

July 25, 2002

Elizabeth J. Moran, Ph.D.
American Chemistry Council Olefins Panel
Panel Manager
1300 Wilson Boulevard
Arlington, VA 22209

Dear Dr. Moran:

The Office of Pollution Prevention and Toxics is transmitting EPA's comments on the robust summaries and test plan for Propylene Streams, posted on the ChemRTK HPV Challenge Program Web site on December 6, 2001. I commend The American Chemistry Council Olefins Panel HPV Task Group for its commitment to the HPV Challenge Program.

EPA reviews test plans and robust summaries to determine whether the reported data and test plans will provide the data necessary to adequately characterize each SIDS endpoint. On its Challenge Web site, EPA has provided guidance for determining the adequacy of data and preparing test plans used to prioritize chemicals for further work.

EPA will post this letter and the enclosed Comments on the HPV Challenge Web site within the next few days. As noted in the comments, we ask that The American Chemistry Council Olefins Panel HPV Task Group advise the Agency, within 60 days of this posting on the Web site, of any modifications to its submission.

If you have any questions about this response, please contact Richard Hefter, Chief of the HPV Chemicals Branch, at 202-564-7649. Submit questions about the HPV Challenge Program through the HPV Challenge Program Web site "Submit Technical Questions" button or through the TSCA Assistance Information Service (TSCA Hotline) at (202) 554-1404. The TSCA Hotline can also be reached by e-mail at tsca-hotline@epa.gov.

I thank you for your submission and look forward to your continued participation in the HPV Challenge Program.

Sincerely,

Oscar Hernandez, Director
Risk Assessment Division

Enclosure

cc: W. Sanders
A. Abramson

C. Auer
M. E. Weber

**EPA Comments on Chemical RTK HPV Challenge Submission:
Propylene Streams Category**

SUMMARY OF EPA COMMENTS

The sponsor, the Olefins Panel of the American Chemistry Council, submitted a test plan and robust summaries to EPA for the "Propylene Streams Category" dated November 7, 2001. EPA posted the submission on the ChemRTK HPV Challenge Web site on December 6, 2001. Two CAS numbers (115-07-1, propylene, and 68606-26-8, C3 hydrocarbons) are used to describe the four streams in the Propylene Streams category, which are mixtures comprised primarily of propylene and propane.

EPA has reviewed this submission and has reached the following conclusions:

1. Category Justification. The submitter's grouping of propylene and propane under this category is acceptable and the proposed use of toxicity data for propylene and propane to characterize four process streams in this category is appropriate based on composition data provided in the test plan.
2. Physicochemical and Environmental Fate Data. The submitter needs to provide measured physicochemical data and calculated environmental fate data for these chemicals.
3. Health Endpoints. EPA was unable to evaluate the proposed test plan with respect to human health endpoints because data for propylene will be submitted in a separate test plan under the ICCA program. Therefore, the ultimate acceptability of the present category test plan depends on the acceptability of the referenced test plan. EPA will evaluate both the propylene and propane data after the propylene test plan has been submitted.
4. Ecotoxicity. The submitter's proposal for ecotoxicity endpoints is acceptable.

EPA requests that the submitter advise the Agency within 60 days of any modifications to its submission.

**EPA COMMENTS ON THE PROPYLENE STREAMS CATEGORY
CHALLENGE SUBMISSION**

Category Definition

The submitter proposed a category covering propylene and propylene-containing streams that predominate in C3 hydrocarbons. Four streams are covered under the category, propylene (polymer grade), propylene (chemical grade), propylene stream, and light ends from a butadiene plant. The four propylene streams differ in their propylene content, with propane constituting the major portion of the balance of each stream. The submitter states that two CAS numbers describe the category streams, 115-07-1 (propylene) and 68606-26-8 (C3 hydrocarbons).

Category Justification

The submitter's primary justification for the category is the predominance of 1-propene (propylene) and other C3 hydrocarbons (e.g., propane) in the four hydrocarbon streams described above, and the streams' similar toxicological and environmental fate properties. The submitter will use the data generated from the testing of each compound separately to estimate the physicochemical properties and toxicity of the process streams, using "data on propylene to characterize streams that are predominantly propylene" and "data on

propylene and propane to characterize the mixed streams.” Since all four hydrocarbon streams predominantly contain propylene and propane, the proposal to use the data from propylene and propane to estimate the physicochemical properties and toxicity of the streams is acceptable.

Test Plan

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

The submitter indicates that it will develop physicochemical data using EPIWIN. However, the use of estimated values introduces uncertainties that then become magnified in modeling applications. The submitter needs to provide measured physicochemical property data in its robust summaries, both to characterize substances and to provide inputs to transport-distribution models. Some measured data should be available for these chemicals from published sources.

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

The submitter indicates in its test plan that photodegradation and fugacity will be either calculated or discussed. The submitter needs to provide calculated data in the robust summary format for these endpoints. The hydrolysis and biodegradation technical review documents that the submitter indicates it will provide need to be incorporated into their corresponding robust summaries.

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

The submitter indicates that the data for HPV purposes are, or will become, available from other testing programs for the acute, genetic, repeated dose, reproductive, and developmental toxicity end points of propylene and propane. The submitter states that it will provide a technical narrative that evaluates the data from these other programs that are applicable to the propylene streams category.

EPA will evaluate both the propylene and propane data after the propylene test plan has been submitted. The ultimate acceptability of the present category test plan depends on the acceptability of the referenced test plan.

Ecotoxicity.

The submitter’s approach to use SAR for ecotoxicity data endpoints is acceptable because the SAR class for these chemicals has been well studied and characterized. The robust summaries for these endpoints will need to include the calculated SAR data and the input values.

Specific Comments on the Robust Summaries

No robust summaries of existing data were submitted.

Followup Activity

EPA requests that the submitter advise the Agency within 60 days of any modifications to its submission.