

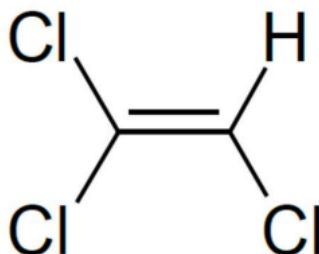


Final Risk Evaluation for Trichloroethylene

Systematic Review Supplemental File:

Data Extraction for Environmental Hazard Studies

CASRN: 79-01-6



November 2020

Environmental Hazard Data Extraction Table for Trichloroethylene (TCE)

Test Species	Fresh/ Salt Water	Duration	End-point	Concentration(s)	Test Analysis	Effect(s)	References	Data Quality Evaluation
Fish								
Bluegill (<i>Lepomis macrochirus</i>)	Fresh	24-hour	LC ₅₀ = >68, <100 mg/L	Not reported	Static, Nominal, Solvent: unknown	Mortality	(Buccafusco et al., 1981)	Medium
Bluegill (<i>Lepomis macrochirus</i>)	Fresh	96-hour	LC ₅₀ = 45 mg/L	Not reported	Static, Nominal, Solvent: unknown	Mortality	(Buccafusco et al., 1981)	Medium
Fathead minnow (<i>Pimephales promelas</i>)	Fresh	96-hour	LC ₅₀ = 44.1 mg AI/L	<0.01, 8.43-9.64, 15.3-15.9, 27.1- 27.8, 43.4-44.8, 76.6-77.3 mg/L	Flow-through, Measured	Mortality	(Geiger et al., 1985)	High
Fathead minnow (<i>Pimephales promelas</i>)	Fresh	24-hour	LC ₅₀ = 52.4 mg AI/L*	Not reported	Flow-through, Measured, Solvent: Methyl or ethyl alcohol	Mortality	(Alexander et al., 1978)	High
Fathead minnow (<i>Pimephales promelas</i>)	Fresh	24-hour	LC ₁₀ = 34.7 mg AI/L*	Not reported	Flow-through, Measured, Solvent: Methyl or ethyl alcohol	Mortality	(Alexander et al., 1978)	High
Fathead minnow (<i>Pimephales promelas</i>)	Fresh	24-hour	LC ₉₀ = 79.1 mg AI/L*	Not reported	Flow-through, Measured, Solvent: Methyl or ethyl alcohol	Mortality	(Alexander et al., 1978)	High
Fathead minnow (<i>Pimephales promelas</i>)	Fresh	48-hour	LC ₅₀ = 53.3 mg AI/L*	Not reported	Flow-through, Measured, Solvent: Methyl or ethyl alcohol	Mortality	(Alexander et al., 1978)	High

* Purity was not reported, so value is as reported by authors.

Test Species	Fresh/ Salt Water	Duration	End-point	Concentration(s)	Test Analysis	Effect(s)	References	Data Quality Evaluation
Fathead minnow (<i>Pimephales promelas</i>)	Fresh	48-hour	LC ₁₀ = 27.7 mg AI/L*	Not reported	Flow-through, Measured, Solvent: Methyl or ethyl alcohol	Mortality	(Alexander et al., 1978)	High
Fathead minnow (<i>Pimephales promelas</i>)	Fresh	48-hour	LC ₉₀ = 102.6 mg AI/L*	Not reported	Flow-through, Measured, Solvent: Methyl or ethyl alcohol	Mortality	(Alexander et al., 1978)	High
Fathead minnow (<i>Pimephales promelas</i>)	Fresh	72-hour	LC ₅₀ = 39.0 mg AI/L*	Not reported	Flow-through, Measured, Solvent: Methyl or ethyl alcohol	Mortality	(Alexander et al., 1978)	High
Fathead minnow (<i>Pimephales promelas</i>)	Fresh	72-hour	LC ₁₀ = 20.9 mg AI/L*	Not reported	Flow-through, Measured, Solvent: Methyl or ethyl alcohol	Mortality	(Alexander et al., 1978)	High
Fathead minnow (<i>Pimephales promelas</i>)	Fresh	72-hour	LC ₉₀ = 72.6 mg AI/L*	Not reported	Flow-through, Measured, Solvent: Methyl or ethyl alcohol	Mortality	(Alexander et al., 1978)	High
Fathead minnow (<i>Pimephales promelas</i>)	Fresh	96-hour	LC ₅₀ = 40.7 mg AI/L*	Not reported	Flow-through, Measured, Solvent: Methyl or ethyl alcohol	Mortality	(Alexander et al., 1978)	High
Fathead minnow (<i>Pimephales promelas</i>)	Fresh	96-hour	LC ₁₀ = 17.4 mg AI/L*	Not reported	Flow-through, Measured, Solvent: Methyl or ethyl alcohol	Mortality	(Alexander et al., 1978)	High

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Test Species	Fresh/ Salt Water	Duration	End-point	Concentration(s)	Test Analysis	Effect(s)	References	Data Quality Evaluation
Fathead minnow (<i>Pimephales promelas</i>)	Fresh	96-hour	LC ₉₀ = 95.0 mg AI/L [*]	Not reported	Flow-through, Measured, Solvent: Methyl or ethyl alcohol	Mortality	(Alexander et al., 1978)	High
Fathead minnow (<i>Pimephales promelas</i>)	Fresh	96-hour	LC ₅₀ = 66.8 mg AI/L [*]	Not reported	Static, Nominal, Solvent: Methyl or ethyl alcohol	Mortality	(Alexander et al., 1978)	Medium
Fathead minnow (<i>Pimephales promelas</i>)	Fresh	24-hour	EC ₅₀ = 23 mg AI/L [*]	Not reported	Flow-through, Measured, Solvent: Methyl or ethyl alcohol	Loss of equilibrium	(Alexander et al., 1978)	High
Fathead minnow (<i>Pimephales promelas</i>)	Fresh	24-hour	EC ₁₀ = 15.2 mg AI/L [*]	Not reported	Flow-through, Measured, Solvent: Methyl or ethyl alcohol	Loss of equilibrium	(Alexander et al., 1978)	High
Fathead minnow (<i>Pimephales promelas</i>)	Fresh	24-hour	EC ₉₀ = 16.2 mg AI/L [*]	Not reported	Flow-through, Measured, Solvent: Methyl or ethyl alcohol	Loss of equilibrium	(Alexander et al., 1978)	High
Fathead minnow (<i>Pimephales promelas</i>)	Fresh	48-hour	EC ₅₀ = 22.7 mg AI/L [*]	Not reported	Flow-through, Measured, Solvent: Methyl or ethyl alcohol	Loss of equilibrium	(Alexander et al., 1978)	High
Fathead minnow (<i>Pimephales promelas</i>)	Fresh	48-hour	EC ₁₀ = 16.9 mg AI/L [*]	Not reported	Flow-through, Measured, Solvent: Methyl or ethyl alcohol	Loss of equilibrium	(Alexander et al., 1978)	High

* Purity was not reported, so value is as reported by authors.

Test Species	Fresh/ Salt Water	Duration	End-point	Concentration(s)	Test Analysis	Effect(s)	References	Data Quality Evaluation
Fathead minnow (<i>Pimephales promelas</i>)	Fresh	48-hour	EC ₉₀ = 30.6 mg AI/L *	Not reported	Flow-through, Measured, Solvent: Methyl or ethyl alcohol	Loss of equilibrium	(Alexander et al., 1978)	High
Fathead minnow (<i>Pimephales promelas</i>)	Fresh	72-hour	EC ₅₀ = 22.2 mg AI/L *	Not reported	Flow-through, Measured, Solvent: Methyl or ethyl alcohol	Loss of equilibrium	(Alexander et al., 1978)	High
Fathead minnow (<i>Pimephales promelas</i>)	Fresh	72-hour	EC ₁₀ = 15.5 mg AI/L *	Not reported	Flow-through, Measured, Solvent: Methyl or ethyl alcohol	Loss of equilibrium	(Alexander et al., 1978)	High
Fathead minnow (<i>Pimephales promelas</i>)	Fresh	72-hour	EC ₉₀ = 31.3 mg AI/L *	Not reported	Flow-through, Measured, Solvent: Methyl or ethyl alcohol	Loss of equilibrium	(Alexander et al., 1978)	High
Fathead minnow (<i>Pimephales promelas</i>)	Fresh	96-hour	EC ₅₀ = 21.9 mg AI/L *	Not reported	Flow-through, Measured, Solvent: Methyl or ethyl alcohol	Loss of equilibrium	(Alexander et al., 1978)	High
Fathead minnow (<i>Pimephales promelas</i>)	Fresh	96-hour	EC ₁₀ = 13.7 mg AI/L *	Not reported	Flow-through, Measured, Solvent: Methyl or ethyl alcohol	Loss of equilibrium	(Alexander et al., 1978)	High
Fathead minnow (<i>Pimephales promelas</i>)	Fresh	96-hour	EC ₉₀ = 34.9 mg AI/L *	Not reported	Flow-through, Measured, Solvent: Methyl or ethyl alcohol	Loss of equilibrium	(Alexander et al., 1978)	High

* Purity was not reported, so value is as reported by authors.

Test Species	Fresh/ Salt Water	Duration	End-point	Concentration(s)	Test Analysis	Effect(s)	References	Data Quality Evaluation
Fathead minnow (<i>Pimephales promelas</i>)	Fresh	32-day	EC ₅₀ = 10.8 mg AI/L (Test 3)	Not reported	Flow-through, Measured	Growth: Wet weight	(Broderius et al., 2005)	High
Fathead minnow (<i>Pimephales promelas</i>)	Fresh	32-day	EC ₂₀ = 7.59 mg AI/L (Test 3)	Not reported	Flow-through, Measured	Growth: Wet weight	(Broderius et al., 2005)	High
Fathead minnow (<i>Pimephales promelas</i>)	Fresh	96-hour	LC ₅₀ = 55.2 mg AI/L (Test 1)	Not reported	Flow-through, Measured	Mortality	(Broderius et al., 2005)	High
Fathead minnow (<i>Pimephales promelas</i>)	Fresh	96-hour	LC ₅₀ = 40.5 mg AI/L (Test 2)	Not reported	Flow-through, Measured	Mortality	(Broderius et al., 2005)	High
Fathead minnow (<i>Pimephales promelas</i>)	Fresh	96-hour	LC ₅₀ = 45.7 mg AI/L (Test 3)	Not reported	Flow-through, Measured	Mortality	(Broderius et al., 2005)	High
Fathead minnow (<i>Pimephales promelas</i>)	Fresh	32-day	EC ₅₀ = 11.9 mg AI/L (Test 1)	Not reported	Flow-through, Measured	Growth: Wet weight	(Broderius et al., 2005)	High
Fathead minnow (<i>Pimephales promelas</i>)	Fresh	32-day	EC ₂₀ = 7.93 mg AI/L (Test 1)	Not reported	Flow-through, Measured	Growth: Wet weight	(Broderius et al., 2005)	High
Fathead minnow (<i>Pimephales promelas</i>)	Fresh	32-day	EC ₅₀ = 10.5 mg AI/L (Test 2)	Not reported	Flow-through, Measured	Growth: Wet weight	(Broderius et al., 2005)	High
Fathead minnow (<i>Pimephales promelas</i>)	Fresh	32-day	EC ₂₀ = 7.71 mg AI/L (Test 2)	Not reported	Flow-through, Measured	Growth: Wet weight	(Broderius et al., 2005)	High
Fathead minnow (<i>Pimephales promelas</i>)	Culture medium	24-hour	EC ₅₀ = 11,600 mg/L	Not reported	In vitro, Nominal, Carrier: liquid paraffin	Inhibition of total protein content	(Dierickx, 1993)	Low
Flagfish (<i>Jordanella floridae</i>)	Fresh	96-hour	LC ₅₀ = 28.28 mg AI/L	Not reported	Flow-through, Measured, Solvent: Acetone	Mortality	(Smith et al., 1991)	High

Test Species	Fresh/ Salt Water	Duration	End-point	Concentration(s)	Test Analysis	Effect(s)	References	Data Quality Evaluation
Flagfish (<i>Jordanella floridae</i>)	Fresh	12, 24, 36, 48, 72- hour	LC ₅₀ = 29.46 mg AI/L	Not reported	Flow-through, Measured, Solvent: Acetone	Mortality	(Smith et al., 1991)	High
Flagfish (<i>Jordanella floridae</i>)	Fresh	96-hour	LC ₅₀ = 3.1 mg/L	Not reported	Renewal, Nominal, Solvent: Acetone	Mortality	(Smith et al., 1991)	Medium
Flagfish (<i>Jordanella floridae</i>)	Fresh	10-day	LOEC > 21.2 mg AI/L	0, 1.683, 2.301, 4.355, 5.758, 21.233 mg/L	Flow-through, Measured, Solvent: Acetone	Egg hatchability	(Smith et al., 1991)	High
Flagfish (<i>Jordanella floridae</i>)	Fresh	10-day	LOEC = 11 mg AI/L	0, 1.683, 2.301, 4.355, 5.758, 21.233 mg/L	Flow-through, Measured, Solvent: Acetone	Larval survival	(Smith et al., 1991)	High
Flagfish (<i>Jordanella floridae</i>)	Fresh	28-day	LOEC = 14.85 mg AI/L	0, 2.516, 3.623, 7.769, 10.568, 20.915 mg/L	Flow-through, Measured, Solvent: Acetone	Fry survival	(Smith et al., 1991)	High
Flagfish (<i>Jordanella floridae</i>)	Fresh	28-day	LOEC >20.9 mg AI/L	0, 2.516, 3.623, 7.769, 10.568, 20.915 mg/L	Flow-through, Measured, Solvent: Acetone	Fry growth	(Smith et al., 1991)	High
Japanese medaka (<i>Oryzias latipes</i>)	Fresh	10-day	LC ₅₀ = 82 mg AI/L	54, 59, 65, 72, 79, 87 mg/L	Renewal, Nominal	Mortality	(Schell, 1987)	High
Japanese medaka (<i>Oryzias latipes</i>)	Fresh	10-day	LC ₁₀₀ = 100 mg AI/L	54, 59, 65, 72, 79, 87 mg/L	Renewal, Nominal	Mortality	(Schell, 1987)	High
Japanese medaka (<i>Oryzias latipes</i>)	Fresh	10-day	NOEC = 40 mg AI/L	54, 59, 65, 72, 79, 87 mg/L	Renewal, Nominal	Mortality	(Schell, 1987)	High
Rose bitterling (<i>Rhodeus ocellatus</i>)	Fresh	24-hour	NOAEL = 30 mg AI/L	0, 0.03, 0.3, 3, 30 mg/L (exposure group 1)	Static, Nominal	Micronuclei	(Hayashi et al., 1998)	Medium
Rose bitterling (<i>Rhodeus ocellatus</i>)	Fresh	24-hour	NOAEL = 30 mg AI/L	0, 0.03, 0.3, 3, 30 mg/L (exposure group 1)	Static, Nominal	Chromosomal aberrations, structural	(Hayashi et al., 1998)	Medium
Rose bitterling (<i>Rhodeus ocellatus</i>)	Fresh	24-hour	NOAEL = 30 mg AI/L	0, 0.03, 0.3, 3, 30 mg/L (exposure group 1)	Static, Nominal	Chromosomal aberrations, numerical	(Hayashi et al., 1998)	Medium
Rose bitterling (<i>Rhodeus ocellatus</i>)	Fresh	24-hour	NOAEL = 300 mg AI/L	0, 0.03, 0.3, 3, 30, 300 mg/L (exposure group 2)	Static, Nominal	Chromosomal aberrations, structural	(Hayashi et al., 1998)	Medium

Test Species	Fresh/ Salt Water	Duration	End-point	Concentration(s)	Test Analysis	Effect(s)	References	Data Quality Evaluation
Rose bitterling (<i>Rhodeus ocellatus</i>)	Fresh	24-hour	NOAEL = 300 mg AI/L	0, 0.03, 0.3, 3, 30, 300 mg/L (exposure group 2)	Static, Nominal	Chromosomal aberrations, numerical	(Hayashi et al., 1998)	Medium
Rose bitterling (<i>Rhodeus ocellatus</i>)	Fresh	24-hour	NOAEL = 300 mg AI/L	0, 0.03, 0.3, 3, 30, 300 mg/L (exposure group 2)	Static, Nominal	Micronuclei	(Hayashi et al., 1998)	Medium
Rose bitterling (<i>Rhodeus ocellatus</i>)	Fresh	24-hour	NOAEL = 300 mg AI/L LOAEL = 3,000 mg AI/L	0, 300, 3,000 mg/L (exposure group 3)	Static, Nominal	Chromosomal aberrations, structural	(Hayashi et al., 1998)	Medium
Rose bitterling (<i>Rhodeus ocellatus</i>)	Fresh	24-hour	NOAEL = 300 mg AI/L LOAEL = 3,000 mg AI/L	0, 300, 3,000 mg/L (exposure group 3)	Static, Nominal	Chromosomal aberrations, numerical	(Hayashi et al., 1998)	Medium
Rose bitterling (<i>Rhodeus ocellatus</i>)	Fresh	24-hour	NOAEL = 300 mg AI/L LOAEL = 3,000 mg AI/L	0, 300, 3,000 mg/L (exposure group 3)	Static, Nominal	Micronuclei	(Hayashi et al., 1998)	Medium
Sheepshead minnow (<i>Cyprinodon variegatus</i>)	Salt	96-hour	LC ₅₀ = 99 mg AI/L (based on initial meas. conc.)	0, 14, 34, 78, 148, 357 mg/L	Static, Measured	Mortality	(Ward et al., 1986)	Medium
Sheepshead minnow (<i>Cyprinodon variegatus</i>)	Salt	96-hour	LC ₅₀ = 52 mg AI/L	0, 14, 34, 78, 148, 357 mg/L	Static, Measured	Mortality	(Ward et al., 1986)	Medium
Sheepshead minnow (<i>Cyprinodon variegatus</i>)	Salt	96-hour	LOAEL = 357 mg AI/L	0, 14, 34, 78, 148, 357 mg/L	Static, Measured	Intoxication	(Ward et al., 1986)	Medium
Japanese medaka (<i>Orizias latipes</i>)	Fresh	48-hour	LC ₅₀ = 1.9 mg AI/L	Not reported	Static, Nominal	Mortality	(Yoshioka et al., 1986)	Unacceptable
Bluegill (<i>Lepomis macrochirus</i>)	Fresh	14-day	BCF = 17	0.00823 mg/L (mean water concentration)	Flow-through, Measured	Residue	(Barrows et al., 1980)	Unacceptable

Test Species	Fresh/ Salt Water	Duration	End-point	Concentration(s)	Test Analysis	Effect(s)	References	Data Quality Evaluation
Bluegill (<i>Lepomis macrochirus</i>)	Fresh	14-day	Half-Life in Tissue < 1 day	0.00823 mg/L (mean water concentration)	Flow-through, Measured	Half-Life of mean measured residue concentration in tissues	(Barrows et al., 1980)	Unacceptable
Golden orf (<i>Leuciscus idus</i>)	Fresh	48-hour	LC ₅₀ = 120 mg AI/L	Not reported	Flow-through, Measured	Mortality	(Umweltbundesamt, 1984)	Unacceptable
Zebrafish (<i>Brachydanio rerio</i>)	Fresh	14-day	BCF = 12 (initial concentration)	2.5 mg/L	Semi-static, Measured	Residue	(Umweltbundesamt, 1984)	Unacceptable
Zebrafish (<i>Brachydanio rerio</i>)	Fresh	14-day	BCF = 65 (concentration after 48 hours)	2.5 mg/L	Semi-static, Measured	Residue	(Umweltbundesamt, 1984)	Unacceptable
Zebrafish (<i>Brachydanio rerio</i>)	Fresh	14-day	BCF = 19 (concentration after 48 hours)	2.5 mg/L	Semi-static, Measured	Residue	(Umweltbundesamt, 1984)	Unacceptable
Aquatic Invertebrates								
Water flea (<i>Daphnia magna</i>)	Fresh	48-hour	EC ₅₀ = 7.7519451 mg AI/L	Not reported	Static, Nominal	Immobilization	(Abernethy et al., 1986)	Medium
Water flea (<i>Daphnia magna</i>)	Fresh	48-hour	NOEC = 2.2 mg/L	Not reported	Static, Nominal, Solvent: Unknown	Mortality	(LeBlanc, 1980)	High
Water flea (<i>Daphnia magna</i>)	Fresh	48-hour	LC ₅₀ = 18 mg/L	Not reported	Static, Nominal, Solvent: Unknown	Mortality	(LeBlanc, 1980)	High
Water flea (<i>Daphnia magna</i>)	Fresh	24-hour	LC ₅₀ = 22 mg/L	Not reported	Static, Nominal, Solvent: Unknown	Mortality	(LeBlanc, 1980)	High
Water flea (<i>Daphnia magna</i>)	Fresh	7-day	Minimum Threshold Concentration (MTC) = >10, <18 mg AI/L	0, 0, 0.62, 1.2, 2.5, 5.0, 10 mg/L	Flow-through, Nominal, Solvent: Triethylene glycol	Reproduction: Number of young produced per adult	(Leblanc and Surprenant, 1980)	Unacceptable
Water flea (<i>Daphnia magna</i>)	Fresh	14-day	MTC = >10, <18 mg AI/L	0, 0, 0.62, 1.2, 2.5, 5.0, 10 mg/L	Flow-through, Nominal, Solvent: Triethylene glycol	Reproduction: Number of young produced per adult	(Leblanc and Surprenant, 1980)	Unacceptable

Test Species	Fresh/ Salt Water	Duration	End-point	Concentration(s)	Test Analysis	Effect(s)	References	Data Quality Evaluation
Water flea (<i>Daphnia magna</i>)	Fresh	21-day	MTC = >10, <18 mg AI/L	0, 0, 0.62, 1.2, 2.5, 5.0, 10 mg/L	Flow-through, Nominal, Solvent: Triethylene glycol	Reproduction: Number of young produced per adult	(Leblanc and Surprenant, 1980)	Unacceptable
Water flea (<i>Daphnia magna</i>)	Fresh	14-day	NOAEL = 10 mg AI/L	0, 0, 0.62, 1.2, 2.5, 5.0, 10 mg/L	Flow-through, Nominal, Solvent: Triethylene glycol	Mortality	(Leblanc and Surprenant, 1980)	Unacceptable
Water flea (<i>Daphnia magna</i>)	Fresh	21-day	NOAEL = 10 mg AI/L	0, 0, 0.62, 1.2, 2.5, 5.0, 10 mg/L	Flow-through, Nominal, Solvent: Triethylene glycol	Mortality	(Leblanc and Surprenant, 1980)	Unacceptable
Water flea (<i>Daphnia magna</i>)	Fresh	14-day	MTC = >10, <18 mg AI/L	0, 0, 0.62, 1.2, 2.5, 5.0, 10 mg/L	Flow-through, Nominal, Solvent: Triethylene glycol	Mortality	(Leblanc and Surprenant, 1980)	Unacceptable
Water flea (<i>Daphnia magna</i>)	Fresh	21-day	MTC = >10, <18 mg AI/L	0, 0, 0.62, 1.2, 2.5, 5.0, 10 mg/L	Flow-through, Nominal, Solvent: Triethylene glycol	Mortality	(Leblanc and Surprenant, 1980)	Unacceptable
Water flea (<i>Daphnia magna</i>)	Fresh	7-day	NOAEL = 10 mg AI/L	0, 0, 0.62, 1.2, 2.5, 5.0, 10 mg/L	Flow-through, Nominal, Solvent: Triethylene glycol	Mortality	(Leblanc and Surprenant, 1980)	Unacceptable
Water flea (<i>Daphnia magna</i>)	Fresh	7-day	NOAEL = 10 mg AI/L	0, 0, 0.62, 1.2, 2.5, 5.0, 10 mg/L	Flow-through, Nominal, Solvent: Triethylene glycol	Reproduction: Number of young produced per adult	(Leblanc and Surprenant, 1980)	Unacceptable
Water flea (<i>Daphnia magna</i>)	Fresh	14-day	NOAEL = 10 mg AI/L	0, 0, 0.62, 1.2, 2.5, 5.0, 10 mg/L	Flow-through, Nominal, Solvent: Triethylene glycol	Reproduction: Number of young produced per adult	(Leblanc and Surprenant, 1980)	Unacceptable
Water flea (<i>Daphnia magna</i>)	Fresh	21-day	NOAEL = 10 mg AI/L	0, 0, 0.62, 1.2, 2.5, 5.0, 10 mg/L	Flow-through, Nominal, Solvent: Triethylene glycol	Reproduction: Number of young produced per adult	(Leblanc and Surprenant, 1980)	Unacceptable
Water flea (<i>Daphnia magna</i>)	Fresh	7-day	MTC = >10, <18 mg AI/L	0, 0, 0.62, 1.2, 2.5, 5.0, 10 mg/L	Flow-through, Nominal, Solvent: Triethylene glycol	Mortality	(Leblanc and Surprenant, 1980)	Unacceptable
Water flea (<i>Daphnia magna</i>)	Fresh	24-hour	LC ₅₀ = 43.14 mg/L	0, 5, 10, 20, 30, 40, 50, 75, 100 mg/L	Aquatic-not reported, Nominal	Mortality	(Dobaradaran et al., 2012)	Medium

Test Species	Fresh/ Salt Water	Duration	End-point	Concentration(s)	Test Analysis	Effect(s)	References	Data Quality Evaluation
Water flea (<i>Daphnia magna</i>)	Fresh	48-hour	LC ₅₀ = 33.85 mg/L	0, 5, 10, 20, 30, 40, 50, 75, 100 mg/L	Aquatic-not reported, Nominal	Mortality	(Dobaradaran et al., 2012)	Medium
Water flea (<i>Daphnia magna</i>)	Fresh	72-hour	LC ₅₀ = 28.39 mg/L	0, 5, 10, 20, 30, 40, 50, 75, 100 mg/L	Aquatic-not reported, Nominal	Mortality	(Dobaradaran et al., 2012)	Medium
Water flea (<i>Daphnia magna</i>)	Fresh	96-hour	LC ₅₀ = 26.55 mg/L	0, 5, 10, 20, 30, 40, 50, 75, 100 mg/L	Aquatic-not reported, Nominal	Mortality	(Dobaradaran et al., 2012)	Medium
Water flea (<i>Daphnia magna</i>)	Fresh	10-day	NOAEL = 0.01 mg AI/L	0, 0, 0.0001, 0.001, 0.01 mg/L	Renewal, Nominal, Solvent: Methanol	Glutathione S- transferase gene expression	(Houde et al., 2015)	High
Water flea (<i>Daphnia magna</i>)	Fresh	10-day	NOAEL = 0.01 mg AI/L	0, 0, 0.0001, 0.001, 0.01 mg/L	Renewal, Nominal, Solvent: Methanol	Ecdysone receptor A1 gene expression	(Houde et al., 2015)	High
Water flea (<i>Daphnia magna</i>)	Fresh	10-day	NOAEL = 0.01 mg AI/L	0, 0, 0.0001, 0.001, 0.01 mg/L	Renewal, Nominal, Solvent: Methanol	Ecdysone receptor B isoform gene expression	(Houde et al., 2015)	High
Water flea (<i>Daphnia magna</i>)	Fresh	10-day	NOAEL = 0.01 mg AI/L	0, 0, 0.0001, 0.001, 0.01 mg/L	Renewal, Nominal, Solvent: Methanol	Vitellogenin 1 gene expression	(Houde et al., 2015)	High
Water flea (<i>Daphnia magna</i>)	Fresh	10-day	NOAEL = 0.01 mg AI/L	0, 0, 0.0001, 0.001, 0.01 mg/L	Renewal, Nominal, Solvent: Methanol	Vitellogenin 2 gene expression	(Houde et al., 2015)	High
Water flea (<i>Daphnia magna</i>)	Fresh	10-day	NOAEL = 0.001 mg AI/L LOAEL = 0.01 mg AI/L	0, 0, 0.0001, 0.001, 0.01 mg/L	Renewal, Nominal, Solvent: Methanol	Chitinase activity	(Houde et al., 2015)	High
Water flea (<i>Daphnia magna</i>)	Fresh	10-day	NOAEL = 0.01 mg AI/L	0, 0, 0.0001, 0.001, 0.01 mg/L	Renewal, Nominal, Solvent: Methanol	Vitellogenin-like protein concentration	(Houde et al., 2015)	High
Water flea (<i>Daphnia magna</i>)	Fresh	10-day	NOAEL = 0.01 mg AI/L	0, 0, 0.0001, 0.001, 0.01 mg/L	Renewal, Nominal, Solvent: Methanol	Growth: body length	(Houde et al., 2015)	High
Water flea (<i>Daphnia magna</i>)	Fresh	10-day	NOAEL = 0.01 mg AI/L	0, 0, 0.0001, 0.001, 0.01 mg/L	Renewal, Nominal, Solvent: Methanol	Reproduction: Time to first brood	(Houde et al., 2015)	High
Water flea (<i>Daphnia magna</i>)	Fresh	10-day	NOAEL = 0.01 mg AI/L	0, 0, 0.0001, 0.001, 0.01 mg/L	Renewal, Nominal, Solvent: Methanol	Reproduction: Number of neonates	(Houde et al., 2015)	High

Test Species	Fresh/ Salt Water	Duration	End-point	Concentration(s)	Test Analysis	Effect(s)	References	Data Quality Evaluation
Water flea (<i>Daphnia magna</i>)	Fresh	10-day	NOAEL = 0.01 mg AI/L	0, 0, 0.0001, 0.001, 0.01 mg/L	Renewal, Nominal, Solvent: Methanol	Reproduction: Total number of molts	(Houde et al., 2015)	High
Water flea (<i>Daphnia magna</i>)	Fresh	10-day	NOAEL = 0.01 mg AI/L	0, 0, 0.0001, 0.001, 0.01 mg/L	Renewal, Nominal, Solvent: Methanol	Nitric oxide synthase 2 gene expression	(Houde et al., 2015)	High
Water flea (<i>Daphnia magna</i>)	Fresh	10-day	NOAEL = 0.01 mg AI/L	0, 0, 0.0001, 0.001, 0.01 mg/L	Renewal, Nominal, Solvent: Methanol	Juvenile hormone esterase isoform A gene expression	(Houde et al., 2015)	High
Water flea (<i>Daphnia magna</i>)	Fresh	10-day	NOAEL = 0.01 mg AI/L	0, 0, 0.0001, 0.001, 0.01 mg/L	Renewal, Nominal, Solvent: Methanol	Vitelline outer layer membrane protein 1 gene expression	(Houde et al., 2015)	High
Water flea (<i>Daphnia magna</i>)	Fresh	10-day	NOAEL = 0.01 mg AI/L	0, 0, 0.0001, 0.001, 0.01 mg/L	Renewal, Nominal, Solvent: Methanol	Retinoid X Receptor alpha gene expression	(Houde et al., 2015)	High
Water flea (<i>Ceriodaphnia dubia</i>)	Fresh	2-day	LC ₅₀ = 17.080557 mg AI/L	0, 1.71, 3.15, 7.10, 11.8, 27.85 mg/L	Renewal, Measured	Mortality	(Niederlehner et al., 1998)	High
Water flea (<i>Ceriodaphnia dubia</i>)	Fresh	7-day	LC ₅₀ = 16.9491681 mg AI/L	0, 1.71, 3.15, 7.10, 11.8, 27.85 mg/L	Renewal, Measured	Mortality	(Niederlehner et al., 1998)	High
Water flea (<i>Ceriodaphnia dubia</i>)	Fresh	7-day	NOEL = 7.0950006 mg AI/L LOEL = 11.825001 mg AI/L	0, 1.71, 3.15, 7.10, 11.8, 27.85 mg/L	Renewal, Measured	Reproduction: mean number of young	(Niederlehner et al., 1998)	High
Water flea (<i>Ceriodaphnia dubia</i>)	Fresh	7-day	IC ₅₀ = 10.7738898 mg AI/L	0, 1.71, 3.15, 7.10, 11.8, 27.85 mg/L	Renewal, Measured	Reproduction: mean number of young	(Niederlehner et al., 1998)	High
Brine shrimp (<i>Artemia salina</i>)	Salt	24-hour	LC ₅₀ = 30.2 mg/L*	Not reported	Static, Nominal, Solvent: ethanol	Mortality, for shrimp starting at 24-hours old	(Sanchez-Fortun et al., 1997)	Low

* Purity was not reported, so value is as reported by authors.

Test Species	Fresh/ Salt Water	Duration	End-point	Concentration(s)	Test Analysis	Effect(s)	References	Data Quality Evaluation
Brine shrimp (<i>Artemia salina</i>)	Salt	24-hour	LC ₅₀ = 5.3 mg/L*	Not reported	Static, Nominal, Solvent: ethanol	Mortality, for shrimp starting at 48-hours old	(Sanchez-Fortun et al., 1997)	Low
Brine shrimp (<i>Artemia salina</i>)	Salt	24-hour	LC ₅₀ = 0.92 mg/L*	Not reported	Static, Nominal, Solvent: ethanol	Mortality, for shrimp starting at 72-hours old	(Sanchez-Fortun et al., 1997)	Low
Asiatic clam (<i>Corbiculafluminea</i>)	Fresh	5-day	NOAEL = 0.1 - 1.2 mg AI/L LOAEL = <0.1 - 3.58 mg AI/L	<0.1, 1.20, 3.58, 13.99, 69.44 mg/L (initial, day 0); <0.1, 0.10, <0.1, 0.22, 4.40 mg/L (final, day 5)	Static, Measured	Cytochrome P- 450 level	(Vidal et al., 2001)	High
Asiatic clam (<i>Corbiculafluminea</i>)	Fresh	5-day	NOAEL = <0.1 - 3.58 mg AI/L LOAEL = 0.22 - 13.99 mg AI/L	<0.1, 1.20, 3.58, 13.99, 69.44 mg/L (initial, day 0); <0.1, 0.10, <0.1, 0.22, 4.40 mg/L (final, day 5)	Static, Measured	NADPH cytochrome reductase level	(Vidal et al., 2001)	High
Mysid shrimp (<i>Mysidopsis bahia</i>)	Salt	96-hour	LC ₅₀ = 27 mg AI/L	0, 5.6, 12, 26, 69, 130 mg/L	Static, Measured	Mortality (based on initial measured conc.)	(Ward et al., 1986)	Medium
Mysid shrimp (<i>Mysidopsis bahia</i>)	Salt	96-hour	LC ₅₀ = 14 mg AI/L	0, 5.6, 12, 26, 69, 130 mg/L	Static, Measured (based on avg. of initial/final measured conc.)	Mortality	(Ward et al., 1986)	Medium
Mysid shrimp (<i>Mysidopsis bahia</i>)	Salt	96-hour	NOAEL = 12 mg AI/L LOAEL = 26 mg AI/L	0, 5.6, 12, 26, 69, 130 mg/L	Static, Measured (based on avg. of initial/final measured conc.)	Intoxication	(Ward et al., 1986)	Medium
Ciliate (<i>Tetrahymena pyriformis</i>)	Fresh	24-hour	EC ₅₀ = 410 mg AI/L	Not reported	Static, Nominal	Population growth rate	(Yoshioka et al., 1985)	Unacceptable
Flatworm (<i>Dugesia japonica</i>)	Fresh	7-day	LC ₅₀ = 1.7 mg AI/L	Not reported	Renewal, Nominal	Mortality	(Yoshioka et al., 1986)	Low

Test Species	Fresh/ Salt Water	Duration	End-point	Concentration(s)	Test Analysis	Effect(s)	References	Data Quality Evaluation
Flatworm (<i>Dugesia japonica</i>)	Fresh	7-day	EC ₅₀ = 1.7 mg AI/L	Not reported	Renewal, Nominal	Abnormal regeneration	(Yoshioka et al., 1986)	Low
Water flea (<i>Moina macrocopa</i>)	Fresh	3-hour	LC ₅₀ = 2.3 mg AI/L	Not reported	Static, Nominal	Mortality	(Yoshioka et al., 1986)	Unacceptable
<i>Algae</i>								
Green algae (<i>Chlamydomonas reinhardtii</i>)	Fresh	2-hour	EC ₀₅ = 13 mg AI/L	Not reported	Static, Nominal	Chlorophyll a fluorescence	(Brack and Frank, 1998)	Unacceptable
Green algae (<i>Chlamydomonas reinhardtii</i>)	Fresh	72-hour	EC ₁₀ = 12.3 mg AI/L	Not reported	Static, Nominal	Biomass	(Brack and Rottler, 1994)	High
Green algae (<i>Chlamydomonas reinhardtii</i>)	Fresh	72-hour	EC ₅₀ = 36.5 mg AI/L	Not reported	Static, Nominal	Biomass	(Brack and Rottler, 1994)	High
Green algae (<i>Chlorella vulgaris</i>)	Fresh	10-day	NOAEL = 3 mg AI/L	0, 0.003, 0.03, 0.3, 3 mg/L	Static, Nominal	Growth (chlorophyll A concentration)	(Ando et al., 2003)	Medium
Green algae (<i>Pseudokirchnerie lla subcapitata</i>)	Fresh	10-day	NOAEL = 3 mg AI/L	0, 0.003, 0.03, 0.3, 3 mg/L	Static, Nominal	Growth (chlorophyll A concentration)	(Ando et al., 2003)	Medium
Green algae (<i>Volvulina steinii</i>)	Fresh	10-day	LOAEL = 0.003 mg AI/L	0, 0.003, 0.03, 0.3, 3 mg/L	Static, Nominal	Growth (chlorophyll A concentration)	(Ando et al., 2003)	Medium
Green algae (<i>Parachlorella kessleri</i>)	Fresh	96-hour	EC ₅₀ = 240 mg AI/L	0, >0--1,000 mg/L	Static, Nominal, Solvent: Methanol, Plate method	Growth (dry weight)	(Lukavsky et al., 2011)	Medium
Green algae (<i>Pseudokirchnerie lla subcapitata</i>)	Fresh	96-hour	EC ₅₀ = 450 mg AI/L	0, >0--1,000 mg/L	Static, Nominal, Solvent: Methanol, Plate method	Growth (dry weight)	(Lukavsky et al., 2011)	Medium
Green algae (<i>Scenedesmus quadricauda</i>)	Fresh	96-hour	EC ₅₀ = 400 mg AI/L	Not reported	Static, Nominal, Solvent: Methanol, Plate method	Growth (dry weight)	(Lukavsky et al., 2011)	Medium

Test Species	Fresh/ Salt Water	Duration	End-point	Concentration(s)	Test Analysis	Effect(s)	References	Data Quality Evaluation
Green algae (<i>Desmodesmus subspicatus</i>)	Fresh	96-hour	EC ₅₀ = 350 mg AI/L	0, >0--1,000 mg/L	Static, Nominal, Solvent: Methanol, Plate method	Growth (dry weight)	(Lukavsky et al., 2011)	Medium
Blue-green algae (<i>Synechococcus elongatus</i>)	Fresh	96-hour	EC ₅₀ = 800 mg AI/L	0, >0--1,000 mg/L	Static, Nominal, Solvent: Methanol, Plate method	Growth (dry weight)	(Lukavsky et al., 2011)	Medium
Blue-green algae (<i>Synechococcus leopoliensis</i>)	Fresh	96-hour	EC ₅₀ = 300 mg AI/L	0, >0--1,000 mg/L	Static, Nominal, Solvent: Methanol, Plate method	Growth (dry weight)	(Lukavsky et al., 2011)	Medium
Green algae (<i>Parachlorella kessleri</i>)	Fresh	96-hour	EC ₅₀ = 430 mg AI/L	0, >0--1,000 mg/L	Static, Nominal, Solvent: Methanol, Glass enclosure method	Growth (dry weight)	(Lukavsky et al., 2011)	Medium
Green algae (<i>Parachlorella kessleri</i>)	Fresh	96-hour	EC ₅₀ = 700 mg AI/L	0, >0--1,000 mg/L	Static, Nominal, Solvent: Methanol, Glass enclosure method	Photosynthesis (O ₂ , production)	(Lukavsky et al., 2011)	Medium
Green algae (<i>Parachlorella kessleri</i>)	Fresh	96-hour	EC ₅₀ = 700 mg AI/L	0, >0--1,000 mg/L	Static, Nominal, Solvent: Methanol, Glass enclosure method	Photosynthesis (pH change)	(Lukavsky et al., 2011)	Medium
Green algae (<i>Chlamydomonas reinhardtii</i>)	Fresh	96-hour	EC ₅₀ = 520 mg AI/L	Not reported	Static, Nominal, Solvent: Methanol, Glass enclosure method	Growth (dry weight)	(Lukavsky et al., 2011)	Medium
Green algae (<i>Chlamydomonas reinhardtii</i>)	Fresh	96-hour	EC ₅₀ = 700 mg AI/L	Not reported	Static, Nominal, Solvent: Methanol, Glass enclosure method	Photosynthesis (O ₂ , production)	(Lukavsky et al., 2011)	Medium
Green algae (<i>Chlamydomonas reinhardtii</i>)	Fresh	96-hour	EC ₅₀ = 700 mg AI/L	Not reported	Static, Nominal, Solvent: Methanol, Glass enclosure method	Photosynthesis (pH change)	(Lukavsky et al., 2011)	Medium
Green algae (<i>Pseudokirchnerie lla subcapitata</i>)	Fresh	96-hour	EC ₅₀ = 220 mg AI/L	0, >0--1,000 mg/L	Static, Nominal, Solvent: Methanol, Glass enclosure method	Growth (dry weight)	(Lukavsky et al., 2011)	Medium

Test Species	Fresh/ Salt Water	Duration	End-point	Concentration(s)	Test Analysis	Effect(s)	References	Data Quality Evaluation
Green algae (<i>Pseudokirchnerie lla subcapitata</i>)	Fresh	96-hour	EC ₅₀) = 700 mg AI/L	0, >0--1,000 mg/L	Static, Nominal, Solvent: Methanol, Glass enclosure method	Photosynthesis (O ₂ , production)	(Lukavsky et al., 2011)	Medium
Green algae (<i>Pseudokirchnerie lla subcapitata</i>)	Fresh	96-hour	EC ₅₀ = 700 mg AI/L	0, >0--1,000 mg/L	Static, Nominal, Solvent: Methanol, Glass enclosure method	Photosynthesis (pH change)	(Lukavsky et al., 2011)	Medium
Green algae (<i>Scenedesmus quadicauda</i>)	Fresh	96-hour	EC ₅₀ = 500 mg AI/L	Not reported	Static, Nominal, Solvent: Methanol, Glass enclosure method	Growth (dry weight)	(Lukavsky et al., 2011)	Medium
Green algae (<i>Scenedesmus quadicauda</i>)	Fresh	96-hour	EC ₅₀ = 500 mg AI/L	Not reported	Static, Nominal, Solvent: Methanol, Glass enclosure method	Photosynthesis (O ₂ , production)	(Lukavsky et al., 2011)	Medium
Green algae (<i>Scenedesmus quadicauda</i>)	Fresh	96-hour	EC ₅₀ = 600 mg AI/L	Not reported	Static, Nominal, Solvent: Methanol, Glass enclosure method	Photosynthesis (pH change)	(Lukavsky et al., 2011)	Medium
Green algae (<i>Desmodesmus subspicatus</i>)	Fresh	96-hour	EC ₅₀ = 820 mg AI/L	0, >0--1,000 mg/L	Static, Nominal, Solvent: Methanol, Glass enclosure method	Growth (dry weight)	(Lukavsky et al., 2011)	Medium
Green algae (<i>Desmodesmus subspicatus</i>)	Fresh	96-hour	EC ₅₀ = 400 mg AI/L	0, >0--1,000 mg/L	Static, Nominal, Solvent: Methanol, Glass enclosure method	Photosynthesis (O ₂ , production)	(Lukavsky et al., 2011)	Medium
Green algae (<i>Desmodesmus subspicatus</i>)	Fresh	96-hour	EC ₅₀ = 400 mg AI/L	0, >0--1,000 mg/L	Static, Nominal, Solvent: Methanol, Glass enclosure method	Photosynthesis (pH change)	(Lukavsky et al., 2011)	Medium
Blue-green algae (<i>Synechococcus elongatus</i>)	Fresh	96-hour	EC ₅₀ = 800 mg AI/L	0, >0--1,000 mg/L	Static, Nominal, Solvent: Methanol, Glass enclosure method	Growth (dry weight)	(Lukavsky et al., 2011)	Medium

Test Species	Fresh/ Salt Water	Duration	End-point	Concentration(s)	Test Analysis	Effect(s)	References	Data Quality Evaluation
Blue-green algae (<i>Synechococcus elongatus</i>)	Fresh	96-hour	EC ₅₀ = 600 mg AI/L	0, >0~1,000 mg/L	Static, Nominal, Solvent: Methanol, Glass enclosure method	Photosynthesis (O ₂ , production)	(Lukavsky et al., 2011)	Medium
Blue-green algae (<i>Synechococcus elongatus</i>)	Fresh	96-hour	EC ₅₀ = 700 mg AI/L	0, >0~1,000 mg/L	Static, Nominal, Solvent: Methanol, Glass enclosure method	Photosynthesis (pH change)	(Lukavsky et al., 2011)	Medium
Blue-green algae (<i>Synechococcus leopoliensis</i>)	Fresh	96-hour	EC ₅₀ = 600 mg AI/L	0, >0~1,000 mg/L	Static, Nominal, Solvent: Methanol, Glass enclosure method	Growth (dry weight)	(Lukavsky et al., 2011)	Medium
Blue-green algae (<i>Synechococcus leopoliensis</i>)	Fresh	96-hour	EC ₅₀ = 480 mg AI/L	0, >0~1,000 mg/L	Static, Nominal, Solvent: Methanol, Glass enclosure method	Photosynthesis (O ₂ , production)	(Lukavsky et al., 2011)	Medium
Blue-green algae (<i>Synechococcus leopoliensis</i>)	Fresh	96-hour	EC ₅₀ = 450 mg AI/L	0, >0~1,000 mg/L	Static, Nominal, Solvent: Methanol, Glass enclosure method	Photosynthesis (pH change)	(Lukavsky et al., 2011)	Medium
Blue-green algae (<i>Microcystis aeruginosa</i>)	Fresh	96-hour	EC ₅₀ = 130 mg AI/L	Not reported	Static, Nominal, Solvent: Methanol, Glass enclosure method	Growth (dry weight)	(Lukavsky et al., 2011)	Medium
Blue-green algae (<i>Microcystis aeruginosa</i>)	Fresh	96-hour	EC ₅₀ = 100 mg AI/L	Not reported	Static, Nominal, Solvent: Methanol, Glass enclosure method	Photosynthesis (O ₂ , production)	(Lukavsky et al., 2011)	Medium
Blue-green algae (<i>Microcystis aeruginosa</i>)	Fresh	96-hour	EC ₅₀ = 250 mg AI/L	Not reported	Static, Nominal, Solvent: Methanol, Glass enclosure method	Photosynthesis (pH change)	(Lukavsky et al., 2011)	Medium
Green algae (<i>Pseudokirchnerie lla subcapitata</i>)	Fresh	24-hour	NOAEL = 0.05 LOAEL = 0.2	0, 0.01, 0.02, 0.05, 0.2, 0.5 mg/L	Static, Nominal	Abundance (total algal number)	(Labra et al., 2010)	Medium

Test Species	Fresh/ Salt Water	Duration	End-point	Concentration(s)	Test Analysis	Effect(s)	References	Data Quality Evaluation
Green algae (<i>Pseudokirchnerie lla subcapitata</i>)	Fresh	48-hour	NOAEL = 0.02 mg AI/L LOAEL = 0.05 mg AI/L	0, 0.01, 0.02, 0.05, 0.2, 0.5 mg/L	Static, Nominal	Abundance (total algal number)	(Labra et al., 2010)	Medium
Green algae (<i>Pseudokirchnerie lla subcapitata</i>)	Fresh	72-hour	NOAEL = 0.02 mg AI/L LOAEL = 0.05 mg AI/L	0, 0.01, 0.02, 0.05, 0.2, 0.5 mg/L	Static, Nominal	Abundance (total algal number)	(Labra et al., 2010)	Medium
Green algae (<i>Pseudokirchnerie lla subcapitata</i>)	Fresh	72-hour	NOAEL = 0.05 mg AI/L LOAEL = 0.2 mg AI/L	0, 0.01, 0.02, 0.05, 0.2, 0.5 mg/L	Static, Nominal	Damage/ FDA fluorescence	(Labra et al., 2010)	Medium
Green algae (<i>Pseudokirchnerie lla subcapitata</i>)	Fresh	48-hour	NOAEL = 0.02 mg AI/L LOAEL = 0.05 mg AI/L	0, 0.01, 0.02, 0.05, 0.2, 0.5 mg/L	Static, Nominal	Damage/ FDA fluorescence	(Labra et al., 2010)	Medium
Green algae (<i>Pseudokirchnerie lla subcapitata</i>)	Fresh	24-hour	NOAEL = 0.05 mg AI/L LOAEL = 0.2 mg AI/L	0, 0.01, 0.02, 0.05, 0.2, 0.5 mg/L	Static, Nominal	Damage/ FDA fluorescence	(Labra et al., 2010)	Medium
Diatom (<i>Skeletonema costatum</i>)	Salt	96-hour	EC ₅₀ = 150 mg AI/L (based on initial meas. conc.)	0, 8.5, 12, 35, 64, 150 mg/L	Static, Measured	Chlorophyll a, Cell count	(Ward et al., 1986)	Medium
Diatom (<i>Skeletonema costatum</i>)	Salt	96-hour	EC ₅₀ = 95 mg AI/L (based on average measured conc.)	0, 8.5, 12, 35, 64, 150 mg/L	Static, Measured	Chlorophyll a, Cell count	(Ward et al., 1986)	Medium
Blue-green algae (<i>Synechococcus elongatus</i>)	Fresh	12-hour	LOAEL = 1367 mg/L	0, 1367 mg/L	Static, Nominal	Peroxidase activity	(Bacsi et al., 2013)	Unacceptable
Blue-green algae (<i>Synechococcus elongatus</i>)	Fresh	24-hour	LOAEL = 1367 mg/L	0, 1367 mg/L	Static, Nominal	Thiobarbituric acid reactive substances, Superoxide dismutase activities	(Bacsi et al., 2013)	Unacceptable

Test Species	Fresh/ Salt Water	Duration	End-point	Concentration(s)	Test Analysis	Effect(s)	References	Data Quality Evaluation
Blue-green algae (<i>Synechococcus elongatus</i>)	Fresh	12-hour	LOAEL = 1367 mg/L	0, 1367 mg/L	Static, Nominal	Thiobarbituric acid reactive substances, Superoxide dismutase activities	(Bacsi et al., 2013)	Unacceptable
Blue-green algae (<i>Synechococcus elongatus</i>)	Fresh	24-hour	LOAEL = 1367 mg/L	0, 1367 mg/L	Static, Nominal	Peroxidase activity	(Bacsi et al., 2013)	Unacceptable
Blue-green algae (<i>Synechococcus elongatus</i>)	Fresh	4-hour	NOAEL = 1367 mg/L	0, 1367 mg/L	Static, Nominal	Chlorophyll A concentration	(Bacsi et al., 2013)	Unacceptable
Blue-green algae (<i>Synechococcus elongatus</i>)	Fresh	24-hour	NOAEL = 1367 mg/L	0, 1367 mg/L	Static, Nominal	Chlorophyll A concentration	(Bacsi et al., 2013)	Unacceptable
Blue-green algae (<i>Synechococcus elongatus</i>)	Fresh	4-hour	NOAEL = 1367 mg/L	0, 1367 mg/L	Static, Nominal	Peroxidase activity	(Bacsi et al., 2013)	Unacceptable
Blue-green algae (<i>Synechococcus elongatus</i>)	Fresh	8-hour	LOAEL = 1367 mg/L	0, 1367 mg/L	Static, Nominal	Peroxidase activity	(Bacsi et al., 2013)	Unacceptable
Blue-green algae (<i>Synechococcus elongatus</i>)	Fresh	24-hour	LOAEL = 1367 mg/L	0, 1367 mg/L	Static, Nominal	Abundance (cell count)	(Bacsi et al., 2013)	Unacceptable
Blue-green algae (<i>Synechococcus elongatus</i>)	Fresh	8-hour	LOAEL = 1367 mg/L	0, 1367 mg/L	Static, Nominal	Thiobarbituric acid reactive substances, Superoxide dismutase activities	(Bacsi et al., 2013)	Unacceptable

Test Species	Fresh/ Salt Water	Duration	End-point	Concentration(s)	Test Analysis	Effect(s)	References	Data Quality Evaluation
Blue-green algae (<i>Synechococcus elongatus</i>)	Fresh	4-hour	LOAEL = 1367 mg/L	0, 1367 mg/L	Static, Nominal	Thiobarbituric acid reactive substances, Superoxide dismutase activities	(Bacsi et al., 2013)	Unacceptable
Algae (not reported)	Fresh	24-hour	LOAEL = 1365 mg/L	0, 0, 1365 mg/L	Lentic, Nominal	Abundance (# of individuals)	(Bacsi et al., 2013)	Unacceptable
Algae (not reported)	Fresh	48-hour	NOAEL = 1365 mg/L	0, 0, 1365 mg/L	Lentic, Nominal	Abundance (# of individuals)	(Bacsi et al., 2013)	Unacceptable
Algae (not reported)	Fresh	72-hour	LOAEL = 1365 mg/L	0, 0, 1365 mg/L	Lentic, Nominal	Chlorophyll A content of assemblages	(Bacsi et al., 2013)	Unacceptable
Algae (not reported)	Fresh	72-hour	NOAEL = 1365 mg/L	0, 0, 1365 mg/L	Lentic, Nominal	Thiobarbituric acid reactive substances	(Bacsi et al., 2013)	Unacceptable
Algae (not reported)	Fresh	1-day	NOAEL = 1,366 mg AI/L	0, 1,366 mg/L	Lentic, Nominal	Chlorophyll A concentration	(Bacsi et al., 2015)	Unacceptable
Algae (not reported)	Fresh	2-day	LOAEL = 1,366 mg AI/L	0, 1,366 mg/L	Lentic, Nominal	Chlorophyll A concentration	(Bacsi et al., 2015)	Unacceptable
Algae (not reported)	Fresh	3-day	NOAEL = 1,366 mg AI/L	0, 1,366 mg/L	Lentic, Nominal	Chlorophyll A concentration	(Bacsi et al., 2015)	Unacceptable
Algae (not reported)	Fresh	3-day	LOAEL = 1,366 mg AI/L	0, 1,366 mg/L	Lentic, Nominal	Algal abundance (individual #; 2012 assemblages)	(Bacsi et al., 2015)	Unacceptable
Algae (not reported)	Fresh	2-day	NOAEL = 1,366 mg AI/L	0, 1,366 mg/L	Lentic, Nominal	Algal abundance (individual #; 2011 assemblages)	(Bacsi et al., 2015)	Unacceptable
Algae (not reported)	Fresh	1-day	LOAEL = 1,366 mg AI/L	0, 1,366 mg/L	Lentic, Nominal	Algal abundance (individual #)	(Bacsi et al., 2015)	Unacceptable
Algae (not reported)	Fresh	1-day	LOAEL = 1,366 mg AI/L	0, 1,366 mg/L	Lentic, Nominal	Diversity, Evenness (2011 assemblages)	(Bacsi et al., 2015)	Unacceptable

Test Species	Fresh/ Salt Water	Duration	End-point	Concentration(s)	Test Analysis	Effect(s)	References	Data Quality Evaluation
Algae (not reported)	Fresh	2-day	LOAEL = 1,366 mg AI/L	0, 1,366 mg/L	Lentic, Nominal	Diversity, Evenness (2011 assemblages)	(Bacsi et al., 2015)	Unacceptable
Algae (not reported)	Fresh	3-day	LOAEL = 1,366 mg AI/L	0, 1,366 mg/L	Lentic, Nominal	Diversity, Evenness (2011 assemblages)	(Bacsi et al., 2015)	Unacceptable
Algae (not reported)	Fresh	1-day	LOAEL = 1,366 mg AI/L	0, 1,366 mg/L	Lentic, Nominal	Chlorophyll A concentration	(Bacsi et al., 2015)	Unacceptable
Algae (not reported)	Fresh	2-day	LOAEL = 1,366 mg AI/L	0, 1,366 mg/L	Lentic, Nominal	Algal abundance (individual #; 2012 assemblages)	(Bacsi et al., 2015)	Unacceptable
Algae (not reported)	Fresh	3-day	NOAEL = 1,366 mg AI/L	0, 1,366 mg/L	Lentic, Nominal	Algal abundance (individual #; 2011 assemblages)	(Bacsi et al., 2015)	Unacceptable
Algae (not reported)	Fresh	1-day	NOAEL = 1,366 mg AI/L	0, 1,366 mg/L	Lentic, Nominal	Diversity, evenness (2012 assemblages)	(Bacsi et al., 2015)	Unacceptable
Algae (not reported)	Fresh	2-day	NOAEL = 1,366 mg AI/L	0, 1,366 mg/L	Lentic, Nominal	Diversity, evenness (2012 assemblages)	(Bacsi et al., 2015)	Unacceptable
Algae (not reported)	Fresh	3-day	LOAEL = 1,366 mg AI/L	0, 1,366 mg/L	Lentic, Nominal	Diversity, evenness (2012 assemblages)	(Bacsi et al., 2015)	Unacceptable
Green algae (<i>Pseudokirchneriella subcapitata</i>)	Fresh	48-hour	EC ₅₀ = 26.24 mg AI/L	Not reported	Static, Nominal	Population growth rate	(Tsai and Chen, 2007)	High
Green algae (<i>Pseudokirchneriella subcapitata</i>)	Fresh	NA	No data reported; test discontinued	NA	NA	Population growth rate	(Umweltbundesamt, 1984)	Unacceptable
<i>Amphibians</i>								
African clawed frog (<i>Xenopus laevis</i>)	Fresh	96-hour	LC ₅₀ = 434 mg AI/L	Not reported	Renewal, Nominal, Solvent: DMSO, without activation	Mortality	(Fort et al., 1993)	High

Test Species	Fresh/ Salt Water	Duration	End-point	Concentration(s)	Test Analysis	Effect(s)	References	Data Quality Evaluation
African clawed frog (<i>Xenopus laevis</i>)	Fresh	96-hour	EC ₅₀ = 36 mg AI/L	Not reported	Renewal, Nominal, Solvent: DMSO, without activation	Terata	(Fort et al., 1993)	High
African clawed frog (<i>Xenopus laevis</i>)	Fresh	96-hour	Minimum Concentrations to Inhibit Growth (MCIG) = 29 mg AI/L	Not reported	Renewal, Nominal, Solvent: DMSO, without activation	Embryo growth	(Fort et al., 1993)	High
African clawed frog (<i>Xenopus laevis</i>)	Fresh	96-hour	LC ₅₀ = 241.0 mg AI/L	Not reported	Renewal, Nominal, Solvent: DMSO, with activation	Mortality	(Fort et al., 1993)	High
African clawed frog (<i>Xenopus laevis</i>)	Fresh	96-hour	EC ₅₀ = 9.5 mg AI/L	Not reported	Renewal, Nominal, Solvent: DMSO, with activation	Terata	(Fort et al., 1993)	High
African clawed frog (<i>Xenopus laevis</i>)	Fresh	96-hour	MCIG = 9.0 mg AI/L	Not reported	Renewal, Nominal, Solvent: DMSO, with activation	Embryo growth	(Fort et al., 1993)	High
African clawed frog (<i>Xenopus laevis</i>)	Fresh	96-hour	LC ₅₀ = 398 mg AI/L	Not reported	Renewal, Nominal, Solvent: DMSO, with carbon monoxide-inhibited activation	Mortality	(Fort et al., 1993)	High
African clawed frog (<i>Xenopus laevis</i>)	Fresh	96-hour	EC ₅₀ = 22 mg AI/L	Not reported	Renewal, Nominal, Solvent: DMSO, with carbon monoxide-inhibited activation	Terata	(Fort et al., 1993)	High
African clawed frog (<i>Xenopus laevis</i>)	Fresh	96-hour	MCIG = 20 mg AI/L	Not reported	Renewal, Nominal, Solvent: DMSO, with carbon monoxide-inhibited activation	Embryo growth	(Fort et al., 1993)	High
African clawed frog (<i>Xenopus laevis</i>)	Fresh	96-hour	LC ₅₀ = 39 mg AI/L	Not reported	Renewal, Nominal, Solvent: DMSO, with cyclohexene oxide-inhibited activation	Mortality	(Fort et al., 1993)	High
African clawed frog (<i>Xenopus laevis</i>)	Fresh	96-hour	EC ₅₀ = 0.07 mg AI/L	Not reported	Renewal, Nominal, Solvent: DMSO, with cyclohexene oxide-inhibited activation	Terata	(Fort et al., 1993)	High

Test Species	Fresh/ Salt Water	Duration	End-point	Concentration(s)	Test Analysis	Effect(s)	References	Data Quality Evaluation
African clawed frog (<i>Xenopus laevis</i>)	Fresh	96-hour	MCIG = 0.05 mg AI/L	Not reported	Renewal, Nominal, Solvent: DMSO, with cyclohexene oxide-inhibited activation	Embryo growth	(Fort et al., 1993)	High
African clawed frog (<i>Xenopus laevis</i>)	Fresh	96-hour	LC ₅₀ = 412 mg AI/L (Test 1)	Not reported	Renewal, Nominal, without activation	Mortality	(Fort et al., 2001)	Medium
African clawed frog (<i>Xenopus laevis</i>)	Fresh	96-hour	EC ₅₀ = 40.9 mg AI/L (Test 1)	Not reported	Renewal, Nominal, without activation	Developmental: Deformation	(Fort et al., 2001)	Medium
African clawed frog (<i>Xenopus laevis</i>)	Fresh	96-hour	MCIG = 150 mg AI/L (Test 1)	Not reported	Renewal, Nominal, without activation	Embryo growth	(Fort et al., 2001)	Medium
African clawed frog (<i>Xenopus laevis</i>)	Fresh	96-hour	LC ₅₀ = 426 mg AI/L (Test 2)	Not reported	Renewal, Nominal, without activation	Mortality	(Fort et al., 2001)	Medium
African clawed frog (<i>Xenopus laevis</i>)	Fresh	96-hour	EC ₅₀ = 36.2 mg AI/L (Test 2)	Not reported	Renewal, Nominal, without activation	Developmental: Deformation	(Fort et al., 2001)	Medium
African clawed frog (<i>Xenopus laevis</i>)	Fresh	96-hour	MCIG = 150 mg AI/L (Test 2)	Not reported	Renewal, Nominal, without activation	Embryo growth	(Fort et al., 2001)	Medium
African clawed frog (<i>Xenopus laevis</i>)	Fresh	96-hour	LC ₅₀ = 490 mg AI/L (Prelim. Test)	Not reported	Renewal, Nominal, without activation	Mortality	(Fort et al., 2001)	Medium
African clawed frog (<i>Xenopus laevis</i>)	Fresh	96-hour	EC ₅₀ = 51 mg AI/L (Prelim. Test)	Not reported	Renewal, Nominal, without activation	Developmental: Deformation	(Fort et al., 2001)	Medium
African clawed frog (<i>Xenopus laevis</i>)	Fresh	96-hour	MCIG = 400 mg AI/L (Prelim. Test)	Not reported	Renewal, Nominal, without activation	Embryo growth	(Fort et al., 2001)	Medium
African clawed frog (<i>Xenopus laevis</i>)	Fresh	96-hour	LC ₅₀ = 378.1 mg AI/L (Test 1)	Not reported	Renewal, Nominal, Activation (Aroclor 1254)	Mortality	(Fort et al., 2001)	Medium
African clawed frog (<i>Xenopus laevis</i>)	Fresh	96-hour	EC ₅₀ = 40.2 mg AI/L (Test 1)	Not reported	Renewal, Nominal, Activation (Aroclor 1254)	Developmental: Deformation	(Fort et al., 2001)	Medium

Test Species	Fresh/ Salt Water	Duration	End-point	Concentration(s)	Test Analysis	Effect(s)	References	Data Quality Evaluation
African clawed frog (<i>Xenopus laevis</i>)	Fresh	96-hour	MCIG = 150 mg AI/L (Test 1)	Not reported	Renewal, Nominal, Activation (Aroclor 1254)	Embryo growth	(Fort et al., 2001)	Medium
African clawed frog (<i>Xenopus laevis</i>)	Fresh	96-hour	LC ₅₀ = 412.1 mg AI/L (Test 1)	Not reported	Renewal, Nominal, Activation (Phenobarbital)	Mortality	(Fort et al., 2001)	Medium
African clawed frog (<i>Xenopus laevis</i>)	Fresh	96-hour	EC ₅₀ = 18 mg AI/L (Test 1)	Not reported	Renewal, Nominal, Activation (Phenobarbital)	Developmental: Deformation	(Fort et al., 2001)	Medium
African clawed frog (<i>Xenopus laevis</i>)	Fresh	96-hour	MCIG = 150 mg AI/L (Test 1)	Not reported	Renewal, Nominal, Activation (Phenobarbital)	Embryo growth	(Fort et al., 2001)	Medium
African clawed frog (<i>Xenopus laevis</i>)	Fresh	96-hour	LC ₅₀ = 390.1 mg AI/L (Test 1)	Not reported	Renewal, Nominal, Activation(β-Naphthoflavone)	Mortality	(Fort et al., 2001)	Medium
African clawed frog (<i>Xenopus laevis</i>)	Fresh	96-hour	EC ₅₀ = 39.7 mg AI/L (Test 1)	Not reported	Renewal, Nominal, Activation(β-Naphthoflavone)	Developmental: Deformation	(Fort et al., 2001)	Medium
African clawed frog (<i>Xenopus laevis</i>)	Fresh	96-hour	MCIG = 150 mg AI/L (Test 1)	Not reported	Renewal, Nominal, Activation(β-Naphthoflavone)	Embryo growth	(Fort et al., 2001)	Medium
African clawed frog (<i>Xenopus laevis</i>)	Fresh	96-hour	LC ₅₀ = 190.4 mg AI/L (Test 1)	Not reported	Renewal, Nominal, Activation (Isoniazid)	Mortality	(Fort et al., 2001)	Medium
African clawed frog (<i>Xenopus laevis</i>)	Fresh	96-hour	EC ₅₀ = 11.9 mg AI/L (Test 1)	Not reported	Renewal, Nominal, Activation (Isoniazid)	Developmental: Deformation	(Fort et al., 2001)	Medium
African clawed frog (<i>Xenopus laevis</i>)	Fresh	96-hour	MCIG = 50 mg AI/L (Test 1)	Not reported	Renewal, Nominal, Activation (Isoniazid)	Embryo growth	(Fort et al., 2001)	Medium
African clawed frog (<i>Xenopus laevis</i>)	Fresh	96-hour	LC ₅₀ = 181.3 mg AI/L (Test 1)	Not reported	Renewal, Nominal, Activation (mixed)	Mortality	(Fort et al., 2001)	Medium
African clawed frog (<i>Xenopus laevis</i>)	Fresh	96-hour	EC ₅₀ = 7.5 mg AI/L (Test 1)	Not reported	Renewal, Nominal, Activation (mixed)	Developmental: Deformation	(Fort et al., 2001)	Medium

Test Species	Fresh/ Salt Water	Duration	End-point	Concentration(s)	Test Analysis	Effect(s)	References	Data Quality Evaluation
African clawed frog (<i>Xenopus laevis</i>)	Fresh	96-hour	MCIG = 50 mg AI/L (Test 1)	Not reported	Renewal, Nominal, Activation (mixed)	Embryo growth	(Fort et al., 2001)	Medium
African clawed frog (<i>Xenopus laevis</i>)	Fresh	96-hour	LC ₅₀ = 383.5 mg AI/L (Test 2)	Not reported	Renewal, Nominal, Activation (Aroclor 1254)	Mortality	(Fort et al., 2001)	Medium
African clawed frog (<i>Xenopus laevis</i>)	Fresh	96-hour	EC ₅₀ = 37.3 mg AI/L (Test 2)	Not reported	Renewal, Nominal, Activation (Aroclor 1254)	Developmental: Deformation	(Fort et al., 2001)	Medium
African clawed frog (<i>Xenopus laevis</i>)	Fresh	96-hour	MCIG = 150 mg AI/L (Test 2)	Not reported	Renewal, Nominal, Activation (Aroclor 1254)	Embryo growth	(Fort et al., 2001)	Medium
African clawed frog (<i>Xenopus laevis</i>)	Fresh	96-hour	LC ₅₀ = 410.8 mg AI/L (Test 2)	Not reported	Renewal, Nominal, Activation (Phenobarbital)	Mortality	(Fort et al., 2001)	Medium
African clawed frog (<i>Xenopus laevis</i>)	Fresh	96-hour	EC ₅₀ = 19.5 mg AI/L (Test 2)	Not reported	Renewal, Nominal, Activation (Phenobarbital)	Developmental: Deformation	(Fort et al., 2001)	Medium
African clawed frog (<i>Xenopus laevis</i>)	Fresh	96-hour	MCIG = 100 mg AI/L (Test 2)	Not reported	Renewal, Nominal, Activation (Phenobarbital)	Embryo growth	(Fort et al., 2001)	Medium
African clawed frog (<i>Xenopus laevis</i>)	Fresh	96-hour	LC ₅₀ = 388.9 mg AI/L (Test 2)	Not reported	Renewal, Nominal, Activation (β-Naphthoflavone)	Mortality	(Fort et al., 2001)	Medium
African clawed frog (<i>Xenopus laevis</i>)	Fresh	96-hour	EC ₅₀ = 40.2 mg AI/L (Test 2)	Not reported	Renewal, Nominal, Activation (β-Naphthoflavone)	Developmental: Deformation	(Fort et al., 2001)	Medium
African clawed frog (<i>Xenopus laevis</i>)	Fresh	96-hour	MCIG = 150 mg AI/L (Test 2)	Not reported	Renewal, Nominal, Activation (β-Naphthoflavone)	Embryo growth	(Fort et al., 2001)	Medium
African clawed frog (<i>Xenopus laevis</i>)	Fresh	96-hour	LC ₅₀ = 175.3 mg AI/L (Test 2)	Not reported	Renewal, Nominal, Activation (Isoniazid)	Mortality	(Fort et al., 2001)	Medium
African clawed frog (<i>Xenopus laevis</i>)	Fresh	96-hour	EC ₅₀ = 11.5 mg AI/L (Test 2)	Not reported	Renewal, Nominal, Activation (Isoniazid)	Developmental: Deformation	(Fort et al., 2001)	Medium

Test Species	Fresh/ Salt Water	Duration	End-point	Concentration(s)	Test Analysis	Effect(s)	References	Data Quality Evaluation
African clawed frog (<i>Xenopus laevis</i>)	Fresh	96-hour	MCIG = 50 mg AI/L (Test 2)	Not reported	Renewal, Nominal, Activation (Isoniazid)	Embryo growth	(Fort et al., 2001)	Medium
African clawed frog (<i>Xenopus laevis</i>)	Fresh	96-hour	LC ₅₀ = 169.1 mg AI/L (Test 2)	Not reported	Renewal, Nominal, Activation (mixed)	Mortality	(Fort et al., 2001)	Medium
African clawed frog (<i>Xenopus laevis</i>)	Fresh	96-hour	EC ₅₀ = 7.6 mg AI/L (Test 2)	Not reported	Renewal, Nominal, Activation (mixed)	Developmental: Deformation	(Fort et al., 2001)	Medium
African clawed frog (<i>Xenopus laevis</i>)	Fresh	96-hour	MCIG = 25 mg AI/L (Test 2)	Not reported	Renewal, Nominal, Activation (mixed)	Embryo growth	(Fort et al., 2001)	Medium
African clawed frog (<i>Xenopus laevis</i>)	Fresh	96-hour	LC ₅₀ = 425 mg AI/L (Test 1)	Not reported	Renewal, Nominal, without activation	Mortality	(Fort et al., 1991)	Medium
African clawed frog (<i>Xenopus laevis</i>)	Fresh	96-hour	EC ₅₀ = 34 mg AI/L (Test 1)	Not reported	Renewal, Nominal, without activation	Terata	(Fort et al., 1991)	Medium
African clawed frog (<i>Xenopus laevis</i>)	Fresh	96-hour	LC ₅₀ = 443 mg AI/L (Test 2)	Not reported	Renewal, Nominal, without activation	Mortality	(Fort et al., 1991)	Medium
African clawed frog (<i>Xenopus laevis</i>)	Fresh	96-hour	EC ₅₀ = 37 mg AI/L (Test 2)	Not reported	Renewal, Nominal, without activation	Terata	(Fort et al., 1991)	Medium
African clawed frog (<i>Xenopus laevis</i>)	Fresh	96-hour	MCIG = 29 mg AI/L (Test 2)	Not reported	Renewal, Nominal, without activation	Embryo growth	(Fort et al., 1991)	Medium
African clawed frog (<i>Xenopus laevis</i>)	Fresh	96-hour	LC ₅₀ = 423 mg AI/L (Test 1)	Not reported	Renewal, Nominal, Activation (Aroclor 1254)	Mortality	(Fort et al., 1991)	Medium
African clawed frog (<i>Xenopus laevis</i>)	Fresh	96-hour	EC ₅₀ = 45 mg AI/L (Test 1)	Not reported	Renewal, Nominal, Activation (Aroclor 1254)	Terata	(Fort et al., 1991)	Medium
African clawed frog (<i>Xenopus laevis</i>)	Fresh	96-hour	LC ₅₀ = 397 mg AI/L (Test 2)	Not reported	Renewal, Nominal, Activation (Aroclor 1254)	Mortality	(Fort et al., 1991)	Medium

Test Species	Fresh/ Salt Water	Duration	End-point	Concentration(s)	Test Analysis	Effect(s)	References	Data Quality Evaluation
African clawed frog (<i>Xenopus laevis</i>)	Fresh	96-hour	EC ₅₀ = 27 mg AI/L (Test 2)	Not reported	Renewal, Nominal, Activation (Aroclor 1254)	Terata	(Fort et al., 1991)	Medium
African clawed frog (<i>Xenopus laevis</i>)	Fresh	96-hour	MCIG = 29 mg AI/L (Test 1)	Not reported	Renewal, Nominal, Activation (Aroclor 1254)	Embryo growth	(Fort et al., 1991)	Medium
African clawed frog (<i>Xenopus laevis</i>)	Fresh	96-hour	MCIG = 37 mg AI/L (Test 2)	Not reported	Renewal, Nominal, Activation (Aroclor 1254)	Embryo growth	(Fort et al., 1991)	Medium
African clawed frog (<i>Xenopus laevis</i>)	Fresh	96-hour	LC ₅₀ = 261 mg AI/L (Test 1)	Not reported	Renewal, Nominal, Activation (Isoniazid)	Mortality	(Fort et al., 1991)	Medium
African clawed frog (<i>Xenopus laevis</i>)	Fresh	96-hour	EC ₅₀ = 9 mg AI/L (Test 1)	Not reported	Renewal, Nominal, Activation (Isoniazid)	Terata	(Fort et al., 1991)	Medium
African clawed frog (<i>Xenopus laevis</i>)	Fresh	96-hour	LC ₅₀ = 228 mg AI/L (Test 2)	Not reported	Renewal, Nominal, Activation (Isoniazid)	Mortality	(Fort et al., 1991)	Medium
African clawed frog (<i>Xenopus laevis</i>)	Fresh	96-hour	EC ₅₀ = 10 mg AI/L (Test 2)	Not reported	Renewal, Nominal, Activation (Isoniazid)	Terata	(Fort et al., 1991)	Medium
African clawed frog (<i>Xenopus laevis</i>)	Fresh	96-hour	MCIG = 13 mg AI/L (Test 1)	Not reported	Renewal, Nominal, Activation (Isoniazid)	Embryo growth	(Fort et al., 1991)	Medium
African clawed frog (<i>Xenopus laevis</i>)	Fresh	96-hour	MCIG = 9 mg AI/L (Test 2)	Not reported	Renewal, Nominal, Activation (Isoniazid)	Embryo growth	(Fort et al., 1991)	Medium
African clawed frog (<i>Xenopus laevis</i>)	Fresh	96-hour	LC ₅₀ = 249 mg AI/L (Test 1)	Not reported	Renewal, Nominal, Activation (mixed)	Mortality	(Fort et al., 1991)	Medium
African clawed frog (<i>Xenopus laevis</i>)	Fresh	96-hour	EC ₅₀ = 13 mg AI/L (Test 1)	Not reported	Renewal, Nominal, Activation (mixed)	Terata	(Fort et al., 1991)	Medium
African clawed frog (<i>Xenopus laevis</i>)	Fresh	96-hour	LC ₅₀ = 204 mg AI/L (Test 2)	Not reported	Renewal, Nominal, Activation (mixed)	Mortality	(Fort et al., 1991)	Medium

Test Species	Fresh/ Salt Water	Duration	End-point	Concentration(s)	Test Analysis	Effect(s)	References	Data Quality Evaluation
African clawed frog (<i>Xenopus laevis</i>)	Fresh	96-hour	EC ₅₀ = 9 mg AI/L (Test 2)	Not reported	Renewal, Nominal, Activation (mixed)	Terata	(Fort et al., 1991)	Medium
African clawed frog (<i>Xenopus laevis</i>)	Fresh	96-hour	MCIG = 11 mg AI/L (Test 1)	Not reported	Renewal, Nominal, Activation (mixed)	Embryo growth	(Fort et al., 1991)	Medium
African clawed frog (<i>Xenopus laevis</i>)	Fresh	96-hour	MCIG = 7 mg AI/L (Test 2)	Not reported	Renewal, Nominal, Activation (mixed)	Embryo growth	(Fort et al., 1991)	Medium
Clawed frog (<i>Xenopus sp.</i>)	Fresh	96-hour	LC ₅₀ = 350 mg AI/L (Test 1)	Not reported	Static, Nominal	Mortality	(Rayburn et al., 1991)	Unacceptable
Clawed frog (<i>Xenopus sp.</i>)	Fresh	96-hour	EC ₅₀ = 70.1 mg AI/L (Test 1)	Not reported	Static, Nominal	Malformation	(Rayburn et al., 1991)	Unacceptable
Clawed frog (<i>Xenopus sp.</i>)	Fresh	96-hour	LC ₅₀ = 423 mg AI/L (Test 2)	Not reported	Static, Nominal	Mortality	(Rayburn et al., 1991)	Unacceptable
Clawed frog (<i>Xenopus sp.</i>)	Fresh	96-hour	EC ₅₀ = 33.6 mg AI/L (Test 2)	Not reported	Static, Nominal	Malformation	(Rayburn et al., 1991)	Unacceptable
Clawed frog (<i>Xenopus sp.</i>)	Fresh	96-hour	MCIG = 292 mg AI/L	Not reported	Static, Nominal	Embryo growth	(Rayburn et al., 1991)	Unacceptable
Clawed frog (<i>Xenopus sp.</i>)	Fresh	96-hour	LC ₂₅ = 511 mg AI/L	Not reported	Static, Nominal	Mortality	(Rayburn et al., 1991)	Unacceptable
Clawed frog (<i>Xenopus sp.</i>)	Fresh	96-hour	EC ₂₅ = 29 mg AI/L	Not reported	Static, Nominal	Abnormal	(Rayburn et al., 1991)	Unacceptable
Wood frog (<i>Lithobates sylvaticus</i>)	Fresh	96-hour	EC ₅₀ = 32.2 mg AI/L	0, 12.5, 20, 40, 60 mg/L	Renewal, Measured	Developmental: Deformation	(McDaniel et al., 2004)	High
Green frog (<i>Rana clamitans</i>)	Fresh	96-hour	EC ₅₀ = 22 mg AI/L	0, 12.5, 20, 40, 60 mg/L	Renewal, Measured	Developmental: Deformation	(McDaniel et al., 2004)	High
American toad (<i>Bufo americanus</i>)	Fresh	96-hour	EC ₅₀ >85 mg AI/L	0, 12.5, 20, 35, 40, 55, 60, 85 mg/L	Renewal, Nominal	Developmental: Deformation	(McDaniel et al., 2004)	High
Spotted salamander (<i>Ambystoma maculatum</i>)	Fresh	96-hour	EC ₅₀ = 40 mg AI/L	0, 12.5, 20, 40, 60 mg/L	Renewal, Measured	Developmental: Deformation	(McDaniel et al., 2004)	Medium