

US EPA ARCHIVE DOCUMENT

125601
SHAUGHNESSEY NO

2
REVIEW NO.

EEB BRANCH REVIEW

DATE IN 12-2-83 OUT 1-17-84

FILE OR REG. NO. 10182-IE

PETITION OR EXP. PERMIT NO.

DATE OF SUBMISSION 10-28-83

DATE RECEIVED BY HED 11-30-83

RD REQUESTED COMPLETION DATE 3-20-84

EEB ESTIMATED COMPLETION DATE 3-13-84

RD ACTION CODE/TYPE OF REVIEW 115/New Chemical

TYPE PRODUCT(S): I, D, H, F, N, R, S Plant Growth Regulator

DATA ACCESSION NO(S).

PRODUCT MANAGER NO. R. Taylor (25)

PRODUCT NAME(S) Bonzi 50 WP

COMPANY NAME ICI Americas, Inc.

SUBMISSION PURPOSE Proposed fall registration of new plant

growth regulator for greenhouse use

SHAUGHNESSEY NO. CHEMICAL, & FORMULATION

% A.I.

125601

(2RS,3RS)-1-(4-chlorophenyl)-4,4

50%

-dimethyl-2-(1H-1,2,4-triazol-1-yl)-

pentan-3-ol

Pesticide Name - Paclobutrazol (PP333 or Bonzi)

100 Submission Purpose and Label Information

100.1 Submission Purpose and Pesticide Use

Proposed full registration of new plant growth regulator for greenhouse use. The label provides this more specific description:

"BONZI" is a plant growth regulator for greenhouse use for container-grown chrysanthemums, poinsettias, geraniums and hydrangeas. Use of BONZI effectively reduces internode elongation resulting in more desirable compact plants. When used as directed, BONZI produces no phytotoxic effects. Desired height control is usually obtained with a single BONZI foliar spray application."

100.2 Formulation Information

(from label of Reg. No. 10182-IE)

ACTIVE INGREDIENT

(ZRS, 3RS)-1-(4-chlorophenyl)-4,4-dimethyl-2-(1H-1,2,4-triazol-1-yl)pentan-3-ol _____ 50%
INERT INGREDIENTS _____ 50%

100.3 Application Methods, Directions, Rates

(from label of Reg. No. 10182-IE)

*APPLICATION

Dilute BONZI with water according to table below, and apply as a foliar spray. Frequent or constant agitation of the tank mix is recommended. The spray solution must be equally distributed within the treatment area. Treat poinsettias one to four weeks following pinch. After application, watering should be directed below treated foliage for the balance of crop finishing time. Do not make more than two applications one to four weeks apart per crop."

Bench Area to be Treated	Application Volume (Quarts)	Dilution Ratio (fl. oz) BONZI to water	Treatment Rate (mg ai/ft ²)	Spray Concentration (ppm ai)
100 ft ²	2	1 63	1.18	62.5
100 ft ²	2	2 62	2.36	125.0
100 ft ²	2	4 60	4.72	250.0

100.4 Target Organisms

As explained under 100.1 this is a growth regulator for chrysanthemums, poinsettias, geraniums and hydrangeas.

100.5 Precautionary Labeling

(from label of Reg. NO. 10182-IE)

ENVIRONMENTAL HAZARDS: Do not contaminate water by cleaning of equipment or disposal of wastes.

101 Hazard Assessment

101.1 Discussion

BONZI will be sprayed at a maximum application rate equal to 0.46 lbs/acre. This would provide 338 ppm if sprayed directly on the surface of water (6" acre-layed) and 10 ppm to the first 0.1" of soil. However, the application would be confined to plants grown in greenhouses.

101.2 Likelihood of Adverse Effects to Non-target Organisms

Adverse effects to non-target organisms are not expected. The combination of low toxicity and application in an enclosed indoor environment would severely minimize the probability of hazard to plants or animals.

101.3 Endangered Species Considerations

For the reasons mentioned above low toxicity of the chemical and indoor use i.e., greenhouse, would indicate minimal hazard for endangered species.

101.4 Adequacy of Toxicity Data

As reported in review no. 1 dated 6/15/83 by Bascietto:

"The fish and wildlife safety data submitted under Acc. No. 248689 are adequate to support registration of the technical chemical and of PP333 (55.2% formulation) except:

- the Mallard Duck acute oral LD₅₀ (Ross, et al 1979) is inadequate to support registration because the age of birds was not reported (except as 'young adults'). These birds received "chick" diet. We require a precise reporting of the bird's age, and an explanation of why "chick" diet was fed to 'young adults'.

101.5 Adequacy of Labeling

The proposed label statements are deemed adequate.

102 Classification

Restricted use requirement for this use pattern have not been triggered. Based on this general use classification is deemed adequate to provide minimal hazard to non-target flora and fauna.

103 Conclusions

EEB has completed a full risk assessment (3(c)(5) finding) of the proposed registration of paclobutrazol for use in greenhouses for container-grown chrysanthemums, poinsettias, geraniums and hydrangeas. Based upon the available data and use information EEB concludes that the proposed use provides for minimal hazard to nontarget organisms.

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