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

JUN 1 1987

MEMORANDUM

OFFICE OF
PESTICIDES AND TOXIC SUBSTANCES

SUBJECT: ID. No. 029001: 1,3-Dichloropropene (Telone): Response to Registration Standard Data Call-In. Final Plant Metabolism Protocols. No MRID No.; RCB No. 2246

FROM: J. Garbus, Chemist
Residue Chemistry Branch
Hazard Evaluation Division (TS-769)

THRU: A. R. Rathman, Section Head
Special Registration Section I
Residue Chemistry Branch
Hazard Evaluation Division (TS-769)

TO: G. Werdig/S. Lewis, PM-25
Registration Division (TS-767c)

The Registration Standard for 1,3-dichloropropene required a study of the metabolism and distribution of the material in plants grown in treated soil. Dow Chemical Co., Midland, MI submitted protocols for these studies for RCB's approval. The RCB review, (D. Edwards, 11/5/86), suggest additions and modifications to the protocols in order to bring them into conformity with specific requirements of the Registration Standard.

Dow has submitted, for informational purposes, revised, "final" protocols for the studies. According to Dow's schedule, the studies should be underway at present. For informational purposes, we shall give RCB's comments and the manner these suggestions were incorporated into the final protocols.

RCB suggested:

1) In addition to the method of analysis (radio-HPLC) samples should be analyzed for metabolites using methods which could be used for enforcement (i.e., GC).

Dow has added GC to the description of analytical methods. The pertinent sentence in the protocol now reads, "... the extracts will be examined by radio-HPLC and GC for the presence of 1,3-dichloropropene and metabolites."

2) As the stability of 1,3-dichloropropene in frozen samples is poor, we recommend that frozen samples be analyzed within 2 weeks

of harvest and that frozen samples be fortified with telone and analyzed to determine the degree of loss during storage.

Dow has added a paragraph to the final protocol to the effect that a separate storage stability study will be undertaken.

3) Attempts must be made to release and identify ^{14}C-conjugates and/or determine the nature of ^{14}C incorporated into natural plant constitiuents

Dow's protocol now includes the statement, "Insoluble residues will be examined for conjugate formation and for natural incorporation of ^{14}C-activity."

Conclusion

Dow has revised its protocols for plant metabolism studies of 1,3-dichloropropene to include suggested additions and modifications presented in RCB's review of the draft, proposed protocol.

cc: S.F., R.F., Reg. Std. F., Circ., Reviewer, PMSD/ISB
RDI: ARR:5/29/87:RDS:5/29/87
TS-769:RCB:JG:jg:RM-803a:CM#2:557-1439:5/29/87

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