

Monsanto

PX 1123

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DATE July 22, 1970

SUBJECT CHLORODIOXINS IN CHLOROPHENOLS

REFERENCE

TO M. A. Terpstra
Research 1

cc: W. K. Johnson - GO

W. Gissendanner - GO

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W. G. Krummrich Plant o- and p-chlorophenol and 2,4-dichlorophenol were recently analyzed by a tentative method for 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD). At that time, no TCDD was found. However, the reference standard used in this work was later found to be contaminated or improperly labeled.

An improved method for determining TCDD in chlorophenols has been developed (Spectroscopy Method 70-15) and a valid standard has been obtained. Using this procedure, the chlorophenols have been analyzed again. The results are shown in the following table.

Analysis of Chlorophenols for TCDD

<u>Sample (Lot No.)</u>	<u>ppm TCDD Found</u>	<u>Detection Limit (ppm)</u>
o-Chlorophenol (KL-1001)	None detected	~0.2
p-Chlorophenol (KL-5051)	None detected	~0.2
2,4-dichlorophenol (KM-2013)	4+1	~1

The presence of interfering compounds chemically similar to TCDD prevents a more exact quantitation of the dichlorophenol, at least without considerable additional method development.

Since the conversion to cumene phenol in October may significantly alter the TCDD level in the final products, we plan no further work at this time. Analyses of production samples after the conversion to cumene phenol will be scheduled at your request.

J. P. Mieux

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