

FACT SHEET



PESTICIDE INFORMATION AND USE

Groundwater Protection Program, Data Sources Checked July 2021

This fact sheet contains information about pesticides or degradates that the California Department of Pesticide Regulation's (CDPR) Groundwater Protection Program actively samples for or has sampled for in the past. Each of the columns in the fact sheet table are described below. Data sources are noted by superscripts.

Pesticide: The name of the pesticide or degradate.

Synonyms: Alternative names, abbreviations, or chemical formulas for the listed pesticide or degradate.

Type: Pesticides can be grouped by the type of pests affected. Herbicides are effective against plants. Insecticides are effective against insects. Fungicides are effective against fungi. Nematicides are effective against nematode worms. Degradates and their parents are noted in this column, if applicable.

CDPR Chemical Code^{1,2}: The identification number assigned by CDPR. There may be multiple identification numbers for each pesticide or degradate. The chemical codes can be used to look up pesticide data and product information.

CDPR Analytical Method³: The analytical method number assigned by the CDPR that is used to analyze for the pesticide or degradate. A designation of (GW) means the analytical method was developed for groundwater samples. A designation of (SW) means the analytical method was developed for surface water samples. Surface water methods can be used for groundwater.

Primary Use^{4,5}: The primary use of each pesticide in California. Degradates are not associated with use and are thus assigned "NA" for primary use. This data was obtained from the Pesticide Use Reporting (PUR) database and from the PAN Pesticide Database.

Data Sources:

¹<<https://apps.cdpr.ca.gov/ereglib/>>

²<<https://apps.cdpr.ca.gov/docs/label/labelque.cfm>>

³<https://www.cdpr.ca.gov/docs/emon/pubs/em_methd_main.htm>

⁴<<https://www.cdpr.ca.gov/docs/pur/purmain.htm>>

⁵<www.pesticideinfo.org>

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2,4-D	2,4-dichlorophenoxyacetic acid	herbicide, plant growth regulator	636	EMON-SM-05-012 (SW)	almonds, grapes, wheat, uncultivated ag
3,4-dichloroaniline	3,4-dichlorobenzenamine	degradate of 3,4-dichloropropionanilide or propanil	3138	EMON-SM-05-049 (SW)	NA
abamectin	abamectin B1A and B1B	insecticide	2254, 5916, 5917	EMON-SM-05-049 (SW)	almonds, walnuts, grapes, cotton, oranges
ACET	deisopropyl atrazine DIA deethyl-simazine 2-chloro-6-ethylamino-4-amino-s-triazine	degradate of atrazine and simazine	4096	EM 62.9 (GW & SW)	NA
acetamiprid		insecticide	5762	EMON-SM-05-049 (SW)	cotton, walnuts, pistachios, oranges, strawberries, almonds, wine grapes
alachlor		herbicide	678	EMON-SM-05-032 (GW)	corn, dried beans
AMPA	aminomethylphosphonic acid	degradate of glyphosate	6049	EMON-SM-05-045 (GW)	NA
atrazine		herbicide	45	EM 62.9 (GW & SW) EMON-SM-05-032 (GW) EMON-SM-05-049 (SW)	corn, sudangrass, sorghum, rights of way, uncultivated ag
azinphos-methyl		insecticide	314	EMON-SM-05-032 (GW)	tree crops (stone, pome, nut)
azoxystrobin		fungicide	4037	EMON-SM-05-032 (GW) EMON-SM-05-049 (SW) EM-SM-05-018 (GW)	almonds, rice, tomatoes, walnuts, wine grapes
bensulfuron methyl		herbicide	2263	EMON-SM05-044 (GW)	rice, almonds
bensulide		herbicide	70	EMON-SM-05-032 (GW) EMON-SM-05-049 (SW)	lettuce, broccoli, onions, cantaloupe
bentazon		herbicide	1944	EM 5.5 (GW) EMON-SM-05-032 (GW)	peas, beans, mint
bispyribac-sodium		herbicide	5749	EMON-SM05-044 (GW)	landscape, turf, soil preplant
boscalid		fungicide	5790	EMON-SM-05-049 (SW)	wine grapes, table and raisin grapes, almonds, leaf lettuce, head lettuce, walnuts, strawberries
bromacil		herbicide	83	EM 62.9 (GW & SW) EMON-SM-05-032 (GW) EMON-SM-05-049 (SW)	citrus, rights of way
carbaryl		insecticide, nematocide, plant growth regulator	105	EMON-SM-05-032 (GW) EMON-SM-05-049 (SW)	citrus, tomatoes, pistachios
carbofuran		insecticide, nematocide	106	EMON-SM-05-032 (GW)	alfalfa, rice, grapes, cotton
chlorantranilprole		insecticide	5964	EMON-SM-05-049 (SW) EMON-SM-05-032 (GW)	almonds, pistachios, walnuts, tomatoes, peaches
chlorothalonil		fungicide	677	EM-SM-05-020 (GW & SW)	almonds, tomatoes, landscape, onions, prunes
chlorpyrifos		insecticide, nematocide	253	EMON-SM-05-049 (SW)	oranges, almonds, walnuts, cotton, alfalfa
chlorsulfuron	chlorsulfon	herbicide	2143	EMON-SM-05-049 (SW)	rights of way, landscape, rangeland, regulatory, oats, uncultivated non-ag, triticale

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clomazone		herbicide	3537	EMON-SM-05-032 (GW) EMON-SM05-044 (GW)	rice, sorghum, wild rice
clothianidin	clothianidine (E)-clothianidin	insecticide	5792	EMON-SM-05-049 (SW)	wine grapes, cotton, almonds, broccoli, table and raisin grapes, leaf lettuce, head lettuce
cyazazine		herbicide	1640	EM 62.9 (GW & SW)	greenhouse plants
cyantranilprole		insecticide	6072	EMON-SM-05-049 (SW)	outdoor propagation nursery, almonds, oranges, tangerines, greenhouse propagation, leaf lettuce, broccoli
cyprodinil		fungicide	4000	EMON-SM-05-049 (SW) EMON-SM-05-032 (GW)	almonds, grapes, strawberries, pistachios
DACT	diaminochlorotriazine diamino chlorotriazine	degradate of simazine	5028	EM 62.9 (GW & SW)	NA
DCPA	dacthal	herbicide	179	EMON-SM-05-040 (GW)	broccoli, onions, cabbage, brussels sprouts, cauliflower
DDVP	dichlorvos 2,2-dichloroethenyl dimethyl phosphate dichlorophos	insecticide	187	EMON-SM-05-049 (SW)	structural pest control, commodity fumigation, animal husbandry, buildings, other fumigation, regulatory, food processing
DEA	deethyl atrazine desethyl atrazine 2-chloro-4-isopropylamino-6-amino-s-triazine	degradate of atrazine	4051, 6048	EM 62.9 (GW & SW)	NA
desulfinyl fipronil	fipronil desulfinyl	degradate of fipronil	6373	EMON-SM-05-013 (SW)	NA
desulfinyl fipronil amide	fipronil desulfinylamide	degradate of fipronil	6070	EMON-SM-05-013 (SW)	NA
diazinon		insecticide	198	EMON-SM-05-032 (GW) EMON-SM-05-049 (SW)	tomatoes, onions, pears, apples, peaches
dicamba		herbicide	200, 780, 5007, 849, 5098, 1829, 6193, 5110, 5057, 1113	EMON-SM-05-012 (SW)	landscape, turf, almonds, greenhouse flowers, rights of way
dichlobenil	Spelled dichlorbenil in some DPR documentation	herbicide	112	EMON-SM-05-032 (GW)	rights of way, aquatic industrial, landscape, sewage, public health pest control
dichloran		fungicide	81	EMON-SM-05-032 (GW)	celery, lettuce, carrots, corn
diflubenzuron		insect growth regulator	1992	EMON-SM-05-049 (SW)	almonds, oranges, artichokes, plums, peaches
dimethenamid	dimethenamide dimethenamid-P	herbicide	5112	EMON-SM-05-032 (GW)	landscape maintenance
dimethoate		insecticide	216	EMON-SM-05-032 (GW)	alfalfa, cotton, tomatoes, safflower, beans
dinotefuran		insecticide	5822	EMON-SM-05-049 (SW)	structural pest control, tomatoes for processing, cotton, cantaloupe, wine grapes, landscape, greenhouse plants
disulfoton		insecticide, nematicide	230	EMON-SM-05-032 (GW)	landscape, peas
dithiopyr		herbicide	2308	EMON-SM-05-049 (SW)	landscape, rights of way, outdoor container nursery, greenhouse flowers, outdoor propagation/flower nursery
diuron		herbicide	231	EM 62.9 (GW & SW) EMON-SM-05-032 (GW) EMON-SM-05-049 (SW)	rights of way, alfalfa, oranges, grapes, walnuts

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DSMN	desmethyl norflurazon DMN	degradate of norflurazon	5997	EM 62.9 (GW & SW)	NA
ethofumesate		herbicide	1900	EMON-SM-05-032 (GW)	landscape, onions, ryegrass, turf
ethoprophos	ethoprop	insecticide, nematicide	404	EMON-SM-05-032 (GW) EMON-SM-05-049 (SW)	outdoor flowers, cabbage, sweet potatoes, beans
ethyl parathion	parathion parathion ethyl	insecticide	459	EMON-SM-05-032 (GW)	walnuts, lettuce, strawberries
etofenprox	etofenprox	insecticide	2292	EMON-SM-05-049 (SW)	public health pest control, structural pest control, mushrooms, regulatory
fenamidone		fungicide	5791	EMON-SM-05-049 (SW)	leaf lettuce, head lettuce, spinach, onions, broccoli, carrots, cabbage
fenamiphos		insecticide, nematicide	1857	EMON-SM-05-032 (GW)	landscape, structural pest control
fenhexamid	fenhexamide N-(2,3-dichloro-4-hydroxyphenyl)-1-methylcyclohexanecarboxamide	fungicide	4032	EMON-SM-05-049 (SW)	wine grapes, table and raisin grapes, strawberries, cherries, blueberries, greenhouse flowers, greenhouse plants
fipronil		insecticide	3995	EMON-SM-05-013 (SW)	structural pest control, regulatory, landscape, rights of way, buildings
fipronil amide	fipronil carboxamide	degradate of fipronil	6040	EMON-SM-05-013 (SW)	NA
fipronil sulfide		degradate of fipronil	6037	EMON-SM-05-013 (SW)	NA
fipronil sulfone		degradate of fipronil	6038	EMON-SM-05-013 (SW)	NA
fludioxonil		fungicide	5027	EMON-SM-05-032 (GW)	post-harvest treatment, pomegranates, apples, strawberries, grapes, lettuce, lemons
flupyradifurone		insecticide	6098	EMON-SM-05-049 (SW)	alfalfa for forage, leaf lettuce, cotton, head lettuce, strawberries, sorghum for forage, corn
flutriafol		fungicide	5971	EMON-SM-05-032 (GW)	wine grapes, table and raisin grapes, strawberries, tomatoes for processing, bell peppers, peaches, nectarines
fonofos	dyfonate	insecticide	254	EMON-SM-05-032 (GW)	corn
glufosinate		herbicide	3946	EMON-SM-05-045 (GW)	almonds, grapes, pistachios, walnuts
glyphosate		herbicide	2997, 2301, 5810, 5972, 1855, 2301, 5820, 2275, 2327	EMON-SM-05-045 (GW)	landscape, almonds, grapes, uncultivated non-agricultural areas, walnuts, rights of way, tangerines, greenhouse flowers, pistachios, cotton
halosulfuron-methyl		herbicide	3919	EMON-SM05-044 (GW)	rice, corn, landscape, tomatoes, sorghum
hexazinone		herbicide	1871	EM 62.9 (GW & SW) EMON-SM-05-049 (SW)	alfalfa, forest, landscape, rights of way
imidacloprid		insecticide	3849	EMON-SM-05-032 (GW) EMON-SM-05-049 (SW)	structural pest control, grapes, tomatoes, oranges
imidacloprid olefin	olfenic imidacloprid	degradate of imidacloprid	5901	EMON-SM-13.0 (GW)	NA
imidacloprid urea		degradate of imidacloprid	5903	EMON-SM-13.0 (GW)	NA
imidacloprid guanidine		degradate of imidacloprid	5900	EMON-SM-13.0 (GW)	NA
imidacloprid olfenic guanidine		degradate of imidacloprid	5902	EMON-SM-13.0 (GW)	NA
indoxacarb		insecticide	4001, 5331	EMON-SM-05-049 (SW)	alfalfa, structural pest control, cotton, broccoli, tomatoes

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isoxaben		herbicide	2289	EM-SM-05-025 (GW) EMON-SM-05-049 (SW) EMON-SM-05-032 (GW)	rights of way, grapes, almonds, landscape
kresoxim-methyl		fungicide	5451	EMON-SM-05-049 (SW)	grapes, pears, apples, melons
linuron		herbicide	361	EMON-SM-05-032 (GW)	carrots, celery, cilantro, asparagus, peas
malathion		insecticide	367	EMON-SM-05-032 (GW) EMON-SM-05-049 (SW)	alfalfa, strawberries, structural pest control, tomatoes, lettuce
MCPA	(2-methyl-4-chlorophenoxy) acetic acid (4-chloro-2-methylphenoxy) acetic acid	herbicide	2326, 786, 5059, 784, 785, 786, 787, 788, 6263	EMON-SM05-044 (GW) EMON-SM-05-012 (SW)	wheat, barley, landscape, oats, rangeland
mefenoxam/metalaxyl	metalaxyl-m	fungicide	4011, 2132	EM-SM-05-025 (GW) EMON-SM-05-032 (GW)	spinach, chili peppers, carrots, almonds, onions
methidathion		insecticide	1689	EMON-SM-05-049 (SW)	timothy, walnuts, outdoor nursery
methiocarb		insecticide, molluscicide	375	EMON-SM-05-032 (GW)	outdoor container nursery, outdoor flowers, landscape
methomyl		insecticide	383	EM-SM-05-025 (GW) EMON-SM-05-032 (GW) EMON-SM-05-049 (SW)	corn, lettuce, alfalfa, onions
methoxyfenozide		insect growth regulator	5698	EMON-SM-05-049 (SW) EMON-SM-05-032 (GW)	almonds, pistachios, walnuts, grapes, alfalfa
methyl parathion	parathion methyl	insecticide, nematicide	394, 4083	EMON-SM-05-032 (GW)	almonds, strawberries, landscape, grapefruit, cotton
metolachlor	S-metolachlor	herbicide	1996	EMON-SM-05-032 (GW) EMON-SM-05-049 (SW) EM 38.0	tomatoes, beans, corn, uncultivated ag, sorghum
metolachlor ESA	metolachlor ethanesulfonic acid	degradate of metolachlor	5806	EM 38.0 (GW)	NA
metolachlor OXA	metolachlor OA metolachlor oxanilic acid	degradate of metolachlor	5807	EM 38.0 (GW)	NA
metribuzin		herbicide	1692	EM 62.9 (GW & SW) EMON-SM-05-032 (GW) EMON-SM-05-049 (SW)	tomatoes, alfalfa, potatoes, soil preplant
molinate		herbicide	449	EMON-SM05-044 (GW) EM-SM-05-001 (GW)	landscape, structural pest control
MTP	dacthal monoacid monomethyl tetrachloroterephthalic acid	degradate of DCPA	4081, 6046, 6387	EMON-SM-05-040 (GW)	NA
napropamide		herbicide	1728	EMON-SM-05-032 (GW) EM-SM-05-004 (GW)	broccoli, strawberries, tomatoes, cauliflower, brussels sprouts
norflurazon		herbicide	2019	EM 62.9 (GW & SW) EMON-SM-05-032 (GW) EMON-SM-05-049 (SW)	almonds, walnuts, oranges, alfalfa, tangerines
orthosulfamuron		herbicide	5904	EMON-SM05-044 (GW)	rice

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oryzalin		herbicide	1868	EMON-SM-05-032 (GW) EMON-SM-05-049 (SW) EM 38.0 EM-SM-05-004 (GW)	almonds, landscape, pistachios, rights of way, walnuts
oxadiazon		herbicide	2017	EMON-SM-05-049 (SW)	landscape, outdoor container nursery, turf, outdoor flower nursery
penoxsulam		herbicide	5889	EMON-SM05-044 (GW)	rice, almonds, walnuts, pistachios, forests
phorate		insecticide, nematicide	478	EMON-SM-05-032 (GW)	cotton, potatoes, outdoor flower nursery, corn
piperonyl butoxide		insecticide, synergist	486	EMON-SM-05-032 (GW)	structural and public health pest control, landscape, strawberries, oranges
prometon		herbicide	499	EM 62.9 (GW & SW) EMON-SM-05-032 (GW) EMON-SM-05-049 (SW)	peaches, structural pest control, rights of way
prometryn		herbicide	502	EMON-SM-05-032 (GW) EM 62.9 (GW & SW) EMON-SM-05-049 (SW)	celery, cilantro, parsley, fennel, carrots
propanil		herbicide	503	EMON-SM-05-032 (GW) EMON-SM05-044 (GW) EMON-SM-05-049 (SW)	rice, uncultivated ag, rights of way, almonds
propargite		insecticide	445	EMON-SM-05-049 (SW)	corn, walnuts, almonds, alfalfa, cherries
propiconazole		fungicide	2276	EMON-SM05-044 (GW) EMON-SM-05-032 (GW) EMON-SM-05-049 (SW)	almonds, walnuts, landscape, peaches, celery
propyzamide		herbicide	694	EM-SM-05-025 (GW)	lettuce, radicchio, endive, artichokes
pyraclostrobin		fungicide	5759	EMON-SM-05-049 (SW) EMON-SM-05-032 (GW)	almonds, grapes, strawberries, tomatoes
pyriproxyfen		insect growth regulator	4019	EMON-SM-05-049 (SW)	almonds, structural pest control, oranges, walnuts, cotton
quinoxifen		fungicide	5787	EMON-SM-05-049 (SW)	grapes, strawberries, tomatoes, cherries
simazine		herbicide	531	EM 62.9 (GW & SW) EMON-SM-05-032 (GW) EMON-SM-05-049 (SW)	grapes, oranges, walnuts, almonds, rights of way
sulfentrazone		herbicide	5923	EMON-SM-05-041 (GW)	rights of way, landscape, mint, grapes, strawberries
sulfentrazone-3-carboxylic acid	SCA	degradate of sulfentrazone	NA	EMON-SM-05-041 (GW)	NA
sulfoxaflor		insecticide	6109	EMON-SM-05-049 (SW)	cotton, leaf/head lettuce, broccoli, celery, Brussel sprouts, cauliflower
tebuconazole	fenetrazole; tebuconazol; ethyltrianol; terbuconazole; terbutrazole; etiltrianol	fungicide	3850	EMON-SM-05-049 (SW)	wine grapes, almonds, table and raisin grapes, walnuts, wood treatment, landscape, garlic
tebufenozide		insect growth regulator	3957	EMON-SM-05-049 (SW)	grapes, almonds, walnuts, structural pest control, raspberries
tebuthiuron		herbicide	1810	EMON-SM-05-032 (GW) EMON-SM-05-049 (SW) EMON-SM-05-005 (GW) EM 62.9 (GW & SW)	rights of way, landscape, commercial areas

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thiacloprid		insecticide	5888	EMON-SM-05-049 (SW)	landscape
thiamethoxam		insecticide	5598	EMON-SM-05-032 (GW)	oranges, tomatoes, lettuce, grapes
thiobencarb		herbicide	1933	EMON-SM05-044 (GW) EMON-SM-05-032 (GW)	rice, uncultivated ag, pasture
TPA	dacthal diacid tetrachloroterephthalic acid	degradate of DCPA	4099	EMON-SM-05-040 (GW)	NA
trallate		herbicide	49	EMON-SM-05-032 (GW)	bermudagrass, outdoor container nursery
triclopyr		herbicide	2131, 2170, 6821	EMON-SM05-044 (GW) EMON-SM-05-012 (SW)	rice, rights of way, landscape, forests, uncultivated non-ag
trifloxystrobin		fungicide	5321	EMON-SM-05-049 (SW)	almonds, grapes, pistachios, strawberries
uniconazole	uniconazole-P	fungicide	2312	EMON-SM-05-032 (GW)	greenhouses, outdoor propagation, container, and flower nurseries