Appendix A

Chemical Load Scores and Supporting Data

Table A-1. Chemical Load Scores (Sorted by Chemical Name)

CAS	Chemical Name[a]	Chemical Class	Chemical Load Score	TOXICITY Score	FATE Score	Aqueous Biodegradation Score	Air-Water Partition Score	Sediment Adsorption Score
83329	Acenaphthene	PAH	4.9E-02	7.7E-01	6.3E-02	4.0E-01	3.0E-01	5.2E-01
208968	Acenaphthylene	PAH	1.2E-01	1.6E+00	7.9E-02	2.4E-01	6.0E-01	5.6E-01
67641	Acetone	Other	3.5E-06	2.7E-03	1.3E-03	2.8E-02	4.6E-01	1.0E-01
107131	Acrylonitrile	Other	4.7E-02	1.5E+01	3.1E-03	9.1E-02	3.4E-01	1.0E-01
309002	Aldrin	Pesticide	4.5E+02	8.6E+02	5.3E-01	2.3E+00	2.3E-01	1.0E+00
120127	Anthracene	PAH	5.5E-01	9.1E-01	6.0E-01	1.8E+00	5.1E-01	6.6E-01
7440360	Antimony	Metal	2.5E-02	5.0E-03	5.0E+00	1.0E+01	1.0E+00	5.0E-01
7440382	Arsenic	Metal	7.1E-02	1.4E-02	5.0E+00	1.0E+01	1.0E+00	5.0E-01
71432	Benzene	Other	1.3E-02	1.8E+01	7.7E-04	6.3E-02	1.0E-01	1.2E-01
56553	Benzo(a)anthracene	PAH	1.1E+01	5.8E+00	2.0E+00	2.7E+00	8.0E-01	9.1E-01
50328	Benzo(a)pyrene	PAH	4.2E+01	5.8E+01	7.2E-01	2.1E+00	3.4E-01	1.0E+00
205992	Benzo(b)fluoranthene	PAH	4.8E+00	5.8E+00	8.3E-01	2.4E+00	3.4E-01	1.0E+00
191242	Benzo(ghi)perylene	PAH	8.0E-01	3.8E-01	2.1E+00	2.6E+00	8.1E-01	1.0E+00
207089	Benzo(k)fluoranthene	PAH	4.7E+00	5.8E-01	8.2E+00	8.5E+00	9.7E-01	1.0E+00
319846	BHC, alpha-	Pesticide	2.6E+02	1.0E+03	2.6E-01	5.3E-01	1.0E+00	4.9E-01
319857	BHC, beta-	Pesticide	2.4E+02	1.0E+03	2.4E-01	4.9E-01	1.0E+00	4.9E-01
319868	BHC, delta-	Pesticide	9.2E+00	9.0E+01	1.0E-01	4.0E-01	9.6E-01	2.7E-01
58899	BHC, gamma-/Lindane	Pesticide	2.1E+02	2.7E+02	7.8E-01	1.6E+00	1.0E+00	4.8E-01
608731	BHC, technical grade	Pesticide	4.8E+01	2.7E+02	1.8E-01	4.0E-01	1.0E+00	4.5E-01
92524	Biphenyl	Other	2.6E-03	9.1E-01	2.8E-03	2.8E-02	1.9E-01	5.3E-01
117817	Bis(2-ethylhexyl) phthalate	Other	2.7E-02	5.3E-01	5.2E-02	9.1E-02	5.7E-01	1.0E+00
101553	Bromophenyl phenyl ether, 4-	Other	7.8E-02	7.7E-01	1.0E-01	4.0E-01	3.4E-01	7.6E-01
85687	Butyl benzyl phthalate	Other	1.5E-03	9.1E-02	1.7E-02	2.8E-02	8.4E-01	7.2E-01
7440439	Cadmium	Divalent Metal	5.2E-01	1.0E-01	5.0E+00	1.0E+01	1.0E+00	5.0E-01
57749	Chlordane	Pesticide	5.0E+02	2.1E+02	2.4E+00	5.5E+00	4.4E-01	1.0E+00
108907	Chlorobenzene	Other	2.0E-02	1.2E+00	1.7E-02	5.9E-01	1.0E-01	2.8E-01
2921882	Chlorpyrifos/Dursban	Pesticide	5.4E-02	1.7E-01	3.2E-01	4.0E-01	1.0E+00	8.1E-01
7440473	Chromium	Metal	1.4E-02	2.7E-03	5.0E+00	1.0E+01	1.0E+00	5.0E-01
218019	Chrysene	PAH	1.0E+00	3.6E-01	2.9E+00	4.0E+00	8.0E-01	9.1E-01
7440508	Copper	Divalent Metal	1.9E-02	3.7E-03	5.0E+00	1.0E+01	1.0E+00	5.0E-01
108394	Cresol, m-	Other	1.4E-02	1.4E+00	1.0E-02	1.1E-01	9.1E-01	1.0E-01
95487	Cresol, o-	Other	3.5E-03	1.4E+00	2.5E-03	2.8E-02	9.1E-01	1.0E-01
106445	Cresol, p-	Other	6.5E-05	2.8E-01	2.4E-04	2.6E-03	9.1E-01	1.0E-01
1319773	Cresols	Other	1.4E-02	1.4E+00	9.8E-03	1.1E-01	8.6E-01	1.0E-01
1861321	DCPA/Dacthal	Pesticide	9.2E-03	4.9E-02	1.9E-01	3.6E-01	1.0E+00	5.1E-01
72548	DDD	Pesticide	2.6E+02	3.7E+01	7.1E+00	1.0E+01	7.1E-01	1.0E+00
72559	DDE	Pesticide	3.4E+02	7.2E+01	4.7E+00	1.0E+01	4.7E-01	1.0E+00
50293	DDT	Pesticide	2.1E+02	3.7E-02	5.6E+00	1.0E+01	5.6E-01	1.0E+00

Table A-1. (Continued)

CAS	Chemical Name[a]	Chemical Class	Chemical Load Score	TOXICITY Score	FATE Score	Aqueous Biodegradation Score	Air-Water Partition Score	Sediment Adsorption Score
84742	Di-n-butyl phthalate	Other	5.5E-03	9.1E-02	6.1E-02	9.1E-02	1.0E+00	6.7E-01
117840	Di-n-octyl phthalate	Other	1.8E-02	1.6E-01	1.1E-01	1.1E-01	1.0E+00	1.0E+00
333415	Diazinon/Spectracide	Pesticide	9.7E+02	5.3E+03	1.9E-01	4.0E-01	1.0E+00	4.7E-01
53703	Dibenzo(a,h)anthracene	PAH	2.2E+02	5.8E+01	3.7E+00	3.7E+00	1.0E+00	1.0E+00
132649	Dibenzofuran	Other	7.3E-03	5.0E-01	1.5E-02	1.1E-01	2.4E-01	5.5E-01
124481	Dibromochloromethane	Other	2.1E-02	2.3E+00	9.3E-03	7.1E-01	1.0E-01	1.3E-01
95501	Dichlorobenzene, 1,2-	Other	8.6E-02	2.9E+00	2.9E-02	7.1E-01	1.0E-01	4.1E-01
541731	Dichlorobenzene, 1,3-	Other	1.9E-02	5.9E-01	3.2E-02	7.1E-01	1.0E-01	4.5E-01
106467	Dichlorobenzene, 1,4-	Other	8.3E-02	2.9E+00	2.9E-02	7.1E-01	1.0E-01	4.1E-01
25321226	Dichlorobenzenes	Other	8.9E-02	2.9E+00	3.0E-02	7.1E-01	1.0E-01	4.2E-01
75343	Dichloroethane, 1,1-	Other	1.7E-05	2.7E-03	6.1E-03	6.1E-01	1.0E-01	1.0E-01
107062	Dichloroethane, 1,2-	Other	1.8E-02	2.5E+00	7.3E-03	7.1E-01	1.0E-01	1.0E-01
156605	Dichloroethene, trans-1,2-	Other	8.7E-06	1.4E-02	6.4E-04	5.9E-02	1.0E-01	1.1E-01
75092	Dichloromethane	Other	2.4E-04	2.1E-01	1.1E-03	1.1E-01	1.0E-01	1.0E-01
78875	Dichloropropane, 1,2-	Other	2.2E-01	1.9E+00	1.2E-01	5.1E+00	2.3E-01	1.0E-01
60571	Dieldrin	Pesticide	1.6E+03	8.1E+02	2.0E+00	4.3E+00	5.7E-01	8.4E-01
84662	Diethyl phthalate	Other	7.1E-02	1.6E+00	4.5E-02	2.2E-01	1.0E+00	2.0E-01
131113	Dimethyl phthalate	Other	1.7E-02	6.3E+00	2.8E-03	2.8E-02	1.0E+00	1.0E-01
105679	Dimethylphenol, 2,4-	Other	2.0E-02	4.8E+00	4.3E-03	2.8E-02	9.0E-01	1.7E-01
115297	Endosulfan mixed isomers	Pesticide	3.4E+00	1.9E+02	1.8E-02	5.5E-02	6.0E-01	5.6E-01
959988	Endosulfan, alpha-	Pesticide	3.7E+01	3.4E+02	1.1E-01	4.0E-01	6.0E-01	4.5E-01
33213659	Endosulfan, beta-	Pesticide	7.6E+00	7.1E+01	1.1E-01	4.0E-01	6.0E-01	4.5E-01
72208	Endrin	Pesticide	9.3E-01	2.4E+01	3.9E-02	7.9E-02	6.4E-01	7.7E-01
100414	Ethylbenzene	Other	2.8E-04	2.1E-01	1.4E-03	4.0E-02	1.0E-01	3.4E-01
206440	Fluoranthene	PAH	1.2E-01	1.6E-01	7.6E-01	1.7E+00	5.6E-01	7.8E-01
86737	Fluorene	PAH	1.2E-01	1.9E+00	6.5E-02	2.4E-01	4.7E-01	5.8E-01
76448	Heptachlor	Pesticide	5.8E+00	2.3E+02	2.6E-02	2.6E-01	1.0E-01	1.0E+00
1024573	Heptachlor epoxide	Pesticide	3.6E+02	4.5E+02	7.9E-01	2.2E+00	4.8E-01	7.6E-01
118741	Hexachlorobenzene	Other	3.4E+00	4.3E+00	7.9E-01	8.3E+00	1.0E-01	9.5E-01
87683	Hexachlorobutadiene	Other	1.9E-01	3.7E+00	5.1E-02	7.1E-01	1.0E-01	7.1E-01
67721	Hexachloroethane	Other	5.9E-02	1.0E+00	5.9E-02	7.1E-01	1.5E-01	5.3E-01
193395	Indeno(1,2,3-cd)pyrene	PAH	1.3E+01	5.8E+00	2.3E+00	2.8E+00	8.1E-01	1.0E+00
78591	Isophorone	Other	2.0E-04	2.7E-02	7.4E-03	1.1E-01	6.7E-01	1.0E-01
7439921	Lead	Divalent Metal	2.3E-02	4.6E-03	5.0E+00	1.0E+01	1.0E+00	5.0E-01
7439976	Mercury	Mercury	7.0E+00	1.4E+00	5.0E+00	1.0E+01	1.0E+00	5.0E-01
72435	Methoxychlor	Pesticide	5.8E+01	5.3E+01	1.1E+00	1.4E+00	1.0E+00	7.7E-01
78933	Methyl ethyl ketone	Other	5.4E-07	4.6E-04	1.2E-03	2.8E-02	4.2E-01	1.0E-01
2385855	Mirex/Dechlorane	Pesticide	9.4E+01	6.6E-02	1.4E+00	1.4E+00	1.0E+00	1.0E+00

Table A-1. (Continued)

CAS	Chemical Name[a]	Chemical Class	Chemical Load Score	TOXICITY Score	FATE Score	Aqueous Biodegradation Score	Air-Water Partition Score	Sediment Adsorption Score
91203	Naphthalene	PAH	1.4E-02	2.1E+00	6.5E-03	7.9E-02	2.1E-01	3.9E-01
7440020	Nickel	Divalent Metal	9.7E-02	1.9E-02	5.0E+00	1.0E+01	1.0E+00	5.0E-01
86306	Nitrosodiphenylamine, N-	Other	4.4E-01	7.7E+00	5.7E-02	1.3E-01	1.0E+00	4.2E-01
12674112	PCB-1016	PCB	2.9E+02	4.0E+02	7.4E-01	2.3E+00	3.6E-01	8.9E-01
11104282	PCB-1221	PCB	2.9E+02	4.0E+02	7.4E-01	2.3E+00	3.6E-01	8.9E-01
11141165	PCB-1232	PCB	2.9E+02	4.0E+02	7.4E-01	2.3E+00	3.6E-01	8.9E-01
53469219	PCB-1242	PCB	2.9E+02	4.0E+02	7.4E-01	2.3E+00	3.6E-01	8.9E-01
12672296	PCB-1248	PCB	2.9E+02	4.0E+02	7.4E-01	2.3E+00	3.6E-01	8.9E-01
11097691	PCB-1254	PCB	2.9E+02	4.0E+02	7.4E-01	2.3E+00	3.6E-01	8.9E-01
11096825	PCB-1260	PCB	2.9E+02	4.0E+02	7.4E-01	2.3E+00	3.6E-01	8.9E-01
608935	Pentachlorobenzene	Other	1.6E-01	1.4E+00	1.1E-01	1.4E+00	1.0E-01	8.1E-01
87865	Pentachlorophenol	Other	7.9E-01	1.4E+00	5.5E-01	7.0E-01	1.0E+00	7.8E-01
85018	Phenanthrene	PAH	1.5E-01	5.6E-01	2.6E-01	7.9E-01	5.1E-01	6.6E-01
108952	Phenol	Other	1.1E-03	8.3E-01	1.4E-03	1.4E-02	9.9E-01	1.0E-01
1336363	Polychlorinated biphenyls	PCB	2.9E+02	4.0E+02	7.4E-01	2.3E+00	3.6E-01	8.9E-01
129000	Pyrene	PAH	1.4E+00	3.8E-01	3.5E+00	7.5E+00	6.0E-01	7.8E-01
7440224	Silver	Metal	1.4E+00	2.7E-01	5.0E+00	1.0E+01	1.0E+00	5.0E-01
95943	Tetrachlorobenzene, 1,2,4,5-	Other	4.5E-02	9.4E-01	4.8E-02	7.1E-01	1.0E-01	6.8E-01
79345	Tetrachloroethane, 1,1,2,2-	Other	3.0E-01	5.6E+00	5.4E-02	7.1E-01	4.2E-01	1.8E-01
127184	Tetrachloroethene	Other	6.5E-02	1.9E+00	3.4E-02	1.4E+00	1.0E-01	2.4E-01
56235	Tetrachloromethane	Other	1.3E-01	3.6E+00	3.6E-02	1.4E+00	1.0E-01	2.5E-01
108883	Toluene	Other	2.5E-03	1.1E+00	2.2E-03	8.7E-02	1.0E-01	2.6E-01
8001352	Toxaphene	Pesticide	4.6E+01	5.5E+01	8.3E-01	1.4E+00	6.7E-01	8.7E-01
75252	Tribromomethane	Other	3.0E-02	1.5E+00	2.0E-02	7.1E-01	1.6E-01	1.7E-01
120821	Trichlorobenzene, 1,2,4-	Other	4.2E-03	1.1E-01	3.8E-02	7.1E-01	1.0E-01	5.4E-01
71556	Trichloroethane, 1,1,1-	Other	1.3E-01	5.9E+00	2.1E-02	1.1E+00	1.0E-01	2.0E-01
79005	Trichloroethane, 1,1,2-	Other	2.0E-01	1.6E+00	1.2E-01	1.4E+00	8.4E-01	1.0E-01
79016	Trichloroethene	Other	1.7E-02	4.8E-01	3.5E-02	1.4E+00	1.0E-01	2.5E-01
75694	Trichlorofluoromethane	Other	2.8E-05	9.4E-04	3.0E-02	1.4E+00	1.0E-01	2.1E-01
67663	Trichloromethane	Other	1.2E-03	1.7E-01	7.1E-03	7.1E-01	1.0E-01	1.0E-01
108383	Xylene, m-	Other	1.6E-01	4.0E+01	4.0E-03	1.1E-01	1.0E-01	3.6E-01
95476	Xylene, o-	Other	1.5E-01	4.0E+01	3.8E-03	1.1E-01	1.0E-01	3.4E-01
106423	Xylene, p-	Other	1.6E-01	4.0E+01	3.9E-03	1.1E-01	1.0E-01	3.5E-01
1330207	Xylenes	Other	1.6E-01	4.0E+01	4.0E-03	1.1E-01	1.0E-01	3.6E-01
7440666	Zinc	Divalent Metal	1.2E-02	2.4E-03	5.0E+00	1.0E+01	1.0E+00	5.0E-01

[a]Chemicals shown have necessary fate and transport data and toxicity information to calculate CLSs. Chemicals shown also have available data in PCS and/or TRI.

Table A-2. Sediment Chemistry Screening Values (Sorted by Chemical Name)

CAS	Chemical Name	Estimated Sediment Chemistry Screening Values (ppm)[a]	Guideline Type	Sediment Quality Criteria (1% OC) AQ-SQC (ppm)	Sediment Quality Advisory Level (1% OC) AQ-SQAL (ppm)[b]	Effects Range-Median AQ-ERM (ppm)	Apparent Effects Threshold-High AQ-AETH (ppm)	(ppm)	EPA Cancer Risk 10^5 HH-C (ppm)	EPA Noncancer Hazard Quotient = 1 HH-NC (ppm)	Biota-Sedimen-t Accumulation Factor (unitless)
83329	Acenaphthene	1.3	AQ-SQC	1.3	1.3	0.5	2	0.0889		650	0.29
208968	Acenaphthylene	0.64	AQ-ERM			0.64	1.3	0.128			
67641	Acetone	370	HH-NC							1100	1
98862	Acetophenone	[c]								1100	
107028	Acrolein	[c]								220	
107131	Acrylonitrile	0.067	HH-C						0.2	11	1
15972608	Alachlor/Lasso	[c]							1.3	110	
116063	Aldicarb/Temik	[c]								11	
309002	Aldrin	0.0012	HH-C						0.0063	0.32	1.8
62533	Aniline	[c]							19		
120127	Anthracene	1.1	AQ-ERM			1.1	13	0.245		3200	0.29
999999933	Anthracene&Phenanthrene	1.8	AQ-SQAL		1.8	1.1	6.9	0.245		3200	0.29
7440360	Antimony	200	AQ-AETH				200			4.3	
7440382	Arsenic	70	AQ-ERM			70	700	41.6	0.062	3.2	
1912249	Atrazine	[c]							0.49	380	
7440393	Barium	[c]								750	
71432	Benzene	0.057	AQ-SQAL		0.057				3.7		1
92875	Benzidine	[c]							0.00047	32	
56553	Benzo(a)anthracene	0.17	HH-C			1.6	5.1	0.693	0.15		0.29
999999955	Benzo(a)anthracene/Chryse-ne	0.17	HH-C			1.6	5.1	0.693	0.15		0.29
50328	Benzo(a)pyrene	0.017	HH-C			1.6	3.6	0.763	0.015		0.29
205992	Benzo(b)fluoranthene	0.17	HH-C				9.9		0.15		0.29
191242	Benzo(ghi)perylene	2.6	AQ-AETH				2.6				
207089	Benzo(k)fluoranthene	1.7	HH-C				9.9		1.5		0.29
65850	Benzoic acid	0.76	AQ-AETH				0.76			43000	
98077	Benzotrichloride	[c]							0.0083		
100516	Benzyl alcohol	0.87	AQ-AETH				0.87			3200	
100447	Benzyl chloride	[c]							0.63		
7440417	Beryllium	[c]							0.025	54	
319846	BHC, alpha-	0.0010	AQ-PEL					0.00099	0.017		1.8
319857	BHC, beta-	0.0010	AQ-PEL					0.00099	0.06		1.8
319868	BHC, delta-	0.011	HH-C		0.13			0.00099	0.06		1.8
58899	BHC, gamma-/Lindane	0.0037	AQ-SQAL		0.0037			0.00099	0.083	3.2	1.8
608731	BHC, technical grade	0.0037	AQ-SQAL		0.0037			0.00099	0.06	3.2	1.8
92524	Biphenyl	1.1	AQ-SQAL		1.1					540	0.29
111444	Bis(2-chloroethyl)ether	[c]							0.098		
108601	Bis(2-chloroisopropyl)ether	[c]							1.5	430	
117817	Bis(2-ethylhexyl)phthalate	1.9	AQ-AETH				1.9	2.65	7.7	220	1
542881	Bis(chloromethyl)ether	[c]							0.00049		
7440428	Boron	[c]								970	
75274	Bromodichloromethane	[c]							1.7	220	
74839	Bromomethane	[c]								15	

Table A-2. (Continued)

CAS	Chemical Name	Estimated Sediment Chemistry Screening Values (ppm)[a]	Guideline Type	Sediment Quality Criteria (1% OC) AQ-SQC (ppm)	Sediment Quality Advisory Level (1% OC) AQ-SQAL (ppm)[b]	Effects Range-Median AQ-ERM (ppm)	Apparent Effects Threshold-High AQ-AETH (ppm)	(ppm)	EPA Cancer Risk 10^5 HH-C (ppm)	EPA Noncancer Hazard Quotient = 1 HH-NC (ppm)	Biota-Sedimen-t Accumulation Factor (unitless)
101553	Bromophenyl phenyl ether, 4-	1.3	AQ-SQAL		1.3					620	1
1689845	Bromoxynil	[c]								220	
85687	Butyl benzyl phthalate	11	AQ-SQAL		11		0.9			2200	1
7440439	Cadmium	9.6	AQ-ERM			9.6	9.6	4.21		5.4	
63252	Carbaryl/Sevin	[c]								1100	
1563662	Carbofuran/furadan	[c]								54	
75150	Carbon disulfide	[c]								1100	
133904	Chloramben	[c]								160	
57749	Chlordane	0.0048	AQ-PEL					0.00479	0.083	0.65	4.77
5103719	Chlordane, alpha(cis)-	0.0048	AQ-PEL					0.00479	0.083	0.65	4.77
5103742	Chlordane, beta(trans)-	0.0048	AQ-PEL					0.00479	0.083	0.65	2
5566347	Chlordane, gamma(trans)-	0.0048	AQ-PEL					0.00479	0.083	0.65	2.22
999999247	Chlordane-Nonachlor(cis)-	0.0048	AQ-PEL					0.00479	0.083	0.65	4.77
999999248	Chlordane-Nonachlor(trans-)-	0.0048	AQ-PEL					0.00479	0.083	0.65	4.77
108907	Chlorobenzene	0.82	AQ-SQAL		0.82					220	1
510156	Chlorobenzilate	[c]							0.4	220	
75003	Chloroethane	[c]								4300	
75014	Chloroethene	[c]							0.057		
110758	Chloroethylvinyl ether, 2-	[c]								270	
74873	Chloromethane	[c]							8.3		
91587	Chloronaphthalene, 2-	[c]								860	
95578	Chlorophenol, 2-	[c]								54	
2921882	Chlorpyrifos/Dursban	5.9	HH-NC							32	1.8
7440473	Chromium	370	AQ-ERM			370	270	160		54	
218019	Chrysene	2.8	AQ-ERM			2.8	9.2	0.846	15		0.29
7440508	Copper	270	AQ-ERM			270	1300	108		400	
108394	Cresol, m-	0.72	AQ-AETH				0.72			540	
95487	Cresol, o	0.72	AQ-AETH				0.72			540	
106445	Cresol, p-	3.6	AQ-AETH				3.6			54	
1319773	Cresols	0.72	AQ-AETH				0.72			54	
98828	Cumene	[c]								430	
21725462	Cyanazine	[c]							0.13	22	
57125	Cyanide	[c]								220	
1861321	DCPA/Dacthal	20	HH-NC							110	1.8
53190	DDD, o,p'-	0.027	AQ-ERM			0.027	0.043	0.00781	0.45		0.28
72548	DDD, p, p'-	0.027	AQ-ERM			0.027	0.043	0.00781	0.45		0.28
3424826	DDE, o,p'-	0.014	HH-C			0.027	0.015	0.374	0.32		7.7
72559	DDE, p, p'-	0.014	HH-C			0.027	0.015	0.374	0.32		7.7
999999300	DDT (Total)	0.014	HH-C			0.0461	0.015	0.0517	0.32	5.4	7.7
789026	DDT, o,p'-	0.027	AQ-ERM			0.027	0.034	0.00477	0.32	5.4	1.67
50293	DDT, p, p'-	0.027	AQ-ERM			0.027	0.034	0.00477	0.32	5.4	1.67
1163195	Decabromodiphenyl oxide	[c]								110	

Table A-2. (Continued)

CAS	Chemical Name	Estimated Sediment Chemistry Screening Values (ppm)[a]	Guideline Type	Sediment Quality Criteria (1% OC) AQ-SQC (ppm)	Sediment Quality Advisory Level (1% OC) AQ-SQAL (ppm)[b]	Effects Range-Median AQ-ERM (ppm)	Apparent Effects High AQ-AETH (ppm)	Effects (ppm)	EPA Cancer Risk 10^{-5} HH-C (ppm)	EPA Noncancer Hazard Quotient = 1 HH-NC (ppm)	Biota-Sediment Accumulation Factor (unitless)
84742	Di-n-butyl phthalate	11	AQ-SQAL		11		1.4			1100	1
117840	Di-n-octyl phthalate	6.2	AQ-AETH				6.2			220	1
333415	Diazinon/Spectracide	0.0002	AQ-SQAL		0.00019					9.7	1.8
53703	Dibenzo(a,h)anthracene	0.017	HH-C			0.26	0.97	0.135	0.015		0.29
132649	Dibenzofuran	2	AQ-SQAL		2		1.7			43	1
96128	Dibromo-3-chloropropane, 1,2-	[c]							0.077		
124481	Dibromochloromethane	0.43	HH-C						1.3	220	1
1918009	Dicamba	[c]								320	
95501	Dichlorobenzene, 1,2-	0.34	AQ-SQAL		0.34		0.05			970	1
541731	Dichlorobenzene, 1,3-	1.7	AQ-SQAL		1.7					960	1
106467	Dichlorobenzene, 1,4-	0.35	AQ-SQAL		0.35		0.12		4.5		1
25321226	Dichlorobenzenes	0.34	AQ-SQAL		0.34		0.05		4.5	960	1
91941	Dichlorobenzidine, 3,3'-	[c]							0.24		
75718	Dichlorodifluoromethane	[c]								2200	
75343	Dichloroethane 1,1-	367	HH-NC							1100	1
107062	Dichloroethane 1,2-	0.4	HH-C						1.2		1
75354	Dichloroethene, 1,1-	[c]							0.18	97	
156605	Dichloroethene, trans-1,2-	73	HH-NC							220	1
156592	Dichloroethylene, cis-1,2-	[c]								110	
75092	Dichloromethane	4.7	HH-C						14	650	1
120832	Dichlorophenol, 2,4-	[c]								32	
94757	Dichlorophenoxyacetic acid, 2,4-	[c]								110	
94826	Dichlorophenoxybutanoic acid, 2,4-	[c]								86	
78875	Dichloropropane, 1,2-	0.53	HH-C						1.6		1
542756	Dichloropropene, 1,3-	[c]							0.62	3.2	
62737	Dichlorvos	[c]							0.37	5.4	
115322	Dicofol/Kelthane	[c]							0.24		
60571	Dieldrin	0.0012	HH-C	0.11	0.11			0.0043	0.0067	0.54	1.8
84662	Diethyl phthalate	0.63	AQ-SQAL		0.63		0.2			8600	1
119904	Dimethoxybenzidine,3,3'-	[c]							7.7		
131113	Dimethyl phthalate	0.16	AQ-AETH				0.16			110000	1
105679	Dimethylphenol, 2,4-	0.21	AQ-AETH				0.21			220	
528290	Dinitrobenzene, 1,2-	[c]								4.3	
99650	Dinitrobenzene, 1,3-	[c]								1.1	
100254	Dinitrobenzene, 1,4	[c]								4.3	
51285	Dinitrophenol, 2,4-	[c]								22	
121142	Dinitrotoluene, 2,4-	[c]								22	
606202	Dinitrotoluene, 2,6-	[c]								11	
88857	Dinoseb/DNBP	[c]								11	
122667	Diphenylhydrazine, 1,2-	[c]							0.13		
298044	Disulfoton	[c]								0.43	

Table A-2. (Continued)

CAS	Chemical Name	Estimated Sediment Chemistry Screening Values (ppm)[a]	Guideline Type	Sediment Quality Criteria (1% OC) AQ-SQC (ppm)	Sediment Quality Advisory Level (1% OC) AQ-SQAL (ppm)[b]	Effects Range-Median AQ-ERM (ppm)	Apparent Effects Threshold-High AQ-AETH (ppm)	(ppm)	EPA Cancer Risk 10^{5} HH-C (ppm)	EPA Noncancer Hazard Quotient = 1 HH-NC (ppm)	Biota-Sedimen-t Accumulation Factor (unitless)
115297	Endosulfan mixed isomers	0.0054	AQ-SQAL		0.0054					65	1.8
959988	Endosulfan, alpha-	0.0029	AQ-SQAL		0.0029					65	1.8
33213659	Endosulfan, beta-	0.014	AQ-SQAL		0.014					65	1.8
72208	Endrin	0.042	AQ-SQC	0.042	0.042					3.2	1.8
563122	Ethion/Bladen	1	HH-NC							5.4	1.8
141786	Ethyl acetate	[c]								9700	
100414	Ethylbenzene	4.8	AQ-SQAL		4.8		0.037			1100	1
106934	Ethylene dibromide	[c]							0.0013		
206440	Fluoranthene	6.2	AQ-SQC	6.2	6.2	5.1	30	1.494		430	0.29
86737	Fluorene	0.54	AQ-SQAL		0.54	0.54	3.6	0.144		430	0.29
944229	Fonofos	[c]								22	
76448	Heptachlor	0.0044	HH-C						0.024	5.4	1.8
1024573	Heptachlor epoxide	0.0022	HH-C						0.012	0.14	1.8
118741	Hexachlorobenzene	0.23	AQ-AETH				0.23		0.067	8.6	0.09
87683	Hexachlorobutadiene	0.27	AQ-AETH				0.27		1.4	2.2	1
74474	Hexachlorocyclopentadiene	[c]									
67721	Hexachloroethane	1	AQ-SQAL		1				7.7	11	1
51235042	Hexazinone	[c]								360	
999999484	HMW_PAHs	9.6	AQ-ERM			9.6	69	6.676			
123319	Hydroquinone	[c]								430	
193395	Indeno(1,2,3-cd)pyrene	0.17	HH-C				2.6		0.15		0.29
78591	Isophorone	37	HH-C						110	2200	1
33820530	Isopropalin	[c]								160	
7439921	Lead	218	AQ-ERM			218	660	112			
999999502	LMW_PAHs	3.2	AQ-ERM			3.16	24	1.442			
121755	Malathion	0.0007	AQ-SQAL		0.00067					220	1.8
108316	Maleic anhydride	[c]								1100	
7439965	Manganese	[c]								54	
7439976	Mercury	0.71	AQ-ERM			0.71	2.1	0.696		1.1	
72435	Methoxychlor	0.019	AQ-SQAL		0.019					54	1.8
78933	Methyl ethyl ketone	2200	HH-NC							6500	1
108101	Methyl isobutyl ketone	[c]								860	
22967926	Methyl Mercury	[c]								1.1	
91576	Methylnaphthalene, 2-	0.67	AQ-ERM			0.67	1.9	0.201			
21087649	Metribuzin	[c]								270	
2385855	Mirex/Dechlorane	0.015	HH-C						0.06	2.2	1.31
7439987	Molybdenum	[c]								54	
91203	Naphthalene	0.47	AQ-SQAL		0.47	2.1	2.7	0.391		430	0.29
91598	Naphthylamine, 2-	[c]							0.00083		
7440020	Nickel	52	AQ-ERM			51.6		42.8		220	
98953	Nitrobenzene	[c]								5.4	
100027	Nitrophenol, 4	[c]								670	

Table A-2. (Continued)

CAS	Chemical Name	Estimated Sediment Chemistry Screening Values (ppm)[a]	Guideline Type	Sediment Quality Criteria (1% OC) AQ-SQC (ppm)	Sediment Quality Advisory Level (1% OC) AQ-SQAL (ppm)[b]	Effects Range-Median AQ-ERM (ppm)	Apparent Effects Threshol-d- High AQ-AETH (ppm)	Effects (ppm)	EPA Cancer Risk 10^5 HH-C (ppm)	EPA Noncancer Hazard Quotient = 1 HH-NC (ppm)	Biota-Sedime-nt Accumulation Factor (unitless)
924163	Nitrosodi-n-butylamine, N-	c							0.02		
621647	Nitrosodi-n-propylamine, N-	c							0.015		
86306	Nitrosodiphenylamine, N-	0.13	AQ-AETH				0.13		22		
55185	Nitrosodmiethylamine, N-	c							0.0021		
56382	Parathion ethyl	c								65	
12674112	PCB(Aroclor-1016)	0.0025	HH-C			0.18	3.1	0.189	0.014	0.75	1.85
11104282	PCB(Aroclor-1221)	0.0025	HH-C			0.18	3.1	0.189	0.014	0.22	1.85
11141165	PCB(Aroclor-1232)	0.0025	HH-C			0.18	3.1	0.189	0.014	0.22	1.85
53469219	PCB(Aroclor-1242)	0.0025	HH-C			0.18	3.1	0.189	0.014	0.22	1.85
12672296	PCB(Aroclor-1248)	0.0025	HH-C			0.18	3.1	0.189	0.014	0.22	1.85
11097691	PCB(Aroclor-1254)	0.0025	HH-C			0.18	3.1	0.189	0.014	0.22	1.85
11096825	PCB(Aroclor-1260)	0.0025	HH-C			0.18	3.1	0.189	0.014	0.22	1.85
608935	Pentachlorobenzene	0.69	AQ-SQAL		0.69					8.6	0.04
82688	Pentachloronitrobenzene/Quintoze-ne	c							0.41	32	
87865	Pentachlorophenol	0.69	AQ-AETH				0.69		0.9	320	
85018	Phenanthrene	1.8	AQ-SQC	1.8	1.8	1.5	6.9	0.544			
108952	Phenol	1.2	AQ-AETH				1.2			6500	
298022	Phorate/Famophos/Thimet	c								2.2	
85449	Phthalic anhydride	c								22000	
1336363	Polychlorinated biphenyls	0.0025	HH-C			0.18	3.1	0.189	0.014	0.22	1.85
1610180	Prometon/Pramitol	c								160	
7287196	Prometym/Caparol	c								43	
23950585	Pronamide	c								810	
1918167	Propachlor	c								140	
129000	Pyrene	2.6	AQ-ERM			2.6	16	1.398		320	0.29
91225	Quinoline	c							0.009		
91225	Quinoline	c							0.009		
88888888-2	SEM_est	c									
7440224	Silver	3.7	AQ-ERM			3.7	6.1	1.77		54	
122349	Simazine	c							0.9	54	
7440246	Strontium	c								6500	
100425	Styrene	c								2200	
88888888-1	TEF_est	c							0.000000-69		
13071799	Terbufos/Counter	c								0.27	
886500	Terbutryn	c								11	
95943	Tetrachlorobenzene, 1,2,4,5-	1.1	HH-NC							3.2	1
1746016	Tetrachlorodibenzo-p-dioxin, 2,3,7,8-	0.0000039	HH-C						0.000000-69		0.059
79345	Tetrachloroethane, 1,1,2,2-	0.18	HH-C		1.6				0.54		1
127184	Tetrachloroethene	0.53	AQ-SQAL		0.53		0.14		2.1	110	1
56235	Tetrachloromethane	0.28	HH-C		1.2				0.83	7.5	1
58902	Tetrachlorophenol, 2,3,4,6-	c								320	
961115	Tetrachlorvinphos/Gardona/Stirof-os	c							4.5	320	

Table A-2. (Continued)

CAS	Chemical Name	Estimated Sediment Chemistry Screening Values (ppm)[a]	Guideline Type	Sediment Quality Criteria (1% OC) AQ-SQC (ppm)	Sediment Quality Advisory Level (1% OC) AQ-SQAL (ppm)[b]	Effects Range-Median AQ-ERM (ppm)	Apparent Effects Threshold- High AQ-AETH (ppm)	(ppm)	EPA Cancer Risk 10^5 HH-C (ppm)	EPA Noncancer Hazard Quotient = 1 HH-NC (ppm)	Biota-Sediment Accumulation Factor (unitless)
7440315	Tin	[c]								6500	
108883	Toluene	0.89	AQ-SQAL		0.89					2200	1
8001352	Toxaphene	0.018	HH-C		0.1				0.098		1.8
75252	Tribromomethane/Bromoform	0.65	AQ-SQAL		0.65				14	220	1
120821	Trichlorobenzene, 1,2,4-	9.2	AQ-SQAL		9.2		0.064			110	1
71556	Trichloroethane, 1,1,1-	0.17	AQ-SQAL		0.17					970	1
79005	Trichloroethane, 1,1,2-	0.63	HH-C						1.9	43	1
79016	Trichloroethene	2.1	AQ-SQAL		2.1				9.8	65	1
75694	Trichlorofluoromethane	1100	HH-NC							3200	1
67663	Trichloromethane/Chloroform	6.0	HH-C						18	110	1
95954	Trichlorophenol, 2,4,5-	[c]								1100	
88062	Trichlorophenol, 2,4,6-	[c]							9.8		
93765	Trichlorophenoxyacetic acid, 2,4,5-	[c]								110	
93721	Trichlorophenoxypropionic acid, 2,4,5	[c]								86	
1582098	Trifluralin/Treflan	[c]							14	81	
95636	Trimethylbenzene, 1,2,4-	[c]								5.4	
118967	Trinitrotoluene	[c]							3.6	5.4	
7440622	Vanadium	[c]								75	
108054	Vinyl acetate	[c]								11000	
108383	Xylene, m-	0.025	AQ-SQAL		0.025		0.12			22000	1
95476	Xylene, o-	0.025	AQ-SQAL		0.025		0.12			22000	1
106423	Xylene, p-	0.025	AQ-SQAL		0.025		0.12				1
1330207	Xylenes	0.025	AQ-SQAL		0.025		0.12			22000	1
7440666	Zinc	410	AQ-ERM			410	1600	271		3200	

[a]Screening values selected based on the following methods: (1) an aquatic life threshold was selected in descending order of availability: SQC, SQAL, ERM, AETH, PEL; (2) a human health threshold was calculated based on the TBP approach (see Site Inventory report) by dividing the lower of the available risk values by the default 3% lipids and the BSAF and multiplying by the default 1% organic carbon. The lower of the aquatic life or human health thresholds was then used as the screening value.

[b]SQALs are not equivalent to SQCs.

[c]Based on criteria presented in the Site Inventory (Appendix C), no BSAF could be developed for this chemical, and subsequently, a human health threshold could not be derived for this chemical. In addition, no aquatic life thresholds were available for this chemical; therefore, no screening value could be developed.

Table A-3. Physical and Chemical Properties (Sorted by Chemical Name)

CAS	Chemical Name	AQUEOUS AEROBIC BIODEGRADATION HALF-LIFE		HENRY'S LAW CONSTANT		LOG OCTANOL-WATER PARTITION COEFFICIENT (log K_{ow})		PREDICTED SEDIMENT ADSORPTION COEFFICIENT (K_{oc})
		Days	Reference	(atm-m³/mole)	Reference	Value	Reference	
83329	Acenaphthene	102	Howard et al., 1991	1.6E-04	USEPA, 1993h	3.92	[a]	7139
208968	Acenaphthylene	60	Howard et al., 1991	1.1E-05	USEPA, 1993h	4.1	USEPA, 1993h	10730
67641	Acetone	7	Howard et al., 1991	3.9E-05	USEPA, 1989	-0.24	[a]	1
98862	Acetophenone	16	USEPA, 1993g	1.1E-05	Lyman et al., 1982	1.64	[a]	41
107028	Acrolein	28	Howard et al., 1991	1.2E-04	USEPA, 1989	-0.01	[a]	1
107131	Acrylonitrile	23	Howard et al., 1991	1.1E-04	USEPA, 1989	0.25	[a]	2
15972608	Alachlor/Lasso	100	USEPA, 1993g	9.0E-11	[b]	3.99	USEPA, 1993g	8365
116063	Aldicarb/Temik	361	Howard et al., 1991	6.0E-09	Lyman et al., 1982	1.1	USEPA, 1993h	12
309002	Aldrin	592	Howard et al., 1991	3.2E-04	USEPA, 1989	6.5	[a]	2453466
62533	Aniline	26	SRC, 1993	1.9E-06	USEPA, 1989	0.98	[a]	9
120127	Anthracene	460	Howard et al., 1991	2.6E-05	[b]	4.55	[a]	29712
1912249	Atrazine	742	SRC, 1993			2.6	USEPA, 1993h	360
71432	Benzene	16	Howard et al., 1991	5.4E-03	[b]	2.13	[a]	124
92875	Benzidine	8	Howard et al., 1991	3.9E-11	USEPA, 1989	1.66	[a]	43
56553	Benzo(a)anthracene	680	Howard et al., 1991	1.8E-06	[b]	5.7	[a]	401218
50328	Benzo(a)pyrene	530	Howard et al., 1991	1.1E-04	USEPA, 1993h	6.11	[a]	1014869
205992	Benzo(b)fluoranthene	610	Howard et al., 1991	1.1E-04	USEPA, 1993h	6.2	[a]	1244171
191242	Benzo(ghi)perylene	650	Howard et al., 1991	1.6E-06	USEPA, 1993h	6.7	[a]	3858158
207089	Benzo(k)fluoranthene	2140	Howard et al., 1991	4.0E-07	USEPA, 1993h	6.2	[a]	1244171
65850	Benzoic Acid	16	USEPA, 1993g	4.6E-08	[b]	1.86	[a]	67
98077	Benzotrichloride	7	Howard et al., 1991			2.9	[c]	710
100447	Benzyl chloride	28	Howard et al., 1991	4.0E-04	[b]	2.3	[a]	182
319846	BHC, alpha-	135	Howard et al., 1991	4.3E-11	[b]	3.8	[a]	5441
319857	BHC, beta-	124	Howard et al., 1991	4.3E-11	[b]	3.81	[a]	5566
319868	BHC, delta-	100	Howard et al., 1991	4.3E-07	USEPA, 1993h	2.8	[c]	566
58899	BHC, gamma-/Lindane	413	Howard et al., 1991	4.3E-11	[b]	3.73	[a]	4644
608731	BHC, technical grade	100	USEPA, 1993g	4.3E-11	[b]	3.61	USEPA, 1989	3539
92524	Biphenyl	7	Howard et al., 1991	4.3E-04	[b]	3.96	[a]	7816
111444	Bis(2-chloroethyl) ether	180	Howard et al., 1991	1.7E-05	USEPA, 1989	1.21	[a]	15
108601	Bis(2-chloroisopropyl) ether	180	Howard et al., 1991	1.1E-04	USEPA, 1989	1.61	USEPA, 1989	38
117817	Bis(2-ethylhexyl) phthalate	23	Howard et al., 1991	1.5E-05	USEPA, 1989	7.3	[a]	15003065
542881	Bis(chloromethyl) ether	28	Howard et al., 1991	2.1E-04	Lyman et al., 1982	0.38	USEPA, 1993h	2

Table A-3. (Continued)

CAS	Chemical Name	AQUEOUS AEROBIC BIODEGRADATION HALF-LIFE		HENRY'S LAW CONSTANT		LOG OCTANOL-WATER PARTITION COEFFICIENT (log K_{ow})		PREDICTED SEDIMENT ADSORPTION COEFFICIENT (K_{oc})
		Days	Reference	(atm-m^3/mole)	Reference		Reference	
75274	Bromodichloromethane	15	USEPA, 1993g	2.1E-03	[b]	2.1	[a]	116
74839	Bromomethane	28	Howard et al., 1991	6.2E-03	USEPA, 1989	1.19	[a]	15
101553	Bromophenyl phenyl ether, 4-	100	USEPA, 1993g	1.2E-04	[b]	5	[a]	82277
1689845	Bromoxynil	22	Howard et al., 1991			3	USEPA, 1993h	890
85687	Butyl benzyl phthalate	7	Howard et al., 1991	1.3E-06	USEPA, 1989	4.84	[a]	57280
63252	Carbaryl/Sevin	30	Howard et al., 1991	3.1E-09	[b]	2.3	[c]	182
1563662	Carbofuran/Furadan	17	USEPA, 1993g	3.0E-08	[b]	1.5	[c]	30
75150	Carbon disulfide	11	USEPA, 1993h	3.0E-02	[b]	2	[a]	93
133904	Chloramben	100	USEPA, 1993g			2.17	USEPA, 1989	136
57749	Chlordane	1386	Howard et al., 1991	4.9E-05	USEPA, 1989	6.32	[a]	1632450
108907	Chlorobenzene	150	Howard et al., 1991	4.6E-03	[b]	2.86	[a]	648
510156	Chlorobenzilate	35	Howard et al., 1991			4.38	[a]	20222
75003	Chloroethane	28	Howard et al., 1991	8.8E-03	USEPA, 1989	1.4	[c]	24
75014	Chloroethene	180	Howard et al., 1991	2.7E-02	USEPA, 1989	1.5	[a]	30
110758	Chloroethylvinyl ether, 2-	12	USEPA, 1993g	2.5E-04	Lyman et al., 1982	1.28	Lyman et al., 1982	18
74873	Chloromethane	28	Howard et al., 1991	8.8E-03	USEPA, 1989	0.91	[a]	8
91587	Chloronaphthalene, 2-	100	USEPA, 1993g	3.2E-04	[b]	4.1	[c]	10730
95578	Chlorophenol, 2-	15	SRC, 1993	5.6E-07	[b]	2.15	[a]	130
2921882	Chlorpyrifos/Dursban	100	USEPA, 1993g	4.0E-08	[b]	5.26	[a]	148204
218019	Chrysene	1000	Howard et al., 1991	1.8E-06	[b]	5.7	[a]	401218
108394	Cresol, m-	29	Howard et al., 1991	7.1E-07	[b]	1.97	[a]	86
95487	Cresol, o-	7	Howard et al., 1991	7.1E-07	[b]	1.99	[a]	90
106445	Cresol, p-	0.667	Howard et al., 1991	7.1E-07	[b]	1.95	[a]	83
1319773	Cresols	29	Howard et al., 1991	1.1E-06	Lyman et al., 1982	1.9	[c]	74
98828	Cumene	8	Howard et al., 1991	1.2E-02	[b]	3.58	[a]	3307
21725462	Cyanazine	100	USEPA, 1993g			2.2	USEPA, 1993h	146
57125	Cyanide	16	USEPA, 1993g			-0.25	[c]	1
1861321	DCPA/Dacthal	92	Howard et al., 1991	8.1E-11	[b]	3.9	Worthing &Hance, 1991	6823
72548	DDD	5834	Howard et al., 1991	4.0E-06	USEPA, 1993h	6.1	[a]	992156
72559	DDE	5834	Howard et al., 1991	3.5E-05	[b]	6.76	[a]	4419366
50293	DDT	5694	Howard et al., 1991	1.5E-05	[b]	6.53	[a]	2625851
1163195	Decabromodiphenyl oxide	360	Howard et al., 1991	4.5E-08	SRC, 1993	9.79	SRC, 1993	4205813396

Table A-3. (Continued)

CAS	Chemical Name	AQUEOUS AEROBIC BIODEGRADATION HALF-LIFE		HENRY'S LAW CONSTANT		LOG OCTANOL-WATER PARTITION COEFFICIENT (log K_{ow})		PREDICTED SEDIMENT ADSORPTION COEFFICIENT (K_{oc})
		Days	Reference	(atm-m³/mole)	Reference	Value	Reference	
84742	Di-n-butyl phthalate	23	Howard et al, 1991	2.8E-14	[b]	4.61	[a]	34034
117840	Di-n-octyl phthalate	28	Howard et al, 1991	4.5E-13	[b]	8.06	[a]	83803084
333415	Diazinon/Spectracide	100	USEPA, 1993g	8.7E-08	[b]	3.7	[a]	4339
53703	Dibenzo(a,h)anthracene	940	Howard et al., 1991	1.2E-07	[b]	6.69	[a]	3771812
132649	Dibenzofuran	28	Howard et al., 1991	2.8E-04	[b]	4.07	[a]	10025
96128	Dibromo-3-chloropropane, 1,2-	180	Howard et al., 1991			2.34	[a]	200
124481	Dibromochloromethane	180	Howard et al., 1991	8.1E-03	[b]	2.17	[a]	136
1918009	Dicamba	100	USEPA, 1993g	2.7E-08	[b]	0.48	USEPA, 1993h	3
95501	Dichlorobenzene, 1,2-	180	Howard et al., 1991	3.9E-03	[b]	3.43	[a]	2355
541731	Dichlorobenzene, 1,3-	180	Howard et al., 1991	3.9E-03	[b]	3.6	[c]	3460
106467	Dichlorobenzene, 1,4-	180	Howard et al., 1991	3.9E-03	[b]	3.42	[a]	2302
25321226	Dichlorobenzenes	180	Howard et al., 1991	3.9E-03	[b]	3.5	USEPA, 1993h	2759
91941	Dichlorobenzidine, 3,3'-	180	Howard et al., 1991	5.1E-11	[b]	3.51	[a]	2822
75718	Dichlorodifluoromethane	180	Howard et al., 1991	3.6E-01	[b]	2.16	[a]	133
75343	Dichloroethane, 1,1-	154	Howard et al., 1991	4.8E-03	[b]	1.79	[a]	58
107062	Dichloroethane, 1,2-	180	Howard et al., 1991	9.8E-04	USEPA, 1989	1.47	[a]	28
75354	Dichloroethene, 1,1-	180	Howard et al., 1991	5.4E-02	[b]	2.13	[a]	124
156605	Dichloroethene, trans-1,2-	15	USEPA, 1993g	9.4E-03	USEPA, 1993h	2.07	[a]	108
156592	Dichloroethylene, cis-1,2-	15	USEPA, 1993g	7.6E-03	Lyman et al., 1982	1.86	[a]	67
75092	Dichloromethane	28	Howard et al., 1991	2.2E-03	USEPA, 1989	1.25	[a]	17
120832	Dichlorophenol, 2,4-	8.3	Howard et al., 1991	4.8E-07	[b]	3.08	[a]	1066
94757	Dichlorophenoxyacetic acid, 2,4-	50	Howard et al., 1991	5.5E-08	[b]	2.7	[a]	451
78875	Dichloropropane, 1,2-	1289	Howard et al., 1991	3.2E-04	[b]	1.97	[a]	86
542756	Dichloropropene, 1,3-	28	Howard et al., 1991	1.8E-03	USEPA, 1989	2	[a]	93
62737	Dichlorvos	3	SRC, 1993			1.5	[c]	30
115322	Dicofol/Kelthane	100	USEPA, 1993g			6.1	USEPA, 1993h	992156
60571	Dieldrin	1080	Howard et al., 1991	1.5E-05	USEPA, 1993h	5.37	[a]	190103
84662	Diethyl phthalate	56	Howard et al., 1991	3.6E-13	[b]	2.5	[a]	287
119904	Dimethoxybenzidine, 3,3'-	180	Howard et al., 1991	4.7E-11	[b]	1.81	[a]	60
105679	Dimethylphenol, 2,4-	7	Howard et al., 1991	7.6E-07	[b]	2.36	[a]	209
528290	Dinitrobenzene, 1,2-	180	Howard et al., 1991			1.6	[c]	37
99650	Dinitrobenzene, 1,3-	180	Howard et al., 1991			1.5	[a]	30

Table A-3. (Continued)

CAS	Chemical Name	AQUEOUS AEROBIC BIODEGRADATION HALF-LIFE		HENRY'S LAW CONSTANT		LOG OCTANOL-WATER PARTITION COEFFICIENT (log K_{ow})		PREDICTED SEDIMENT ADSORPTION COEFFICIENT (K_{oc})
		Days	Reference	(atm-m³/mole)	Reference	Value	Reference	
100254	Dinitrobenzene, 1,4-	16	USEPA, 1993g			1.5	[c]	30
51285	Dinitrophenol, 2,4-	263	Howard et al., 1991	4.4E-07	USEPA, 1989	1.55	[a]	33
121142	Dinitrotoluene, 2,4-	180	Howard et al., 1991	4.0E-07	[b]	2.01	[a]	95
606202	Dinitrotoluene, 2,6-	180	Howard et al., 1991	4.0E-07	[b]	1.87	[a]	69
88857	Dinoseb/DNBP	123	Howard et al., 1991	1.5E-10	[b]	3.14	[a]	1222
122667	Diphenylhydrazine, 1,2-	180	Howard et al., 1991	4.4E-09	[b]	2.9	[c]	710
298044	Disulfoton	21	Howard et al., 1991			3.98	[a]	8177
115297	Endosulfan mixed isomers	14	Howard et al., 1991	1.1E-05	USEPA, 1993h	4.1	[a]	10730
959988	Endosulfan, alpha-	100	USEPA, 1993g	1.1E-05	USEPA, 1993h	3.6	USEPA, 1993h	3460
33213659	Endosulfan, beta-	100	USEPA, 1993g	1.1E-05	USEPA, 1993h	3.6	USEPA, 1993h	3460
72208	Endrin	20	USEPA, 1993g	7.5E-06	USEPA, 1993h	5.06	[a]	94245
563122	Ethion/Bladan	16	USEPA, 1993g			5.1	USEPA, 1993h	103176
141786	Ethyl acetate	7	Howard et al., 1991			0.69	[a]	5
100414	Ethylbenzene	10	Howard et al., 1991	8.9E-03	[b]	3.14	[a]	1222
106934	Ethylene dibromide	180	Howard et al., 1991	2.5E-03	[b]	1.75	[a]	53
206440	Fluoranthene	440	Howard et al., 1991	1.6E-05	SRC, 1993	5.12	[a]	107954
86737	Fluorene	60	Howard et al., 1991	3.5E-05	[b]	4.21	[a]	13763
76448	Heptachlor	65	Howard et al., 1991	2.6E-03	SRC, 1993	6.26	[a]	1425148
1024573	Heptachlor epoxide	552	Howard et al., 1991	3.2E-05	USEPA, 1993h	5	[a]	82277
118741	Hexachlorobenzene	2089	Howard et al., 1991	2.0E-03	[b]	5.89	[a]	616808
87683	Hexachlorobutadiene	180	Howard et al., 1991	8.2E-03	USEPA, 1989	4.81	[a]	53519
77474	Hexachlorocyclopentadiene	28	Howard et al., 1991	2.7E-01	SRC, 1993	5.39	[a]	198907
67721	Hexachloroethane	180	Howard et al., 1991	6.1E-04	[b]	4	[a]	8556
51235042	Hexazinone	100	USEPA, 1993g	2.0E-12	Lyman et al., 1982	0.28	Lyman et al., 1982	2
123319	Hydroquinone	7	Howard et al, 1991	3.8E-11	USEPA, 1989	0.55	[c]	3
193395	Indeno(1,2,3-cd)pyrene	720	Howard et al., 1991	1.6E-06	USEPA, 1993h	6.65	[a]	3445323
78591	Isophorone	28	Howard et al., 1991	5.8E-06	Lyman et al., 1982	1.7	[a]	47
33820530	Isopropalin	105	Howard et al., 1991			5.74	Lyman et al., 1982	439238
121755	Malathion	51.5	Howard et al., 1991	8.4E-10	[b]	2.89	[a]	694
108316	Maleic anhydride	15	USEPA, 1993g	4.0E-11	Lyman et al., 1982	-3.13	Lyman et al., 1982	0
72435	Methoxychlor	360	Howard et al., 1991	2.8E-07	[b]	5.08	[a]	98610
78933	Methyl ethyl ketone	7	Howard et al., 1991	5.6E-05	USEPA, 1989	0.28	[a]	2

Table A-3. (Continued)

CAS	Chemical Name	AQUEOUS AEROBIC BIODEGRADATION HALF-LIFE		HENRY'S LAW CONSTANT		LOG OCTANOL-WATER PARTITION COEFFICIENT (log K_{ow})		PREDICTED SEDIMENT ADSORPTION COEFFICIENT (K_{oc})
		Days	Reference	(atm-m³/mole)	Reference	Value	Reference	
108101	Methyl isobutyl ketone	7	Howard et al., 1991	1.4E-04	USEPA, 1989	1.19	[a]	15
91576	Methylnaphthalene, 2-	100	USEPA, 1993g					
21087649	Metribuzin	15	USEPA, 1993g			1.7	USEPA, 1993h	47
7786347	Mevinphos/Phosdrin	16	USEPA, 1993g			0.21	Lyman et al., 1982	2
2385855	Mirex/Dechlorane	365	[d]	1.6E-14	SRC, 1993	6.89	[a]	5931301
91203	Naphthalene	20	Howard et al., 1991	3.7E-04	[b]	3.36	[a]	2010
91598	Naphthylamine, 2-	180	Howard et al., 1991			2.28	[a]	174
98953	Nitrobenzene	197	Howard et al., 1991	4.5E-05	[b]	1.84	[a]	64
100027	Nitrophenol, 4-	7	Howard et al., 1991	5.5E-09	[b]	1.9	USEPA, 1993h	74
924163	Nitrosodi-n-butylamine, N-	180	Howard et al., 1991	6.9E-06	[b]	2.41	[a]	234
621647	Nitrosodi-n-propylamine, N-	180	Howard et al., 1991	2.3E-06	USEPA, 1989	1.4	[a]	24
62759	Nitrosodimethylamine, N-	180	Howard et al., 1991	2.6E-07	USEPA, 1989	-0.57	[a]	0
86306	Nitrosodiphenylamine, N-	34	Howard et al., 1991	1.3E-07	[b]	3.16	[c]	1278
1000	PAH Compounds	940	Howard et al., 1991					
56382	Parathion ethyl	7	Verschueren, 1983	3.0E-07	[b]	3.83	[a]	5823
12674112	PCB-1016	590	[e]	1.0E-04	[b]	5.6	USEPA, 1993h	319948
11104282	PCB-1221	590	[e]	1.0E-04	[b]	5.6	USEPA, 1993h	319948
11141165	PCB-1232	590	[e]	1.0E-04	[b]	5.6	USEPA, 1993h	319948
53469219	PCB-1242	590	[e]	1.0E-04	[b]	5.6	USEPA, 1993h	319948
12672296	PCB-1248	590	[e]	1.0E-04	[b]	5.6	USEPA, 1993h	319948
11097691	PCB-1254	590	[e]	1.0E-04	[b]	5.6	USEPA, 1993h	319948
11096825	PCB-1260	590	[e]	1.0E-04	[b]	5.6	USEPA, 1993h	319948
608935	Pentachlorobenzene	345	Howard et al., 1991	2.4E-03	[b]	5.26	[a]	148204
82688	Pentachloronitrobenzene/Quintozene	699	Howard et al., 1991	9.7E-07	[b]	4.64	[a]	36425
87865	Pentachlorophenol	178	Howard et al., 1991	2.9E-07	[b]	5.09	[a]	100867
85018	Phenanthrene	200	Howard et al., 1991	2.6E-05	[b]	4.55	[a]	29712
108952	Phenol	3.5	Howard et al., 1991	3.3E-07	USEPA, 1989	1.48	[a]	29
298022	Phorate/Famophos/Thimet	4	SRC, 1993	1.6E-06	[b]	3.81	[a]	5566
85449	Phthalic anhydride	7	Howard et al., 1991	1.6E-09	USEPA, 1989	-0.62	[c]	0
1336363	Polychlorinated biphenyls	590	[e]			5.6	USEPA, 1993h	319948
1610180	Prometon/Pramitol	365	[d]			4.3	USEPA, 1990	16873
7287196	Prometyrn/Caparol	70	Worthing & Hance, 1991			3.43	Lyman et al., 1982	2355

Table A-3. (Continued)

CAS	Chemical Name	AQUEOUS AEROBIC BIODEGRADATION HALF-LIFE		HENRY'S LAW CONSTANT		LOG OCTANOL-WATER PARTITION COEFFICIENT (log K_{ow})		PREDICTED SEDIMENT ADSORPTION COEFFICIENT (K_{oc})
		Days	Reference	(atm-m^3/mole)	Reference	Value	Reference	
23950585	Pronamide	100	USEPA, 1993g			3.51	—[a]	2822
1918167	Propachlor	42	Worthing & Hance, 1991	8.9E-08	—[b]	1.8	Lyman et al., 1982	59
129000	Pyrene	1900	Howard et al., 1991	1.1E-05	USEPA, 1993h	5.11	—[a]	105538
91225	Quinoline	10	Howard et al., 1991	1.5E-06	—[b]	2	USEPA, 1993h	93
122349	Simazine	100	USEPA, 1993g			2.18	Lyman et al., 1982	139
100425	Styrene	28	Howard et al., 1991	8.9E-03	—[b]	2.94	—[a]	777
13071799	Terbufos/Counter	15	USEPA, 1993g	2.8E-06	—[b]	3.68	SRC, 1993	4147
886500	Terbutryn	240	SRC, 1993			3.74	Lyman et al., 1982	4750
95943	Tetrachlorobenzene, 1,2,4,5-	180	Howard et al., 1991	2.8E-03	—[b]	4.64	—[a]	36425
1746016	Tetrachlorodibenzo-p-dioxin, 2,3,7,8-	590	Howard et al., 1991	1.6E-05	SRC, 1993	6.53	—[a]	2625851
79345	Tetrachloroethane, 1,1,2,2-	180	Howard et al., 1991	5.4E-05	—[b]	2.39	—[a]	224
25322207	Tetrachloroethane, NOS	180	Howard et al., 1991			2.4		229
127184	Tetrachloroethene	360	Howard et al., 1991	1.8E-02	—[b]	2.67	—[a]	422
56235	Tetrachloromethane	360	Howard et al., 1991	3.0E-02	—[b]	2.73	—[a]	483
58902	Tetrachlorophenol, 2,3,4,6-	180	Howard et al., 1991			4.1	—[c]	10730
961115	Tetrachlorvinphos/Gardona /Stirofos	100	USEPA, 1993g	2.2E-08	—[b]	3.53	USEPA, 1989	2953
108883	Toluene	22	Howard et al., 1991	5.7E-03	—[b]	2.75	—[a]	505
8001352	Toxaphene	365	—[d]	6.0E-06	USEPA, 1989	5.5	—[a]	255141
75252	Tribromomethane	180	Howard et al., 1991	5.7E-04	—[b]	2.35	—[a]	204
120821	Trichlorobenzene, 1,2,4-	180	Howard et al., 1991	3.3E-03	—[b]	4.01	—[a]	8752
71556	Trichloroethane, 1,1,1-	273	Howard et al., 1991	1.6E-02	—[b]	2.48	—[a]	274
79005	Trichloroethane, 1,1,2-	360	Howard et al., 1991	1.2E-06	—[b]	2.05	—[a]	104
79016	Trichloroethene	360	Howard et al., 1991	1.9E-02	—[b]	2.71	—[a]	462
75694	Trichlorofluoromethane	360	Howard et al., 1991	9.7E-02	—[b]	2.53	—[a]	307
67663	Trichloromethane	180	Howard et al., 1991	4.1E-03	—[b]	1.92	—[a]	77
95954	Trichlorophenol, 2,4,5-	690	Howard et al., 1991	3.3E-03	—[b]	3.9	—[a]	6823
88062	Trichlorophenol, 2,4,6-	70	Howard et al., 1991	3.3E-03	—[b]	3.7	—[a]	4339
93765	Trichlorophenoxyacetic acid, 2,4,5-	20	Howard et al., 1991	8.7E-09	USEPA, 1993h	3.31	—[a]	1795
93721	Trichlorophenoxypropionic acid, 2,4,5-	100	USEPA, 1993g	3.5E-09	—[b]	3.41	—[a]	2251
1582098	Trifluralin/Treflan	100	USEPA, 1993g	3.9E-09	—[b]	5.4	USEPA, 1993h	203460
95636	Trimethylbenzene, 1,2,4-	28	Howard et al., 1991	6.6E-03	—[b]	3.78	USEPA, 1989	5200
118967	Trinitrotoluene	180	Howard et al., 1991	4.9E-05	SRC, 1993	2.3	—[c]	182

Table A-3. (Continued)

CAS	Chemical Name	AQUEOUS AEROBIC BIODEGRADATION HALF-LIFE		HENRY'S LAW CONSTANT		LOG OCTANOL-WATER PARTITION COEFFICIENT (log K_{ow})		PREDICTED SEDIMENT ADSORPTION COEFFICIENT (K_{oc})
		Days	Reference	(atm-m^3/mole)	Reference	Value	Reference	
108054	Vinyl acetate	16	USEPA, 1993g	5.1E-04	USEPA, 1989	0.73	—[a]	5
108383	Xylene, m-	28	Howard et al., 1991	6.1E-03	—[b]	3.2	—[a]	1399
95476	Xylene, o-	28	Howard et al., 1991	6.1E-03	—[b]	3.13	—[a]	1194
106423	Xylene, p-	28	Howard et al., 1991	6.1E-03	—[b]	3.17	—[a]	1307
1330207	Xylenes	28	Howard et al., 1991	6.1E-03	—[b]	3.2	USEPA, 1993h	1399

[a] Draft log K_{ow} values recommended by Samuel W. Karickhoff and J. MacArthur Long, Environmental Research Laboratory-Athens.
[b] Predicted using the EPA Office of Pollution Prevention and Toxics (OPPT) "HENRY" structure-activity model (2/94).
[c] Literature values provided by Ruth Hull, Oak Ridge National Laboratory (2/94).
[d] No data are available; therefore, a value of 365 days was selected as a high-end biodegradation rate.
[e] Assigned the biodegradation rate for 2,3,7,8-TCDD based on structural similarity.