

US EPA ARCHIVE DOCUMENT

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PM50/ISB

1765B

RESIDUE CHEMISTRY BRANCH, HED
PETITION REVIEW QUICK FORM

FROM: GARY OTAKIE, Chemist *Gary Otakie*
Residue Chemistry Branch
Hazard Evaluation Division (TS-769)

THRU: JOHN ONLEY, SECTION HEAD *John Onley*
Residue Chemistry Branch
Hazard Evaluation Division (TS-769)

TO: HOYT JAMERSON, PM 43
Registration Division (TS-767)

and

Toxicology Branch
Hazard Evaluation Division (TS-769)

1. Petition No(s):: 7E 3537 : RCB#-2486
2. Chemical(s): PENDIMETHALIN
3. Tolerance Proposal (RAC's & Levels):
GARLIC AT 0.1 PPM
4. Petitioner: IR-4
5. Tolerance Expression: PENDIMETHALIN[N-(1-ETHYLPROPYL)-3,4-DIMETHYL-2,6-DINITROBENZENAMINE] AND ITS METABOLITE 4-(1-ETHYLPROPYL)AMINO]-2-METHYL-3,5-DINITROBENZYL ALCOHOL
6. Established Tolerances: 40 CFR 180.361
A VARIETY OF COMMODITIES FROM 0.01 PPM IN SUNFLOWER SEEDS TO 0.05 PPM IN PEANUT HULLS
7. Letter(s) of Authorization (if applicable): M. Galley-
AMERICAN CYANAMID COMPANY; 6/1/87
8. Formulation(s): PROWL[®] HERBICIDE, EPA REG. NO. 241-243-ZA
4 LBS A.I./GAL E.C.
9. Inerts Status: CLEARED UNDER SEC. 180.1001, N-NITROSO
CONTAMINANT ≤ 60 PPM

10. Manufacturing Process: DETAILED IN 5/8/75 REVIEW
(A. SMITH) PP # 5F1556 ; MODIFIED TO LOWER N-
NITROSOAMINES IMPURITIES (REF. 6/13/86 AND 6/25/86 REVIEWS
IN RESPONSE TO STD. G. MAHJISANI)
11. Proposed Use(s): AS A PREEMERGENCE, POSTEMERGENCE,
OR SPLIT APPLICATION ; APPLY 1.5 TO 3.0 PTS/ACRE (0.75-1.5 LBS A.I./A)
IN A MINIMUM OF 10 GALS WATER/ACRE ; DO NOT EXCEED 3
PTS./ACRE ; DO NOT APPLY WITHIN 5 MONTHS OF HARVEST.
PROWL WILL NOT CONTROL EMERGED WEEDS ; DESTROY EXISTING
WEED BEFORE APPLICATION. TREATMENT IS MOST EFFECTIVE WHEN
ADEQUATE RAINFALL OR OVERHEAD IRRIGATION IS RECEIVED
WITHIN 7 DAYS AFTER APPLIC. USE IS LIMITED TO STATES OF CA, NV,
AND OR.
12. Plant Metabolism Data on: REF. SUMMARY DISCUSSION OF
E. T. HAEBERER, PP # 4F3121, 8/20/84 [SWEET CORN,
BEANS, POTATOES, RICE, COTTON, PEANUTS AND TOMATOES]
13. Plant Residues Comprised of: PARENT, PENDIMETHALIN AND ITS
METABOLITE 4-[(1-ETHYPROPYL)AMINO]-2-METHYL-3,5-
DINITROBENZYL ALCOHOL
14. Plant Metabolism Data Translatable Here: # 12
15. Nature of Plant Metabolism Data (is/is not) adequately defined x
 FOR THE PURPOSE OF THIS PETITION ONLY.
 The Residue of Concern is: PER # 13
16. Animal Metabolism Data on: N/A. THERE ARE NO ANIMAL FEED
ITEMS ASSOCIATED WITH THE PROPOSED USE ON GARLIC.

17. Animal Residues Comprised of: N/A. SEE # 16
18. Animal Metabolism Data Applicable Here: N/A. SEE # 16
19. Nature of Animal Metabolism Data is/is not adequately defined.
The Residue of Concern is: N/A. SEE # 16
20. Analytical Methods (reference or brief description):
METHODS FOR PARENT AND METABOLITE SIMILAR TO METHODS
IN DISCUSSION OF METHODS BY E.T. HAEBERER,
PP #. 4F 3121, 8/20/84 (GRAPES), EXCEPT 90 CM GC
COLUMN RATHER THAN 180 CM WAS USED. VALIDATED
SENSITIVITY FOR BOTH COMPOUNDS IS 0.05 PPM.
PENDIMETHALIN IS ALSO COMPLETELY RECOVERED BY THE (LUKE) PAM I
MULTIRESIDUE PROCEDURE.
21. Method Validation (crop recoveries): PENDIMETHALIN AND
4-[(1-ETHYLPROPYL)AMINO]-2-METHYL-3,5-DINITROBENZYL ALCOHOL - 0.05-
0.25 FERTILIZATIONS; RECOVERY 88-100% and 84-103%,
RESPECTIVELY.
22. Method Validation (control values): PARENT AND
METABOLITE ; < 0.05 PPM
23. Residues Determined by Method: PENDIMETHALIN AND
ALCOHOL METABOLITE DETERMINED BY SEPARATE METHODS
PER # 20
24. Enforcement Methodology (is) is not available. (IN PAM I AND II)

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

Crop: GARLIC (FRESH), PHI 152-201 DAYS,
APPLICATION RATE 1.5 - 4.0 LBS A.I./ACRE
(1X - 2.67X). TEST SITES AT SALINAS, CA;
BAKERSFIELD, CA; AND GRANTS PASS, OR.

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PENDIMETHALIN-ALL FRESH AND DEHYDRATED SAMPLES <0.05PPM.
ALCOHOL METABOLITE-ALL FRESH AND
DEHYDRATED SAMPLES <0.05 PPM.

Other Comments: 3 FIELD TRIALS (2 IN CA, 1 IN OR),
FROZEN STORAGE 2-6 MONTHS, STORAGE STABILITY DATA FORTIFIED
AT .05, .10, AND .25 PPM: PARENT AFTER 3 MOS. 94-100% REMAIN; METABOLITE AFTER 6 MOS
83-92% REMAIN.

26. Residues will not exceed proposed tolerance on (commodities) 83-92% REMAIN.

GARLIC (0.10 PPM)

and will exceed proposed tolerance on (commodities) _____

27. Livestock Feeding Studies on (species): N/A. SEC #16

28. Animal Feeding Levels: N/A SEC #16

29. Animal Residue Ingestion Levels from Proposed Crop Tolerance Levels (proposed tol. level x % in diet): _____ ppm in

N/A

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 _____

31. Livestock Tolerances Need to be Established: yes/no. If yes (species/levels): N/A
32. Other Comments: GARLIC IS ON MINOR CROPS LIST (FR, VOL. 51, P-11344, 4/2/86). FOR FUTURE TOLERANCES ADDITIONAL PLANT METABOLISM DATA MAY BE NEEDED, AS SPECIFIED IN THE REG. STD. DATED MARCH 1985.
33. Other Considerations: REGISTRATION STD. ISSUED 3/85.
34. Additional Data Needed: NONE. AVAILABLE DATA WILL SUPPORT TOLERANCE (0.10 PPM) WITH REGIONAL REGISTRATION (CA, NV, AND OR)
35. Recommendations: TOX AND EAB CONSIDERATIONS PERMITTING, RCB RECOMMENDS IN FAVOR OF THE ESTABLISHMENT OF THE PROPOSED TOLERANCE.
36. Other Comments under Recommendations: PLACE UNDER SUBSECTION 40 CFR 180.361(b) SINCE A TOLERANCE WITH REGIONAL REGISTRATION IS INVOLVED.
37. Compatibility with Codex Tolerances: N/A. SEE ATTACHMENT