

From **MONSANTO CHEMICAL COMPANY**

cc H. L. Hubbard - Res-2
J. E. Crouch - Anniston
J. W. Carlson - "
Jack Clegorn - "

At St. Louis, Missouri

Date September 23, 1954

To Mr. T. C. Allen

Reference JEC/PGB 9-7-54

At ANNISTON

Subject AROCLOR 1254 FLASH POINTS

We are quite disturbed about the reports that our Aroclor 1254 is showing flash points whereas all previous data for 25 years have indicated no flash points. If you have not been aware of the problem, I wish you would read Carlson's file on the history of Aroclor 1254, lot 105 and lot 104.

Briefly, Pan-Am Southern Corporation found a flash point of 380°F. on the Aroclor 1254, lot 105 which he was using in an air compressor. Samples from Pan-Am and the reserve sample of lot 105 also showed the flash point. This lot was found to be contaminated by biphenyl. The biphenyl was introduced by the use of a tank containing biphenyl for Aroclor storage.

As reported in the reference letter, lot 104 was found to have a flash point of 440°F. This is a higher flash point than was obtained for lot 105. So if it was due to biphenyl, the amount of contamination was much smaller.

Carlson is running flash points on each lot of Aroclor 1254 to accumulate some history. I would like to have you follow this accumulation of data and see if you can tie any flash points that may occur to an operation variable. I know this is a difficult thing since many chlorinator batches may be in a final lot of Aroclor.

One source of variation in the different Aroclor batches from the chlorinator is the amount of trappings introduced and the degree of their chlorination. What do you think of a scheme of adding trappings when each chlorinator is charged with biphenyl with no further addition to that chlorinator batch. The higher chlorinated trappings would not chlorinate as readily as the biphenyl and lower chlorobiphenyls. Therefore, I believe we would get a better distribution of isomers from the trappings than if they are added during the chlorination and thus may not get enough time to level out in chlorine content.

If you think such a scheme has merit you can talk it over with the plant and make a change in their standard procedure. Such a change in the method of operation would eliminate the lower chlorinated trappings as a possible source of flash points in Aroclor 1254.

Mr. T. C. Allen

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I have been considering such a scheme for sometime and now may be a good time to put it in operation. There is a likelihood that we will be able to get a more uniform product especially with Aroclors 1242 and 1254 by using this scheme.

The amount of trappings to add would depend on the volume obtained in the chlorination each day. It should be averaged up so that each chlorinator charge would contain about the same quantity.

Let me have your comments on such a procedure to make the biphenyl chlorination a little more uniform.

Best regards.



A. M. Ellenburg

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