bcc E. C. Wilde - EWILD

December 30, 1965

Dr. M. J. Thomas
Capsular Research and
Product Development Department
Research Division
National Cash Register Company
Dayton 9, Ohio

Dear Dr. Thomas

Pursuant to our telephone conversation on December 29, I am submitting the following acute toxicity for Aroclor 1242 as per your request.

Aroclor 1242 - Acute Toxicity Screening Data

Oral Toxicity - Rats - Mixed Sex - Administered Undiluted
The LD_{50} was 8650 (7610-9775) mg/kg. The survival time was from about 24 hours to 3 days with most of the deaths occurring in 2 days. The toxic signs were diarrhea, loss of appetite, increasing weakness, dyspnea and collapse. At autopsy, macroscopic examination revealed liver and renal hyperemia. By this route of administration, the preparation was classed as practically non-toxic.

Skin Absorption - Female Rabbits - Applied Undiluted - Intact Skin
The minimal lethal dose was greater than 794 and less than 1260 mg/kg. The survival time was 4 to 10 days. Toxic signs were poor appetite with marked weight loss, occasional squealing after several days, and collapse. At autopsy, macroscopic examination revealed a soft liver with light color and pulmonary congestion. By this route of administration, this preparation was classed as moderately toxic to female rabbits.

Subacute Dermal Toxicity - These studies were conducted on the clipped intact skin of mixed sex rabbits with the preparation being employed as a 4 percent solution in corn oil. Three dose levels were employed namely, 50, 75 and 100 mg/kg/day for 20 days. The body weights of those receiving 50 mg/kg compared favorably with those of the dosing of the 75 mg/kg group. However,

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the surviving male of this group regained the slight weight loss during the subsequent observation period. There were moderate adverse body weight effects in those receiving the 100 mg/kg dose.

The mean lethal dose for this preparation by this route and dosing procedure was 75 mg/kg. The toxic signs exhibited by the 100 mg/kg dose group were generalized inactivity, severe weakness, lassitude, and loss of appetite. No untoward signs were noted in the 50 mg/kg group. There were no significant local skin reactions noted at any of the dose levels. Findings for the test animals were comparable to those of the treated controls.

The hematologic data and results of urine analysis for the test group of animals compared well with those of the treated controls.

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

Vapor Inhalation Studies - Attached is a reprint of the publication "The Toxicity of the Vapors of Aroclor 1242 and Aroclor 1254."

In addition to the above, we wish to point out that the Aroclors, when in contact with human skin, have a defatting effect similar to that of many organic solvents. Therefore, care should be exercised to avoid skin contact. Repeated or prolonged skin contact could induce a drying and cracking of the skin and the possibility of a dermatitis.

Sincerely yours,

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

WHH:cjs

Enclosure

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