SPECIALTY PRODUCTS

AROCLOR ENVIRONMENTAL PROGRAM

Bio-Test Tissue Analysis

An inventory of all Bio-Test tissues held by Monsanto for PCB analysis has been prepared as well as an estimate of those retained by Bio-Test Laboratories. Analysis of all tissues (muscle, fat, liver and kidney) from the first sacrifice (3 month exposure) of the two year chronic rat toxicity study have been completed.

Customer and Plant Support Analysis

| No. of Samples | Sample Source | Sample Description | Status of Analysis |
|---|---|---|---|
| 1 | NCR (Dayton) | Plant effluent composite | Completed |
| 3 | Ameripol | Plant effluent composite | Completed |
| 2 | J. F. Queeny | Plant effluent composite (Feb. & Mar.) | Completed |
| 1 | Rogansky Feed Co. | R-83 | Completed |
| 1 | C. F. Mueller Co. | Vermicelli | Completed |
| 14 | R. A. Kimerle/ CRD | Coagulated Anniston plant effluents | Completed |
| 2 | Goodyear Point Pleasant, West Virginia | Plant effluents | Completed |
| 1 | Kimberly Clark (Moraine Mill) | Plant effluent | Completed |
| 25 | Central Soya | Products associated with commercial chicken raising | 8/25 Completed |
| 8 | Westinghouse Aquatechnics | Treated Plant effluents | Scheduled for Completion 4-30-71 |

MONS 042653

Polychlorinated Terphenyls (PCT)

Hexane extraction of effluent water spiked with Aroclor 5460 demonstrated that it is not a suitable solvent for quantitative extraction

of PCTs from plant effluent samples. The recovery (50±1%) on duplicate samples was reproducible but much too low to be used for isolation of PCTs from water. Quantitative extractions of PCTs were obtained with either benzene or dichloromethane. The extraction recoveries using dichloromethane (99.0%) were calculated from UV absorption data. For benzene, total organic chlorine was determined using a sodium biphenyl-silver nitrate titration procedure.

MCS 1043, MCS 1016, Aroclor 1221, Aroclor 1242, Aroclor 1254, and Arobromochlor 1232

The present SCAS tests on MCS 1043, MCS 1016, Aroclor 1221, Aroclor 1242, and Aroclor 1254, and Arobromochlor 1232 have been halted and the total residues from each unit isolated for detailed GC analysis.

Two new test units were started on MCS 1016 and the Aroclor 1142 distillation residue, at a 5 mg feed level and a 5 day time cycle, in hopes of demonstrating differences between these materials. In the 1st cycle, 58% of the MCS 1016 was lost and 53% of the distillation residue. EC/GC analysis of samples from both units did not show any isomeric alteration indicating that the initial losses are due to a physical phenomenon, i.e., adsorption on the glass, etc.

Aroclor 5460, Aroclor 5432, ARobrom 5465, and Hexabromobiphenyl

Current scheduling should allow sampling and analysis of these four SCAS units to start in the first or second week of May.

E. S. Tucker:db
4-29-71