5/11/71 MEETING NOTES

POLYCHLORINATED BIPHENYL STUDIES

TO: Those Present

C. W. Roos
T. M. Patrick
E. P. Wheeler
R. H. Munch
R. A. Baxter
E. S. Tucker
V. W. Saeger
W. M. Mees
O. Fancher (aft. only)- No copy
Dr. E. Kelly (aft. only)
W. R. Richard (aft. only)

Others

H. S. Bergen
W. B. Papageorge

MONS 028985

The following actions were taken or planned at the subject meeting involving review and projection of work by Applied Sciences.

BIODEGRADATION STUDIES

1. Primary biodegradation studies with the semi-continuous activated sludge test will be continued on a need basis for products from the business groups.

2. Current work will be directed to application of the above test to distillation cuts to show that MCS 1016 is a more biodegradable product than Aroclor 1242. This information will help to promote the substitution of MCS 1016 for Aroclor 1242 in the market place.

3. Future efforts must be directed toward development of meaningful guide-lines, acceptable to regulatory bodies, to better evaluate the biodegradation data in hand. For example, at what % biodegradation level in 24 hours should a product be considered not acceptable under any circumstances if released to the environment? Concensus on this point indicated that we should continue to obtain our primary degradation figures which would provide a base for future reference and decisions.

4. No immediate work is planned in St. Louis on the use of specific cultures for biodegradation studies. Outside research of this type, including that with C_3 cultures, will be continued in the UK until the end of 1971.

5. No imme ate work is planned on determining biodegradation routes or identifying end products.

PCB RESIDUES IN INDUSTRIAL BIO-TEST TISSUES

The following work will be carried out to provide data needed to

- determine the maximum body PCB residue level at the no effect level.
- determine the residue plateau level for body tissues.
- establish PCB residue levels after recovery period following exposure.
- establish placental transfer of PCB's.

The projects will be carried out in the order indicated with #1 being completed first.

1. Two-year chronic toxicity study in rats, #B7298.

   - Male and female composites of muscle, liver and fat from the 12 and 24 month studies will be analyzed for PCB's. Kidney tissues will be eliminated from the analytical program.

- Rats will be placed on a recovery diet for 60 days, sacrificed and analyzed for PCB's.

- Analytical results from the 12 and 24 month studies will be reviewed and a decision made on need for analyses for the 6 month study.

2. Three-generation reproduction study in rats, #P7297.

   - Male and female composites of muscle, liver and fat from the above will be analyzed for PCB's. This includes

     . parents, F-3 generation, F-2b litter.

     . parents on recovery diet, 1/2 of parents above for 60 days.

     . pups, F-3 generation.

     Kidney tissues will be eliminated.

3. Two-year chronic toxicity study in dogs, #C7299.

   - Male and female muscle, liver and fat will be analyzed for PCB's. This includes

     . 24 month sacrifice animals.

     . recovery sacrifice animals, 1/2 of 24 month, 60 days.

   - Control samples for above will be composites of male and female.

     Kidney tissues will be eliminated.

4. Chicken toxicity, reproduction and meat and egg residue study, #J7300.

   - Male and female muscle, liver and fat will be analyzed for PCB's. This includes

     . test sacrifice chickens.

     . recovery sacrifice chickens.

     . 30-day chicks hatched from eggs from above.

   - Control samples will be composites of male and female.

   - All eggs will be analyzed.

     Kidney tissues will be eliminated.

5. Aroclor and tissues from the 24 month rat study will be given a brief analysis for trace mercury levels.

6. Results from the preceding work will be published, if possible, to help provide the base needed to set guide-lines for safe levels of PCB's in the environment.

Details for the preceding work with Industrial Bio-Test tissues will be determined jointly between Messrs. Wheeler, Fancher, Tucker and Keller.

REK

R. E. Keller

db
5/17/71