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United States Department of the Interior

FISH AND WILDLIFE SERVICE
BUREAU OF SPORT FISHERIES AND WILDLIFE
Fish-Pesticide Research Laboratory
Route No. 1
Columbia, Missouri 65201

IN REPLY REFER TO:

March 5, 1970

Fate
PCB's gen'l

Mr. Jack T. Garrett
Monsanto Chemical
Agricultural Division
800 N. Lindberg Blvd.
St. Louis, Missouri 63166

Dear Mr. Garrett:

We are continuing our research with your Aroclor compounds, and to fully evaluate them against aquatic animals in this laboratory we would appreciate receiving additional samples of the following technical grade compounds: PCBs 1221, 1232, 1242, 1248, 1254, 1260, 1262, 1268, 4465, 5442, and 5460. We could use 100 grams each of solid formulations and a half-liter of the liquid formulations.

Our main water source went out on us in December and repairs to the pump and well-column were not repaired until February of this year, consequently our research was restricted. However, we did generate some data from our field station at Jackson, Wyo., and a couple of preliminary tests from Columbia. These data are presented below:

Compound	Jackson, Wyo.	Wt. (grams)	96-hr TL_{50} (ug/l)
1221	Cutthroat trout	2.7	1170 (951 - 1430)
1254	"	2.5	42500 (38700 - 46700)
1260	"	2.6	60900 (55400 - 67000)
1247	"	2.5	5750 (5100 - 6480)
1232	"	2.2	2500 (1720 - 3080)
1242	"	2.4	5.42 (3.82 - 7.68)

These fish were tested in raw water at 8.9 C., pH 7.6, hardness of 164 ppm, and alkalinity of 159 ppm:

	Columbia, Mo.		
1254	Bluegill	.75	2740 (1294 - 5810)
1248	"	.76	278.5 (38.95 - 2005)
1248	Channel catfish	1.14	6000 (----------)
1254	"	1.14	12000 (----------)

These fishes tested in reconstituted water at 18.3 C., pH 7.1, alkalinity 35 ppm.

MONS 089207

Our primary problem with these compounds is maintaining them in solution. We have little difficulty in dissolving the compounds in acetone, but when the stock solutions are added to the test waters they precipitate. Whether or not we are obtaining reliable results is questionable. We intend to alter our water quality by changing pH, hardness, and temperature. Perhaps these factors may alleviate some of our solubility problems.

Sincerely yours,

Harry D. Kennedy

Harry D. Kennedy
Fishery Biologist (Research)

HDK/cg

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