



201-15058

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November 21, 2003

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Marianne Lamont Horinko, Administrator
U.S. Environmental Protection Agency
P.O. Box 1473
Merrifield, VA 2216

Attn: Chemical Right-to-Know Program

Re: EPA comments on the Test Plan and Robust Data Summary 1,5-Cyclooctadiene

Dear Administrator Horinko,

E. I. du Pont de Nemours & Company, Inc. received EPA's comments on the test plan and robust data summary for 1,5-Cyclooctadiene, CAS#111-78-4, and is pleased to respond. We have considered the recommended revisions to physiochemical data, environmental fate, and eco-toxicity. We have revised our submittal as needed on the attached summary sheet. Also included with this submittal is a revised robust data summary.

Please feel free to contact me with any questions or concerns you may have with regards to this submission at Edwin.L.Mongan-1@usa.dupont.com or by phone at 302-773-0910.

Sincerely,

Edwin L. Mongan, III
Manager, Environmental Stewardship
DuPont Safety, Health & Environment

Cc: Charles Auer – U.S. EPA
Office of Pollution Prevention & Toxics
U. S. Environmental Protection Agency
401 M Street, SW
Washington, DC 20460

1,5-Cyclooctadiene: Response to EPA Comments

Physiochemical Data

EPA comment: The submitter indicates that the estimated value for water solubility is adequate for this endpoint. EPA disagrees. In general, estimated water solubility data are not adequate for the purposes of the HPV Challenge Program. The submitter needs to provide measured data for this endpoint.

Response: A water solubility test following OECD guideline 105 is recommended.

Environmental Fate (photodegradation, stability in water, biodegradation, fugacity).

EPA comment – Stability in Water: The submitter indicates that adequate data are available for this endpoint. However, the submitter provided only information about volatilization, which does not address this endpoint. Even though this chemical does not have functional groups that are susceptible to hydrolysis, the submitter needs to explain this point in a robust summary.

Response: Requested data were added to the robust summary.

EPA comment – Biodegradation: The submitter indicates that adequate data for this endpoint are available. EPA disagrees. The submitter's BIOWIN-based conclusions for biodegradability are insufficient. The submitter needs to provide measured ready biodegradation data following OECG TG 301.

Response: A biodegradation study following OECD guideline 301 is recommended.

EPA comment – Fugacity: The submitter needs to recalculate its fugacity model using measured water solubility data. The use of estimated values introduces uncertainties that then become magnified in modeling applications.

Response: The fugacity model will be re-run using the newly acquired measured water solubility data.

Ecotoxicity (fish, invertebrates, and algae).

EPA comment: EPA agrees with the submitter's proposal to conduct an algal study. The submitted data for fish and invertebrates are inadequate because the studies were performed using nominal concentrations in which the chemical's volatility during the tests was not addressed. Therefore, tests should be conducted for fish (96-hours) and *Daphnia* (48-hour) using a closed system with no head space and mean measured concentrations.

Response: ECOSAR values run for fish and *Daphnia* are consistent with the reported measured data for these species. Since no algal toxicity data for 1,5-cyclooctadiene or any analogs were found, a study following OECD guideline 201 for algae will be conducted. Since ECOSAR predicts that algae are the most sensitive species, and an OECD study will be conducted for this species, the submitter believes that no additional testing on fish or daphnia is needed.