R.F.

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

FEB 9 1990

OFFICE OF
PESTICIDES AND TOXIC SUBSTANCES

MEMORANDUM

SUBJECT: 90-MN-02. Section 18 Exemption for Tilt (propiconazole) on wild rice. No MRID #. DEB # 6241

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and

Toxicology Branch
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The Minnesota Department of Agriculture has requested a Section 18 exemption for the use of Tilt to control fungal brown spot on wild rice. Similar requests were submitted previously (84-MN-06, K. Dockter 7/6/84; 88 MN-04, F. Suhre 6/3/88) which received favorable recommendations from DEB.

Tilt 3.6 EC (EPA Reg. No. 100-617) is a registered trademark of CIBA-GEIGY Corp. It contains 3.6 lbs./gal propiconazole (1-[[2-=(2,4-dichlorophenyl)-4-propyl-1,3-dioxolan-2-yl]methyl]-1H-1,2,4-triazole) as the active ingredient.

Tolerances

Tolerances are established (40 CFR 180.434) for propiconazole and

its metabolites determined as 2,4-dichlorobenzoic acid, in or on numerous RAC(s) including: rice grain (0.1 ppm); rice straw (3.0 ppm); meat, fat and meat byproducts (except kidney and liver) of cattle, hogs, poultry, goats and horses (0.1 ppm); kidney and liver of cattle, hogs, poultry, goats and horses (0.2 ppm); eggs (0.1 ppm); milk (0.05 ppm).

Proposed Use

Tilt 3.6 EC, as an emulsifiable concentrate, is to be applied by aerial application to all areas in Minnesota where wild rice is grown. There are to be two applications each of 6 fl.oz (0.168 lbs. or 76 g ai)/A for a total application of 152 g ai/A. The total area to be treated is 22,000 acres. No PHI is specified in this Sec. 18 request. However, previous Sec. 18 exemptions for Tilt 3.6 EC indicate PHI(s) of at least 23 days following final application.

Restriction: The product is not to be applied directly to water because of its potential toxicity to fish.

Metabolism

The metabolic nature of propiconazole in plants and animals is adequately understood. The residues of concern are the parent compound and its metabolites determined as 2,4-dichlorobenzoic acid(PP#4F3074, A. Smith 7/12/84).

Residue Considerations

Residue data submitted with a previous Section 18 request (84-MN-06) indicated that residues of Tilt, as parent compound and metabolites, ranged from 0.06 ppm to 0.14 ppm on wild rice after two applicatons of tilt at 75 g. ai/A, PHI=23 days (Accession No. 252457). Two applications at 14 day intervals were used in generating this data.

Recent residue data submitted by CIBA-GEIGY Corp. (Accession No. 41063801) indicate residue findings from field trials, after treatment of wild rice with Tilt 3.6, were as described in the table below:

RESIDUES* OF PROPICONAZOLE IN OR ON WILD RICE GRAIN
(Foliar Ground Applications of Tilt)

Sample	Rate (g ai/A)	Total ((g ai/A)	PHI (days)	Total Residues(ppm)
7814MN	75	75	37	<0.05
7814MN	100	100	37	0.24
8511MN	100	100	49	0.07
8511MN	100	100	49	<0.05
8511MN	2 x 100	200	35	0.09
8511MN	200	200	49	0.06

*Residues detected as 2,4-dichlorobenzoic acid methyl ester and converted to propiconazole equivalents (Accession # 41063801).

Data submitted by the petitioner, which compared ground and aerial applications of Tilt on rice, indicate that residue levels expected from aerial applications are lower than residues from ground applications. Further the petitioner states that neither wild rice grain nor hay is fed to livestock (Accession # 41063801).

Meat, Milk, Poultry and Eggs

Wild rice grain or its by-products (milled) and straw, are not customarily considered to be useful animal feed items (PP#7E1881, R. Perfetti 3/15/77). However, if these commodities should be used as animal feed items, due to environmental stresses such as drought, DEB reviews of previous uses of Tilt 3.6 EC concluded that the maximum dietary burdens expected to be contributed are < 0.35 ppm to cattle diet and < 0.04 ppm to poultry diet and that secondary residues will not exceed 0.05 ppm in milk, eggs and meat, fat, meat by-products of cattle hogs, sheep and goats (86-TX-05, F. Suhre 3/17/86; 84-AR-02, S. Malak 4/18/84).

Residue Analytical Method

Residue Method AG-454A, Determination of Total Residues of Propiconazole in Crops as 2,4-Dichlorobenzoic Acid by Capillary Gas Chromatography, is adequate for enforcement purposes. This method was successfully validated (PP#4F3074).

Conclusions

1. The metabolic nature of propiconazole in plants is adequately understood. The residues of concern are the parent compound, propiconazole per se, and its metabolites determined as 2,4-dichlorobenzoic acid.

2. Adequate residue analytical methodology is available for enforcement purposes (Method AG-454A).

3. Residues of propiconazole/metabolites (determined as 2,4-dichlorobenzoic acid and expressed as propiconazole) are not expected to exceed 0.3 ppm in or on wild rice grain, at PHI=40 days, as a result of this Section 18 exemption.

4. Secondary residues of Tilt in meat, milk, poultry and eggs are not expected to exceed established tolerances as a result of this Sec. 18 exemption.

5. Reference standards for propiconazole are available from the EPA Pesticide and Industrial Chemical Repository in RTP, N.C.

Recommendation

TOX considerations permitting, DEB has no objection to the issuance of this Section 18 exemption, provided a post treatment interval of at least 40 days is observed. An agreement should be made with FDA regarding the legal status of the treated commodity in commerce.

CC: R.F., Tilt S.F., Circu, AIKENS, Sec. 18 , PMSD/ISB
RDI:FB:2/9/90:EZ:2/9/90
H7509C:DEB:AMA:aa:CM#2:Rm 810:557-7379:2/8/90