



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
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OFFICE OF
PREVENTION, PESTICIDES
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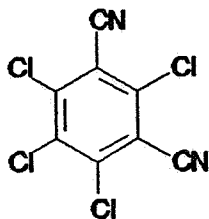
MEMORANDUM

SUBJECT: Chlorothalonil: ISK Biotech Response to 7/31/91
DCI: Guideline 174-A-SS, Rotational Crops Data:
CBRS No 10814: DP Barcode D183991.

FROM: William O. Smith, Ph.D., Chemist *William O. Smith*
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THROUGH: Paula Deschamp, Acting Section Head *Paula Deschamp*
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TO: Lois Rossi/Andrew Ertman
Reregistration Branch
Special Review & Reregistration Division (H7508W)



ISK Biotech has responded by letter (Ralph Burton, ISK-Biotech to E. Ertman; 8/4/92) to requirements for rotational crop data.

The 7/31/91 Chlorothalonil DCI required residue data for rotational crops to determine rotational label requirements and the need for tolerances due to inadvertent residues in rotational crops. A 12-month rotational crop restriction for all chlorothalonil labels had already been imposed in the 1984 Chlorothalonil Registration Standard.

The qualitative nature of the residue in plants is not adequately understood; however, as indicated in a review of chlorothalonil metabolism in plants (S. Willett, CBTS No. 5006, 6/22/89), the major terminal residues identified in plants are chlorothalonil



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and its metabolite 4-hydroxy-2,5,6-trichloroisophthalonitrile (SDS-3701), and in rotational crops, its soil metabolite 3-carboxy-2,5,6-trichlorobenzamide (SDS-46851). Tolerances for residues are currently expressed in terms of the combined residues of chlorothalonil and its metabolite SDS-3701 (40 CFR §180.275).

CONCLUSIONS

1. Contingent upon satisfactory resolution of plant metabolism data requirements, ISK-Biotech has met the requirements of Guideline 174-A-SS as specified in the 7/31/91 Chlorothalonil DCI.
2. If it is determined that metabolites of chlorothalonil other than SDS-3701 are of concern in crops, then CBRS may require further rotational crop studies and the need for rotational tolerances and label restrictions may have to be reevaluated.

DETAILED CONSIDERATIONS

- REGISTRANT'S RESPONSE TO 7/31/91 DCI

The registrant indicates that studies that should be considered as satisfying rotational crop data requirements include MRIDs 00139550, 00156477, 415648-19 through -27, 415648-32 through -46 and 42090109.

The registrant has previously submitted a petition (2E4050) for exemption from requirement of tolerances for SDS-46871 and SDS-3701 as inadvertent residues in rotated crops, which was amended after review to exempt only SDS-46851. Applications have also been submitted to the Agency for amended registration for ISK-Biotech's chlorothalonil end-use products to delete the rotational crop restriction from labels.

In the present submission the registrant supplied copies of the final rule published in the Federal Register 57:24552 granting the exemption from the requirement of a tolerance for residues of the soil metabolite SDS-3701 as inadvertent residues in rotated crops. They also supplied a copy of a letter from the Agency (Cynthia Giles-Parker/PM 22, 6/4/92) provisionally accepting the deletion of the rotational crop restriction from labels.

- CBRS COMMENTS

The registrant's requests for tolerance exemption and deletion of rotational crop restrictions from chlorothalonil labels were reviewed in Chemistry Branch I (CBTS) by J. Stokes (Stokes to PM 22 re PP#2E4050; 3/26/92; No CBTS # or DB Barcode). It was

concluded that submitted sample analyses for inadvertent residues of SDS-3701 in lettuce, spinach, celery, broccoli, cabbage, turnip, collard, carrot, red beet, sugar beet, potato, sweet potato, radish, onion, wheat, sorghum, oat, corn, rice, peanut, soybean, cotton, rapeseed, pea, bean, tomato, pepper, cantaloupe, cucumber, and squash demonstrated residue below background levels (<0.01 ppm). Therefore, a tolerance is not required for residues of SDS-3701 in rotational crops. SDS-46851 was the only residue of chlorothalonil that was detected in rotated crops. Because of the low toxicity of this soil metabolite, an exemption from the requirement for a tolerance was granted by the Agency.

The PPIs (days between last application and planting date) ranged from 134 to 280 days and PHIs (days between last application and harvest data) ranged from 100 to 420 days. Based upon the residue data for SDS-3701 in these rotated crops, it was concluded that no time limitation for plantback was needed. Therefore, since the label rotational crop restriction was added previously to cover metabolite SDS-3701, CBTS recommended that the 12-month restriction be removed from the label.

It should be noted that the recommendations above were made based on our present understanding of plant metabolism, which is incomplete. If it is determined that other metabolites of chlorothalonil are of concern in crops then CBRS may require further rotational crop studies and the need for rotational tolerances and label restrictions may have to be reevaluated.

cc: W. Smith, Chlorothalonil Reg. Std. File, SF, RF.

H7509C:CB-II:WOS:wos:Rm805A:CM#2:X5353:11/24/92
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