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

OFFICE OF
PESTICIDES AND TOXIC
SUBSTANCES

SEP 14 1992

MEMORANDUM

SUBJECT: 92-LA-13. Section 18 Specific Exemption for the use of Iprodione on marketable sweet potatoes in Louisiana. No MRID #. CBRS #10476, Barcode #D182094.

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THRU: Andrew Rathman, Section Head
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TO: Susan Stanton
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The Louisiana Department of Agriculture and Forestry (LDAF) has requested a Section 18 specific exemption authorizing the use of iprodione (Rovral Fungicide, EPA Reg. No. 264-453) on sweet potatoes to control Rhizopus soft rot during marketing.

Tolerances are established [40 CFR 180.399 (a)] for the combined residues of iprodione [3-(3,5-dichlorophenyl)-N-(1-methylethyl)-2,4-dioxo-1-imidazolidinecarboxamide)], its isomer 3-(1-methylethyl)-N-(3,5-dichlorophenyl)-2,4-dioxo-1-imidazolidinecarboxamide, and its metabolite 3-(3,5-dichlorophenyl)-2,4-dioxo-1-imidazolidinecarboxamide, in or on numerous raw agricultural commodities, including cherries, sweet (pre- and post-harvest), nectarines (pre- and post-harvest), peaches (pre- and post-harvest), and plums (pre- and post-harvest) at 20 ppm. A tolerance has not been established for sweet potatoes, nor is there an exemption from the requirement of establishing a tolerance.

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Proposed Use

The proposed use of Rovral 50WP Fungicide calls for postharvest applications to be made to roots removed from storage immediately after washing, indoors on grading lines, either by dip or spray treatment. The application rate is 2.0 lbs product (1.0 lb ai) per 100 gallons of water which will be used to treat 2500 lbs of roots. Approximately 2,000,000 lb of roots will be treated, requiring 80,000 pounds Rovral 50WP (40,000 lbs ai).

The proposed starting date for this Section specific exemption is September 1, 1992, and the proposed expiration date is May 1, 1993.

Nature of the Residue

The Phase 4 Review concluded that similar metabolism on three dissimilar crops had been demonstrated and no additional data are required for the Phase 5 Review. Most of the residue was iprodione, but its isomer, two metabolites, and the isomer of one metabolite were also identified in plant metabolism studies.

CBRS concludes that for purposes of this Section specific exemption **only**, the nature of the residue is adequately understood, and the residues of concern are iprodione [3-(3,5-dichlorophenyl)-N-(1-methylethyl)-2,4-dioxo-1-imidazolidinecarboxamide)], its isomer 3-(1-methylethyl)-N-(3,5-dichlorophenyl)-2,4-dioxo-1-imidazolidinecarboxamide, and its metabolite 3-(3,5-dichlorophenyl)-2,4-dioxo-1-imidazolidinecarboxamide

Analytical Method

An analytical method for plant commodities has been validated by EPA laboratories and published in PAM Vol. II, and is adequate for enforcement purposes. Residues are extracted from crop samples with acetone and the extract is cleaned up by partitioning with methylene chloride and by column chromatography on Florisil. Iprodione and its isomer are eluted with ethyl acetate:methylene chloride (3:97) and collected as fraction 1. The dichlorophenyl metabolite is eluted with ethyl acetate:methylene chloride (1:1) and collected as fraction 2. The three compounds are determined individually on two different columns by GLC with electron capture detection.

CBRS concludes that the method published in PAM Vol. II is adequate for enforcement purposes.

Residue Data

No residue data were submitted with this request. LDAF stated that residue information will be developed pursuant to the registration of iprodione for use in sweet potatoes. A letter

from Rhone-Poulenc to LDAF, included in the Section 18 submission, noted that Rhone-Poulenc is currently working with IR-4 on a federal registration for the use of Rovral on sweet potatoes. It is not clear if the registrant was referring to IR-4 work involving a preharvest or postharvest use.

LDAF stated that iprodione is registered for use as a postharvest treatment on stone fruits for control of Rhizopus rot, a use similar to the current proposed use.

According to MRID #92083-061, [a Phase 3 summary of MRID #92083-061 "Iprodione - Magnitude of the Residue on Nectarines, Peaches, and Plums (Pre- and Post-Harvest)"] data reflecting a post-harvest application of iprodione was generated for an IR-4 project. Briefly, nectarines, peaches, and plums were treated preharvest with 5 foliar applications of iprodione at 1.0 lb ai/A/application. For all fruits, a post-harvest application with iprodione at a rate of 0.5 or 1.0 lb ai/100 gallons water with a commercial applicator was made 2 days after harvest. Treated samples were stored at -15°C before being shipped to the analytical lab. Samples arrived frozen at the analytical lab and were stored at -10°C until analysis. Samples were stored frozen up to 3 months after post-harvest treatment. Results are summarized below.

Matrix	Range of levels of Parent Found (ppm)	Levels of Isomer Found (ppm)	Range of levels of Metabolite Found (ppm)
Nectarines	<0.025 to 1.3	<0.025	0.025
Peaches	<0.025 to 1.5	<0.025	<0.025 to 0.03
Plums	<0.025 to 0.24	<0.025	<0.025 to 0.04

CBRS concludes that residues of iprodione, its isomer, and metabolite in or on sweet potatoes are not likely to exceed the 20 ppm tolerance level established for various stone fruits under the proposed use.

Meat, Milk, Poultry, and Eggs

There are no feed items connected with this use on sweet potatoes. Therefore, no secondary residues are expected in meat, milk, poultry and eggs as a result of this use, and the currently established tolerances are adequate.

Conclusions

1. For purposes of this Section 18, the nature of the residue is adequately understood. The residues of concern in or on sweet potatoes are iprodione [3-(3,5-dichlorophenyl)-N-(1-

methylethyl)-2,4-dioxo-1-imidazolidinecarboxamide)], its isomer 3-(1-methylethyl)-N-(3,5-dichlorophenyl)-2,4-dioxo-1-imidazolidinecarboxamide, and its metabolite 3-(3,5-dichlorophenyl)-2,4-dioxo-1-imidazolidinecarboxamide.

2. CBRS concludes that the method published in PAM Vol. II is adequate for enforcement purposes.

3. CBRS concludes that the residues of iprodione, its isomer, and metabolite in or on sweet potatoes are not likely to exceed 20 ppm under the proposed use.

4. Standards are available from the EPA Standards Repository.

5. Since no feed items are involved with this use, the current meat and milk tolerances are adequate.

Recommendations

TOX considerations permitting, CBRS has no objection to the issuance of this Section 18 exemption. An agreement should be made with FDA regarding the legal status of the sweet potatoes in commerce.

cc: Iprodione List B File., R.F., Section 18 S.F., R.Griffin, Circ., S. Knizner
RDI: A. Rathman, 9/14/92, E. Zager, 9/14/92
H7509C:CBRS:SAK:sak:305-6903:IPROD.S18:CM#2:9/8/92