Aroclors SP

ROUND ROBIN TESTING OF ASTM D 3304

Twelve laboratories agreed to participate in the round robin testing of the water portion of ASTM D 3304, "Analysis of Environmental Materials for Polychlorinated Biphenyls". As of November 11 results had been received from nine of these laboratories. Results from one of these nine were rejected when it was learned that one critical step of the method was omitted. Laboratory I reported a high background on the river and distilled water blanks relative to the low concentrations (~1 ppb) being analyzed. Their results for the low concentrations were not included in the tabulation. The sample listed in the first column by laboratory E was obviously contaminated since high values of both Aroclor 1016 and Aroclor 1254 were reported. These values were not included in the tabulation.

Current results of the study as of 11/11/75 are listed on the attached. All concentrations are listed as µg/l (ppb).

PRELIMINARY RESULTS

Laboratory	SAMPLE NUMBERS 1-12	13-24	25-36	37-48	49-60	61-72	73-84	85-96	97-108	109-120
A	0.8	0.5	23.4	---	9.3	0.6	6.6	0.3	0.0	0.0
B	0.78	1.0	18	15	10	0.61	8.8	0.34	---	---
C										
D										
E		0.86	19.8	17.7	9.8	0.34	7.8	0.29		
F	1.00	0.82	19.3	20.4	8.93	0.39	4.87	0.44	0.09	0.00
G	1.22	1.03	25.3	22.8	12.4	.56	7.22	0.64	.08	.08
H										
I	2.78	2.97	21.8	9.98	16.4	2.71	4.42	4.64	2.55	1.43
J	0.67	1.2	18.5	25.0	9.63	0.69	8.26	0.19	---	---
K										
L	1.23 (1.20)	0.72	19.1	16.7	19.4	1.00	16.6	1.32 (1.15)	0.25 0.09	0.2 0.2
PCB (1016) Added (1254)	1.4	1.0	25.8	23	25.8	1.0	23	1.4	River Water Blank	Distilled Water Blank
Average	.95	.87	20.7	18.2	12.0	.86	8.07	.50		
Std. Deviation	.24	.23	2.6	5.0	3.9	.77	3.8	.39		
PCB Added X .7*	.98	.70	18.1	16.1	18.1	.70	16.1	.98		

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*T. A. Bellar and J. J. Lichtenberg, Water Quality Parameters, ASTM STP 573, report 70% recoveries of PCB water stored in glass bottles longer than 10 days.