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Proposed Section 18 Exemption for the use of Rovral (Iprodione) on stone fruits in South Carolina

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Emergency Response Section and Toxicology Branch

THRU: Richard D. Schmitt, Acting Chief, Residue Chemistry Branch (TS-769)

The State of South Carolina requests a Section 18 Exemption for the use of 3-(3-5-dichlorophenyl)-N-(1-methylethyl)-2,4-dioxo-1-imidazolidine -carboxamide (Iprodione, RP 26019) on stone fruits. Up to 3000 acres of orchards will be treated between February and September of 1979.

PP# 8G2087 proposing temporary tolerances for residues of Iprodione and its isomer 3-(1-methylethyl)-N-(3,5-dichlorophenyl)-2,4-dioxo-imidazolidine carboxamide is currently in reject status (Aug. 15, 1979, S. Hummel).

The proposed use would permit five applications of Rovral W. P. at the rate of 0.67 - 1 lb (0.36-0.53 lb act) per 100 gallons of water, with a maximum of 2 lbs of product (1.06 lb act) per acre per application. Three of the applications will be made during the blooming period and two during fruiting just before harvest. Applications are to be made by air or ground equipment. There is no PHI.

The product intended for use, Rovral W. P., contains 53.16% of technical Iprodione, [redacted] The inerts in the formulation are cleared under Sec. 180.1001.

The metabolism of Iprodione was discussed in our review of PP# 8G2087 (A. Rathman, 3/2/79). For the purposes of this Section 18 exemption, we consider the parent compound and the metabolite (isomer) 3-(1-methylethyl)-N-(3,5-dichlorophenyl)-2,4-dioxo-imidazolidine-carboxamide to be the residue of concern.

Results of residue trials conducted in CA, GA, MI, NC, NJ and OR were submitted in connection with PP# 8G2078. All applications were made by ground equipment.

Cherries

Following five applications of 1 lb act. RP 26019 per acre residues of the parent compound ranged up to 12 ppm, at the proposed 0-day PHI. Residues of the metabolite RP 30228 ranged up to 0.06 ppm.

Sour Cherry

Following six applications of 1 lb act RP 26019 per acre, residues of the parent compound ranged up to 17 ppm, at the proposed 0-day PHI. Residues of the metabolite RP 30228 were 0.05 ppm.

Peaches

Following 3 applications of 1 lb act/acre residues of RP 26019 ranged up to 10.55 ppm at 1 day after treatment. The highest residue found at 0-days was 6 ppm. No residues of the metabolite RP 30228 were found at the 0-day PHI. Following 7 applications of 1 lb act/acre residues of parent compound ranged up to 17 ppm at the 0-day PHI. Residues of RP 30228 were 0.24 ppm at the same PHI.

Nectarines

Nectarine orchards received three or four applications of 1 lb act/A. The maximum RP 26019 residue in/on the fruit was 3.2 ppm on the 0 day sample, following three applications of 1 lb act/A. No RP 30228 residues were found at any time or any rate.

Apricots

Apricot orchards received two or three pre-harvest applications of RP 26019 at 1 lb act/A. The maximum RP 26019 residue in or on fruit was 12 ppm found on the day 1 sample from the 3 lb act/A (Total) treatment rate. No RP 30228 residues were found ($<$ 0.05 ppm) at any time or any rate.

Plums, prunes

Plum orchards received 3 or 5 preharvest applications of RP 26019 at 1 lb act/A. Residues of RP 26019 ranged up to 1 ppm on fresh fruit at 1-day after 3 applications of 1 lb act/A. The highest residue value reported at 0-days was 0.74 ppm. No residues of RP 30228 were found at any PHI.

Residue data submitted in connection with PP# 8G2087 indicate that there is a 2x concentration in the amount of residue on drying the prunes.

Based on the above residue data, we estimate that residues of Iprodione and its metaboite: 3-(1-methylethyl)-N-(3,5-dichlorophenyl)-2,4-dioxo-imidazolidine-carboxamide will not exceed 15 ppm in or on cherries, sour cherries, peaches, nectarines and apricots, 3 ppm in plums and prunes and 6 ppm in dry prunes as a result of the proposed use.

Meat, Milk, Poultry and Eggs

There are no animal metabolism studies available in this submission. However, if the use is modified to restrict the feeding of cover crops to animals, we could place this use into category 3 of Sec. 180.6 (a).

Conclusions

1. Residues of Iprodione and its metabolite 3-(-1-methylethyl)-N-(3,5-dichlorophenyl)-2,4-dioxo-imidazolidine will not exceed 15 ppm in or on cherries, sour cherries, peaches nectarines and apricots, 3 ppm in plums and prunes and 6 ppm in dry prunes as a result of the proposed use.

2. Provided a restriction against the grazing or feeding to livestock of cover crops grown in treated orchards is added to the Section 18 label, there will be no problems with secondary residues in meat, milk, poultry and eggs.

3. Since no data reflecting the proposed air applications have been submitted the proposed use should be limited to ground applications only.

Recommendation

TOX considerations permitting and provided the Section 18 label is amended as recommended in Conclusions 2 and 3, we have no objection to the proposed Sect. 18 exemption. An agreement should be made with FDA regarding the legal status of the treated commodities in commerce.

cc: Reading file
Section 18 file
Iprodion SF
Circu
Reviewer

TS-769:RCB:Reviewer:E.Zager:LDT:X77324:CM#2:RM:810:Date:1/23/80
RDI:Section Head:RJH:Date:1/22/80:RDS:Date:1/22/80