



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

NOV 21 1986

OFFICE OF
PESTICIDES AND TOXIC SUBSTANCES

MEMORANDUM

SUBJECT: Dicofol - Revised Quality Assurance Plan

FROM: Susan V. Hummel, Chemist
Special Registration Section II
Residue Chemistry Branch
Hazard Evaluation Division (TS-769)

Susan V. Hummel

THRU: *for* Edward Zager, Section Head
Special Registration Section II
Residue Chemistry Branch
Hazard Evaluation Division (TS-769)

L. Cheney

TO: Dallas Wright, Jr.
Quality Assurance Officer
Analytical Chemistry Laboratories
Benefits and Use Division (TS-768)

This memo confirms our recent telephone conversation regarding the QA plan for dicofol analyses (see S. Hummel memo of 9/21/86). The conversation involved Dallas Wright, Jr., Everett Greer, Ralph Sarmiento, and Susan Hummel. The revised QA plan is attached in the Confidential Appendix. The minor changes we agreed on have been made.

Attachment: Confidential Appendix: Attached to copies to
Dallas Wright, R.F., S. Hummel, dicofol S.R.F., PMSD/ISB

cc: R.F., S. Hummel, dicofol S.F., dicofol S.R.F., B. Kapner
(SRB/RD), PMSD/ISB
RDI:EZ:11/20/86:RDS:11/20/86
TS-769:RCB:SVH:svh:RM810:CM#2:11/21/86

TITLE: Analysis of Dicofol Technical

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I. PURPOSE.

Analyses of Kelthane Technical and Mitigan Technical are being requested by Susan Hummel, RCB, to support the Special Review of dicofol. A requirement of the conclusion of the Special Review was that the registrants reduce the amount of DDT related impurities (DDTr) in their technicals to 2.5% immediately, and to 0.1% within 2 years. Recent data indicate that additional DDTr impurities have been identified, and that technicals from both registrants may contain greater than 2.5% DDTr.

The objectives of the project are fourfold.

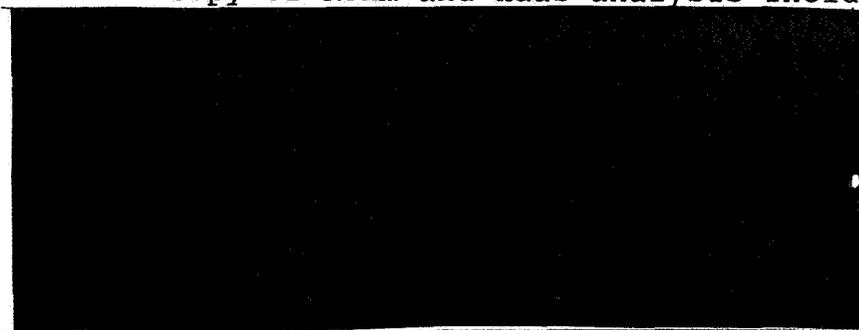
- A. Does Mitigan Technical contain unreported impurities?
- B. Compare the composition of Kelthane and Mitigan Technicals. (presence/absence of peaks at a given retention time, relative peak heights)
- C. Quantitate one sample of each technical.
- D. Generate Ultra Violet and Mass Spectra of each DDTr impurity.

The data generated will be compared to the results obtained by the registrants, and may indicate that further action is required against Makhteshim-Agan. If BUD can ascertain and verify that Mitigan Technical contains greater than 2.5% DDTr, this information may be used for the cancellation of Mitigan Technical. RCB will use the spectra generated to attempt to identify each impurity in dicofol technicals.

II. SAMPLE DESCRIPTION

COB/BUD has already received standards and samples submitted to the Agency by Rohm and Haas, including the following:

Kelthane Technical, Batch 1255, 5 g.
Copy of Rohm and Haas analysis included.



INFORMATION WHICH MAY REVEAL A MANUFACTURING PROCESS IS NOT INCLUDED

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[REDACTED]

COB/BUD has already received an enforcement sample of Mitigan Technical.

Makhteshim-Agan has supplied COB/BUD with standards of each impurity identified in Mitigan Technical, except one

[REDACTED]

COB/BUD has already received standards of the [REDACTED]

To date, EPA is aware of the following DDTr impurities:

[REDACTED]

The known DDTr and non DDTr impurities are to be quantitated. The quantities of other impurities are to be estimated.

III. CHAIN OF CUSTODY

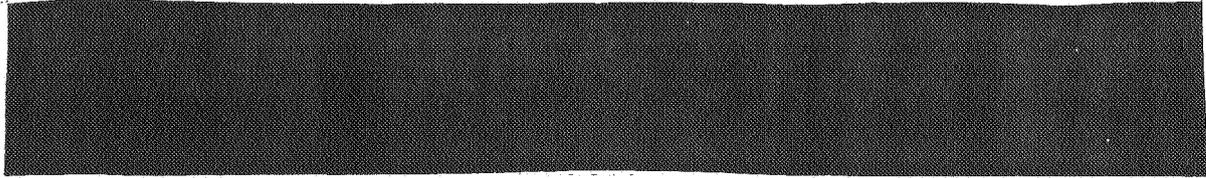
COB/BUD should keep records of the chain of custody of the samples.

IV. METHODOLOGY

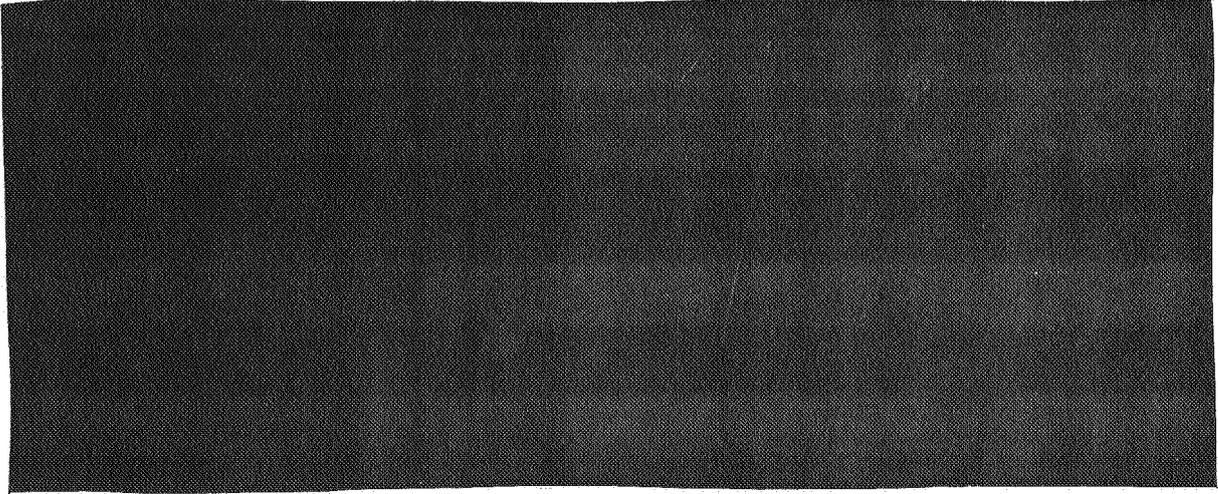
COB/BUD has received the three analytical methods to be used in this project. A brief description of these methods follows.

Rohm and Haas HPLC method

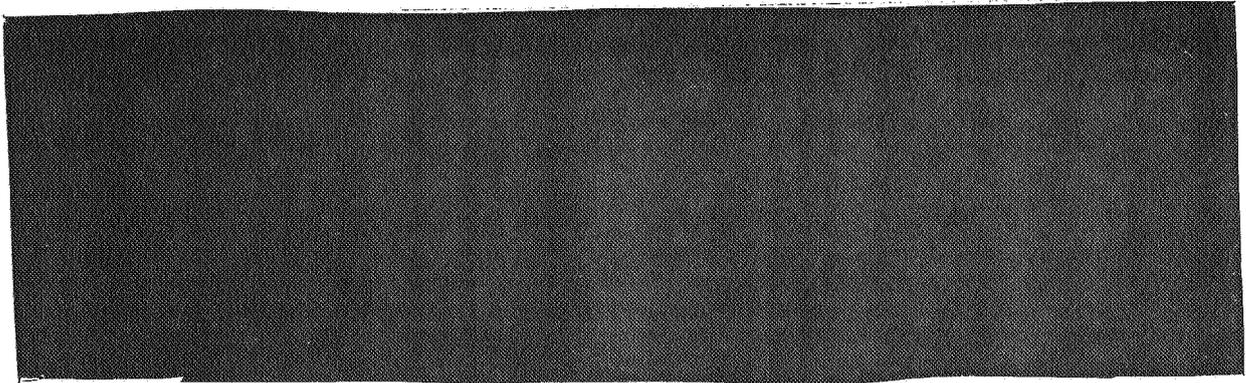
[REDACTED]



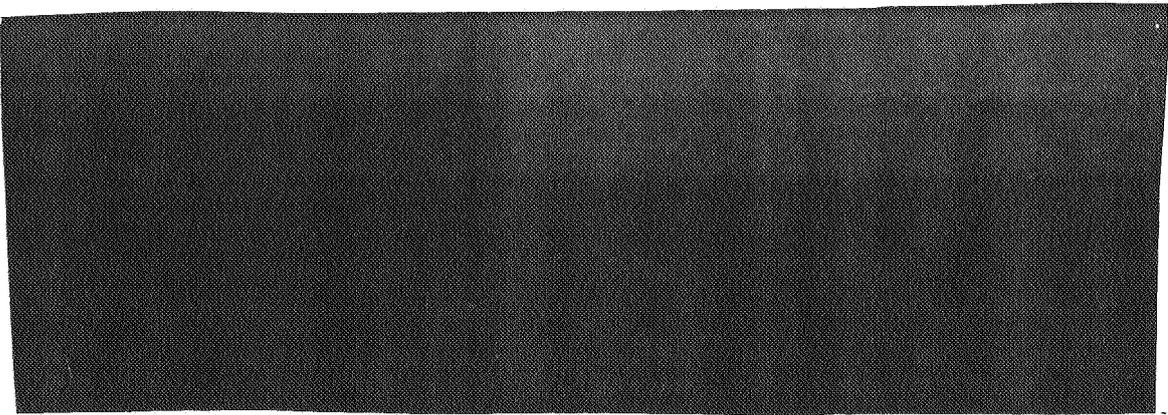
Makhteshim-Agan Method



GC/MS Method

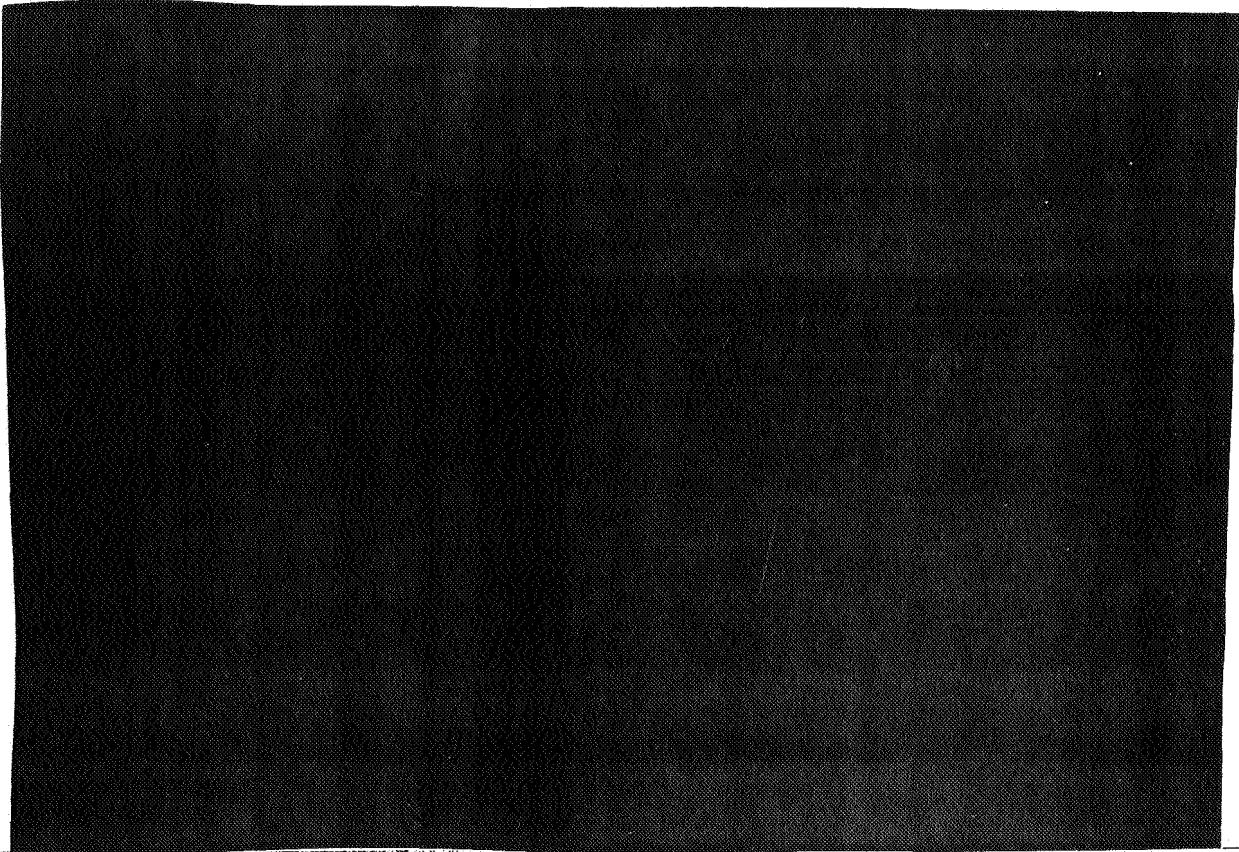


V. QUALITY ASSURANCE



INFORMATION WHICH MAY REVEAL A QUALITY CONTROL PROCEDURE IS NOT INCLUDED

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VI. SAFETY PRECAUTIONS

No unusual safety precautions are necessary for this project.

VII. FINAL REPORT

The final report should be routed to Susan V. Hummel, RCB. The report should include chromatograms generated for each sample or standard mixture, tabulations of each chromatogram including retention time, peak area, area %, and quantitation from standards (for Objective C). The composition of the technical should be expressed as % composition. The results from five samples of each technical should be summarized in a table, with the average, standard deviation, and relative standard deviation (precision) reported.

The report should also include the spectra generated for Objective D. Graphic format is preferable. Mass spectral peaks should be labeled with nominal masses. In addition to the graphic presentation of mass spectra, tabulation of the mass spectra would be helpful.

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