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

MAY 31 1991

OFFICE OF
PESTICIDES AND TOXIC SUBSTANCES

MEMORANDUM

SUBJECT: EPA Reg. No. 7969-85. Amendment to registration of Ronilan® DF Fungicide (Vinclozolin) to include aerial application to stone fruits. DP Barcode No. D163362. Chemical No. 113201. CBRS No. 7880. No MRID No.

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BASF Corporation is requesting an amended use of Ronilan® DF, a dry flowable contact fungicide, to include aerial application to stone fruits. Ronilan® is used to control brown rot blossom and twig blight and fruit brown rot on stone fruits including the raw agricultural commodities apricots, cherries, nectarines, peaches, plums and prunes.

The active ingredient in Ronilan® DF, formulated at 50% a.i. by weight, is vinclozolin [3-(3,5-dichlorophenyl)-5-ethenyl-5-methyl-2,4-oxazolidinedione] which is a list B chemical.

Ronilan® DF is currently registered to allow ground application on stone fruits at a maximum application rate of 5 pounds of active ingredient per acre per season. The restrictions and limitations for application on stone fruits are as follows:

1. Do not apply Ronilan® within 3 days of harvest.
2. Do not apply more than 2 pounds of Ronilan® (1 lb. a.i.) per acre per application.

3. Do not apply more than 10 pounds of Ronilan® (5 lb. a.i.) per acre per season [maximum of 6 pounds (3 lb. a.i.) at bloom and 4 pounds (2 lb. a.i.) preharvest].
4. Do not apply Ronilan® during rain. Apply when conditions will permit spray to dry on the plants.
5. Do not apply this product through any type of irrigation system.

Proposed Use

BASF Corporation requests the addition of an aerial application method recommended for bloom and petal fall only. This application, applied in a minimum of 15 gallons of spray per acre, prescribes the same maximum application rates, limitations and restrictions as the currently registered ground application method. It is consistent with aerial use patterns already approved by CBRS for two other BASF Corporation products Ronilan® WP and Ronilan® FL. (DEB Nos. 4639 and 4640)

Tolerances

Permanent tolerances of 25 ppm have been established for residues of the fungicide, vinclozolin [3-(3,5-dichlorophenyl)-5-ethenyl-5-methyl-2,4-oxazolidinedione] and its metabolites containing the 3,5-dichloroaniline moiety in or on stone fruits. Other raw agricultural commodity tolerances for vinclozolin have been established between 1.0 and 10.0 ppm. (40 CFR 180.380)

A tolerance for the processed food commodity prunes is established at 75 ppm. (40 CFR 185.1850)

Nature of the Residue

The nature of the residue is adequately understood. The vinclozolin residues of concern are considered to be the total combined residues of the parent and all metabolites containing the 3,5-dichloroaniline moiety (PP#2F2650). Available plant metabolism studies were deemed adequate for Phase 5 review (L. Cheng, 3/6/91 Phase 4 Review).

Analytical Method

BASF Method numbers 25 (MRID 108958), 25D (MRID 85103), and 25F (MRID 129563) using gas chromatography (GLC) with an electron capture detector (EC) have been approved by CBRS for the determination of the total residues of vinclozolin and its metabolites. In these methods, the parent compound and all of the 3,5-dichloroaniline containing metabolites are converted to dichloroaniline (DCA). The isolated DCA is then derivatized with chloroacetyl chloride prior to GLC analysis.

Magnitude of the Residue

No residue data were presented with this petition. BASF Corporation cites data which it previously submitted for the registrations of the products Ronilan® WP (EPA Reg. No. 7969-53) and Ronilan® FL (EPA Reg. No. 7969-62). Residue data for vinclozolin and its metabolites from field trials of aerial applications of Ronilan® on stone fruits are summarized below:

Fruit	#a.i./acre	Number of Applications	PHI	Residue Conc. Ranges (ppm)
Peaches	1.0	5x	3	0.76-1.7
Peaches	1.0	4x	3	0.29-0.55
Sweet Cherries	1.0	5x	3	0.12-0.15
Sweet Cherries	1.0	5x	4	0.61-0.76
Plums	1.0	5x	3	1.1-1.5
Plums	1.0	2x	3	<0.05

All residues are well below the tolerance limit (25 ppm) for stone fruits as raw agricultural crops.

Meat, Milk, Poultry and Eggs

Apricots, cherries, nectarines, peaches, plums, and prunes are not considered to be animal feed items. Secondary residues of vinclozolin or its 3,5-dichloroaniline containing metabolites in stone fruits are unlikely.

Conclusions

BASF Corporation has previously submitted data which adequately supports the proposed amendment. Based on these data, residues of vinclozolin and its 3,5-dichloroaniline containing metabolites are not expected to exceed current established tolerance limits as a result of the proposed aerial applications.

Vinclozolin has recently been subjected to CBRS Phase 4 Review. According to the Phase 4 Review, data submitted by BASF in support of requirements for the nature of the residue in plants and animals, analytical methods, storage stability studies and field trials are acceptable for Phase 5 review. Only one data gap was cited for stone fruits in the review completed by L. Cheng 03/06/91: additional cherry residue trials from NY/PA and UT/MI/ID sites were required.

Recommendations

CBRS has no objection to the proposed amendment to add aerial applications to stone fruits to the Ronilan® DF Fungicide label.

cc: BLCKohlligian (CBRS), C. Furlow (PIB/FOD), RF,
Vinclozolin SF, Phase 4 Rereg. File, Amended
Registration File, Circulate (7).

RDI: WJHazel:5/23/91:EZager:5/29/91

H7509C:CBRS:BLCKohlligian:CM#2:Rm 803:703-557-7462:5/7/91.