

8ENQ-0875-13400



CHEMICAL MANUFACTURERS ASSOCIATION



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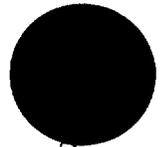
March 30, 1995

Langley A. Spurlock, Ph.D., CAE
Vice President, CHEMSTAR

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Attention: 8(e) Coordinator

Contains No CBI

Dear Sir or Madam:

The Chemical Manufacturers Association (CMA) submits this notice on behalf of its Cyclohexane Panel pursuant to Section 8(e) of the Toxic Substances Control Act.

A two-week inhalation range-finding study with rats and mice was conducted on cyclohexane (CAS No. 110-82-7) at the DuPont Haskell Laboratory in Newark, Delaware (DuPont MR Study No. 10160). The purpose of this range-finding study was to determine initial dose levels for further studies on cyclohexane that will be conducted as part of a comprehensive testing program under an Enforceable Consent Agreement (49 CFR Part 799; 59: 59660-59663, 11-18-94; Testing Consent Order for Cyclohexane).

In the two-week inhalation range-finding study, rats and mice (5 animals/sex, each species) were concurrently exposed to cyclohexane at 0 (control), 3000, 6000, or 9000 ppm daily for 6 hours/day. All animals were weighed each day prior to exposure, and were observed each day for clinical signs of toxicity before and after exposure. During exposure, only animals visible from the front of the chamber were observed for clinical signs and for an alerting response to a tap on the chamber wall. The tap was done three times during each exposure period for each chamber.

During exposure, abnormal behavior, consisting of periodic jumping and slow circling, was observed in mice exposed to 6000 and 9000 ppm. The activity occurred more frequently and in a higher incidence (based upon the number of animals observable) in the mice exposed to 9000 ppm than in the group exposed to 6000 ppm. Initially, this behavior in mice was observed only briefly on study day 2. By study day 5, the behavior began to occur within the first two hours of exposure initiation. This behavior was observed sporadically during the remaining study exposures. No abnormal clinical signs were observed in any mouse before or after exposure. No abnormal clinical signs were observed in any mouse exposed at 3000 ppm.

Rats did not display this jumping and circling behavior at any exposure level.

The behavioral effect noted above was previously reported for mice exposed to approximately 9000 ppm cyclohexane, but was not reported for lower exposure levels (Lazarew, K., *Arch. F. Exp. Pathol. Pharm.* 143: 223, 1929; Flurry, F. and Zernick, F., *Schadliche Gase (Berlin)*, 274-275, 1931).

4/12/95



Both rats and mice had diminished alerting responses at 6000 and 9000 ppm. Histopathological evaluation of both rats and mice is currently in progress.

The seven member companies of the CMA Cyclohexane Panel on whose behalf this submission is being made include:

Chevron Chemical Company
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Panel Contact: Dr. Fred Marashi
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Philadelphia, PA 19103
Panel Contact: Mr. Alan Vanacore
Telephone: 215/977-6066

If you have any questions regarding this letter, please contact Jonathon T. Busch of my staff at 202/887-1189.

Sincerely,



Langley A. Spurlock Ph.D., CAE
Vice President, CHEMSTAR

cc: Chevron Chemical Company/Mr. Mike Liittjohann
CITGO Petroleum Corporation/Mr. John Grabowski
DuPont/Dr. Jorge Olguin
Huntsman Corporation/Raymond Papciak
Kerr-McGee Refining Corporation/Mr. Steve Simpson
Phillips Petroleum Company/Dr. Fred Marashi
Sun Company Inc./Mr. Alan Vanacore
Cyclohexane TRTG