

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 *GP 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): 2E2682
3. Chemical(s): Chlorpyrifos
4. Tolerance Proposal (RAC's & Levels): Cranberries @ 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 a.i./gal 40.7% Chlorpyrifos
9. Inerts Status: All cleared in 40 CFR 180.1001
(Review of 3/4/82, PPH-1F2575/1H5322)

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 then} 60 day PHI.
12. Plant Metabolism Data on: No metabolism data ^{were} submitted
with petition. Studies on cranberry bean 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): crabapple / 1.55 - 1.75 ppm *

Crop (ppm range): _____

Crop (ppm range): _____

Other Comments: * All residue was determined as TCP
and not as chlorpyrifos. This calculation probably results in a
reporting of somewhat higher residue levels than are actually present from the proposed

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

crabappleand will exceed proposed tolerance on (commodities) N/A27. 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 _____

_____, _____, _____, _____

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31. Livestock Tolerances Need to be Established: yes/no. If yes (species/levels): _____
32. Other Comments: Although no meat and milk tolerances are given 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.

cc: RF, Circ, Reviewer, Thompson, Tox, EEB, EFB, FDA, PP#

Approved: Quick 7/14/82

RK

Schmitt

RLS

17/14/82

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INTERNATIONAL RESIDUE LIMIT STATUS

CHEMICAL chlorpyrifos

PETITION NO ZE2682

CCPR NO. 17

Reviewer: Jean E. Mayer

Codex Status _____

Proposed U. S. Tolerances _____

☐ No Codex Proposal
Step 6 or above

Residue (if Step 9): _____

Residue: chlorpyrifos

Crop(s) Limit (mg/kg)

None (on cranberries)

Crop(s) Tol. (ppm)

cranberries 1 ppm

CANADIAN LIMIT

Residue: _____

Crop Limit (ppm)

None (on cranberries)

MEXICAN TOLERANCIA

Residue: _____

Crop Tolerancia (ppm)

None (on cranberries)

Notes:

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