March 4, 1959

Mr. Leon A. Woods
Department of Fish and Game
Pesticides Investigations
987 Jedsmith Drive
Sacramento, California 95819

Dear Mr. Woods:

In reply to your letter of February 27, I have enclosed a table showing the general physical properties of our Aroclors. At the bottom of this table I have added the results [illegible] [illegible] [illegible] with rats and the [illegible] [illegible] [illegible] of the Aroclors when applied to the shaven skin of rabbits. You will notice that there is a difference in the [illegible] in which the sample is administered due to the physical form of the sample, its viscosity, solubility, etc.

We believe that these data show that the Aroclors are not seriously toxic from the standpoint of acute single exposures.

A second enclosure is a reprint describing the results of chronic inhalation experiments on two of the Aroclors. This work has led to the establishment of a threshold limit value of 1.0 milligrams per cubic meter for Aroclor 1242 and 0.5 milligrams per cubic meter for Aroclor 1254.

Perhaps I should point out that our designation of the Aroclors by numbers indicates the parent material and the degree of chlorine. For example the 1200 series are biphenyls chlorinated to various percentages. Thus, Aroclor 1242 is biphenyl chlorinated to the extent of 42%; Aroclor 1254 is biphenyl chlorinated to 54%. The series beginning with the numerals 24 and 44 are

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blends of chlorinated biphenyls and chlorinated triphenyls. The 54 series are chlorinated triphenyls.

All of the Aroclors are practically insoluble in water. For example Aroclor 1242 is soluble in water at 25°C only to the extent of 203 plus or minus 10 parts per billion; Aroclor 1242 106 plus or minus 14 ppb and Aroclor 1254 50 plus or minus 2 ppb. Obviously increasing the chlorine content decreases the solubility of the material.

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

Sincerely,

Elmer P. Wheeler
Manager, Environmental Health

[illegible]

Enclosures

bcc: W. R. Richard
H. S. Burgan
R. E. Keller
S. Tucker
J. E. Springgate
L. H. Payson
P. B. Benignus

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