



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

OFFICE OF
PESTICIDES AND TOXIC SUBSTANCES

JUN 24 1983

MEMORANDUM

SUBJECT: 83-CA-06. Proposed Section 18 exemption for the use of Bayleton (triadimefon) on tomatoes in California.

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 L. Trichilo, Chief
Residue Chemistry Branch
Hazard Evaluation Division (TS-769)

The California Department of Food and Agriculture requests a Section 18 exemption for the use of Bayleton to control powdery mildew on tomatoes.

A Section 18 exemption for a similar use limited, however, to fresh market tomatoes, was issued in 1982.

PP# OE2393 proposing a tolerance of 0.2 ppm for residues of 1-(4-chlorophenoxy)-3,3-dimethyl-1-(1H-1,2,4-triazol-1-yl)-2-butanone and its metabolite beta (4-chlorophenoxy)-alpha-(1,1-dimethylethyl-1H-1,2,4-triazol-1-ethanol (KWG 0519) in or on tomatoes is currently in reject status due to inadequate residue data and questions relating to the use of tomato by-products as feed items.

The proposed use calls for up to 8 ground or air applications at the rate of 1-2.5 oz act/A in a minimum of 20 gallons

of water/A with a 1-day PHI. It is estimated that up to 235,000 acres of tomatoes may be treated under this exemption.

The metabolism of Bayleton in plants and animals was discussed in our review of PP# 2F2665 (A. Smith 9/9/82). The residue of concern in tomatoes is the parent compound and its metabolite KWG 0519 (free and conjugated). The significant components of animal residues are the parent compound Bayleton and free and conjugated metabolites KWG 0519, KWG 1342 and KWG 1323 (see attached table for structures).

Residue data submitted with the 1982 Section 18 request (E. Zager's memo of 11/19/82) reflect 4 studies from Mexico and one study from Texas. Samples were analyzed for residues of the parent compound Bayleton and its metabolite KWG 0519. Some samples were also analyzed for residues of the metabolite KWG 1342.

The crops grown in Mexico received 8 applications at the rate of 2.5 oz act/A (1X the maximum proposed rate). Residues in tomatoes ranged from 0.02-0.15 ppm at PHI's of 0-15 days. However, in the Texas study in which tomatoes received 10 applications of 2.5 oz act/A residues in or on tomatoes ranged up to 1.65 ppm on the day of the last application.

No concentration of residues was observed on tomato processing fractions. When treated tomatoes containing residues of 1.65 ppm were processed, the following residue levels were detected: puree 0.77 ppm, juice 0.35 ppm, paste 1.22 ppm, ketchup 0.83 ppm and dry pulp 1.35 ppm.

Based on the above studies we estimate that residues of Bayleton and its metabolite KWG 0519 will not exceed 2 ppm in or on tomatoes, wet and dry pomace, puree, ketchup and juice as a result of the proposed use.

Meat, Milk, Poultry and Eggs

Dry tomato pomace may be fed to cattle at up to 25% of their diet while wet pomace may constitute up to 3% of poultry's diet equivalent, respectively, to 0.5 ppm and 0.06 ppm of Bayleton and its metabolite KWG 0519.

Bayleton feeding studies were reviewed in connection with PP#2F2665 (A. Smith, 9/9/82).

From a 25 ppm feeding level, the following residues were found in cattle tissues: liver 0.093 ppm, kidney 0.412 ppm, muscle <0.010 ppm, fat 0.024 ppm.

When poultry were fed 10 ppm for 29 days, 0.045 ppm was detected in liver and 0.031 ppm in eggs.

Based on these studies we estimate that secondary residues of Bayleton and its metabolites KWG 0519, KWG 1342 and KWG 1323 will not exceed 0.02 ppm in eggs, milk and the meat, fat and meat byproducts of cattle, goats, hogs, horses, poultry and sheep as a result of the proposed use.

Conclusions

1. Residues of Bayleton and its metabolite KWG 0519 will not exceed 2 ppm in or on tomatoes, wet and dry pomace, puree, ketchup and juice as a result of the proposed use.

2. Secondary residues of Bayleton and its metabolites KWG 0519, KWG 1342 and KWG 1323 will not exceed 0.02 ppm in eggs, milk and the meat, fat, and meat byproducts of cattle, goats, hogs, horses, poultry and sheep.

Recommendation

TOX considerations permitting, we have no objections to the issuance of the Section 18 exemption. An agreement should be made with FDA and USDA regarding the legal status of the treated commodities in commerce.

cc: R.F.
Circu
Reviewer
83-CA-06
Section 18 S.F.
TOX

RDI:Section Head:RJH>Date:6/7/83:RDS>Date:
TS-769:RCB:EZ:pad:Rm810:CM#2>Date-6/14/83
DCR-11018:RCB25:pad:6/13/83
REVISED-6/15/83:DCR-11034:efs

TRIADINEFON (BAYLETON)

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Pages 4 through 5 are not included.

The material not included contains the following type of information:

- ☐ Identity of product inert ingredients.
- ☐ Identity of product impurities.
- ☐ Description of the product manufacturing process.
- ☐ Description of quality control procedures.
- ☐ Identity of the source of product ingredients.
- ☐ Sales or other commercial/financial information.
- ☐ A draft product label.
- ☐ The product confidential statement of formula.
- ☐ Information about a pending registration action.
- ☐ FIFRA registration data.
- ☐ The document is a duplicate of page(s) .
- ☐ The document is not responsive to the request.

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