

Monsanto

Waco Co. SP

FROM (NAME & LOCATION)

Medical Department

DATE

May 5, 1971

SUBJECT

PCB Publication

REFERENCE

TO

W. B. Papageorge
WPAPA

cc W. R. Richards - WRICH
H. S. Bergen - HBERG
R. Keller - Queeny
S. Tucker - Queeny
Peter Marsh - Brussells
Al Vodden - Rusbon
E. V. John - EJOHN
P. S. Park - PPARK
Sam Pickard - Washington

The Bulletin of Environmental Contamination and Toxicology which we received today included seven articles concerning polychlorinated biphenyls.

The first one is of interest since it concludes that "PCB's do not play a significant role in the phenomena of egg-shell thinning".

The second article on metabolism will be of interest in relation to our current analysis of tissues from the animals being studied at Industrial Bio-Test Laboratory. Further, the summary indicates "Male rats were orally dosed with Aroclor 1254 and residues were found in all tissues analyzed, with the greatest concentration in the fat.....Aroclor 1254 significantly increased the size of the liver and also the percent lipid in the liver. Aroclor 1254 was found to potentiate the toxicity of carbon tetrachloride in the rat".

The third article reports data from the Gulf Breeze Laboratory which lead to the conclusion "that chronic exposure to Aroclor 1254 increased susceptibility of least pinfish and spot to disease, and also appeared to be toxic to these fish".

The fourth article dealing with microsomal enzyme activity in pregnant rabbits indicates that Aroclor 1221 is less active in the induction of enzyme activity as compared to Aroclor 1254.

The fifth article indicates that one marine diatom "Cylindrocapsa closterium absorbed and concentrated the polychlorinated biphenyl (Aroclor 1242) 900 to 100 times above the level in sea water. At .1 ppm concentration in sea water, PCB's inhibited growth and diminished levels of RNA and chlorophyll of this marine diatom".

The sixth article will be of particular interest to those involved in retention times and electron-capture detector responses of some of the individual chlorinated biphenyls.

The last article again relates to analytical techniques i.e. "thin layer chromatography of polychlorinated biphenyls.

Elmer P. Wheeler

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