



# Analysis of 209 PCB Congeners

The ALS specialty laboratory in Houston, TX is dedicated to high-resolution gas chromatography/high-resolution mass spectrometry (HRGC/HRMS) testing.

ALS has experience with handling a wide variety of sample matrices including drinking water, wastewater, sediment, soil, animal and marine tissue, solid waste, PUF traps, XAD resin, household dust, wipe samples, paper products, food products, and animal feed.

All 209 PCB congeners can be reported using HRGC/HRMS by EPA methods 1668A and 1668C. It should be noted that some congeners co-elute and will be reported as a summation of the co-eluting compounds. If only the WHO-12 dioxin-like PCB list is required, it will be reported with the Toxicity Equivalence Quotient (TEQ) which relates the toxicity of the congeners to 2,3,7,8-Tetrachlorodibenzo-p-Dioxin (TCDD). The WHO-12 TEQ can also be requested with the 209 congeners. In addition to the common 209 and WHO-12 reporting lists, custom reporting lists of PCB congeners can be created to meet client requirements.

In addition to EPA methods, ALS has the expertise and innovation to develop and modify methods to suit clients' analytical needs. For example, since no EPA method exists for high resolution testing of PCBs in air, we cite EPA method 1668A for HRGC/HRMS testing for all 209 PCB congeners in ambient air.

Coplanar PCBs	Congener Number	Estimated Detection Limits (EDLs)				Method Reporting Limits (MRLs)			
		Water (pg/L)	Soil (ng/Kg)	Tissue (ng/Kg)	Air (pg)	Water (pg/L)	Soil (ng/Kg)	Tissue (ng/Kg)	Air (pg)
3,4,4',5-TCB	PCB 81	177	18	18	177	2500	500	500	2500
3,3',4,4'-TCB	PCB 77	169	17	17	169	2500	500	500	2500
2',3,4,4',5-PeCB	PCB 123	150	15	15	150	2500	500	500	2500
2,3',4,4',5-PeCB	PCB118	193	19	19	193	2500	500	500	2500
2,3,4,4',5-PeCB	PCB 114	120	12	12	120	2500	500	500	2500
2,3,3',4,4'-PeCB	PCB 105	109	11	11	109	1000	200	200	1000
3,3',4,4',5-PeCB	PCB 126	136	14	14	136	2500	500	500	2500
2,3',4,4',5,5'-HxCB	PCB 167	115	11	11	115	2500	500	500	2500
2,3,3',4,4',5-HxCB/ 2,3,3',4,4',5'-HxCB	PCB 156 + PCB 157	132	13	13	132	2500	500	500	2500
3,3',4,4',5,5'-HxCB	PCB 169	161	16	16	161	2500	500	500	2500
2,3,3',4,4',5,5'-HpCB	PCB 189	177	18	18	177	2500	500	500	2500

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- Technical experts that can answer your most difficult questions
- A real focus on quality and process control with a rigorous QA/QC program

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