RESIDUE CHEMISTRY BRANCH, NED
PETITION REVIEW QUICK FORM

FROM: John H. Onley, Ph.D., Chemist, Section Head
Residue Chemistry Branch
Hazard Evaluation Division (TS-769)

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

TO: Hayt Jamerson, Minor Uses Officer
Registration Division (TS-767)

and

Toxicology Branch
Hazard Evaluation Division (TS-769)

1. Petition No(s): 7E3532; RCB*-2493; MRID*-402248-00
2. Chemical(s): Dimethazine (Command)
3. Tolerance Proposal (RAC's & Levels): pumpkin @ 0.1 ppm

4. Petitioner: IR-4
5. Tolerance Expression: Residues of 2-[2-(2-chlorophenyl)-methyl]-
4,4-dimethyl-3-isoxazolidinone
6. Established Tolerances: 40 CFR 180.425 - 0.05 ppm
in or on soybeans
7. Letter(s) of Authorization (if applicable): FMC Corporation-
(E. Cuirle to R. Taylor- EPA)
8. Formulation(s): Command® 4 EC, EPA Reg. No. 279-3053
an emulsifiable concentrate containing 4 lbs a.i./gal.
9. Inerts Status: Cleared under Section 180.1001(c)
or (d)

11. Proposed Use(s):

For control of many annual grass and broadleaf weeds on pumpkins:

- Apply 1 quart (1 lb. ai) per acre COMMAND 4EC to the soil surface and uniformly incorporate before planting. Equipment should be set to incorporate COMMAND 4EC herbicide to a depth of 3 inches or less in the final seed bed.

12. Plant Metabolism Data on: Soybeans and alfalfa (PP#4F3128 and EPA Registration No. 279-3052, -3053)

13. Plant Residues Comprised of: Parent - 2-((2-chlorophenyl)methyl)-4,4-dimethyl-3-isoxazolidinone (Note: a change in the proposed use may require more plant metabolism work.)

14. Plant Metabolism Data Translatable Here: #12

15. Nature of Plant Metabolism Data is not adequately defined. The Residue of Concern is: per #5

16. Animal Metabolism Data on: N.A.
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): Derived from FMC method P-0908. Method consists of acid hydrolysis, hexane partition, sodium bicarbonate wash, Florisil cleanup, and quantitation with GC (NPD) steps. Detection limit for dimethazine = 0.02 ppm.

21. Method Validation (crop recoveries): On pumpkins—93 to 102% fortified at 0.1 ppm dimethazine; 92 to 105% fortified at 1.0 ppm.

22. Method Validation (control values): In pumpkins, controls are reported as N.D. (less than 0.02 ppm) except in WI where controls ranged from 0.04 to 0.07 ppm.


24. Enforcement Methodology is/is not available. In PAM II.
25. Residue Data (crop and residue range (ppm) from Proposed Use):

   Crop: Pumpkin; studies carried out in CA, IL, NY, PA, VA, and WI. Application rate = 1.0 lb a.i./A. Residue data reflect preplant incorporated and post-plant preemergence applications with PHI's ranging from 90 to 110 days. Residue data on treated samples reported as N.D. (less than 0.02 ppm) at all test sites except WI where values ranged from N.D. to 0.04 ppm.

26. Residues will not exceed proposed tolerance on (commodities) Pumpkin (0.1 ppm) and will exceed proposed tolerance on (commodities) ______

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): ________ 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 776
31. Livestock Tolerances Need to be Established: yes/no. If yes (species/levels): N.A.

32. Other Comments: None

33. Other Considerations: None

34. Additional Data Needed: None

35. Recommendations: If TOX and EAB considerations permit, RCB recommends for the establishment of a 0.1 ppm dimethazone, 2-(2-chlorophenyl)-methyl5,5'-dimethyl-3-isoxazolidinone on pumpkins.

36. Other Comments under Recommendations: None

37. Compatibility with Codex Tolerances: No Codex, Mexican, or Canadian tolerance has been established on pumpkins. Codex sheet is attached.

cc: RF, Circ, Reviewer—Onley, TOX, PMSO/ISB, PP# 7E3532
Approved: Onley 7/18/87; Schmitt
INTERNATIONAL RESIDUE LIMIT STATUS

CHEMICAL: Dimethazole

CODEX NO.: ___

CODEX STATUS:

☑ No Codex Proposal
   Step 6 or above

Residue (if Step 8):

PROPOSED U.S. TOLERANCES:

Petition No. 7E 3532

RCB Reviewer: J. Onley

Residue: parent-dimethazole

Crop(s)           Limit (mg/kg)

Pumpkins          0.1

CANADIAN LIMITS:

☑ No Canadian limit

Residue:

Crop(s)           Limit (mg/kg)

MEXICAN LIMITS:

☑ No Mexican limit

Residue:

Crop(s)           Limit (mg/kg)

NOTES:

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