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December 29, 2009

Via Federal Express

Document Processing Center (Mail Code 7407M)
Room 6428
Attention: 8(e) Coordinator
Office of Pollution Prevention and Toxics
U.S. Environmental Protection Agency, ICC Building
1201 Constitution Ave., NW
Washington, DC 20004

Dear 8(e) Coordinator:

8EHQ-06-16436/8EHQ-06-16478

This letter is to inform you of the results of a 90-day oral toxicity study in mice with the above referenced test substance. This test substance is subject to a Consent Order, PMN P-08-509.

Four groups of young adult male and female Crl:CD1 mice (10/sex/group) were dosed by oral gavage for at least 90 days. Mice were dosed with the test substance in deionized water at doses of 0 (control), 0.1, 0.5, or 5 mg/kg/day of the test substance. The control mice were dosed with deionized water at the same dose volume as the high dose group. In the animals designated for subchronic toxicity evaluation, body weights, food consumption, and detailed clinical observations were evaluated weekly and acute clinical observations were evaluated daily. All mice received ophthalmology examinations prior to study start and all subchronic toxicity mice were examined near the end of the dosing period. Neurobehavioral evaluations (abbreviated functional observational battery [FOB] and motor activity) were evaluated in all subchronic toxicity mice prior to study start (including spares) and near the end of dosing. Clinical pathology endpoints (hematology, clinical chemistry, coagulation parameters) were evaluated at the end of the exposure period. After 96 (males) or 97 (females) days of dosing, the surviving mice were sacrificed and given a gross and microscopic pathological examination.

No test substance-related deaths occurred. No neurobehavioral, clinical or ophthalmological observations were attributed to exposure to the test substance. No deaths, clinical or ophthalmological observations, or neurobehavioral effects were attributed to test substance exposure. Body weight and nutritional parameters in the 5 mg/kg/day male group were higher than in controls during the exposure period; the body weight increases were attributed mainly to increased liver weight. No test substance-related effects on body weight, body weight gain, food consumption, or food efficiency were observed in males in lower dose groups or in females in any dose group.

Preliminary clinical and anatomic pathology data are available. These data indicate there were no adverse, treatment-related changes in hematology, coagulation, or urinalysis parameters attributed to exposure to the test substance. Total bile acids and liver enzymes (alanine aminotransferase, alkaline phosphatase, sorbitol dehydrogenase, and aspartate aminotransferase (males only) were increased in both sexes at 5 mg/kg/day and were associated with increased liver weights and liver microscopic pathology: hypertrophy, focal necrosis, and increased binucleate hepatocytes (males and females), and increased mitoses, apoptosis, and Kupffer cell pigment (males only). Liver hypertrophy was also observed in males at 0.5 mg/kg/day. Increased albumin (both sexes) and total protein (males only) were observed at 5 mg/kg/day. Effects were generally more severe in males than in females.

Other statistically significant clinical pathology differences included increased platelets in 0.5 and 5 mg/kg/day males, increased monocytes in 0.1 mg/kg/day females, reduced cholesterol in 5 mg/kg/day males, increased albumin and total protein (males only) in 5 mg/kg/day males and females, reduced bilirubin in 5 mg/kg/day females, increased chloride in 5 mg/kg/day males, reduced potassium in 5 mg/kg/day males and females. Other statistically

significant anatomic pathology differences of uncertain relationship to treatment included slightly increased adrenal weights with adrenal cortical hypertrophy, increased kidney weight with minimal tubular epithelial hypertrophy in 5 mg/kg/day males, and reduced spleen weight with no corroborative pathological changes.

This information is submitted in accordance with current guidance issued by EPA indicating EPA's interpretation of Section 8(e) of the Toxic Substances Control Act or, where it is not clear that reporting criteria have been met, it is submitted as a precautionary measure and because it is information in which EPA may have an interest.

Sincerely,

A. Michael Kaplan, Ph.D.
Director - Regulatory Affairs

AMK/SAM: clp
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