Produ[illegible] Chloradibenzofurans

	[illegible] Cl/mol	4 Cl/mol	5 Cl/mol
Vos et. al.			
Prodelec Phenoclor [illegible]	ND	+	+ (< 20 ppm)
Bayer Clophen A60 lot 912434	ND	+	+ (< 5 ppm)
Monsanto Aroclor 1260 lot AK-3	ND	ND	ND (< 1 ppm)
Applied Sciences			
Prodelec Phenoclor DP6	ND (< 2 ppm)	+	15-30 ppm
" " "	ND	+	+ (reanalyzed)
Bayer Clophen A60 lot 931134	ND	+	+
Kanaclor KC-300 Shizuki, July 1970	ND	ND	ND
Monsanto Aroclor 1242 lot AK-255	ND	[illegible]	ND
" 1254 lot AK-38 (Triplicate)			
" 1260 lot AK-3			
MCS-1016 Drum B [illegible]			
" KA-708			
" Aroclor 5942, lot AT-9	(< 5 ppm)		

MONS 213566

Monsanto

FROM (NAME & LOCATION): R. E. Keller - R&D Laboratories - South Second Street

DATE: June 30, 1970

SUBJECT: CHLORINATED DIBENZOFURANS - PCB

REFERENCE:

cc: H. S. Bergen - GO
W. R. Richard - GO
E. P. Wheeler - GO
M. W. Dietrich - Res. 2
E. M. Emery - Res. 2
F S Tucker - Res 2

TO : W. B. Papageorge
General Offices

The attached letter and manuscript have been received from Dr. J. G. Vos at the University of Utrecht. It is in reply to our request for details of their work on the identification of chlorinated dibenzofurans in PCB. Please note that this manuscript has been sent on a confidential basis and it is not for general distribution.

We will attempt to provide chlorinated naphthalenes requested for gas chromatography work by Vos. Bill Richard thinks we might be able to obtain these commercially. Dr. Emery is asked by copy of this memo to determine if we have any of these compounds in SRC.

Drs. Dietrich and Emery are asked by copy of this memo to please review the manuscript and determine the difficulty of applying this technique to our Aroclor products. Assuming this is within our capabilities with a reasonable amount of effort, we will look at Aroclor products used at Bio-Test for feeding studies and compare results with those for current production grade materials.

R. E. Keller

db
Attachments - 2

MONS 213567

IN-10 REV. 11-68

VETERINAIRE FARMACOLOGIE
EN TOXICOLOGIE
DER RIJKSUNIVERSITEIT
TE UTRECHT

DIRECTEUR: Prof. H. VAN GENDEREN

No.

Bericht op:

Betreffende:

Bijlagen: +

UTRECHT, June 24, 1970.
Biltstraat 172
Telefoon No. 715544

Dr. R.E. Keller,
Applied Sciences Section
Monsanto Company,
1700 South Second Street,
ST. LOUIS, Missouri 63177.
USA

Dear Dr. Keller,

Enclosed you will find a photocopy of the manuscript concerning the identification of chlorinated dibenzofurans in PCB. We use fractionation GC/mass spectrometry techniques; the details are given in the manuscript which is not for general distribution since it is not yet accepted by the Editors of the Journal of Food and Cosmetics Toxicology.

During the visit of you and your colleagues at our Institute we mentioned a.o. severe skin lesions (hyperkeratosis) in cattle. The floor of the stable in which the animals were housed was covered with second-hand conveyor belts, covered with a new anti-slip layer. Gas chromatographic analyses of a sample of the rubber mat and of the liver of a severely affected cow revealed a peak pattern which was very indicative for PCB, as we also mentioned during your visit. Mass spectrometric analyses of the rubber revealed compounds with molecular weights of probably penta- and hexachloronaphthalene, well known for their hyperkeratotic action in cattle.

Chlorinated naphthalenes are not for sale and since they are very important for us as reference compounds in gas chromatography, we would like to ask you to mediate for the supply of chlorinated naphthalene mixtures and perhaps a pure sample of octa chloronaphtalene (perchloronaphthalene). Dr. Koeman told me that he will send you a total-body sample of a cormorant containing a high concentration of PCB's, for a comparison of the quantitative aspects of the analytical methods.

Sincerely yours,

J.G. Vos.

Institute of Veterinary
Pharmacology and Toxicology,
University of Utrecht,
Biltstraat 172,
UTRECHT,
The Netherlands

MONS 213568