8EHQ-0296-13593

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Document Processing Center (TS-790)
Attention 8(e) Coordinator
Office of Pollution Prevention and Toxics
U.S. Environmental Protection Agency
401 M Street SW
Washington, D.C. 20460

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Dear 8(e) Coordinator:

1,5-Cyclooctadiene
CAS Number 111-78-4

This letter is to inform you of the results of a recently completed acute inhalation study in rats with the above-referenced test material.

Groups of six rats were exposed nose only to atmospheres of the test material for four hours. The exposures were conducted at concentrations of 4300, 2700 or 1400 ppm. Mortalities of 4/6, 1/6, and 0/6 were observed at concentrations of 4300, 2700, and 1400 ppm, respectively. At 4300 ppm, the mortalities occurred during the exposure and the one death at 2700 ppm occurred overnight following the exposure. By three hours into the exposures, all rats failed to respond to external sound stimulus. Clinical signs noted in some rats immediately post-exposure included, immobility, lethargy, ataxia and/or abnormal gait. These clinical signs were not observed the day after exposure or during the remainder of the 14-day observation period. The Approximate Lethal Concentration (ALC) was 2700 ppm.

In connection with this study, DuPont reviewed its files and became aware of two pre-1977 (1966) reports on the acute inhalation toxicity of pure 1,5-cyclooctadiene and a mixture containing 65% 1,5-cyclooctadiene. The inhalation LC50's for these samples were 2870 ppm and ~3700 ppm, respectively. Clinical signs noted during and immediately post-exposure were hyperpnea, dyspnea, lacrimation,

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mild hyperemia, incoordination and unresponsiveness. Pathologic changes were observed in the liver and kidneys of rats found dead or sacrificed within two days of exposure. However, rats sacrificed between two and seven days post-exposure showed no histologic changes in any organs. Thus, these effects appear to be reversible.

Since these observations appear to meet the criteria for reporting, as described in EPA's June 1991 "TSCA Section 8(e) reporting Guide", the Agency is being notified of these results.

Sincerely,

Charles F. Reinhardt

Charles F. Reinhardt, M.D.
Director

CFR/AMK:dj
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