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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

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OFFICE OF
PESTICIDES AND TOXIC SUBSTANCES

MEMORANDUM

SUBJECT: 50534-8 Chlorothalonil on Cherries:
(RCB# 938) Amended Use.

FROM: William L. Anthony, Chemist
RCB/HED TS-769

TO: H. Jacoby, PM#21
Fungicide-Herbicide Branch
Registration Division (TS-767)

THRU: E. Zager, Section Head
Special Registration Section II
RCB/HED TS-769

William L. Anthony

E. Zager

SDS Biotech Corporation, Painesville, OH has requested an amended registration for their formulation BRAVO®-500 (EPA Registration No. 50534-8) containing the a.i. chlorothalonil, a fungicide. The request is to lower the PHI for their product's registered use on cherries.

There is an established tolerance for the combined residues of chlorothalonil and its metabolite (4-hydroxy-2,5,6-trichloroisophthalonitrile) in or on cherries (sweet and tart) at 0.5 ppm (40 CFR 180.275).

Bravo®500 (4.17 lb ai/gal FlC) is registered for foliar application on cherries at 2.3 to 4.17 lb a.i./A. Treatment at 3.13 lb ai/A is made once between late autumn and early winter, once or twice between mid to late winter, and once at either petal fall or shuck-split. Treatments at 4.17 lb a.i./A are made at popcorn (pink, red, or early white bud), full bloom, and again at petal fall.

Treatment is not to be made after shuck-split or before harvest†, but can be made seven days post-harvest with a second application, if needed, 10 to 14 days later. Application may be made with ground or aerial equipment (Registration Standard, chlorthalonil, August 3, 1982).

† According to E. Walker (1956), the average number of days from bloom to harvest is 50 to 60 days for cherries in Eastern U.S.A. Petal fall and then shuck or jacket split would occur 40 to 50 days before harvest.

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Proposed Use

The proposed label would permit applications after shuck-split and would permit a reduction in the PHI from presumably 40-60 days to 30 days for sweet cherries and would permit a 7-day PHI for tart or machine collected water washed cherries. The proposed label reads: "In addition to the bloom applications..., apply at shuck-split and repeat at 10 to 14 day intervals. Do not apply within 30 days of harvest, except on cherries which are machine-harvested into water, whereon applications may be made no later than 7 days before harvest. For control of cherry leafspot after harvest, make one application to foliage within 7 days after fruit is removed. In orchards with a history of high leafspot incidence, make a second application 10 to 14 days later."

Our Response

The proposed use label is identical to the label submitted in petition PP# 5F3183, in which the registrants had requested an amended tolerance in/on cherries (sweet and tart) from a permanent tolerance of 0.5 ppm for residues of the ai and its metabolite to a temporary tolerance of 3.0 ppm. In our review (memo: PP5F3183 M. Firestone, March 7, 1985), we recommended against the 3.0 ppm tolerance for several reasons. Some of these are relevant to the proposed use and are repeated in the conclusions below:

Conclusions

1. The label must include a restriction which will limit the number of post-shuck-split applications allowed. The registrant should be informed that the proposed use must be supported by the submitted residue data.
- 2a. RCB does not consider split PHIs (i.e., 7 days for cherries harvested into water and 30 days for cherries not harvested into water) acceptable. Furthermore, water can not remove systemic residues. The registrant will need to propose only a single PHI in a revised label.
- 2b. The label should contain both a restriction against grazing treated orchards/groves and cutting cover crops for feed.
- 3a. In RCB's review of PP#4F3025, the petitioner was advised of the need for a ring-labeled ¹⁴C-chlorothalonil foliar-applied apple metabolism study (see M. Kovacs, Jr. memo of May 30, 1984).

- 3b. RCB reiterates the need for such a plant metabolism study in support of the proposed post-shuck-split chlorothalonil use on cherries. Thus, the nature of the residue in plants is not adequately understood.
4. Because the nature of the residue in plants is not adequately understood the adequacy of the available analytical methodology is in question.
5. RCB concluded (see above-cited review) that the available residue data are not adequate to support the proposed 3 ppm chlorothalonil tolerance on cherries. Therefore, the data are certainly not adequate to conclude that residues from the proposed use would not exceed the lower 0.5 ppm established tolerance for cherries.

The deficiencies in the available residue data are listed below:

Since RCB considers the rac to include dry harvested cherries (see Conclusion 2a), residue data generated on washed tart cherries are not considered adequate.

Residue data generated on dry harvested cherries from only one field trial are insufficient. Therefore, the registrant will need to submit additional residue data generated on cherries (sweet and tart) harvested dry and reflective of the proposed use (i.e., maximum number of post-shuck-split treatments, maximum application rate, etc.). These residue data must be geographically representative of the major cherry growing regions of the country. Thus, the petitioner will need to generate the additional residue data on field-treated cherries grown in the States of CA, OR or WA, MI, and NY or PA (note: If these treated samples are stored more than 6 months prior to analysis, additional storage stability data will be required).

Pending RCB's final conclusion concerning the nature of the residue in plants (see Conclusion 3b), the petitioner may need to submit residue data on components of the terminal residue other than chlorothalonil, 4-hydroxychlorothalonil, HCB, and PCBN.

Recommendation

For reasons listed in conclusions 1 to 5, we recommend against this amended registration.

cc: Rev
RD
SF (Chlorothalonil)
Circu
PMSD/ISB
Amend/Reg.

JOB:96705:W. Anthony:eg:Kendrick & Co;898-1270:6/14/85;C.Disk

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- Identity of product inert ingredients.
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 - Description of the product manufacturing process.
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 - Sales or other commercial/financial information.
 - A draft product label.
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