AUG 24 1983

RESIDUE CHEMISTRY BRANCH, HED
PETITION REVIEW QUICK FORM

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

THRU: Charles L. Trichilo, Chief
Residue Chemistry Branch
Hazard Evaluation Division (TS-769)

TO: Hoyt Jamerson PM No. 43
Registration Division (TS-767)

and

Toxicology Branch
Hazard Evaluation Division (TS-769)

1. Petition No.(s).: 3E2886
2. Chemical(s): Chlorpyrifos
3. Tolerance Proposal (RAC's & Levels): 0.05 ppm m or on mushrooms
4. Petitioner: IR-4 and Ag Exp Stns of DE, MD, MI, PA, and the USDA
5. Tolerance Expression: Chlorpyrifos and its metabolite 3,5,6-trichloro-2-pyridinol
6. Established Tolerances: many at level from 0.05 to 15 ppm. Sec. 180.342.
7. Letter(s) of Authorization (if applicable): Letter of 4/27/83. Robert Bischoff, Dow to Hoyt Jamerson IR-4
8. Formulation(s): Lorsban 4E, contains 4 lbs a.i./gallon. EPA Reg. No. 464-448.
9. Inerts Status: All inerts are cleared under Section 180.1001

10. Manufacturing Process: See PP# 4F1415, memo of 5/3/74, A. Smith.

11. Proposed Use(s): For control of sciarid flies, Lorsban 4E is to be applied at a rate equivalent to 15 ppm a.i., based on the weight of the wet compost, in sufficient water to obtain desired moisture content in compost. One application per crop, at spawning, [illegible]. (This must [illegible] mushrooms [illegible] weeks after spawning.)

12. Plant Metabolism Data on: Corn and Beans (PP#[illegible]) Apples and soybeans (PP# 3F2281).

13. Plant Residues Comprised of: Parent plus TCP metabolite.

14. Plant Metabolism Data Translatable Here: Since the metabolism on corn, beans, apples and soybeans is similar, we consider the metabolism in plants to be understood.

15. Nature of Plant Metabolism Data is/~~is not~~ adequately defined.

The Residue of Concern is: parent plus TCP

16. Animal Metabolism Data on: N/A. No feed item associated with this petition.

17. Animal Residues Comprised of: N/A

18. Animal Metabolism Data Applicable Here: N/A

19. Nature of Animal Metabolism Data is/is not adequately defined.
The Residue of Concern is: N/A

20. Analytical Methods (reference or brief description):
For this petition only TCP was analyzed as per Fotal Bishop letter of 9/19/80 to IR-4. Residues are hydrolyzed with base, cleaned up by partitioning and column chromatography then silylated before determination (GC) as TCP. Residues are reported as TCP.

21. Method Validation (crop recoveries): Mushroom samples fortified at 0.5-1.0 ppm gave recoveries of 100-120%.

22. Method Validation (control values): <0.05 ppm

23. Residues Determined by Method: TCP method, above

24. Enforcement Methodology is/[redacted] available. 3

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25. Residue Data (crop and residue range (ppm) from Proposed Use):

Crop: mushrooms: no residues detected (<0.05 ppm TCP; since residues are

~~Crop~~: reported as TCP (MW=198.4) actual residues of chlorpyrifos (MW=350.6)

~~Crop~~: may be higher, to about 0.09 ppm if all TCP derived from hydrolysis of parent.

Other Comments: A recent petition PP#3F2804 proposes [illegible] (in place of existing tolerances) in which the level of parent is specified. This type of tolerance would not be appropriate for mushrooms unless additional residue data in which parent is determined are submitted.

26. Residues will not exceed proposed tolerance on (commodities) —

and ~~will~~ may exceed proposed tolerance on (commodities) mushrooms; a tolerance of 0.1 ppm is needed.

27. Livestock Feeding Studies on (species): N/A

28. Animal Feeding Levels: N/A

29. Animal Residue Ingestion Levels from Proposed Crop Tolerance Levels (proposed tol. level x % in diet): N/A ppm in beef cattle; ______ ppm in dairy cattle/goats; ______ ppm in hogs; ______ ppm in horses; ______ ppm in sheep; ______ ppm in poultry.

30. Livestock Tolerances are Adequate in (species) N/A ______, but not adequate in ______

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31. Livestock Tolerances Need to be Established: yes/no. If yes (species/levels): N/A

32. Other Comments: _____

33. Other Considerations: _____

34. Additional Data Needed: _____

35. Recommendations: Because only TCP was determined residues of chlorpyrifos per se may be higher than the limit of detection for TCP 0.05 ppm. We recommend against the proposed tolerance but could recommend for a tolerance of 0.1 ppm. TOX considerations pending.

36. Other Comments under Recommendations: _____

37. Compatability with Codex Tolerances: Codex tolerance for chlorpyrifos on mushrooms is 0.05 ppm but only parent is regulated. Codex sheet attached.

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cc: RF, Circ, Reviewer, Thompson, TOX, EEB, EFB, FDA, PP# 3E2886

Approved: Quick [signature] 7/27/83; Schmitt [signature] 7/27/83

Arvie

INTERNATIONAL RESIDUE LIMIT STATUS

CHEMICAL Chlorpyrifos

CCPR NO. 17

PETITION NO. 3E2886

Codex Status

/ / No Codex Proposal Step 6 or above

Proposed U.S. Tolerances

Residue (if Step 9):

chlorpyrifos

Crop(s)	Limit (mg/kg)
Mushrooms	0.05 ppm

Residue: Parent plus TCP

Crop(s)	Tol. (ppm)
mushrooms	0.05 ppm

CANADIAN LIMIT

Residue: chlorpyrifos plus TCP

Crop	Limit (ppm)
None on the above commodity.	

MEXICAN TOLERANCIA

Residue:

Crop	Tolerancia (ppm
None on the above commodity.	

NOTES:

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