bcc: W. W. Hempelmann - SEATTLE
J. G. Hicks - SANTA CLARA
C. Paton - CPATO

February 27, 1968

Dr. B. Thys
Precision Founders, Inc.
Oakland, California

Dear Dr. Thys:

I have been asked to discuss with you the toxicity associated with vapor inhalation of Aroclor 1254 and Aroclor 5460.

As you know, the Aroclors are a group of chlorinated diphenyls which have been manufactured by Monsanto for a number of decades in amounts ranging into the ten's of millions of pounds.

Their vapors do possess toxicity but the exposure must be considered along with this toxicity. Thus, while we can get a softening point or a vapor pressure for various Aroclors, we cannot list toxicity as an absolute. We must always consider the type of application.

I understand that one of your uses of Aroclor 5460 will be welding wax at a joint, using a soldering iron. My impression is that this will be carried out somewhat above the softening point of Aroclor 5460. This is in the neighborhood of 98 to 105° C. At this particular temperature the vaporization rate is extremely low. In fact, it is 0.000004 g/sq. cm. an hour. It is my opinion that such an exposure will not constitute any hazard.

As far as Aroclor 1254 is concerned, this is, of course, a liquid and possesses considerably greater vaporization. I do not know at what temperature you will be using this but should vapors evolve, they must be collected.

Both these Aroclors have very good warning properties, as the odor is present long before the allowable concentration is reached.

I feel sure these Aroclors can be used in your application if good housekeeping practices and a minimum of ventilation, such as is used in most good manufacturing practices, is afforded.

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If I have misunderstood your problem, or if you care to give me more definite statements concerning your prospective use perhaps I might be able to be more definite in my recommendations.

Sincerely,

R. Emmet Kelly, M. D.
Medical Director

REK/ln

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