

April 19, 1966

Mr. Kermit L. Mourer, Director
Pharmaceutical Division
Norden Laboratories, Inc.
Lincoln, Nebraska 68501

Dear Mr. Mourer:

Your letter of April 14, 1966 concerning toxicity data for Aroclor 5460 since 1957 has been referred to me for reply.

The only toxicity data that we have accumulated since 1957 is as follows:

The acute oral LD_{50} for mixed sex rats was 19,200 (16,300-22,500) mg/kg when Aroclor 5460 was administered as a 33.3 percent solution in corn oil. The survival time was 3 to 5 days. The toxic signs observed were severe diarrhea, loss of appetite, lethargy and eventual collapse. Gross autopsy revealed inflammation of the gastric mucosa with liver and renal congestion. By this route of administration Aroclor 5460 was classed as practically non-toxic.

The application of a 33.33 percent solution in corn oil of Aroclor 5460 to the clipped intact skin of female rabbits indicated that the minimal lethal dose was greater than 7940 mg/kg. The dose was applied over a 3 day period so as to prevent run-off of the sample. The only untoward signs observed from this dose were reduced appetite and moderate lethargy. By this route of administration Aroclor 5460 was classed as practically non-toxic.

PCB-ARCH-EXT0375633

In a subacute dermal study when a 50 percent (w/v) corn oil solution of Aroclor 5460 was applied to the clipped intact skin of rabbits at doses of 100, 500 and 1000 mg/kg/day for 20 days, the dose of 100 mg/kg failed to adversely affect the body weight. The weights were comparable to the controls. However, the 500 and 1000 mg/kg doses produced slight to moderately adverse effects, respectively, upon body weight.

The 20 day subacute dermal LD_{50} was 250 mg/kg. There was generalized inactivity, weakness, lassitude and loss of appetite from the 500 and 1000 mg/kg/day doses. These signs were not observed in animals which received the 100 mg/kg/day dose. Erythema progressing to subdermal hemorrhages was noted among animals of all test doses. The severity of reaction was related to the magnitude of the dose. During the 14 day observation period following the dosing the application site of the animals which received the 100 mg/kg/day dose became necrotic. By the end of this period the necrotic areas began to slough off revealing new skin.

The hematologic data and the results of urine analysis for the test groups in this subacute study compared well with those of the treated control group animals.

There were no significant gross or microscopic pathologic tissue alterations noted among the surviving test animals sacrificed at the conclusion of the test which were attributed to absorption of the test material. Findings for the test animals were comparable to those seen in the treated control animals.

I trust the above will be helpful and if we may be of further service please contact me directly.

Sincerely,

William H. Hunt, Ph.D.
Toxicologist
Medical Department

WHH:cjs

bcc: D. Press

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