

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

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| | |
|---|-----------|
| Executive summary | 1 |
| Introduction and methodology | 2 |
| 1 Price of haloxyfop-P-methyl in China, 2017–2021 | 4 |
| 2 Influencing factor analysis of price of haloxyfop-P-methyl | 5 |
| 2.1 Registration of haloxyfop-P-methyl in China | 5 |
| 2.2 Export analysis | 6 |
| 2.3 Policies | 13 |
| 3 Forecast on price of haloxyfop-P-methyl in China to 2024 | 14 |

LIST OF TABLES

| |
|--|
| Table 2.1-1 Formulation type of haloxyfop-P-methyl registrations in China, as of 8 April, 2022 |
| Table 2.1-2 Valid registrations of haloxyfop-P-methyl technical in China, as of 8 April, 2022 |
| Table 2.2-1 China's exports of haloxyfop-P-methyl by destination, 2017–2021 |
| Table 2.2-2 China's exports of haloxyfop-P-methyl by month, 2021 |
| Table 2.2-3 China's exports of haloxyfop-P-methyl by month, 2020 |
| Table 2.2-4 China's exports of haloxyfop-P-methyl by month, 2019 |
| Table 2.2-5 China's exports of haloxyfop-P-methyl by month, 2018 |
| Table 2.2-6 China's exports of haloxyfop-P-methyl by month, 2017 |

LIST OF FIGURES

| |
|---|
| Figure 1-1 Monthly average ex-works price of 95% haloxyfop-P-methyl technical in China, 2019–2021 |
| Figure 1-2 Annual average ex-works price of 95% haloxyfop-P-methyl technical in China, 2017–2021 |

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 |

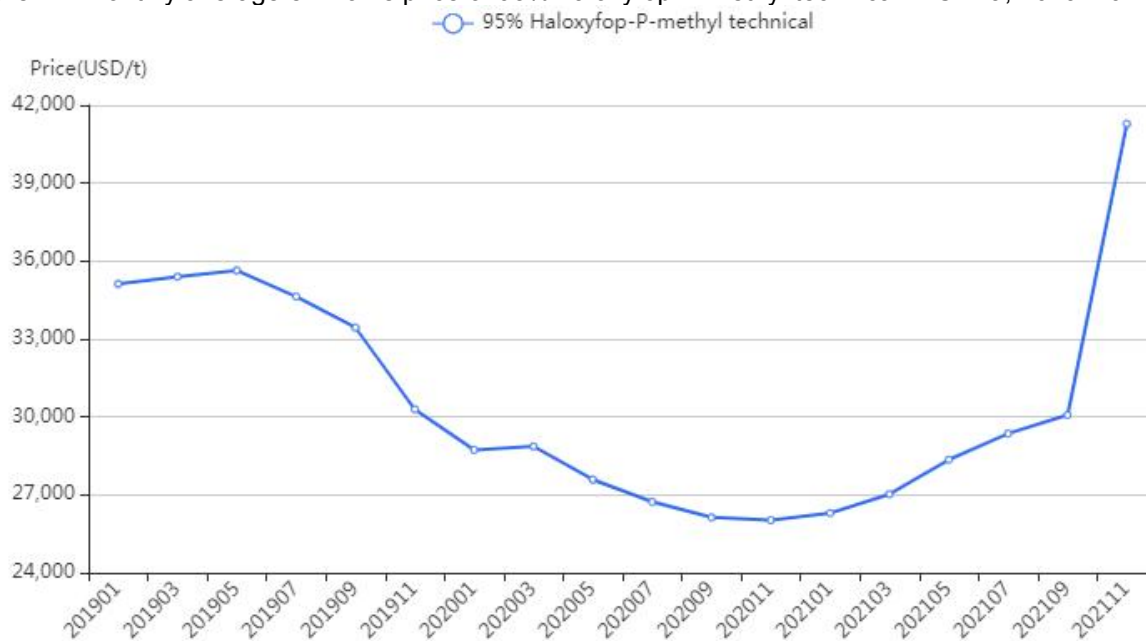
Source: The People's Bank of China

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.

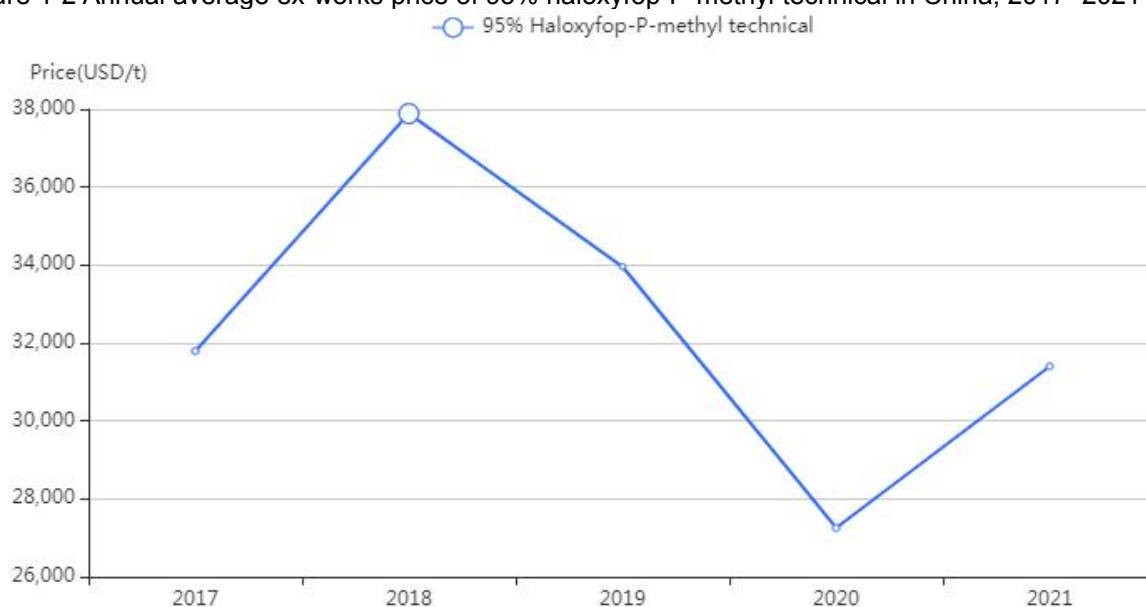
During 2018–2020, the ex-works price of haloxyfop-P-methyl technical in China witnessed downtrend generally. That's mainly because downstream demand, especially foreign demand, for haloxyfop-P-methyl products went down. In 2019, China's export of haloxyfop-P-methyl products decreased by nearly 2%.

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 Reopnt 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 | Price, USD/kg | Volume, tonne | Price, USD/kg | Volume, tonne | Price, USD/kg | Volume, tonne | Price, USD/kg | | |
| 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 | Price, USD/kg | Volume, tonne | Price, USD/kg | Volume, tonne | Price, USD/kg | | |
| Jan. | / | / | / | / | / | / | / | / | / | / | / | / |
| Feb. | / | / | / | / | / | / | / | / | / | / | / | / |
| March | / | / | / | / | / | / | / | / | / | / | / | / |
| April | / | / | / | / | / | / | / | / | / | / | / | / |
| May | / | / | 37.188 | 27.72 ₃ | 231.342 | 27.84 ₅ | 12.254 | 6.056 | / | / | 280.784 | 261.078 |
| June | / | / | 22.000 | 28.27 ₈ | 318.000 | 28.69 ₃ | 34.660 | 7.657 | / | / | 374.660 | 333.173 |
| July | / | / | 18.688 | 26.59 ₀ | 413.000 | 27.81 ₈ | 6.060 | 2.500 | 3.920 | 17.01 ₀ | 441.668 | 420.912 |
| Aug. | / | / | 10.000 | 27.57 ₀ | 116.500 | 27.38 ₁ | 12.520 | 4.925 | / | / | 139.020 | 123.882 |
| Sept. | / | / | / | / | 181.000 | 28.90 ₈ | 23.040 | 6.296 | / | / | 204.040 | 178.110 |
| Oct. | / | / | / | / | 45.000 | 26.88 ₂ | 66.000 | 6.620 | / | / | 111.000 | 50.910 |
| Nov. | 40.000 | 25.55 ₀ | / | / | 60.750 | 28.75 ₅ | 2.000 | 6.200 | 0.585 | 17.79 ₀ | 103.335 | 95.428 |
| Dec. | / | / | / | / | 82.246 | 24.86 ₀ | / | / | / | / | 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, USD/kg | 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 | Volume, tonne | Price, USD/kg | Volume, tonne | Price, USD/kg | Volume, tonne | Price, USD/kg | | |
| 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, USD/kg | 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 | Volume, tonne | Price, USD/kg | Volume, tonne | Price, USD/kg | Volume, tonne | Price, USD/kg | Volume, tonne | Price, USD/kg | | |
| Jan. | 2.000 | 35.800 | 28.000 | 39.250 | 0.000 | / | 6.500 | 39.840 | 5.250 | 40.900 | 71.236 | 7.360 | 0.000 | / | 0.000 | / | 0.000 | / | 0.000 | / | 75.419 | 118.210 |
| Feb. | 10.000 | 36.010 | 10.250 | 41.400 | 0.000 | / | 6.750 | 38.090 | 15.000 | 39.270 | 11.346 | 7.300 | 0.000 | / | 0.000 | / | 21.522 | 22.840 | 0.000 | / | 17.698 | 62.797 |
| March | 0.000 | / | 0.000 | / | 0.000 | / | 22.500 | 36.220 | 0.000 | / | 31.061 | 7.790 | 0.000 | / | 0.000 | / | 31.363 | 22.350 | 48.049 | 21.950 | 41.252 | 96.032 |
| April | 7.000 | 37.670 | 9.600 | 39.070 | 0.000 | / | 5.000 | 34.840 | 16.500 | 38.120 | 63.301 | 8.050 | 0.000 | / | 0.000 | / | 0.000 | / | 0.000 | / | 71.618 | 14.972 |
| May | 15.000 | 38.680 | 5.600 | 36.500 | 1.000 | 39.350 | 13.800 | 36.990 | 21.500 | 37.180 | 77.844 | 8.160 | 0.000 | / | 0.012 | 11.580 | 0.000 | / | 3.920 | 24.300 | 96.347 | 26.238 |
| June | 50.000 | 33.630 | 10.000 | 33.870 | 1.000 | 39.240 | 33.500 | 33.000 | 0.000 | / | 17.524 | 8.520 | 18.620 | 11.150 | 0.000 | / | 0.000 | / | 0.000 | / | 28.836 | 110.584 |
| July | 43.750 | 32.030 | 23.250 | 34.680 | 0.000 | / | 78.000 | 34.930 | 20.000 | 35.610 | 20.440 | 7.600 | 0.000 | / | 0.000 | / | 0.000 | / | 10.977 | 21.030 | 38.037 | 18.491 |
| Aug. | 76.000 | 31.140 | 19.000 | 33.980 | 10.000 | 33.250 | 54.503 | 40.780 | 7.000 | 36.110 | 22.571 | 7.670 | 0.000 | / | 0.000 | / | 10.821 | 21.790 | 0.000 | / | 40.304 | 18.580 |
| Sept. | 14.000 | 32.030 | 10.500 | 34.120 | 25.000 | 34.380 | 45.000 | 35.450 | 27.000 | 37.120 | 69.005 | 6.810 | 0.000 | / | 0.000 | / | 0.000 | / | 0.000 | / | 32.250 | 24.307 |
| Oct. | 85.500 | 31.090 | 2.022 | 31.710 | 0.000 | / | 22.500 | 36.020 | 7.000 | 33.110 | 21.122 | 7.520 | 0.000 | / | 0.000 | / | 0.000 | / | 0.000 | / | 32.824 | 13.079 |
| Nov. | 20.000 | 32.490 | 5.500 | 33.680 | 0.000 | / | 59.500 | 33.870 | 0.000 | / | 25.611 | 7.740 | 0.000 | / | 0.000 | / | 0.000 | / | 0.000 | / | 34.111 | 10.912 |
| Dec. | 2.000 | 32.860 | 0.000 | / | 0.000 | / | 26.775 | 47.440 | 0.000 | / | 31.084 | 6.310 | 0.000 | / | 0.000 | / | 12.370 | 17.750 | 0.000 | / | 35.198 | 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 | 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 | Volume, tonne | Price, USD/kg | Volume, tonne | Price, USD/kg | Volume, tonne | Price, USD/kg | | |
| 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 |
| 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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