

Table 2. Retention times (RT), RT references, relative retention times (RRTs), method detection limits (MDLs), and minimum levels of quantitation (MLs) for the 209 CB congeners on SPB-octyl.

Cl No. ¹	Congener No. ^{2,3}	RT Ref ⁴	RT ⁵	RRT ⁶	RRT limits ⁷	Window (sec) ⁸	Quantitation reference ⁹	Detection limits and minimum levels - Matrix and concentration ¹⁰				
								Water (pg/L)		Other (ng/kg)		Extract (pg/μL)
								MDL	ML	MDL	ML	ML
Compounds using 9L (¹³C₁₂-2,5-DiCB) as Labeled injection internal standard												
CB congener												
Monochlorobiphenyls												
1	1	1L	13:44	1.0012	0.9988-1.0036	-1+3	1L	10	20	1.0	2	1
1	2	3L	16:08	0.9878	0.9847-0.9908	6	1L/3L	7	20	0.7	2	1
1	3	3L	16:21	1.0010	0.9990-1.0031	-1+3	3L	11	50	1.1	5	2.5
Dichlorobiphenyls												
2	4	4L	16:40	1.0010	0.9990-1.0030	-1+3	4L	13	50	1.3	5	2.5
2	10	4L	16:53	1.0140	1.0110-1.0170	6	4L/15L	13	50	1.3	5	2.5
2	9	4L	18:55	1.1361	1.1331-1.1391	6	4L/15L	7	20	0.7	2	1
2	7	4L	19:07	1.1481	1.1451-1.1512	6	4L/15L	8	20	0.8	2	1
2	6	4L	19:26	1.1672	1.1642-1.1702	6	4L/15L	7	20	0.7	2	1
2	5	4L	19:48	1.1892	1.1862-1.1922	6	4L/15L	8	20	0.8	2	1
2	8	4L	19:56	1.1972	1.1942-1.2002	6	4L/15L	15	50	1.5	5	2.5
2	14	15L	21:42	0.9267	0.9246-0.9288	6	4L/15L	8	20	0.8	2	1
2	11	15L	22:42	0.9694	0.9673-0.9715	6	4L/15L	34	100	3.4	10	5
2	13	15L	23:03	0.9843	0.9822-0.9865	6	4L/15L					
2	12	15L	23:06	0.9865	0.9843-0.9886	6	4L/15L	19	50	1.9	5	2.5
2	13/12	15L	23:04	0.9851	0.9829-0.9872	6	4L/15L					
2	15	15L	23:26	1.0007	0.9993-1.0021	-1+3	15L	16	50	1.6	5	2.5
Trichlorobiphenyls												
3	19	19L	20:19	1.0008	0.9992-1.0025	-1+3	19L	8	20	0.8	2	1
3	30	19L	22:15	1.0961	1.0936-1.0985	6	19L/37L	16	50	1.6	5	2.5
3	18	19L	22:23	1.1026	1.1002-1.1051	6	19L/37L					

Cl No. ¹	Congener No. ^{2,3}	RT Ref ⁴	RT ⁵	RRT ⁶	RRT limits ⁷	Window (sec) ⁸	Quantitation reference ⁹	Detection limits and minimum levels - Matrix and concentration ¹⁰				
								Water (pg/L)		Other (ng/kg)		Extract (pg/μL)
								MDL	ML	MDL	ML	ML
3	30/18	19L	22:19	1.0993	1.0969-1.1018	6	19L/37L					
3	17	19L	22:49	1.1240	1.1215-1.1264	6	19L/37L	9	20	0.9	2	1
3	27	19L	23:06	1.1379	1.1355-1.1404	6	19L/37L	8	20	0.8	2	1
3	24	19L	23:14	1.1445	1.1420-1.1470	6	19L/37L	10	20	1.0	2	1
3	16	19L	23:25	1.1535	1.1511-1.1560	6	19L/37L	9	20	0.9	2	1
3	32	19L	24:57	1.2291	1.2266-1.2315	6	19L/37L	8	20	0.8	2	1
3	34	19L	25:17	1.2455	1.2430-1.2479	6	19L/37L	7	20	0.7	2	1
3	23	19L	25:26	1.2529	1.2504-1.2553	6	19L/37L	7	20	0.7	2	1
3	29	19L	25:47	1.2701	1.2660-1.2742	10	19L/37L					
3	26	19L	25:48	1.2709	1.2668-1.2750	10	19L/37L	12	50	1.2	5	2.5
3	29/26	19L	25:48	1.2709	1.2668-1.2750	10	19L/37L					
3	25	37L	26:04	0.8364	0.8348-0.8380	6	19L/37L	8	20	0.8	2	1
3	31	37L	26:25	0.8476	0.8460-0.8492	6	19L/37L	18	50	1.8	5	2.5
3	28	37L	26:44	0.8578	0.8551-0.8604	10	19L/37L					
3	20	37L	26:49	0.8604	0.8578-0.8631	10	19L/37L	22	50	2.2	5	2.5
3	28/20	37L	26:47	0.8594	0.8567-0.8620	10	19L/37L					
3	21	37L	26:58	0.8652	0.8626-0.8679	10	19L/37L					
3	33	37L	27:01	0.8668	0.8642-0.8695	10	19L/37L	21	50	2.1	5	2.5
3	21/33	37L	26:59	0.8658	0.8631-0.8684	10	19L/37L					
3	22	37L	27:29	0.8818	0.8802-0.8834	6	19L/37L	9	20	0.9	2	1
3	36	37L	29:05	0.9332	0.9316-0.9348	6	19L/37L	8	20	0.8	2	1
3	39	37L	29:30	0.9465	0.9449-0.9481	6	19L/37L	8	20	0.8	2	1
3	38	37L	30:10	0.9679	0.9663-0.9695	6	19L/37L	7	20	0.7	2	1
3	35	37L	30:42	0.9850	0.9834-0.9866	6	19L/37L	9	20	0.9	2	1
3	37	37L	31:11	1.0005	0.9995-1.0011	-1+3	37L	10	20	1.0	2	1
Labeled Compounds												
1	1L	9L	13:43	0.7257	0.7125-0.7390	30	9L					
1	3L	9L	16:20	0.8642	0.8510-0.8774	30	9L					
2	4L	9L	16:39	0.8810	0.8677-0.8942	30	9L					
2	15L	9L	23:25	1.2390	1.2302-1.2478	20	9L					
3	19L	9L	20:18	1.0741	1.0608-1.0873	30	9L					
3	37L	52L	31:10	1.0841	1.0754-1.0928	30	52L					

Cl No. ¹	Congener No. ^{2,3}	RT Ref ⁴	RT ⁵	RRT ⁶	RRT limits ⁷	Window (sec) ⁸	Quantitation reference ⁹	Detection limits and minimum levels - Matrix and concentration ¹⁰				
								Water (pg/L)		Other (ng/kg)		Extract (pg/μL)
								MDL	ML	MDL	ML	ML
Compounds using 52L (¹³C₁₂-2,2',5,5'-TeCB) as Labeled injection internal standard												
CB congener												
Tetrachlorobiphenyls												
4	54	54L	23:51	1.0007	0.9993-1.0021	-1+3	54L	14	50	1.4	5	2.5
4	50	54L	26:07	1.0958	1.0923-1.0993	10	54L/81L/77L	25	100	2.5	10	5
4	53	54L	26:09	1.0972	1.0937-1.1007	10	54L/81L/77L					
4	50/53	54L	26:08	1.0965	1.0930-1.1000	10	54L/81L/77L					
4	45	54L	26:55	1.1294	1.1259-1.1329	10	54L/81L/77L	22	50	2.2	5	2.5
4	51	54L	26:58	1.1315	1.1280-1.1350	10	54L/81L/77L					
4	45/51	54L	26:57	1.1308	1.1273-1.1343	10	54L/81L/77L					
4	46	54L	27:18	1.1455	1.1434-1.1476	6	54L/81L/77L	10	20	1.0	2	1
4	52	54L	28:45	1.2063	1.2042-1.2084	6	54L/81L/77L	15	50	1.5	5	2.5
4	73	54L	28:52	1.2112	1.2091-1.2133	6	54L/81L/77L	14	50	1.4	5	2.5
4	43	54L	28:58	1.2154	1.2133-1.2175	6	54L/81L/77L	14	50	1.4	5	2.5
4	69	54L	29:08	1.2224	1.2189-1.2259	10	54L/81L/77L	26	100	2.6	10	5
4	49	54L	29:16	1.2280	1.2245-1.2315	10	54L/81L/77L					
4	69/49	54L	29:12	1.2252	1.2217-1.2287	10	54L/81L/77L					
4	48	54L	29:33	1.2399	1.2378-1.2420	6	54L/81L/77L	14	50	1.4	5	2.5
4	65	54L	29:49	1.2510	1.2476-1.2545	10	54L/81L/77L	40	100	4.0	10	5
4	47	54L	29:50	1.2517	1.2483-1.2552	10	54L/81L/77L					
4	44	54L	29:53	1.2538	1.2503-1.2573	10	54L/81L/77L					
4	65/47/44	54L	29:50	1.2517	1.2483-1.2552	10	54L/81L/77L	37	100	3.7	10	5
4	62	54L	30:06	1.2629	1.2594-1.2664	10	54L/81L/77L					
4	75	54L	30:08	1.2643	1.2608-1.2678	10	54L/81L/77L					
4	59	54L	30:12	1.2671	1.2636-1.2706	10	54L/81L/77L	16	50	1.6	5	2.5
4	62/75/59	54L	30:09	1.2650	1.2615-1.2685	10	54L/81L/77L					
4	42	54L	30:26	1.2769	1.2748-1.2790	6	54L/81L/77L					
4	41	54L	30:52	1.2951	1.2916-1.2986	10	54L/81L/77L	42	100	4.2	10	5
4	71	54L	30:58	1.2993	1.2958-1.3028	10	54L/81L/77L					
4	40	54L	31:01	1.3014	1.2979-1.3049	10	54L/81L/77L					
4	41/71/40	54L	30:58	1.2993	1.2958-1.3028	10	54L/81L/77L	13	50	1.3	5	2.5
4	64	54L	31:12	1.3091	1.3070-1.3112	6	54L/81L/77L					

Cl No. ¹	Congener No. ^{2,3}	RT Ref ⁴	RT ⁵	RRT ⁶	RRT limits ⁷	Window (sec) ⁸	Quantitation reference ⁹	Detection limits and minimum levels - Matrix and concentration ¹⁰				
								Water (pg/L)		Other (ng/kg)		Extract (pg/μL)
								MDL	ML	MDL	ML	ML
4	72	81L	31:59	0.8336	0.8323-0.8349	6	54L/81L/77L	13	50	1.3	5	2.5
4	68	81L	32:18	0.8419	0.8406-0.8432	6	54L/81L/77L	14	50	1.4	5	2.5
4	57	81L	32:46	0.8540	0.8527-0.8553	6	54L/81L/77L	11	50	1.1	5	2.5
4	58	81L	33:05	0.8623	0.8610-0.8636	6	54L/81L/77L	14	50	1.4	5	2.5
4	67	81L	33:13	0.8658	0.8645-0.8671	6	54L/81L/77L	12	50	1.2	5	2.5
4	63	81L	33:30	0.8732	0.8719-0.8745	6	54L/81L/77L	12	50	1.2	5	2.5
4	61	81L	33:46	0.8801	0.8775-0.8827	12	54L/81L/77L	59	200	5.9	20	10
4	70	81L	33:53	0.8831	0.8805-0.8858	12	54L/81L/77L					
4	76	81L	33:55	0.8840	0.8814-0.8866	12	54L/81L/77L					
4	74	81L	33:57	0.8849	0.8827-0.8871	10	54L/81L/77L					
4	61/70/76/74	81L	33:55	0.8840	0.8814-0.8866	12	54L/81L/77L					
4	66	81L	34:15	0.8927	0.8914-0.8940	6	54L/81L/77L	17	50	1.7	5	2.5
4	55	81L	34:28	0.8983	0.8970-0.8997	6	54L/81L/77L	12	50	1.2	5	2.5
4	56	81L	35:03	0.9136	0.9123-0.9149	6	54L/81L/77L	15	50	1.5	5	2.5
4	60	81L	35:16	0.9192	0.9179-0.9205	6	54L/81L/77L	14	50	1.4	5	2.5
4	80	81L	35:32	0.9262	0.9248-0.9275	6	54L/81L/77L	11	50	1.1	5	2.5
4	79	81L	37:16	0.9713	0.9700-0.9726	6	54L/81L/77L	13	50	1.3	5	2.5
4	78	81L	37:52	0.9870	0.9857-0.9883	6	54L/81L/77L	16	50	1.6	5	2.5
4	81	81L	38:23	1.0004	0.9996-1.0013	-1+3	81L	18	50	1.8	5	2.5
4	77	77L	39:02	1.0004	0.9996-1.0013	-1+3	77L	14	50	1.4	5	2.5
Labeled compounds												
4	54L	52L	23:50	0.8290	0.8232-0.8348	20	52L					
4	81L	52L	38:22	1.3345	1.3287-1.3403	20	52L					
4	77L	52L	39:01	1.3571	1.3513-1.3629	20	52L					
Compounds using 101L (¹³C₁₂-2,2',4,5,5'-PeCB) as Labeled injection internal standard												
CB congener												
Pentachlorobiphenyls												
5	104	104L	29:46	1.0000	0.9994-1.0017	-1+3	104L	14	50	1.4	5	2.5
5	96	104L	30:17	1.0174	1.0146-1.0202	10	104L/123L/114L/118L/105L	15	50	1.5	5	2.5
5	103	104L	32:11	1.0812	1.0795-1.0829	6	104L/123L/114L/118L/105L	11	50	1.1	5	2.5
5	94	104L	32:29	1.0913	1.0896-1.0929	6	104L/123L/114L/118L/105L	13	50	1.3	5	2.5
5	95	104L	33:00	1.1086	1.1058-1.1114	10	104L/123L/114L/118L/105L	77	200	7.7	20	10

CI No. ¹	Congener No. ^{2,3}	RT Ref ⁴	RT ⁵	RRT ⁶	RRT limits ⁷	Window (sec) ⁸	Quantitation reference ⁹	Detection limits and minimum levels - Matrix and concentration ¹⁰						
								Water (pg/L)		Other (ng/kg)		Extract (pg/μL)		
								MDL	ML	MDL	ML	ML		
5	100	104L	33:06	1.1120	1.1092-1.1148	10	104L/123L/114L/118L/105L							
5	93	104L	33:14	1.1165	1.1137-1.1193	10	104L/123L/114L/118L/105L							
5	102	104L	33:21	1.1204	1.1176-1.1232	10	104L/123L/114L/118L/105L							
5	98	104L	33:26	1.1232	1.1204-1.1260	10	104L/123L/114L/118L/105L							
5	95/100/93/102/98	104L	33:13	1.1159	1.1131-1.1187	15	104L/123L/114L/118L/105L							
5	88	104L	33:48	1.1355	1.1321-1.1389	12	104L/123L/114L/118L/105L							
5	91	104L	33:55	1.1394	1.1366-1.1422	10	104L/123L/114L/118L/105L	22	50	2.2	5	2.5		
5	88/91	104L	33:52	1.1377	1.1344-1.1411	12	104L/123L/114L/118L/105L							
5	84	104L	34:14	1.1501	1.1484-1.1517	6	104L/123L/114L/118L/105L	11	20	1.1	2	1		
5	89	104L	34:44	1.1669	1.1652-1.1685	6	104L/123L/114L/118L/105L	13	50	1.3	5	2.5		
5	121	104L	34:57	1.1741	1.1725-1.1758	6	104L/123L/114L/118L/105L	12	50	1.2	5	2.5		
5	92	123L	35:26	0.8639	0.8627-0.8651	6	104L/123L/114L/118L/105L	13	50	1.3	5	2.5		
5	113	123L	36:01	0.8781	0.8761-0.8801	10	104L/123L/114L/118L/105L							
5	90	123L	36:03	0.8789	0.8769-0.8809	10	104L/123L/114L/118L/105L	47	200	4.7	20	10		
5	101	123L	36:04	0.8793	0.8773-0.8813	10	104L/123L/114L/118L/105L							
5	113/90/101	123L	36:03	0.8789	0.8769-0.8809	10	104L/123L/114L/118L/105L							
5	83	123L	36:39	0.8935	0.8911-0.8960	12	104L/123L/114L/118L/105L							
5	99	123L	36:41	0.8944	0.8923-0.8964	10	104L/123L/114L/118L/105L	29	100	2.9	10	5		
5	83/99	123L	36:40	0.8939	0.8915-0.8964	12	104L/123L/114L/118L/105L							
5	112	123L	36:51	0.8984	0.8972-0.8996	6	104L/123L/114L/118L/105L	14	50	1.4	5	2.5		
5	119	123L	37:12	0.9069	0.9037-0.9102	16	104L/123L/114L/118L/105L							
5	109	123L	37:12	0.9069	0.9037-0.9102	16	104L/123L/114L/118L/105L							
5	86	123L	37:17	0.9090	0.9057-0.9122	16	104L/123L/114L/118L/105L							
5	97	123L	37:17	0.9090	0.9057-0.9122	16	104L/123L/114L/118L/105L	74	200	7.4	20	10		
5	125	123L	37:21	0.9106	0.9074-0.9139	16	104L/123L/114L/118L/105L							
5	87	123L	37:25	0.9122	0.9102-0.9143	10	104L/123L/114L/118L/105L							
5	119/109/86/97/125/87	123L	37:19	0.9098	0.9065-0.9130	16	104L/123L/114L/118L/105L							
5	117	123L	37:57	0.9252	0.9228-0.9277	12	104L/123L/114L/118L/105L							
5	116	123L	38:02	0.9273	0.9248-0.9297	12	104L/123L/114L/118L/105L	38	100	3.8	10	5		
5	85	123L	38:05	0.9285	0.9265-0.9305	10	104L/123L/114L/118L/105L							
5	117/116/85	123L	38:00	0.9265	0.9240-0.9289	12	104L/123L/114L/118L/105L							
5	110	123L	38:16	0.9330	0.9309-0.9350	10	104L/123L/114L/118L/105L	39	100	3.9	10	5		

Cl No. ¹	Congener No. ^{2,3}	RT Ref ⁴	RT ⁵	RRT ⁶	RRT limits ⁷	Window (sec) ⁸	Quantitation reference ⁹	Detection limits and minimum levels - Matrix and concentration ¹⁰				
								Water (pg/L)		Other (ng/kg)		Extract (pg/μL)
								MDL	ML	MDL	ML	ML
5	115	123L	38:18	0.9338	0.9317-0.9358	10	104L/123L/114L/118L/105L					
5	110/115	123L	38:17	0.9334	0.9313-0.9354	10	104L/123L/114L/118L/105L					
5	82	123L	38:40	0.9427	0.9415-0.9439	6	104L/123L/114L/118L/105L	15	50	1.5	5	2.5
5	111	123L	38:52	0.9476	0.9464-0.9488	6	104L/123L/114L/118L/105L	14	50	1.4	5	2.5
5	120	123L	39:21	0.9594	0.9581-0.9606	6	104L/123L/114L/118L/105L	13	50	1.3	5	2.5
5	108	123L	40:39	0.9911	0.9890-0.9931	10	104L/123L/114L/118L/105L					
5	124	123L	40:40	0.9915	0.9894-0.9935	10	104L/123L/114L/118L/105L	29	100	2.9	10	5
5	108/124	123L	40:39	0.9911	0.9890-0.9931	10	104L/123L/114L/118L/105L					
5	107	123L	40:54	0.9972	0.9959-0.9984	6	104L/123L/114L/118L/105L	17	50	1.7	5	2.5
5	123	123L	41:02	1.0004	0.9996-1.0012	-1+3	123L	17	50	1.7	5	2.5
5	106	123L	41:10	1.0037	1.0024-1.0049	6	104L/123L/114L/118L/105L	17	50	1.7	5	2.5
5	118	118L	41:22	1.0004	0.9996-1.0012	-1+3	118L	30	100	3.0	10	5
5	122	118L	41:49	1.0113	1.0101-1.0125	6	104L/123L/114L/118L/105L	12	50	1.2	5	2.5
5	114	114L	41:58	1.0004	0.9999-1.0012	-1+3	114L	15	50	1.5	5	2.5
5	105	105L	42:43	0.9996	0.9996-1.0012	-2+3	105L	17	50	1.7	5	2.5
5	127	105L	44:09	1.0332	1.0320-1.0343	6	104L/123L/114L/118L/105L	14	50	1.4	5	2.5
5	126	126L	45:58	1.0004	0.9996-1.0011	-1+3	126L	16	50	1.6	5	2.5
Labeled compounds												
5	104L	101L	29:46	0.8257	0.8211-0.8303	20	101L					
5	123L	101L	41:01	1.1378	1.1331-1.1424	20	101L					
5	118L	101L	41:21	1.1470	1.1424-1.1516	20	101L					
5	114L	101L	41:57	1.1637	1.1590-1.1683	20	101L					
5	105L	101L	42:44	1.1854	1.1808-1.1900	20	101L					
5	126L	101L	45:57	1.2746	1.2700-1.2792	20	101L					
Compounds using 138L (¹³C₁₂-2,2',3,4,4',5'-HxCB) as Labeled injection internal standard												
CB congener												
Hexachlorobiphenyls												
6	155	155L	35:44	1.0000	0.9995-1.0014	-1+3	155L	14	50	1.4	5	2.5
6	152	155L	36:07	1.0107	1.0093-1.0121	6	155L/156L/157L/167L/169L	14	50	1.4	5	2.5
6	150	155L	36:15	1.0145	1.0131-1.0159	6	155L/156L/157L/167L/169L	15	50	1.5	5	2.5
6	136	155L	36:44	1.0280	1.0266-1.0294	6	155L/156L/157L/167L/169L	16	50	1.6	5	2.5
6	145	155L	37:00	1.0354	1.0340-1.0368	6	155L/156L/157L/167L/169L	16	50	1.6	5	2.5

CI No. ¹	Congener No. ^{2,3}	RT Ref ⁴	RT ⁵	RRT ⁶	RRT limits ⁷	Window (sec) ⁸	Quantitation reference ⁹	Detection limits and minimum levels - Matrix and concentration ¹⁰				
								Water (pg/L)		Other (ng/kg)		Extract (pg/μL)
								MDL	ML	MDL	ML	ML
6	148	155L	34:26	1.0756	1.0742-1.0770	6	155L/156L/157L/167L/169L	14	50	1.4	5	2.5
6	151	155L	39:10	1.0961	1.0938-1.0984	10	155L/156L/157L/167L/169L					
6	135	155L	39:17	1.0993	1.0970-1.1017	10	155L/156L/157L/167L/169L					
6	154	155L	39:21	1.1012	1.0989-1.1035	10	155L/156L/157L/167L/169L	46	100	4.6	10	5
6	151/135/154	155L	39:15	1.0984	1.0961-1.1007	10	155L/156L/157L/167L/169L					
6	144	155L	39:47	1.1133	1.1119-1.1147	6	155L/156L/157L/167L/169L	15	50	1.5	5	2.5
6	147	155L	40:09	1.1236	1.1213-1.1259	10	155L/156L/157L/167L/169L					
6	149	155L	40:12	1.1250	1.1227-1.1273	10	155L/156L/157L/167L/169L	35	100	3.5	10	5
6	147/149	155L	40:10	1.1241	1.1217-1.1264	10	155L/156L/157L/167L/169L					
6	134	155L	40:27	1.1320	1.1297-1.1343	10	155L/156L/157L/167L/169L					
6	143	155L	40:30	1.1334	1.1311-1.1357	10	155L/156L/157L/167L/169L	33	100	3.3	10	5
6	134/143	155L	40:29	1.1329	1.1306-1.1353	10	155L/156L/157L/167L/169L					
6	139	155L	40:47	1.1413	1.1390-1.1437	10	155L/156L/157L/167L/169L					
6	140	155L	40:48	1.1418	1.1395-1.1441	10	155L/156L/157L/167L/169L	29	100	2.9	10	5
6	139/140	155L	40:47	1.1413	1.1390-1.1437	10	155L/156L/157L/167L/169L					
6	131	155L	41:03	1.1488	1.1474-1.1502	6	155L/156L/157L/167L/169L	17	50	1.7	5	2.5
6	142	155L	41:13	1.1535	1.1521-1.1549	6	155L/156L/157L/167L/169L	17	50	1.7	5	2.5
6	132	155L	41:36	1.1642	1.1618-1.1665	10	155L/156L/157L/167L/169L	16	50	1.6	5	2.5
6	133	155L	41:57	1.1740	1.1726-1.1754	6	155L/156L/157L/167L/169L	12	50	1.2	5	2.5
6	165	167L	42:23	0.8864	0.8853-0.8874	6	155L/156L/157L/167L/169L	13	50	1.3	5	2.5
6	146	167L	42:38	0.8916	0.8906-0.8926	6	155L/156L/157L/167L/169L	14	50	1.4	5	2.5
6	161	167L	42:47	0.8947	0.8937-0.8958	6	155L/156L/157L/167L/169L	13	50	1.3	5	2.5
6	153	167L	43:17	0.9052	0.9035-0.9069	10	155L/156L/157L/167L/169L					
6	168	167L	43:21	0.9066	0.9048-0.9083	10	155L/156L/157L/167L/169L	30	100	3.0	10	5
6	153/168	167L	43:19	0.9059	0.9041-0.9076	10	155L/156L/157L/167L/169L					
6	141	167L	43:34	0.9111	0.9101-0.9122	6	155L/156L/157L/167L/169L	17	50	1.7	5	2.5
6	130	167L	44:01	0.9205	0.9195-0.9216	6	155L/156L/157L/167L/169L	13	50	1.3	5	2.5
6	137	167L	44:14	0.9251	0.9240-0.9261	6	155L/156L/157L/167L/169L	15	50	1.5	5	2.5
6	164	167L	44:22	0.9278	0.9268-0.9289	6	155L/156L/157L/167L/169L	15	50	1.5	5	2.5
6	138	167L	44:42	0.9348	0.9324-0.9373	14	155L/156L/157L/167L/169L					
6	163	167L	44:42	0.9348	0.9324-0.9373	14	155L/156L/157L/167L/169L	63	200	6.3	20	10
6	129	167L	44:47	0.9366	0.9341-0.9390	14	155L/156L/157L/167L/169L					

Cl No. ¹	Congener No. ^{2,3}	RT Ref ⁴	RT ⁵	RRT ⁶	RRT limits ⁷	Window (sec) ⁸	Quantitation reference ⁹	Detection limits and minimum levels - Matrix and concentration ¹⁰				
								Water (pg/L)		Other (ng/kg)		Extract (pg/μL)
								MDL	ML	MDL	ML	ML
6	160	167L	44:53	0.9387	0.9369-0.9404	10	155L/156L/157L/167L/169L					
6	138/163/129/160	167L	44:47	0.9366	0.9341-0.9390	14	155L/156L/157L/167L/169L					
6	158	167L	45:05	0.9428	0.9418-0.9439	6	155L/156L/157L/167L/169L	16	50	1.6	5	2.5
6	166	167L	45:59	0.9617	0.9599-0.9634	10	155L/156L/157L/167L/169L					
6	128	167L	46:09	0.9651	0.9634-0.9669	10	155L/156L/157L/167L/169L	29	100	2.9	10	5
6	128/166	167L	46:04	0.9634	0.9617-0.9651	10	155L/156L/157L/167L/169L					
6	159	167L	46:59	0.9826	0.9815-0.9836	6	155L/156L/157L/167L/169L	14	50	1.4	5	2.5
6	162	167L	47:18	0.9892	0.9881-0.9902	6	155L/156L/157L/167L/169L	13	50	1.3	5	2.5
6	167	167L	47:49	1.0000	0.9997-1.0010	-1+3	167L	13	50	1.3	5	2.5
6	156	156L/157L	49:05	0.9993	0.9983-1.0003	6	156L/157L					
6	157	156L/157L	49:09	1.0007	0.9990-1.0024	10	156L/157L	23	100	2.3	10	5
6	156/157	156L/157L	49:07	1.0000	0.9990-1.1010	6	156L/157L					
6	169	169L	52:31	1.0003	0.9997-1.0010	-1+3	169L	15	50	1.5	5	2.5
Labeled compounds												
6	155L	138L	35:44	0.7997	0.7960-0.8034	20	138L					
6	167L	138L	47:49	1.0701	1.0664-1.0739	20	138L					
6	156L	138L	49:05	1.0985	1.0974-1.0996	20	138L					
6	157L	138L	49:08	1.0996	1.0959-1.1033	20	138L					
6	156L/157L	138L	49:07	1.0992	1.0981-1.1003	20	138L					
6	169L	138L	52:30	1.1749	1.1738-1.1761	20	138L					
Compounds using 194L(¹³C₁₂-2,2',3,3',4,4',5,5'-O₂CB) as Labeled injection internal standard												
CB congener												
Heptachlorobiphenyls												
7	188	188L	41:51	1.0000	0.9996-1.0012	-1+3	188L	15	50	1.5	5	2.5
7	179	188L	42:19	1.0112	1.0100-1.0123	6	188L/189L	14	50	1.4	5	2.5
7	184	188L	42:45	1.0215	1.0203-1.0227	6	188L/189L	14	50	1.4	5	2.5
7	176	188L	43:15	1.0335	1.0323-1.0346	6	188L/189L	12	50	1.2	5	2.5
7	186	188L	43:45	1.0454	1.0442-1.0466	6	188L/189L	15	50	1.5	5	2.5
7	178	188L	45:06	1.0777	1.0765-1.0789	6	188L/189L	14	50	1.4	5	2.5
7	175	188L	45:46	1.0936	1.0924-1.0948	6	188L/189L	14	50	1.4	5	2.5
7	187	188L	46:02	1.1000	1.0988-1.1012	6	188L/189L	17	50	1.7	5	2.5
7	182	188L	46:14	1.1047	1.1035-1.1059	6	188L/189L	13	50	1.3	5	2.5

CI No. ¹	Congener No. ^{2,3}	RT Ref ⁴	RT ⁵	RRT ⁶	RRT limits ⁷	Window (sec) ⁸	Quantitation reference ⁹	Detection limits and minimum levels - Matrix and concentration ¹⁰						
								Water (pg/L)		Other (ng/kg)		Extract (pg/μL)		
								MDL	ML	MDL	ML	ML		
7	183	188L	46:42	1.1159	1.1147-1.1171	6	188L/189L							
7	185	188L	46:53	1.1203	1.1191-1.1215	6	188L/189L	28	100	2.8	10	5		
7	183/185	188L	46:47	1.1179	1.1167-1.1191	6	188L/189L							
7	174	188L	47:02	1.1239	1.1227-1.1251	6	188L/189L	15	50	1.5	5	2.5		
7	177	188L	47:30	1.1350	1.1338-1.1362	6	188L/189L	11	50	1.1	5	2.5		
7	181	188L	47:52	1.1438	1.1426-1.1450	6	188L/189L	13	50	1.3	5	2.5		
7	171	188L	48:10	1.1509	1.1489-1.1529	10	188L/189L							
7	173	188L	48:11	1.1513	1.1501-1.1525	6	188L/189L	30	100	3.0	10	5		
7	171/173	188L	48:10	1.1509	1.1489-1.1529	6	188L/189L							
7	172	189L	49:47	0.9035	0.9026-0.9044	6	188L/189L	13	50	1.3	5	2.5		
7	192	189L	50:06	0.9093	0.9083-0.9102	6	188L/189L	13	50	1.3	5	2.5		
7	193	189L	50:26	0.9153	0.9144-0.9162	6	188L/189L							
7	180	189L ¹¹	50:27	0.9156	0.9147-0.9165	6	188L/189L ¹¹	30	100	3.0	10	5		
7	193/180	189L	50:26	0.9153	0.9144-0.9162	6	188L/189L							
7	191	189L	50:51	0.9229	0.9220-0.9238	6	188L/189L	13	50	1.3	5	2.5		
7	170	189L ¹¹	51:54	0.9419	0.9410-0.9428	6	188L/189L ¹¹	12	50	1.2	5	2.5		
7	190	189L	52:26	0.9516	0.9507-0.9525	6	188L/189L	14	50	1.4	5	2.5		
7	189	189L	55:07	1.0003	0.9997-1.0009	-1+3	189L	13	50	1.3	5	2.5		
Octachlorobiphenyls														
8	202	202L	47:32	1.0004	0.9996-1.0011	-1+3	202L	24	100	2.4	10	5		
8	201	202L	48:31	1.0210	1.0193-1.0228	10	202L/205L	20	50	2.0	5	2.5		
8	204	202L	49:11	1.0351	1.0340-1.0361	6	202L/205L	21	50	2.1	5	2.5		
8	197	202L	49:27	1.0407	1.0396-1.0417	6	202L/205L							
8	200	202L	49:40	1.0452	1.0442-1.0463	6	202L/205L	43	100	4.3	10	5		
8	197/200	202L	49:33	1.0428	1.0417-1.0438	6	202L/205L							
8	198	202L	52:30	1.1049	1.1031-1.1066	10	202L/205L							
8	199	202L	52:32	1.1056	1.1045-1.1066	6	202L/205L	37	100	3.7	10	5		
8	198/199	202L	52:31	1.1052	1.1035-1.1070	10	202L/205L							
8	196	205L	53:13	0.9207	0.9198-0.9216	6	202L/205L	20	50	2.0	5	2.5		
8	203	205L	53:26	0.9245	0.9236-0.9253	6	202L/205L	18	50	1.8	5	2.5		
8	195	205L	54:55	0.9501	0.9493-0.9510	6	202L/205L	22	50	2.2	5	2.5		
8	194	205L	57:19	0.9916	0.9908-0.9925	6	202L/205L	18	50	1.8	5	2.5		

Cl No. ¹	Congener No. ^{2,3}	RT Ref ⁴	RT ⁵	RRT ⁶	RRT limits ⁷	Window (sec) ⁸	Quantitation reference ⁹	Detection limits and minimum levels - Matrix and concentration ¹⁰				
								Water (pg/L)		Other (ng/kg)		Extract (pg/μL)
								MDL	ML	MDL	ML	ML
8	205	205L	57:49	1.0003	0.9997-1.0009	-1+3	205L	15	50	1.5	5	2.5
Nonachlorobiphenyls												
9	208	208L	54:33	1.0003	0.9997-1.0009	-1+3	208L	16	50	1.6	5	2.5
9	207	208L	55:32	1.0183	1.0174-1.0193	6	208L/206L	19	50	1.9	5	2.5
9	206	206L	59:37	1.0003	0.9997-1.0008	-1+3	206L	16	50	1.6	5	2.5
Decachlorobiphenyl												
10	209	209L	61:15	1.0003	0.9997-1.0008	-1+3	209L	16	50	1.6	5	2.5
Labeled compounds												
7	188L	194L	41:51	0.7304	0.7275-0.7333	20	194L					
7	180L	194L	50:27	0.8805	0.8775-0.8834	20	194L					
7	170L	194L	51:53	0.9055	0.9026-0.9084	20	194L					
7	189L	194L	55:06	0.9616	0.9587-0.9645	20	194L					
8	202L	194L	47:31	0.8293	0.8264-0.8322	20	194L					
8	205L	194L	57:48	1.0087	1.0044-1.0131	30	194L					
9	208L	194L	54:32	0.9517	0.9488-0.9546	20	194L					
9	206L	194L	59:36	1.0401	1.0358-1.0445	30	194L					
10	209L	194L	61:14	1.0686	1.0643-1.0730	30	194L					
Labeled clean-up standards												
3	28L	52L	26:44	0.9266	0.9209-0.9324	20	52L					
5	111L	101L	38:51	1.0777	1.0730-1.0823	20	101L					
7	178L	138L	45:05	1.0090	1.0052-1.0127	20	138L					
Labeled injection internal standards												
2	9L	138L	18:54	0.4230	0.4183-0.4276	25	138L					
4	52L	138L	28:45	0.6434	0.6388-0.6481	25	138L					
5	101L	138L	36:03	0.8068	0.8021-0.8115	25	138L					
6	138L	138L	44:41	1.0000	0.9996-1.0011	100	138L					
8	194L	138L	57:18	1.2824	1.2777-1.2870	25	138L					

1. Number of chlorines on congener.
2. Suffix "L" indicates labeled compound.
3. Multiple congeners in a box indicates congeners that co-elute or may not be adequately resolved on a 30-m SPB-octyl column.
4. Retention time (RT) reference used to locate target congener.
5. Retention time of target congener.

6. Relative retention time (RRT) between the RT for the congener and RT for the reference.
7. RRT limits based on RT window. RTs, RRTs, and RRT limits may differ slightly from those in Table 2.
8. RT window width necessary to attempt to unambiguously identify the congener in the presence of other congeners.
9. Labeled congeners that form the quantitation reference. Areas from the exact m/z's of the congeners listed in the quantitation reference are summed, and divided by the number of congeners in the quantitation reference. For example, for congener 10, the areas at the exact m/z's for 4L and 15L are summed and the sum is divided by 2 (because there are 2 congeners in the quantitation reference).
10. MDLs for water pooled from data from AXYS Analytical, TestAmerica-Knoxville, and Battelle-Columbus (see Reference 24). MLs for water per ML procedure at 68 FR 11790. MDLs and MLs for "Other" and "Extract" calculated from sample amount and extract volume.
11. If congeners 170L and 180L are included in the calibration and spiking solutions, these congeners should be used as RT and quantitation references.