11-21-83

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

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OFFICE OF
PESTICIDES AND TOXIC SUBSTANC

MEMORANDUM:

SUBJECT: 84-CA-04. Proposed Section 18 exemption for the use of iprodione on head lettuce.

FROM: Edward Zager, Chemist
Residue Chemistry Branch
Hazard Evaluation Division (TS-769)

THRU: Charles L. Trichilo, Chief
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TO: Emergency Response Section
Registration Division (TS-767)

The California Department of Agriculture requests a Section 18 exemption for the use of iprodione on head lettuce to control Rhizoctonia.

The proposed use calls for up to three ground applications at the rate of 0.5-1 lb act/A in 50-100 gallons of water per acre: at thinning, 10-14 days after the first treatment and 20 days after the first treatment. There will be a 14 day PHI.

We consider the residue of concern in plants to be the parent compound 3-(3,5-dichlorophenyl)-N-(1-methylethyl)-2,4-dioxoimidazolidine-1-carboxamide, the isomer RP 30228 [3-(1-methylethyl)-N- 3,5-dichlorophenyl)-2,4-dioxo-1-imidazolinecarboxamide] plus the metabolite RP 32490 [3-(3,5-dichlorophenyl)-2,4-dioxo-1-imidazolidinecarboxamide]. These are all determined by the analytical methods used to generate the available residue data (Rhodia Method No. 151 or minor modifications thereof). Recoveries from lettuce samples fortified with the above components at levels 0.1-10 ppm ranged from 61-133% (N. Dodd, PP#3G2801 and Report 30350).

In our review of PP#3G2801 we recommended for the establishment of a temporary tolerance for residues of the fungicide iprodione, its isomer RP30228 and its metabolite RP32490 in or on lettuce at 7.0 ppm. PP#3F2840 proposing tolerances for residues of iprodione, its isomer RP30228 and its metabolite RP32490 in or on lettuce at 7.0 ppm is currently in reject status due to inadequate data for a permanent tolerance (K. Arne 7/1/83).

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Residue data submitted in support of the above petitions reflect studies conducted in NY, NJ, WI, FL and CA. In most experiments both lettuce heads and wrapper leaves were examined for residues. For lettuce heads the maximum combined residue for parent isomer and metabolite as a result of 1-3 applications of 1-2 lbs act/A and PHI's of 9-61 days was 0.17 ppm. Much higher residues were found in lettuce leaves with up to 62 ppm present on the day of the last of 3 applications of 2.0 lbs act/A. The highest residue found in leaves at PHI's of 14 days or longer was 5.89 ppm at 33 days after one application of 1.0 lb act/A. We concluded (K. Arne, 7/1/83, PP#3F2840) that the above data were inadequate since they did not include the relative weights for heads and wrapper leaves and thus we could not calculate the residue in the whole head (i.e., including the wrapper leaves).

Additional residue data from CA and AZ have been submitted with this request. Following 3 applications at the rate of 1 lb act/A residues of iprodione, its isomer RP30228 and its metabolite RP 32490 ranged from 3.4 ppm -34.39 ppm in or on wrapper leaves and 0.13-3.2 ppm in or on trimmed heads at PHI's of 7-14 days. Since relative weights of untrimmed heads and leaves were given it was possible to calculate residues of iprodione, its isomer and metabolite on the whole plant. These residues ranged from 1.23 ppm - 11.48 ppm in untrimmed lettuce heads at the proposed 14 day PHI.

Based on the available data we estimate that residues of iprodione, its isomer RP-32228 and its metabolite RP 32490 will not exceed 15 ppm in or on treated head lettuce as a result of the proposed use.

There are no feed involved in this use. Consequently these will be no problem with secondary residues in meat milk poultry and eggs.

Conclusions

1. Combined residues of iprodione, its isomer RP 30228 and its metabolite RP 32490 in or on head lettuce will not exceed 15 ppm as a result of this use.

2. There are no feed items involved in this use. Consequently, there will be no problems with secondary residues of iprodione in meat, milk poultry and eggs.

Recommendation

TOX considerations permitting we have no objections to the issuance of this Section 18 exemption. An agreement should be made with FDA regarding the legal status of the treated commodities in commerce.

TS-769:RCB:E.Zager:cdw:CM#2:Rm810:X77324:11/18/83
cc: Sect 18 S.F., Circu, iprodione Reviewer, R.F.,
RDI: R. Hummel, 11/18/83; R. Schmitt, 11/18/83