

US EPA ARCHIVE DOCUMENT



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

8

JUL 24 1992

OFFICE OF
PESTICIDES AND TOXIC
SUBSTANCES

MEMORANDUM

SUBJECT: REVIEW OF A FOLIAR RESIDUE DISSIPATION STUDY PROTOCOL
PROPOSED TO FULFILL GUIDELINE 132-1a AND SUPPORT THE
REREGISTRATION OF CHLOROTHALONIL

FROM: Jeff Evans, Biologist *AE*
Reregistration Section
Occupational and Residential Exposure Branch
Health Effects Division (H7509C)

TO: Andrew W. Ertman, PM Team 71
Special Review and Reregistration Division (H7508W)

THRU: *Alan Nielsen*
Alan P. Nielsen, Section Head
Reregistration Section

Larry C. Dorsey, Acting Chief *Larry Dorsey*
Occupational and Residential Exposure Branch
Health Effects Division (H7509C)

Please find the OREB review of

DP Barcode: D179406

Pesticide Chemical Code: 081901

EPA Reg. No.: 50534-188

EPA MRID No.: N/A

Review Time: 2 Days

PHED: N/A

I. INTRODUCTION:

ISK Biotech Corp. has submitted a protocol for a foliar dislodgeable residue study in response to a generic Data Call-In (DCI) for chlorothalonil issued 07/31/91. In the DCI, the following data were required to support the reregistration of chlorothalonil:

<u>158.390 Reentry Protection</u>	
132-1a	Foliar Dissipation
133-3	Dermal Exposure
133-4	Inhalation Exposure

<u>Mixer/Loader/Applicator Exposure Monitoring</u>	
231	Estimation of Dermal Exposure at Outdoor Sites
232	Estimation of Inhalation Exposure at Outdoor Sites
233	Estimation of Dermal Exposure at Indoor Sites
234	Estimation of Inhalation Exposure at Indoor Sites

Chlorothalonil is a fungicide registered for use on field grown agricultural and ornamental crops, for use in greenhouses, and for use as a fungicide when formulated into paints. Chlorothalonil is in toxicity category I for acute inhalation and, is a Group B2 carcinogen ($Q = 1.1 \times 10^{-2}$). Technical chlorothalonil contains the contaminants hexachlorobenzene (HCB) at concentrations of 0.05% (500 ppm) and small amounts of pentachlorobenzonitrile (PCBN). Both substances are carcinogens with HCB being more potent having a Q of 1.7×10^{-1} .

A protocol addressing mixer/loader/applicator exposure monitoring for paint applications was recently reviewed by OREB (See memorandum from J. Evans/OREB to A. Ertman/SRRD dated 06/25/92). Other estimations of mixer/loader/applicator exposure were calculated using surrogate data with subsequent worker exposures ranging from 10^8 to 10^4 . The current protocol addresses a study designed to measure the foliar residue dissipation of chlorothalonil when applied to broccoli, cucumbers, and cherries. The registrant proposes conducting these studies at Ricerca's Ohio Research Facilities. Ricerca is a subsidiary of ISK Biotech and will also be responsible for the analytical portion of the study. The cherry portion of the study was reportedly underway at the time this memorandum was being prepared.

II. DETAILED CONSIDERATIONS:

The research plots are small consisting of at least 8 rows, 100 feet long for the row crops (cucumber and broccoli) and consisting of 5 trees for the orchard crop (cherries). This study appears to meet the climatic, geographic, and correct application timing requirements suggested under Subdivision K. Although the crops will receive the maximum application rates, the row crops may not receive the maximum number of applications

for a growing season. These crops will however be treated at the typical labeled frequency of 7 to 10 day intervals. An on-site automated weather station will be situated in the immediate vicinity of the research plots. However, OREB suggested that relative humidity be included in the meteorological data reporting.

III. CONCLUSIONS:

The protocol as submitted cannot be approved based on the following reasons:

Only 40 leaf punch disks measuring 1.262 cm will be taken per sample rather than 40 leaf punch disks measuring 2.54 cm as required under Subdivision K. Therefore, the number of leaf disks to be taken must increase commensurately to maintain the same approximate leaf area per sample. Furthermore, there was no specific mention of duplicate samples being taken which are also required under Subdivision K.

There was no detailed discussion of method validation, field fortification, or storage stability data provided in the protocol. These parameters were mentioned as being discussed in a separate Ricerca document not provided with the protocol. There was also no discussion regarding the contaminants HCB or PCBN in the protocol.

There was no mention of dermal or inhalation exposure studies and it is unlikely that any data regarding these guidelines can be obtained from plots as small as those discussed above. Please note that the Agency now requires that foliar dissipation and soil dissipation studies be conducted concurrently with dermal and inhalation exposure studies, and that the dermal and inhalation exposure studies were included in the DCI.

At best these studies may provide supplemental data only.

IV. REFERENCES:

Undated Memorandum from P. Poli, HCB Review Manager to HCB Team Members Regarding the Hexachlorobenzene Option Paper from the Special Review Branch.

Draft 1988 Guidance Document for Chlorothalonil.

cc: J. Evans, OREB
W. Waldrop, SRRD (H7508W)
Correspondence File
Chemical File (chlorothalonil)



13544



R117886

Chemical: Chlorothalonil

**PC Code:
081901**

HED File Code: 19000 Protocol/Guidance

Memo Date: 7/24/1992

File ID:

Accession #: 412-06-0009

**HED Records Reference Center
2/21/2006**

