

O R G A N I C
C H E M I C A L S D I V I S I O N
R E S E A R C H

Report

REPORT NO. - 3714

JOB NO. - 2-21-760.01-8904322

FINAL REPORT
ON
GAS CHROMATOGRAPHY METHOD DEVELOPMENT - 1970

DATE - June 10, 1971

WRITTEN BY - E. M. Emery



ST. LOUIS, MO.

DSW 620507

STLCOPCB4094534

✓ 1) Gas chromatography method development in 1970,
✓ final report

MONSANTO COMPANY
ORGANIC CHEMICALS DIVISION
St. Louis Research and Development Laboratories

DO NOT REPRODUCE, TRANSFER, STORE OR LEND
RETURN REPORT TO: ORGANIC RESEARCH DEPARTMENT
TECHNICAL INFORMATION GROUP
1700 SOUTH SECOND STREET

St. Louis Research and Development Department Report No. 3714 ✓

FINAL REPORT
ON
GAS CHROMATOGRAPHY METHOD DEVELOPMENT - 1970

Job No. 2-21-760.01-8904322

Date: June 10, 1971

Written by: E. M. Emery ✓

Work done by: E. M. Emery ✓
G. M. Gasser
S. M. Kinney
R. L. McKinley
V. W. Saeger
F. E. Strauser

DSW 620508

DISTRIBUTION FOR
REPORT NO. 3714

1. File Copy - South Second Street Library ~~←~~
2. Technical Reports Library - Research Center
3. Library Loan Copy
4. Library Loan Copy
5. Library Loan Copy
6. Circulate to Organic's Director of Technology, R&D Managers, then return to Library*
7. E. Emery
8. R. E. Keller
9. Patent Department - J. E. Maurer - GO
10. W. E. Koerner - GO
11. Ruabon Information Center - Ruabon (via D. Danna - GO)
12. R. A. Geisman - JFQ
13. R. Blowers/H. J. Horner - WGK
14. H. W. Kilbourne/J. Paul Ferrin - Akron
15. J. T. Bell - Anniston
16. J. Graves - Luling
17. O. Dolin - Nitro
18. J. Willmore - Delaware River
19. B. S. K. Fung - Seattle
20. Bill Hamner - Durham
21. Ralph Nelson - Pensacola
22. J. A. Lubkowitz - Pensacola
23. R. W. Wise - Akron
24. R. L. Maute - Texas City
25. G. C. Claver - Springfield
26. E. F. Kaelble - Research Center
27. D. B. Sharp - Research Center
28. D. E. Willis - Research Center
29. M. E. Michaux - (via D. Danna) *Antwerp*
30. Frank Mead - Everett
31. D. E. Baum - (via D. Danna) *Baum*

*Abbreviated report containing only the index, section titles, introduction and summary.

This report contains confidential information which is the property of the Monsanto Company and which shall be disclosed only to duly authorized persons. The recipient is held accountable for the filing and safe custody of this report which must be returned on demand.

DSW 620509

STLCOPCB4094536

INTRODUCTION

This report contains a tabulation of all of the gas chromatographic analytical methods developed in the Organic Chemicals Division St. Louis Research and Development Laboratories during 1970. The complete conditions for each method are given in the attached method reports. A biodegradation test procedure developed by the Physical Chemistry Group is also included in this tabulation.

SUMMARY

Following is a complete listing by title of all of the methods given in this report:

Method No.	Title
70-1	GC Determination of 4-Chlorobiphenyl in Aroclor 1221
70-2	GC Determination of By-Products in Maleic Anhydride Derived from α -Butyrolactone
70-3	GC Determination of Trace Levels of 2-Methyl Benzyl Furan in Phenol Derived from Cumene
70-4	GC Analysis for Mixtures of 3,4-Dichloroaniline and Cyclohexanol
70-5	GC Analysis of Recovered Butanol from the Tributyl Phosphate Process
70-6	GC Analysis of Tributyl Phosphate Reaction Mixtures
70-7	GC Analysis of Cumylphenol Reaction Mixtures
70-8	Improved GC Method for the Determination of Total Succinic, Glutaric and Adipic Acid and Anhydride Species in Mixed Anhydride Material
70-9	GC Determination of α -Methyl Styrene Dimer in Cumene or α -Methyl Styrene
70-10	GC Determination of Impurities in Phthalic Anhydride (<u>o</u> -Xylene Process)
70-11	GC Determination of Sodium Benzoate in Admixtures with Sodium Saccharin
70-12	GC Determination of Low Boilers in Reclaimed Therminol FR1 and FR-2
70-13	GC Analysis of Intermediate Reaction Mass from the Santicizer B-16 Process
70-14	GC Analysis of Reaction Mass from the Diphenyl Ether Process
70-15	Determination of Polychlorinated Biphenyls in Aroclor 5460 by Carbon Skeleton Chromatography

DSW 620510

Method No.	Title
70-16	Determination of Biodegradability of Organic Compounds by the Semicontinuous Activated Sludge Method
70-17	GC Determination of Therminol 66 Contamination in Phthalic Anhydride Process Streams
70-18	GC Determination of Mobiltherm Light Contamination in Phthalic Anhydride Process Streams
70-19	GC Determination of Isomer Distribution in Alpha Olefins
70-20	Improved Method for the GC Determination of Chlorinated Biphenyl Isomers in Aroclor Products
70-21	GC Determination Dipropylene Glycol Contamination in Naphthalene
70-22	GC Determination of Impurities in the BASF Process Phthalic Anhydride

DSW 620511