Monsanto Industrial Chemicals Company
St. Louis, Missouri 63166

cc:

R. N. Brell	B3NH
R. W. Bucknell	B3NB
J. R. Darby	1760
A. G. Eades	B3NJ
M. W. Farrar	R2E
E. H. Fording	B3NJ
J. T. Garrett	A2SA
R. E. Kelly	A2SA
J. H. Orem	B3ND
W. E. Schalk	B3NJ
J. E. Springgate	B3NA
E. P. Wheeler	A2SA

df: Fish-Pesticide Res. Lab

COMMERCIAL DEVELOPMENT CALL REPORT NO. 72-46

U. S. DEPT. OF INTERIOR
FISH-PESTICIDE RESEARCH LABORATORY
COLUMBIA, MISSOURI

Date of Call: April 25, 1972

For FPRL: Dr. Dave Stalling, Chief Chemistry Section
Dr. Blake Grant, Biology
Dr. Foster Mayer, Section Leader
Dr. Waynon Johnson, Section Leader

For Monsanto: P. R. Graham
G. J. Levinskas
W. B. Papageorge
J. F. Quinn

Objective: (Plasticizer CD) - To monitor Fish-Pesticide Research Laboratory interest in phthalates and phosphate plasticizers.

Discussion:

This laboratory has an active program to illucidate the effects of phthalate ester on aquatic life. They have definitely concluded that plasticizers (particularily di-2-ethylhexyl phthalate and dibutyl phthalate) are environmental contaminants. They have also shown that phthalate esters accumulate in aquatic

DSW 588302

STLCOPCB4093638

Pollution file

invertebrates (daphnia) and cause reproductive impairment. Mayer and Stalling have also by laboratory experiment shown that dibutyl phthalate is definitely more toxic (acute) than DOP. However, both compounds showed teratogenic effect on zebrafish and guppies. In either case, the phthalate problem is not as serious as that with organic chlorides, according to Stallings and Mayer.

The following two papers will appear shortly:

- TOXICITY, RESIDUE DYNAMICS, AND REPRODUCTIVE EFFECTS OF PHTHALATE ESTERS IN AQUATIC INVERTEBRATES, Hermon O. Sanders, Foster L. Mayer and David F. Walsh. This will be published in The Journal of Environmental Research.

- PHTHALATE ESTERS: AN ENVIRONMENTAL CONTAMINANT, by Foster L. Mayer, David L. Stalling and James L. Johnson. This paper will appear in NATURE.

There is no doubt that the publication of these papers will prompt another wave of anti-phthalate sentiment.

They are not far along in the study of organic phosphates. In only one instance has this type of compound been detected.

The Fish-Pesticide Research Laboratory is in the Bureau of Sport Fisheries and Wildlife - U.S. Dept. of the Interior. They are not a regulatory agency. Their function is to provide advisory data relative to wildlife preservation. They work closely with the National Academy of Sciences.

PRG

P. R. Graham

DSW 588303