Mr. T.S. Foley - New York
Mr. Paul Lorue - St. Louis
Dr. R.L. Jenkins - Anniston
Messrs. Edgar E. Hardy
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December 30, 1947

Celanese Corporation of America
Central Research Laboratory
Summit, New Jersey

Dr. L. S. Birnbaum

Gentlemen:

As suggested by Dr. R. L. Jenkins in his letter to you on December 23, we are pleased to write about Aroclor toxicity considerations.

The best published information about the toxicity of Aroclor vapors with reference to possible damage to the liver is in a series of three articles written for the Journal of Industrial Hygiene and Toxicology. The first article appearing in the September 1937 issue, Vol. 19, No. 7 and the second article published in the February 1938 issue, Vol. 20, No. 2 were written by C. K. Drinker, M. F. Warren, and O. A. Bennet and cover only Aroclor 4465. The third article written by Dr. Drinker alone is more complete as it gives information about Aroclors 4465, 1254, 1268 and 5460. We particularly wish to refer you to this article entitled, "Further Observations on the Possible Hysteric Toxicity of Certain of the Chlorinated Hydrocarbons with suggestions for Permissible Concentrations in the Air of Workrooms", by Cecil K. Drinker, The Journal of Industrial Hygiene and Toxicology, Vol. 21, No. 5, May, 1939.

In this article Dr. Drinker tabulates the permissible limits of the compounds in mg. per cubic meter of air in workrooms. The following data is an excerpt pertaining to permissible limits of various Aroclors:

	Material	Permissible Limit Mg. per Cu. M.
No. 8	Aroclor 4465	0.5
No. 9	Aroclor 1254	0.5
No. 15	Aroclor 1268	10.0
No. 14	Aroclor 5460	0.5

From this, it is noted that there is a marked variation in the toxicity of the vapors of different Aroclors. To quote Dr. Drinker, "Aroclors 1268 is almost non-toxic". The vapors of the other Aroclors studied are toxic and should be avoided. In general, the more highly chlorinated biphenyls are less toxic than the lower chlorinated derivatives, proba-

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