

Table S1. Entire Dataset Used to Compare Zebrafish Embryo and Juvenile Fish Toxicity Test Endpoints.

Chemical	Juvenile Trout LC50	Juvenile Bluegill LC50	Juvenile Sheepshead LC50	All Juvenile Fish LC50	Zebrafish Embryo AC50	Zebrafish Embryo LC50	Molecular Weight	Log P	General Mode of Action	Target Group
ZE-Fenpyroximate	0.0011	0.0020	NA	0.0015	0.0582	0.0789	421.49	5.01	NA	Insect
24-DB	5.3479	11.2250	NA	7.7479	4.7907	6.4313	249.09	3.53	Narcosis	Plant
3-Iodo-2-propynylbutylcarbamate	0.0695	0.2260	0.4180	0.1872	0.3015	0.7168	281.09	2.45	Narcosis	Fungi
Abamectin	0.0036	0.0096	0.0150	0.0080	0.0151	0.0317	873.08	4.39	Non-AChE neurotoxicity	Insect
Acetochlor	0.7099	1.3000	2.1000	1.2468	6.3890	7.1866	269.77	3.03	Narcosis	Plant
Acibenzolar-S-Methyl	0.8800	1.6000	1.7000	1.3377	2.2790	3.2342	210.28	3.1	NA	Fungi
Alachlor	2.0785	3.4699	3.9000	3.0412	6.9940	7.1866	269.77	3.52	Narcosis	Plant
Aldicarb	0.5600	0.0852	0.0835	0.1585	10.3634	NA	190.26	1.13	AChE neurotoxicity	Insect
Amitraz	0.7400	0.6750	NA	0.7067	4.2537	7.8163	293.41	5.5	NA	Insect
Anilazine	0.1400	0.3200	NA	0.2117	7.2687	7.3399	275.52	3.88	Narcosis	Fungi
Azinphos-methyl	NA	0.0095	0.0027	0.0051	2.9469	8.7232	317.32	2.75	AChE neurotoxicity	Insect
Azoxystrobin	0.4700	1.1000	0.6710	0.7026	1.4527	2.0681	403.39	2.5	Narcosis	Fungi
Bendiocarb	1.3638	0.9579	0.8600	1.0396	7.6020	10.3052	223.23	1.7	AChE neurotoxicity	Insect
Benfluralin	0.8100	0.1975	NA	0.4000	1.5680	NA	335.28	5.29	Reactivity	Plant
Benomyl	0.1700	0.7570	3.7920	0.7873	0.3136	0.4995	290.32	2.12	NA	Fungi
Bensulfuron-methyl	NA	NA	NA	NA	29.3550	NA	410.40	2.45	NA	Plant
Bensulide	0.8899	0.8100	0.5600	0.7391	4.0698	6.1140	397.51	4.2	Narcosis	Plant
Bifenazate	0.7600	0.5800	0.4160	0.5681	3.0452	2.7512	300.35	4.14	Reactivity	Insect
Bifenthrin	0.0002	0.0003	0.0175	0.0010	0.2389	NA	422.87	8.15	Non-AChE neurotoxicity	Insect
Boric acid	NA	NA	NA	NA	3.7523	NA	61.83	-0.22	NA	Insect
Boscalid	2.7000	NA	NA	2.7000	0.3891	4.8735	343.21	4	NA	Fungi
Buprofezin	NA	NA	NA	NA	0.9335	0.9041	305.44	4.3	NA	Insect
Butafenacil	3.9000	NA	4.6000	4.2356	0.0033	0.0033	474.81	3.05	NA	Plant
Butralin	0.3700	1.0000	NA	0.6083	2.9817	4.5424	295.33	4.93	Reactivity	Plant

Chemical	Juvenile Trout LC50	Juvenile Bluegill LC50	Juvenile Sheepshead LC50	All Juvenile Fish LC50	Zebrafish Embryo AC50	Zebrafish Embryo LC50	Molecular Weight	Log P	General Mode of Action	Target Group
Captafol	0.0966	0.2255	NA	0.1476	0.6049	0.6005	349.06	3.8	Narcosis	Fungi
Captan	0.0730	0.2091	1.9000	0.3072	0.3585	0.5172	300.59	2.8	Narcosis	Fungi
Carbaryl	1.2000	8.4058	2.3917	2.8895	11.7698	NA	201.22	2.36	AChE neurotoxicity	Insect
Carboxin	2.1448	2.0785	NA	2.1114	1.2062	1.2064	235.30	2.67	Narcosis	Fungi
Carfentrazone-ethyl	1.6000	2.0000	NA	1.7889	0.2348	0.2332	412.19	3.36	NA	Plant
Chloroneb	3.7000	6.2217	NA	4.7980	14.5887	NA	207.05	3.44	Narcosis	Fungi
Chlorothalonil	0.0595	0.1006	0.0320	0.0576	0.0835	0.0851	265.91	3.05	Reactivity	Fungi
Chlorpropham	4.1490	6.5452	NA	5.2111	15.1475	NA	213.66	3.51	Narcosis	Plant
Chlorpyrifos-methyl	0.0126	0.8800	NA	0.1053	9.8846	14.8897	322.53	4.31	AChE neurotoxicity	Insect
Clodinafop-propargyl	0.3421	0.2400	NA	0.2865	0.1115	0.1119	349.74	3.9	Narcosis	Plant
Cyazofamid	NA	NA	NA	NA	1.1412	1.0101	324.79	2.87	NA	Fungi
Cyclanilide	NA	NA	49.0000	49.0000	4.4820	7.3020	274.10	1.84	Narcosis	Plant
Cyfluthrin	0.0007	0.0015	0.0041	0.0016	0.1432	NA	434.29	5.95	Non-AChE neurotoxicity	Insect
Cyhalofop-butyl	NA	NA	NA	NA	1.0520	1.0583	357.55	4.47	NA	Plant
Cymoxanil	61.0000	29.0000	NA	42.0595	8.4016	15.3668	198.18	4.24	Narcosis	Fungi
Cypermethrin	0.0010	NA	0.0020	0.0014	0.1354	NA	416.30	6.06	Non-AChE neurotoxicity	Insect
Cyproconazole	19.0000	21.0000	21.0000	20.3110	19.7948	NA	291.78	2.9	Narcosis	Fungi
Cyprodinil	2.4100	2.6412	1.2500	1.9964	2.3219	3.4651	225.29	4	Narcosis	Fungi
Daminozide	149.3000	448.0000	NA	258.6241	10.6526	NA	160.17	-1.5	Reactivity	Plant
Dazomet	0.7457	0.3000	6.9642	1.1593	0.0457	NA	162.28	1.4	Reactivity	Plant
Dichloran	0.9466	6.3214	NA	2.4462	12.3615	NA	207.01	2.8	Narcosis	Fungi
Dichlorprop	0.5000	NA	NA	0.5000	0.2250	NA	235.06	3.43	NA	Plant
Dichlorvos	0.1000	0.8690	7.3500	0.8612	11.0545	NA	220.98	1.47	AChE neurotoxicity	Insect
Diclofop-methyl	0.7464	0.2809	NA	0.4578	1.1683	1.4500	341.19	4.62	Narcosis	Plant
Dicofol	0.1240	0.5150	0.3700	0.2869	3.8279	5.6983	370.49	5.02	Non-AChE neurotoxicity	Insect

Chemical	Juvenile Trout LC50	Juvenile Bluegill LC50	Juvenile Sheepshead LC50	All Juvenile Fish LC50	Zebrafish Embryo AC50	Zebrafish Embryo LC50	Molecular Weight	Log P	General Mode of Action	Target Group
Difenoconazole	0.9266	1.2000	0.9497	1.0183	1.4450	2.0829	406.26	4.3	Narcosis	Fungi
Dimethenamid	2.6000	6.4000	7.2000	4.9298	8.4096	12.7320	275.79	2.15	Narcosis	Plant
Dimethomorph	6.2000	NA	11.3000	8.3702	11.2201	NA	387.86	2.68	Narcosis	Fungi
Diphenylamine	2.2000	NA	NA	2.2000	5.7396	7.8121	169.22	3.5	Narcosis	Fungi
Disulfoton	2.3558	0.1082	1.0000	0.6340	19.9638	NA	274.40	4.02	AChE neurotoxicity	Insect
Dithiopyr	0.4600	0.4700	NA	0.4650	3.1194	6.1858	401.42	4.75	Narcosis	Plant
Emamectin benzoate	0.1740	0.1800	1.4300	0.3551	2.8043	2.9844	1008.24	0	Non-AChE neurotoxicity	Insect
Endosulfan	0.0011	0.0019	0.0003	0.0009	0.3960	3.6135	406.93	3.83	Non-AChE neurotoxicity	Insect
Ethalfuralin	0.0709	0.0571	0.2400	0.0991	3.3503	NA	333.26	5.11	Reactivity	Plant
Etoxazole	NA	NA	NA	NA	0.6216	0.6184	359.41	7.21	Narcosis	Acari
Etridiazole	1.3622	NA	4.0000	2.3343	1.0664	NA	247.53	3.37	Narcosis	Fungi
Famoxadone	0.0120	0.0130	0.0494	0.0198	0.0677	0.1198	374.39	4.65	NA	Fungi
Fenamidone	0.7400	0.7400	2.5000	1.1104	0.7099	0.9217	311.40	3.45	Narcosis	Fungi
Fenamiphos	0.0590	NA	NA	0.0590	24.2686	NA	303.36	3.23	AChE neurotoxicity	Insect
Fenarimol	2.9885	2.0980	NA	2.5040	4.8445	15.2896	331.20	3.6	Narcosis	Fungi
Fenbuconazole	1.5000	0.6800	1.8000	1.2245	7.9376	9.2685	336.82	3.23	Narcosis	Fungi
Fenhexamid	1.3400	3.4200	11.0000	3.6941	2.5233	2.6835	302.20	3.72	Narcosis	Fungi
Fenitrothion	1.6331	2.2361	NA	1.9110	9.2956	12.7985	277.23	3.3	AChE neurotoxicity	Insect
Fenoxaprop-ethyl	0.5165	0.3100	NA	0.4002	0.9377	1.0709	361.78	4.58	Narcosis	Plant
Fenoxycarb	1.0276	1.1732	1.1000	1.0987	3.5502	4.6347	301.34	4.3	Narcosis	Insect
Fenpropathrin	0.0023	0.0022	0.0031	0.0025	0.1133	NA	349.42	5.7	Non-AChE neurotoxicity	Insect
Fenthion	0.7265	1.7000	1.2000	1.1401	4.2508	4.2809	278.33	4.09	AChE neurotoxicity	Insect
Fipronil	0.2460	0.0830	0.1300	0.1385	6.7763	11.6456	437.15	4	Non-AChE neurotoxicity	Insect

Chemical	Juvenile Trout LC50	Juvenile Bluegill LC50	Juvenile Sheepshead LC50	All Juvenile Fish LC50	Zebrafish Embryo AC50	Zebrafish Embryo LC50	Molecular Weight	Log P	General Mode of Action	Target Group
Fluazifop-butyl	1.4100	0.5300	NA	0.8645	3.3806	3.4043	383.36	4.5	NA	Plant
Fluazinam	0.0629	0.0527	0.1200	0.0736	0.3933	0.4800	465.09	3.56	Electron transport inhibition	Fungi
Fludioxonil	0.4700	0.7300	1.2000	0.7439	0.4618	1.2724	248.19	4.12	Narcosis	Fungi
Flufenacet	4.5146	2.3289	3.3800	3.2877	11.2868	16.7731	363.33	3.2	Narcosis	Plant
Flufenpyr-ethyl	3.7000	2.5000	NA	3.0414	0.1749	0.2312	408.73	4.15	NA	Plant
Flumetralin	0.0240	0.0203	NA	0.0221	0.0052	NA	421.73	5.45	Narcosis	Plant
Flumiclorac-pentyl	NA	NA	NA	NA	1.2399	1.2970	423.86	4.99	Narcosis	Plant
Flumioxazin	2.3000	NA	NA	2.3000	2.9873	3.1465	354.33	2.55	Narcosis	Plant
Fluoxastrobin	0.4350	0.9700	NA	0.6496	0.0859	0.0859	458.83	2	Narcosis	Fungi
Fluthiacet-methyl	0.0430	0.1400	0.1600	0.0988	0.0060	0.0084	403.88	3.77	Narcosis	Plant
Flutolanil	5.4000	NA	NA	5.4000	3.7754	4.9727	323.31	3.7	Narcosis	Fungi
Folpet	0.0150	0.0470	0.0656	0.0359	2.6334	2.6334	296.56	2.85	Narcosis	Fungi
Forchlorfenuron	9.2000	8.8000	NA	8.9978	11.4341	11.4341	247.68	3.2	NA	NA
Halosulfuron-methyl	NA	NA	NA	NA	14.8155	20.0731	434.81	0.4	Narcosis	Plant
Hexaconazole	NA	5.1000	NA	5.1000	5.9021	8.3706	314.21	3.9	NA	Fungi
Imazalil	1.7205	3.9900	NA	2.6200	0.7260	0.9094	297.18	3.82	NA	Fungi
Imazamox	NA	NA	NA	NA	1.0687	1.5654	305.33	0.73	NA	Plant
Indoxacarb	0.6500	0.9000	NA	0.7649	0.1786	NA	527.83	4.6	Non-AChE neurotoxicity	Insect
Iprodione	4.2000	6.3000	7.7000	5.8843	19.2417	NA	330.17	3	Narcosis	Fungi
Isoxaben	NA	NA	NA	NA	11.3281	8.8550	332.39	3.94	NA	Plant
Lindane	0.0180	0.0250	0.1000	0.0356	9.8061	13.4261	290.83	4.14	Non-AChE neurotoxicity	Insect
Linuron	3.0850	9.6000	0.8900	2.9760	8.8968	19.3172	249.09	3.2	Narcosis	Plant
Malathion	0.0330	0.0310	0.0330	0.0323	7.7681	8.3911	330.36	2.36	AChE neurotoxicity	Insect
Mesotrione	NA	NA	520	520	15.9900	NA	339.32	1.49	NA	Plant
Methidathion	0.0118	0.0044	0.0078	0.0074	13.8742	NA	302.33	2.2	AChE neurotoxicity	Insect

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Methomyl	1.9636	1.3574	1.1600	1.4568	6.7100	NA	162.21	0.6	AChE neurotoxicity	Insect
Methoxychlor	0.0222	0.0429	NA	0.0309	0.9102	3.0694	345.65	5.08	Non-AChE neurotoxicity	Insect
Methyl isothiocyanate	0.0694	0.1420	NA	0.0993	0.2167	0.6493	73.12	0.94	Reactivity	Acari
Methylene bithiocyanate	0.1462	0.2291	0.6060	0.2728	0.5094	0.6675	130.19	0.62	Reactivity	Fungi
Metiram-zinc	0.2290	NA	NA	0.2290	0.3971	NA	275.77	0	NA	Fungi
Metolachlor	3.9000	0.0100	8.7989	0.7001	9.5652	13.1013	283.79	2.9	Narcosis	Plant
Mevinphos	NA	NA	NA	NA	12.5090	NA	224.15	0.13	AChE neurotoxicity	Insect
MGK 264	1.4000	NA	NA	1.4000	2.4030	2.4454	275.39	3.7	NA	NA
Milbemectin	0.0045	0.0280	0.0280	0.0152	0.0716	0.9337	542.70	5.9	Non-AChE neurotoxicity	Insect
Myclobutanil	4.2000	2.4000	4.7000	3.6184	11.4979	13.3313	288.78	2.94	NA	Fungi
Naled	0.2208	2.2000	1.2000	0.8353	4.3985	5.8567	380.78	1.38	AChE neurotoxicity	Insect
Novaluron	NA	NA	NA	NA	39.2721	NA	492.70	5.27	NA	Insect
Oryzalin	3.3537	2.8800	NA	3.1078	4.0459	5.3272	346.36	3.73	Reactivity	Plant
Oxadiazon	1.6855	2.0535	1.5000	1.7315	1.7682	3.0414	345.22	4.8	Narcosis	Plant
Oxyfluorfen	0.4100	0.2000	NA	0.2864	4.3430	9.6357	361.70	4.73	Narcosis	Plant
Paclobutrazol	27.8000	23.6000	NA	25.6141	7.8817	14.0374	293.79	3.2	NA	Plant
Parathion	1.0561	0.0860	NA	0.3013	2.5054	16.4417	291.26	3.83	AChE neurotoxicity	Insect
Pendimethalin	0.1380	0.1990	0.7100	0.2692	11.9752	NA	281.31	5.18	Reactivity	Plant
Permethrin	0.0042	0.0050	0.0262	0.0082	1.1749	14.8181	391.29	6.5	Non-AChE neurotoxicity	Insect
Phosalone	0.6300	0.0500	NA	0.1775	3.4442	5.6571	367.81	4.38	AChE neurotoxicity	Insect
Piperonyl butoxide	3.2032	4.7491	3.9400	3.9135	3.8388	5.2054	338.44	4.75	Narcosis	NA
Pirimiphos-methyl	0.4040	NA	NA	0.4040	3.4476	4.6962	305.33	4.2	AChE	Insect

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									neurotoxicity	
Prallethrin	0.0120	0.0220	0.0260	0.0190	0.4712	1.5260	300.39	4.49	Non-AChE neurotoxicity	Insect
Primisulfuron-methyl	210	NA	NA	210	1.5243	2.4011	468.34	2.41	Narcosis	Plant
Profenofos	0.0229	0.0279	NA	0.0253	3.2477	5.7467	373.63	4.68	AChE neurotoxicity	Insect
Propanil	2.3000	NA	4.6000	3.2527	7.1317	10.0676	218.08	3.07	Narcosis	Plant
Propargite	0.1180	0.1670	NA	0.1404	0.0448	0.0656	350.47	5	NA	Insect
Propiconazole	2.1024	2.6739	NA	2.3710	9.1168	15.7986	342.22	3.72	Narcosis	Fungi
Propoxycarbazone-sodium	NA	NA	NA	NA	6.5128	23.7300	420.37	1.32	NA	Plant
Prosulfuron	NA	NA	NA	NA	8.8443	29.7885	419.38	3.56	NA	Plant
Pymetrozine	NA	NA	NA	NA	3.7887	NA	217.23	0.89	Narcosis	Insect
Pyraclostrobin	2.9816	0.0114	0.0769	0.1377	0.0535	0.0726	387.82	5.45	Narcosis	Fungi
Pyraflufen-ethyl	NA	NA	NA	NA	0.0774	0.0774	413.18	4.87	NA	Plant
Pyridaben	0.0013	0.0029	0.0172	0.0040	0.0041	0.0044	364.93	6.37	Electron transport inhibition	Insect
Pyriproxyfen	NA	NA	NA	NA	8.3977	8.5613	321.37	5.55	Narcosis	Insect
Quinoxyfen	0.2700	NA	NA	0.2700	1.0451	NA	308.13	4.66	NA	Fungi
Quintozene	0.4195	0.1449	2.7210	0.5489	5.5534	13.6341	295.33	4.64	Narcosis	Fungi
Quizalofop-ethyl	2.8990	0.4600	NA	1.1548	0.4564	0.6414	372.80	4.28	Narcosis	Plant
Resmethrin	0.0003	NA	0.0110	0.0018	0.9480	NA	338.44	6.14	Non-AChE neurotoxicity	Insect
S-Bioallethrin	NA	0.0236	NA	0.0236	0.3188	0.5150	302.41	4.78	Non-AChE neurotoxicity	Insect
Spirodiclofen	NA	NA	NA	NA	0.7075	0.7077	411.32	6.21	NA	Insect
Sulfentrazone	NA	93.8000	NA	93.8000	13.1211	17.8746	387.19	2.65	Narcosis	Plant
TCMTB	0.0201	0.0320	NA	0.0254	0.1030	0.1348	238.35	3.3	Reactivity	Fungi
Tebufenpyrad	0.0178	0.0930	NA	0.0407	0.1068	0.1068	333.86	4.61	Electron transport	Insect

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									inhibition	
Tebupirimfos	NA	NA	NA	NA	3.0591	4.2980	318.37	4.19	AChE neurotoxicity	Insect
Tefluthrin	0.0001	0.0001	0.0001	0.0001	0.0019	NA	418.73	6.5	Non-AChE neurotoxicity	Insect
Tetramethrin	0.0088	0.0174	NA	0.0124	3.4242	5.0972	331.41	4.73	Non-AChE neurotoxicity	Insect
Thiabendazole	1.5223	18.0206	NA	5.2377	6.0880	9.2906	201.25	2.47	Narcosis	Fungi
Thiamethoxam	NA	NA	NA	NA	21.8005	NA	291.71	0.8	Non-AChE neurotoxicity	Insect
Thiazopyr	3.4000	3.5000	2.9000	3.2557	12.9570	18.2986	396.38	3.89	Narcosis	Plant
Thiobencarb	1.1500	2.4800	0.9495	1.3938	3.4007	5.7098	257.78	3.4	Narcosis	Plant
Thiodicarb	3.4500	1.3282	0.5300	1.3442	10.3616	16.3640	354.47	1.7	AChE neurotoxicity	Insect
Thiophanate-methyl	9.5551	58.0000	49.5000	30.1594	0.4195	1.0135	342.39	1.4	NA	Fungi
Triadimefon	7.5763	10.4881	NA	8.9141	7.2780	NA	293.75	2.77	Narcosis	Fungi
Triadimenol	18.1384	15.0000	NA	16.4947	8.8470	8.1276	295.76	3.08	Narcosis	Fungi
Tri-allate	1.2000	1.3149	NA	1.2561	8.2745	14.0648	304.66	4.6	Narcosis	Plant
Tribufos	1.0592	0.6250	0.5809	0.7272	0.0453	0.0589	314.51	5.7	Narcosis	Plant
Triclosan	0.2880	NA	NA	0.2880	0.7699	0.8570	289.54	4.76	Narcosis	Bacteria
Trifloxystrobin	0.0140	0.0540	0.0780	0.0389	0.1088	0.1268	408.37	6.62	Narcosis	Fungi
Triflumizole	0.5800	0.7589	1.4000	0.8510	0.5589	0.5912	345.75	1.4	Narcosis	Fungi
Trifluralin	0.0220	0.0084	0.1600	0.0309	0.2110	NA	335.28	5.34	Reactivity	Plant
Triticonazole	NA	NA	NA	NA	4.1460	NA	317.81	3.29	NA	Fungi
Vinclozolin	2.8400	47.5000	NA	11.6146	10.7412	NA	286.11	3.1	Narcosis	Fungi
Zoxamide	0.1560	NA	NA	0.1560	1.7259	1.7259	336.64	4.35	Narcosis	Fungi