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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: Proposed Section 18 exemption for the use of vinclozolin on lettuce

FROM: Edward Zager, Chemist
Residue Chemistry Branch
Hazard Evaluation Division (TS-769)

TO: Emergency Response Section
Registration Division (TS-767)
and
Toxicology Branch
Hazard Evaluation Division (TS-769)

THRU: Charles Trichilo, Chief
Residue Chemistry Branch
Hazard Evaluation Division (TS-769)

Edward Zager

[Signature]

The New Jersey Department of Environmental Protection requests a specific exemption for the use of vinclozolin (3-(3,5-dichlorophenyl)-5-ethenyl-5-methyl-2,4-oxazolidinedione, Ronilan) for the control of lettuce drop on lettuce.

PP# 9G2204 proposing a temporary tolerance of 10 ppm in or on lettuce for residues of vinclozolin and its dichloroaniline-containing metabolites is currently in reject status due to the lack of clearance for [redacted] an inert ingredient in the formulation. The inert has since been cleared for use on growing plants [redacted]

The proposed use would permit 3 applications of 0.75 lb act/A. Initial application is recommended within 7 days after transplanting or thinning with subsequent applications 10 days apart. There will be a 14 day PHI. Both air and ground applications will be made.

The metabolism of vindoazolin in lettuce was discussed in our review of PP# 9G2204 (Dr. B. Davis, memo of 1/18/80). The residue of concern consists of the parent compound and metabolites containing the 3,5-dichloroaniline moiety.

Residues were analyzed by an analytical method which determines residues of vinclozolin and its 3,5-dichloroaniline containing metabolites. The method involves release of 3,5-dichloroaniline from vinclozolin and its metabolites by alkaline hydrolysis and simultaneous steam distillation, chloroform partition and analysis by GC-EC of the acylated derivative, of 3,5-dichloroaniline.

INERT INGREDIENT INFORMATION IS NOT INCLUDED

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Residue data reflecting 7 studies conducted in CA, MI, NY, and WI have been submitted with PP# 9G2204. Lettuce received 1-3 applications of 0.5 or 1 lb act/A. PHI's ranged from 0-56 days. No data reflecting the proposed 3 applications of 0.75 lb act/A and a 14 day PHI are available.

Residues of vinclozolin and its 3,5-dichloraniline metabolites in lettuce ranged from 0.07 ppm, reflecting two 1 lb act/A applications and a 27 day PHI to 7.30 ppm reflecting three 1 lb act/A applications and a 30 day PHI. Residues at the proposed 14 day PHI were 1.34-1.42 ppm from 2 applications and 0.59-1.66 ppm from one application at the 1.0 lb act/A rate.

We also note that based on the above data residues of vinclozolin and its metabolites appear to have a half-life of ca 4 days. Consequently, we estimate that residues from the proposed 3 applications of 0.75 lb act/A are not likely to exceed 10 ppm in or on lettuce.

Meat Milk Poultry and Eggs

There are no feed items involved in this use. Consequently, there will be no problem with secondary residues in meat, milk poultry or eggs.

Conclusions

1. Residues of vinclozolin and its dichloroaniline containing metabolites are not likely to exceed 10 ppm in or on lettuce as a result of the proposed use.
2. There will be no problem with secondary residues of vinclozolin in meat, milk, poultry or eggs.

Recommendation

Toxicology considerations permitting, we have no objections to the proposed use. An agreement should be made with FDA regarding the legal status of the treated commodities in commerce.