



The Effect of the Product *SpillAway+ Absorbenttm* on the Stimulation and Growth of the Alga *Selenastrum capricornutum* Under Laboratory Conditions

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Report Verification

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Study Time Table

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Study Overview¹

At the request of EnviroLogic, a modified algal growth test was conducted to determine if their



product *SpillAway+ Absorbent* stimulated algal growth in an aqueous suspension when compared against a control group. The green alga, *Selanastrum capricornutum*, population was exposed in a static system to a level of *SpillAway+ Absorbent* suspension for 96 hours. The response of the population was then measured in terms of changes in chlorophyll a content.

A suspension of the product was made by adding 1 gram of the product to 1.0 liters of moderately hard synthetic freshwater (MHSF) and mixing with a stir bar at a rate of 100 rpm. The suspension was allowed to mix for one hour. The suspension then settled for 2 hours, three 100-mL aliquots of the clear supernatant was decanted off into three 250-mL Erlenmeyer flasks. An additional three flasks were filled with 100-mL of unaltered MHSF to act as the control group. All six flasks were inoculated with 1-mL of a sterile culture of *S. capricornutum*, and growth nutrients were added as well. The flasks were placed in a growth incubator illuminated at approximately 400 ft-c and were gently stirred throughout the study by the use of a shaker table orbiting at 100 cpm.

Summary of Final Results

At the end of the 96 hour exposure period, the chlorophyll a levels were measured² on each flask. The results from the control group and the dosed group were then averaged. The level of chlorophyll a measured on the control group was 8.661 mg/m³, the average of the dosed group was 6.094 mg/m³ or approximately 30% less growth than that of the control.

References

1. EPA Test Method 1003. Green Alga, *Selanastrum capricornutum*, Growth Test. EPA-600-4-91-002. July 1994.
2. EPA Test Method 446.0. In vitro Determination of Chlorophylls a, b,, c1 + c2 and Pheopigments in Marine and Freshwater Phytoplankton by Visible Spectrophotometry. March 1994.