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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  
1201 Constitution Ave., NW  
Washington, DC 20004



Dear 8(e) Coordinator:

Dimethylterephthalate (DMT)  
CAS # 120-61-6

This letter is to inform you of the results of four pre-1977 (1951-58) repeated oral toxicity studies in rats (3) and dogs (1), which we recently became aware of with the test substance referenced above.

A subacute oral toxicity study was conducted in young adult male rats dosed with 5000 mg/kg/day for 10 days over a two week period. All rats survived the dosing period but 5/6 rats died during the 14-day observation period post dosing. Marked weight loss, change in disposition, nervousness, ruffled fur and poor appetite were noted. Microscopic examination of the animals that died showed some pathological changes in the lungs, genitals, the spleen and stomach. The cause of death was emaciation and lack of appetite due to gastric contraction. No crystalline precipitate was noted in the urine nor were there calculi or crystals in the bladder or kidney. Hematuria and polyuria were not observed.

A subacute oral toxicity study was conducted with 6 young adult male rats at 5000 mg/kg/day for 15 treatments. Two rats were sacrificed after the 10<sup>th</sup> treatment, two died after the 11<sup>th</sup> treatment, one died after the 14<sup>th</sup> treatment, and the sixth animal was sacrificed after the 15<sup>th</sup> treatment. All animals appeared "irritable and jumpy" during treatment. All the rats exhibited precipitate in the urine, which was found to be terephthalic acid. Four of the six rats had minute ulcers of the granular portion of the stomach, and 2/4 rats also had enteritis. Minute kidney calculi were found in the renal pelvis of 2 rats and in the collecting tubules of one of these two rats, and one of these rats also had bladder calculi.

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In this subacute feeding study in rats, test diets containing 5% and 10% test substance in ground chow plus 1% peanut oil were offered to five and six weanling male rats, respectively. Rats receiving 5% diet were sacrificed after 16 days. All the rats fed the diet containing 5% DMT exhibited hematuria at different times during the study. All animals had bladder stones and 3/5 had minute calculi in the kidneys. Of the 6 rats fed 10% diet, four died before the end of the study on the second, ninth, fourteenth and seventeenth day. The 2 remaining rats were sacrificed on the 18<sup>th</sup> day. In the group of rats fed diet containing 10% DMT, 5/6 rats had bladder or kidney stones at autopsy and exhibited hematuria during the study.

A subchronic dog study was conducted with 4 mongrels. Dogs were observed for 4 weeks to establish normal values for blood pressure, pulse rate, body temperature, respiration rate, basal metabolic rate and for blood and urine analyses for each dog. Then each dog was administered DMT orally, by capsule, at a dose of 100 mg/kg of body weight, five days/week for 8 weeks. Beginning with the 9<sup>th</sup> week, each dog was given 200 mg/kg for an additional 14 weeks. Two of the dogs showed no clinical signs. The other 2 dogs became "nervous, sensitive and irritable". Variable changes in blood pressure and a slight lowering of blood sugar levels were noted in all the dogs. All other parameters evaluated, including pathology, were normal.

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 handwritten signature in cursive script that reads "A. Michael Kaplan".

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

AMK: clp  
(302) 366-5260