

## NAMES, CLASSIFICATION, AND TOXICITY OF INSECTICIDES

The following chart will help you identify specific pesticides and give you an indication of their toxicities.

**Names** — Each generally used name of each pesticide is listed alphabetically in the left-hand column of the chart. Synonyms in general usage are listed in the next column opposite each entry. Trade names are indicated by the superscript “\*\*”; they should be capitalized. Other names are usually not capitalized.

<b>Classes</b> — Most insecticides are classified chemically as:	<b>Class</b>	<b>Primary Site of Action</b>	<b>IRAC CODE</b>
	Car. = carbamate	Acetylcholinesterase inhibitor	1A
	OP = organophosphate	Acetylcholinesterase inhibitor	1B
	OC = organochlorines	GABA-gated chloride channel antagonists	2A
	PP = phenylpyrazoles	GABA-gated chloride channel antagonists	2B
	SyP = synthetic pyrethroids	Sodium channel modulators	3A
	NEO = neonicotinoids	Nicotinic acetylcholine receptor	4A
	SP = spinosyns	Nicotinic acetylcholine receptor	4B
	AV = avermectins	Chloride channel activators	6
	JH = juvenile hormone	Juvenile hormone mimic	7A
	FL = flonicamid	Feeding blockers	9C
	ET = etoxazole	Mite growth inhibitors	10B
	B = bacterial origin	Microbial disruptors	11
	PRO = propargite	ATP synthase inhibitors	12C
	IGR = insect growth regulator	Chitin synthesis inhibitors	15, 16, 18, 20A
	MISC = chemistry unclear	Uncertain mode of action	UN
OX = oxadiazine	Sodium channel blocker	22A	
Phos. = phosphine	Mitochondrial inhibitors	24A	
DM = diamides	Ryanodine receptor	28	

**Toxicity Categories and LD<sub>50</sub> Values** — When registering pesticides, the Environmental Protection Agency uses acute LD<sub>50</sub> values to determine the toxicity category and words or symbols that must be placed on the label. For this purpose, the test animals are usually rats, mice, or rabbits, but other mammals are sometimes used.

Toxicity Category	Signal Words Required On Label by EPA	ORAL LD <sub>50</sub> (mg/kg)	DERMAL LD <sub>50</sub> (mg/kg) 24-Hr. Exposure	Probable Lethal Oral Dose For Adult Humans
I. Highly Toxic	DANGER, POISON, Plus Skull & Crossbones Symbol	0 to 50	0 to 200	A few drops to 1 t
II. Moderately Toxic	WARNING	50 to 500	50 to 2,000	1 t to 2 T
III. Slightly Toxic	CAUTION	500 to 5,000	2,000 to 20,000	1 oz to 1 pt (1 lb)
IV. Low Toxicity	CAUTION	5,000	20,000	1 pt (1 lb) or more

The LD<sub>50</sub> is the dosage of the chemical at which one-half of the test animals are killed. It is based on the bodyweight of the animal and is expressed in milligrams of the chemical per kilogram of animal (mg/kg). A mg/kg is equivalent to 1 ppm. The lower the LD<sub>50</sub> value, the higher the toxicity. Although most reported LD<sub>50</sub> values are for technical material or actual toxicant, they are based on formulated products in some instances. All of these in the charts are for the technical material unless otherwise indicated. The toxicity categories given in the following charts are based on available data and are not necessarily the toxicity categories that would be assigned by EPA for the specific pesticides. Formulated pesticides usually have a higher LD<sub>50</sub> than the technical material and may not fall in the same toxicity category as the technical material.

The usual ways of administering chemicals are oral (by mouth), dermal (applied to the skin), and inhalation. Inhalation toxicity is expressed as LC<sub>50</sub> (lethal concentration). It is not as generally used as the other two.

Toxicity may be either acute or chronic. Acute refers to rather quick action from a single exposure, while chronic refers to the toxic effect of many exposures over a period of time.

## INSECTICIDES

Insecticide Names	Other Names	Class	Toxicity Category	IRAC CODE	Acute LD <sub>50</sub> Values for White Rats	
					ORAL (mg/kg)	DERMAL (mg/kg)
Abacus*	abamectin, Agri-Mek*, Abba*, AbamectinE*, Flora-Mek*, Reaper*, Temprano*, Zoro*, Clinch*	AV	II	6	300	>1800
abamectin	Agri-Mek*, Abba*, Abacus*, AbamectinE*, Flora-Mek*, Reaper*, Temprano*, Zoro*, Clinch*	AV	II	6	300	>1800
Abate*	Biothion*, temephos	OP	III	1B	8600-13000	>4000
Abba*	abamectin, Agri-Mek*, Abacus*, AbamectinE, Flora-Mek*, Reaper*, Temprano, Zoro*, Clinch*	AV	II	6	300	>1800
acephate	Orthene*, SpitFire*, Bracket*	OP	III	1B	866-945	>10,250 (rabbit)
acetamiprid	Intruder*, Assail*, TriStar	NEO	III	4A	1064	>2000
Actara	thiamethoxam, Cruiser, Centric	NEO	III	4A	>5000	>2000
Actellic*	pirimiphos-methyl, Actellifog*	OP	III	1B	>2000	>4592
Adjourn*	esfenvalerate, Asana XL, S-FenvaloStar*	SyP	II	3	458	>2000
Admire	imidacloprid, Provado, Merit, Gaucho, Advise, Couraze	NEO	III	4A	4350	>5050 (rabbit)
Advantage	imidacloprid	NEO	III	4A	1732-1943	>2000
Agri-Mek*	abamectin, Epi-Mek*, Abacus*, AbamectinE*, Flora-Mek*, Reaper*, Temprano*, Zoro*, Abba*, Clinch*	AV	II	6	300	>1800
Agritol*	<i>Bacillus thuringiensis</i>	B	IV	11	Non-toxic to mammals	
aldicarb	Temik*	Car.	I	1A	0.93	>5.0 (rabbit)
allethrin	Pynamin*	SyP	III	3	680-1000	>11,200
Altacor*	chlorantraniliprole, Coragen*, Prevathon*	DM	II	28	98.11	>5000
Alias*	imidacloprid, Admire*, Provado, Merit, Couraze, Prey, Sherpa, Widow, Wrangler, Pasada, Advise, Imida, ImiGold, Nuprid	NEO	III	4A	4350	>5050 (rabbit)
Altosid*	methoprene	JH	III	7A	>34,600	>3000 (rabbit)
Aluminum Phosphide	Phostoxin*	Phos.	I	24A	20	
Ambush*	permethrin, Pounce*, Arctic*, Perm-Up*	SyP	II	3	430-4000	>4000
Amdro*	hydramethylnon	IGR	III	20A	>5000	>2000 (rabbit)
Ammo*	cypermethrin, Battery*, UP-Cyde*	SyP	II	3	247	>2000
Applaud	buprofezin, Talus, Centaur, Courier	IGR	III	16	>5000	>2000
Arctic*	permethrin, Pounce*, Ambush*, Perm-Up*	SyP	II	3	430-4000	>4000
arprocarb	Baygon*, propoxur	Car.	II	1A	128	800-1000
Asana XL	esfenvalerate, Adjourn*, S-FenvaloStar	SyP	II	3	458	>2000
Assail*	acetamiprid, Intruder*, TriStar	NEO	III	4A	1064	>2000
Atroban*	permethrin	SyP	II	3	>4000	>4000
azadirachtin	Azatrol, Azatin XL, Neemix, Azahar, Ecozin Plus, Debug	MISC	IV	UN	>5000	>2000
Azahar	azadirachtin, Azatrol, Azatin, Neemix, Ecozin	MISC	IV	UN	>5000	>2000
Azatrol	azadirachtin, Azahar, Azatin, Neemix, Ecozin, Debug	MISC	IV	UN	>5000	>2000
azinphos-methyl	Guthion*	OP	I	1B	5-20	220
Aztec	cyfluthrin + tebufospyridin, Defcon	SyP + OP	I	3 + 1B	1.3	
<i>Bacillus thuringiensis</i>	Biotrol*, Dipel*, Thuricide*, Agritol*, Sok-BT*, Javelin*, Bactur*, Biobit, MVP II, Foray	B	IV	11	Non-toxic to mammals	
<i>Bacillus thuringiensis</i> var. <i>israelensis</i>	Design, Agree, Xentari, Bti, Bactomos, Teknar, Vectobac*, Gnatrol	B	IV	11	Non-toxic to mammals	
Battalion	deltamethrin, DeltaDust, DeltaGard, DeltaGold, Shooter, Decis Over-N-Out, TopChoice, Chipco Choice, MaxForce, Chipco Firestar	Syp	I	3	42.9	>2000
Battery	cypermethrin, UP-Cyde, Ammo	SyP	I	3	257	>2000
Baygon*	propoxur, arprocarb	Car.	II	1A	128	800-1000
Baytex*	fenthion, Entex*, Spotton*	OP	II	1B	215-245	330
Baythroid XL*	β-cyfluthrin	SyP	III	3	647	>2000

Insecticide Names	Other Names	Class	Toxicity Category	IRAC CODE	Acute LD <sub>50</sub> Values for White Rats	
					ORAL (mg/kg)	DERMAL (mg/kg)
Belay	clothianidin, Poncho, Clutch	NEO	III	4A	3044	>5000
Belt	flubendiamide, Tourizmo, Vetica	DM	II	28	<2000	>4000
Besiege	chlorantraniliprole + thiamethoxam	DM + NEO	II	28 + 4A	98.11	>2000
β-cyfluthrin	Baythroid XL*	SyP	I	3	647	>5000
Bidrin*	dicotophos	OP	I	1B	17-22	224 (rabbit)
BidrinXP II*	dicotophos + bifenthrin	OP + SyP	I	1B + 3	17-22	224 (rabbit)
bifenthrin	Bifenture*, Bisect*, Sniper*, UpStar*, Menace*, Tundra*, Capture*, Talstar*, Brigade*, Fanfare*, Discipline*	SyP	III	3	375	>2000 (rabbit)
Bifenture*	bifenthrin	SyP	II	3	375	>2000 (rabbit)
Biothion*	Abate*, temephos	OP	III	1B	8600-13,000	>4000
Biotrol*	<i>Bacillus thuringiensis</i>	B	IV	11	Non-toxic to mammals	
Bisect*	bifenthrin	SyP	II	3	375	>2000 (rabbit)
Blackhawk	spinosad, Tracer, Spintor, Success	SP	IV	5	5000	>5000
Bracket	acephate, Orthene, SpitFire	OP	III	1B	866-945	>10,250 (rabbit)
Brigadier	bifenthrin + imidacloprid	SyP + NEO	II	3 + 4A	175	>5000
buprofezin	Applaud, Talus, Centaur, Courier	IGR	III	16	>5000	>2000
Capture*	bifenthrin, Talstar*, Brigade*, Discipline*	SyP	II	3	275	>2000 (rabbit)
carbaryl	Sevin*	Car.	III	1A	246-283	4000
Carbine	flonicamid	FL	II	9C	>2000	>2000
carbofuran	Furadan*	Car.	I	1A	11	10,200 (rabbit)
carzal	Formetanate hydrochloride	OP	I	1A	21	10,200
Centric	thiamethoxam, Cruiser, Actara, Flagship	NEO	III	4A	>5000	>2000
chlorantraniliprole	Altacor*, Coragen*, Prevathon*	DM	II	28	98.11	>5000
chlorpyrifos	Dursban*, Lorsban*, Nufos*, Warhawk, Whirlwind, Hatchet, Yuma, Eraser, Govern, Pilot	OP	II	1B	97-276	2000 (rabbit)
chlorpyrifos-methyl	Reldan*	OP	II	1B	1000-3700	>2000
Clinch	abamectin, Agri-Mek, Avid, Epi-Mek, Zephyr	AV	II	6	300	>1800
clothianidin	Poncho, Belay, Clutch, Nipsit Inside, Arena	NEO	III	4A	3044	>5000
Clutch	clothianidin, Poncho, Belay, Nipsit Inside, Arena	NEO	III	4A	3044	>5000
Cobalt*	chlorpyrifos + λ-cyhalothrin	OP + SyP	II	1B + 3	97-276	>2000
Comite*	propargite, Omite*	PRO	I	12C	600	>5000
Condor	<i>Bacillus thuringiensis</i>	B	IV	11	Non-toxic to mammals	
Confirm	tebufenozide	IGR	IV	18A	5000	>5000
Coragen*	chlorantraniliprole, Altacor*, Prevathon*	DM	II	28	98.11	>5000
Co-Ral*	coumaphos	OP	I	1B	15.5-41	860
coumaphos	Co-Ral*	OP	I	1B	15.5-41	860
Counter*	terbufos	OP	I	1B	4.5-9.0	1.1 (rabbit)
Couraze*	imidacloprid, Provado, Admire, Merit, Alias, Prey, Sherpa, Widow, Wrangler, Imida, Advise, Pasada, ImiGold, Nuprid	NEO	III	4A	4350	>5050 (rabbit)
Cruiser	thiamethoxam, Centric*	NEO	III	4A	>5000	>2000
Curacron*	profenofos	OP	I	1B	622	472 (rabbit)
cyfluthrin	Tombstone*, Decathlon*, Renounce	SyP	I	3	1015	>2000 (rabbit)
cyfluthrin + tebufenozide	Aztec, Defcon	SyP + OP	I	3 + 1B	1.3	
Cymbush	cypermethrin, Ammo*, Battery, UP-Cyde	SyP	I	3	247	>2000
cypermethrin	Ammo*, Cymbush*, Battery, UP-Cyde	SyP	I	3	247	>2000
Cythion*	malathion, Fyfanon	OP	III	1B	1000-1375	>4444
DDVP	dichlorvos, dichlorphos, Vapona*	OP	I	1B	56-80	75-107
Decathlon*	cyfluthrin, Tombstone*, Renounce	SyP	I	3	1015	>2000 (rabbit)
Declare*	γ-cyhalothrin, Proaxis*, Prolex*	SyP	III	3	2250-2646	>5000

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Defcon	cyfluthrin + tebufospyr, Aztec	SyP + OP	I	3 + 1B	1.3	
deltamethrin	DeltaDust, DeltaGard, Delta Gold, Shooter, Over-N-Out, Battalion, Top Choice, MaxForce, Chipco Choice, Chipco FireStar, Decis	SyP	I	3	42.9	>2000
Demon*	cypermethrin	SyP	I	3	247	>2000
Denim	emamectin benzoate	AV	I	6	2950	>2000 (rabbit)
Design	<i>Bacillus thuringiensis</i>	B	IV	11	Non-toxic to mammals	
Diamond	novaluron, Pedestal, Rimon	IGR	III	15	3914	8,000 (rabbit)
Diazinon*	Spectracide*, Dryzon, Agrox Premiere	OP	II, III	1B	300-400	3600 (rabbit)
Dibrom*	naled	OP	I	1B	430	1100 (rabbit)
dichlorphos	dichlorvos, Vapona*, DDVP	OP	I	1B	56-80	75-107
dichlorvos	dichlorphos, Vapona*, DDVP	OP	I	1B	56-80	75-107
dicofol	Dicofol*, Kelthane*	OC	II, III	UN	820-960	1000-1230
dicrotophos	Bidrin*	OP	I	1B	17-22	224 (rabbit)
diflubenzuron	Dimilin*	IGR	III	15	4540	
dimethoate	Dimate, Dimethoate	OP	II	1B	215	400-610
Dimilin*	diflubenzuron	IGR	III	15	4540	
Dipel ESNT	<i>Bacillus thuringiensis</i>	B	IV	11	Non-toxic to mammals	
Dipterex*	Dylox*, trichlorfon, Neguvon*, Anthion*, Proxol*, GX-130*	OP	III	1B	560-630	2000
disulfoton	Di-Syston*	OP	I	1B	2-10	6-20
Di-Syston*	disulfoton	OP	I	1B	2-10	6-20
Dragnet*	permethrin	SyP	I-III	3	430-4000	>4000
Dursban*	chlorpyrifos, Lorsban*, Nufos*	OP	II	1B	97-276	2000 (rabbit)
Dylox*	trichlorfon, Dipterex*, Neguvon*, Proxol*	OP	II	1B	560-630	>2000
Ectiban*	permethrin	SyP	II	3	4000	>4000
Endigo*	thiamethoxam + λ-cyhalothrin	NEO + SyP	II	4A + 3	310.2	>2000
endosulfan	Thiodan*, Thionex*, Avenger	OC	I	2A	30-110	359 (rabbit)
Entex*	fenthion, Baytex*	OP	II		250	2000
Epi-Mek*	abamectin, Agri-Mek*, Abba*, Abacus*, AbamectinE*, Flora-Mek*, Reaper*, Temprano*, Zoro*, Clinch*	AV	II	6	300	>1800
Eraser*	chlorpyrifos, Lorsban*, Nufos*, Whirlwind*, Warhawk*, Pilot, Govern	OP	II	1B	97-276	2000 (rabbit)
esfenvalerate	Asana XL*, Adjourn*, S-FenvaloStar*	SyP	II	3	458	>2,000 (rabbit)
Expar*	permethrin	SyP	II	3	>4000	>4000
famphur	Warbex*	OP	I	1B	35-62	1460-5093 (rabbit)
fenpyroximate	Portal, Fujimite	MISC.	III	21	810	>5000
fenthion	Baytex*, Entex*	OP	II	1B	250	2000
fenvalerate	Ectrin	SyP	III	3	451	5000
Ficam	bendiocarb	Car.	I	1A	40	566
flupronil	Regent*	PP	II	2B	336	382 (rabbit)
flonicamid	Carbine, Beleaf	FL	II	9C	>2000	>2000
Flora-Mek*	abamectin, Agri-Mek*, Abba*, Abacus*, AbamectinE*, Epi-Mek*, Reaper*, Temprano*, Zoro*, Clinch*	AV	II	6	300	>1800
flubendiamide	Belt*, Tourizmo, Vertica	DM	II	28	<2000	>4000
Fumitoxin*	aluminum phosphide, Phostoxin*	Phos.	I	24A	20	
Furadan	carbofuran	Car.	I	1A	11	10,200 (rabbit)
γ-cyhalothrin	Proaxis*, Prolex*, Declare*	SyP	III	3	2250-2646	>5000
Gaucho	imidacloprid	NEO	III	4A	609	>2000

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					ORAL (mg/kg)	DERMAL (mg/kg)
Govern	chlorpyrifos, Lorsban, Nufos, Whirlwind, Warhawk, Pilot, Eraser	OP	II	1B	97-276	2000 (rabbit)
Grizzly*	λ-cyhalothrin, Karate*, Silencer*	SyP	II	3	180	>2000
Guthion*	azinphos-methyl	OP	I	1B	11-13	220
halofenozide	Mach II	IGR	IV	18	2850	>2850
Hatchet	chlorpyrifos, Dursban, Lorsban, Whirlwind, Warhawk, Yuma	OP	II	1B	97-276	>2000 (rabbit)
hydramethylnon	Amdro*	MISC	III	20A	>5000	>2000 (rabbit)
Imida	imidacloprid, Provado, Alias, Couraze	NEO	III	4A	4350	>5050 (rabbit)
imidacloprid	Admire, Provado, Gaucho, Merit, Alias, Couraze*, Imidacloprid*, Prey, Sherpa, Widow, Wrangler, Pasada, Advise, Imida, ImiGold, Nuprid, Access, Concur, Sativa IM, Senator	NEO	III	4A	4350	>5050 (rabbit)
Imidan*	phosmet	OP	II	1B	147-316	>4640 (rabbit)
ImiGold	imidacloprid, Provado, Imida, Alias	NEO	III	4A	4350	>5050 (rabbit)
indoxacarb	Steward	OX	III	22	268	>5000
Intrepid	methoxyfenozide	IGR	IV	18A	>5000	>2000
Intruder	acetamiprid, Assail	NEO	III	4A	1064	>2000
Ivermectin*	Ivomec*	AV		6		
Ivomec*	Ivermectin*	AV		6		
Javelin	<i>Bacillus thuringiensis</i>	B	IV	11	Non-toxic to mammals	
Kaiso*	λ-cyhalothrin, Karate*, Silencer*	SyP	II	3	180	>2000
Karate*	λ-cyhalothrin, Silencer*, Warrior*	SyP	II	3	180	>2000
λ-cyhalothrin	Karate*, Silencer*, Warrior*, Battle, Scimitar*, Grizzly*, Taiga*, Mystic*, Helena lambda*, Lambda-T*, Kaiso*, Lambda-Cyhalothrin*, Lambda-Cy*, LambdaStar*	SyP	II	3	180	>2000
LambdaStar	λ-cyhalothrin, Karate*, Silencer*	SyP	II	3	180	>2000
Lambda-T*	λ-cyhalothrin, Karate*, Silencer*	SyP	II	3	180	>2000
Lannate*	methomyl	Car.	I	1A	17-24	>5880 (rabbit)
Larvadex*	cyromazine	IGR	IV	17	3387	>3100
Larvin*	thiodicarb	Car.	II	1A	66-120	>2000 (rabbit)
Leverage 360*	cyfluthrin + imidacloprid	SyP + NEO	III	3 + 4A	>1044	>2000
lindane	gamma isomer of BHC	OC	II	2A	88-125	1000
Lorsban*	chlorpyrifos, Dursban*, Nufos*, Warhawk, Whirlwind, Hatchet, Yuma, Eraser, Pilot, Govern	OP	II	1B	97-276	2000 (rabbit)
Mach II	halofenozide	IGR	IV	18	2850	>2850
malathion	Cythion*, Fyfanon	OP	III	1B	1000-1375	4100 (rabbit)
Menace*	bifenthrin	SyP	II	3	375	>2000 (rabbit)
Merit	imidacloprid, Admire, Alias, Couraze, Trimax, Provado, Prey, Sherpa, Widow, Wrangler	NEO	III	4A	4350	>5050 (rabbit)
Mesurol*	methiocarb, Slug-Geta*, Bug-Geta*	Car.	II		10-130	5000 (rabbit)
Metaldehyde*	Slug and snail bait, Deadline, Durham Metaldehyde	MISC	II, III		630	
methidathion	Supracide*	OP	I	1B	44	200 (rabbit)
methiocarb	Mesurol*	Car.	II		10-130	5000 (rabbit)
methomyl	Lannate*	Car.	I	1A	17-24	5880 (rabbit)
methoprene	Altosid*	IGR	III	7A	>34,600	>3000 (rabbit)
methoxyfenozide	Intrepid	IGR	IV	18A	>5000	>2000
methyl parathion	Penncap M*, Methyl*	OP	I	1B	5	50
Mustang Max	ζ-cypermethrin, Respect*	SyP	I	3	106	>5000
MVP II	<i>Bacillus thuringiensis</i>	B	IV	11	Non-toxic to mammals	
Mystic Z*	λ-cyhalothrin, Karate*, Silencer*	SyP	II	3	180	>2000
naled	Dibrom*	OP	II	1B	430	1100 (rabbit)
Neguvon*	trichlorfon, Dipterox*, Dyllox*, GX-130*, Proxol*	OP	III	1B	560-630	>2000

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					ORAL (mg/kg)	DERMAL (mg/kg)
Nipsit Inside*	clothianidin, Poncho*, Belay*, Clutch*, Arena*	NEO	III	4A	3044	>5000
novaluron	Diamond*, Pedestal*, Rimon	IGR	III	15	3914	8000 (rabbit)
Nufos*	chlorpyrifos, Lorsban, Warhawk, Whirlwind, Yuma, Dursban	OP	II	1B	97-276	>2000 (rabbit)
Nuprid	imidacloprid, Provado, Alias, Couraze	NEO	III	4A	4350	>5050 (rabbit)
Oberon	spiromesifen	MISC	III	23	>2000	>4000
Oftanol*	isofenphos	OP	II	1B	20-30	
Omite*	propargite, Comite*	MISC	III	12C	2200	
Orthene*	acephate, Bracket, SpitFire	OP	III	1B	866-945	>2000 (rabbit)
Overtime*	permethrin	SyP	II	3	4000	4000
oxamyl	Vydate*	Car.	I	1A	5.4	37
paradichlorobenzene	PDB*	OC	III		500-5000	2000 (rabbit)
PDB*	paradichlorobenzene	OC	III		500-5000	2000 (rabbit)
Penncap-M*	microencapsulated methyl parathion	OP	II	1B	>600	>5400
Permethrin II*	permethrin	SyP	II	3	430-4000	>4000
permethrin	Ambush*, Atroban*, Overtime*, Permethrin II*, Ectiban*, Pounce*, Astro, Pounce, Arctic, Perm-Up	SyP	II	3	430-4000	>4000
phorate	Thimet*	OP	I	1A	2-4	20-30 (guinea pig)
phosmet	Imidan*	OP	II	1B	147-316	>4640 (rabbit)
phostoxin	aluminum phosphide, Weevil-Cide	Phos.	I	24A	20	
Pilot	chlorpyrifos, Lorsban, Eraser, Nufos, Warhawk, Whirlwind	OP	II	1A	97-276	2000 (rabbit)
piperonyl butoxide	Butacide*, Incite*	MISC	III		>7500	
Portal*	fenproximate, Fujimite*	MISC	III	21	810-1004	>5000
Pounce*	permethrin	SyP	I	3	439-4000	>4000
Premise*	imidacloprid	NEO	III	4A	4143-4870	>2000
Prey	imidacloprid, Admire*, Alias, Provado, Merit, Couraze, Sherpa, Widow, Wrangler	NEO	III	4A	4350	>5050 (rabbit)
Proaxis*	γ-cyhalothrin, Prolex*, Declare*	SyP	III	3	2250-2646	>5000
profenofos	Curacron*	OP	I	1B	622	472 (rabbit)
Prolex*	γ-cyhalothrin, Proaxis*, Declare*	SyP	III	3	2250-2646	>5000
propargite	Omite*, Comite*	Phos.	III	12C	220-600	>5000
propoxur	Baygon*, arprocarb	Car.	II	1A	128	800-1000
Provado	imidacloprid, Admire, Gaucho, Merit, Alias, Couraze, Prey, Sherpa, Widow, Wrangler	NEO	III	4A	4350	>5050 (rabbit)
Proxol*	trichlorfon, Dylox*	OP	III	1B	560-630	>2000
pyrethrins	pyrethrum	Pyr.	III	3	1500	>1800
pyrethrum	pyrethrins	Pyr.	III	3	1500	>1800
Rabon*	tetrachlorvinphos, Ravap*	OP	III	1B	4000-5000	>2500 (rabbit)
Ravap*	tetrachlorvinphos, Rabon*	OP	III	1B	4000-5000	>2500 (rabbit)
Regent*	fipronil	PP	II	2B	336	382 (rabbit)
Reldan*	chlorpyrifos-methyl	OP	II	1B	2000-3000	>2000 (rabbit)
resmethrin	Chryson*, Synthrin*	Pyr.	III	3	4240	2500 (rabbit)
Sevin*	carbaryl	Car.	III	1A	246-283	4000
S-FenvaloStar*	esfenvalorate, Asana XL*, Adjourn*	SyP	II	3	458	>2000
Sherpa	imidacloprid, Admire*, Alias, Provado, Merit, Couraze, Prey, Widow, Wrangler	NEO	III	4A	4350	>5050 (rabbit)
Sniper*	bifenthrin, Brigade*, Discipline*, Fanfare*	SyP	II	3	347	>2000 (rabbit)
Spectracide*	diazinon	OP	II, III	1B	300-400	3600 (rabbit)
spinosad	Tracer, Spintor, Blackhawk, Success	SP	IV	5	5000	>5000

Insecticide Names	Other Names	Class	Toxicity Category	IRAC CODE	Acute LD <sub>50</sub> Values for White Rats	
					ORAL (mg/kg)	DERMAL (mg/kg)
spiromesifen	Oberon*	MISC	III	23	>2000	>4000
SpitFire*	acephate, Orthene*, Bracket	OP	III	1B	866-945	>10,250 (rabbit)
Spotton*	fenthion	OP	II	1B	250	2000
Steward	indoxacarb	OX	III	22	268	>5000
Success	spinosad, Tracer, Spintor, Blackhawk	SP	IV	5	5000	>5000
Supracide*	methidathion	OP	I	1B	44	200 (rabbit)
Taktic*	amitraz	MISC	II	19	400	>1600
Talstar*	bifenthrin	SyP	II	3	375	>2000 (rabbit)
Tame*	Danitol*, fenpropathrin	SyP	I	3	68	
tebufenozide	Confirm, Mach II	IGR	IV	18A	5000	>5000
Temik*	aldicarb	Car.	I	1A	0.93	3.15
temephos	Abate*, Biothion*	OP	III	1B	8600-13,000	>4000
terbufos	Counter*	OP	I	1B	4.5-9.0	1.1 (rabbit)
tetrachlorvinphos	Rabon*	OP	III	1B	4000-5000	>2500 (rabbit)
thiamethoxam	Centric, Cruiser, Actara	NEO	III	4A	>5000	>2000
Thimet*	phorate	OP	I	1B	204	20-30 (guinea pig)
thiodicarb	Larvin*	Car.	II	1A	66-120	>2000 (rabbit)
Thiodan*	endosulfan, Thionex*	OC	I	2A	30-110	359 (rabbit)
Thionex*	endosulfan, Thiodan	OC	I	2A	30-110	359 (rabbit)
Tiguvon*	fenthion	OP	II	1B	250	2000
Tombstone*	cyfluthrin, Decathlon*	SyP	I	3	1015	>2000 (rabbit)
Torpedo*	permethrin	SyP	II	3	430-4000	>4000
Tourizmo	flubendiamide, Belt, Vetica	MISC	II	28	<2000	>4000
Tracer	spinosad, Spintor	SP	IV	5	5000	>5000
Tribute	fenvalerate, Pydrin, Ectrin	SyP	I	3	451	
trichlorfon	Dylox*, Dipterex*, Neguvon*	OP	III	1B	560-630	>2000
Triumph	isazophos	OP	I	1B	40-60	118
Tundra*	bifenthrin	SyP	II	3	347	>2000 (rabbit)
UP-Cyde	cypermethrin, Ammo, Battery	SyP	I	3	247	>2000
UpStar*	bifenthrin	SyP	II	3	347	>2000 (rabbit)
Vapona*	dichlorphos, DDVP, dichlorvos	OP	I	1B	80	107
Vendex*	fenbutatin-oxide	MISC	I	12B	2631	>2000
Vetica	flubendiamide, Belt, Tourizmo	DM	II	28	<2000	>4000
Vydate*	oxamyl	Car.	I	1A	5.4	37
Warbex*	famphur	OP	I	1B	35-62	1460-5093 (rabbit)
Warhawk	chlorpyrifos, Lorsban, Whirlwind, Govern, Eraser, Yuma	OP	II	1B	97-276	>2000 (rabbit)
Whirlwind	chlorpyrifos, Lorsban, Warhawk, Govern, Eraser, Yuma	OP	II	1B	97-276	>2000 (rabbit)
Widow	imidacloprid, Admire*, Alias, Provado, Merit, Couraze, Prey, Sherpa, Wrangler	NEO	III	4A	4350	>5050 (rabbit)
Wrangler	imidacloprid, Admire*, Alias, Provado, Merit, Couraze, Prey, Sherpa, Widow	NEO	III	4A	4350	>5050 (rabbit)
Yuma	chlorpyrifos, Lorsban, Whirlwind, Warhawk, Hatchet, Dursban	OP	II	1B	97-276	>2000 (rabbit)
Zeal	etoxazole	ET	III	10B	>5000	>5000
ζ-cypermethrin	Mustang Max*, Respect*	SyP	II	3	106	>5000
Zoro*	abamectin, Agri-Mek*, Epi-Mek*, Abacus*, AbamectinE*, Flora-Mek*, Temprano*, Reaper*, Abba*, Clinch	AV	II	6	300	>1800