

**Table B-3. Acute and chronic surface water toxicity screening values for aquatic life.**

Chemical	Acute <sup>1</sup>		Chronic <sup>2</sup>		Reference
	Value (ug/L)	Comment	Value (ug/L)	Comment	
<b>Metals</b>					
Aluminum	750	-	87	-	USEPA 1988a
Antimony	88	as Antimony(III)	30	as Antimony(III)	USEPA 1988b
Arsenic	340	-	150	-	OEPA 3745-1
Barium	7250	Lowest acute value divided by 2	1450	ACR of 10	Biesinger and Christensen 1972
Cadmium	4.5	Hardness dependent <sup>3</sup>	2.5	Hardness dependent <sup>3</sup>	OEPA 3745-1
Chromium	16	as Chromium(VI)	11	as Chromium(VI)	OEPA 3745-1
Cobalt	555	Lowest acute value divided by 2	74	Geomean of lowest NOEC & LOEC	Biesinger and Christensen 1972, Lind et al 1978
Copper	14	Hardness dependent <sup>3</sup>	9.3	Hardness dependent <sup>3</sup>	OEPA 3745-1
Iron	-	-	1,000	-	USEPA 1986a
Lead	120	Hardness dependent <sup>3</sup>	6.4	Hardness dependent <sup>3</sup>	OEPA 3745-1
Manganese	27	Lowest acute value divided by 2	5.4	ACR of 10	AQUIRE 2000
Mercury	1.7	-	0.91	-	OEPA 3745-1
Nickel	470	Hardness dependent <sup>3</sup>	52	Hardness dependent <sup>3</sup>	OEPA 3745-1
Selenium	19.34	-	5	-	USEPA 1996, OEPA 3745-1
Thallium	700	Lowest acute value divided by 2	<40	Lowest chronic value	USEPA 1980a
Vanadium	310	Lowest acute value divided by 2	62	ACR of 10	Krishnakumari et al 1983
Zinc	120	Hardness dependent <sup>3</sup>	120	Hardness dependent <sup>3</sup>	OEPA 3745-1
<b>Conventionals</b>					
Ammonia	36100	at pH of 7	4150	at pH of 7, temp. of 20° C	USEPA 1999b
Cyanide	22	Free cyanide	5.2	Free cyanide	OEPA 3745-1
<b>PAHs</b>					
Benzo(a)anthracene	9.6	Estimated FAV divided by 2	3.8	Estimated FCV	Di Toro et al 2000
Benzo(a)pyrene	4.1	Estimated FAV divided by 2	1.6	Estimated FCV	Di Toro et al 2000
Benzo(b)fluoranthene	2.89	Estimated FAV divided by 2	1.1	Estimated FCV	Di Toro et al 2000
Benzo(ghi)perylene	1.88	Estimated FAV divided by 2	0.74	Estimated FCV	Di Toro et al 2000
Benzo(k)fluoranthene	2.77	Estimated FAV divided by 2	1.09	Estimated FCV	Di Toro et al 2000
Chrysene	8.8	Estimated FAV divided by 2	3.47	Estimated FCV	Di Toro et al 2000
Dibenz(a,h)anthracene	2.45	Estimated FAV divided by 2	0.48	Estimated FCV	Di Toro et al 2000
Indeno(1,2,3-cd)pyrene	2.38	Estimated FAV divided by 2	0.47	Estimated FCV	Di Toro et al 2000
Pyrene	43.7	Estimated FAV divided by 2	17	Estimated FCV	Di Toro et al 2000
<b>Pesticides</b>					
Atrazine	18.5	-	4.5	-	Solomon et al 1996

**Table B-3. Acute and chronic surface water toxicity screening values for aquatic life.**

Chemical	Acute <sup>1</sup>		Chronic <sup>2</sup>		Reference
	Value (ug/L)	Comment	Value (ug/L)	Comment	
<b>Semivolatile Organics</b>					
1,1'-Biphenyl	230	Set equal to chronic SV <sup>5</sup>	230	MATC	Gersich et al 1989
2,4,5-Trichlorophenol	225	Lowest acute value divided by 2	45	ACR of 10	Buccafusco et al 1981
2,4,6-Trichlorophenol	90	Lowest acute value divided by 2	18	ACR of 10	Yoshioka et al 1986
2,4-Dichlorophenol	620	Lowest acute value divided by 2	<99.4	Lowest chronic value	Birge et al 1979, Hodson et al 1991
2,4-Dimethylphenol	1050	Lowest acute value divided by 2	210	ACR of 10	LeBlanc 1980
2,4-Dinitrophenol	30	Lowest acute value divided by 2	6	ACR of 10	Dalela et al 1980
2-Chlorophenol	500	Lowest acute value divided by 2	100	ACR of 10	LeBlanc 1980
2-Methylphenol	2500	Lowest acute value divided by 2	500	ACR of 10	Parkhurst et al 1979
2-Nitrophenol	800	Lowest acute value divided by 2	160	ACR of 10	Yoshioka et al 1986
3,3'-Dichlorobenzidine	525	Lowest acute value divided by 2	105	ACR of 10	Brooke 1991
4,6-Dinitro-2-methylphenol	33	Lowest acute value divided by 2	6.6	ACR of 10	Johnson and Finley 1980
4-Chloro-3-methylphenol	458.5	Lowest acute value divided by 2	91.7	ACR of 10	USEPA 1995
4-Methylphenol	700	Lowest acute value divided by 2	140	ACR of 10	Parkhurst et al 1979
4-Nitrophenol	550	Lowest acute value divided by 2	110	ACR of 10	Yoshioka et al 1986
bis(2-Ethylhexyl)phthalate	400	Solubility limit	360	-	USEPA 1987
Butylbenzylphthalate	390	Lowest acute value divided by 2	60	Lowest chronic value divided by 2	Adams et al 1995, USEPA 1978
Dimethylphthalate	16500	Lowest acute value divided by 2	14859	Geomean of NOEC and LOEC	LeBlanc 1980, Rhodes et al 1995
Di-n-octylphthalate	-	-	93.2	Geomean of NOEC and LOEC	Rhodes et al 1995
Pentachlorophenol	14	at pH of 7.5	11	at pH of 7.5	OEPA 3745-1
Phenol	22.5	Lowest acute value divided by 2	4.5	ACR of 10	Stephenson 1983

1 For OEPA WQC, Outside Mixing Zone Maximum.

2 For OEPA WQC, Outside Mixing Zone Average.

3 Hardness-dependent criteria are normalized to a hardness of 100 mg/L in this table. Criteria are normalized to the site-specific hardness for hazard quotient calculations.

4 Final acute values derived prior to 1985 are divided by 2, for consistency with current USEPA methods.

5 Set equal to chronic SV because the LC50 for this species, divided by two, was less than the chronic SV.

FAV = Final Acute Value.

FCV = Final Chronic Value.