Monsanto

11232 COPY 1

MONSANTO RESEARCH CORPORATION / DAYTON LABORATORY / DAYTON, OHIO 45407

EASC - Dayton
(DEPT /SECTION)

Analytical REPORT
TYPE OF REPORT

RECEIVED
SEP 2
MONSANTO-DAYTON
CENTRAL FILES

REPORT NO.: MDA - 323

JOB/PROJECT NO.: 320.03014

DATE: September 16, 1982

PERIOD COVERED:

TITLE: ANALYSIS OF PORT PLASTICS SERUM SAMPLES FOR PCBs

AUTHORS: Roy W. Noble

FILE COPY
DO NOT REMOVE FROM FILE

ABSTRACT: A report on the analysis of PCBs in human serum is presented. Serum samples from 10 donors were analyzed for PCBs. Results are presented in this report.

Technical Approval: Joseph J. Brooks
Joseph J. Brooks
Research Group Leader

Approved by: Robert F. Ivory
Robert F. Ivory
Environmental Analytical Sciences
Center Service Project Manager

Approval date: 9/16/82

RESTRICTED DISTRIBUTION (see over)

C O M P A N Y C O N F I D E N T I A L

This document is the property of Monsanto Research Corporation and the recipient is responsible for its safekeeping and disposition. It contains CONFIDENTIAL INFORMATION which must not be reproduced, revealed to unauthorized persons or used outside Monsanto Research Corporation and Monsanto Company without proper authorization.

REPT. NO.: MDA-323 AUTHORS: Roy W. Noble
COPY NO.: 1 TITLE: ANALYSIS OF PORT PLASTICS SERUM SAMPLES FOR PCBs

DISTRIBUTION

COPY NUMBER		
1	B. G. Ward	G2WB
2	J. J. Brooks	1250
3	F. D. Hileman	1250
4	R. W. Noble	1250
5	J. D. Wilson	G3WG
6	R. F. Ivory	1250
7	G. Butler	G2WB
8	G. Roush	G2WG
9	D. L. Coleman	G2WF
10	C. Heflin	1250
11	Central Files	1250
12	Technical Reports Library	R3C

ABSTRACT ONLY	
R. K. Fliteraft	1250
R. M. Scott	1250
W. B. Witmer	1250

NOTE: Distribution of this report is restricted. Requests for additional copis should be made through the principal contact at the Monsanto location involved or the Manager, Environmental Analytical Sciences Center, Dayton Laboratory, Dayton, Ohio.

COMPANY CONFIDENTIAL

When no longer needed, or upon request, return this report to Central Files, Dayton.

ANALYSIS OF PORT PLASTICS SERUM DONORS FOR PCBs

On 9 August 1982, samples of blood serum were obtained from 10 donors at the Port Plastics facility of Monsanto Plastic and Resins Company. These samples were then transported to the Dayton Lab (MRC-Dayton) for analysis of serum PCB levels. The QA/QC run on this set of samples was as discussed in the meeting of 27 July 1982 in St. Louis. This entailed analyses of a sample as well as a low spike for each donor. In addition, four samples were analyzed in replicate. Samples were analyzed according to MRC Method 424-13-PREP-R0.

The low spike of the serum samples was at 42.4 ppb of PCB distributed among 37 separate chromatographable peaks and ranging from 0.10 ppb to 3.22 ppb with a median spike level per peak of 0.94 ppb. The results of the analysis for these ten donors are given in Table 1. The average subtracted blank was 1.2 ppb. The minimum detection limit varied from sample to sample in the range of 1 and 2 ppb.

MONS 022525

TABLE 1. RESULTS OF PORT PLASTICS SERUM DONOR ANALYSES FOR PCBs

Donor	Sample (ppb)	Replicate (ppb)	Average (ppb)	Low Spike recovery
1	5.3			95.9%
2	3.6	4.2	3.9	79.4%
3	1.5			88.5%
4	1.6			105%
5	4.0	6.2	5.1	91.5%
6	2.2			91.4%
7	7.5	8.0	7.8	73.5%
8	3.3			86.0%
9	3.1	3.5	3.3	83.0%
10	5.2			74.3%
			Ave.=	86.7%
			σ =	9.8%

MONS 022526