June 19, 1961

Mr. Ken R. Doremus
Chief Industrial Health Research Section
Merck and Company, Inc.
Rahway, New Jersey

Dear Ken:

Enclosed are two reprints of the publication by Joe Treon on the toxicity of Aroclors 1242 and 1254.

Although we don't have similar data on Aroclor 1248, we would expect that the effects of repeated inhalation of Aroclor 1248 would vary only in degree as compared to the effects from inhaling the other two materials. You will recall I mentioned on the telephone that the numbers designating the different Aroclors indicate percentage of chlorination. Specifically, Aroclor 1242 is biphenyl chlorinated to 42 per cent, Aroclor 1248 is biphenyl chlorinated to 48 per cent, and Aroclor 1254 is biphenyl chlorinated to 54 per cent.

We have never heard of any acute or subacute effects from the inhalation of the Aroclors following accidental exposure as might occur from breaks or leaks in heat transfer applications. We do know that such breaks have occurred on a number of occasions with unknown amounts of Aroclor being volatilized in the workroom, depending on the temperature. It is quite likely that if workmen expose themselves without respiratory protection to vapor concentrations that were highly objectionable from the standpoint of irritation and odor, nausea, headaches, and conceivably some transient liver injury could occur. In the cases which have been described to us, the signs of any effects were never reported as more than headache and nausea.

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When Joe Treon was at Kettering, he did some acute studies with Aroclor 1248. A summary of his experiments and our interpretation are enclosed (Verifaxed copies).

If I can be of any further assistance, please let me know.

Sincerely yours,

Elmer P. Wheeler
Assistant Director
Medical Department

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Enclosures 3

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