FROM ANNISTON, ALABAMA

DATE December 6, 1965

SUBJECT Aroclor GLC Analyses

REFERENCE

cc: Messrs.
J. R. Savage
D. C. Armstrong
D. E. Harris
J. A. Mullendore
L. C. Fuhrmeister
O. E. Dolin

TO D. R. Middleton
WGK

The six Aroclor 1242 samples received from you have been analyzed for isomer distribution and the data obtained is attached. GLC method, as described in Anniston Method No. 100, was used.

Batch 852 was analyzed three times to check analytical precision. All values are reported, as well as the average isomer values for this sample. Batch 376 was shot two times. The reported data is the average of the two trials.

Lots KE 437, 448, and 454 were each shot once, while the values reported for KE 441 are the average of two trial runs.

The isomer distribution of the four normally produced lots of Aroclor compare closely with the values previously obtained from WGK material.

A comparison of Ba 852 with the normal material indicates the following differences:

1. Ba 852 is higher in Biphenyl. (Ba 376 was also high in Biphenyl.)

2. Very little differences in peaks 2 to 11 were noted. The differences were all well within the random variability possible due to laboratory and production procedures.

3. Ba 852 was 2.2 to 3.9 higher in isomer peaks 12 to 15. Anniston material normally has a $\pm$ 2.4 random variability in this percentage range.

4. From peak 25, Ba 852 was lower in all isomer groups.

From this limited data no definite decision as to significant isomer distribution shifts can be made. More samples produced with the catalyst basket removed should be analyzed to establish if Ba 852 is a typical lot produced by this process. If Ba 852 proved to be typical, then there appears to be a shift in the middle and high chlorinated isomers.

Copies of the chromatograms are available from the laboratory records.

J. A. Liddle

JAL/dp

DSW 248350

IN-10 REV. 6-64

STLCOPCB4054061

Peak Number	Ba 376 Lab. Dist.	Trial #1 Ba 852	Trial #2 Ba 852	Trial #3 Ba 852	Aver-age Ba 852	KE 437	KE 441	KE 448	KE 454	Aver-age KE Lot	Known Isomer
1	1.20	0.17	0.15	0.19	0.17	0.09	0.06	0.06	0.04	.06	Biphenyl
2	0.86	0.10	0.09	0.09	0.09	0.12	0.06	0.07	0.05	.08	2-chloro
3,4,&5	0.51	0.02	0.02	0.03	0.02	0.04	0.01	0.02	0.01	.02	3-chloro - 4 chloro
6 & 7	3.08	2.70	2.75	2.78	2.74	3.12	2.54	2.26	2.71	2.66	2,2'; 2,6
8	0.25	0.16	0.19	0.16	0.17	0.31	0.22	0.15	0.27	0.24	2,5;2,4
9 & 10	9.03	8.20	7.71	8.04	7.98	8.79	7.54	6.95	8.09	7.84	2,3';2,4';2,3
11	1.10	1.05	1.10	1.04	1.06	1.07	1.01	1.55	1.01	1.16	3,5
12,13, 14&15	27.69	29.84	28.75	29.03	29.21	25.87	26.24	26.16	26.50	26.19	3,4; 3,4'; 2,5,2; 4,4'; 2,3,2'
16,17, 18,19, &20	34.72	35.25	34.98	34.67	34.97	35.12	34.96	34.75	34.65	34.87	2,5,4'; 3,4,2'; 2,3,4'
21,22, 23 &24	4.63	7.28	7.54	7.39	7.40	6.89	7.33	7.78	6.88	7.22	
25,26, 27&28	9.26	8.57	9.00	8.92	8.83	9.39	10.03	10.11	9.78	9.83	3,4,4'
29,30 &31	5.47	4.40	5.18	5.14	4.91	5.90	6.41	6.57	6.45	6.33	
32,33 &34	1.97	1.64	1.18	1.82	1.55	2.22	2.49	2.39	2.49	2.40	
35,36, 37,38,39&40	0.34	0.44	0.52	0.52	0.49	0.71	0.73	0.81	0.72	0.74	
41 & 42	0.06	0.11	0.16	0.14	0.14	0.22	0.24	0.24	0.21	0.23	
43,44, &45	0.01	0.05	0.07	0.04	0.05	0.12	0.14	0.13	0.11	0.13	
46	NDA	Trace	Trace	Trace		0.03	0.01	0.02	0.01	0.02	
47	NDA	NDA	NDA	NDA		Trace	Trace	Trace	NDA		
48	NDA	NDA	NDA	NDA		Trace	NDA	0.01	NDA		
49	NDA	NDA	NDA	NDA		Trace	NDA	Trace	NDA		

DSW 248351

STLCOPCB4054062