

Osprey Spill Control Toxicity Testing By Hydrosphere Research



Prepared for:

MGM Strategies dba Osprey Spill Control

1523 Jensen Dr. #101

Virginia Beach, VA 23451

Prepared by: Hydrosphere Research

Test Location:

11842 Research Circle Alachua, FL 32615

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Test Number: MGM-PT 12066 Rev. Date 3/5/13

Initiated: March 1, 2012

Test Type: 96-hour Acute Static Non-Renewal Definitive Bioassays

Hydrosphere Research is a NELAC/P Certified Lab (E82295)

Title

Report of requested bioassays performed for MGM Strategies.

Abstract

At the request of MGM Strategies in Virginia Beach, Virginia, a series of acute bioassay tests were conducted on the absorbent product Osprey Spill Control (see Appendix D). Hydrosphere Research received this product in good condition on February 27, 2012 (see Appendix A). The product was logged in, assigned the chemical log number 12015.CHM, and stored in the chemical room until use in testing. The toxicity tests were initiated on March 1, 2012. All testing was conducted using generally accepted lab practices. Hydrosphere Research believes the results are true and accurate.



Craig Watts, Lab Director

Date 03-05-13

Introduction

At the request of MGM Strategies in Virginia Beach, Virginia, a series of acute bioassays were conducted on the product Osprey Spill Control (see Appendix D). Using this product, Hydrosphere Research conducted a series of 96-hour acute static renewal definitive bioassay tests. The LC50 value for all tests was >100% effluent.

Materials and Methods

Hydrosphere Research placed the Osprey Spill Control product in contact with laboratory prepared synthetic saltwater for 24 hours at a ratio of 100g:10L synthetic saltwater. After a 24- hour exposure, the supernatant was decanted off and used to supplement the acute toxicity tests. Lab notes are included in Appendix A.

Using the supernatant the following bioassays were conducted:

Test Type	Species	Dilution Series (%)	Test Method
96-hour acute static non-renewal definitive	<i>Mysidopsis bahia</i>	0, 6.25, 12.5, 25, 50, 100	EPA-821-R-02-012, Method 2007.0
96-hour acute static non-renewal definitive	<i>Menidia beryllina</i>	0, 6.25, 12.5, 25, 50, 100	EPA-821-R-02-012, Method 2006.0

Table 1. Test Methods

Bioassays were initiated on March 1, 2012.

Bioassay tests were performed at Hydrosphere Research, 11842 Research Circle, Alachua, FL 32615, telephone number (386) 462-7889. This laboratory is NELAC/P certified by the State of Florida Department of Health and Rehabilitation Services (E82295).

M. bahia test organisms were cultured in-house and *M. beryllina* test organisms were commercially obtained.

Results

The raw data and bench sheets are included in Appendix B; the results are summarized in the following table:

Table 2. Acute Test Results

Percent Effluent	<i>M. bahia</i>	<i>M. beryllina</i>
	Final Survival (%)	Final Survival (%)
Lab Control	95	90
6.25	90	100
12.5	95	100
25	100	95
50	100	100
100	95	100
LC50	>100%	>100%

All statistical calculations were made using ToxCalc® (Tidepool Scientific Software, McKinleyville, CA).

These bioassays were acceptable tests based on control survival and test conditions.

Discussion

At the request of MGM Strategies, a series of acute bioassay tests were conducted on the Osprey Spill Control product, using test species *M. bahia* and *M. beryllina*. No test exhibited acute toxicity to either species. All tests achieved an LC50 >100% effluent.

During these tests dissolved oxygen, temperature and pH remained within the limits established in the test methods. The results of the standard reference toxicant tests, provided in Appendix C, indicate that the organisms were of normal sensitivity for this laboratory.

No unusual observations or deviations from standard test protocol we noted. These test results only relate to the samples described in this report and meet all requirements of NELAC.