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Refining & Supply

December 16, 2010



Office of chemical Safety and Pollution Prevention
 Environmental Protection Agency
 1200 Pennsylvania Avenue
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 Washington, D.c. 20460-0001

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Attention: TSCA Section 8(e) Coordinator

Re: TSCA 8(e) Submission of Adverse findings from an Acute Immobilization Test on
 Water Accommodated Fractions of Light Catalytic Cracked Gas Oil

ExxonMobil Refining and Supply Company, a division of Exxon Mobil Corporation, is submitting this notice pursuant to Section 8(e) of the Toxic Substances Control Act for the substance: distillates (petroleum), light catalytic cracked (LCC) gas oil, CASRN 64741-59-9.

ExxonMobil has received unaudited data from three studies titled "Pseudokirchneriella subcapitata, Alga, Growth Inhibition Test," which were conducted using different samples of (LCC) gas oil, all identified by CAS RN 64741-59-9. These studies were conducted in compliance with OECD [C (97) 186 Final] Principles of Good Laboratory Practice. In each study, algal cultures were exposed to the test substance in water accommodated fractions (WAFs) for 72-hours under static conditions with zero or minimal head space in the test vessels. Initial concentration of algae taken from 4 day old stock cultures in log phase of growth was approximately 1.0×10^4 cells/mL in each replicate chamber. For each study, nine replicates of algal culture were exposed at the following loading rates: 0, 0.05, 0.23, 1.01, 4.56 and 20.5 mg/L. Cell density measurements performed at 24, 48 and 72 hours were used to calculate inhibition of algal growth rate, which is reported as E_rL50 .

The 72 hour, percent inhibition compared to the control for each study is shown in the table below. The E_rL50 inhibition values were determined based on the percent inhibition relative to the control values. The specific growth rates for each treatment were determined by calculating the slope of the regression line of the log of the cell density versus time using the PROC REGRESSION procedure from SAS.

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72-hour % Inhibition of Growth Rate for LCC gas oil, CAS RN 64741-59-9			
Loading Rate (mg/L)	Sample 1	Sample 2	Sample 3
Control (0 mg/L)	0	0	0
0.05	0	5	2
0.23	27	17	10
1.01	100	77	50
4.56	100	100	95
20.5	100	100	100

The 72 hr E_rL₅₀ (effective loading) results were 0.32 mg/L, 0.51 mg/L, and 0.93 mg/L for LCC gas oil samples 1, 2, and 3, respectively. The 72 hour E_rL₅₀ effective loading results were determined using the Trimmed Spearman-Kärber Method, V.1.5 USEPA.

The above findings of toxicity in this alga species are similar to those resulting in an acute aquatic study of light cat cracked oil in *Daphnia* tested as part of the API HPV program and which were reported by API to EPA under TSCA 8e (attached).

Pursuant to the above TSCA 8e submission, ExxonMobil is reporting the results of the algal test as confirmation in a second species of the API findings. If you need additional technical information, please contact Stephen Bowes (703-846-1199).

Sincerely



Erwin R. Burbach
Global Product Quality Manager



COPY

Howard J. Feldman
Director

Regulatory and Scientific Affairs

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December 14, 2010

Certified Mail with Return Receipt
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U.S. Environmental Protection Agency
Office of Chemical Safety and Pollution Prevention
Document Processing Center (Mail Code 7407M)
1200 Pennsylvania Avenue
Washington, DC 20460-0001
Attn: TSCA Section 8(e) Coordinator

Re: TSCA 8(e) Submission of Findings from an Acute Immobilization Test on Water
Accommodated Fractions of a Light Catalytic Cracked Gas Oil Study

Dear Madam or Sir:

The American Petroleum Institute (API), on behalf of the Petroleum HPV Testing Group (Testing Group), is submitting this notice pursuant to Section 8(e) of the Toxic Substances Control Act for the substance, "Distillates (petroleum), light catalytic cracked" (LCC gas oil) CASRN 64741-59-9. The Testing Group is an unincorporated group of petroleum substance manufacturers and importers affiliated by contractual obligation to establish and fund a voluntary data disclosure and testing program, in response to EPA's HPV Chemical Challenge Program. The Testing Group program is administered by API (membership list attached).

The Testing Group has received unaudited data from a study titled "*Daphnia magna*, Acute Immobilization Test on Water Accommodated Fractions of a Light Catalytic Cracked Gas Oil." This study was conducted in compliance with the EPA/TSCA (40 CFR 792) and OECD [C (97) 186 Final] Principles of Good Laboratory Practice. The test substance was administered for 48-hours to *D.magna* neonates in water accommodated fractions (WAFs) under static conditions with zero or minimal head space in the test vessels. Four replicates of 5 organisms (20 total) were exposed at each of the following loading rates: 0, 0.102, 0.256, 0.640, 1.60 and 4.00 mg/L and observations for immobilization were performed at 24 and 48 hours (\pm 1 hour).

The unaudited data noted a 48 hour EC50 (effective concentration) of 0.45 mg/L and an EL50 (effective loading) of 0.51 mg/L.

A summary of immobilization findings, are provided below:

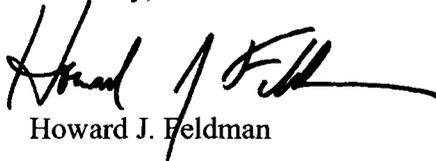
Percent Immobilization by LCC Gas Oil Loading Rate and Concentration

Loading Rate (mg/L)	Mean Measured (mg/L)	% Immobilization 24 hrs	% Immobilization 48 hrs
0 (Control)	Not detected	0	0
0.102	0.0841	0	0
0.256	0.220	0	0
0.640	0.577	0	75
1.60	1.41	20	100
4.00	3.19	90	100

LCC gas oil is a Class 2 substance (UVCB) defined as “A complex combination of hydrocarbons produced by the distillation of products from a catalytic cracking process. It consists of hydrocarbons having carbon numbers predominantly in the range of C9 through C25 and boiling in the range of approximately 150°C to 400°C (302°F to 752°F). It contains a relatively large proportion of bicyclic aromatic hydrocarbons.” Because this substance is blended into diesel fuels and fuel oils, it may be considered by EPA to be widely distributed in the environment. Therefore, in accordance with EPA’s published TSCA Section 8(e) guidance we are submitting the unaudited test findings for your review.

When the final audited report of the LCC gas oil *Daphnia magna* acute toxicity study is complete it will be submitted to the EPA Office of Pollution Prevention and Toxics. If you have any questions or require further information regarding this submission please don’t hesitate to contact me.

Sincerely,



Howard J. Feldman

Attachments: Petroleum HPV Testing Group Membership List
Unaudited Definitive Study data

cc. Oscar Hernandez, USEPA
Diane Sheridan, USEPA
Mark Townsend, USEPA

S. Bowles
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