Supplemental Table S2 for: Erickson, Mount, Highland, Hockett, Hoff, Jenson, Norberg-King, and Peterson. "The acute toxicity of major ion salts to Ceriodaphnia dubia. III. Mathematical models for mixture toxicity". This table provides the data used in developing the Mg/Ca toxicity submodel (Figure 2 for activity-based model and Figure 6 for concentration-based model). Data are as in Mount et al. [1] and Erickson et al. [2].

Test #	Chemical	Culture	Dilution Water	Ca Act	Mg Act	Ca Conc	Mg Conc
				mM	mM	mM	mM
TDS-12-11C	CaCl2	MHRW	ALSW	7.517	0.071	17.512	0.17
TDS-12-11D	CaCl2	MHRW	MHRW	7.567	0.202	18.298	0.50
TDS-12-11E	MgCl2	MHRW	ALSW	0.186	4.646	0.364	9.21
TDS-12-11F	MgCl2	MHRW	MHRW	0.176	4.127	0.348	8.19
TDS-12-12E	MgSO4	MHRW	ALSW	0.107	5.416	0.364	17.10
TDS-12-12F	MgSO4	MHRW	MHRW	0.101	5.350	0.348	17.06
TDS-12-15C	MgCO3	MHRW	ALSW	0.128	3.953	0.443	10.91
TDS-12-15D	MgCO3	MHRW	MHRW	0.120	3.914	0.426	11.08
TDS-12-18C	MgSO4	MHRW	Low Ca:Mg	0.029	3.384	0.075	8.23
TDS-12-18D	MgSO4	MHRW	HighCa:Mg	0.139	5.410	0.475	17.13
TDS-12-18E	MgCl2	MHRW	Low Ca:Mg	0.049	1.835	0.075	2.80
TDS-12-18F	MgCl2	MHRW	HighCa:Mg	0.237	4.879	0.475	9.88
TDS-12-19E	MgSO4	MHRW	Low Cl:SO4	0.108	5.307	0.365	16.59
TDS-12-19F	MgSO4	MHRW	HighCl:SO4	0.111	5.124	0.365	15.63
TDS-12-20E	MgCO3	MHRW	Low Cl:SO4	0.130	4.122	0.447	11.41
TDS-12-20F	MgCO3	MHRW	HighCl:SO4	0.132	3.997	0.442	10.77
TDS-12-22C	MgSO4	MHRW	0.33x ALSW	0.039	4.621	0.121	13.30
TDS-12-22D	MgSO4	MHRW	3.0x ALSW	0.277	6.702	1.093	24.28
TDS-12-22E	MgCl2	MHRW	0.33x ALSW	0.076	2.475	0.121	3.98
TDS-12-22F	MgCl2	MHRW	3.0x ALSW	0.479	6.110	1.093	14.05
TDS-13-02D	MgCl2	ALSW	0.33x ALSW	0.067	3.866	0.121	7.06
TDS-13-02E	MgCl2	MHRW	0.33x MHRW	0.073	2.120	0.116	3.37
TDS-13-03E	MgCl2	MHRW	Low Alk ALSW	0.178	4.662	0.364	9.61
TDS-13-03F	MgCl2	MHRW	High Alk ALSW	0.196	3.540	0.364	6.59
TDS-13-04F&06B	MgCl2	MHRW	0.125x MHRW	0.032	0.951	0.044	1.28
TDS-13-05C	MgSO4	MHRW	Low Alk ALSW	0.101	5.677	0.364	18.84
TDS-13-05D	MgSO4	MHRW	High Alk ALSW	0.105	5.420	0.364	17.32
TDS-13-05E	MgCl2	MHRW	Low Alk ALSW	0.179	4.530	0.364	9.25
TDS-13-05F	MgCl2	MHRW	High Alk ALSW	0.196	3.597	0.364	6.71
TDS-13-06F	MgSO4	MHRW	0.125x MHRW	0.024	1.424	0.044	2.48
TDS-13-26A	CaCl2	ALSW	Low K ALSW	7.432	0.071	17.232	0.17
TDS-13-26B	CaCl2	ALSW	High K ALSW	6.986	0.073	15.791	0.17
TDS-13-26C	MgCl2	ALSW	Low K ALSW	0.180	5.066	0.364	10.36
TDS-13-26D	MgCl2	ALSW	High K ALSW	0.183	4.844	0.364	9.75
TDS-13-26E	MgSO4	ALSW	Low K ALSW	0.107	5.396	0.364	17.01
TDS-13-26F	MgSO4	ALSW	High K ALSW	0.103	5.752	0.364	18.80
TDS-13-27B	CaCl2	ALSW	3.0x ALSW	7.823	0.204	19.115	0.50
TDS-13-27E	MgCO3	ALSW	0.3x ALSW	0.073	2.463	0.155	4.68
TDS-13-27F	MgCO3	ALSW	3.0x ALSW	0.090	4.213	0.322	12.09
TDS-14-16E	MgCO3	ALSW	ALSW Aged	0.131	3.516	0.431	9.27
TDS-14-16F	MgCO3	ALSW	3.0x ALSW Aged	0.049	2.671	0.147	6.52
TDS-14-16G	MgCO3	ALSW	ALSW Fresh	0.140	3.753	0.433	9.56
TDS-14-16H	MgCO3	ALSW	3.0x ALSW Fresh	0.054	3.365	0.152	8.04
TDS-14-35D	MgCl2	ALSW	ALSW	0.182	4.945	0.364	10.02
TDS-14-35E	MgCl2	ALSW	Low pH ALSW	0.178	5.313	0.364	11.04
TDS-14-35F	MgCl2	ALSW	High pH ALSW	0.173	5.637	0.364	12.03
Test #	**ChemicalA**	**ChemicalB**	**Mixture Specs**	**Ca Act**	**Mg Act**	**Ca Conc**	**Mg Conc**
TDS-13-38	MgCl2	MgSO4	BaselineMgCl2	0.173	5.697	0.364	12.168
TDS-13-38	MgCl2	MgSO4	5:1MgCl2:MgSO4	0.153	5.567	0.364	13.048
TDS-13-38	MgCl2	MgSO4	2:1MgCl2:MgSO4	0.141	5.345	0.364	13.378
TDS-13-38	MgCl2	MgSO4	1:1MgCl2:MgSO4	0.131	5.206	0.364	13.798
TDS-13-38	MgCl2	MgSO4	1:2MgCl2:MgSO4	0.116	5.745	0.364	16.998
TDS-13-38	MgCl2	MgSO4	1:5MgCl2:MgSO4	0.109	5.704	0.364	17.718
TDS-13-38	MgCl2	MgSO4	BaselineMgSO4	0.108	5.309	0.364	16.578
TDS-14-18	MgCO3	MgCl2	BaselineMgCO3	0.135	3.746	0.404	9.328
TDS-14-18	MgCO3	MgCl2	5:1MgCO3:MgCl2	0.134	4.250	0.404	10.778
TDS-14-18	MgCO3	MgCl2	2:1MgCO3:MgCl2	0.154	4.305	0.393	9.858
TDS-14-18	MgCO3	MgCl2	1:1MgCO3:MgCl2	0.164	4.284	0.385	9.318
TDS-14-18	MgCO3	MgCl2	1:2MgCO3:MgCl2	0.182	3.874	0.376	7.698
TDS-14-18	MgCO3	MgCl2	1:5MgCO3:MgCl2	0.190	3.985	0.370	7.698
TDS-14-18	MgCO3	MgCl2	BaselineMgCl2	0.182	4.908	0.364	9.918
TDS-14-19	MgCO3	MgSO4	BaselineMgCO3	0.132	3.681	0.404	9.278

TDS-14-19	MgCO3	MgSO4	5:1MgCO3:MgSO4	0.130	3.924	0.397	10.188
TDS-14-19	MgCO3	MgSO4	2:1MgCO3:MgSO4	0.129	4.207	0.391	11.198
TDS-14-19	MgCO3	MgSO4	1:1MgCO3:MgSO4	0.126	4.459	0.384	12.228
TDS-14-19	MgCO3	MgSO4	1:2MgCO3:MgSO4	0.122	4.644	0.377	13.108
TDS-14-19	MgCO3	MgSO4	1:5MgCO3:MgSO4	0.116	5.000	0.371	14.798
TDS-14-19	MgCO3	MgSO4	BaselineMgSO4	0.109	5.200	0.364	16.048
TDS-14-15	MgCl2	MgSO4	BaselineMgCl2	0.999	7.820	2.494	19.978
TDS-14-15	MgCl2	MgSO4	5:1MgCl2:MgSO4	0.884	7.926	2.494	22.268
TDS-14-15	MgCl2	MgSO4	2:1MgCl2:MgSO4	0.785	8.181	2.494	25.318
TDS-14-15	MgCl2	MgSO4	1:1MgCl2:MgSO4	0.742	7.601	2.494	24.438
TDS-14-15	MgCl2	MgSO4	1:2MgCl2:MgSO4	0.669	7.898	2.494	27.718
TDS-14-15	MgCl2	MgSO4	1:5MgCl2:MgSO4	0.601	8.342	2.494	32.128
TDS-14-15	MgCl2	MgSO4	BaselineMgSO4	0.566	8.222	2.494	33.258
TDS-14-06	CaCl2	CaSO4	2000AppmCaSO4	7.697	0.054	24.954	0.168
TDS-14-06	CaCl2	CaSO4	2000BppmCaSO4	7.809	0.054	25.364	0.168
TDS-14-06	CaCl2	CaSO4	1600ppmCaSO4	7.670	0.057	23.524	0.168
TDS-14-06	CaCl2	CaSO4	1200ppmCaSO4	7.772	0.059	22.534	0.168
TDS-14-06	CaCl2	CaSO4	800ppmCaSO4	7.731	0.062	21.024	0.168
TDS-14-06	CaCl2	CaSO4	400ppmCaSO4	7.333	0.067	18.294	0.168
TDS-14-06	CaCl2	CaSO4	0ppmCaSO4	7.406	0.071	17.144	0.168
TDS-13-35	NaCl	MgCl2	1:5NaCl:MgCl2	0.167	4.953	0.364	10.978
TDS-13-35	NaCl	MgCl2	BaselineMgCl2	0.182	4.941	0.364	10.008
TDS-13-37	Na2SO4	MgSO4	1:5Na2SO4:MgSO4	0.087	5.455	0.364	20.778
TDS-13-37	Na2SO4	MgSO4	BaselineMgSO4	0.105	5.550	0.364	17.768
TDS-14-04	NaHCO3	MgCO3	1:5NaHCO3:MgCO3	0.107	3.782	0.414	11.518
TDS-14-04	NaHCO3	MgCO3	BaselineMgCO3	0.121	4.063	0.412	11.128
TDS-14-11	NaCl	MgSO4	1:5NaCl:MgSO4	0.104	5.294	0.364	17.208
TDS-14-11	NaCl	MgSO4	BaselineMgSO4	0.109	5.220	0.364	16.148
TDS-14-12	NaCl	MgCO3	1:5NaCl:MgCO3	0.119	3.789	0.410	10.728
TDS-14-12	NaCl	MgCO3	BaselineMgCO3	0.125	3.857	0.408	10.228
TDS-14-05	NaCl	MgCl2	1:5NaCl:MgCl2	0.910	7.438	2.494	21.028
TDS-14-05	NaCl	MgCl2	BaselineMgCl2	1.038	7.048	2.494	17.288
TDS-14-13	Na2SO4	MgSO4	1:5Na2SO4:MgSO4	0.495	8.040	2.494	36.878
TDS-14-13	Na2SO4	MgSO4	BaselineMgSO4	0.601	7.470	2.494	28.548
TDS-14-21	Na2SO4	MgSO4	1:5Na2SO4:MgSO4	0.089	5.414	0.364	20.188
TDS-14-21	Na2SO4	MgSO4	BaselineMgSO4	0.111	5.104	0.364	15.588
TDS-13-34	NaCl	CaCl2	BaselineCaCl2	8.227	0.068	19.914	0.168
TDS-14-01	Na2SO4	CaCl2	BaselineCaCl2	7.608	0.070	17.814	0.168
TDS-13-36	MgCl2	CaCl2	BaselineMgCl2	0.172	5.779	0.364	12.418
TDS-13-36	MgCl2	CaCl2	10:1MgCl2:CaCl2	1.473	6.790	3.574	16.828
TDS-13-36	MgCl2	CaCl2	5:1MgCl2:CaCl2	2.669	6.454	6.764	16.748
TDS-13-36	MgCl2	CaCl2	2:1MgCl2:CaCl2	4.656	4.649	11.894	12.168
TDS-13-36	MgCl2	CaCl2	1:1MgCl2:CaCl2	5.668	2.875	13.924	7.218
TDS-13-36	MgCl2	CaCl2	1:2MgCl2:CaCl2	6.471	1.674	15.554	4.108
TDS-13-36	MgCl2	CaCl2	1:5MgCl2:CaCl2	7.722	0.840	18.964	2.108
TDS-13-36	MgCl2	CaCl2	BaselineCaCl2	7.233	0.072	16.584	0.168
TDS-14-10	MgSO4	CaCl2	BaselineMgSO4	0.103	5.700	0.364	18.528
TDS-14-10	MgSO4	CaCl2	10:1MgSO4:CaCl2	0.923	8.856	4.254	37.498
TDS-14-10	MgSO4	CaCl2	5:1MgSO4:CaCl2	2.058	10.352	10.394	48.198
TDS-14-10	MgSO4	CaCl2	2:1MgSO4:CaCl2	3.528	7.041	14.334	27.028
TDS-14-10	MgSO4	CaCl2	1:1MgSO4:CaCl2	4.896	4.814	16.934	16.078
TDS-14-10	MgSO4	CaCl2	1:2MgSO4:CaCl2	6.672	3.240	21.004	10.058
TDS-14-10	MgSO4	CaCl2	BaselineCaCl2	8.204	0.068	19.844	0.168
TDS-14-14	MgCl2	CaSO4	2000ppmCaSO4	4.437	5.178	15.054	17.008
TDS-14-14	MgCl2	CaSO4	1500ppmCaSO4	3.517	6.512	11.384	20.698
TDS-14-14	MgCl2	CaSO4	1000ppmCaSO4	2.533	7.434	7.704	22.478
TDS-14-14	MgCl2	CaSO4	500ppmCaSO4	1.477	7.441	4.034	20.408
TDS-14-14	MgCl2	CaSO4	200ppmCaSO4	0.757	6.710	1.834	16.418
TDS-14-14	MgCl2	CaSO4	100ppmCaSO4	0.463	6.937	1.094	16.628
TDS-14-14	MgCl2	CaSO4	0ppmCaSO4	0.184	4.797	0.364	9.618
TDS-14-20	KCl	MgCl2	1:5KCl:MgCl2	0.170	5.754	0.364	12.508
TDS-14-20	KCl	MgCl2	BaselineMgCl2	0.177	5.361	0.364	11.188
TDS-14-17	KCl	CaCl2	1:5KCl:CaCl2	7.907	0.069	18.964	0.168
TDS-14-17	KCl	CaCl2	BaselineCaCl2	7.866	0.069	18.674	0.168
TDS-14-28	MgCl2	Mannitol	BaselineMgCl2	0.183	4.842	0.364	9.738
TDS-14-28	MgCl2	Mannitol	5:1MgCl2:d-Mannitol	0.169	6.015	0.364	13.118
TDS-14-29	CaCl2	Mannitol	BaselineCaCl2	7.675	0.070	18.034	0.168