

# Use Trends of Pesticides Listed by U.S. EPA as A or B Carcinogens or on the State's Proposition 65 List of Chemicals that are "Known to Cause Cancer": Pounds Applied

Text files of data are available at <<https://files.cdpr.ca.gov/pub/outgoing/pur/data/>>. The reported pounds of chemicals used that are listed by U.S. EPA as A or B carcinogens or on the State's Proposition 65 list of chemicals that are "known to cause cancer." Use includes both agricultural and reportable nonagricultural applications. The word "none" or "N/A" indicates no use at all that year. Values > 1 are rounded.

| Chemical   | 2011       | 2012       | 2013       | 2014       | 2015       | 2016       | 2017       | 2018       | 2019       | 2020       |
|--|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| <b>1,2-dichloropropane, 1,3-dichloropropane and related c3 compounds</b> | N/A        | 6          | N/A        | 1          | N/A        | N/A        | N/A        | N/A        | N/A        | N/A        |
| <b>1,3-dichloropropane</b>   | 10,924,344 | 11,953,290 | 12,960,537 | 13,614,468 | 15,689,571 | 14,129,401 | 12,581,936 | 12,580,525 | 11,300,809 | 11,678,006 |
| <b>2,4-d</b>   | 5,400      | 4,259      | 5,665      | 6,384      | 7,372      | 6,046      | 4,344      | 6,083      | 5,575      | 6,860      |
| <b>4-vinylcyclohexenediepoxyde</b>                                       | N/A        | N/A        | N/A        | N/A        | N/A        | N/A        | N/A        | <0.01      | 1          | 2          |
| <b>acifluorfen, sodium salt</b>  | N/A        | <0.01      | <0.01      | <0.01      | N/A        | N/A        | N/A        | <0.01      | N/A        | N/A        |
| <b>alachlor</b>  | 9,294      | 8,836      | 6,562      | 5,118      | 3,230      | 84         | 9          | 5          | 9          | N/A        |
| <b>alpha-chlorohydrin</b>  | 2          | N/A        | N/A        | N/A        | N/A        | N/A        | N/A        | N/A        | N/A        | N/A        |
| <b>amitrole</b>  | 4          | 6          | N/A        | N/A        | N/A        | 2          | N/A        | N/A        | 14         | N/A        |
| <b>arsenic acid</b>  | 17         | N/A        | N/A        | N/A        | N/A        | N/A        | N/A        | N/A        | N/A        | N/A        |
| <b>arsenic pentoxide</b>   | 8,034      | 9,240      | 8,480      | 16,719     | 22,190     | 10,508     | 5,105      | 3,677      | N/A        | N/A        |
| <b>arsenic trioxide</b>  | <0.01      | <0.01      | N/A        | <0.01      | <0.01      | <0.01      | N/A        | N/A        | N/A        | N/A        |
| <b>cacodylic acid</b>  | <0.01      | <0.01      | N/A        | <0.01      | N/A        | <0.01      | <0.01      | 1          | N/A        | 1          |
| <b>captan</b>  | 376,790    | 403,224    | 349,430    | 370,136    | 511,177    | 638,401    | 561,762    | 414,516    | 378,091    | 376,057    |
| <b>carbaryl</b>  | 74,946     | 113,845    | 117,272    | 131,744    | 155,525    | 221,095    | 107,453    | 128,818    | 113,531    | 110,231    |
| <b>carbon tetrachloride</b>  | 6          | 90         | N/A        | 7          | <0.01      | <0.01      | <0.01      | <0.01      | <0.01      | 142        |

| Chemical                        | 2011      | 2012      | 2013      | 2014      | 2015      | 2016      | 2017      | 2018      | 2019      | 2020      |
|---------------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| chlordane                       | N/A       | 16        | N/A       | N/A       | 2         | N/A       | <0.01     | <0.01     | N/A       | 1         |
| chlordecone                     | <0.01     | <0.01     | <0.01     | <0.01     | <0.01     | <0.01     | <0.01     | <0.01     | <0.01     | <0.01     |
| chlorothalonil                  | 1,151,524 | 1,185,479 | 1,115,499 | 1,215,447 | 1,068,458 | 1,127,282 | 1,240,450 | 1,172,493 | 1,162,926 | 1,149,169 |
| chromic acid                    | 11,224    | 12,908    | 11,847    | 23,358    | 31,629    | 15,709    | 7,632     | 5,497     | N/A       | N/A       |
| creosote                        | N/A       | N/A       | 3         | N/A       | 1         | N/A       | N/A       | <0.01     | 1         | 3         |
| daminozide                      | 8,441     | 8,263     | 8,576     | 8,427     | 8,974     | 7,585     | 8,063     | 6,819     | 6,071     | 4,619     |
| ddvp                            | 5,480     | 4,890     | 4,630     | 4,034     | 4,084     | 3,868     | 3,456     | 3,515     | 3,309     | 4,473     |
| ddvp, other related             | 268       | 276       | 278       | 162       | 165       | 123       | 113       | 109       | 84        | 153       |
| diclofop-methyl                 | 7         | N/A       | N/A       | N/A       | N/A       | N/A       | N/A       | N/A       | N/A       | N/A       |
| diethanolamine                  | N/A       | N/A       | N/A       | N/A       | 76        | 392       | 293       | 389       | 352       | 373       |
| dioctyl phthalate               | 248       | 262       | 198       | 73        | 36        | 94        | N/A       | 1         | 8         | 4         |
| dipropyl isocincheronate        | 1         | <0.01     | <0.01     | <0.01     | 1         | <0.01     | <0.01     | <0.01     | <0.01     | 2         |
| diuron                          | 676,479   | 554,597   | 414,228   | 325,345   | 317,328   | 248,389   | 179,467   | 188,426   | 171,242   | 163,033   |
| ethoprop                        | 7,475     | 2,077     | 2,502     | 3,076     | 1,820     | 2,023     | 2,134     | 5,848     | 5,950     | 7,792     |
| ethyl acrylate                  | 36        | N/A       | 2         | 11        | 4         | 1         | N/A       | N/A       | N/A       | N/A       |
| ethylene dibromide              | N/A       | 6         | N/A       | N/A       | <0.01     | N/A       | N/A       | N/A       | N/A       | 2         |
| ethylene oxide                  | N/A       | 8         | N/A       | <0.01     | N/A       | N/A       | N/A       | N/A       | N/A       | N/A       |
| fenoxycarb                      | 3         | 2         | 1         | 1         | 9         | 2         | 3         | 1         | <0.01     | <0.01     |
| folpet                          | N/A       | <0.01     | <0.01     | <0.01     | <0.01     | <0.01     | <0.01     | N/A       | <0.01     | <0.01     |
| formaldehyde                    | 4,615     | 3,847     | 11,165    | 52,989    | 31,956    | 23,116    | 11,825    | 1,349     | 3,082     | 8,696     |
| glyphosate                      | 5,301     | 1,894     | 645       | 21        | 129       | 40        | 37        | 70        | 10        | 21        |
| glyphosate, diammonium salt     | 11,468    | 2,428     | 2,989     | 3,673     | 1,019     | 897       | 112       | 28        | N/A       | 4,265     |
| glyphosate, dimethylamine salt  | 130,752   | 123,833   | 92,504    | 128,942   | 139,644   | 156,713   | 149,505   | 141,523   | 172,456   | 229,370   |
| glyphosate, isopropylamine salt | 5,915,206 | 4,987,114 | 5,010,145 | 4,877,876 | 4,859,304 | 5,147,168 | 5,368,833 | 5,785,738 | 6,317,605 | 5,705,955 |
| glyphosate, monoammonium salt   | 22,748    | 11,921    | 36,553    | 21,965    | 12,386    | 18,724    | 9,033     | 7,100     | 10,910    | 8,696     |
| glyphosate, potassium salt      | 4,714,262 | 5,405,920 | 5,309,433 | 5,613,417 | 6,517,547 | 6,424,297 | 6,272,841 | 6,130,761 | 6,082,418 | 6,464,485 |

| Chemical                          | 2011       | 2012      | 2013      | 2014      | 2015       | 2016      | 2017      | 2018      | 2019      | 2020      |
|-----------------------------------|------------|-----------|-----------|-----------|------------|-----------|-----------|-----------|-----------|-----------|
| glyphosate-trimesium              | 574        | 144       | 41        | 310       | N/A        | N/A       | 34        | 19        | 3         | N/A       |
| heptachlor                        | N/A        | <0.01     | N/A       | N/A       | N/A        | N/A       | <0.01     | <0.01     | N/A       | N/A       |
| imazalil                          | 25,767     | 25,085    | 26,134    | 19,312    | 22,305     | 26,528    | 22,293    | 28,307    | 28,752    | 31,198    |
| iprodione                         | 355,634    | 298,077   | 260,748   | 240,613   | 223,793    | 297,610   | 260,557   | 111,666   | 108,588   | 79,167    |
| kresoxim-methyl                   | 38,671     | 26,280    | 26,213    | 28,346    | 23,915     | 22,905    | 23,566    | 20,018    | 17,443    | 16,815    |
| lindane                           | 1          | N/A       | 2         | N/A       | 6          | N/A       | N/A       | N/A       | 1         | 20        |
| malathion                         | 512,004    | 405,415   | 446,890   | 502,997   | 443,128    | 355,223   | 334,893   | 361,816   | 324,989   | 355,406   |
| mancozeb                          | 1,047,232  | 1,131,071 | 1,148,671 | 1,282,145 | 1,273,707  | 1,435,363 | 1,521,544 | 1,323,395 | 1,543,561 | 1,557,453 |
| maneb                             | 54,541     | 6,260     | 1,383     | 1,274     | 286        | 1,275     | 2,224     | 59        | 3,221     | 865       |
| metam-sodium                      | 10,919,085 | 8,444,536 | 4,846,428 | 4,297,539 | 3,606,650  | 3,297,827 | 3,144,356 | 3,765,658 | 4,307,477 | 4,326,370 |
| methyl eugenol                    | 5          | N/A       | 9         | N/A       | N/A        | 126       | 386       | 1,149     | 1,138     | 500       |
| methyl iodide                     | 1,157      | 21        | N/A       | N/A       | N/A        | N/A       | N/A       | N/A       | 9         | N/A       |
| methylene chloride                | 24         | 61        | 53        | 76        | 35         | 39        | 36        | 10        | 19        | 11        |
| metiram                           | 15         | 34        | 17        | 13        | <0.01      | 4         | 26        | 18        | 13        | 11        |
| naphthalene                       | <0.01      | N/A       | <0.01     | N/A       | N/A        | N/A       | <0.01     | <0.01     | <0.01     | N/A       |
| nitrapyrin                        | N/A        | <0.01     | 2         | N/A       | 5          | 2         | N/A       | 16        | 179       | N/A       |
| ortho-phenylphenol                | 2,582      | 2,964     | 1,713     | 1,777     | 1,316      | 1,181     | 472       | 418       | 400       | 88        |
| ortho-phenylphenol, sodium salt   | 5,192      | 3,586     | 4,375     | 3,611     | 4,815      | 2,261     | N/A       | N/A       | N/A       | N/A       |
| oryzalin                          | 769,232    | 686,557   | 584,254   | 582,736   | 510,680    | 316,178   | 338,072   | 298,726   | 246,636   | 131,422   |
| oxadiazon                         | 7,783      | 7,272     | 6,759     | 4,960     | 12,139     | 5,028     | 6,072     | 8,264     | 3,626     | 3,160     |
| oxythioquinox                     | <0.01      | 1         | <0.01     | 1         | N/A        | 1         | N/A       | <0.01     | N/A       | N/A       |
| para-dichlorobenzene              | <0.01      | 18        | <0.01     | N/A       | N/A        | N/A       | <0.01     | <0.01     | 1         | N/A       |
| parathion                         | 196        | 25        | <0.01     | 1         | 836        | 41        | 3         | 3         | 49        | 11        |
| pentachlorophenol                 | 18         | 224       | 274       | 11        | 25         | 1         | 4         | 27        | 20        | 9         |
| pirimicarb                        | 1          | N/A       | N/A       | N/A       | N/A        | N/A       | N/A       | N/A       | N/A       | N/A       |
| potassium dichromate              | N/A        | N/A       | <0.01     | N/A       | <0.01      | N/A       | N/A       | N/A       | N/A       | N/A       |
| potassium n-methyldithiocarbamate | 5,674,072  | 8,320,255 | 9,484,467 | 7,798,703 | 10,254,800 | 9,343,192 | 8,940,720 | 8,527,736 | 6,629,298 | 9,000,088 |
| propargite                        | 296,351    | 252,218   | 291,001   | 246,496   | 213,205    | 206,503   | 245,228   | 226,375   | 227,787   | 225,197   |
| propoxur                          | 808        | 359       | 373       | 251       | 100        | 49        | 43        | 29        | 15        | 5         |

| Chemical                           | 2011              | 2012              | 2013              | 2014              | 2015              | 2016              | 2017              | 2018              | 2019              | 2020              |
|------------------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| propylene oxide                    | 449,037           | 389,070           | 405,059           | 400,719           | 396,191           | 368,260           | 255,702           | 213,681           | 229,979           | 271,228           |
| propyzamide                        | 49,678            | 47,404            | 42,022            | 42,662            | 41,910            | 93,887            | 107,221           | 114,498           | 115,292           | 118,921           |
| pymetrozine                        | 2,835             | 3,199             | 3,719             | 4,123             | 2,992             | 4,243             | 3,453             | 4,732             | 5,846             | 4,625             |
| resmethrin                         | 122               | 46                | 19                | 188               | 4                 | 146               | 67                | 54                | 3                 | 11                |
| s,s,s-tributyl phosphorotrithioate | 30,328            | 21,820            | 19,077            | 11,683            | 6,472             | 6,882             | 8,151             | 8,911             | 8,104             | 6,546             |
| sedaxane                           | N/A               | N/A               | N/A               | N/A               | N/A               | <0.01             | <0.01             | N/A               | N/A               | N/A               |
| sodium dichromate                  | N/A               | N/A               | N/A               | 2                 | N/A               | N/A               | N/A               | N/A               | N/A               | N/A               |
| spirodiclofen                      | 22,729            | 28,363            | 52,050            | 49,054            | 34,540            | 42,285            | 47,322            | 52,804            | 48,064            | 58,679            |
| terrazole                          | 638               | 503               | 393               | 473               | 452               | 400               | 304               | 166               | 108               | 78                |
| tetrachloroethylene                | 68                | 176               | 153               | 221               | 101               | 112               | 81                | 29                | 51                | 32                |
| tetrachlorvinphos                  | 912               | 665               | 2,660             | 629               | 173               | 66                | 55                | 109               | 63                | 31                |
| thiodicarb                         | 472               | 145               | 156               | N/A               | N/A               | N/A               | 1                 | N/A               | N/A               | N/A               |
| toxaphene                          | 28                | 16                | 8                 | 7                 | 4                 | 3                 | 35                | 8                 | 1                 | 1                 |
| trichloro ethylene                 | 1                 | N/A               | <0.01             | N/A               | N/A               | N/A               | 10                | <0.01             | 2                 | N/A               |
| vinclozolin                        | 328               | 467               | 151               | 219               | 149               | 125               | 81                | 39                | 12                | 114               |
| <b>Total</b>                       | <b>44,332,495</b> | <b>44,900,872</b> | <b>43,124,420</b> | <b>41,944,546</b> | <b>46,458,377</b> | <b>44,009,707</b> | <b>41,777,419</b> | <b>41,652,035</b> | <b>39,585,207</b> | <b>42,110,472</b> |