Electronic Supplementary Material (ESI) for Analytical Methods

Supplementary Information

Quantitative and Qualitative analysis of 304 Pesticide and Related Organic Pollutants in Surface Water Using Dispersive Liquid-liquid Microextraction Coupled with Gas Chromatography-Mass Spectrometry

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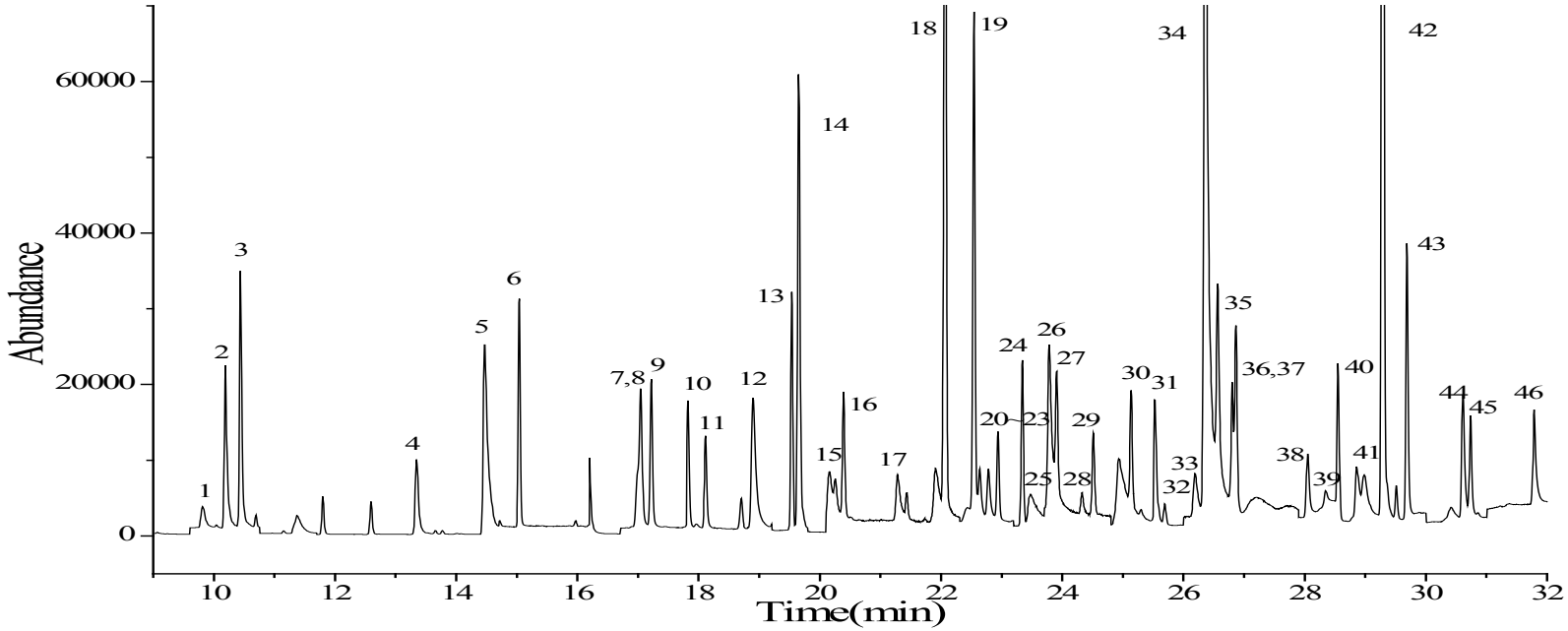

Figure S1. Chromatogram of spiked blank water sample obtained by the optimized DLLME-GC-MS method (Group A, level C). Peak numbers correspond to: (1)dichlormid, (2)etridiazol, (3)chlormephos, (4)cycloate, (5)diphenylamine, (6)ethalfluralin, (7)clomazone, (8)diazinon, (9)fonofos, (10)etrimfos, (11)propetamphos, (12)mexacarbate, (13)dinitramine, (14)ronnel, (15)prometryne, (16) vinclozolin, (17) anthraquinone, (18) heptachlor-epoxide (I.S.), (19) triadimefon, (20) pendimethalin, (21) linuron, (22) chlorbenside, (23) bromophos-ethyl, (24)metazachlor, (25)phenthoate, (26)fenothiocarb, (27)prothiophos, (28)procymidone, (29)napropamide, (30) oxadiazone, (31)tetrasul, (32) aramite, (33)bupirimate, (34) carboxin, (35) flutolanil, (36) ethion, (37) sulprofos, (38) diclofop-methyl, (39) mirex, (40) benodanil, (41) nuarimol, (42) methoxychlor, (43)tetramethirn, (44) phosmet, (45)tetradifon, (46)pyrazophos

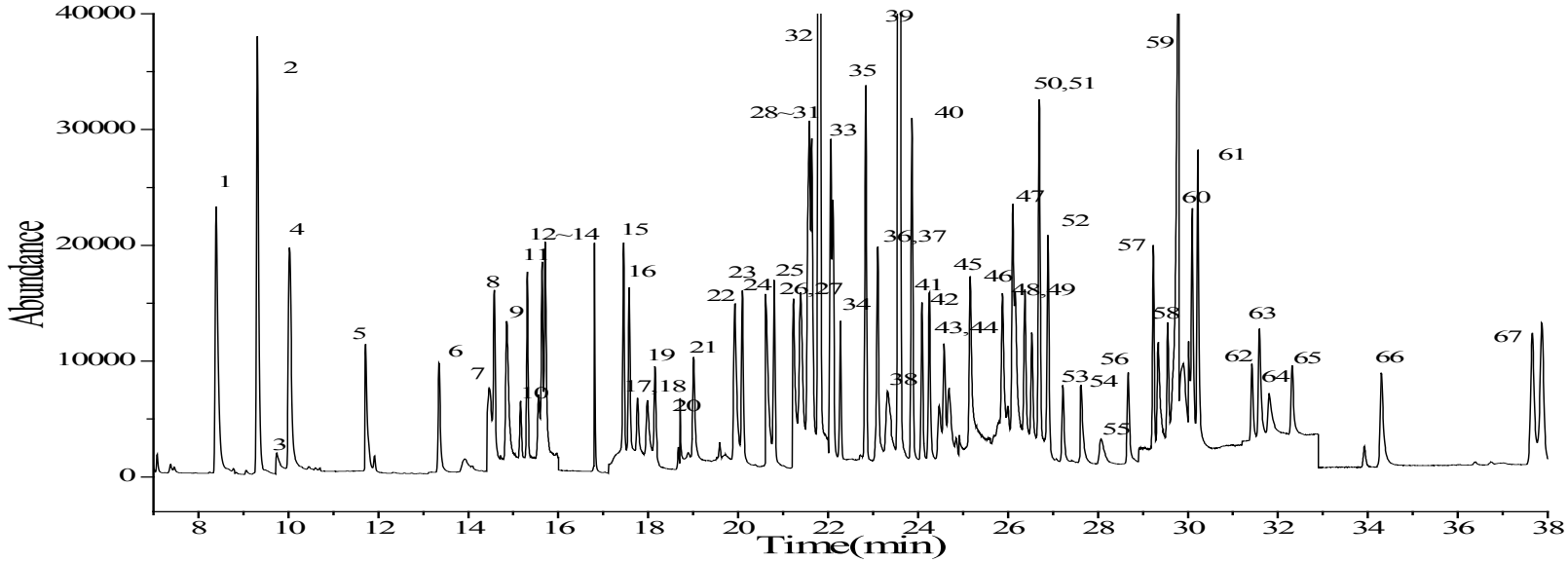

Figure S2. Chromatogram of spiked blank water sample obtained by the optimized DLLME-GC-MS method (Group B, level C). Peak numbers correspond to: (1)EPTC, (2)butylate, (3)dichlorbenil, (4)pebulate, (5)chloroneb, (6)tecnazene, (7)ethoprophos, (8)cis-diallate, (9)propachlor, (10)transdiallate, (11)trifluralin, (12)chlorpropham, (13)sulfotep, (14)sulfallate, (15)profluralin, (16)dioxathion, (17)propazine, (18)chlorbufam, (19)dicloran, (20)flufenoxuron, (21)cyanophos, (22)dimethachlor, (23)alachlor, (24)terbutryn, (25)aspon, (26)dicofol, (27)metolachlor, (28)pirimiphos-ethyl, (29)methoprene, (30)bromofos, (31)dichlofluanid, (32)heptachlor-epoxide(I.S.), (33)ethofumesate, (34)isopropalin, (35)endosulfan-1, (36)propanil, (37)isofenphos, (38)chlorfenvinphos, (39)tolylfluanide, (40)butachlor, (41)chlozolinate, (42)iodofenphos, (43)tetrachlorvinphos, (44)profenofos, (45)chlorfenson, (46)chloropropylate, (47)flamprop-methyl, (48)nitrofen, (49)oxyfluorfen, (50)chlorthiophos, (51)endosulfan-2, (52)flamprop-isopropyl, (53)carbofenothion, (54)benalaxyl, (55)edifenphos, (56)cyanofenphos, (57)edosulfan-sulfate, (58)bromopropylate, (59)benzoylprop-ethyl, (60)leptophos, (61)EPN, (62)phosalone, (63)azinphos-methyl, (64)fenarimol, (65)azinphos-ethyl, (66)coumaphos, (67)fluvalinate

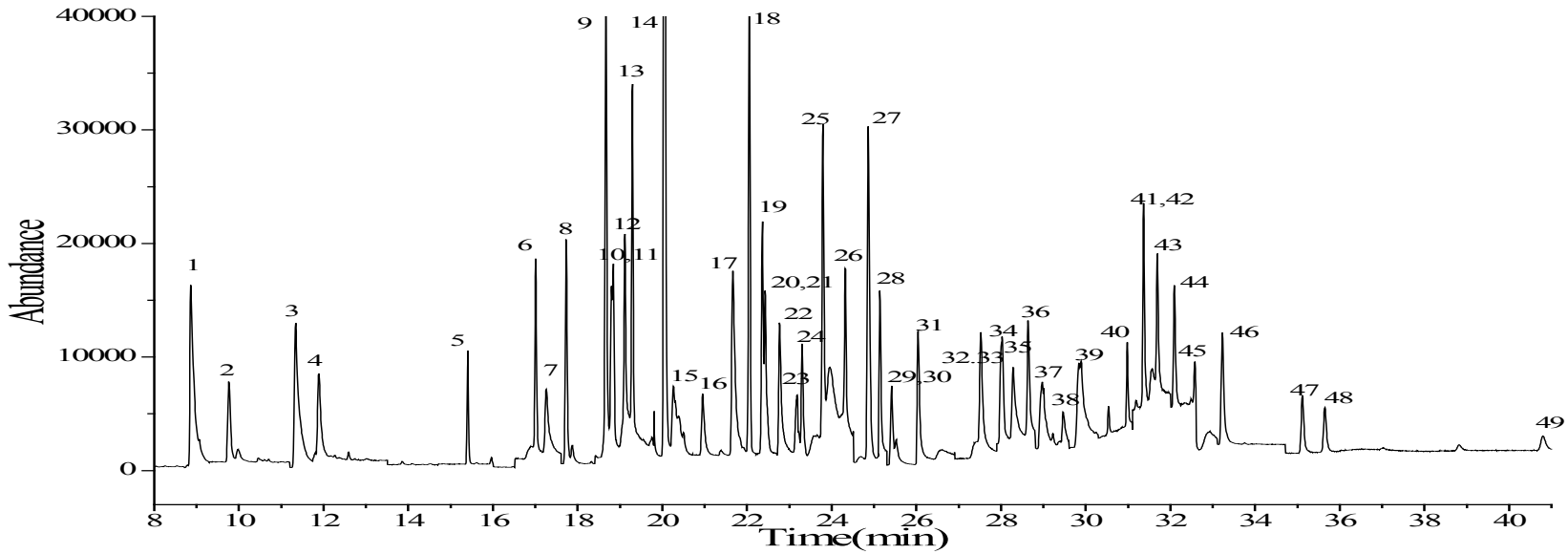

Figure S3. Chromatogram of spiked blank water sample obtained by the optimized DLLME-GC-MS method (Group C, level C). Peak numbers correspond to: (1)biphenyl, (2)vernolate, (3)3,5-dichloroaniline, (4)molinate, (5)benfluralin, (6)triallate, (7)pyrimethanil, (8)disulfoton, (9)iprobenfos, (10)isazofos, (11)plifenate, (12)transfluthrin, (13)fluchloralin, (14)propisochlor, (15)ametryn, (16)dipropetrvn, (17)diethofencarb, (18) heptachlor-epoxide (I.S.), (19)dimepiperate, (20)bioallethrin-1, (21)bioallethrin-2, (22)fenson, (23)chlorthion, (24)prallethrin, (25)mecarbam, (26)tetraconazole, (27)flumetrailin, (28)pretilachlor, (29)kresoxim-methyl, (30)fluazifop-butyl, (31)chlorobenzilate, (32)diniconazole, (33)piperonyl butoxide, (34)propargite, (35)mepronil, (36)diflufenican, (37)fenazaquin, (38)fludioxonil, (39)fenoxycarb, (40)anilofos, (41)acrinathrin, (42)mefenacet, (43)permethrin, (44) pyridaben,, (45) fluoroglycofen-ethyl, (46) etofenprox, (47) flucythrinate, (48) flumioxazin, (49) flumiclorac-pentyl

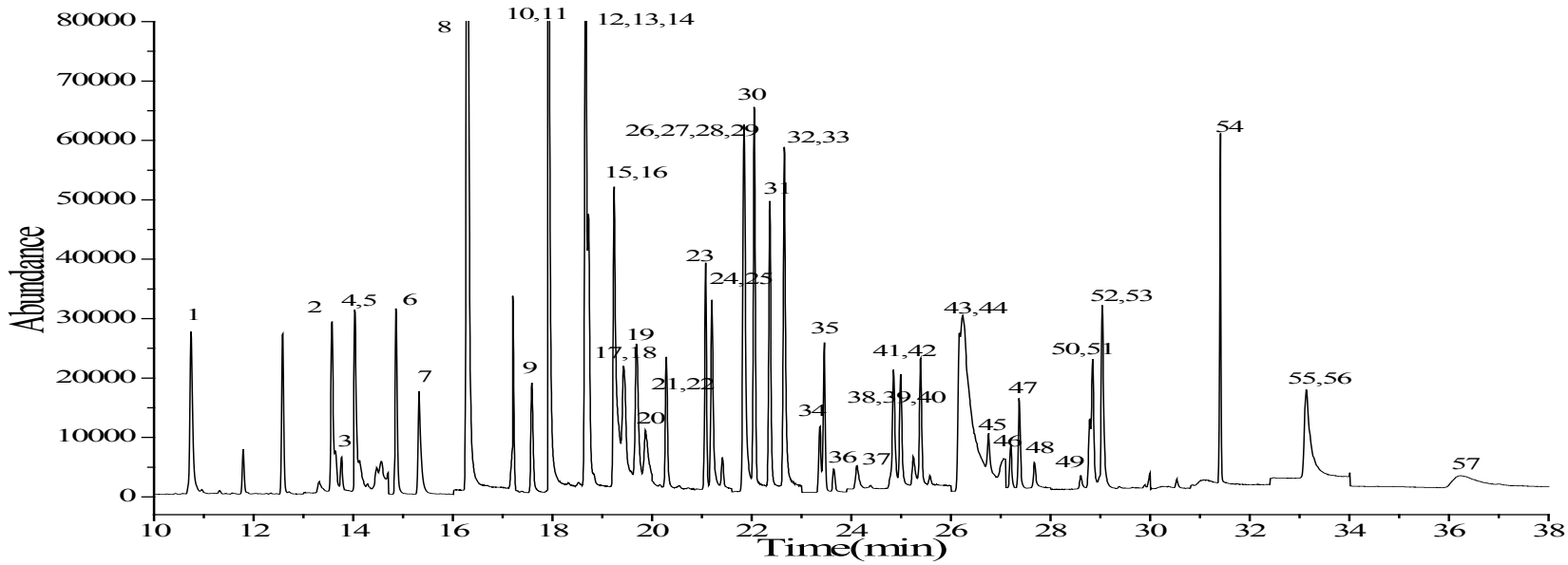

Figure S4. Chromatogram of spiked blank water sample obtained by the optimized DLLME-GC-MS method (Group D, level C). Peak numbers correspond to: (1)pentachlorobenzene, (2)BDMC-1, (3)chlorfenprop-methyl, (4)2,3,5,6-tetrachloroaniline, (5)thionazin, (6)pentachloroanisole, (7)tebutam, (8)dioxabenzofos, (9)trietazine, (10)DE-PCB 28, (11)DE-PCB 31, (12)musk ambrette, (13)musk xylene, (14)pentachloroaniline, (15)aziprotryne, (16)DE-PCB 52, (17)sebutylazine, (18)prosulfocarb, (19)dimethenamid, (20)BDMC-2, (21)monalide, (22)isobenzan, (23)isomethiozin, (24)dacthal, (25)4,4-dichlorobenzophenone, (26)nitrothal-isopropyl, (27)musk ketone, (28)rabenzazole, (29)cyprodinil, (30)heptachlor-epoxide (I.S.), (31)DEP-PCB 101, (32)dicapthon, (33)MCPA-butoxyethyl ester, (34)chlorfenethol, (35)trans-nonachlor, (36)phorate sulfone, (37)DEF, (38)bromfenvinfos, (39)DE-PCB 118, (40)ditalimfos, (41)4,4-dibromobenzophenone, (42)DE-PCB 153, (43)DE-PCB 138, (44)diclobutrazol, (45)disulfoton sulfone, (46)resmethrin-1, (47)resmethrin-2, (48)phthalic acid, benzyl butyl ester, (49)fluroxypr-1-methylheptyl ester, (50)triphenyl phosphate, (51)DE-PCB 180, (52)fenthion sulfone, (53)tebufenpyrad, (54)nitralin, (55)fenpiclonil, (56)fluquinconazole, (57)fenbuconazole,

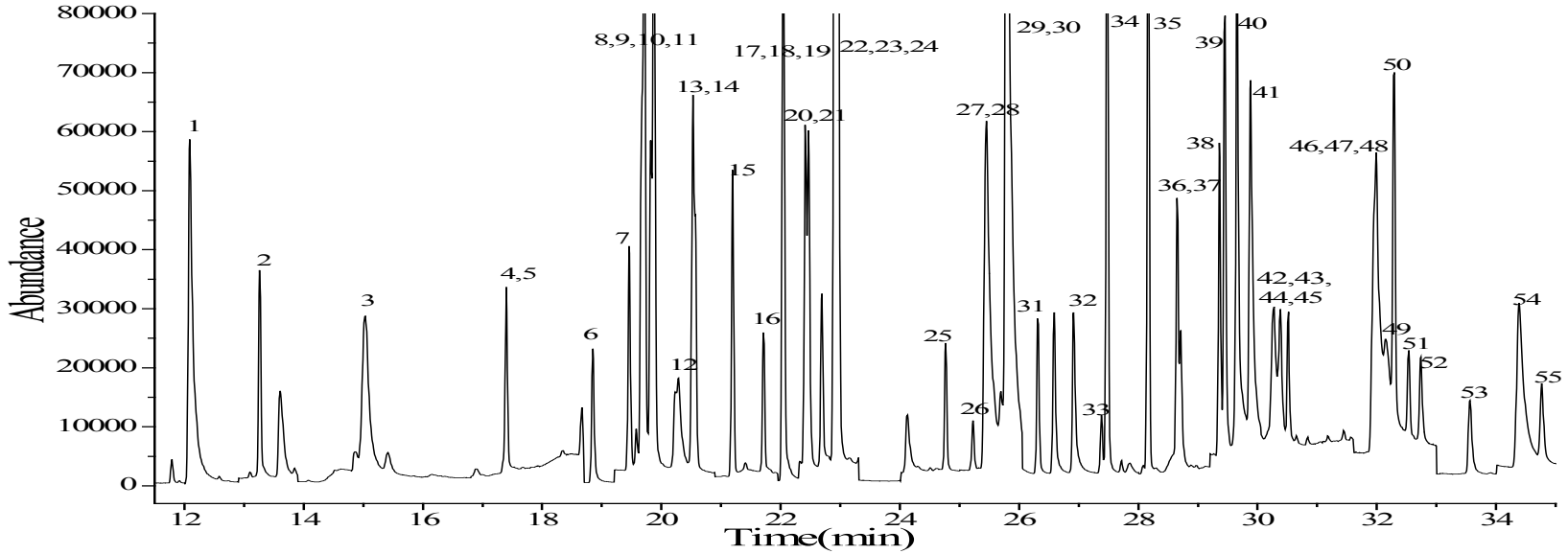

Figure S5. Chromatogram of spiked blank water sample obtained by the optimized DLLME-GC-MS method (Group E, level C). Peak numbers correspond to: (1)dibutyl succinate, (2)chlorethoxyfos, (3)cadusafos, (4)fenpyroximate, (5)tebupirimfos, (6)propyzamide, (7)benoxacor, (8)acetochlor, (9)tridiphane, (10)terbucarb,(11)esprocarb, (12)acibenzolar-S-Methyl, (13)benfuresate, (14)dithiopyr, (15)chlorthal-dimethyl, (16)thiazopyr, (17)dimethylvinphos, (18)butralin, (19)heptachlor-epoxide (I.S.), (20)allethrin-1, (21)allethrin-2, (22)methothrin-1, (23)methothrin-2, (24)flufenacet, (25)picoxystrobin, (26)butamifos, (27)metominostrobin-1, (28)TCMTB, (29)isoprothiolane, (30)cyflufenamid, (31)isoxathion, (32)diofenolan, (33)chlrofenapyr, (34)trifloxystroibin, (35)fipronil, (36)pyraflufen ethyl, (37)pyributicarb, (38)mefenpyr-diethyl, (39)etoxazole, (40)famphur, (41)pyriproxyfen, (42)piperophos, (43)bifenazate, (44)iprodione, (45)fenamidone, (46)pyraclofos, (47)pyraclostrobin, (48)lactofen, (49)tralkoxydim, (50)dialifos, (51)spirodiclofen, (52)halfenprox, (53)silafluofen, (54)pyrimidifen, (55)butafenacil

78

Table S1. GC-MS conditions and spike level A of 304 pesticides

Pesticides	t_R	SIM ion(m/z)	Spike level A μg/L	Pesticides	t_R	SIM ion(m/z)	Spike level A μg/L
heptachlor-epoxide（internal standard）	22.1	353,355,351					
			A				
dichlormid	9.82	172,166,124	0.25	phenthoate	23.34	274,246,320	0.25
etridiazol	10.19	211,183,140	0.375	fenothiocarb	23.78	72,160,253	0.25
chlormephos	10.44	121,234,154	0.25	prothiophos	23.91	309,267,162	0.125
cycloate	13.34	154,186,215	0.125	procymidone	24.51	283,285,255	0.125
diphenylamine	14.47	169,168,167	0.125	napropamide	24.93	271,128,171	0.375
ethalfluralin	15.04	276,316,292	0.5	oxadiazone	25.14	175,258,302	0.125
clomazone	17	204,138,205	0.125	tetrasul	25.52	252,324,254	0.125
diazinon	17.05	304,179,137	0.125	aramite	25.69	185,319,334	0.125
fonofos	17.22	246,137,174,202	0.125	bupirimate	26.2	273,316,208	0.125
etrimfos	17.82	292,181,277	0.125	carboxin	26.36	235,143,87	3
propetamphos	18.12	138,194,236	0.125	flutolanil	26.56	173,145,323	0.125
mexacarbate	18.9	165,150,222	0.375	ethion	26.81	231,384,199	0.25
dinitramine	19.55	305,307,261	0.5	sulprofos	26.87	322,156,280	0.25
ronnel	19.65	285,287,125	0.25	diclofop-methyl	28.05	253,281,342	0.125
prometryne	20.16	241,184,226	0.125	mirex	28.55	272,237,274	0.125
vinclozolin	20.39	285,212,198	0.125	benodanil	28.86	231,323,203	0.375
anthraquinone	21.28	208,180,152	0.125	nuarimol	29	314,235,203	0.25
triadimefon	22.45	208,210,181	0.25	methoxychlor	29.29	227,228,212	1
pendimethalin	22.55	252,220,162	0.5	tetramethirn	29.51	164,135,232	0.25
linuron	22.64	61,248,160	0.5	phosmet	30.61	160,161,317	0.25
chlorbenside	22.78	268,270,143	0.25	tetradifon	30.74	227,356,159	0.125
bromophos-ethyl	22.94	359,303,357	0.125	pyrazophos	31.79	221,232,373	0.25
metazachlor	23.22	209,133,211	0.375				
			B				

EPTC	8.38	128,189,132	0.375	endosulfan-1	22.84	241,265,339	0.75
butylate	9.3	156,146,217	0.375	propanil	23.05	161,217,163	0.25
dichlorbenil	9.73	171,173,136	0.025	isofenphos	23.1	213,255,185	0.25
pebulate	10.01	128,161,203	0.375	chlorfenvinphos	23.28	323,267,269	0.375
chloroneb	11.71	191,193,206	0.125	tolylfluanide	23.57	238,240,137	3
tecnazene	13.35	261,203,215	0.25	butachlor	23.86	176,160,188	0.25
ethoprophos	14.42	158,200,242,168	0.375	chlozolinate	24.08	259,188,331	0.25
cis-diallate	14.57	234,236,128	0.25	iodofenphos	24.25	377,379,250	0.25
propachlor	14.84	120,176,211	0.375	tetrachlorvinphos	24.44	329,331,333	0.375
trans-diallate	15.16	234,236,128	0.25	profenofos	24.66	339,374,297	0.75
trifluralin	15.31	306,264,335	0.25	chlorfenson	25.15	302,175,177	0.25
chlorpropham	15.55	213,171,153	0.25	chloropropylate	25.86	251,253,141	0.125
sulfotep	15.64	322,202,238,266	0.125	flamprop-methyl	26.09	105,77,276	0.125
sulfallate	15.71	188,116,148	0.25	nitrofen	26.16	283,253,202,139	0.75
profluralin	17.45	318,304,347	0.5	oxyfluorfen	26.37	252,361,300	0.5
dioxathion	17.58	270,197,169	0.5	chlorthiophos	26.53	325,360,297	0.375
propazine	17.76	214,229,172	0.125	endosulfan -2	26.69	241,265,339	0.75
chlorbufam	17.97	223,153,164	0.25	flamprop-isopropyl	26.87	105,276,363	0.125
dicloran	18	206,176,160	0.25	carbofenothion	27.21	157,342,199	0.25
flufenoxuron	18.88	305,126,307	0.375	benalaxyl	27.61	148,206,325	0.125
cyanophos	19	243,180,148	0.25	edifenphos	28.02	173,310,201	0.25
dimethachlor	19.9	213,198,171	0.375	cyanofenphos	28.66	157,169,303	0.125
alachlor	20.08	188,237,269	0.375	edosulfan-sulfate	29.23	387,272,389	0.375
terbutryn	20.61	226,241,185	0.25	bromopropylate	29.32	341,183,339	0.25
aspon	20.8	211,253,378	0.25	benzoylprop-ethyl	29.54	292,365,260	0.375
dicofol	21.22	139,141,250,251	0.25	leptophos	30.09	377,375,379	0.25
metolachlor	21.37	238,162,240	0.125	EPN	30.22	157,169,323	0.5
pirimiphos-ethyl	21.55	333,318,304	0.25	phosalone	31.41	182,367,154	0.25
methoprene	21.58	73,191,153	0.5	azinphos-methyl	31.58	160,132,77	0.75
bromofos	21.64	331,329,213	0.25	fenarimol	31.77	139,219,330	0.25
dichlofluanid	21.8	224,226,167	6	azinphos-ethyl	32.3	160,132,77	0.25
ethofumesate	22.11	207,161,286	0.25	coumaphos	34.28	362,226,364,334	0.75

isopropalin	22.27	280,238,222	0.25	fluvalinate	37.87	250,252,181	1.5
C							
biphenyl	8.85	154,153,152	0.125	tetraconazole	23.96	336,338,171	0.375
vernolate	9.74	128,146,203	0.125	flumetrailin	24.33	143,157,404	0.25
3,5-dichloroaniline	11.33	161,163,126	1	pretilachlor	24.86	162,238,262	0.25
molinate	11.87	126,187,158	0.125	kresoxim-methyl	25.14	116,206,131	0.125
benfluralin	15.41	292,264,276	0.125	fluazifop-butyl	25.41	282,383,254	0.125
triallate	17.01	268,270,143	0.25	chlorobenzilate	26.04	321,323,356	0.375
pyrimethanil	17.25	198,199,200	0.125	diniconazole	27.39	268,270,232	0.375
disulfoton	17.73	88,274,186	0.125	piperonyl butoxide	27.52	176,177,149	0.125
iprobenfos	18.66	204,246,288	0.375	propargite	28.03	135,350,173	0.25
isazofos	18.8	161,257,285,313	0.25	mepronil	28.28	119,269,120	0.125
plifenate	18.85	217,175,242	0.25	diflufenican	28.64	266,394,267	0.125
transfluthrin	19.12	163,165,335	0.125	fenazaquin	29.01	145,160,117	0.125
fluchloralin	19.3	306,326,264	0.5	fludioxonil	29.47	248,127,154	0.125
propisochlor	20.06	162,223,146	0.125	fenoxycarb	29.91	255,186,116	0.75
ametryn	20.26	227,212,185	0.375	anilofos	30.98	226,184,334	0.25
dipropetrvn	20.95	255,240,222	0.125	acrinathrin	31.36	181,289,247	0.25
diethofencarb	21.66	267,225,151	0.75	mefenacet	31.3	192,120,136	0.375
dimepiperate	22.36	119,145,263	0.25	permethrin	31.69	183,184,255	0.25
bioallethrin-1	22.43	123,136,107	0.5	pyridaben	32.11	147,117,364	0.125
bioallethrin-2	22.43	123,136,107	0.5	fluoroglycofen-ethyl	32.58	447,428,449	1.5
fenson	22.77	141,268,77	0.125	etofenprox	33.22	163,376,183	0.125
chlorthion	23.2	297,267,299	0.25	flucythrinate	35.12	199,157,451	0.25
prallethrin	23.3	123,105,134	0.375	flumioxazin	38.83	354,287,259	0.25
mecarbam	23.79	131,296,329	0.5	flumiclorac-pentyl	40.8	423,308,318	0.25
D							
pentachlorobenzene	10.74	250,252,215	0.125	cyprodinil	21.85	224,225,210	0.125
BDMC-1	13.31	200,202,201	0.25	DEP-PCB 101	22.37	326,254,291	0.125
chlorfenprop-methyl	13.57	165,196,197	0.125	dicapthon	22.65	262,263,216	0.625
2,3,5,6-tetrachloroaniline	14.03	231,229,158	0.125	MCPA-butoxyethyl ester	22.66	300,200,182	0.125

thionazin	14.13	143,192,220	0.25	chlorfenethol	23.37	251,253,266	0.125
pentachloroanisole	14.86	280,265,237	0.125	trans-nonachlor	23.46	409,407,411	0.125
tebutam	15.32	190,106,142	0.25	phorate sulfone	23.65	199,171,215	0.125
dioxabenzofos	16.29	216,201,171	1.25	DEF	24.11	202,226,258	0.25
trietazine	17.58	200,229,214	0.125	bromfenvinfos	24.79	267,323,295	0.125
DE-PCB 28	17.92	256,186,258	0.125	DE-PCB 118	24.85	326,254,184	0.125
DE-PCB 31	17.92	256,186,258	0.125	ditalimfos	24.99	130,148,299	0.125
musk ambrette	18.72	253,268,223	0.125	4,4-dibromobenzophenone	25.25	340,259,185	0.125
musk xylene	18.67	282,297,128	0.125	DE-PCB 153	25.39	360,290,218	0.125
pentachloroaniline	18.73	265,263,230	0.125	DE-PCB 138	26.16	360,290,218	0.125
aziprotryne	19.27	199,184,157	1	diclobutrazol	26.24	270,272,159	0.5
DE-PCB 52	19.24	292,220,255	0.125	disulfoton sulfone	26.75	213,229,185	0.25
sebutylazine	19.42	200,214,229	0.125	resmethrin-1	27.2	171,143,338	2
prosulfocarb	19.46	251,252,162	0.125	resmethrin-2	27.37	171,143,338	2
dimethenamid	19.69	154,230,203	0.125	phthalic acid, benzyl butyl ester	27.68	206,312,230	0.125
BDMC-2	19.87	200,202,201	0.25	fluroxypr-1-methylheptyl ester	28.61	366,254,237	0.125
monalide	20.29	197,199,239	0.25	triphenyl phosphate	28.79	326,233,215	0.125
isobenzan	20.28	311,375,412	0.125	DE-PCB 180	28.85	394,324,359	0.125
isomethiozin	21.07	225,198,184	0.25	fenthion sulfone	29.04	310,136,231	0.5
dacthal	21.2	301,332,221	0.125	tebufenpyrad	29.05	318,333,276	0.125
4,4-dichlorobenzophenone	21.22	250,252,215	0.125	nitralin	31.41	316,274,300	1.25
nitrothal-isopropyl	21.85	236,254,212	0.25	fenpiclonil	33.14	236,238,174	0.5
musk ketone	21.86	279,294,128	0.125	fluquinconazole	33.11	340,342,341	0.125
rabenzazole	21.84	212,170,195	0.125	fenbuconazole	36.23	129,198,125	0.25
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dibutyl succinate	12.09	101,157,175	0.25	isoprothiolane	25.7	290,231,204	0.25
chlorethoxyfos	13.26	153,125,301	0.25	cyflufenamid	25.79	91,412,294	2
cadusafos	15.03	159,213,270	0.5	isoxathion	26.32	313,105,177	1
fenpyroximate	17.36	213,142,198	1	diofenolan	26.92	186,300,225	0.25
tebupirimfos	17.4	318,261,234	0.25	chlrofenapyr	27.38	247,328,408	1

propyzamide	18.85	173,255,240	0.25	trifloxystroibin	27.48	116,131,222	0.5
benoxacor	19.46	173,255,240	0.25	fipronil	28.17	367,369,351	1
acetochlor	19.66	146,162,223	0.25	pyraflufen ethyl	28.71	412,349,339	0.25
tridiphane	19.72	187,219,219,173	0.5	pyributicarb	28.65	165,181,108	0.25
terbucarb	19.88	205,220,206	0.25	mefenpyr-diethyl	29.36	227,299,372	0.375
esprocarb	19.82	222,265,162	0.25	etoxazole	29.45	300,330,359	0.75
acibenzolar-S-Methyl	20.3	182,135,153	0.25	famphur	29.66	218,125,217	0.5
benfuresate	20.53	163,256,121	0.25	pyriproxyfen	29.88	136,226,185	0.25
dithiopyr	20.58	354,306,286	0.125	piperophos	30.26	320,140,122	0.375
chlorthal-dimethyl	21.19	301,332,221	0.25	bifenazate	30.24	300,258,199	1
thiazopyr	21.71	327,363,381	0.25	iprodione	30.38	187,244,246	0.5
dimethylvinphos	22.05	295,297,109	0.25	fenamidone	30.52	268,238,206	0.125
butralin	22.04	266,224,295	0.5	pyraclofos	31.97	132,325,283	1
allethrin-1	22.41	123,107,136	0.5	pyraclostrobin	31.97	132,325,283	3
allethrin-2	22.41	123,107,136	0.5	lactofen	32	442,461,346	1
methothrin-1	22.97	123,135,104	0.25	tralkoxydim	32.15	283,226,268	1
methothrin-2	22.97	123,135,104	0.25	dialifos	32.28	186,357,210	4
flufenacet	22.9	151,211,363	1	spirodiclofen	32.53	312,259,277	1
picoxystrobin	24.77	335,303,367	0.25	halfenprox	32.74	263,237,476	0.25
butamifos	25.23	286,200,232	0.125	silafluofen	33.57	287,286,258	0.125
metominostrobin-1	25.46	191,238,196	0.5	pyrimidifen	34.39	184,186,185	0.25
TCMTB	25.43	180,238,136	2	butafenacil	34.77	331,333,180	0.125
				F			
fenobucarb	14.82	121,150,107	0.25	fenitrothion	21.78	277,260,247	0.25
phorate	15.39	260,121,231,153	0.125	parathion	22.47	291,186,235,263	0.5
Alpha-HCH	16.01	219,183,221,254	0.125	quinalphos	23.06	146,298,157	0.125
Quintozene	16.48	295,237,249	0.25	2-4'-DDE	23.68	246,318,176,248	0.125
hexaflumuron	16.54	176,279,277	0.75	captan	24.37	149,264,236	2
gamma-HCH	17.58	183,219,254,221	0.25	methidathion	24.59	145,157,302	0.25
Beta-HCH	17.58	219,217,181	0.125	2,4'-DDD	25.3	235,237,165,199	0.125
heptachlor	18.26	272,237,337	0.375	4,4'-DDD	26.53	235,237,199,165	0.125
phosphamidon	19.22	264,138,227	1	4,4'-DDT	27.08	235,237,246,165	0.25

aldrin	19.22	263,265,293	0.25	triazophos	28.49	161,172,257	0.375
chlorpyrifos-methyl	19.29	286,288,197	0.125	bifenthrin	28.47	181,166,165	0.125
pirimiphos-methyl	20.25	290,276,305	0.125	fenpropathrin	29.65	265,181,349	0.25
epsilon-HCH	20.58	181,219,254,217	0.25	lambda-cyhalothrin	31.39	181,197,141	0.125
chlorpyrifos	20.83	314,258,286	0.125	cis-permethrin	31.36	183,184,255	0.125
methyl-parathion	20.98	263,233,246,200	0.5	trans-permethrin	31.68	183,184,255	0.125
Delta-HCH	21.36	219,217,181,254	0.25	fenvalerate	36.3	167,225,419,181	0.5
fenthion	21.49	278,169,153	0.125	deltamethrin	38.89	181,172,174	0.75
malathion	21.66	173,158,143	0.5				

Table S2. Linearity, average recovery, intra-day repeatability, enrichment factor (EF), LODs and LOQs obtained with the DLLME method in spiked surface water (304 kinds of pesticide residues and related chemicals residues). The concentrations of spiked level A are given in Appendix Table 1. Spiked levels B and C are 5 and 10 times of level A.

Pesticides	Linearity (r2, μg/L)	Spiked level A			Spiked level B			Spiked level C			LOD (μg/L)	LOQ (μg/L)
		Recovery	Intra-day (% RSD)	EF	Recovery	Intra-day (% RSD)	EF	Recovery	Intra-day (% RSD)	EF		
A												
dichlormid	0.9988(0.05-2.5)	21.9	12.4	44	23.9	11	48	23.1	6.9	46	0.026	0.085
etridiazol	0.9998(0.075-3.75)	70.2	15.5	140	85.6	8.7	171	72.4	9.2	145	0.025	0.085
chlormephos	0.9997(0.05-2.5)	71.7	14.9	143	80.9	9.4	162	80.3	7.5	161	0.016	0.052
cycloate	0.9994(0.0625-1.25)	77.8	19.3	156	94.6	9.5	189	87.8	8.1	176	0.003	0.008
diphenylamine	0.9998(0.025-1.25)	96.4	21.4	193	103.5	10.8	207	71.1	13.2	142	0.009	0.03
ethalfluralin	0.9918(0.1-5)	71.3	21	143	66.4	9.7	133	118.5	8.6	237	0.018	0.060
clomazone	0.9998(0.025-1.25)	56.2	17.6	112	53	15.8	106	52.3	9.7	105	0.005	0.018
diazinon	0.9953(0.025-1.25)	102.1	20.8	204	73.8	17.5	148	103	9.1	206	0.009	0.03
fonofos	0.9961(0.025-1.25)	91.6	17.9	183	84.8	11.2	170	98.4	8.7	197	0.007	0.023
etrimfos	0.9914(0.025-1.25)	93.1	25.7	186	74.3	11.2	149	87.4	9.8	175	0.004	0.012
propetamphos	0.9965(0.025-1.25)	81.6	14.2	163	74	18.9	148	105.2	10.1	210	0.007	0.022
mexacarbate	0.9998(0.075-3.75)	72.5	29.8	145	69.5	16.1	139	50.9	12	102	0.017	0.057
dinitramine	0.9905(0.1-5)	83.5	16.3	167	82.3	13.3	165	121.3	10.3	243	0.013	0.045
ronnel	0.9993(0.05-2.5)	91.1	23.1	182	96	7.5	192	84.2	7.1	168	0.009	0.030
prometryne	0.9926(0.025-1.25)	122.6	39.2	245	63.8	16.5	128	73.3	10.2	147	0.032	0.106
vinclozolin	0.9999(0.025-1.25)	87.3	18.2	175	101	4.7	202	86.5	8	173	0.008	0.025
anthraquinone	0.9993(0.025-1.25)	—	—	—	117.6	5.4	235	56.7	12.8	113	0.05	0.166
triadimefon	0.9963(0.05-2.5)	85.6	15.7	171	61.7	15.5	123	33.7	13.9	67	0.012	0.041
pendimethalin	0.9925(0.1-5)	72.6	18.2	145	72.1	12.6	144	86.2	8.6	172	0.018	0.060
linuron	0.9994(0.1-5)	66.6	15.2	133	52.8	17.5	106	20.8	33.3	42	0.037	0.123
chlorbenside	0.9999(0.05-2.5)	87.3	26.6	175	96	7.4	192	61.5	5.4	123	0.027	0.09
bromophos-ethyl	0.9978(0.025-1.25)	63.2	32.1	126	79.9	10.9	160	85.1	6.8	170	0.003	0.012
phenthoate	0.9933(0.05-2.5)	75.2	44.1	150	102.4	14.4	205	101.4	9.7	203	0.012	0.040
metazachlor	0.9988(0.075-3.75)	73.7	21.7	147	37.8	13.2	76	40.5	15.8	81	0.104	0.346
fenothiocarb	0.9993(0.05-2.5)	92.4	24.5	185	109.5	11.7	219	73.3	10	147	0.015	0.049
prothiophos	0.9946(0.025-1.25)	87.1	31.6	174	84.2	17	168	84.1	8.6	168	0.036	0.12

procymidone	0.9995(0.025-1.25)	95	16.7	190	102.8	4.9	206	77.5	7.5	155	0.011	0.038
napropamide	0.9997(0.375-3.75)	—	—	—	74.3	13.5	149	64.2	13.6	128	0.156	0.521
oxadiazone	0.9999(0.025-1.25)	76.9	19.7	154	104.7	5.1	209	85.2	6.3	170	0.005	0.017
tetrasul	0.9984(0.025-1.25)	92.5	44	185	85.2	10.7	170	60	7.2	120	0.004	0.012
aramite	0.9987(0.025-1.25)	148.4	49.8	297	87.1	16.1	174	117.1	8.6	234	0.036	0.119
bupirimate	0.9981(0.0625-1.25)	103.8	31.3	208	100.7	23.5	201	110.8	11.5	222	0.013	0.042
carboxin	0.9968(0.6-30)	29.2	28.2	58	26	11.1	52	21.2	5.8	42	0.086	0.286
flutolanil	0.9982(0.025-1.25)	67.4	14.9	135	91	18.3	182	84.8	9.7	170	0.007	0.024
ethion	0.9967(0.05-2.5)	64.9	23.4	130	68.7	16.4	137	103	9.6	206	0.022	0.073
sulprofos	0.9923(0.05-2.5)	50.4	25.9	101	75.8	16.4	152	93	7	186	0.065	0.217
diclofop-methyl	0.9993(0.125-1.25)	82.2	13.1	164	131.2	19.8	262	96.7	15.3	193	0.037	0.123
mirex	0.9977(0.025-1.25)	58.9	30.5	118	69.6	10.6	139	62.3	15.9	125	0.005	0.017
benodanil	0.9935(0.075-3.75)	51.5	19.8	103	99.4	22.9	199	36.9	14.2	74	0.041	0.136
nuarimol	0.9975(0.25-2.5)	74.5	22	149	51	29.8	102	50.6	16.7	101	0.063	0.208
methoxychlor	0.9934(0.2-10)	89.9	27	180	103.1	8.9	206	65.4	12.2	131	0.012	0.040
tetramethirn	0.9949(0.05-2.5)	103.7	22.8	207	116	25.6	232	86.2	16.1	172	0.012	0.04
phosmet	0.9909(0.05-2.5)	96.5	18.6	193	143.1	24.8	286	60.2	15.8	120	0.008	0.028
tetradifon	0.9995(0.025-1.25)	92.9	30.5	186	117.2	9	234	80.9	15.3	162	0.006	0.021
pyrazophos	0.9929(0.05-2.5)	111.9	11.9	224	109.5	14.1	219	90.7	16	181	0.011	0.038
					B							
EPTC	0.9957(0.075-3.75)	61.3	15.3	123	69.7	11	139	67.3	8.3	135	0.018	0.060
butylate	0.9962(0.075-3.75)	61.6	19.6	123	71.3	9.8	143	73.3	8.8	147	0.012	0.040
dichlorbenil	0.9989(0.005-0.25)	49.1	18.5	98	77.2	16.5	154	46.9	13.8	94	0.003	0.009
pebulate	0.9951(0.075-3.75)	63	18.8	126	71.2	9.6	142	71.7	9.4	143	0.016	0.053
chloroneb	0.9953(0.025-1.25)	60.4	11.2	121	106.3	12.9	213	51.4	10.8	103	0.006	0.020
tecnazene	0.9997(0.05-2.5)	63.2	20.8	126	67.3	6.6	135	92.3	8.4	185	0.009	0.031
ethoprophos	0.9991(0.075-3.75)	98.1	17.8	196	76.1	14.6	152	49.5	17	99	0.053	0.177
cis-diallate	0.9961(0.05-2.5)	68.9	27.3	138	68.3	6	137	90.8	10.3	182	0.008	0.026
propachlor	0.9973(0.075-3.75)	28.2	12	56	27.5	10.1	55	29	10.9	58	0.023	0.078
trans-diallate	0.9924(0.05-2.5)	64.5	23.7	129	61.6	5.2	123	83.5	9.7	167	0.021	0.069
trifluralin	0.9995(0.05-2.5)	52.5	30.2	105	44.2	13.5	88	93.2	13.9	186	0.008	0.027
chlorpropham	0.9974(0.05-2.5)	59.8	18.1	120	52.8	6.2	106	68.6	15.2	137	0.049	0.162
sulfotep	0.9973(0.025-1.25)	66.6	20.4	133	46.1	35.4	92	90.6	14.2	181	0.011	0.037
sulfallate	0.9995(0.05-2.5)	60.9	17.8	122	55.5	9.7	111	90.3	6.9	181	0.014	0.047
profluralin	0.9917(0.1-5)	52.5	32.5	105	42.8	15	86	79.5	17	159	0.008	0.027
dioxathion	0.9987(0.25-5)	49.2	30.4	98	48.2	17.1	96	83	17.5	166	0.113	0.376

propazine	0.9982(0.0625-1.25)	33.2	15.1	66	27.3	7.8	55	36.3	9.7	73	0.033	0.111
chlorbufam	0.9994(0.25-2.5)	68.9	14.3	138	41.6	12.6	83	74.7	9.9	149	0.063	0.208
dicloran	0.9977(0.125-2.5)	43.1	17.6	86	32.3	6.9	65	39.6	12.5	79	0.042	0.139
flufenoxuron	0.9982(0.375-3.75)	—	—	—	49.3	23.2	99	94.8	18.2	190	0.26	0.865
cyanophos	0.9993(0.05-2.5)	50.9	18.5	102	41.1	13.4	82	63.2	19.1	126	0.007	0.024
dimethachlor	0.9994(0.075-3.75)	29.1	14.7	58	23.6	7	47	30.7	12.6	61	0.013	0.043
alachlor	0.9987(0.075-3.75)	59.3	20.1	119	57.6	5.4	115	67.1	11.3	134	0.012	0.039
terbutryn	0.9929(0.05-2.5)	57.8	16.1	116	40.1	34.2	80	54.9	12.6	110	0.015	0.051
aspon	0.9989(0.05-2.5)	52.2	28.6	104	23.5	26.5	47	65	21.7	130	0.005	0.015
dicofol	0.9989(0.05-2.5)	62.2	30.7	124	88.1	21.3	176	69.9	10.8	140	0.016	0.055
metolachlor	0.9992(0.025-1.25)	64.8	17.9	130	52.5	9.6	105	77	13.3	154	0.007	0.024
pirimiphos-ethyl	0.9955(0.05-2.5)	61.8	34	124	66	23.2	132	80.6	13.8	161	0.026	0.086
methoprene	0.9955(0.25-5)	54.9	35.5	110	26.7	43.8	53	69	20.5	138	0.046	0.153
bromofos	0.9988(0.05-2.5)	57.1	33	114	52.9	12.8	106	67.6	10.7	135	0.004	0.014
dichlofluanid	0.999(1.2-60)	59.9	25.3	120	67.5	11.6	135	66.8	9.1	134	0.048	0.160
ethofumesate	0.9993(0.05-2.5)	79.1	4.8	158	62.2	5.1	124	64.6	12	129	0.006	0.020
isopropalin	0.9934(0.05-2.5)	53.7	30.2	107	36.1	20.6	72	83.7	22.1	167	0.009	0.029
endosulfan-1	0.999(0.15-7.5)	74.6	49	149	75.2	11.8	150	67.5	10.1	135	0.026	0.087
propanil	0.9994(0.05-2.5)	33.4	36.1	67	22.5	9.7	45	26.4	15.2	53	0.023	0.077
isofenphos	0.9973(0.05-2.5)	69.1	24.5	138	69.8	22.7	140	91.3	16	183	0.009	0.032
chlorfenvinphos	0.9918(0.188-3.75)	96.4	28.7	193	38.8	25.8	78	70.1	21.1	140	0.069	0.231
tolylfluanide	0.9979(0.6-30)	66.3	36.6	133	66.5	8.6	133	72.1	8.8	144	0.024	0.080
butachlor	0.9991(0.05-2.5)	68.5	21.3	137	59.1	21.1	118	94.3	11.8	189	0.01	0.035
chlozolinate	0.9997(0.05-2.5)	73	25	146	67.7	8.9	135	71.2	8.1	142	0.01	0.034
iodofenphos	0.9974(0.05-2.5)	68.8	30.6	138	50.3	38.2	101	83.9	15.6	168	0.007	0.024
tetrachlorvinphos	0.9925(0.075-3.75)	97.8	21.8	196	46.1	18.4	92	49	18.1	98	0.017	0.056
profenofos	0.9928(0.15-7.5)	83.3	30	167	49.7	15.4	99	60.7	24.4	121	0.069	0.229
chlorfenson	0.9997(0.05-2.5)	69.1	27.5	138	68.9	8.2	138	60.2	9.7	120	0.009	0.03
chloropropylate	0.993(0.0625-1.25)	76.6	27.6	153	38.9	35.5	78	83.1	25.2	166	0.027	0.091
flamprop-methyl	0.9995(0.025-1.25)	64.2	24.1	128	53.1	8.1	106	71.3	13.3	143	0.008	0.026
nitrofen	0.9994(0.75-7.5)	64.5	31.4	129	49.6	14.8	99	73.4	16	147	0.175	0.584
oxyfluorfen	0.9986(0.1-5)	55.5	31.2	111	38.4	18.6	77	79.9	22.4	160	0.063	0.208

chlorthiophos	0.9904(0.375-3.75)	—	—	—	71	22.6	142	75	19.3	150	0.129	0.43
endosulfan -2	0.9989(0.15-7.5)	61.1	28.6	122	71.5	11.2	143	67.4	12	135	0.055	0.183
flamprop-isopropyl	0.9987(0.0625-1.25)	75.4	31.1	151	51.4	16.6	103	84.6	12.1	169	0.007	0.022
carbofenothion	0.993(0.125-2.5)	68	29.6	136	69.6	20.9	139	84.9	27.8	170	0.019	0.065
benalaxyl	0.9977(0.025-1.25)	61.1	41.1	122	91	16.9	182	61.2	19	122	0.007	0.024
edifenphos	0.992(0.05-2.5)	74.9	17.3	150	74.4	18.5	149	60.2	34.5	120	0.023	0.078
cyanofenphos	0.9963(0.0625-1.25)	75.3	27.7	151	79.3	18.6	159	90.9	12.5	182	0.012	0.04
edosulfan-sulfate	0.9999(0.075-3.75)	67	26.1	134	69.6	7.3	139	70.8	8.2	142	0.031	0.102
bromopropylate	0.9956(0.125-2.5)	72.5	31.4	145	59.4	52.3	119	88	22.2	176	0.021	0.07
benzoylprop-ethyl	0.9984(0.188-3.75)	92.8	32.8	186	61.7	10.2	123	79.3	7.4	159	0.027	0.091
leptophos	0.9991(0.05-2.5)	70.3	37.9	141	73.6	29.5	147	77.9	17.9	156	0.022	0.074
EPN	0.9914(0.1-5)	67.2	29.1	134	48.2	17.1	96	106.5	17	213	0.048	0.16
phosalone	0.997(0.05-2.5)	73	20.2	146	74.2	16.5	148	91.1	19.7	182	0.034	0.114
azinphos-methyl	0.9912(0.15-7.5)	63.5	18.5	127	61.8	22.9	124	50.6	29.2	101	0.064	0.213
fenarimol	0.9995(0.125-2.5)	63.1	23.2	126	63	23.3	126	63.6	15.8	127	0.041	0.138
azinphos-ethyl	1(0.125-2.5)	67.3	19.8	135	41	33.9	82	79.8	18.2	160	0.034	0.115
coumaphos	0.9994(0.15-7.5)	70.7	16.2	141	70.9	15.6	142	81.6	22.3	163	0.035	0.117
fluvalinate	0.9989(0.75-15)	49.5	26.7	99	43	38.6	86	79.8	8.3	160	0.095	0.317
					C							
biphenyl	0.9933(0.025-1.25)	121.1	5.2	242	94.4	7.7	189	65.2	3.5	130	0.004	0.012
vernolate	0.9965(0.025-1.25)	129	5.8	258	100.1	7.7	200	89.9	8.6	180	0.007	0.022
3,5-dichloroaniline	0.9983(0.5-10)	50.6	30.1	101	26.8	17.4	54	29.4	16.1	59	0.076	0.254
molinate	0.9975(0.025-1.25)	98.6	8.6	197	75.4	9.6	151	67.4	9.1	135	0.01	0.033
benfluralin	0.9987(0.025-1.25)	87.7	19.6	175	95.6	9.8	191	133.7	1.9	267	0.006	0.020
triallate	0.9988(0.05-2.5)	107.2	11.1	214	101.1	8.4	202	93.6	7.1	187	0.007	0.024
pyrimethanil	0.9972(0.0625-1.25)	64.6	7.8	129	47.1	13	94	49.2	11.8	98	0.013	0.042
disulfoton	0.9975(0.025-1.25)	106.3	6.3	213	111.1	9.3	222	122.7	11.4	245	0.002	0.007
iprobenfos	0.9951(0.1875-3.75)	142.3	15.6	285	80.1	36.2	160	110.6	15.2	221	0.072	0.24
isazofos	0.9955(0.25-2.5)	113.7	5.2	227	100	12.3	200	107.8	10.8	216	0.027	0.091
plifenate	0.9996(0.05-2.5)	123	13.2	246	106.7	8.9	213	92	11.4	184	0.021	0.07
transfluthrin	0.9995(0.025-1.25)	93.8	28.4	188	93.6	12.8	187	75.4	3.8	151	0.008	0.028

fluchloralin	0.9978(0.1-5)	118.4	13.5	237	109.3	10.4	219	107.4	5.9	215	0.008	0.028
propisochlor	0.9987(0.025-1.25)	116.2	5	232	98.2	10.2	196	82.6	6.6	165	0.0004	0.001
ametryn	0.9991(0.15-3.75)	44.7	27.3	89	40.5	16.8	81	45.2	13.4	90	0.109	0.363
dipropetrvn	0.9992(0.125-1.25)	84.9	24	170	87.1	15.3	174	96.8	10.6	194	0.014	0.045
diethofencarb	0.9992(0.15-7.5)	66.4	61	133	56.3	16.7	113	72.7	13.9	145	0.176	0.586
dimepiperate	0.9976(0.25-2.5)	121	24	242	100.8	19.3	202	104.1	13.6	208	0.022	0.073
bioallethrin-1	0.9913(0.25-5)	100.8	31.3	202	106.9	12.7	214	107	3.1	214	0.091	0.303
bioallethrin-2	0.9913(0.25-5)	104.7	31.7	209	106.9	12.7	214	107	3.1	214	0.091	0.303
fenson	0.9978(0.025-1.25)	127	16.2	254	108.2	8.6	216	89.5	13.2	179	0.003	0.01
chlorthion	1(0.25-2.5)	136.8	15.6	273.6	107.7	6.7	215	132.8	13.8	266	0.083	0.278
prallethrin	0.9998(0.375-3.75)	118.2	11.9	236	137.3	17.7	275	136.8	10.5	274	0.026	0.087
mecarbam	0.9998(0.5-5)	146.3	13.3	293	108.2	14.7	216	97.2	10.8	194	0.034	0.113
tetraconazole	0.9945(0.375-3.75)	—	—	—	77.5	23.4	155	76.3	14.9	153	0.180	0.599
flumetrailin	0.9923(0.05-2.5)	101.5	30.5	203	93.5	12.8	187	87.2	4.7	174	0.023	0.078
pretilachlor	0.9998(0.05-2.5)	130.9	9.6	262	118.4	13.3	237	98.6	9.6	197	0.004	0.013
kresoxim-methyl	0.9959(0.025-1.25)	94.5	13.3	189	111.4	12.1	223	108.3	16.3	217	0.008	0.025
fluazifop-butyl	0.9998(0.0625-1.25)	92.3	18.4	185	112.3	10.5	225	132.3	11.1	265	0.01	0.035
chlorobenzilate	0.9989(0.15-3.75)	100.1	22.1	200.2	122	10.3	244	120.7	16.8	241	0.142	0.473
diniconazole	1(0.1875-3.75)	73.2	19	146.4	86.1	22	172	108.7	17	217	0.04	0.134
piperonyl butoxide	0.9992(0.125-1.25)	117.9	39.6	236	111.4	17.1	223	113.5	14.5	227	0.032	0.107
propargite	0.9959(0.25-2.5)	110.2	33	220	110.5	11	221	135.7	14.7	271	0.041	0.136
mepronil	0.9984(0.0625-1.25)	133.2	20.1	266	108.1	20.5	216	119	19.3	238	0.009	0.031
diflufenican	0.9981(0.0625-1.25)	115.8	16.6	232	142.2	11.6	284	132.6	15.2	265	0.009	0.031
fenazaquin	0.9991(0.0625-1.25)	92.1	21.3	184.2	104.8	30.6	210	116.5	22.4	233	0.021	0.07
fludioxonil	0.9994(0.05-1.25)	79.3	16.5	158.6	99.4	14.2	199	85.3	12.3	171	0.057	0.189
fenoxycarb	0.9966(0.15-7.5)	65.3	28.5	130.6	144	20.8	288	65.6	22.7	131	0.032	0.106
anilofos	0.9995(0.25-2.5)	—	—	—	128.8	24.3	258	119.6	11.7	239	0.173	0.577
acrinathrin	0.9996(0.25-2.5)	—	—	—	83.4	31.9	167	148.2	29.7	296	0.154	0.513
mefenacet	0.9954(0.1875-3.75)	79.4	19.2	158.8	91.4	36.2	183	92.5	22.7	185	0.078	0.261
permethrin	0.9994(0.125-2.5)	70.1	16.5	140	116.4	26.4	233	121.4	14	243	0.022	0.073
pyridaben	0.9976(0.125-1.25)	—	—	—	117.9	19.6	236	138.1	24.4	276	0.085	0.284
fluoroglycofen-ethyl	0.9979(1.5-15)	132.7	22.8	265	98.1	12.9	196	121	18.6	242	0.124	0.413
etofenprox	0.999(0.125-1.25)	68.3	37.8	137	134.5	33.9	269	132.1	21	264	0.033	0.11

flucythrinate	0.9978(0.625-2.5)	—	—	—	89.2	25.8	178	89.7	19.2	178	0.15	0.5
flumioxazin	0.9936(0.625-2.5)	—	—	—	82.5	17.5	165	98.8	9.6	198	0.25	0.833
flumiclorac-pentyl	0.9958(0.625-2.5)	—	—	—	111.7	22	223	109.8	15.5	220	0.214	0.714
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pentachlorobenzene	0.9958(0.025-1.25)	80.9	17.5	162	88.6	6	177	105.3	11.6	211	0.004	0.013
BDMC-1	0.9938(0.25-2.5)	—	—	—	79.6	13.8	159	88.2	15.2	176	0.15	0.5
chlorfenprop-methyl	0.9981(0.025-1.25)	87.5	14	175	107.2	9.6	214	104.2	13.4	208	0.006	0.02
2,3,5,6-tetrachloroaniline	0.9968(0.025-1.25)	84.6	11.8	169	108.2	9.4	216	108.6	11.2	217	0.003	0.01
thionazin	0.9934(0.125-2.5)	85	35.7	170	62	14.8	124	79.8	19.1	160	0.034	0.112
pentachloroanisole	0.9951(0.025-1.25)	81.3	14.4	163	104.6	10.1	209	118.4	10.8	237	0.002	0.007
tebutam	0.9996(0.05-2.5)	79.5	9.8	159	85	10.7	170	87.3	15.2	175	0.006	0.021
dioxabenzofos	0.9995(0.25-12.5)	71	13.9	142	83.1	12.3	166	87.6	15	175	0.012	0.040
trietazine	0.999(0.025-1.25)	70	11.2	140	74.7	13.1	149	80	14.2	160	0.003	0.011
DE-PCB 28	0.9981(0.025-1.25)	76.9	16	154	95.6	4.8	191	82.1	8.7	164	0.005	0.016
DE-PCB 31	0.9981(0.025-1.25)	76.9	16	154	95.6	4.8	191	82.1	8.7	164	0.002	0.007
musk ambrette	0.9983(0.025-1.25)	87.5	12.7	175	103.9	13.8	208	119.7	9.7	239	0.011	0.038
musk xylene	0.9991(0.025-1.25)	81	12	162	95.2	12.2	190	110.7	9.7	221	0.013	0.042
pentachloroaniline	0.9996(0.025-1.25)	85.9	12	172	108.2	7.8	216	106	10.7	212	0.005	0.017
aziprotryne	0.995(0.2-10)	75	14.5	150	48	22.9	96	80.2	34	160	0.091	0.304
sebutylazine	0.9962(0.025-1.25)	41.9	12.7	84	42.2	14.7	84	48.5	13.1	97	0.009	0.029
DE-PCB 52	0.9978(0.025-1.25)	74.7	16.6	149	92.2	4.2	184	101.8	8.3	204	0.002	0.006
prosulfocarb	0.9971(0.025-1.25)	103.4	11.8	207	107.8	9.7	216	108.8	11.7	218	0.005	0.016
dimethenamid	0.9997(0.025-1.25)	67.8	9.8	136	69.2	12.3	138	66.9	15.7	134	0.006	0.018
BDMC-2	0.9988(0.05-2.5)	66.7	12.3	133	64.7	13.7	129	44.9	24.4	90	0.023	0.077
monalide	0.9997(0.05-2.5)	90.3	10.4	181	99.8	10	200	92.1	13.9	184	0.023	0.077
isobenzan	0.9996(0.025-1.25)	78.9	13.9	158	90.9	6.5	182	110.4	9	221	0.011	0.037
isomethiozin	0.9917(0.05-2.5)	97.8	14.6	196	98.8	16.6	198	103.3	13.3	207	0.01	0.032
dacthal	0.9988(0.025-1.25)	92.6	13.5	185	115.3	6.3	231	118.1	10.7	236	0.002	0.006
4,4-dichlorobenzophenone	0.9998(0.025-1.25)	99.6	11.7	199	112.1	7.3	224	83.6	11.5	167	0.011	0.038

nitrothal-isopropyl	0.9964(0.05-2.5)	95.8	18.9	192	95.9	15.1	192	101.4	10.6	203	0.015	0.049
musk ketone	0.9968(0.025-1.25)	95.6	12.2	191	106.5	10.6	213	111.1	10.9	222	0.003	0.009
rabenzazole	0.9972(0.025-1.25)	92.8	13.5	186	93	13.9	186	94.5	10.6	189	0.008	0.025
cyprodinil	0.9975(0.025-1.25)	104.2	13.6	208	106.2	14.5	212	85.1	14.3	170	0.007	0.023
dicapthon	0.998(0.125-6.25)	90.9	13	182	106.2	16.3	212	81.5	11.3	163	0.008	0.026
DEP-PCB 101	0.9983(0.025-1.25)	70.9	19.3	142	88.4	5.9	177	92.9	8.1	186	0.002	0.005
MCPA-butoxyethyl ester	0.9929(0.025-1.25)	116.8	11.2	234	110.9	10.7	222	85	11.1	170	0.006	0.02
phorate sulfone	0.9967(0.025-1.25)	58.1	14.8	116	45.7	15.9	91	57.1	14.7	114	0.014	0.047
chlorfenethol	0.9965(0.025-1.25)	108.4	9.6	217	108.9	13	218	102.8	12.8	206	0.006	0.021
trans-nonachlor	0.9983(0.025-1.25)	69.1	22.6	138	84.2	6.7	168	94.9	8.8	190	0.002	0.007
DEF	0.9968(0.05-2.5)	98.9	26.3	198	78	20.8	156	71.6	20.9	143	0.026	0.087
bromfenvinfos	0.9999(0.025-1.25)	116.2	9.5	232	104.7	15.9	209	47.4	41.3	95	0.013	0.044
ditalimfos	0.9985(0.025-1.25)	99.9	13.8	200	105.6	16.1	211	83.3	12.7	167	0.007	0.022
DE-PCB 118	0.9996(0.025-1.25)	76	23.2	152	91.9	9.1	184	82.4	9.7	165	0.003	0.008
4,4-dibromobenzophenone	0.9977(0.025-1.25)	130.9	8.2	262	120.7	8.1	241	71.9	10.1	144	0.011	0.037
DE-PCB 153	0.9989(0.025-1.25)	70.5	26.9	141	86.7	8.1	173	87.4	10.1	175	0.002	0.005
diclobutrazol	0.9967(0.1-5)	92.1	12.2	184	63.1	20.6	126	36.3	47.6	73	0.013	0.043
disulfoton sulfone	0.9941(0.05-2.5)	53	14.1	106	36.4	18.3	73	43.1	16.2	86	0.013	0.044
DE-PCB 138	0.9993(0.025-1.25)	69.8	28.1	140	84.9	9.2	170	82.7	10.5	165	0.002	0.006
resmethrin-1	0.9985(0.4-20)	117	30.4	234	95.4	56.9	191	76.2	14.3	152	0.058	0.192
resmethrin-2	0.9957(0.4-20)	87.5	30.6	175	74.7	34.9	149	66.1	15.1	132	0.056	0.185
phthalic acid, benzyl butyl ester	0.9944(0.025-1.25)	120.6	10.5	241	115.4	14.9	231	95.2	11.8	190	0.007	0.022
fluroxypr-1-methylheptyl ester	1(0.025-1.25)	108.7	19.9	217	86.3	26.9	173	72.5	17.7	145	0.009	0.028
fenthion sulfone	0.9978(0.1-5)	57.9	11.5	116	39.8	16.7	80	41	18.1	82	0.025	0.085
triphenyl phosphate	0.9966(0.025-1.25)	62.1	27	124	89.5	13.2	179	99.1	32.2	198	0.001	0.005
DE-PCB 180	0.9986(0.025-1.25)	67.4	36.7	135	84	13.9	168	81.6	11.5	163	0.002	0.006
tebufenpyrad	0.9943(0.025-1.25)	98.6	23.3	197	120.4	38.8	241	93.7	14.4	187	0.008	0.025

nitralin	0.9992(0.25-12.5)	86.4	13.5	173	87.7	19.9	175	71.1	12.7	142	0.034	0.114
fenpiclonil	0.991(0.1-5)	76.1	20.5	152	66.3	9.8	133	44.3	13.8	89	0.03	0.1
fluquinconazole	0.9985(0.025-1.25)	124.5	13.5	249	107.3	11.7	215	72.9	12.9	146	0.01	0.032
fenbuconazole	0.9943(0.05-2.5)	79.3	10.3	159	98.5	8.4	197	21.9	43	44	0.019	0.065
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dibutyl succinate	0.9964(0.05-2.5)	80.8	10.3	162	94.2	7.8	188	79.6	9.2	159	0.005	0.015
chlorethoxyfos	0.9988(0.05-2.5)	63	13.1	126	79.1	8.9	158	83.2	4.5	166	0.015	0.049
cadusafos	0.9993(0.1-5)	86	10.6	172	79.9	11.3	160	84	14.6	168	0.043	0.143
fenpyroximate	0.9983(1-10)	49.4	8.1	99	70.7	6.8	141	103	16.2	206	0.147	0.49
tebupirimfos	0.9974(0.05-2.5)	77.7	9.2	155	71.2	17.7	142	92.7	4.9	185	0.003	0.01
propyzamide	0.9995(0.05-2.5)	67.8	9	136	64.5	15.4	129	65.3	8.5	131	0.008	0.028
benoxacor	0.9992(0.05-2.5)	68.5	9.7	137	70.4	12.3	141	68.3	6	137	0.009	0.032
acetochlor	0.9981(0.05-2.5)	81.9	11.2	164	84.4	11.6	169	72.7	6.7	145	0.011	0.035
tridiphane	0.999(0.1-5)	81.4	13.1	163	84.9	12.6	170	84.7	3.4	169	0.015	0.05
terbucarb	0.9979(0.05-2.5)	85.6	10.5	171	90.9	9.3	182	87.6	6.2	175	0.004	0.013
esprocarb	0.9986(0.05-2.5)	87.2	11.8	174	90.4	10.4	181	85.4	4.4	171	0.006	0.020
acibenzolar-S-Methyl	0.9995(0.05-2.5)	69.8	10.9	140	67	11.7	134	45.2	4.5	90	0.019	0.064
benfuresate	0.9964(0.05-2.5)	71.9	10.2	144	74.5	11.2	149	66.4	4	133	0.006	0.019
dithiopyr	0.9978(0.025-1.25)	80.6	12.5	161	75.2	8.4	150	86.6	7.5	173	0.002	0.007
chlorthal-dimethyl	0.9964(0.05-2.5)	87	11.5	174	97.4	9.6	195	83.6	7.3	167	0.004	0.013
thiazopyr	0.9996(0.05-2.5)	83.7	12.4	167	93.7	6.6	187	86.4	5.3	173	0.007	0.022
dimethylvinphos	0.9986(0.05-2.5)	83	28.7	166	56.5	14.7	113	31.4	16.1	63	0.004	0.013
butralin	0.9982(0.1-5)	77.6	9	155	65.1	13.9	130	84.5	6.8	169	0.006	0.020
allethrin-1	0.9964(0.02-1)	101.0	27.9	202	62.6	19.4	125	90.1	6.6	180	0.017	0.056
allethrin-2	0.9995(0.02-1)	90.4	22.2	181	67.2	17.6	134	90.2	6.5	180	0.016	0.054
methothrin-1	0.9983(0.05-2.5)	69.5	23.5	139	71.5	13.9	143	82.6	7.7	165	0.007	0.023
methothrin-2	0.9979(0.05-2.5)	85.2	18.3	170	62.5	15.5	125	85	8.3	170	0.004	0.015
flufenacet	0.9994(0.2-10)	108.8	7.5	218	77.4	12.9	155	59.1	8.2	118	0.024	0.080
picoxystrobin	0.9999(0.05-2.5)	106.1	9.2	212	85.9	10.3	172	87	6.4	174	0.005	0.016
butamifos	0.9978(0.025-1.25)	84.6	12.5	169	82.8	11	166	91.2	5.7	182	0.013	0.042
metominostrobin-1	0.9961(0.1-5)	49.2	8.9	98	32.5	20.8	65	31.5	10.9	63	0.043	0.143

TCMTB	0.9929(0.4-20)	94.1	10.2	188	67.2	20.2	134	35.5	15.1	71	0.132	0.441
isoprothiolane	0.9988(0.05-2.5)	87.9	26.7	175.8	91.8	16.7	184	70.9	6.1	142	0.028	0.094
isoxathion	0.999(0.2-10)	140.6	17	281	89.5	9.8	179	21	22.8	42	0.057	0.189
diofenolan	0.9998(0.05-2.5)	107.1	12.6	214	111.7	14.3	223	81.1	3.1	162	0.016	0.054
chlrofenapyr	0.9995(0.2-10)	71.8	13.4	144	76	8.4	152	85.5	16.1	171	0.1	0.333
trifloxystroibin	0.9966(0.1-5)	80.1	11.2	160	67.7	17.2	135	78.2	5.6	156	0.006	0.022
pyraflufen ethyl	0.9988(0.05-2.5)	103	23	206	87	10	174	86.7	3.8	173	0.005	0.016
pyributicarb	0.9993(0.05-2.5)	104	38.5	208	90.3	10.7	181	96.1	9.4	192	0.004	0.014
mefenpyr-diethyl	0.9996(0.075-3.75)	98.7	14.9	197	149.3	8.1	299	108.1	8.3	216	0.033	0.11
famphur	0.9972(0.1-5)	73.3	8.5	147	56.6	23.2	113	49	5.6	98	0.011	0.036
etoxazole	0.9953(0.15-7.5)	101.3	25.6	203	57	19.9	114	72.4	7.6	145	0.012	0.04
pyriproxyfen	0.9992(0.05-2.5)	93.2	28	186	83.6	17.3	167	67.2	8.7	134	0.003	0.009
iprodione	0.9997(0.1-5)	78.4	18.7	157	84.7	12.4	169	81.7	4.3	163	0.045	0.152
piperophos	0.997(0.075-3.75)	115.9	31.5	232	76.9	20.9	154	64.4	12.8	129	0.036	0.121
bifenazate	0.9944(1-10)	—	—	—	72.9	25.1	146	46.1	31.5	92	0.15	0.5
fenamidone	0.997(0.0625-1.25)	80.5	10.3	161	69.4	22.5	139	64.5	5.1	129	0.017	0.055
pyraclofos	0.9985(0.2-10)	85.5	25.2	171	77.3	20.4	155	98.1	9.8	196	0.109	0.365
pyraclostrobin	0.9935(0.6-30)	87.8	23.7	176	77.3	20.4	155	98.4	9	197	0.358	1.194
lactofen	1(1-10)	75.7	24.7	151	43.2	19.9	86	59	16	118	0.261	0.87
tralkoxydim	0.9982(2.5-10)	—	—	—	108.2	17.4	216	73.2	12.4	146	0.947	3.158
dialifos	0.9911(2-40)	102.4	9.1	205	79.8	19.2	160	83.7	11.2	167	0.151	0.503
spirodiclofen	0.9974(0.2-10)	85.6	25.2	171	68.7	13.4	137	88.2	18.9	176	0.037	0.122
halfenprox	0.9979(0.05-2.5)	69.9	26.8	140	45.6	15.8	91	58.8	15.2	118	0.025	0.083
silafluofen	0.9996(0.025-1.25)	81.6	30.6	163	53.6	18.7	107	62.5	9.6	125	0.017	0.057
pyrimidifen	0.9984(0.05-2.5)	107.5	15.7	215	83.6	21.8	167	80.6	17.4	161	0.007	0.023
butafenacil	0.9947(0.025-1.25)	104.3	15.3	209	76.9	18.4	154	87.2	4.9	174	0.005	0.017
cyflufenamid	0.9998(0.4-20)	76.8	10.8	154	78.2	11.9	156	84.2	5.7	168	0.026	0.086
fipronil	0.9975(0.2-10)	75.8	9.6	152	60.1	14.5	120	75.6	5.9	151	0.018	0.060
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fenobucarb	0.9983(0.05-2.5)	64.2	6.4	128	47.5	11.7	95	39.9	5.2	80	0.011	0.037
phorate	0.9992(0.0625-1.25)	97.6	12.6	195	93.2	8.6	186	109.1	6.1	218	0.013	0.042
Alpha-HCH	0.9976(0.025-1.25)	71.3	10.6	143	84.9	5.6	170	70.4	4.7	141	0.004	0.014
hexaflumuron	0.9995(0.75-7.5)	70	34.5	140	67	28.4	134	114	23.8	228	0.176	0.586
Quintozene	0.997(0.05-2.5)	71.3	9.1	143	86.6	7.9	173	85.5	5.9	171	0.022	0.074
gamma-HCH	0.9901(0.05-2.5)	72.4	10.3	145	82.5	5.5	165	70.9	4.9	142	0.023	0.076

heptachlor	0.9916(0.075-3.75)	49.8	20.8	100	74.2	7.3	148	82.4	4.5	165	0.006	0.021
chlorpyrifos-methyl	0.9985(0.025-1.25)	88	8.8	176	87.6	9.2	175	83.3	6.1	167	0.002	0.007
phosphamidon	0.9958(1-10)	37.6	35.8	75	64.3	16.9	129	63	4.9	126	0.255	0.851
aldrin	0.994(0.05-2.5)	38.7	28.6	77	63.8	13.9	128	65.8	4.6	132	0.025	0.083
pirimiphos-methyl	0.9991(0.025-1.25)	88.8	10.7	178	91	12.4	182	88.5	7.1	177	0.002	0.007
Beta-HCH	0.9949(0.025-1.25)	67.6	9.1	135	81	6.7	162	73.4	10.1	147	0.003	0.009
epsilon-HCH	0.9973(0.05-2.5)	72.1	14.5	144	79.1	9.1	158	67.8	8.8	136	0.019	0.062
methyl-parathion	0.993(0.1-5)	80.8	10.8	162	74.8	33.4	150	67.9	8.8	136	0.013	0.045
chlorpyrifos	0.9982(0.0625-1.25)	76.3	17.4	153	88.7	9.2	177	82.1	6.4	164	0.003	0.011
Delta-HCH	0.9911(0.05-2.5)	75.8	11.4	152	79.3	7.4	159	64.9	4.3	130	0.025	0.084
fenthion	0.9996(0.025-1.25)	95.7	9.3	191	81.2	17.8	162	78.2	5.3	156	0.004	0.014
malathion	0.9986(0.1-5)	100	12.4	200	74.3	25	149	67.3	6.8	135	0.005	0.016
fenitrothion	0.9942(0.05-2.5)	88.9	14.4	178	76.1	29.3	152	63.9	8.7	128	0.007	0.024
parathion	0.9968(0.1-5)	84.3	12.4	169	80.9	30.6	162	69.5	9.2	139	0.008	0.028
2-4'-DDE	0.9981(0.025-1.25)	47.4	31.6	95	64.5	13.4	129	63.8	9.7	128	0.002	0.008
quinalphos	0.9995(0.025-1.25)	96.8	12.8	194	94.7	21.9	189	74.7	8.5	149	0.003	0.011
methidathion	0.9941(0.05-2.5)	60.5	14.9	121	70.7	20.3	141	62.3	15	125	0.007	0.024
captan	0.9907(0.4-20)	91.3	11.5	183	54.2	13	108	33.2	14.5	66	0.101	0.335
2,4'-DDD	0.9911(0.025-1.25)	66.3	12.7	133	66.2	14.8	132	62.6	11.1	125	0.003	0.009
4,4'-DDD	0.9917(0.025-1.25)	68.5	22.3	137	77.5	11.8	155	72.3	8.4	145	0.002	0.008
4,4'-DDT	0.9933(0.05-2.5)	60.4	20.6	121	66.9	18.8	134	63.2	14.5	126	0.008	0.025
triazophos	0.9926(0.075-3.75)	85.6	24.6	171	106.2	17.2	212	78.6	18.6	157	0.013	0.043
bifenthrin	0.9976(0.025-1.25)	60.8	49.6	122	42.2	19.4	84	74.4	15.8	149	0.002	0.007
fenpropathrin	0.9991(0.25-2.5)	81.7	39.4	163	73.8	25.8	148	87.5	21.5	175	0.073	0.244
lambda-cyhalothrin	0.9991(0.125-1.25)	49.1	44.6	98	42.4	34	85	98.4	20.1	197	0.009	0.03
cis-permethrin	0.9969(0.125-1.25)	73.3	51.4	147	59.1	27.7	118	103.4	20.8	207	0.008	0.026
trans-permethrin	0.9974(0.0625-1.25)	66.6	55.6	133	58.6	27.5	117	92.7	9	185	0.005	0.017
fenvalerate	1(1.25-5)	—	—	—	47.9	27	96	96.8	20.8	194	0.417	1.389
deltamethrin	0.9978(3.75-7.5)	—	—	—	50.7	21	101	115.1	17.8	230	1.125	3.75

91

92