



Great Lakes
Chemical Corporation

COMPANY SANITIZED

P.O. BOX 2200 • HIGHWAY 52 N.W. • WEST LAFAYETTE, IN 47906 • PHONE: 317-497-6100 • FAX: 317-497-6234 • TELEX: 27-9428 • CABLE: GLAKCHEM LAFAYETTE

14 October 1992

8EHQ-1092-85765

Document Processing Center (TS-790)
Office of Toxic Substances
U.S. Environmental Protection Agency
401 M Street, S.W.
Washington, D.C. 20460
Attention: Section 8(e) Coordinator

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[]

Re: Tetrahydrofurfuryl Alcohol (THFA; CAS No. 97-99-4) TSCA 8(e) Notice
(When responding, please refer to JAB-92-294)

Gentlemen:

Great Lakes Chemical Corporation is submitting a TSCA Section 8(e) substantial risk notification concerning a dose range-finding developmental toxicity study in rats with THFA. The study was performed at [

] The following information was received from []

on October 12, 1992.

Groups of eight (8) females (confirmed cohabitation with a male) were administered a single, daily, oral dose of either deionized water (control vehicle) or THFA at 10, 50, 100, 500 or 1000 mg/kg/day during the period of major organogenesis (gestation days 6 through 15). No maternal mortality or abortions were recorded. However, a 100% incidence of early resorptions was recorded for the two highest dose levels (500 and 1000 mg/kg/day). Females at 0, 10, 50 and 100 mg/kg/day did not exhibit any early or late resorptions. Thus, fetuses of litters at these dosage levels were all viable.

When compared to the control group, statistically significant ($p \leq 0.05$) depression in mean maternal body weight gains were noted during gestation days 8 and 15 for test groups receiving 1000 and 500 mg/kg/day, respectively. Mean body weight gains for these two groups continued to exhibit depression throughout the remainder of the study, but statistical significance increased ($p \leq 0.01$). Statistically significant ($p \leq 0.05$ or 0.01) decreases in mean food consumption were also noted specifically in the two highest dose levels. The onset of decreased food consumption was observed first during gestation day seven (7) and such observations continued for the most part throughout the remainder of the study.

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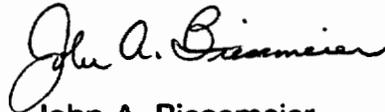
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Observations were recorded at one, two, and four hours after dosing. Clinical findings associated with oral administration of THFA at 1000 mg/kg/day were described as impaired mobility, decreased muscle tone of hindlimbs, absence of pain response of hindlimbs, and exophthalmus of both eyes. Transient clinical findings included lacrimation of eye(s), dried red material around one eye, and/or dried red material around nose.

Mean body weights per litter for both male and female fetuses at 100 mg/kg/day were statistically significantly lower ($p \leq 0.01$) when compared to the control group. Although not significant statistically, 5 of 124 fetuses (4 of 8 litters) at 100 mg/kg/day exhibited an external malformation known as filamentous tail.

If you have any questions, please contact me at (317) 497-6223.

Respectively,



John A. Biesemeier
Regulatory Toxicologist
Regulatory Affairs

JAB:ky