5-21-92 RF

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

MAY 21 1992

OFFICE OF
PESTICIDES AND TOXIC SUBSTANCES

PRIORITY

MEMORANDUM

SUBJECT: ID#NJ-910006: Section 24(c): Iprodione and DCNA Use On Peaches, Plums and Nectarines In New Jersey (CBTS #9776)

FROM: W. T. Chin, Ph.D., Chemist
Tolerance Petition Section III
Chemistry Branch Tolerance Support I
Health Effects Division (H7509C)

W. T. Chin

THRU: P. V. Errico, Section Head
Tolerance Petition Section III
Chemistry Branch Tolerance Support I
Health Effects Division (H7509C)

P. V. Errico

TO: Susan Lewis/J. Fairfax, PM #21
Herbicides-Fungicides Branch
Registration Division (H7505C)

The Department of Environmental Protection Division of Environmental Quality of New Jersey issued a Section 24(c) registration to allow the use of the fungicide product DECCO Salt No. 35 for post-harvest control of brown rot and Rhizopus rot on peaches, plums and nectarines. The active ingredients in the product are Iprodione (3-(3,5-dichlorophenyl)-N-(1-methylethyl)-2,4-dioxo-1-imidazolindinecarboxamide, EPA Reg. #359-685) and Dicloran (DCNA) (2,6-dichloro-4-nitroaniline, EPA Reg. #45639-110). Both active ingredients are registered for pre- and post-harvest use on the stonefruits peaches, plums and nectarines. Iprodione is also known as Rovral®. Botran® is another name for DCNA.

Tolerances are established under 40 CFR 180.399 for the combined residues of Iprodione, 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-imidazolindinecarboxamide) on various raw agricultural commodities, including 20 ppm (pre- and post-harvest) in/on peaches, plums and nectarines. Iprodione is a List B chemical.

1/5

Under 40 CFR 180.200, tolerances are established for residues of DCNA on peaches (20 ppm, pre- and post-harvest), plums (15 ppm) and nectarines (20 ppm). DCNA is a List A chemical. The DCNA Registration Standard was updated 3/28/91. DECCO salt No. 35 is registered for similar use in the states of S. Carolina, Georgia, Washington and Pennsylvania.

DETAILED CONSIDERATIONS

BACKGROUND

The proposed formulation, DECCO Salt No. 35, is a wettable powder containing 24.99% DCNA and 33.33% Iprodione. DCNA was voluntarily canceled by Nor-Am Chemical Co. in September of 1991. The FR Notice announcing cancellation was not published until March 4, 1992. The active ingredients in this formulation will be canceled effective 6/2/1992 per the FR Notice and given one year existing stocks.

Proposed Use In New Jersey

There are 2 procedures specified on the label of DECCO Salt No. 35 for the proposed use on peaches, plums and nectarines:

Procedure No. 1: A solution of DECCO Salt No. 35 is made by dissolving 3.0 lbs of the product in 100 gallons of diluted Decco stone fruit coating (1:3) mixture. The resulting solution will contain DCNA at 0.0075 lb ai/gal (=900 ppm) and Iprodione at 0.010 lb ai/gal (=1,200 ppm). One gallon of this solution is flooded in 2,000 - 4,000 lbs of peach, plums or nectarine by non-recovery spray with continuous agitation. A concentrated slurry may be prepared and used after appropriate dilution with water prior to use.

Procedure No. 2: A solution of DECCO Salt No. 35 is made by dissolving 6.0 lbs of the product in 50 gallons of suitable Decco stone fruit coating mixture. The resulting solution will contain DCNA at 0.03 lb ai/gal (=3,600 ppm) and Iprodione at 0.04 lb ai/gal (=4,800 ppm). One gallon of this concentrated mixture without any further dilution is flooded in 30,000 - 33,000 lbs of peach, plums or nectarine by non-recovery spray with continuous agitation using a suitable air nozzle spray system. This higher rate is presumed to be used for this Sec. 24(c).

NATURE OF RESIDUE

The metabolism of DCNA in stonefruits is adequately understood for the purpose of this Sec. 24(c). The residue of concern in/on stonefruits is the parent compound, DCNA (Reg. Std. Res. Chem. Chapter. 8/83).

The metabolism of Iprodione in stonefruits is adequately understood for the purpose of this Sec. 24(c). The residues of concern are the combined residues of Iprodione, 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-imidazolindine-carboxamide) (Phase IV Review, C. Olinger, 3/91).

ANALYTICAL METHODOLOGY

Adequate analytical methodology is available (ATOCHEM Method #419-A) to determine the residues of DCNA and the combined residues of Iprodione and its regulated isomer and metabolite in/on stonefruits (A. Aikens' 8/7/91 memo).

RESIDUE DATA

No residue data were submitted with this Sec. 24(c) registration. Data are on file for a similar use of DECCO Salt No. 35 (GA-910002, 8/7/91). In that registration, peaches were sprayed with a mixture of 3 lbs DECCO Salt No. 35 in Decco stone fruit coating at three spray rates (0.24, 0.50 and 1 gal/hr.). The mixture applied contained Iprodione at 0.048 lb ai/gal and DCNA at 0.036 lb ai/gal. The residue findings were 0.98-1.108 ppm DCNA and 1.67-1.89 ppm of the combined residues of Iprodione.

Even if the higher rate of Procedure No. 2 is used for this Sec. 24(c), the resulting mixture contains no more than 0.03 lb ai/gal DCNA and 0.04 lb ai/gal Iprodione. The resulting residue levels are not expected to exceed 1.5 ppm of DCNA and 2.0 ppm Iprodione from the proposed use. Therefore, the established 20 ppm tolerances are adequate to cover the proposed post-harvest use plus registered pre-harvest uses.

MEAT, MILK, POULTRY AND EGGS

Peaches, plums and nectarines are not livestock feed items. Therefore, no residues are expected to occur in meat, milk, poultry and eggs as a result of this 24(c) proposed use.

CONCLUSIONS

1. The metabolism of DCNA and Iprodione in plants is adequately understood for the purpose of this Sec. 24(c). The residues of concern are DCNA and the residues of Iprodione regulated isomer and metabolite.

2. Residues of DCNA and Iprodione in/on peaches, nectarines and plums are not expected to exceed the established 20 ppm tolerances as a result of the Sec. 24(c) proposed use plus registered pre-harvest uses.

3. Peaches, plums and nectarines are not livestock feed items. Therefore, no residues are expected to occur in meat, milk, poultry and eggs as a result of this 24(c) proposed use.

4. Adequate analytical methodology for enforcement purposes is available (ATOCHEM Method #419-A) to determine the residues of DCNA and the combined residues of Iprodione and its regulated derivatives in/on peaches, plums and nectarines.

5. Analytical reference standards are available from Industrial Chemical Repository, RTP, NC.

6. Data referenced in this review were not generated by Craven Laboratories.

RECOMMENDATION

CBTS has no objection to this Sec. 24(c) registration for the use of DECCO Salt No. 35 on peaches, plums and nectarines in New Jersey. However, the PM should note our comment below.

NOTE TO PM

The basic registrant has voluntarily canceled DCNA products. Although residues from the proposed uses in this Sec. 24(c) will be within tolerances, CBRS defers to RD on the advisability of issuing this Sec. 24(c) in the absence of support by the basic producer (personal communication between Debbie Edwards and Susan Lewis, 10/24/91).

CC: R.F., DCNA and Iprodione SF, Circu, W.T.Chin, Sec. 24(c) PIB/FOD (C. Furlow)

RDI: P.V.Errico (5/19/92), R.Loranger(5/20/92)
H7509C: CBTS: CM#2, RM812, (703)305-5352, W.T.Chin,wc(5/21/92)