

18 DEC 1981

Date:

Subject: Conditional registration of Oftanol 1.5% and 5.0% granular for use on turf and other similar areas

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This is a response to Mobay's request for a conditional registration of Oftanol 1.5% and 5.0% granular for use on turf and other similar areas.

The Estimated Environmental Concentration (EEC) for turf (refer to memo dated Sept. 18, 1981) was calculated at 0.21-0.23 ppm. This value suggests that the residue levels resulting from runoff have exceeded acute toxicity levels (i.e. Daphnia LC<sub>50</sub> = 3.9 ppb), as well as, chronic toxicity levels. This EEC is greater than 0.01 of the acute aquatic LC<sub>50</sub>, implying that chronic risk may occur to aquatic organisms.

The EEC for corn was calculated at 1 ppb. Because of the higher environmental concentration from turf use, Oftanol 1.5% and 5% granular may result in a significant increase in potential hazard to the environment.

EEB has reviewed the proposed conditional registration of Oftanol 1.5% and 5.0% granular for use on turf. EEB is unable to complete an incremental risk assessment for this use because pertinent chronic test data are lacking. In order to assess the risk associated with this use, EEB requires the following data:

- 1) Fish embryolarva test.
- 2) An avian reproductive study for Bobwhite Quail and Mallard Duck.
- 3) A short-term (small pen) field test for avian wildlife.
- 4) Field research to obtain residue analysis on grass, grass seeds, and other non-target avian feed items.

EEB recognizes that substantial time is needed to generate the above data. However, a risk assessment can not be developed until these studies are completed. Rationale for requiring these tests are as follows:

- 1) Pesticide product is expected to transport to water from the intended use site.
- 2) The estimated pesticide concentration in water is greater than 0.01 of the LC<sub>50</sub> (0.018 ppm and .000039 ppm).

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- 3) Acute aquatic LC<sub>50</sub> is less than 1 mg/l (Trout LC<sub>50</sub> = 1.8 ppm; Daphnia LC<sub>50</sub> = 3.9 ppb).
- 4) Reproductive impairment as demonstrated by mammalian or avian studies. (The Toxicology Branch concluded 11/15/79 that Oftanol depressed rat pregnancy rates for first and second matings).
- 5) Physiocochemical properties indicating cumulative effects (water solubility is less than 0.5 mg/l and octanol/water partition coefficient is greater than 1000).
- 6) Pesticide is persistent in water (one-half life in water is greater than 4 days).