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

JAN 11 1982
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OFFICE OF
PESTICIDES AND TOXIC SUBSTANCES

MEMORANDUM

DATE: December 14, 1981

SUBJECT: Oryzalin metabolism studies, Accession No. 246113, 10/22/81, TB/HED comments on.

FROM: Mary L. Quaife, Ph.D. MLQ. 12/14/81
Toxicology Branch/HED (TS-769) RFJ 12/17/81

TO: Registration Division (TS-767) ELJr 12/18

EPA Ident. Nos. 1471-96
1471-112

Eli Lilly and Company
Greenfield, Indiana 46140

RECOMMENDATION: A TOX gap with respect to general (e.g., rat) metabolism studies on oryzalin exists. Neither the biochemical pathway of metabolism nor identity of major and minor metabolites is delineated.

INTRODUCTION: Some of these data have been submitted previously and/or are in the review province of RCB, we believe:

1. Rate and Route of Excretion in a Goat of Orally Administered ^{14}C EL-119.
2. Rate and Route of Excretion in Chickens of Orally Administered ^{14}C EL-119, 5/10/73.
3. Balance-Excretion and Metabolism Study of ^{14}C Oryzalin in a Steer, 9/80.
4. Radiochemical Studies with ^{14}C Oryzalin ((in soybeans)).
5. Large Animal Feeding Studies with ^{14}C Oryzalin in a Lactating Cow, a Steer, A Barrow, and Laying Hens, 11/80.

Three studies, previously submitted, relate to human safety evaluation:

1a. Studies on the Absorption and Excretion of Compound 67919 in Rats, 8/68 (reviewed by Mr. D. Ritter, TB, PP No. 2G1201, 1/21/72).
2a. Induction of p-Nitroanisole-O-Demethylation by Compound 67019, 5/17/71 (also reviewed by Mr. Ritter, PP No. 2G1201, 1/21/72).
3a. Excretion and Metabolism of EL-119 by Rats, Rabbits, and Ducks, 10/72 (reviewed by Mr. W. S. Cox, RCB, PP No. 3F1347, 7/11/73) who found these single-dose, C^{14} studies show that oryzalin is excreted rapidly via the feces and urine (in rats, also, via bile), and <u>in vivo</u> many metabolites are formed (not identified).