US EPA ARCHIVE DOCUMENT

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY 000719

DATE: September 7, 1977

SUBJECT: File Symbol 35899-EUP-2. Benomyl 0.3% + 99.7% Dimethylformamide. Texas A & M University, College Station, Texas.

FROM: Toxicology Branch

TO: Mr. Donald E. Stubbs, Special Registration Section

Applicant seeks renewal of his EUP for treatment of fungal infections of trees.

Toxicity studies on the formulations were conducted by Microbiological and Biochemical Assay Laboratories, Inc. (M.B.A. Laboratories), Houston, Texas. Studies were conducted as specified in CFR 16, Part 1500.

Acute Oral Toxicity - rat LD_{50} = 5300 mg/kg
Acute Dermal Toxicity - rabbit LD_{50} = 4000 mg/kg
Primary Dermal Irritation - rabbit Score of 0.5. Erythema on abraded skin at 24 and 72 hours
Eye Irritation - rabbit: Positive as an eye irritant. One rabbit dead at 72 hours; slight dulling of cornea at 144 hours in 2 rabbits; keratitis and conjunctivitis at 24 -72 hours in others.

RECOMMENDATION: EUP may be extended. However, CFR 16 does not specify the sex of rats to be used for acute oral toxicity studies. Generally, EPA requires the study be conducted on both male and female rats since acute oral toxicities for some chemicals vary according to sex. Therefore, laboratory should be asked for sex identity of the rats used, and if possible, the LD_{50} should be calculated for each sex as well as for the two sexes combined.

Also, the file should give the toxicity values for the technical benomyl and the technical dimethylformamide as well as the formulation used. Generally, this information can be furnished by the basic suppliers of the chemicals. Acute inhalation toxicities of the formulation and/or the technical components also would be desirable. The acute inhalation toxicity of the formulation should be determined for registration.

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