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

MAR 2 1983

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OFFICE OF
PESTICIDES AND TOXIC SUBSTANCES

MEMORANDUM

SUBJECT: EPA Reg. Nos 464-448, 464-523. Chlorpyrifos
on tobacco

FROM: Edward Zager, Chemist
Residue Chemistry Branch
Hazard Evaluation Division (TS-769) *Edward Zager*

THRU: Charles L. Trichilo, Chief
Residue Chemistry Branch
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TO: Jay Ellenberger, Product Manager #12
Insecticide-Rodenticide Branch
Registration Division (TS-767)

In this amendment the petitioner has submitted residue data for cigarette smoke, requested by TOX.

Tobacco fortified with 0.1, 1.0 and 10 ppm chlorpyrifos was made into cigarettes and smoked by cigarette machines with the smoke passing through a single cambridge filter.

Residues of chlorpyrifos were extracted from filters with hexane, passed through a deactivated silica gel column and the resulting hexane eluant partitioned against acetonitrile, cleaned-up on a florisil and acidic alumina columns. Residues were quantified by GC equipped with a flame photometric detector. Reported recoveries from filters fortified with 0.04-0.20 ppm chlorpyrifos averaged 100%.

Chlorpyrifos residues in mainstream smoke from tobacco fortified at 0.10 ppm, which is comparable to the max 0.12 ppm level of chlorpyrifos and 3,5,6-trichloro-2-pyridinol expected from the proposed use (see L. Bradley's memo of 6/18/80) were equivalent to 0.02-0.03 ppm per cigarette.

Based on the above data we conclude that residues of chlorpyrifos and its metabolite 3,5,6-trichloro-2-pyridinol will not exceed 0.03 ppm in cigarette smoke as a result of this amended use.

Conclusion

1. Residues of chlorpyrifos and its metabolite 3,5,6-trichloro-2-pyridinol will not exceed 0.03 ppm in mainstream cigarette smoke from this amended use.

Recommendation

We have no objections to this amended registration.

cc: R.F., Circu, Reviewer, Amended use file, Chlorpyrifos S.F.
RDI:Section Head:RJH>Date:2/24/83:RDS>Date:2/24/83
TS-769:RCB:Reviewer:E.Zager:LDT:557-7324:CM#2:RM:810>Date:3/2/83