Xerox to MD JM.

W. B. PAPAGEORGE

October 26, 1970

H. S. Bergen
W. R. Richard
R. E. Keller
E. P. Wheeler

J. R. Savage

Recent data from Dr. J. P. Mieure's work indicates the presence of naphthalene in biphenyl and anthracene or phenanthrene and dibenzofuran in Santowax R used in the manufacture of Aroclors.

The naphthalene, anthracene or phenanthrene could be present in the benzene used in the diphenyl unit or could be co-produced with the biphenyl, terphenyl and quaterphenyl.

The dibenzofuran could result from oxygen containing contaminants in the benzene or, more likely, be formed because of the presence of the promoter, acetone.

The Anniston Plant should design and execute a program for determining the source or sources of these contaminants.

W. B. PAPAGEORGE

WBP

MONS 206332

Monsanto

Aroclors F

FROM (NAME & LOCATION) R. E. Keller - Technology Department - South Second Street

DATE October 20, 1970

SUBJECT FURANS IN AROCLOR PRODUCTS

REFERENCE

TO : W. B. Papageorge
General Offices

cc W. R. Richard - GO
~~M. W. Ferrar - Res.~~ 1
H. S. Bergen - GO
E. P. Wheeler - GO
M. W. Dietrich - Res. 2
E. M. Emery - Res. 2
E. S. Tucker - Res. 2
R. H. Munch - Res. 2
J. P. Mieure - Res. 2

The attached report by Dr. Mieure shows that Aroclor 1242, 1242B, 1254 and 1260 contains no detectable polychlorinated dibenzofurans. Aroclor 5442 contains detectable tetrachlorodibenzofuran at 1-3 ppm. Competitive Prodelec Phenoclor DP6 contains considerably more dibenzofurans.

On this basis, the Aroclor 1200 series sent for feeding studies at Bio-Test appears free (< 1-5 ppm) of furan contaminants which might bias the results. It will be noted, however, that these products do contain varying amounts of polychlorinated naphthalenes. Would toxicity results from feeding studies be effected by these impurities?

Polychlorinated anthracene or phenanthrene and tetrachlorodibenzofuran impurities found in Aroclor 5442 probably explain why the National Water Quality Laboratory at Duluth, Minnesota finds that Aroclor 5442 is much more toxic to Daphnia than any of the PCB's.

The report doesn't mention it, but no polychlorodibenzo-p-dioxins were found in any of the products. The detection limit is an estimated 1-5 ppm depending on the specific impurity and product involved.

REK

R. E. Keller

db
Attachment

Bob;
Of greater interest to us than A-5442 is A-5460. Any data on this? If not, plans to get it?

RAM/F

Martin
I am asking Jim Mieure by copy of this note to obtain this info for A-5460. Please let know if there should be a specific lot or what?

Bob

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