

Table 2-2. Summary of chronic aquatic toxicity data for 6PPD and 6PPD q

Chemical	Receptor (general)	Receptor (specific)	Benchmark Value (NOEC, LC ₁₀)	Units	Duration	Endpoint	Reference
6PPD	Fish	Fathead minnow, <i>Pimephales promelas</i>	86	µg/g dw	21d	Mortality	(R. S. Prosser et al. 2017)
6PPD	Fish	Fathead minnow, <i>Pimephales promelas</i>	20	µg/L	21d	Mortality	(R. S. Prosser et al. 2017)
6PPD	Fish	Japanese medaka, <i>Oryzias latipes</i>	3.7	µg/L	30d	Mortality	(Japan Ministry of the Environment 2018)
6PPD	Invertebrate	Amphipod, <i>Hyalella azteca</i>	68	µg/g dw	28d	Mortality	(R. S. Prosser et al. 2017)
6PPD	Invertebrate	Amphipod, <i>Hyalella azteca</i>	6	µg/L	28d	Mortality	(R. S. Prosser et al. 2017)
6PPD	Invertebrate	Aquatic worm, <i>Tubifex tubifex</i>	63	µg/g dw	28d	Mortality	(R. S. Prosser et al. 2017)
6PPD	Invertebrate	Fatmucket mussel, <i>Lampsilis siliquoidea</i>	47	µg/L	14d	Mortality	(R.S. Prosser et al. 2017)
6PPD	Invertebrate	Fatmucket mussel, <i>Lampsilis siliquoidea</i>	17	µg/L	28d	Mortality	(R.S. Prosser et al. 2017)
6PPD	Invertebrate	Fatmucket mussel, <i>Lampsilis siliquoidea</i>	188	µg/g dw	14d	Mortality	(R.S. Prosser et al. 2017)
6PPD	Invertebrate	Fatmucket mussel, <i>Lampsilis siliquoidea</i>	62	µg/g dw	28d	Mortality	(R.S. Prosser et al. 2017)
6PPD	Plant/algae	Algae, <i>Selenastrum capricornutum</i>	200	µg/L	96h	Cell number	(Monsanto Company 1978, as cited in OECD 2004)
6PPD-q	Fish	Coho salmon, <i>Oncorhynchus kisutch</i>	0.1	µg/L	16d, pulsed exposure for 24h	Mortality	(Greer et al. 2023b)
6PPD-q	Fish	Fathead minnow, <i>Pimephales promelas</i>	> 39.27	µg/L	7d	Mortality	(Anderson-Bain et al. 2023)
6PPD-q	Fish	Lake trout, <i>Salvelinus namaycush</i>	0.33	µg/L	45d	Mortality	(Roberts et al. 2024)**
6PPD-q	Fish	Rainbow trout, <i>Oncorhynchus mykiss</i>	0.56	µg/L	28d	Mortality	(Roberts et al. 2024)**
6PPD-q	Invertebrate	File ramshorn snail, <i>Planorbella pilsbryi</i>	> 11.7	µg/L	10d	Mortality and hatching	(R. S. Prosser, Salole, and Hang 2023)
6PPD-q	Invertebrate	Freshwater rotifer, <i>Brachionus calyciflorus</i>	> 1,000	µg/L	12d	Mortality	(Klauschies and Isanta-Navarro 2022)
6PPD-q	Invertebrate	Marine rotifer, <i>Brachionus koreanus</i>	> 1,000	µg/L	24h	Fecundity	(Maji et al. 2023)
6PPD-q	Invertebrate	Nematode, <i>Caenorhabditis elegans</i>	10	µg/L	4.5 d	Mortality	(Hua et al. 2023c)
6PPD-q	Invertebrate	Nematode, <i>Caenorhabditis elegans</i>	1	µg/L	4.5 d	Paralysis	(Hua et al. 2023a)
6PPD-q	Invertebrate	Nematode, <i>Caenorhabditis elegans</i>	0.1	µg/L	4.5 d	Brood size	(Hua et al. 2023b)
6PPD-q	Invertebrate	Springtail, <i>Folsomia candida</i>	16.31	mg/kg	28d	Mortality	(Xu et al. 2023)
6PPD-q	Invertebrate	Water flea, <i>Daphnia magna</i>	> 42	µg/L	21d	Mortality and growth	(R. S. Prosser, Salole, and Hang 2023)

Note: **=Citation is pre-proof, presentation, or non-peer-reviewed article; µg/g=microgram per gram; µg/L=micrograms per liter; d=days; dw=dry weight; h=hours; kg=kilogram, mg=milligram; NOEC=no observed effect level concentration

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