APPENDIX L

ANALYTICAL METHODS

GAS CHROMATOGRAPHIC DETERMINATION OF MONOCHLOROBIPHENYL ISOMERS IN MCS 1547

PURPOSE OF ANALYSIS

To determine whether all components in MCS 1547 are within specifications.

SAMPLE PREPARATION

None (add benzene to liquify if the sample is solid).

CHROMATOGRAPHIC CONDITIONS

Instrument: Varian Aerograph Series 1200

Type Detector: Flame Ionization

Column: 50' X 0.02" I.D. Support Coated Open Tubular (SCOT) coated with Poly-I-110 polyimide.

Column Temperature: 200°C

Detector Block Temperature: 300°C

Injection Port Temperature: 300°C

Sample Volume Injected: 0.05 µl (without split)

Flow Rates

Helium: 6 ml/min.

Auxiliary Gas: 40 ml/min.

Hydrogen: 45 ml/min.

Air: 350 ml/min.

RETENTION TIMES (UNCORRECTED) OF COMPONENTS SEPARATED (CHROMATOGRAM ATTACHED)

Biphenyl (3.6'); o-Chlorobiphenyl (4.5'); 2,2'-Dichlorobiphenyl (6.2'); m-Chlorobiphenyl (6.8'); p-Chlorobiphenyl (7.1').

CALCULATION TECHNIQUE

Normalization with Area Correction Factors.

PRECISION

No determination of precision was made. The variability of a single GC analysis at the 95% confidence limits is usually ±0.5 to 1% relative.

db

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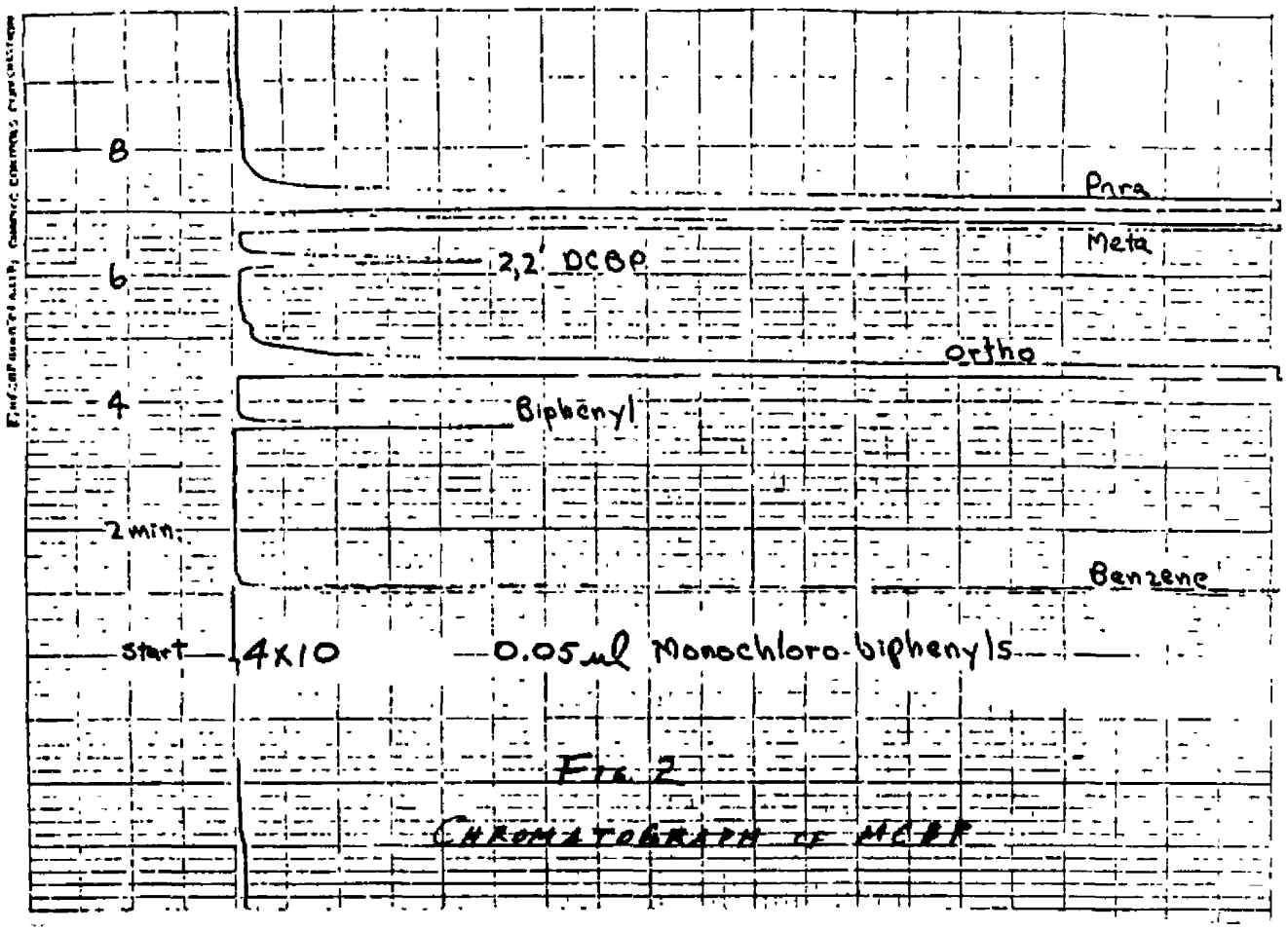

FIG. 2

CHROMATOGRAPH OF MCBP