



CONTACT:

Tropical Seas, Inc.

(386)- 677-6161

media@tropicalseas.com

Study Conducted by Mote Marine Tropical Research Laboratory

Proves Reef Safe formulas Harmless to Corals **

All sunscreens are not alike, and to single one compound in the ingredients and make a blanket ruling is not proper. We found ReefSafe to be a coral safe product" -Dr. David Vaughan is the Executive Director, Mote Marine Tropical Laboratory, Summerland Key Campus, Mote's Elizabeth Moore International Center for Coral Reef Research & Restoration in Summerland Key, Florida. He is also the manager of the Coral Restoration program and manages the Protect Our Reef Grants program.

IT'S NOT ABOUT THE INGREDIENTS - IT'S ABOUT HOW THE INGREDIENTS ARE PROCESSED

March 1, 2018 Experiment tested Reef Safe sunscreen formulations both without Oxybenzone, then with Oxybenzone at 4%, Oxybenzone at 6%, and with Oxybenzone at 6% administered at **30 times** Expected Environmental Concentrations (EEC). Equivalent to 3000 snorkelers wearing 1 fl. oz of Reef Safe product on a reef 250 ft x 250 ft x 16 ft average depth for one hour twice a day for 20 days.

Two species of hard corals were chosen because of their presence in inshore and offshore habitats and forms. The offshore mountainous star coral was chosen as a reef building coral. A branching finger coral was chosen as a representative of shallow inshore coral.

Each day before the sunscreen was added, a coral health condition survey was completed. Corals were dosed for 60 minutes twice a day (10a and 2p) to simulate snorkel/dive boats visiting the reefs 7 days a week with snorkelers wearing 1 fl. oz of Reef Safe sunscreen products. Corals were visually assessed by Mote Coral Experts using a coral health method established by the Florida Fish and Wildlife Conservation Commission (FWC).

This experiment, unlike many others, used sunscreen concentrations representative of high usage diving, and bather events over coral reefs, similar to condition on heavily utilized coral reef dive sites. The test condition simulated normal sunscreen applications to a surface and **did not** use any solvents or dispersants to force the products into artificial solution.

This experimental test of Reef Safe sunscreen products, including at 30 times Expected Environmental Concentrations on corals showed no mortality or any significant differences, less than .05% change in condition relative to controls during 48 hour, 96 hour and 20 day duration LC50 tests.

Previous studies reported concentrations of oxybenzone to range from 75 to 1,400 µg/L in the US Virgin Islands, and from 0.8 to 19.2 µg/L in the Hawaiian Islands (Downs, et al. 2015). The aqueous concentrations from this test are well within the range observed for the Hawaiian Islands thus disproving the theory that Oxybenzone in Reef Safe formulas is harming corals and coral larvae.

At the end of the 20 day experiment, there were no mortalities and no significant difference observed at any level of exposure of test fragments relative to controls.

IT'S NOT ABOUT THE INGREDIENTS - IT'S ABOUT HOW THE INGREDIENTS ARE PROCESSED

About Reef Safe SunCare

Reef Safe SunCare, was introduced by Tropical Seas of Ormond Beach, FL, as a sunscreen scientifically proven to biodegrade in oceans, lakes and rivers; thus protecting fragile ecosystems while protecting skin. Reef Safe sunscreens were subjected to a comprehensive series of independent laboratory tests to support and authenticate the biodegradability of the lotions. The research found that Reef Safe SunCare products biodegrade in less than 90 days in seawater and freshwater. No evidence of toxicity to microorganisms or other sea life was detected. Research also found that Reef Safe's very waterproof formulas allows less than three percent of the product to come off in water, which compares favorably to the estimated 25 percent of mass-market brand lotions that come off in water.

For more information on Reef Safe SunCare visit www.reefsafesuncare.com. Follow Reef Safe SunCare on [Facebook](#), [Twitter](#), [Instagram](#) and [YouTube](#).

###