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January 30, 1996

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Office of Pollution Prevention and Toxics  
401 M Street, SW  
Washington, DC 20460

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Attention: TSCA 8(e) Coordinator

Dear Sir or Madam:

The Cyclohexane Panel of the Chemical Manufacturers Association submits to EPA the following preliminary results from its ongoing reproductive and fertility effects study with cyclohexane. These results are submitted pursuant to Section 8(e) of the Toxic Substances Control Act.

The study included exposing rats (30/sex/concentration) by inhalation to 0, 500, 2,000, or 7,000 ppm cyclohexane (6 hours/day, 5 days/week; whole body exposure). Following at least 7 weeks of exposures, the animals were bred within their respective treatment groups, and allowed to deliver and rear their offspring until weaning (postpartum day 25). Inhalation exposure of the dams continued throughout the gestation and lactation phases (6 hours/day, 7 days/week).

Parental toxicity was evident at 7,000 ppm, and included statistically significant decreases in pre-mating body weight, overall pre-mating body weight gain, and overall pre-mating food efficiency (grams of body weight gain per grams of food consumed) in female rats. There were no compound-related effects in mating or fertility indices, gestation length, mean number of pups/litter, mean pup birth weight, or pup survival indices (percent born alive, 0-4 day viability, and lactation index). However, mean pup weight for litters in the 7,000 ppm group was significantly reduced from lactation day 7 through lactation day 25.

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

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Panel Contact: Ms. Joanne Houck  
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If you have any questions regarding this letter, please contact Jonathon T. Busch of my staff at 703/741-5633.

Sincerely,



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

cc: Cyclohexane Panel  
Cyclohexane Toxicology Research Task Group  
John Harris, EPA  
Director, Office of Compliance Monitoring

F<sub>1</sub> PUP WEIGHT ANALYSIS (Grams)

<u>Day Post Partum</u>	<u>Exposure Group</u>			
	<u>0 ppm</u>	<u>500 ppm</u>	<u>2,000 ppm</u>	<u>7,000 ppm</u>
PUPWT_0	6.66	6.68	6.68	6.56
PUPWT_4A (preculling)	10.99	10.98	11.16	10.59
PUPWT_4B (postculling)	10.98	11.00	11.26	10.65
PUPWT_7	16.22	16.17	16.31	15.12 *
PUPWT_14	30.03	29.94	29.70	26.50 *
PUPWT_21	48.48	48.52	48.32	43.08 *
PUPWT_25	67.47	67.80	68.33	62.23 *

\* Statistically significant trend at  $p \leq 0.05$  by linear contrast of least square means from Analysis of Covariance.