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May 27, 2009

Via Federal Express

Document Processing Center (Mail Code 7407M)
Room 6428
Attention: 8(e) Coordinator
Office of Pollution Prevention and Toxics
U.S. Environmental Protection Agency, ICC Building
1201 Constitution Ave., NW
Washington, DC 20004

DCN:88090000255

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Dear 8(e) Coordinator:

Pentanoic acid, nonafluoro-
CAS # 2706-90-3

This letter is to inform you of the results of acute toxicity studies in freshwater green algae and fathead minnows with the test substance referenced above.

Algae Assay:

The toxicity of the test substance to the freshwater green algae, *Pseudokirchneriella subcapitata*, was determined in a non-GLP 72-hour, static toxicity screening test. The test was conducted in general accordance with OECD Guideline for the Testing of Chemicals: 201 (2006).

The nominal concentrations of the test substance in the test solutions were 0.1, 1.0, 10, and 100 mg/L. The mean, measured concentrations of the test substance in the test concentrations during the study ranged from 98 to 137% of nominal. Two replicate test chambers were used for each test concentration and 3 replicates for the blank control.

Cell density, cell density yield, and growth rate were determined 72 hours after test initiation. Inhibition of growth expressed as cell count (density) of *Pseudokirchneriella subcapitata* exposed to mean, measured concentrations of 0.137, 1.04, 9.84, and 99.2 mg/L H-29039 for 72 hours was 7, 22, 27, and 53%, respectively. Inhibition of growth expressed as cell density yield was 7, 22, 27, and 54%, respectively. Inhibition of growth expressed as the average specific growth rate was 1, 4, 5, and 13%, respectively.

The 72-hour EC_{50}, based on mean, measured concentrations and percent inhibition of cell density, was 81.7 mg/L. The 72-hour EC_{50}, based on mean, measured concentrations and percent inhibition of cell density yield, was 80.3 mg/L. The 72-hour EC_{50}, based on mean, measured concentrations and percent inhibition of growth rate, was >99.2 mg/L.

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Fathead Minnow Study:

The acute toxicity of the test substance to the fathead minnow, *Pimephales promelas*, was determined in an unaerated, 96-hour, static test. The study was conducted with 4 concentrations of the test substance and a dilution water control at a mean temperature of 21.2°C (range of 20.6-21.5°C). One test chamber was used per test concentration with 7 test organisms in each chamber. All water quality parameters were within acceptable limits during the exposure.

Exposure of fathead minnows to the dilution water control and mean measured test substance concentrations of 0.105, 1.06, 10.3, and 98.3 mg/L resulted in 0, 0, 0, 0, and 100% mortality, respectively, at the end of 96 hours. No mortality or sublethal effects were seen in the dilution water control test organisms. The highest nominal concentration causing no mortality at test end was 10 mg/L. The lowest nominal concentration causing 100% mortality at test end was 100 mg/L. The 96-hour LC_{50} value, based on mean measured test substance concentrations and mortality, was 31.8 mg/L.

This information is submitted in accordance with current guidance issued by EPA indicating EPA's interpretation of Section 8(e) of the Toxic Substances Control Act or, where it is not clear that reporting criteria have been met, it is submitted as a precautionary measure and because it is information in which EPA may have an interest.

Sincerely,

A. Michael Kaplan

A. Michael Kaplan, Ph.D.
Director - Regulatory Affairs

AMK/TLS/RAH: clp
(302) 366-5260