

EASTMAN

AR201-13435
Eastman Chemical Company
P.O. Box 511
Kingsport, Tennessee 37662

August 15, 2002

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Ms. Christine Todd Whitman, Administrator
U.S. EPA
P.O. Box 1473
Merrifield, VA 22116

Attn: Chemical Right-to-Know Program

RE: HPV Chemical Challenge Program, AR-201

Dear Ms. Whitman:

This letter is submitted by Eastman Chemical Company ("Eastman") in response to comments received from the Environmental Protection Agency ("EPA") dated August 14, 2002 following EPA's review of the test plan and robust summaries for 2,2,4-Trimethyl-1,3-propanediol (TMPD; CAS No.: 144-19-4). I would like to thank the EPA for its review and welcome the recognition of its completeness and fulfillment of Eastman's obligation to this chemical in the HPV program.

Below are the EPA's comments to our test plan and various robust summaries, and our responses:

Chemistry (melting point, boiling point, vapor pressure, water solubility, and partition coefficient).

1. "The submitter's approach to these endpoints is acceptable for the purposes of the HPV Challenge Program.

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

1. "The submitter's approach to these endpoints is acceptable for the purposes of the HPV Challenge Program. However, the fugacity calculation should have been done with the measured physicochemical data that are available for TMPD instead of relying on the model default values.

When I inserted the only "measured values", i.e., MP, BP, water solubility, and a Kow listed as an experimental match into the fugacity modeling program the same distribution percentages were obtained. It is important to note though that values derived from reference texts may also have been estimations. Since the fugacity results are derived from an experimental model they will always vary with refinement of the model over time.

2. "Fugacity. The input values used in the fugacity calculation need to be added to the robust summary."

The parameters utilized in this model were default values obtained from the EPIWIN program.

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Ecotoxicity (fish, invertebrates, and algae).

1. "The submitted ecotoxicity data are adequate and no further testing is required."

Health Effects (acute toxicity, repeat dose toxicity, genetic toxicity, and reproductive/developmental toxicity).

1. "Adequate test data are available for all health endpoints for the purposes of the HPV Challenge Program. However, the submitter needs to supply a robust summary for the reproductive toxicity endpoint. HPV Challenge Program guidance states that when a study addresses multiple endpoints, robust summaries are needed for each endpoint."

A robust summary for reproductive toxicity has been inserted.

2. "*Acute Toxicity*. Information missing from the robust summary includes the purity of the tested material and sex of the test animals."

The purity was not available for these studies and was already noted as such in the robust summaries.

3. "*Repeated-Dose Toxicity*. The submitter needs to define the specific tissues that were examined histopathologically because it is stated as "selected organs". The purity of the tested chemical is also missing."

The specific tissues histologically examined have been added to the robust summary. The purity was not available for this study and was already noted as such in the robust summary.

4. "*Genetic Toxicity (in vitro)*. In both summaries, the submitter needs to list concentrations that were tested. The submitter also needs to provide the number of replicate plates per concentration for the reverse mutation in bacteria study and the number of metaphases per concentration that were examined for the chromosomal aberration assay."

Since no evidence of genotoxicity was observed and both studies followed OECD guidelines only the maximum concentration tested was listed. Data have been reported in this manner without comment in other submissions. Information detailing the number of replicates per dose and cells counted has been added to the robust summaries.

Enclosed with this letter is a computer diskette containing the test plan and modified robust summaries in Adobe Acrobat (.pdf) format. The HPV registration number for Eastman Chemical Company is

James A. Deyo, D.V.M., Ph.D., D.A.B.T.
Technical Associate

Enclosure