APPENDIX N: Summary of Registrant-Submitted Aquatic Toxicity Data for Cyfluthrin and *Beta*-Cyfluthrin.

[Based on information from 'Appendix B' of the Problem Formulation for Registration Review for cyfluthrin and *beta*-cyfluthrin (see, USEPA, 2010)].

Species (common name)	Test Substance	% a.i.	End-point	Duration (hours)	Mean concentration (µg a.i./L)	MRID and study classification
Oncorhynchus mykiss (Rainbow trout)	Unspecified	87%	LC_{50}	96	0.68	00131502 Acceptable
Lepomis Macrochirus (Bluegill sunfish)	Unspecified	87%	LC_{50}	96	1.50	00131503 Acceptable
Lepomis Macrochirus (Bluegill sunfish)	Cyfluthrin (TEMPO 2EC)	2%	LC_{50}	96	0.647	41558001 Supplemental
Oncorhynchus mykiss (Rainbow trout)	Cyfluthrin (TEMPO 2EC)	2%	LC_{50}	96	0.295	41558002 Acceptable
Oncorhynchus mykiss (Rainbow trout)	*Beta*-cyfluthrin, FCR-4545	98%	LC_{50}	96	0.111	45375001 Supplemental
Oncorhynchus mykiss (Rainbow trout)	*Beta*-cyfluthrin, FCR-4545	99.4%	LC_{50}	96	0.068	45375002 Supplemental
Lepomis Macrochirus (Bluegill sunfish)	*Beta*-cyfluthrin, FCR-4545	99.4%	LC_{50}	96	0.28	45375003 Supplemental
Oncorhynchus mykiss (Rainbow trout)	*Beta*-cyfluthrin, FCR-4545	98.1%	LC_{50}	96	0.085	45426703 Supplemental
Oncorhynchus mykiss (Rainbow trout)	Cyfluthrin	97.6%	LC_{50}	96	0.302	45426705 Acceptable
Lepomis Macrochirus (Bluegill sunfish)	*Beta*-cyfluthrin, FCR-4545	98%	LC_{50}	96	0.566	45426706 Supplemental
Lepomis Macrochirus (Bluegill sunfish)	Cyfluthrin	97.6%	LC_{50}	96	0.998	45426707 Acceptable
Oncorhynchus mykiss (Rainbow trout)	Cyfluthrin	97.6%	LC_{50}	96	0.209	45426708 Supplemental
Oncorhynchus mykiss (Rainbow trout)	Unspecified	96%	NOAEC LOAEC	58 (days)	0.010 0.018	00155898 Supplemental
Pimephales promelas (Fathead Minnow)	Cyfluthrin	99%	NOAEC LOAEC	60 (days)	0.14 0.25	41450401 Acceptable
Daphnia magna (Water Flea)	Unspecified	Tech	LC_{50}	48	0.141	00131504 Acceptable
Daphnia magna (Water Flea)	*Beta*-cyfluthrin, FCR-4545	Tech	EC_{50}	48	0.29	45426701 Supplemental
Daphnia magna (Water Flea)	Cyfluthrin	98.6%	LC_{50}	48	0.16	42705801 Unreviewed
Daphnia magna (Water Flea)	Cyfluthrin (TEMPO 2EC)	2%	EC_{50}	48	0.025	41558003 Acceptable
Daphnia magna (Water Flea)	Unspecified	94.7%	NOAEC LOAEC	21 (days)	0.0074 0.0157	00151442 Acceptable

Species (common name)	Test Substance	% a.i.	End-point	Duration (hours)	Mean concentration (µg a.i./L)	MRID and study classification
Chironomus tentans (Midge)	Cyfluthrin	99%	LC_{50}	10 (days)	0.44 (pore water) 290 µg a.i./kg sediment (bulk sediment)	46591507 In review
Cyprinodon variegatus (Sheepshead minnow)	Unspecified	87%	LC_{50}	96	4.05	00146485 Acceptable
Cyprinodon variegatus (Sheepshead minnow)	Unspecified	90.5%	NOAEC LOAEC	39 (days)	0.025 0.084	00158781 Supplemental
Cyprinodon variegatus (Sheepshead minnow)	Unspecified	90.5%	NOAEC LOAEC	28 (days)	0.27 0.63	00158784 Not reviewed
Mysidopsis bahia (Mysid shrimp)	Unspecified	90.5%	LC_{50}	96	0.0064	00149598 Acceptable
Mysidopsis bahia (Mysid shrimp)	Unspecified	92%	LC_{50}	96	0.0024	40069501 Acceptable
Mysidopsis bahia (Mysid shrimp)	*Beta*-cyfluthrin, FCR-4545	>98%	LC_{50}	96	0.0023	45426704 Acceptable
Mysidopsis bahia (Mysid shrimp)	*Beta*-cyfluthrin, FCR-4545	>98%	LC_{50}	96	0.0022	45426709 Acceptable
Crassostrea virginica (Eastern oyster)	Unspecified	93%	EC_{50}	96	2.69	00158783 Acceptable
Leptocheirus plumulosus (Amphipod)	Unspecified	99%	LC_{50} (survival) EC_{50} (growth)	28 (days)	35 36	46591506 In review
Mysidopsis bahia (Mysid shrimp)	Unspecified	97%	NOAEC LOAEC	28 (days)	0.00017 0.00040	00158785 Supplemental