

New Registrations of Pesticide Technical in China in 2023

The Ninth Edition

April 2024

Researched & Prepared by:

Kcomber Inc.

Copyright by Kcomber Inc.

Any publication, distribution or copying of the content in this report is prohibited.

Contents

Executive summary	1
Methodology	2
1 Registration overview of China's pesticide technical, 2023	3
1.1 New registration status of pesticide technical.....	3
1.2 New registrations by geographic region.....	4
1.3 New registrations by category.....	5
1.4 New registrations by toxicity.....	6
1.5 Registrants of new registrations.....	7
1.6 Active ingredients of new registrations.....	12
2 China's new registrations of herbicide technical, 2023	16
2.1 Herbicide registration, registrant and active ingredient in China, 2019–2023....	16
2.2 Details of full registrations of herbicide technical in China.....	16
3 China's new registrations of insecticide technical, 2023	18
3.1 Insecticide registration, registrant and active ingredient in China, 2019–2023 ..	18
3.2 Details of full registrations of insecticide technical in China.....	18
4 China's new registrations of fungicide technical, 2023	20
4.1 Fungicide registration, registrant and active ingredient in China, 2019–2023....	20
4.2 Details of full registrations of fungicide technical in China.....	21
5 China's export-only registrations of pesticide technical, 2023	22
5.1 Export-only registration, registrant and active ingredient in China.....	22
5.2 Details of export-only registrations of pesticide technical in China.....	25

LIST OF TABLES

Table 1.1-1 China's new & renewal registrations of pesticide technical, 2023
Table 1.1-2 Registration (full and/or export-only) of pesticide technical in China, 2019–2023
Table 1.2-1 New pesticide technical registrations in China by category, 2023
Table 1.3-1 New registrations of pesticide technical in China by category, 2023
Table 1.4-1 Number of new registrations of pesticide technical in China by toxicity level, 2023
Table 1.5-1 Chinese registrants of new pesticide technical registrations by province/region, 2023
Table 1.5-2 Registrants of newly registered pesticide technical in China, 2023
Table 1.5-3 New registrations of pesticide technical held by Lier Chemical Co., Ltd., 2023
Table 1.5-4 New registrations of pesticide technical held by Jiangsu Flag Chemical Industry Co., Ltd., 2023
Table 1.5-5 New registrations of pesticide technical held by Shandong Weifang Rainbow Chemical Co., Ltd., 2023
Table 1.5-6 New registrations of pesticide technical held by Jiangsu Youjia Plant Protection Co., Ltd., 2023
Table 1.6-1 Active ingredients in new full registrations of pesticide technical in China, 2023
Table 1.6-2 Active ingredients in new export-only registrations of pesticide technical in China, 2023
Table 1.6-3 Details of pesticide technical first registered in China, 2023
Table 2.1-1 Number of registration, registrant and active ingredient of herbicide technical newly approved in China, 2019–2023
Table 2.2-1 Details of new full registrations of herbicide technical in China, 2023
Table 3.1-1 Number of registration, registrant and active ingredient of insecticide technical in China, 2019–2023
Table 3.2-1 Details of new full registrations of insecticide technical in China, 2023

Table 4.1-1 Number of registration, registrant and active ingredient of fungicide technical in China, 2019–2023

Table 4.2-1 Details of new full registrations of fungicide technical in China, 2023

Table 5.1-1 Export-only registration of pesticide technical & formulation in China, 2020–2023

Table 5.1-2 Number of new export-only registration, registrant and active ingredient of pesticide technical in China by region, 2023

Table 5.1-3 Registrants of new export-only registrations of pesticide technical in China, 2023

Table 5.1-4 New export-only (TC&TK) registrations by category, 2023

Table 5.1-5 New export-only (TC&TK) registrations by toxicity level, 2023

Table 5.2-1 New registrations of herbicide technical for export only in China, 2023

Table 5.2-2 Renewed registrations of herbicide technical for export only in China, 2023

Table 5.2-3 New registrations of insecticide technical for export only in China, 2023

Table 5.2-4 New registrations of fungicide technical for export only in China, 2023

Executive summary

According to data from the China Pesticide Information Network, the number of new pesticide registrations (first approved in 2023) surged 76.2% to 1,216 from 690 in 2022, and the renewal registrations rocketed 139.0% to 13,356 (vs. 5,589 in 2022). The approved pesticides for domestic use feature environment-friendliness, high efficiency and low risk, mainly in the form of renewal registration, and the faster growth of renewal pesticides suggested an ever higher barrier of new registration for pesticide enterprises and stricter environmental protection and safety production policies.

1,009 Field pesticides, 42 hygienic insecticides and 211 export-only pesticides were among the newly awarded registration certificates in 2023. Among them, low-toxicity pesticides made up more than 73% of the total. There were 20 novel pesticides with their first registration, involving 12 active ingredients, of which 4 (=33%) were for export only.

Methodology

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.

1 Registration overview of China's pesticide technical, 2023

1.1 New registration status of pesticide technical

According to the Institute for the Control of Agrochemicals, Ministry of Agriculture and Rural Affairs of the People's Republic of China (ICAMA), China recorded 92 new registrations of pesticide technical—75 new technical material (TC) and 17 new technical concentrate (TK), accounting for 5.1% and 18.9% of the total under the same form, respectively—and 1,482 renewals in 2023.

The *Announcement No. 269* publicised by the Ministry of Agriculture and Rural Affairs of China (MARA) on 9 June, 2020 stipulated that pesticide registration for export only would be required to use "EX" as the type code, and since 2022, the previously full registrations of field pesticides such as paraquat have been gradually changed to export-only ones when renewed. As of 31 Dec., 2023, there were 572 valid pesticide registrations granted for export only, with 88 export-only technicals. Among the renewed registrations approved in 2023, 46 were changed to export-only ones from full ones, including 16 technical products. The active ingredients involved in the change were 2,4-D butylate, chlorimuron-ethyl, metsulfuron-methyl and paraquat.

Table 1.1-1 China's new & renewal registrations of pesticide technical, 2023

Type of registration		TC	TK	Total
New	Agriculture	55	14	69
	Sanitation	0	1	1
	Export-only	20	2	22
Renewal		1,409	73	1,482
Total		1,484	90	1,574

Source: Institute for the Control of Agrochemicals, Ministry of Agriculture and Rural Affairs (ICAMA) & CCM

Table 1.1-2 Registration (full and/or export-only) of pesticide technical in China, 2019–2023

Year	Full registration	Export-only	Total
2019	26	0	26
2020	20	1	21
2021	34	20	54
2022	51	29	80
2023	70	38	108

Note: 1. One hygienic insecticide approved in 2023 was included into those full registration ones. 2. In 2023, 16 pesticide technicals changed from full registration were included as new export-only ones. 3. In 2022, 3 renewed paraquat TKs were included as new export-only ones.

Source: ICAMA & CCM

1.2 New registrations by geographic region

In 2023, ICAMA granted 92 new pesticide technical permits applied by registrants located in eight regions of China and in overseas. Thereinto, herbicide was the most popular category amid Chinese producers. The top 3 regions accounting for the majority of the new registrations (=79.3%) were East China (54), Northwest China (10) and Southwest China (9).

Table 1.2-1 New pesticide technical registrations in China by category, 2023

No.	Region	Herbicide	Insecticide	Fungicide	Others	Total
1	East China	29	14	8	3	54
2	Northwest China	2	3	3	2	10
3	Southwest China	4	2	2	1	9
4	North China	1	3	3	1	8
5	Central China	3	1	0	2	6
6	Northeast China	1	1	0	0	2
7	Overseas	0	1	1	0	2
8	South China	0	0	1	0	1
Total		40	25	18	9	92

Note: One TK of insecticide for sanitary use approved in 2023 was included into those full insecticide registrations.

Source: ICAMA & CCM

1.3 New registrations by category

In 2023, there were five kinds of newly registered pesticide technical, namely herbicide, insecticide (together with the ones for sanitary use), fungicide, plant growth regulator and plant immunity inducer. Among these, the number of new herbicide entries was 40, accounting for 43.5% of the total 92 new registrations in 2023.

Table 1.3-1 New registrations of pesticide technical in China by category, 2023

No.	Category	TC	TK	Number of registration
1	Herbicide	34	6	40
2	Insecticide	20	5	25
3	Fungicide	13	5	18
4	Plant growth regulator	8	0	8
5	Plant immunity inducer	0	1	1
Total		75	17	92

*Note: One TK of insecticide for sanitary use approved in 2023 was included into those full insecticide registrations.
Source: ICAMA & CCM*

1.4 New registrations by toxicity

The newly registered pesticide technicals in 2023 came at three toxicity levels, namely low, mild and moderate. Among the 92 new registrations, 70 were low-toxic, accounting for 76.1% of the total.

Table 1.4-1 Number of new registrations of pesticide technical in China by toxicity level, 2023

Toxicity	TC	TK	Number of registration
Low	57	13	70
Mild	8	4	12
Moderate	10	0	10
Total	75	17	92

Source: ICAMA & CCM

1.5 Registrants of new registrations

In 2023, there were 65 Chinese registrants and 2 overseas players obtaining new permits of pesticide technical, the former of which are distributed in 18 provinces/autonomous regions/municipalities around Chinese mainland. Among them, 13 enterprises were located in Jiangsu Province (East) and Shandong Province (East), 6 in Zhejiang Province (East), 5 in Sichuan Province (Southwest) and Shaanxi Province (Northwest) and 4 in Inner Mongolia Autonomous Region (North).

In China, Lier Chemical Co., Ltd. (Lier Chemical) held totalling eight new TC/TK registrations, together with its subsidiaries Guang'an Lier Chemical Co., Ltd. and Hunan Lier Biotechnology Co., Ltd., which means Lier Chemical holds the largest amount of new registrations in 2023, accounting for 8.7% of the total. Jiangsu Youjia Plant Protection Co., Ltd. (subsidiary of Jiangsu Yangnong Chemical Co., Ltd.) and Shandong Weifang Rainbow Chemical Co., Ltd. each took 4 new TC/TK permits, followed by Shaanxi Meibang Pharmaceutical Group Co., Ltd. that owned 3 new ones.

It is worth mentioning that two new TC/TK registrations were held by foreign registrants, namely Syngenta AG and Tagros Chemicals India Pvt. Ltd.

Table 1.5-1 Chinese registrants of new pesticide technical registrations by province/region, 2023

No.	Region	Number of registration	Number of active ingredient	Number of registrant
1	Jiangsu Province	21	19	13
2	Shandong Province	20	15	13
3	Sichuan Province	9	8	5
4	Shaanxi Province	8	8	5
5	Zhejiang Province	6	5	6
6	Anhui Province	4	3	3
7	Hebei Province	4	3	3
8	Inner Mongolia Autonomous Region	4	3	4
9	Henan Province	3	3	3
10	Overseas	2	2	2
11	Hunan Province	2	1	1
12	Liaoning Province	2	2	2
13	Fujian Province	1	1	1
14	Gansu Province	1	1	1
15	Guangdong Province	1	1	1
16	Hubei Province	1	1	1
17	Jiangxi Province	1	1	1
18	Ningxia Hui Autonomous Region	1	1	1

No.	Region	Number of registration	Number of active ingredient	Number of registrant
19	Shanghai City	1	1	1
Total		92	78	67

Note: Since certain active ingredients could be applied by Chinese registrants in different provinces, the sum of counts in this chart might not equal the total.

Source: ICAMA & CCM

Table 1.5-2 Registrants of newly registered pesticide technical in China, 2023

No.	Registrant (EN)	Registrant (CN)	Number of registration
1	Jiangsu Flag Chemical Industry Co., Ltd.	江苏中旗科技股份有限公司	4
2	Jiangsu Youjia Plant Protection Co., Ltd.	江苏优嘉植物保护有限公司	4
3	Shandong Weifang Rainbow Chemical Co., Ltd.	山东潍坊润丰化工股份有限公司	4
4	Guang'an Lier Chemical Co., Ltd.	广安利尔化学有限公司	3
5	Lier Chemical Co., Ltd.	利尔化学股份有限公司	3
6	Shaanxi Meibang Pharmaceutical Group Co., Ltd.	陕西美邦药业集团股份有限公司	3
7	Anhui Kewu Biotechnology Co., Ltd.	安徽科武生物科技有限公司	2
8	Hebei Lansen Biotechnology Co., Ltd.	河北兰升生物科技有限公司	2
9	Hunan Lier Biotechnology Co., Ltd.	湖南利尔生物科技有限公司	2
10	Jiangsu Repon Agrochemical Co., Ltd.	江苏瑞邦农化股份有限公司	2
11	MAX (Rudong) Chemicals Co., Ltd.	迈克斯（如东）化工有限公司	2
12	Seven Continent Green Chemical (Jining) Co., Ltd.	七洲绿色化工（济宁）有限公司	2
13	Shaanxi Hengtian Chemical Co., Ltd.	陕西恒田生物农业有限公司	2
14	Shandong Aokun Crop Science Co., Ltd.	山东奥坤作物科学股份有限公司	2
15	Shandong Eshung Industrial Co., Ltd.	山东亿盛实业股份有限公司	2
16	Weifang Sino-Agri Union Chemical Co., Ltd.	潍坊中农联合化工有限公司	2
17	ADAMA Anpon (Jiangsu) Co., Ltd.	安道麦安邦（江苏）有限公司	1
18	Anhui Fengle Agrochemical Co., Ltd.	安徽丰乐农化有限责任公司	1
19	Capital Industry Construction Technology Co., Ltd.	首建科技有限公司	1
20	Chengdu Newsun Crop Science Co., Ltd.	成都新朝阳作物科学股份有限公司	1
21	Dezhou Xianglong Biochemical Co., Ltd.	德州祥龙生化有限公司	1
22	East China University of Science and Technology	华东理工大学	1
23	Fujian Green Shell Bio-pesticide Co., Ltd.	福建绿安生物农药有限公司	1

No.	Registrant (EN)	Registrant (CN)	Number of registration
24	Gansu Huashi Biotechnology Co., Ltd.	甘肃华实生物科技有限公司	1
25	Hebei Brilliant Chemical Co., Ltd.	河北德瑞化工有限公司	1
26	Hefei Xingyu Chemical Co., Ltd.	合肥星宇化学有限责任公司	1
27	Henan Jinpeng Chemical Co., Ltd.	河南金鹏化工有限公司	1
28	Henan Liangbao Pesticide Co., Ltd.	河南粮保农药有限责任公司	1
29	Huai'an Glory Chemical Co., Ltd.	淮安国瑞化工有限公司	1
30	Hubei Zhonghao Technology Co., Ltd.	湖北中灏科技有限公司	1
31	Inner Mongolia Join Dream Fine Chemical Co., Ltd.	内蒙古佳瑞米精细化工有限公司	1
32	Inner Mongolia Laike Crop Protection Co., Ltd.	内蒙古莱科作物保护有限公司	1
33	Inner Mongolia Yongtai Chemical Co., Ltd.	内蒙古永太化学有限公司	1
34	Inner Mongolia Zhonggao Chemical Co., Ltd.	内蒙古中高化工有限公司	1
35	Jiangsu Agrochem Laboratory Co., Ltd.	江苏省农用激素工程技术研究中心有限公司	1
36	Jiangsu Changqing Agrochemical Nantong Co., Ltd.	江苏长青农化南通有限公司	1
37	Jiangsu Chengyang Crop Science Co., Ltd.	江苏澄阳作物科技有限公司	1
38	Jiangsu Laike Crop Protection Co., Ltd.	江苏莱科作物保护有限公司	1
39	Jiangsu Trustchem Biotechnology Co., Ltd.	江苏仁信生物技术有限公司	1
40	Jiangsu Weunite Fine Chemical Co., Ltd.	江苏维尤纳特精细化工有限公司	1
41	Jiangxi Zhonghe Biotechnology Co., Ltd.	江西众和生物科技有限公司	1
42	Kaifeng Lianyou Chemical Co., Ltd.	开封市联友化工有限公司	1
43	Limin Chemical Co., Ltd.	利民化学有限责任公司	1
44	Ningxia Wynca Technology Co., Ltd.	宁夏新安科技有限公司	1
45	Qingdao Hengning Biotechnology Co., Ltd.	青岛恒宁生物科技有限公司	1
46	Shaanxi Tunpsion Bio-Technology Co., Ltd.	陕西汤普森生物科技有限公司	1
47	Shandong Hengdong Biotechnology Co., Ltd.	山东恒东生物科技有限公司	1
48	Shandong Jingbo Agrochemicals Technology Co., Ltd.	山东京博农化科技股份有限公司	1
49	Shandong United Pesticide Industry Co., Ltd.	山东省联合农药工业有限公司	1
50	Shandong Weunite Biotech Co., Ltd.	山东维尤纳特生物科技有限公司	1

No.	Registrant (EN)	Registrant (CN)	Number of registration
51	Shaoxing Shangyu Xinyinbang Biochemical Co., Ltd.	绍兴上虞新银邦生化有限公司	1
52	Shenyang Harvest Agrochemical Co., Ltd.	辽宁省沈阳丰收农药有限公司	1
53	Shenyang Sciencreat Chemicals Co., Ltd.	沈阳科创化学品有限公司	1
54	Sichuan Jinzhu Eco-Agriculture Technology Co., Ltd.	四川金珠生态农业科技有限公司	1
55	Sichuan Run'er Technology Co., Ltd.	四川润尔科技有限公司	1
56	Syngenta AG	瑞士先正达作物保护有限公司	1
57	Synwill (Yichang) Chemical Co., Ltd.	顺毅宜昌化工有限公司	1
58	Tagros Chemicals India Pvt. Ltd.	印度 TAGROS 公司	1
59	Weifang Cynda Chemical Co., Ltd.	潍坊先达化工有限公司	1
60	Xi'an Dingsheng Biochemical Co., Ltd.	西安鼎盛生物化工有限公司	1
61	Xiangshui Zhongshan Bioscience Co., Ltd.	响水中山生物科技有限公司	1
62	Yangling Xianglin Agricultural and Biotechnology Science Co., Ltd.	杨凌翔林农业生物科技有限公司	1
63	Yingde Greatchem Chemicals Co., Ltd.	广东广康生化科技股份有限公司	1
64	Yongnong BioSciences Co., Ltd.	永农生物科学有限公司	1
65	Zhejiang Avilive Chemical Co., Ltd.	浙江埃森化学有限公司	1
66	Zhejiang Nanjiao Chemistry Co., Ltd.	浙江南郊化学有限公司	1
67	Zhejiang Udragon Bioscience Co., Ltd.	浙江宇龙生物科技股份有限公司	1
Total			92

Source: ICAMA & CCM

-Details of major Chinese registrants of new registrations

Table 1.5-3 New registrations of pesticide technical held by Lier Chemical Co., Ltd., 2023

No.	Registrant	Registration code	Active Ingredient	Content	Formulation	Toxicity	Expiry date	Category
1	Lier Chemical Co., Ltd.	PD20230849	Prothioconazole	97%	TC	Low	2028/11/20	Fungicide
2		EX20230046	Nicosulfuron	93%	TC	Low	2028/5/18	Herbicide
3		EX20230123	Triclopyr-butotyl	98%	TC	Low	2028/8/20	Herbicide
4	Hunan Lier Biotechnology Co., Ltd.	PD20230340	Glufosinate-p	46%	TK	Low	2028/5/18	Herbicide
5		PD20230206	Glufosinate-p	90%	TC	Moderate	2028/5/7	Herbicide

No.	Registrant	Registration code	Active Ingredient	Content	Formulation	Toxicity	Expiry date	Category
6	Guang'an Lier Chemical Co., Ltd.	PD20230700	Glufosinate-p	46%	TK	Low	2028/10/26	Herbicide
7		PD20230482	Glufosinate-p	90%	TC	Moderate	2028/8/20	Herbicide
8		PD20231122	Chlorantraniliprole	96%	TC	Low	2028/12/27	Insecticide

Source: ICAMA & CCM

Table 1.5-4 New registrations of pesticide technical held by Jiangsu Flag Chemical Industry Co., Ltd., 2023

No.	Registrant	Registration code	Active Ingredient	Content	Formulation	Toxicity	Expiry date	Category
1	Jiangsu Flag Chemical Industry Co., Ltd.	PD20230330	Pinoxaden	95%	TC	Low	2028/5/18	Herbicide
2		EX20230024	Teflubenzuron	97%	TC	Low	2028/5/7	Insecticide
3		EX20230147	Isoxaflutole	97%	TC	Low	2028/9/27	Herbicide
4		EX20230179	Lufenuron	97%	TC	Low	2028/10/26	Insecticide

Source: ICAMA & CCM

Table 1.5-5 New registrations of pesticide technical held by Shandong Weifang Rainbow Chemical Co., Ltd., 2023

No.	Registrant	Registration code	Active Ingredient	Content	Formulation	Toxicity	Expiry date	Category
1	Shandong Weifang Rainbow Chemical Co., Ltd.	EX20230006	Teflubenzuron	98%	TC	Mild	2028/4/2	Insecticide
2		EX20230031	Chloridazon	98%	TC	Low	2028/5/7	Herbicide
3		EX20230032	Butoxydim	98%	TC	Low	2028/5/7	Herbicide
4		EX20230040	Fluorochloridone	97%	TC	Low	2028/5/7	Herbicide

Source: ICAMA & CCM

Table 1.5-6 New registrations of pesticide technical held by Jiangsu Youjia Plant Protection Co., Ltd., 2023

No.	Registrant	Registration code	Active Ingredient	Content	Formulation	Toxicity	Expiry date	Category
1	Jiangsu Youjia Plant Protection Co., Ltd.	PD20230424	Metofluthrin	95%	TC	Moderate	2028/5/7	Insecticide
2		PD20231291	Icaridin	97%	TC	Low	2028/12/27	Insecticide
3		EX20230075	Mesotrione	79%	TK	Low	2028/6/20	Herbicide
4		WP20230033	Meperfluthrin	14%	TK	Low	2028/11/20	Hygienic insecticide

Source: ICAMA & CCM

1.6 Active ingredients of new registrations

In the period of 1 Jan. to 31 Dec., 2023, there were 52 active ingredients in the 92 new registrations of pesticide technical applied for approval in China. Among them, 34 active ingredients were registered as full registrations, with the number of prothioconazole (10), glufosinate-p (9), chlorantraniliprole (8) and topramezone (7) topping the list; besides, 18 active ingredients can be used for export only, topped by teflubenzuron (4) and mesotrione (2) in terms of number of registration.

Table 1.6-1 Active ingredients in new full registrations of pesticide technical in China, 2023

No.	Active ingredient	Number of registration
1	Prothioconazole	10
2	Glufosinate-p	9
3	Chlorantraniliprole	8
4	Topramezone	7
5	Cyflumetofen	2
6	Gibberellic acid	2
7	Metamifop	2
8	Pinoxaden	2
9	Prohexadione calcium	2
10	Tembotrione	2
11	(+)-Abscisic acid	1
12	(E,Z)-7,9-dodecadieny1 acetate	1
13	28-Homobrassinolide	1
14	Aminopyralid	1
15	<i>Anagrapha falcifera</i> nucleopolyhedrovirus Kew1	1
16	<i>Bacillus amyloliquefacien</i> SN16-1	1
17	<i>Bacillus amyloliquefaciens</i> HT2003	1
18	<i>Ceriporia lacerata</i> GXMS1	1
19	Chlorfenapyr	1
20	Clethodim	1
21	Cyclobutrifluram	1
22	Diafenthiuron	1
23	Fluxapyroxad	1

No.	Active ingredient	Number of registration
24	Foramsulfuron	1
25	Icaridin	1
26	Kinetin	1
27	Meperfluthrin	1
28	Metofluthrin	1
29	Oligosaccharins	1
30	Prochloraz	1
31	Pyrethrins	1
32	<i>Spodoptera frugiperda</i> multiple nucleopolyhedrovirus Hub1	1
33	Triacntanol	1
34	<i>Trichoderma harzianum</i> Rifaistrain 1-22	1
Total		70

Note: Meperfluthrin TK was registered as insecticide for sanitary use in China.

Source: ICAMA & CCM

Table 1.6-2 Active ingredients in new export-only registrations of pesticide technical in China, 2023

No.	Active ingredient	Number of registration
1	Teflubenzuron	4
2	Mesotrione	2
3	Acetamiprid	1
4	Butoxydim	1
5	Carfentrazone-ethyl	1
6	Chloridazon	1
7	Chlorthal-dimethyl	1
8	Dimethenamid-p	1
9	Fenpropidine	1
10	Fluorochloridone	1
11	Imazapyr	1
12	Isoxaflutole	1
13	Lufenuron	1

No.	Active ingredient	Number of registration
14	Nicosulfuron	1
15	Pyrasulfotole	1
16	Sulfentrazone	1
17	Terbacil	1
18	Triclopyr-butotyl	1
Total		22

Source: ICAMA & CCM

-Active ingredients of first registration in China

In 2023, among the 52 active ingredients of new technical registrations, 12 were registered for the first time in China, each of which had one registration.

Among them, eight were active ingredients for full registrations of insecticide or fungicide TK; the other four were registered as herbicide TC that could be manufactured in China for export sales only—they were 96% dimethenamid-P TC, 98% pyrasulfotole TC, 98% butoxydim TC and 98% chloridazon TC.

Table 1.6-3 Details of pesticide technical first registered in China, 2023

No.	Registration code	Active Ingredient	Content	Formulation	Toxicity	Expiry date	Registrant	Category
1	EX20230049	Dimethenamid-P	96%	TC	Low	2028/5/18	Weifang Sino-Agri Union Chemical Co., Ltd.	Herbicide
2	EX20230034	Pyrasulfotole	98%	TC	Low	2028/5/7	Weifang Sino-Agri Union Chemical Co., Ltd.	Herbicide
3	EX20230032	Butoxydim	98%	TC	Low	2028/5/7	Shandong Weifang Rainbow Chemical Co., Ltd.	Herbicide
4	EX20230031	Chloridazon	98%	TC	Low	2028/5/7	Shandong Weifang Rainbow Chemical Co., Ltd.	Herbicide
5	PD20230652	(E,Z)-7,9-dodecadieny1 acetate	80%	TK	Low	2028/10/22	Yangling Xianglin Agricultural and Biotechnology Science Co., Ltd.	Insecticide
6	PD20230103	<i>Spodoptera frugiperda</i> multiple nucleopolyhedrovirus Hub1	10.0 billion PIB/mL	TK	Mild	2028/3/8	Anhui Kewu Biotechnology Co., Ltd.	Insecticide
7	PD20230095	<i>Anagrapha falcifera</i> nucleopolyhedrovirus Kew1	10.0 billion PIB/mL	TK	Mild	2028/3/8	Anhui Kewu Biotechnology Co., Ltd.	Insecticide

No.	Registration code	Active Ingredient	Content	Formulation	Toxicity	Expiry date	Registrant	Category
8	PD20230655	Cyclobutrifluram	86%	TK	Low	2028/10/22	Syngenta AG	Fungicide
9	PD20230654	<i>Bacillus amyloliquefacien</i> SN16-1	10.0 billion CFU/g	TK	Low	2028/10/22	East China University of Science and Technology	Fungicide
10	PD20230101	<i>Bacillus amyloliquefaciens</i> HT2003	100.0 billion CFU/g	TK	Mild	2028/3/8	Shaanxi Hengtian Chemical Co., Ltd.	Fungicide
11	PD20230099	<i>Ceriporia lacerata</i> GXMS1	15.0 million CFU/g	TK	Mild	2028/3/8	Sichuan Jinzhu Eco-Agriculture Technology Co., Ltd.	Fungicide
12	PD20230094	<i>Trichoderma harzianum</i> Rifaistrain 1-22	20.0 billion CFU/g	TK	Low	2028/3/8	Xi'an Peak Bio-Chemical Co., Ltd.	Fungicide

Source: ICAMA & CCM

2 China's new registrations of herbicide technical, 2023

2.1 Herbicide registration, registrant and active ingredient in China, 2019–2023

Under herbicide category, there were 40 TC/TK products (excluding 16 newly changed export-only ones) approved as new full or export-only registrations in 2023, up 29.0% and 122.0% compared with the respective number in 2022 and 2021.

Involving 22 active ingredients, these herbicide technicals were held by 31 Chinese registrants. Among them, 25 were full registrations, while 15 were for export only, accounting for 62.5% and 37.5% of the total herbicide approvals, respectively.

Table 2.1-1 Number of registration, registrant and active ingredient of herbicide technical newly approved in China, 2019–2023

Item	2019	2020	2021	2022	2023
Registration	4	6	18	31	40
Registrant	3	5	13	21	31
Active ingredient	4	6	11	19	22

Note: Export-only registrations changed from full registrations in 2022 and 2023 are excluded in the calculation.

Source: ICAMA & CCM

2.2 Details of full registrations of herbicide technical in China

In 2023, among China's 70 newly approved full registrations (including one for sanitary use), 25 (=35.7% of total) were under herbicide technical category. By form, 21 were TC and 4 were TK products. These new registrations of herbicide technical belonged to 22 registrants, containing 8 herbicide active ingredients.

Table 2.2-1 Details of new full registrations of herbicide technical in China, 2023

No.	Registration code	Active Ingredient	Content	Formulation	Toxicity	Expiry date	Registrant
1	PD20230120	Glufosinate-p	40%	TK	Low	2028/4/2	Seven Continent Green Chemical (Jining) Co., Ltd.
2	PD20230206	Glufosinate-p	90%	TC	Moderate	2028/5/7	Hunan Lier Biotechnology Co., Ltd.
3	PD20230159	Metamifop	96%	TC	Low	2028/5/7	Synwill (Yichang) Chemical Co., Ltd.
4	PD20230183	Topramezone	98%	TC	Low	2028/5/7	Gansu Huashi Biotechnology Co., Ltd.
5	PD20230337	Metamifop	96%	TC	Low	2028/5/18	Huai'an Glory Chemical Co., Ltd.
6	PD20230330	Pinoxaden	95%	TC	Low	2028/5/18	Jiangsu Flag Chemical Industry Co., Ltd.
7	PD20230340	Glufosinate-p	45.7%	TK	Low	2028/5/18	Hunan Lier Biotechnology Co., Ltd.
8	PD20230346	Tembotrione	97%	TC	Low	2028/6/20	Limin Chemical Co., Ltd.
9	PD20230363	Foramsulfuron	94%	TC	Mild	2028/6/20	Jiangsu Agrochem Laboratory Co., Ltd.
10	PD20230410	Topramezone	97%	TC	Low	2028/7/22	Shandong Jingbo Agrochemicals

No.	Registration code	Active Ingredient	Content	Formulation	Toxicity	Expiry date	Registrant
							Technology Co., Ltd.
11	PD20230402	Glufosinate-p	90%	TC	Moderate	2028/7/22	Shaanxi Meibang Pharmaceutical Group Co., Ltd.
12	PD20230413	Aminopyralid	95%	TC	Low	2028/7/22	Zhejiang Avilive Chemical Co., Ltd.
13	PD20230461	Topramezone	97%	TC	Low	2028/8/20	Anhui Fengle Agrochemical Co., Ltd.
14	PD20230482	Glufosinate-p	90%	TC	Moderate	2028/8/20	Guang'an Lier Chemical Co., Ltd.
15	PD20230740	Topramezone	98%	TC	Low	2028/10/26	Dezhou Xianglong Biochemical Co., Ltd.
16	PD20230700	Glufosinate-p	45.7%	TK	Low	2028/10/26	Guang'an Lier Chemical Co., Ltd.
17	PD20230850	Topramezone	98%	TC	Low	2028/11/20	Hebei Lansen Biotechnology Co., Ltd.
18	PD20230852	Glufosinate-p	90%	TC	Moderate	2028/11/20	Shandong Hengdong Biotechnology Co., Ltd.
19	PD20230851	Tembotrione	97%	TC	Low	2028/11/20	Jiangxi Zhonghe Biotechnology Co., Ltd.
20	PD20230853	Pinoxaden	97%	TC	Low	2028/11/20	Xiangshui Zhongshan Bioscience Co., Ltd.
21	PD20231132	Topramezone	97%	TC	Low	2028/12/27	Shandong Eshung Industrial Co., Ltd.
22	PD20231129	Topramezone	97%	TC	Mild	2028/12/27	Hefei Xingyu Chemical Co., Ltd.
23	PD20231130	Glufosinate-p	90%	TC	Moderate	2028/12/27	Jiangsu Trustchem Biotechnology Co., Ltd.
24	PD20231131	Glufosinate-p	90%	TC	Moderate	2028/12/27	Shandong Eshung Industrial Co., Ltd.
25	PD20231133	Clethodim	37%	TK	Low	2028/12/27	Capital Industry Construction Technology Co., Ltd.

Source: ICAMA & CCM

3 China's new registrations of insecticide technical, 2023

3.1 Insecticide registration, registrant and active ingredient in China, 2019–2023

Under insecticide category, 25 technicals (hygienic insecticide included) with 14 kinds of active ingredients were approved in China in 2023, an increase over the previous years. 19 Of the registrations were filed for agricultural or hygienic use, while the remaining 6, with 3 kinds of active ingredients, can only be sold overseas.

Regarding registrants, 20 Chinese and one Indian enterprises obtained new permits of insecticide technical in 2023.

Table 3.1-1 Number of registration, registrant and active ingredient of insecticide technical in China, 2019–2023

Item	2019	2020	2021	2022	2023
Registration	4	2	12	11	25
Registrant	4	2	12	11	21
Active ingredient	4	2	10	5	14

Source: ICAMA & CCM

3.2 Details of full registrations of insecticide technical in China

In 2023, there were 19 insecticide technicals permits for agricultural or hygienic use in China, accounting for 27.1% of the total new full registrations. By form, 14 were TC products and 5 TK ones. These new insecticidal registrations involved 11 active ingredients, topped by chlorantraniliprole (8) in terms of amount.

As of 31 Dec. 2023, totalling 16 registrants have obtained new full or hygienic registrations for their insecticidal TC products, including the listed pesticide/pharmaceutical enterprises: Lier Chemical Co., Ltd., Shaanxi Meibang Pharmaceutical Group Co., Ltd. and Jiangsu Changqing Agrochemical Co., Ltd.

Table 3.2-1 Details of new full registrations of insecticide technical in China, 2023

No.	Registration code	Active Ingredient	Content	Formulation	Toxicity	Expiry date	Registrant
1	PD20230103	<i>Spodoptera frugiperda</i> multiple nucleopolyhedrovirus Hub1	10.0 billion PIB/mL	TK	Mild	2028/3/8	Anhui Kewu Biotechnology Co., Ltd.
2	PD20230095	<i>Anagrapha falcifera</i> nucleopolyhedrovirus Kew1	10.0 billion PIB/mL	TK	Mild	2028/3/8	Anhui Kewu Biotechnology Co., Ltd.
3	PD20230140	Chlorantraniliprole	96%	TC	Low	2028/4/2	Qingdao Hengning Biotechnology Co., Ltd.
4	PD20230265	Pyrethrins	50%	TK	Low	2028/5/7	Chengdu Newsun Crop Science Co., Ltd.
5	PD20230304	Chlorantraniliprole	95.5%	TC	Low	2028/5/18	Hebei Brilliant Chemical Co., Ltd.
6	PD20230368	Chlorfenapyr	98%	TC	Moderate	2028/6/20	Inner Mongolia Laike Crop Protection Co., Ltd.
7	PD20230424	Metofluthrin	95%	TC	Moderate	2028/5/7	Jiangsu Youjia Plant Protection Co., Ltd.

No.	Registration code	Active Ingredient	Content	Formulation	Toxicity	Expiry date	Registrant
8	PD20230469	Chlorantraniliprole	96%	TC	Low	2028/8/20	Shenyang Harvest Agrochemical Co., Ltd.
9	PD20230462	Cyflumetofen	98%	TC	Low	2028/8/20	Shaanxi Meibang Pharmaceutical Group Co., Ltd.
10	PD20230544	Cyflumetofen	98.5%	TC	Low	2028/9/27	Shandong Aokun Crop Science Co., Ltd.
11	PD20230652	(E,Z)-7,9-dodecadieny1 acetate	80%	TK	Low	2028/10/22	Yangling Xianglin Agricultural and Biotechnology Science Co., Ltd.
12	PD20231124	Diafenthiuron	95%	TC	Moderate	2028/12/27	Jiangsu Changqing Agrochemical Nantong Co., Ltd.
13	PD20231122	Chlorantraniliprole	96%	TC	Low	2028/12/27	Guang'an Lier Chemical Co., Ltd.
14	PD20231135	Chlorantraniliprole	95.3%	TC	Low	2028/12/27	Tagros Chemicals India Pvt. Ltd.
15	PD20231126	Chlorantraniliprole	96%	TC	Low	2028/12/27	Shaanxi Tunpsion Bio-Technology Co., Ltd.
16	PD20231125	Chlorantraniliprole	98%	TC	Low	2028/12/27	Shandong Weunite Biotech Co., Ltd.
17	PD20231123	Chlorantraniliprole	98%	TC	Low	2028/12/27	Hubei Zhonghao Technology Co., Ltd.
18	PD20231291	Icaridin	97%	TC	Low	2028/12/27	Jiangsu Youjia Plant Protection Co., Ltd.
19	WP20230033	Meperfluthrin	14%	TK	Low	2028/11/20	Jiangsu Youjia Plant Protection Co., Ltd.

Source: ICAMA & CCM

4 China's new registrations of fungicide technical, 2023

4.1 Fungicide registration, registrant and active ingredient in China, 2019–2023

In 2023, altogether 18 fungicide technicals were approved in China, decreasing by 18.2% against the number in 2022. Involving 9 active ingredients, these new registrations belonged to 18 registrants, 6 of which were registered for export trades.

Table 4.1-1 Number of registration, registrant and active ingredient of fungicide technical in China, 2019–2023

Item	2019	2020	2021	2022	2023
Registration	15	4	14	22	18
Registrant	15	4	13	21	18
Active ingredient	14	4	12	8	9

Source: ICAMA & CCM

4.2 Details of full registrations of fungicide technical in China

In 2023, 17 full fungicide technical registrations were granted to 17 pesticide enterprises/institute in China. Among them, 10 registrants chose prothioconazole as the active ingredient for their TC products, half of whom located in East China.

Table 4.2-1 Details of new full registrations of fungicide technical in China, 2023

No.	Registration code	Active Ingredient	Content	Formulation	Toxicity	Expiry date	Registrant
1	PD20230101	<i>Bacillus amyloliquefaciens</i> HT2003	100.0 billion CFU/g	TK	Mild	2028/3/8	Shaanxi Hengtian Chemical Co., Ltd.
2	PD20230094	<i>Trichoderma harzianum</i> Rifaistrain 1-22	20.0 billion CFU/g	TK	Low	2028/3/8	Xi'an Dingsheng Biochemical Co., Ltd.
3	PD20230099	<i>Ceriporia lacerata</i> GXMS1	15.0 million CFU/g	TK	Mild	2028/3/8	Sichuan Jinzhu Eco-Agriculture Technology Co., Ltd.
4	PD20230132	Prothioconazole	97%	TC	Low	2028/4/2	Zhejiang Udragon Bioscience Co., Ltd.
5	PD20230111	Prothioconazole	98%	TC	Low	2028/4/2	Shaoxing Shangyu Xinyinbang Biochemical Co., Ltd.
6	PD20230119	Prothioconazole	97%	TC	Low	2028/4/2	Inner Mongolia Yongtai Chemical Co., Ltd.
7	PD20230224	Prothioconazole	95%	TC	Low	2028/5/7	ADAMA Anpon (Jiangsu) Co., Ltd.
8	PD20230239	Prothioconazole	95%	TC	Low	2028/5/7	Seven Continent Green Chemical (Jining) Co., Ltd.
9	PD20230354	Prochloraz	95%	TC	Low	2028/6/20	Yongnong BioSciences Co., Ltd.
10	PD20230510	Prothioconazole	95%	TC	Low	2028/8/20	Inner Mongolia Join Dream Fine Chemical Co., Ltd.
11	PD20230468	Prothioconazole	97%	TC	Low	2028/8/20	Ningxia Wynca Technology Co., Ltd.
12	PD20230621	Fluxapyroxad	95%	TC	Low	2028/9/27	Inner Mongolia Zhonggao Chemical Co., Ltd.
13	PD20230655	Cyclobutrifluram	86%	TK	Low	2028/10/22	Syngenta AG
14	PD20230654	<i>Bacillus amyloliquefacien</i> SN16-1	10.0 billion CFU/g	TK	Low	2028/10/22	East China University of Science and Technology
15	PD20230849	Prothioconazole	97%	TC	Low	2028/11/20	Lier Chemical Co., Ltd.
16	PD20231128	Prothioconazole	98%	TC	Low	2028/12/27	Jiangsu Chengyang Crop Science Co., Ltd.
17	PD20231127	Prothioconazole	97%	TC	Low	2028/12/27	Yingde Greatchem Chemicals Co., Ltd.

Source: ICAMA & CCM

5 China's export-only registrations of pesticide technical, 2023

5.1 Export-only registration, registrant and active ingredient in China

According to the data released by the Institute for the Control of Agrochemicals, Ministry of Agriculture and Rural Affairs of the People's Republic of China (ICAMA), totalling 572 export-only registrations of pesticides were granted in 2020–2023, with 88 TC/TK products included.

Table 5.1-1 Export-only registration of pesticide technical & formulation in China, 2020–2023

Year	Technical (TC & TK)	Formulation	Total
2020	1	1	2
2021	20	99	119
2022	29	211	240
2023	38	173	211
Total	88	484	572

Note: 16 Renewed export-only registrations from full registration in 2022 (3 TC/TK and 13 formulations) and 46 in 2023 (16 TC/TK and 30 formulations) were added.

Source: ICAMA & CCM

In 2023, The number of TC/TK registrations issued for export use was 38, up 31.0% YoY. Among these export-only registrations of TC&TK products, 22 were newly registered and the rest were changed from full registration.

Results show that the 27 Chinese holders of new export-only registrations of pesticide technical are located across 10 provinces/autonomous regions—9 of them in Jiangsu, owning 14 registrations; 5 in Shandong, holding 9 registrations; 3 in Liaoning province, with 4 permits; 4 evenly distributed in Hebei and Heilongjiang, and 5 situated in Gansu, Sichuan, Henan, Inner Mongolia and Zhejiang, each from these provinces/autonomous regions (Gansu and Sichuan excluded) holding only one new export-only TC/TK registration.

Calculated by form, there were 32 new TC and 6 new TK products for export only. By category, most of these new export-only pesticide technicals were herbicides, followed by insecticides and fungicides. In 2023, there were 22 active ingredients out of these 38 new export-only TC&TK registrations, top 4 of which were chlorimuron-ethyl (8), paraquat (4), teflubenzuron (4) and 2,4-D butylate (3).

By toxicity level, there were 27 export-only TC/TK pesticides registered as low-toxic, 5 as mild-toxic, and 6 as moderate-toxic.

Table 5.1-2 Number of new export-only registration, registrant and active ingredient of pesticide technical in China by region, 2023

No.	Province	Number of registrations	Number of registrants	Number of active ingredients
1	Jiangsu Province	14	9	12
2	Shandong Province	9	5	9
3	Liaoning Province	4	3	2
4	Gansu Province	2	1	2
5	Hebei Province	2	2	2
6	Heilongjiang Province	2	2	2

No.	Province	Number of registrations	Number of registrants	Number of active ingredients
7	Sichuan Province	2	1	2
8	Henan Province	1	1	1
9	Inner Mongolia Autonomous Region	1	1	1
10	Zhejiang Province	1	1	1
Total		38	26	34

Note: Since certain active ingredients could be applied by Chinese registrants in different provinces, the sum of counts in this chart might not equal the total.

Source: ICAMA & CCM

Table 5.1-3 Registrants of new export-only registrations of pesticide technical in China, 2023

No.	Registrant	Number of registrations
1	Shandong Weifang Rainbow Chemical Co., Ltd.	4
2	Jiangsu Flag Chemical Industry Co., Ltd.	3
3	Gansu Ruidong Chemical Co., Ltd.	2
4	Jiangsu Reput Agrochemical Co., Ltd.	2
5	Lier Chemical Co., Ltd.	2
6	Nanjing Red Sun Biochemical Co., Ltd.	2
7	Shenyang Sciencreat Chemicals Co., Ltd.	2
8	Weifang Sino-Agri Union Chemical Co., Ltd.	2
9	ADAMA Huifeng (Jiangsu) Co., Ltd.	1
10	Fuxin Qianyi Fine Chemical Co., Ltd.	1
11	Hebei Wanquan Lihua Chemical Co., Ltd.	1
12	Heilongjiang Jixiang Agrochemical Co., Ltd.	1
13	Henan Jinpeng Chemical Co., Ltd.	1
14	Inner Mongolia Jiaruimi Fine Chemical Co., Ltd.	1
15	Jiamusi Heilong Pesticide Co., Ltd.	1
16	Jiangsu Changlong Agrochemical Co., Ltd.	1
17	Jiangsu Institute of Ecomones Co., Ltd.	1
18	Jiangsu Laike Crop Protection Co., Ltd.	1
19	Jiangsu Weunite Fine Chemical Co., Ltd.	1
20	Jiangsu Youjia Plant Protection Co., Ltd.	1

No.	Registrant	Number of registrations
21	MAX (Rudong) Chemicals Co., Ltd.	1
22	Shandong Kexin Biochemical Co., Ltd.	1
23	Shandong United Pesticide Industry Co., Ltd.	1
24	Shenyang Harvest Agrochemical Co., Ltd.	1
25	Shijiazhuang Baofeng Chemical Co., Ltd.	1
26	Weifang Cynda Chemical Co., Ltd.	1
27	Zhejiang Nanjiao Chemistry Co., Ltd.	1
Total		38

Source: ICAMA & CCM

Table 5.1-4 New export-only (TC&TK) registrations by category, 2023

Category	TC	TK	Number of export-only registrations
Herbicide	25	6	31
Fungicide	6	0	6
Insecticide	1	0	1
Total	32	6	38

Source: ICAMA & CCM

Table 5.1-5 New export-only (TC&TK) registrations by toxicity level, 2023

Toxicity	TC	TK	Number of export-only registration
Low	14	3	17
Mild	7	0	7
Moderate	2	3	5
Total	23	6	29

Source: ICAMA & CCM

5.2 Details of export-only registrations of pesticide technical in China

Among the approved export-only registrations of pesticide technical in 2023, 22 were newly granted, including 15 herbicides, 6 insecticides and 1 fungicide, owned by 14 Chinese registrants with 18 kinds of active ingredients. There were 16 export-only permits of pesticide technical renewed from full registrations as well, all of which were herbicides.

Table 5.2-1 New registrations of herbicide technical for export only in China, 2023

No.	Registration code	Active Ingredient	Content	Formulation	Toxicity	Expiry date	Registrant
1	EX20230031	Chloridazon	98%	TC	Low	2028/5/7	Shandong Weifang Rainbow Chemical Co., Ltd.
2	EX20230032	Butoxydim	98%	TC	Low	2028/5/7	Shandong Weifang Rainbow Chemical Co., Ltd.
3	EX20230034	Pyrasulfotole	98%	TC	Low	2028/5/7	Weifang Sino-Agri Union Chemical Co., Ltd.
4	EX20230040	Fluorochloridone	97%	TC	Low	2028/5/7	Shandong Weifang Rainbow Chemical Co., Ltd.
5	EX20230046	Nicosulfuron	93%	TC	Low	2028/5/18	Lier Chemical Co., Ltd.
6	EX20230049	Dimethenamid-p	96%	TC	Low	2028/5/18	Weifang Sino-Agri Union Chemical Co., Ltd.
7	EX20230075	Mesotrione	79%	TK	Low	2028/6/20	Jiangsu Youjia Plant Protection Co., Ltd.
8	EX20230070	Mesotrione	79%	TK	Low	2028/6/20	Shenyang Sciencreat Chemicals Co., Ltd.
9	EX20230130	Sulfentrazone	96%	TC	Low	2028/8/20	Jiangsu Report Agrochemical Co., Ltd.
10	EX20230110	Carfentrazone-ethyl	95.5%	TC	Low	2028/8/20	Jiangsu Report Agrochemical Co., Ltd.
11	EX20230123	Triclopyr-butotyl	98%	TC	Low	2028/8/20	Lier Chemical Co., Ltd.
12	EX20230152	Imazapyr	98%	TC	Low	2028/9/27	Weifang Cynda Chemical Co., Ltd.
13	EX20230147	Isoxaflutole	97%	TC	Low	2028/9/27	Jiangsu Flag Chemical Industry Co., Ltd.
14	EX20230168	Terbacil	97.5%	TC	Low	2028/10/26	MAX (Rudong) Chemicals Co., Ltd.
15	EX20230181	Chlorthal-dimethyl	96%	TC	Low	2028/11/20	Jiangsu Weunite Fine Chemical Co., Ltd.

Source: ICAMA & CCM

Table 5.2-2 Renewed registrations of herbicide technical for export only in China, 2023

No.	Registration code	Active Ingredient	Content	Formulation	Toxicity	Expiry date	Registrant
1	EX20230136	2,4-D butylate	96%	TC	Low	2028/12/16	ADAMA Huifeng (Jiangsu) Co., Ltd.
2	EX20230190	2,4-D butylate	96%	TC	Low	2029/4/20	Hebei Wanquan Lihua Chemicals Co., Ltd.
3	EX20230191	2,4-D butylate	92%	TC	Moderate	2029/5/17	Jiamusi Heilong Pesticide Co.,

No.	Registration code	Active Ingredient	Content	Formulation	Toxicity	Expiry date	Registrant
							Ltd.
4	EX20230044	Chlorimuron-ethyl	95%	TC	Low	2028/9/10	Jiangsu Institute of Ecomones Co., Ltd.
5	EX20230045	Chlorimuron-ethyl	95%	TC	Low	2028/9/17	Jiangsu Changlong Agrochemical Co., Ltd.
6	EX20230061	Chlorimuron-ethyl	96%	TC	Low	2028/8/5	Shenyang Sciencreat Chemicals Co., Ltd.
7	EX20230063	Chlorimuron-ethyl	95%	TC	Low	2028/8/31	Fuxin Qianyi Fine Chemical Co., Ltd.
8	EX20230090	Chlorimuron-ethyl	98%	TC	Mild	2028/10/9	Gansu Ruidong Chemical Co., Ltd.
9	EX20230101	Chlorimuron-ethyl	96%	TC	Low	2028/11/16	Inner Mongolia Join Dream Fine Chemical Co., Ltd.
10	EX20230102	Chlorimuron-ethyl	95%	TC	Low	2028/11/17	Heilongjiang Jixiang Agrochemical Co., Ltd.
11	EX20230211	Chlorimuron-ethyl	90%	TC	Low	2029/6/3	Shenyang Harvest Agrochemical Co., Ltd.
12	EX20230139	Metsulfuron-methyl	97%	TC	Mild	2028/11/19	Gansu Ruidong Chemical Co., Ltd.
13	EX20230089	Paraquat	32.6%	TK	Moderate	2028/11/5	Nanjing Red Sun Biochemical Co., Ltd.
14	EX20230091	Paraquat	30.5%	TK	Moderate	2028/10/20	Nanjing Red Sun Biochemical Co., Ltd.
15	EX20230157	Paraquat	42%	TK	Moderate	2029/3/1	Shijiazhuang Baofeng Chemical Co., Ltd.
16	EX20230159	Paraquat	42%	TK	Moderate	2029/3/8	Shandong Kexin Biochemical Co., Ltd.

Source: ICAMA & CCM

Table 5.2-3 New registrations of insecticide technical for export only in China, 2023

No.	Registration code	Active Ingredient	Content	Formulation	Toxicity	Expiry date	Registrant
1	EX20230006	Teflubenzuron	98%	TC	Mild	2028/4/2	Shandong Weifang Rainbow Chemical Co., Ltd.
2	EX20230024	Teflubenzuron	97%	TC	Low	2028/5/7	Jiangsu Flag Chemical Industry Co., Ltd.
3	EX20230026	Teflubenzuron	98%	TC	Mild	2028/5/7	Zhejiang Nanjiao Chemistry Co., Ltd.
4	EX20230064	Acetamiprid	97%	TC	Moderate	2028/6/20	Shandong United Pesticide Industry Co., Ltd.
5	EX20230086	Teflubenzuron	98%	TC	Mild	2028/6/20	Henan Jinpeng Chemical Co., Ltd.
6	EX20230179	Lufenuron	97%	TC	Low	2028/10/26	Jiangsu Flag Chemical Industry Co., Ltd.

Source: ICAMA & CCM

Table 5.2-4 New registrations of fungicide technical for export only in China, 2023

No.	Registration code	Active Ingredient	Content	Formulation	Toxicity	Expiry date	Registrant
1	EX20230092	Fenpropidine	97%	TC	Low	2028/7/22	Jiangsu Laike Crop Protection Co., Ltd.

Source: ICAMA & CCM

Kcomber's legal disclaimers

1. Kcomber guarantees that the information in the report is accurate and reliable to the best of its knowledge and experience. Kcomber defines the report as a consulting product providing information and does not guarantee its information is completely in accordance with the fact. Kcomber shall not have any obligations to assume any possible damage or consequences caused by subscribers' any corporate decisions based upon subscribers' own understanding and utilization of the report.

2. The complete copyright of the report is and will be held by Kcomber. Subscribers shall not acquire, or be deemed to acquire the copyright of the report.

3. The report provided by Kcomber shall be only used as source of subscriber's internal business decisions and shall not be used for any other purposes without Kcomber's prior written consent, unless stated and approved in license contract signed by both parties. Subscribers shall not distribute, resell and disclose the whole report or any part of the report to third parties and shall not publish any article or report by largely or directly copying or citing the information or data based on Kcomber's report without the prior written consent of Kcomber.

4. "Single User License" means that there shall be only ONE person to receive access and utilize the report. Subscriber can present the content of the report that marked the source from Kcomber to their internal colleagues for their internal communication and utilization, but cannot share the whole report to other individuals. Any citation, distribution, reselling and disclosure of the report as well as its partial content to any third party are prohibited, including but not limited to their parent companies or subsidiaries.

5. "Corporate License" means that subscriber shall not cite, distribute, resell the report or disclose information of the report to any third party without Kcomber's prior written consent, except subscribers' affiliates controlled with ownership of more than 50% of shares.

17th Floor, Huihua Commercial & Trade Building, No. 80 Xianlie Zhong Road Guangzhou,
510070, P.R.China

Website: <http://www.cnchemicals.com>

Tel: +86-20-37616606

Fax: +86-20-37616968

Email: econtact@cnchemicals.com