R. L. Jenkins
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T. H. Wheelock - St. Louis
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July 8, 1949

This Copy For

Mr. P. G. Benignus
Phosphate Sales
St. Louis

AMR/PGB 5/13/49

Andrew Brown Company
Los Angeles, California
Aroclor 5460 Complaint

The samples of Aroclor 5460, lot 198, received from the reference company were examined and found to give a precipitate in the solvent solution which is used by the Andrew Brown Company. A recent sample of Aroclor 5460, lot 318, did not show any precipitation after two weeks standing.

In light of the several complaints we have had recently on the crystalline precipitate from Aroclor 5460 in various solvents, we are following two lines of correcting the plant product.

Starting with Aroclor 5460, lot 320, we have asked the plant to observe the maximum temperature of 210°C in the chlorination of terphenyls. This temperature is given in the Standard Process Report on Aroclors of Department 246 at Plant B, dated November 6, 1946, page 64. Since this is the only written report on the process, my opinion is that we should follow its conditions for chlorination of the terphenyls. In considering a means of eliminating the 62-63% material that forms the precipitate, the use of a lower chlorinating temperature should aid in reducing the higher chlorinated component. Our plant has operated in the past on temperatures up to 250-260°C during the Aroclor 5460 production.

The second line of attack is the suggestion that the present crystallinity test be omitted. Since we have been receiving the complaints of crystallinity on Aroclor 5460 which have passed our present crystallinity test, it is evident that our test is of doubtful value. Therefore in the place of our present solvent which involves the use of Amberlac, Paraflex, nitrocellulose and ethyl cellulose and only about 5% Aroclor, we should find a test which pertains to the uses of Aroclor 5460 at the present time.

We would like to issue a new tentative crystallinity test using a plain solvent such as acetone. I am sure this will give us a more informative test regarding the crystallinity of Aroclor 5460, than the one now in use.

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Let us have your thoughts on the subject of a universal solvent for the Aroclor in light of your contacts with the consumers. Our previous work has indicated that acetone will be a good test medium. The concentration will have to be decided definitely, although 20% will probably be our trial concentration.

With the proposed change in the temperature limit in the plant process, the crystallinity problem should be cleared.

A. M. Kilenburg

kd

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