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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: CA900013; Section 24(c) Registration for the Use of Iprodione (Rovral® Fungicide) on Greenhouse Grown Seed Potato Tubers. EPA Reg. No. 264-453-AA. (No MRID #, DEB # 8512, DP Barcode D167798).

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TO: Susan Lewis, PM-21
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The California Department of Agriculture has issued a Section 24(C) registration for the use of Iprodione (trade name Rovral® Fungicide) to control Alternaria solani on greenhouse-grown potato plants for production of seed piece tubers.

Rovral Fungicide, a wettable powder (EPA Reg. No. 264-453-AA), is a registered pesticide of Rhone-Poulenc Ag Company; the formulation contains 50% iprodione [3-(3,5-dichlorophenyl)-N-(1-methylethyl)-2,4-dioxo-1-imidazolidinecarboxamide] as its active ingredient.

Tolerances are established (40 CFR 180.399 (a)) for 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-imidazolidine

carboxamide], and its metabolite 3-(3,5-dichlorophenyl)-2,4-dioxo-1-imidazolidine-carboxamide in or on numerous RAC commodities ranging from 0.1 ppm in/on garlic to 150 ppm in/on peanut forage and hay. A tolerance has been established (40 CFR 180.399 (a)) for iprodione/isomer/metabolite in/on potatoes at 0.5 ppm.

Tolerances are established (40 CFR 180.399 (b)) for combined residues of the fungicide 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 metabolites 3-(3,5-dichlorophenyl)-2,4-dioxo-1-imidazolidinecarboxamide, and [N-(3,5-dichloro-4-hydroxyphenyl)-ureidocarboxamide] all expressed as iprodione in or on fat, meat, and meat by-products (except kidney and liver) of cattle, goats, hogs, horses, and sheep at 0.5 ppm; kidney and liver of cattle, goats, hogs, horses and sheep at 3.0 ppm; milk, at 0.5 ppm; meat and meat by-products (except liver) of poultry at 0.5 ppm; poultry fat at 2.0 ppm; poultry liver at 3.0 ppm and eggs at 0.8 ppm.

No Registration Standard has been issued for iprodione. Iprodione is a List B chemical. A Phase 4 residue/product chemistry review was completed 3/15/91.

The label for this 24(c) Registration (CA900013) calls for a maximum of 4 applications at the rate of 1 to 2 lbs of product (0.5- 1 lb ai)/A/application in 100 gallons of water by ground equipment. Apply to foliage and spray to obtain thorough coverage. The first application should be made when conditions become favorable for disease development and additional applications are made at 7-10 day intervals. The 24(c) label has the following restrictions: a PHI is not applicable, because the treated commodity is not to be used for food or feed, and do not apply this product through any type of irrigation system. All applicable directions, restrictions, precautions, and worker safety rules on the EPA registered label are to be followed.

The metabolism of iprodione in plants is adequately understood. The residues of concern in plants are 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-imidazolidine-carboxamide (Phase 4 review completed 3/91).

The metabolism of iprodione in ruminants is not understood and additional data are required (Phase 4 review completed 3/91).

The analytical method used to determine residues of iprodione/isomer/metabolite in plants to establish tolerances for iprodione in/on crops is adequate for the purpose of this Section 24(c).

No field residue data were submitted with this Section 24(c). However, residue data were submitted previously in conjunction with PP# 6F3366. Field trials were conducted in the following 10 states: CA, CO, FL, ID, ME, ND, NY, NJ, OR, and WA. Potatoes were treated with 4 to 6 applications of either 1 or 2 lb ai (1X to 2X)/A/application with ground equipment. PHI's ranged from 6 to 30 days. The combined residues of iprodione/isomer/metabolite were below the 0.5 ppm tolerance in potato tubers. The highest residue detected using 4 applications at 2 lbs ai/A (2X) with a 14-day PHI was 0.39 ppm. Based on these data, a tolerance for iprodione/isomer/metabolite in or on potatoes was established at 0.5 ppm. Since the residues of iprodione/isomer/metabolite did not concentrate upon processing potatoes, food and feed additive tolerances were not required (R.W. Cook, 8/4/87 and 9/9/88).

Conclusions

1. The nature of the residue of iprodione in plants is adequately understood. The residues of concern in plants are 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-imidazolidine-carboxamide.
2. A tolerance for iprodione/isomer/metabolite in or on potatoes at 0.5 ppm has been established (40 CFR 399(a)).
3. This 24(c) registration proposed in CA900013 is for foliar use of iprodione on greenhouse-grown potato plants for production of seed piece tubers (not used directly for food or feed). The maximum proposed rate and the number of applications are the same as the registered use of iprodione in/on field grown potatoes. Therefore, the residues of iprodione/isomer/metabolite in or on greenhouse-grown potato plants for production of seed piece tubers, will not exceed 0.5 ppm (the established tolerance).

Recommendation:

CBRS recommends in favor of this Section 24(c) registration (CA900013). The SLN label should clearly stipulate that the potato tubers are not for food or feed.

cc: Iprodione S.F., R.F., Section 24(c), Circ., F. Toghrol, PMSD/ISB.

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