109901
SHAUGHNESSEY NO.

19
REVIEW NO.

EEB BRANCH REVIEW

DATE: IN 2/11/82 OUT 4/14/82

FILE OR REG. NO. 3125-320

PETITION OR EXP. PERMIT NO.

DATE OF SUBMISSION 1/25/82

DATE RECEIVED BY HED 2/8/82

RD REQUESTED COMPLETION DATE 4/20/82

EEB ESTIMATED COMPLETION DATE

RD ACTION CODE/TYPE OF REVIEW 330/Amendment - New Food/Feed Use

TYPE PRODUCT(S): I, D, H, F, N, R, S Fungicide

DATA ACCESSION NO(S).

PRODUCT MANAGER NO. H. Jacoby (21)

PRODUCT NAME(S) Bayleton 50% WP

COMPANY NAME Mobay Chemical Corporation

SUBMISSION PURPOSE Proposed conditional registration of pear use

SHAUGHNESSEY NO.	CHEMICAL, & FORMULATION	% A.I.

ENVIRONMENTAL SAFETY REVIEW

100 Pesticide Name

Bayleton® (Triadimefon)

100.1 Pesticide Use

Bayleton 50% WP will be used as a systemic fungicide for control of certain diseases of pears.

100.2 Formulation Information

ACTIVE INGREDIENT:
1-(4-Chlorophenoxy)-3 3-dimethyl-1-(1H
-1 2 4-triazol-1-yl-2-butanone .... .50%

100.3 Application Method. Directions Rates

Rate of Application* (50% W.P.)			Number of Applications
	OZ/A	OZ/100 gal.	
West of the Rocky Mts.	4-8	1-2	A maximum of 3 applications per season, ie 24 oz of Bayleton 50% WP per acre per season.
East of the Rocky Mts.	2-4	1/2-2	

*can be applied by ground or aerial spray

101 Physical and Chemical Properties

see previous review by R Balcomb dated 1/27/82

102 Behavior in Environment

(A summary from previous review by R. Balcomb dated 1/27/82) Triadimefon is stable to hydrolysis but susceptable to photodegradation in water with a half-life of 10-12 hrs. It is non-persistant in soil with the half-life of 6 days (in aerobic soil in lab study) or 5 days (in field study) and rlative low leaching ability It is also rapidly metabolized and excreted by test animals with little or no tendency of accumulation in tissues.

103 Toxicological Properties

(A summary from previous review by R. Balcomb dated 1/27/82) Triadimefon is practically non-toxic or slightly toxic to most mammal species tested. It is also practically non-toxic to avian species and slightly toxic to fish species tested. However, it is moderately toxic to daphnia. Triadimefon is also relatively non-toxic to honey bees.

104.0 Hazard Assessment

(From previous EEB review on proposed conditional registration of uses on apples grapes and seed grass) Acute oral and short-term dietary studies (Section 103.1-2) demonstrate that Bayleton is of low toxicity to mammals and birds. The highest rate of application requested under the proposed new uses (.5 lbs a.i./A) may result in (maximum) residues on typical avian and small mammal foods (insects, small fruits and seeds) of 6-29 ppm (Kenaga 1973). The 'worst case' residue situation would arise on thin broad-leaf surfaces where concentrations of 100 ppm may occur. Using even the 'worst case' scenario acute poisoning of terrestrial wildlife appears a remote possibility.

Short-term (96-hr) fish tests for three species demonstrate with consistency the low toxicity of Bayleton (Bluegill = 11 ppm, Rainbow trout = 14 ppm and channel catfish = 15 ppm) to aquatic vertebrates. The Daphnia 48-hr LC50 through somewhat lower (1.6 ppm) suggests aquatic invertebrates are likewise not sensitive to this compound. Bayleton is of sufficiently low toxicity such that a direct application (max. rate) to shallow water (6") would not be expected to result in significant effects (estimated concentration = 0.367 ppm) (by R. Balcomb 1/27/82). Although a worst case EEC of 0.367 ppm slightly exceeds the MATC for Daphnia > 154 < 314 ppb, a significant increase in risk to non-target aquatic invertebrates is unlikely in light of its current usages (see EEB review by R. Lee 4/'82). Furthermore the direct application situation would not develop during these uses.

104.3 Endangered Species Considerations

No potential hazard is expected.

105.0 Conclusions

105.1 Data Requests

No additional data are required.

105.2 Summary

EEB has completed an incremental risk assessment (3(c)(7) Finding) of the proposed conditional registration of triadimefon for use on pear. Based upon the available data EEB concludes that proposed use provide for no significant increase in exposure or risk to nontarget organisms.

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