

US EPA ARCHIVE DOCUMENT

RESIDUE CHEMISTRY BRANCH, HED
PETITION REVIEW QUICK FORM

JUL 15 1982

FROM: Jesse E. Mayer, Chemist
Residue Chemistry Branch
HED (TS-769)

THRU: Charles S. Trichilo, Chief G.P. Schmitt for
Residue Chemistry Branch
HED (TS-769)

TO: Hoyt Jamerson, PM43
Registration Division (TS-761)
and
Toxicology Branch, HED (TS-769)

1. Petitioner: IR-4 and Ag Exp Stations of MA, NJ, & WA
2. Petition No(s): ZE2682
3. Chemical(s): Chlorpyrifos
4. Tolerance Proposal (RAC's & Levels): C. raspberries @ 1 ppm
5. Tolerance Expression: Chlorpyrifos (O,O-diethyl O-(3,5,6-tri-chloro-2-pyridyl) phosphorothioate and its metabolite 3,5,6-trichloro-2-pyridinol)
6. Established Tolerances: 40 CFR 180.342: Various RAC's ranging from 0.01 in eggs to 15 ppm on peanut hulls
7. Letter(s) of Authorization (if applicable): Letter of 4/28/82 from Dow Chemical USA.
8. Formulation(s): Lorsban® 4E contains 4 lbs active ingredient 40.7% Chlorpyrifos
9. Inerts Status: All cleared in 40 CFR 180.1001
(Review of 3/4/82, PPH-1F2575/1H5322)

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10. Manufacturing Process: discussed with PPH# 4F1445
(memo of 5/3/74). We do not expect impurities in
Dursban® to present a residue problem.
11. Proposed Use(s): Apply 1.5 lb ai / A : for cranberry weevil
control, apply once at bud dev. & once after 100% bloom. For
other insects use when present but not more than
2/yr & with a ^{14c lim than} 60 day PHI.
12. Plant Metabolism Data on: No metabolism data ^{were} submitted
with petition. Studies on cranberry leaf with PPH# 3F130
Also, studies on corn (3F130b), apples and soybeans (OF 2281).
13. Plant Residues Comprised of: 3,5,6-trichloro-2-pyridyl phosphate,
ethyl-3,5,6-trichloro-2-pyridyl phosphate, 3,5,6-
trichloro-2-pyridinol (TCP), and parent compound.
14. Plant Metabolism Data Translatable Here: (see #12)
15. Nature of Plant Metabolism Data (is) is not adequately defined.
 The Residue of Concern is: Dursban and TCP. (See #5)
16. Animal Metabolism Data on: None submitted. Data
available on rats, cows and goats.
17. Animal Residues Comprised of: See #5

18. Animal Metabolism Data Applicable Here: None needed
since we do not consider that the proposed
use involves feed items.
19. Nature of Animal Metabolism Data (is) is not adequately defined.
 The Residue of Concern is: See #5
20. Analytical Methods (reference or brief description): The sample
is extracted with methanol in a basic medium. An aliquot
is acidified and partitioned with benzene which is
chromatographed on acidic alumina column. The column is
eluted with diethyl ether which is part. with NaHCO₃ soln.
fol. by acidification and part. with ϕ . An aliquot of the
 *
21. Method Validation (crop recoveries): _____
Cranberries: avg. recovery 110%
22. Method Validation (control values): < 0.03 - 0.06 ppm
23. Residues Determined by Method: 3,5,6-trichloro-2-pyridinol
(Chlorpyrifos and intermediate cpts hydrolyzed to TCP in
initial step with NaOH.) Residues are calc. as chlorpyrifos.
24. Enforcement Methodology (is) is not available.
 * ϕ phase is treated with BSA to form the
 pyridinol trimethylsilyl derivative, which is
 determined by GLC.

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

Crop (ppm range): cranberries / 1.55 - 1.75 ppm *

Crop (ppm range): _____

Crop (ppm range): _____

Other Comments: * All residue was determined as TCP chloroxyrifos. This calculation probably results in a reporting of somewhat higher residue levels than are actually present from the proposed use.

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

cranberries

and will exceed proposed tolerance on (commodities) N/A

27. Livestock Feeding Studies on (species): N/A (see #18)

28. Animal Feeding Levels: _____

29. Animal Residue Ingestion Levels from Proposed Crop Tolerance Levels (proposed tol. level x % in diet): _____ 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) _____, _____, _____, but not adequate in _____

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

32. Other Comments: Although no meat and milk tolerances are specified for these uses, tolerances have already been established for meat and milk in connection with other uses.

33. Other Considerations: Water from treated bays and drainage ditches from bays were analyzed for residues of chlorpyrifos and/or TCP. Maximum residue reported was 0.006 ppm. There would be no problem if bay water were used to irrigate other crops.

34. Additional Data Needed: None

35. Recommendations: Toxicology considerations for setting, we recommend for the proposed tolerances.

36. Other Comments under Recommendations: _____

37. Compatibility with Codex Tolerances: No conflict seen attached Codex sheet.

INTERNATIONAL RESIDUE LIMIT STATUS

CHEMICAL chlorpyrifos

PETITION NO ZE2682

CCPR NO. 17

Reviewer: Jesse E. Meyer

Codex Status

Proposed U. S. Tolerances

No Codex Proposal
Step 6 or above

Residue (if Step 9): _____

Residue: chlorpyrifos

Crop(s) Limit (mg/kg)

Crop(s) Tol. (ppm)

None (on cranberries)

cranberries 1 ppm

CANADIAN LIMIT

MEXICAN TOLERANCIA

Residue: _____

Residue: _____

Crop Limit (ppm)

Crop Tolerancia (ppm)

None (on cranberries)

None (on cranberries)

Notes:

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