

March 9, 2005

Elizabeth Hunt
Technical Contact for
The Dow Chemical Company
941 Rhonda Place SE
Leesburg, VA 20175

Dear Ms. Hunt:

The Office of Pollution Prevention and Toxics is transmitting EPA's comments on the robust summaries and test plan for 2,6-dimethyl-4-heptanol, posted on the ChemRTK HPV Challenge Program Web site on February 26, 2004. I commend the Dow Chemical Company 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.

As noted in the accompanying Comments, EPA agrees with the test plan for the health effects endpoints. However, according to HPV Challenge Program guidance, Dow should have waited until the close of the public comment period before initiating any needed testing,.

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 Dow advise the Agency, within 60 days of this posting on the Web site, of any modifications to its submission. Please send any electronic revisions or comments to the following e-mail addresses: oppt.ncic@epa.gov and chem.rtk@epa.gov.

If you have any questions about this response, please contact Mark Townsend, Acting Chief of the HPV Chemicals Branch, at 202-564-8617. Submit questions about the HPV Challenge Program through the "Contact Us" link on the HPV Challenge Program Web site pages or through the TSCA Assistance Information Service (TSCA Hotline) at (202) 554-1404. The TSCA Hotline can also be reached by e-mail at tsc-hotline@epa.gov.

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

Sincerely,

/S/

Oscar Hernandez, Director
Risk Assessment Division

Enclosure

cc: W. Penberthy
M. E. Weber

**EPA Comments on Chemical RTK HPV Challenge Submission:
2,6-Dimethyl-4-Heptanol**

Summary of EPA Comments

The sponsor, Dow Chemical Company, submitted a test plan and robust summaries to EPA for 2,6-dimethyl-4-heptanol (CAS No. 108-82-7) dated December 19, 2003. EPA posted the submission on the ChemRTK HPV Challenge Web site on February 26, 2004.

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

1. Physicochemical Properties. The data provided by the submitter for these endpoints are adequate for the purposes of the HPV Challenge Program.
2. Environmental Fate. The data provided by the submitter for these endpoints are adequate for the purposes of the HPV Challenge Program.
3. Health Effects. For the purposes of the HPV Challenge Program, the submitted data on acute toxicity are adequate. The gene mutation study needs clarification of a discrepancy as to one of the *Salmonella* strains used. EPA agrees that a combined repeated-dose/reproduction/developmental toxicity screening test and a chromosomal aberration study are needed.
4. Ecological Effects. Adequate data are available for the purposes of the HPV Challenge Program.

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

**EPA Comments on the 2,6-Dimethyl-4-heptanol
Challenge Submission**

Test Plan

Physicochemical Properties (melting point, boiling point, vapor pressure, partition coefficient and water solubility)

The data provided by the submitter for these endpoints are adequate for the purposes of the HPV Challenge Program.

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

The data provided by the submitter for these endpoints are adequate for the purposes of the HPV Challenge Program.

Health Effects (acute toxicity, repeated-dose toxicity, genetic toxicity, and reproductive/developmental toxicity)

For the purposes of the HPV Challenge Program, the submitted data on acute toxicity are adequate but additional details are needed for the oral study summary. EPA agrees that a combined repeated-dose/reproduction/developmental toxicity screening test according to OECD TG 422 and a chromosomal aberration study according to OECD TG 473 are needed.

Genetic Toxicity. There is a discrepancy in the gene mutation robust summary: the Method section discusses the use of *Salmonella typhimurium* strain TA1535, whereas the "System of testing" section refers to TA1538. If TA1535 was used, the gene mutation endpoint is satisfied; if TA1538, EPA considers the study incomplete.

Ecotoxicity (fish, invertebrates, and algae)

Available data are adequate for the purposes of the HPV Challenge Program.

Specific Comments on the Robust Summaries

Health Effects

Acute Toxicity (oral). The summary lacks a tabulation of signs of toxicity by dose level.

Genetic Toxicity (gene mutations). Missing study details include statistical methods and mean number of revertant colonies per plate for treated and control cultures.

Ecological Effects

Fish, Invertebrates. EPA suggests the submitter check whether the TOC values for fish and invertebrate tests should be in the same units (mg/L or ug/L).

Algae. The submitter needs to provide the pH of the alga test if available.

Followup Activity

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