

May 6, 2008

Attn: Steve Rabke  
Manager, Occupation Health  
MI-SWACO  
5950 North Course Drive  
Houston, Texas  
77072

Dear Steve,

In regards to the questions from José Franca in an email dated May 5, 2008, concerning the seawater biodegradation study conducted at ABC Laboratories, (study #63454), please find the answers below.

- 1) The OECD 306 guidelines state that if the calculated degradation of the test substance based on the chemical oxygen demand, is greater than 60% within 28 days, then the test substance has the potential of biodegradation in seawater. Biodegradation of the test substance on Days 7 and 14 of the study were calculated to be >60%. Thus, the criteria for the potential of biodegradation in seawater were met, and it was not necessary to carry out the test to 28 days. Therefore, it was terminated on Day 18.
- 2) The nutrient content of the sea water is not tested specifically, other than the salinity was determined to be 29 ppt. Mineral salts were added to provide the essential minerals and trace elements needed to sustain the seawater inoculum during the study. The added mineral concentrations in the seawater (see table below) were 1000 times less concentrated than the stock solutions added to the sea water (1 mL of each stock solution added per liter of sea water).

Solution	Compound	Concentration (mg/L) In Sea Water
A	KH <sub>2</sub> PO <sub>4</sub>	8.47
	K <sub>2</sub> HPO <sub>4</sub>	21.7
	Na <sub>2</sub> HPO <sub>4</sub> •7H <sub>2</sub> O	50.3
	NH <sub>4</sub> Cl	0.507
B	CaCl <sub>2</sub> •2H <sub>2</sub> O	36.62

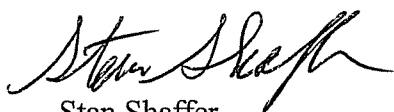
C	$\text{MgSO}_4 \cdot 7\text{H}_2\text{O}$	22.5
D	$\text{FeCl}_3 \cdot 6\text{H}_2\text{O}$	0.253

---

- 3) The seawater sample was collected at the surface of a coastal area known as Dickerson Bay. The seawater was pretreated by sedimentation and decanting and used only for this study. Microbial plate counts, analysis of control samples for background oxygen uptake, and the degradation of the reference substance (sodium benzoate) in seawater indicated that there were no interferences in the seawater that affected the results of this study.

I believe this answers all of José's questions. Feel free to contact me if you have any other questions.

Sincerely,



Stan Shaffer  
Principal Chemist/Group Leader  
ABC Laboratories, Inc.  
7200 E. ABC Lane  
Columbia, MO 65202  
Phone: 573-777-6038  
shaffers@abclabs.com