



DuPont Haskell Global Centers  
for Health and Environmental Sciences  
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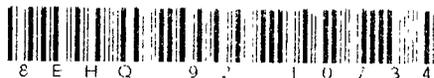
Attention: 8(e) Coordinator

Office of Pollution Prevention and Toxics

U.S. Environmental Protection Agency

1201 Constitution Ave., NW

Washington, DC 20004



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MR# 318279

Dear 8(e) Coordinator:

8EHQ-0992-10734

1H,3H-Benzo[1,2-c:4,5-c']difuran-1,3,5,7-tetrone  
(Pyromellitic dianhydride; PMDA)



This letter is to inform you of the results of a pre-1977 (1962) acute and repeated exposure inhalation toxicity study in rats, which we recently became aware of with the test substance referenced above.

Groups of male rats were exposed to the test substance as a dust for 4 hours at nominal concentrations of 2.8, 2.9, 3.2 or 11.1 mg/L. The Approximate Lethal Concentration (ALC) was 3 mg/L. Respiratory distress was observed varying from labored respiration at the highest level to rapid and slightly heavy breathing at the lower concentrations. The animals exhibited initial gasping, pallor, and inactivity.

A repeated exposure study was also conducted with 4 male rats exposed for 4 hours per day for 10 days over a two week period to an approximate nominal concentration of 2.8 mg/L. During the exposures, the rats showed intermittent gasping and labored respiration. Salivation, inactivity, and an intermittent appearance of red fluid around the eyes, nose and mouth were also noted. Body weight was irregular and significantly lower than that of the controls.

Gross and microscopic examination of the respiratory tract of rats exposed singly or repeatedly indicated that the test substance caused significant lung injury at all concentrations probably by acting directly on the pulmonary surfaces. Predominantly the lesions included hyperemia, focal hemorrhages, hyperinflation, and edema of the lungs; and desquamation of the tracheal, bronchial and bronchiolar mucosa. There was also noted focal hemorrhage and tubular necrosis of the kidney, centrilobular hepatocyte hypertrophy in the liver, and hyperplasia in the spleen which persisted through the 14-day observation period.

**Contains No CBI/CONTAINS NO CBI**

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