January 30, 2004

Dr. Mark A. Thomson
Manager, Toxicology & International Product Registration
Crompton Corporation
199 Benson Road
Middlebury, CT 06749

Dear Dr. Thomson:

The Office of Pollution Prevention and Toxics is transmitting EPA's comments on the robust summaries and test plan for 2,2-bis[[3-(dodecylthio)-1-oxopropoxy]propane-1,3-diyl bis[3-(dodecylthio)propionate posted on the ChemRTK HPV Challenge Program Web site on October 2, 2003. I commend Crompton Corporation 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 Crompton 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 Richard Hefter, Chief of the HPV Chemicals Branch, at 202-564-7649. 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 tsca-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:
Propionic acid, 3-(dodecylthio)-, neopentanetetrayl ester

Summary of EPA Comments

The sponsor, Crompton Corporation, submitted a test plan and robust summaries to EPA for propionic acid, 3-(dodecylthio)-, neopentanetetrayl ester (CAS No. 29598-76-3) dated August 27, 2003. EPA posted the submission on the ChemRTK HPV Challenge Web site on October 2, 2003.

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

1. Physicochemical Properties. The submitter needs to indicate whether the melting point value provided is measured or calculated. The submitter needs to provide the temperature of decomposition and indicate whether this value is estimated or measured.

2. Environmental Fate. The submitter needs to provide measured biodegradation data.

3. Health Effects. EPA agrees with the submitter's plan to conduct genetic toxicity studies and a combined repeated-dose/reproduction/developmental toxicity screening test. EPA agrees with the submitter's proposal for acute toxicity.

4. Ecological Effects. Adequate data are available for all endpoints for the purposes of the HPV Challenge Program.

EPA Comments on Proprionic Acid, 3-(Dodecylthio)-, Neopentanetetrayl Ester

Test Plan

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

The data provided by the submitter for vapor pressure, partition coefficient, and water solubility are adequate for the purposes of the HPV Challenge Program.

Melting point. The submitter needs to indicate whether the melting point value provided is measured or calculated. If calculated, the submitter needs to provide measured melting point data for this chemical following OECD guidelines. Estimated values > 0 °C are not adequate for the purposes of the HPV Challenge Program.

Boiling point. The submitter needs to provide the temperature of decomposition and to indicate if this value is estimated or measured. Estimated values < 300 °C are not adequate for the purposes of the HPV Challenge Program.

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

The data provided by the submitter for photodegradation, stability in water, and fugacity are adequate for the purposes of the HPV Challenge Program.

Biodegradation. The submitter needs to provide measured ready biodegradation data for this chemical following OECD test guidelines. Estimated biodegradation data are not adequate for the purposes of the HPV Challenge Program.

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

EPA agrees with the submitter's plan to conduct a chromosomal aberrations study, a gene mutations study, and a combined repeated-dose/reproduction/developmental toxicity screening test (OECD TG 422). EPA agrees with the submitter's proposal to supplement the submitted acute toxicity data with the results of the range finding study for the OECD TG 422 test.

Ecological Effects (fish, invertebrates, and algae).

No testing is recommended. EPA agrees with the submitter that no aquatic toxicity is expected at or below the water solubility limit based on the submitted EPIWIN estimates.

Followup Activity

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