

US EPA ARCHIVE DOCUMENT

UNITED STATES GOVERNMENT
OFFICE OF PESTICIDE REGULATION

Review of MRID# 00091536

000008

TO : Dr. George Wisnorski S-990

DATE: February 14, 1968

FROM : Dr. Clara H. Williams S-970 *Clara H. Williams*

SUBJECT: Pesticide Petition SF0686 Diazinon. Data on ChE Inhibition.

I have reviewed the data submitted by Bio-Test Laboratories for the measurement of ChE activity after administration of Diazinon to human males.

My conclusions are:

When fed at 0.05 mg/kg/day to 3 humans, Diazinon produced a 40% inhibition of plasma ChE after 5 days feeding. There was no change in erythrocyte ChE activity.

When fed at 0.025 mg/kg/day there was a 23% inhibition of plasma ChE from day 12 thru day 43. The amount of inhibition remained roughly constant, so this inhibition doesn't seem too significant. There was no change in erythrocyte ChE.

When fed at 0.02 mg/kg/day for 37 days there was no inhibition of either plasma or erythrocyte ChE.

Therefore, diazinon at 0.05 mg/kg/day represents an "effect" level for plasma ChE inhibition in human males, 0.025 mg/kg/day represents a questionable "effect" level and 0.02 mg/kg/day represents a "no effect" level. The "no effect" level for erythrocyte inhibition is 0.05 mg/kg/day.

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