methyl technical and many producers of formulations. From those active producers, potential producers, even producers who stopped production, CCM sourced and verified the detailed production information and market situation as well as players' comments on haloxyfop-P-methyl.

In a bid to understand the application situation of haloxyfop-P-methyl formulations in China, CCM also made contact with domestic traders, sellers and peasants as well. To directly analyse the import and export situation of haloxyfop-P-methyl technical and formulations, many importers and exporters were contacted whenever the verification was needed.

Those raw material suppliers are also contacted to get the price, supply as well as governmental policies of raw materials and their impact on haloxyfop-P-methyl.

Data processing and presentation

The data from various channels have been combined 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 conclusions from them.

Glossary

In this report, there are many abbreviations for specifications of haloxyfop-P-methyl formulations and intermediate products. They are listed as follows:

AI: Active ingredient

CAGR: Compound annual growth rate

CCMP: 2-Chloro-5-chloromethylpyridine

TC: Technical

EC: Emulsifiable concentrate

ME: Micro-emulsion

OD: Oil dispersion
 EW: Emulsion, oil in water

Haloxypop-P-methyl is defined as haloxypop-P-methyl technical in the report, if not specified.

Units

t: metric tonne, equal to tonne in this report
 kg: kilogram
 t/a: tonne per year, also metric tonne per year, also tonne/year
 RMB: currency unit in China, also called Yuan
 USD: currency unit in the US

Table null-1 USD/CNY exchange rates, Jan. 2017–Dec. 2021

Year	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Yearly average
2017	6.8918	6.8713	6.8932	6.8845	6.8827	6.8019	6.7772	6.7148	6.5909	6.6493	6.6300	6.6067	6.7662
2018	6.5079	6.3045	6.3352	6.2764	6.3670	6.4078	6.6157	6.8293	6.8347	6.8957	6.9670	6.9431	6.6070
2019	6.8482	6.7081	6.6957	6.7193	6.7344	6.8896	6.8716	6.8938	7.0883	7.0726	7.0437	7.0262	6.8826
2020	6.9614	6.9249	6.9811	7.0771	7.0690	7.1315	7.0710	6.9980	6.8498	6.7796	6.7050	6.5921	6.9284
2021	6.5408	6.4623	6.4754	6.5584	6.4895	6.3572	6.4709	6.4660	6.4680	6.4604	6.4192	6.3693	6.4615

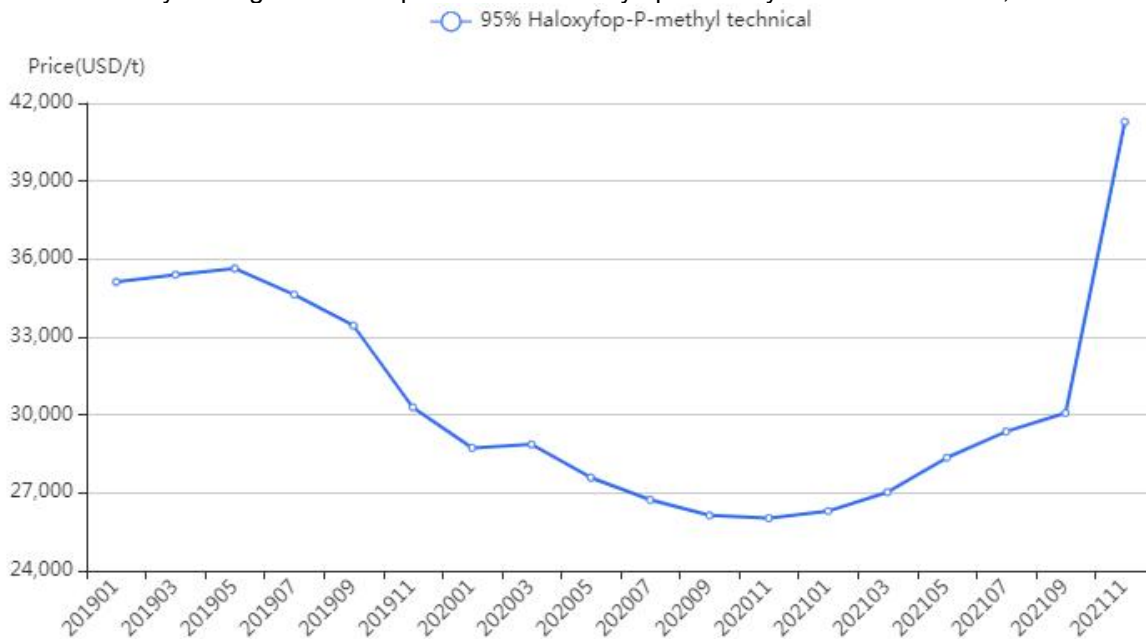
Source: The People's Bank of China

1 Price of haloxyfop-P-methyl in China, 2017–2021

In 2021, the ex-works price of haloxyfop-P-methyl technical in China rebounded sharply, owing to the rising cost of raw materials: the ex-works price of methanol and CCMP soared by nearly 60% and 30% YoY respectively. Besides, demand from abroad boosted—China's 2021 export of haloxyfop-P-methyl products increased by nearly 30% YoY and reached a 5-year record.

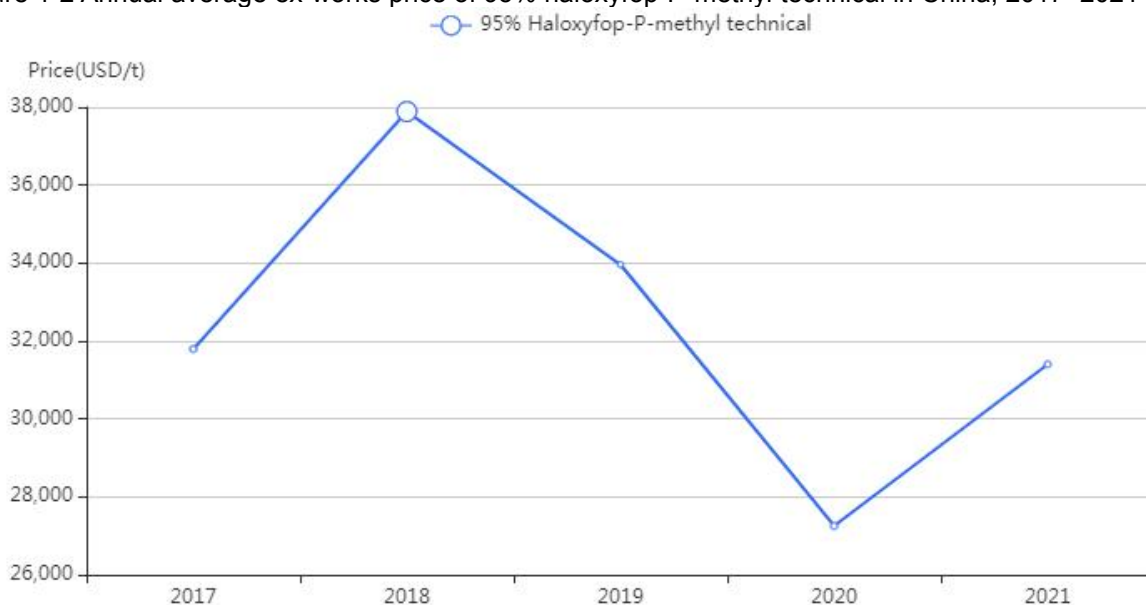
During 2018–2020, the ex-works price of haloxyfop-P-methyl technical in China witnessed downtrend generally. That's mainly because downstream demand, especially foreign demand, for haloxyfop-P-methyl products went down. In 2019, China's export of haloxyfop-P-methyl products decreased by nearly 2%.

Figure 1-1 Monthly average ex-works price of 95% haloxyfop-P-methyl technical in China, 2019–2021



Source:CCM

Figure 1-2 Annual average ex-works price of 95% haloxyfop-P-methyl technical in China, 2017–2021



Source:CCM

2 Influencing factor analysis of price of haloxyfop-P-methyl

2.1 Registration of haloxyfop-P-methyl in China

As of 8 April, 2022, there are 157 valid registrations of haloxyfop-P-methyl products owned by 133 companies in China, 26 of which are technicals, according to the registration information from the Institute for the Control of Agrochemicals, Ministry of Agriculture and Rural Affairs of the People's Republic of China (ICAMA).

Table 2.1-1 Formulation type of haloxyfop-P-methyl registrations in China, as of 8 April, 2022

No.	Type of formulation	Number of registration	Share
1	EC	124	78.98%
2	TC	26	16.56%
3	ME	6	3.82%
4	EW	1	0.64%
Total		157	100.00%

Source:ICAMA

Table 2.1-2 Valid registrations of haloxyfop-P-methyl technical in China, as of 8 April, 2022

No.	Registrant	Registration code	Content	Expiration year
1	Chongqing Huage Biochemical Co., Ltd.	PD20098142	98%	2024.12.14
2	Lanzhou Chemspec-Weier Chemical Co., Ltd.	PD20131765	98%	2023.9.6
3	Wuqiao Pesticide Co., Ltd.	PD20180917	98%	2023.3.15
4	ADAMA Ltd.	PD20082048	98%	2023.11.25
5	Jiamusi Heilong Pesticide Co., Ltd.	PD20070535	98%	2022.12.3
6	Ningxia Gerui Fine Chemical Co., Ltd.	PD20170397	97%	2027.3.8
7	Jiangsu Repon Agrochemical Co., Ltd.	PD20151920	97%	2025.8.30
8	Shandong Weifang Rainbow Chemical Co., Ltd.	PD20140939	97%	2024.4.14
9	Jiangsu Youjia Plant Protection Co., Ltd.	PD20093250	97%	2024.3.11
10	Shandong Luba Chemical Co., Ltd.	PD20131146	97%	2023.5.20
11	Weifang Xinlu Chemical Co., Ltd.	PD20070265	97%	2022.9.4
12	Shoujian Technology Co., Ltd.	PD20095108	96%	2024.4.24
13	Jiangsu Kaichen Chemical Co., Ltd.	PD20150994	95%	2025.6.11
14	Jiangsu Agrochem Laboratory Co., Ltd.	PD20142079	95%	2024.9.2
15	Hebei Wanquan Lihua Chemicals Co., Ltd.	PD20096632	95%	2024.9.2
16	Ningxia Yongnong BioSciences Co., Ltd.	PD20080878	95%	2023.7.9
17	Anhui Fengle Agrochemical Co., Ltd.	PD20080632	95%	2023.5.13
18	Shenyang Sciencreat Chemicals Co., Ltd.	PD20080628	95%	2023.5.13
19	Chizhou Bioagriland Multichem Co., Ltd.	PD20082364	95%	2023.12.1
20	Hebei Wanquan Lihua Chemicals Co., Ltd.	PD20081987	95%	2023.11.25

No.	Registrant	Registration code	Content	Expiration year
21	Shandong Binnong Technology Co., Ltd.	PD20080143	95%	2023.1.3
22	Dow AgroSciences LLC	PD20080662	94%	2023.5.27
23	Anhui Huaxing Chemical Industry Co., Ltd.	PD20092668	93%	2024.3.3
24	Lianyungang Liben Crop Science and Technology Co., Ltd.	PD20094784	92%	2024.4.13
25	Jiangsu Flag Chemical Industry Co., Ltd.	PD20093804	90%	2024.3.25
26	Ningbo Sunjoy Agrosience Co., Ltd.	PD20080834	90%	2023.6.20

Source:ICAMA

2.2 Export analysis

During 2017–2021, the varieties of haloxyfop-P-methyl for export decreased. As of 2021, haloxyfop-P-methyl export products included 90% technical, 95% technical, 97% technical, 98% technical, 108g/L EC, 480g/L EC and 22% EC, by specification.

From 2017 to 2021, China's total export volume (converted to 100% AI) of haloxyfop-P-methyl products reached the peak in 2021. China's total export volume (converted to 100% AI) of haloxyfop-P-methyl products increased from 1,543.272 tonnes in 2020 to 2,039.959 tonnes in 2021, up 32.18% year on year. The price of haloxyfop-P-methyl products showed an upward trend from 2020 to 2021. In 2022, the export volume is believed to remain stable or increase further.

China exported haloxyfop-P-methyl products to approximately 60 countries and regions during 2017 to 2021 and the number of exporters decreased sharply in 2021, when only 15 countries imported haloxyfop-P-methyl products from China.

Table 2.2-1 China's exports of haloxyfop-P-methyl by destination, 2017–2021

No.	Country/region	2021			2020			2019			2018			2017		
		100 % AI volume, tonne	Value, USD	Price for 100 % AI, USD/kg	100 % AI volume, tonne	Value, USD	Price for 100 % AI, USD/kg	100 % AI volume, tonne	Total Value, USD	Price for 100 % AI, USD/kg	100 % AI volume, tonne	Value, USD	Price for 100 % AI, USD/kg	100 % AI volume, tonne	Value, USD	Price for 100 % AI, USD/kg
1	Argentina	1,565.750	49,678,263.510	31.728	1,339.987	38,300,834.150	28.583	814.928	28,485,511.000	34.955	811.270	29,553,827.000	36.429	850.564	26,122,897.000	30.712
2	Russia	220.891	8,471,632.470	38.352	90.755	2,651,708.570	29.218	205.947	8,870,474.000	43.072	128.871	6,906,505.000	53.592	116.863	4,903,504.000	41.959
3	Brazil	101.855	2,918,249.000	28.651	46.131	1,798,811.000	38.993	180.505	9,813,157.000	54.365	116.614	8,253,131.000	70.773	98.536	6,248,081.000	63.409
4	Paraguay	26.192	805,461.650	30.752	39.132	1,127,315.600	28.808	100.656	3,940,324.000	39.146	64.022	2,415,341.000	37.726	/	782,946.000	/
5	Ghana	15.215	511,158.560	33.595	0.667	15,150.000	22.724	28.630	1,608,690.000	56.189	37.164	2,392,929.000	64.388	21.612	1,186,855.000	54.918
6	Senegal	0.189	/	/	/	/	/	24.520	1,444,448.000	58.908	18.744	1,205,182.000	64.295	39.490	2,019,707.000	51.145

No.	Country/region	2021			2020			2019			2018			2017		
		100 % AI volume, tonne	Value, USD	Price for 100 % AI, USD/kg	100 % AI volume, tonne	Value, USD	Price for 100 % AI, USD/kg	100 % AI volume, tonne	Total Value, USD	Price for 100 % AI, USD/kg	100 % AI volume, tonne	Value, USD	Price for 100 % AI, USD/kg	100 % AI volume, tonne	Value, USD	Price for 100 % AI, USD/kg
7	Cameroon	28.076	988,173.000	35.197	/	/	/	18.486	1,083,324.000	58.602	16.576	1,074,322.000	64.813	9.601	499,727.000	52.051
8	Australia	23.206	/	/	16.507	/	/	108.791	3,887,011.000	35.729	169.014	6,879,854.000	40.706	230.194	7,149,150.000	31.057
9	Chile	/	/	/	1.866	/	/	20.024	969,346.000	48.409	36.505	1,449,900.000	39.718	/	447,955.000	/
10	Vietnam	/	/	/	/	/	/	10.777	557,263.000	51.710	15.842	886,002.000	55.927	12.285	615,144.000	50.071
11	Mali	/	/	/	/	/	/	9.695	401,632.000	41.428	13.037	675,765.000	51.835	32.701	1,621,946.000	49.599
12	Cote d'Ivoire	/	/	/	/	/	/	8.398	439,416.000	52.324	22.853	1,314,058.000	57.500	14.670	771,286.000	52.576
13	Tanzania	/	/	/	/	/	/	8.037	463,821.000	57.711	/	53,515.000	/	/	36,700.000	/
14	Iran	/	/	/	/	/	/	36.211	1,365,429.000	37.707	65.379	2,838,028.000	43.409	80.709	2,750,618.000	34.081
15	Turkey	6.282	216,812.500	34.513	3.638	99,720.000	27.414	8.787	427,830.000	48.691	12.463	594,317.000	47.686	9.261	411,955.000	44.485
16	Kyrgyzstan	/	/	/	/	/	/	6.761	422,126.000	62.434	12.508	808,966.000	64.677	11.241	588,578.000	52.358
17	Togo	/	/	/	/	/	/	6.671	355,814.000	53.338	23.991	1,482,595.000	61.797	/	110,581.000	/
18	Uruguay	/	/	/	/	/	/	22.233	1,005,833.000	45.241	9.582	1,004,007.000	104.784	25.464	1,133,094.000	44.498
19	Sudan	/	/	/	/	/	/	5.500	344,233.000	62.593	/	71,200.000	/	/	/	/
20	Myanmar	/	/	/	/	/	/	6.162	289,626.000	47.004	/	259,738.000	/	7.489	390,165.000	52.099
Total		1,987.657	63,589,750.690	33.255	1,538.682	43,993,539.320	29.290	1,631.718	66,175,308.000	49.478	1,574.435	70,119,182.000	56.474	1,560.679	57,790,889.000	47.001

Source: China Customs & CCM

Table 2.2-2 China's exports of haloxyfop-P-methyl by month, 2021

Month	90% Technical		95% Technical		97% Technical		98% Technical		108g/L EC		480g/L EC		22% EC		Total volume, tonne	Total volume, tonne (calculated by 100% AI)
	Volume, tonne	Price, USD/kg	Volume, tonne	Price, USD/kg	Volume, tonne	Price, USD/kg	Volume, tonne	Total volume, tonne	Price, USD/kg	Volume, tonne	Price, USD/kg	Volume, tonne	Price, USD/kg	Volume, tonne		
Jan.	/	/	/	/	10.000	43.520	/	/	122.776	5.006	/	/	/	/	132.776	23.205
Feb.	/	/	/	/	142.000	26.530	/	/	111.085	5.349	0.540	18.010	/	/	253.625	150.219
March	/	/	/	/	146.107	31.880	/	/	303.683	5.431	/	/	/	/	449.790	175.129
April	/	/	/	/	10.000	25.910	/	/	108.687	5.003	0.949	19.010	/	/	119.636	22.111
May	1.000	25.360	20.000	26.000	168.500	28.650	/	/	36.632	4.940	/	/	/	/	226.132	187.374
June	/	/	10.000	25.890	153.600	29.740	/	/	25.760	5.979	57.064	16.492	4.000	3.940	250.424	189.596
July	/	/	10.000	26.520	265.688	29.660	/	/	73.868	4.544	/	/	/	/	349.556	275.343
Aug.	/	/	/	/	331.634	30.060	/	/	16.480	4.334	14.273	15.466	/	/	362.387	330.349
Sept.	/	/	/	/	289.750	30.460	/	/	27.679	4.480	/	/	10.000	3.130	327.429	286.302
Oct.	/	/	/	/	90.000	33.830	/	/	37.280	5.650	/	/	/	/	127.280	91.401
Nov.	/	/	/	/	84.750	34.060	/	/	59.467	6.269	2.856	15.370	/	/	147.073	90.120
Dec.	/	/	10.000	35.970	183.250	39.210	21.720	39.080	85.576	7.842	1.748	18.629	/	/	302.294	218.810
Total	1.000	25.360	50.000	28.595	1,875.279	31.959	21.720	39.080	1,008.973	5.402	77.430	17.163	14.000	3.535	3,048.402	2,039.959

Source: China Customs & CCM

Table 2.2-3 China's exports of haloxyfop-P-methyl by month, 2020

Month	90% Technical		95% Technical		97% Technical		108g/L EC		480g/L EC		Total volume, tonne	Total volume, tonne (calculated by 100% AI)
	Volume, tonne	Price, USD/kg	Volume, tonne	Price, USD/kg	Volume, tonne	Total volume, tonne	Price, USD/kg	Volume, tonne	Price, USD/kg	Volume, tonne		
Jan.	/	/	/	/	/	/	/	/	/	/	/	/
Feb.	/	/	/	/	/	/	/	/	/	/	/	/
March	/	/	/	/	/	/	/	/	/	/	/	/
April	/	/	/	/	/	/	/	/	/	/	/	/
May	/	/	37.188	27.72 ₃	231.342	27.845	12.25 ₄	6.056	/	/	280.784	261.078
June	/	/	22.000	28.27 ₈	318.000	28.693	34.66 ₀	7.657	/	/	374.660	333.173
July	/	/	18.688	26.59 ₀	413.000	27.818	6.060	2.500	3.920	17.010	441.668	420.912
Aug.	/	/	10.000	27.57 ₀	116.500	27.381	12.52 ₀	4.925	/	/	139.020	123.882
Sept.	/	/	/	/	181.000	28.908	23.04 ₀	6.296	/	/	204.040	178.110
Oct.	/	/	/	/	45.000	26.882	66.00 ₀	6.620	/	/	111.000	50.910
Nov.	40.000	25.55 ₀	/	/	60.750	28.755	2.000	6.200	0.585	17.790	103.335	95.428
Dec.	/	/	/	/	82.246	24.860	/	/	/	/	82.246	79.779
Total	40.000	25.55₀	87.876	27.54₀	1,447.8₃₈	27.643	156.5₃₄	5.751	4.505	17.400	1,736.7₅₃	1,543.27₂

Source: China Customs & CCM

Table 2.2-4 China's exports of haloxyfop-P-methyl by month, 2019

Month	90% Technical		95% Technical		96% Technical		97% Technical		98% Technical		108g/L EC		220g/L EC		480g/L EC		520g/L EC		Total volume, tonne	Total volume, tonne (calculated by 100% AI)
	Volume, tonne	Price, US D/kg	Volume, tonne	Price, US D/kg	Volume, tonne	Price, US D/kg	Volume, tonne	Price, US D/kg	Volume, tonne	Total volume, tonne	Price, US D/kg	Volume, tonne	Price, US D/kg	Volume, tonne	Price, US D/kg	Volume, tonne	Price, US D/kg	Volume, tonne		
Jan.	15.500	31.740	18.000	32.550	0.000	/	20.000	36.730	15.000	32.210	467.773	6.700	0.000	/	0.000	/	0.000	/	536.270	116.605
Feb.	7.000	31.950	24.000	33.970	0.000	/	0.000	/	41.000	33.840	213.635	7.790	4.000	13.250	0.000	/	2.361	19.300	291.996	94.888
March	37.750	31.960	2.500	32.920	0.000	/	61.500	35.980	0.000	/	507.684	7.990	0.000	/	11.151	20.120	0.000	/	620.585	157.203
April	6.000	31.000	17.250	34.360	0.000	/	60.750	39.190	0.000	/	192.464	8.050	0.000	/	0.000	/	0.000	/	276.464	101.886
May	40.000	32.580	20.000	31.880	12.000	32.140	13.150	34.830	0.000	/	390.89	6.670	0.000	/	4.783	20.490	0.000	/	599.176	239.369
June	16.000	31.900	5.000	32.240	0.000	/	11.975	35.000	12.000	33.470	589.918	6.940	0.000	/	0.000	/	0.000	/	742.668	211.958
July	32.000	31.740	1.750	32.520	0.000	/	13.480	33.570	48.000	32.540	534.221	6.720	0.000	/	21.954	20.620	0.000	/	772.725	277.561
Aug.	30.000	31.120	32.500	32.250	0.000	/	80.000	33.830	5.000	32.350	261.102	8.250	0.000	/	0.000	/	0.000	/	408.602	169.096
Sept.	0.000	/	20.000	29.710	0.000	/	67.500	30.810	10.000	29.430	119.278	6.990	0.000	/	0.000	/	0.000	/	216.778	107.396
Oct.	8.500	30.540	0.000	/	0.000	/	54.250	30.680	10.000	29.480	376.174	6.320	0.000	/	3.636	6.690	0.000	/	452.560	113.197
Nov.	14.000	30.910	0.500	35.600	0.000	/	28.000	29.200	0.000	/	90.789	7.200	0.000	/	0.000	/	0.000	/	133.289	50.222
Dec.	25.000	28.120	0.000	/	0.000	/	20.750	29.980	0.750	32.700	52.485	6.660	0.000	/	0.000	/	0.000	/	98.985	49.136
Total	231.750	31.410	141.500	33.080	12.000	32.140	778.800	33.710	141.750	32.740	3,796.416	7.230	4.000	13.250	41.524	18.170	2.361	19.300	5,150.101	1,688.516

Source: China Customs & CCM

Table 2.2-5 China's exports of haloxyfop-P-methyl by month, 2018

Month	90% Technical		95% Technical		96% Technical		97% Technical		98% Technical		108g/L EC		180g/L EC		220g/L EC		480g/L EC		520g/L EC		Total volume, tonne	Total volume, tonne (calculated by 10% AI)
	Volume, tonne	Price, US D/kg	Volume, tonne	Price, US D/kg	Volume, tonne	Price, US D/kg	Volume, tonne	Price, US D/kg	Volume, tonne	Price, US D/kg	Total volume, tonne	Volume, tonne	Price, US D/kg	Volume, tonne	Price, US D/kg	Volume, tonne	Price, US D/kg	Volume, tonne	Price, US D/kg	Volume, tonne		
Jan.	2.000	35800	28.000	39250	0.000	/	6.500	39840	5.250	40900	712.369	7.360	0.000	/	0.000	/	0.000	/	0.000	/	754.119	118.210
Feb.	10.000	36010	10.250	41400	0.000	/	6.750	38090	15.000	39270	113.464	7.300	0.000	/	0.000	/	21.522	22.840	0.000	/	176.986	62.797
March	0.000	/	0.000	/	0.000	/	22.500	36220	0.000	/	310.610	7.790	0.000	/	0.000	/	31.363	22.350	48.049	21.950	412.522	96.032
April	7.000	37670	9.600	39070	0.000	/	5.000	34840	16.500	38120	633.018	8.050	0.000	/	0.000	/	0.000	/	0.000	/	716.118	149.722
May	15.000	38680	5.600	36500	1.000	39350	13.800	36990	21.500	37180	778.446	8.160	0.000	/	0.012	11.580	0.000	/	3.920	24.300	963.478	262.381
June	50.000	33630	10.000	33870	1.000	39240	33.500	33000	0.000	/	175.249	8.520	18.620	11.150	0.000	/	0.000	/	0.000	/	288.369	110.584
July	43.750	32030	23.250	34680	0.000	/	7.800	34930	20.000	35610	204.400	7.600	0.000	/	0.000	/	0.000	/	10.977	21.030	380.377	184.915
Aug.	76.000	31140	19.000	33980	10.000	33250	54.503	40780	7.000	36110	225.719	7.670	0.000	/	0.000	/	10.821	21.790	0.000	/	403.043	185.801
Sept.	146.000	32030	10.500	34120	25.000	34380	45.000	35450	27.000	37120	690.005	6.810	0.000	/	0.000	/	0.000	/	0.000	/	322.505	243.076
Oct.	85.500	31090	2.022	31710	0.000	/	22.500	36020	7.000	33110	211.220	7.520	0.000	/	0.000	/	0.000	/	0.000	/	328.242	130.790

Month	90% Technical		95% Technical		96% Technical		97% Technical		98% Technical		108g/L EC		180g/L EC		220g/L EC		480g/L EC		520g/L EC		Total volume, tonne	Total volume, tonne (calculated by 100% AI)		
	Volume, tonne	Price, USD/kg	Volume, tonne	Price, USD/kg	Volume, tonne	Price, USD/kg	Volume, tonne	Price, USD/kg	Volume, tonne	Price, USD/kg	Total volume, tonne	Volume, tonne	Price, USD/kg	Volume, tonne	Price, USD/kg	Volume, tonne	Price, USD/kg	Volume, tonne	Price, USD/kg	Volume, tonne			Price, USD/kg	
Nov.	20.000	32.490	5.500	33.680	0.000	/	59.500	33.870	0.000	/	256.113	7.740	0.000	/	0.000	/	0.000	/	0.000	/	0.000	/	341.113	109.112
Dec.	2.000	22.860	0.000	/	0.000	/	26.775	47.440	0.000	/	310.843	6.310	0.000	/	0.000	/	12.370	17.750	0.000	/	0.000	/	351.988	67.902
Total	457.250	32.640	123.722	35.920	37.000	36.120	543.528	37.020	119.250	36.980	4,000.456	7.650	18.620	11.150	0.012	11.580	76.076	21.050	62.946	22.190	22.190	5,438.860	1,721.321	

Source: China Customs & CCM

Table 2.2-6 China's exports of haloxyfop-P-methyl by month, 2017

Month	90% Technical		95% Technical		97% Technical		98% Technical		108g/L EC		520g/L EC		Total volume, tonne	Total volume, tonne (calculated by 100% AI)
	Volume, tonne	Price, USD/kg	Volume, tonne	Price, USD/kg	Volume, tonne	Price, USD/kg	Total volume, tonne	Volume, tonne	Price, USD/kg	Volume, tonne	Price, USD/kg	Volume, tonne		
Jan.	0.000	/	22.250	24.620	51.650	24.500	23.500	25.050	413.124	5.480	46.000	12.230	556.524	161.979
Feb.	0.000	/	44.750	25.130	21.000	26.320	3.250	26.610	237.865	5.280	40.778	15.980	347.643	112.486
March	0.000	/	26.000	25.280	63.600	26.390	8.000	23.860	450.931	5.910	27.823	17.560	576.354	156.498
April	0.000	/	4.000	26.420	30.800	26.960	9.000	25.640	391.797	6.000	8.726	16.190	444.323	88.564
May	0.000	/	20.000	25.420	105.750	27.200	32.000	25.980	431.686	5.960	5.239	16.840	594.675	201.421
June	0.000	/	0.500	26.880	48.000	28.390	0.000	/	434.045	6.070	1.570	17.550	484.115	93.860
July	0.000	/	13.500	28.310	51.500	27.160	0.000	/	321.641	6.160	33.296	19.520	419.937	114.188
Aug.	15.000	29.250	36.500	28.890	61.100	27.760	4.750	27.280	200.742	6.090	2.008	22.030	320.100	134.420
Sept.	60.000	29.930	53.250	29.740	46.500	30.190	0.000	/	137.315	5.970	2.280	17.130	299.345	165.434

Month	90% Technical		95% Technical		97% Technical		98% Technical		108g/L EC		520g/L EC		Total volume, tonne	Total volume, tonne (calculated by 100% AI)
	Volume, tonne	Price, USD/kg	Volume, tonne	Price, USD/kg	Volume, tonne	Price, USD/kg	Total volume, tonne	Volume, tonne	Price, USD/kg	Volume, tonne	Price, USD/kg	Volume, tonne		
Oct.	30.000	30.000	6.750	31.080	91.750	32.730	0.000	/	194.283	6.110	31.392	21.970	354.175	159.328
Nov.	76.500	30.910	31.800	32.070	69.750	33.330	10.000	32.620	402.961	6.370	10.090	21.530	601.101	224.478
Dec.	54.500	35.120	23.000	35.590	33.500	32.860	1.000	40.740	195.563	7.080	26.673	23.000	334.236	138.975
Total	236.000	31.760	282.300	28.220	674.900	28.640	91.500	26.860	3,811.953	6.010	235.875	18.470	5,332.528	1,751.631

Source: China Customs & CCM

2.3 Policies

In China, pesticides are strictly supervised by general or special governmental departments, with a complete management system on pesticides and pesticide industry, including laws, rules and regulations, standards, and industrial policies, etc.

The *14th Five-Year (2021–2025) Development Plan for Pesticide Industry* (the Plan) was issued by the Ministry of Industry and Information Technology of the People's Republic of China on 29 Jan., 2022. The Plan sets out two targets: strengthen the research and development (R&D) of green pesticides and innovation capacity via establishing corresponding system and improve innovation mechanism; enhance the support on the leadership, policy, investment, regulation and ecological protection. During the adjustment period of pesticide industry, this plan serves as a guide to formulate other following regulations. With the implementation of this industrial policy, the expansion of herbicide industry will be limited by the requirements for environmental protection, while manufacturers with strong innovation ability will gain greater advantages in the future.

On 7 Jan., 2022, the Ministry of Agriculture and Rural Affairs of the People's Republic of China (MARA) revised and promulgated a series of related measures: *Administrative Measures for Pesticide Registration*, *Administrative Measures for Pesticide Registration and Test*, *Code for Quality Management of Pesticide Registration and Test*. At present, alongside the *Administrative Measures for Pesticide Labels and Manuals* (2017 Edition), a strict and comprehensive supervision system toward pesticide industry is established in China. Besides, the *Administrative List of China's Pesticide Import and Export* released on 24 Dec., 2021 facilitates pesticide import and export trade and improve the efficiency of customs clearance.

On 24 Oct., 2021, the State Council of China issued the *Action Plan for Carbon Dioxide Peaking Before 2030*. During the 14th Five-Year (2021–2025) Plan period, the main objectives related to the chemical industry include:

- significant progress will be made in the adjustment and optimisation of industrial structure and energy structure;
- the energy efficiency of key industries will be greatly improved;
- new progress will be made in the R&D, application and promotion of green and low-carbon technologies.

By 2025, the proportion of non-fossil energy consumption will reach about 20%, and the energy consumption and the carbon dioxide emission per unit of GDP will decrease 13.5% and 18% from 2020 respectively.

3 Forecast on price of haloxyfop-P-methyl in China to 2024

With more demand at home and abroad, the ex-works price of Chinese haloxyfop-P-methyl technical rebounded in 2021. The price was about USD41,282.40/t, up 58.62% YoY in Nov. 2021 and may see further rise in the two years to come (2023–2024).

The rapid price increases of Methanol and CCMP, the main raw materials of haloxyfop-P-methyl and the rising demand for haloxyfop-p-methyl exports in 2021, may drive up the price of haloxyfop-P-methyl in the near future.

Nevertheless on supply side, the setup of new capacities may inhibit the increase of haloxyfop-P-methyl price to a certain extent.

- Jiamusi Heilong Agricultural and Industrial Chemical Co., Ltd. intends to build 3,000 t/a haloxyfop-P-methyl technical and 5,000 t/a CCMP production lines during 2021–2022;
- Weifang Xinlu Chemical Co., Ltd. released the EIA of the 3000 t/a high-efficiency haloxyfop-P-methyl production base project on 1 May, 2021;
- Wuwei Lianshuo Biotechnology Co., Ltd. issued the EIA of the 1000 t/a high-efficiency haloxyfop-P-methyl production base project on 8 Oct., 2020.

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