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OFFICE OF
PESTICIDES AND TOXIC SUBSTANCES

MEMORANDUM

SUBJ: EPA Reg.#239-2363. Amended Use, Lindane on Tomatoes
[no access. no.; RCB no. 1163]

FROM: Allan J. Reiter, Ph.D., Chemist
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THRU: Edward Zager, Section Head
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TO: George La Rocca, PM Team #15
Registration Division (TS-767C)

Chevron Chem. Co., Ortho Agric. Div. proposes to amend their label for the use of lindane (ISOTOX[®] Lindane Spray No. 200) insecticide to include transplant/irrigation application.

Existing tolerances for lindane (gamma isomer of benzene hexachloride) include a wide variety of rac's including tomatoes at 3 ppm (40CFR180.133).

Registered uses of lindane on tomato plants included preplant soil (2 lb ai/A), foliar (0.75 lb ai/A), seed treatment (2 oz ai/100 lb of seed), and greenhouse fog (1.5 oz ai/50,000 cu ft) applications. Restrictions include no application after fruiting and repeated greenhouse applications. The proposed use involves application of 0.14 lb ai/A in 800 gal water as a transplanting irrigation solution for tomato plants.

Analytical methodology suitable for enforcement purposes appears in PAM I or the AOAC Method of Analysis, 13th Ed., 1980. It involves extraction with acetonitrile and celite, partitioning into petroleum ether by addition of saline solution followed by cleanup on fluorisil. Separation and measurement is accomplished by GC/ECD.

No new residue data were submitted with this amended label. No residue data on transplant irrigation application of lindane to tomato plants appears in the permanent petition which reviews the establishment of a permanent tolerance on tomatoes (PP#9F0833, Memo of W. Cox, 4/7/69).

Furthermore, according to the Residue Chemistry Chapter for the Lindane Registration Standard (6/7/85, pg. 63) "there are no reliable lindane residue data on tomatoes which reflect the [current] uses. Therefore, the tolerance level of 3 ppm is not supportable. Residue data from CA, FL, OH/PA, NJ, IN, MI and SC/TN are required to support a tolerance on this crop."

Conclusion and Recommendation

In the absence of supportable residue data for transplant irrigation use of lindane on tomato plants, we recommend against the proposed amended use.

cc: PM #15, Circu., Reiter, Lindane S.F., Amended Use S.F.,
PMSD/ISB

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