From: Joe DiNardo <jmjdinardo@aol.com>
Sent: Wednesday, January 02, 2019 5:12 PM
To: Jimmy Weekley <jweekley@cityofkeywest-fl.gov>; Mary Lou Hoover <mlhoover@cityofkeywest-fl.gov>; Samuel Kaufman <skaufman@cityofkeywest-fl.gov>; Billy Wardlow <bwardlow@cityofkeywest-fl.gov>; Gregory Davila <gdavila@cityofkeywest-fl.gov>; Clayton Lopez <clopez@cityofkeywest-fl.gov>
Cc: Teri Johnston <tjohnston@cityofkeywest-fl.gov>; Cheri Smith <csmith@cityofkeywest-fl.gov>; James K. Scholl <jscholl@cityofkeywest-fl.gov>; Shawn D. Smith <sdsmith@cityofkeywest-fl.gov>; Ronald Ramsingh <rramsingh@cityofkeywest-fl.gov>
Subject: Consumer Concerns on Banning Oxybenzone and Octinoxate

Dear Commissioners, with respect to the "perhaps" industry lobbyist, consumer and/or E-bot letters you have received relating to consumer concerns about the lack of sunscreen availability if you ban oxybenzone and octinoxate in sunscreen products … I have the following information to share. This is a game that we have already played in Hawaii ... claims that: everyone will get skin cancer … there will be a melanoma epidemic … people will loss access to life saving sunscreens … etc., this is propaganda fear mongering and not science.

First, has anyone from industry, K-Street or the medical community given you a peer review scientific article that does not contain only opinions – but actual data - demonstrating that sunscreens do anything to prevent skin cancer? I have sent information to you previously from the World Health Organization, American Cancer Society as well as from several scientists that have found – both in the US and Globally - that the incidence of skin cancers has dramatically increased since the introduction of sunscreens 40 years ago (the data 15 years ago on sunscreen use also showed the same thing). Clearly, we already have a global skin cancer epidemic on our hands and by definition … insanity is doing the same thing over and over again and expecting a different result ... it is time to do more than have people state that in their opinion sunscreens save lives. Think of it as when the CEOs from the major cigarette companies stood in front of Congress with their hands raised in the air testifying that cigarettes are not addicting!

Additionally, FDA instructs companies to label products with the following information … Uses: **helps prevent** sunburn; if used as directed (**reapply: after 40 or 80 minutes of swimming or sweating, immediately after towel drying; at least every 2 hours**) … with **other** sun protective measures (**limit time in the sun, especially from 10 a.m. – 2 p.m., wear long-sleeved shirts, pants, hats and sunglasses**) **decreases** the **risk of** skin cancer and early skin aging caused by the sun. Please note … FDA never states that sunscreens alone or with other sun protective measures "**prevents skin cancer"** only the "**risk of**".

Secondly, No one has ever asked you or any other government representative to "**ban sunscreens**" … only ones contain oxybenzone and/or octinoxate! These two chemicals have a significant amount of published data (approximately 200 papers) on not just coral toxicity, or just reef life, but to all life forms on land, sea or in the air). As a toxicologist my concern with these chemicals are that they can induce mechanisms in the skin that can invoke skin cancer … this is a link to a story on WLRN Miami/South Florida that has my comments addressing that issue at the bottom of the story … http://www.wlrn.org/post/group-targets-proposed-key-west-ban-some-sunscreens.

Lastly, in February 2018 I went into the FDA database for sunscreens (all companies must register their sunscreen products with FDA) … at the time there were 3, 416 sunscreen products listed (all categories including makeup, lipsticks … etc.) that did not contain either oxybenzone or octinoxate – of which 2,461 contained only Zinc Oxide and/or Titanium Dioxide. Since that time, there have been several new products entering the marketplace that new/existing companies have developed that do not contain oxybenzone or octinoxate and can be considered safer for the environment and human use. There is no shortage of these products for consumers to find on-line or in store everywhere.

I hope that this information will provide you with an acceptable way to educate your citizens about the value of what you are doing and show them that you are only acting in their best interest. I look forward to meeting all of you on January 15th and if there are any other questions you need answered on this topic PLEASE feel free to contact me.

Regards,
Joe DiNardo

From: Melanie Frey <melanie.freyrn@yahoo.com>
Sent: Thursday, January 03, 2019 2:27 PM
To: Cheri Smith <csmith@cityofkeywest-fl.gov>
Subject: city ordinance calling for a one year phase out of sunscreen products containing toxic chemicals oxybenzone and octinoxate.

PLEASE do something about beautiful Key West's waters!!! The governor won't do anything so I appreciate you are taking water issues seriously and hope this passes!

Melanie Frey
Concerned Floridian

STREAM2SEA®
EcoConscious • Biodegradable

January 5, 2018

Dear Key West City Commissioners,

I am writing in strong support for the proposed ordinance to prohibit the sale of sunscreens containing the chemicals oxybenzone and octinoxate in Key West. These ingredients have been proven to harm our reefs AND our bodies. There are safe alternatives like non-nano titanium dioxide and zinc oxide that are just as (perhaps even more) effective than chemicals that kill coral reefs.

I am the founder and formulator of Stream2Sea, an environmentally-friendly product line formulated without using oxybenzone, octinoxate or any other ingredients known or suspected to harm the coral reef environment (there are quite a few). I'm a cosmetic chemist with more than 20 years' experience formulating natural products, a part-time Monroe County resident and an avid technical diver. I started Stream2Sea specifically to produce sunscreens that protect marine ecosystems while still meeting or exceeding FDA standards.

We use only non-nano titanium dioxide as the active ingredient in our sunscreens. This gives our customers long-lasting protection from the UVB rays that burn – and significant protection from UVA and UVC rays that are more likely to cause skin cancer and aging. (The reason most chemical sunscreens contain multiple ingredients is that each absorbs only a portion of the sun's rays. Sunscreens made with non-nano minerals sit on the skin and reflect a greater portion of the rays, giving users true broad-spectrum coverage with single active ingredient formulas.)

The Florida Department of Environmental Protection already recommends against using sunscreens with oxybenzones, although it's a voluntary educational initiative not a ban on sales. Concentrations of these chemicals can cause damage at incredibly low concentrations, about 62 parts per trillion or one drop in 6.5 Olympic-sized swimming pools. The Florida Keys are being impacted – a 2015 study showed oxybenzone concentrations of 4,474 parts per trillion off Bahia Honda.

Our products are widely available in Key West in both dive shops and gift and eco-tour locations including:

- Divers Direct
- Finz
- Captain's Corner
- Southpoint Divers
- Date & Thyme
- Reef Relief
- Key West Bait and Tackle
- Key West Eco Tours
- World Sailing Adventures
- New Leaf Skincare

STREAM2SEA®
—EcoConscious • Biodegradable—

- Mel Fisher Maritime Museum

The argument that this ban will reduce the consumer's choices of safe and effective products is laughable. All mineral products that are legally sold in the US, including Stream2Sea, meet or exceed FDA standards for SPF, broad-spectrum coverage and water-resistance. Below and under separate cover, I am sending reports from Eckerd College and Mote Marine Laboratories showing that our mineral sunscreens are non-toxic to various species tested, including coral *Porites astreoides* larvae.

I am also sending a copy of a recent article from Lancet, one of the world's most prestigious medical journals, supporting the ban on oxybenzone and octintoxate both from an environmental perspective and the fact that rates of sun cancer – particularly melanoma – are rapidly increasing in spite of increased sunscreen use. I've also attached abstracts from other well-respected international publications on oxybenzone and octintoxate questioning their continued use from both human and ecological perspectives. (Please let me know if you would like full copies of the reports but they tend to be lengthy and complicated.)

One other important issue that is seldom addressed is the fact that wastewater treatment plants do not remove either oxybenzone or octintoxate so even treated water is impacting the coral reefs off Key West. In fact, one study (highlighted in the attachments) notes the chlorine in wastewater treatment facilities or swimming pools actually breaks oxybenzone down into even more toxic byproducts.

While there are many challenges to our reefs that we cannot individually impact (ocean acidification, over population, climate change), sunscreen pollution is a very easy one to eliminate. I applaud the leaders of Key West for not being swayed by the chemical industry lobbyists that are working hard to bias your opinion.

The science here is clear. Oxybenzone and octintoxate are lethal for coral reefs (and arguably not safe for humans). With natural, effective options available in a city where coral reefs are the backbone of a booming economy, the only logical decision is to take the steps necessary to protect your reef.

Again, I fully support your efforts. If I can be of any assistance, please do not hesitate to contact me.

Consciously,

Autumn P. Blum
Formulator & CEO
Stream2Sea, LLC
autumn@stream2sea.com

STREAM2SEA®
EcoConscious • Biodegradable

ECKERD COLLEGE

COLLEGIUM OF NATURAL SCIENCES

August 2, 2015

Autumn Blum:

We have tested Stream2Sea products including Sunscreens for Face & Body (SPF 20 & 30), Conditioning Shampoo and Bodywash, Leave-In Conditioner, After Sun Lotion, and After Sun & Sting Gel for potential toxicity on *Danio rerio* and *Caenorhabditis elegans*. Mortality, movement and feeding behaviors were tested. At concentrations above that which is likely to be found in either waste water or marine settings we did not find any evidence of toxicity.

Sincerely,

Denise B. Flaherty

Dr. Denise B. Flaherty,
Assistant Professor of Biology

STREAM2SEA®
EcoConscious • Biodegradable

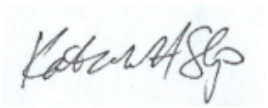
ECKERD COLLEGE

July 31, 2015

Dear Autumn:

We have tested Stream2Sea sunscreens (both SPF 20 and SPF 30) against larvae of the Caribbean coral *Porites astreoides*. In our laboratory-based assays, we did not find evidence for statistically significant lethal toxicity to the larvae or for statistically significant inhibition of settlement in the larvae. These controlled, blind assays were performed in the laboratory, using a range of concentrations, the highest of which has been determined to be ecologically relevant in prior published research studies.

Sincerely,



Koty Sharp
Assistant Professor
Biology& Marine Science

Tara Caguiat In Support of Ordinance File#18-3253 Banning the sale of Oxybenzone and Octinoxate Sunscreen Products

Dear City Commissioners and to whom it may concern,

I am aware of the dangers to coral and other aquatic life from toxic ingredients like oxybenzone and octinoxate. I feel this ban on these products in the Florida Keys is a must to protect not only Florida's marine ecosystem, but also Florida's economy.

Sincerely,

Tara Caguiat

goddess garden
ORGANICS

To whom it may concern,

As a concerned citizen and maker of mineral sunscreen, I want to pledge my strong support of Ordinance 18-3253. I first started making mineral sunscreen because my daughter reacted negatively to chemicals like oxybenzone. Research has shown these chemicals also have a toxic effect on coral reefs, including making them more susceptible to other environmental stressors. Because the chemicals listed in this Ordinance impact the reefs in multiple ways, they are incredibly potent. A single drop of oxybenzone can taint six and a half Olympic-sized pools worth of water. That means one ounce of chemical sunscreen product can affect more than 114 million gallons of water.[i] National Public Radio reported 14,000 gallons of sunscreen make it to coral reefs every year.[ii] With coral reefs disappearing twice as fast as rainforests, they need all the help they can get.[iii] The state of Hawaii, the Republic of Palau and Bonaire have already taken steps to protect their reefs from oxybenzone and octinoxate with similar measures. Since over 90 percent of Florida's reef system has already disappeared, we need to safeguard what is left so that it can rebuild, and that means minimizing its exposure to toxic sunscreen chemicals.[iv]

We've been making reef-safe, natural mineral sunscreen for 14 years. We have always used zinc and titanium for sun protection instead of chemicals like oxybenzone and octinoxate. Because alternatives to chemical sunscreens are readily available to keep tourists safe from burns and skin cancer, there is no need to continue to put the reefs at risk. Banning the use of the chemicals listed in Ordinance 18-3253 is a very simple way to have a direct and positive impact on the reefs.

The following document is a study conducted by a local MBA student that further highlights the effects of chemical sunscreens on coral reefs. I hope you find it helpful.

Thank you for allowing me to testify on this important issue.

Sincerely,

Nova

Nova Covington, Founder and CEO, Goddess Garden

goddess garden
ORGANICS

Impact on Coral Reefs

By Akshay Gavai

Executive Summary

Goddess Garden, a manufacturer of sunscreen products is looking to create awareness regarding the benefits associated with using its products versus those of other sunscreen manufacturers on coral reefs. By investigating these benefits (or negative effects caused by traditional sunscreen products), Goddess Garden can create a marketing campaign aimed at empowering sunscreen consumers with the information necessary to make the right choices while purchasing sunscreen products. This will ultimately help consumers understand the importance of coral reefs to the earth's environment, the negative impacts on coral reef by traditional sunscreen products, and why purchasing a Goddess Garden product over a traditional sunscreen one helps preserve these delicate eco-systems. The following research provides Goddess Garden with all the information necessary to educate consumers of the impact on coral reefs by sunscreen products for its overall marketing efforts.

Company Profile

Goddess Garden is a producer of organic sunscreen products. Its headquarters and manufacturing unit are based in Longmont, Colorado. It was founded in 2004 by Nova Covington in response to her daughter having allergic reactions to traditional skin care products. The company produces a variety of organic sunscreen products for all age groups which have been categorized as follows:

- Baby – Sunscreen primarily for babies/toddlers
- Kids – Sunscreen primarily for children
- Facial – Sunscreen for the face for adults
- Everyday – Sunscreen for everyday use for adults
- Sport – Unscented sunscreen for adults
- Kids Sport – Unscented sunscreen for children
- Lip Balms – Sunscreen for lips
- Sun Repair System – A daily skincare routine for adults to repair and prevent premature aging

Objective of Research

Goddess Garden is one of the few producers of organic sunscreen in the sunscreen market. Its products have typically been marketed by focusing on the human health benefits of using organic sunscreen. This is obvious because Covington started the company in response to her daughter having allergic reactions on her skin to traditional non-organic sunscreen. In addition, there have been studies linking chemicals such as Oxybenzone, which is used in traditional sunscreen, to hormone disruption in humans.

However, along with the negative effects of traditional sunscreen on humans, recent research also links its usage with damage to the environment, specifically coral reefs. Unlike traditional sunscreen, Goddess Garden's sunscreen products do not damage coral reefs and can be termed as "reef-safe" sunscreens. Hence, Covington would like to quantify the benefits to the coral reefs as a

result of a consumer using a Goddess Garden product vs. a traditional sunscreen product. This information will then be used in its marketing campaigns to educate existing and potential customers of the benefits to coral reefs of using Goddess Garden's products versus traditional sunscreen. Hence, the overall objectives are to:

- Educate consumers regarding the importance of coral reefs
- Educate consumers regarding the negative impacts of traditional sunscreens on coral reefs
- Convince consumers to switch to Goddess Garden products from other sunscreen manufacturers with an effort to save coral reefs.

This research is outlined below:

Key Research on Sunscreen and Impact on Coral Reefs

Corals

Corals are small colorful soft-bodied organisms that live in clear, shallow, warm waters. At their base is a hard, protective limestone (calcium carbonate) skeleton called a calicle, which forms the structure of a coral reef. They are often mistaken for plants since they look like them, but are in fact animals since they do not prepare their own food. Corals get their color from zooxanthellae, the algae which they host. They have a symbiotic relationship with this algae since they both depend on each other for survival.

Zooxanthellae

Zooxanthellae are an algae that live inside corals. They perform photosynthesis and share the resulting food with corals, their hosts. The zooxanthellae are also responsible for the beautiful colors that corals contain.

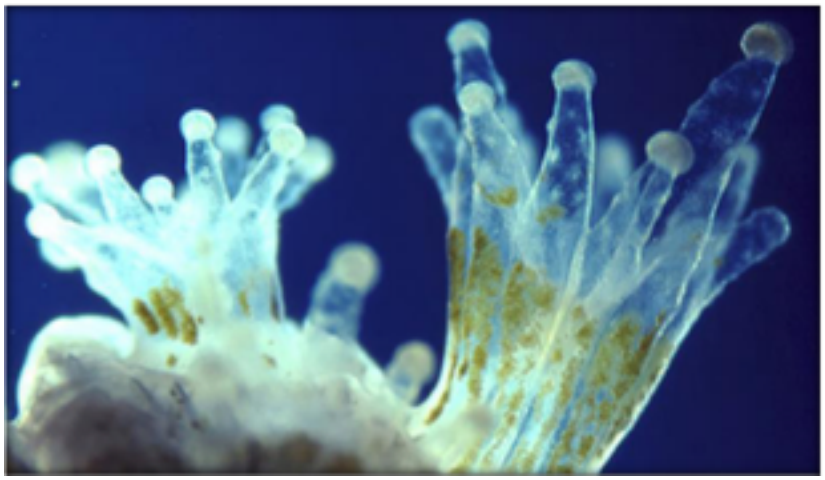
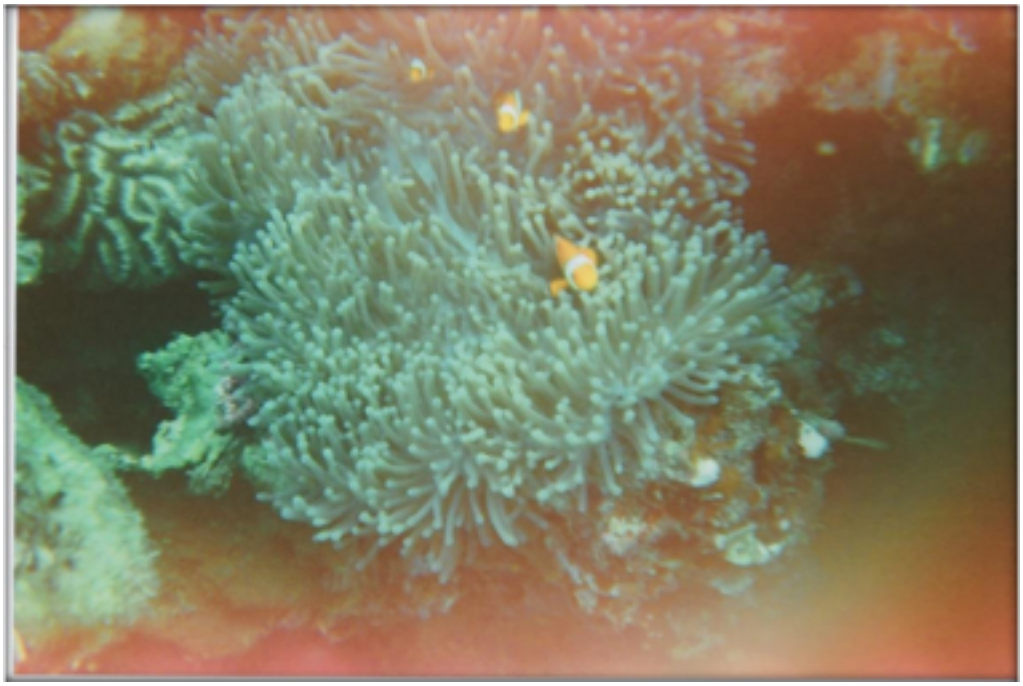


Image showing coral and the algae zooxanthellae. The zooxanthellae are the small brownish-green spots on the coral.

Coral Reefs

A coral reef consists of underwater structures made from calcium carbonate (limestone) secreted by corals. A reef is host to various marine life such as sea slugs, oysters, clams, crabs, shrimp, sea worms, star fish, sea urchins, jelly fish, various types of fungi, sea turtles, and many species of fish.

Coral reef in the Great Barrier Reef of Australia



Photograph taken by myself of a coral reef in Krabi, Thailand in April 2012

The Importance of Coral Reefs

- Coral reefs are one of the most diverse eco-systems in the world
  - Hence, they are often called the rainforests of the sea
- Coral reefs support more species per unit area than any other marine environment.
  - This includes about 4,000 species of fish, 800 species of hard corals and hundreds of other species.
  - Hence, they feed about 30 to 40 million people every year
- They provide a natural barrier between the ocean and the shore
  - By protecting the coasts from strong currents and waves by slowing down the water

Current Impacts on Coral Reefs

When corals die, they lose their vibrant colors and turn white. This is known as *coral bleaching*. Coral bleaching can occur for a variety of reasons. The known anthropogenic (human induced) cause of coral bleaching are as follows:

- Pollution in oceans
  - Chemical run-off from agricultural practices
- Fishing practices
  - Certain destructive fishing methods that use cyanide or dynamite
- Ocean acidification from an increase in greenhouse gas emissions
  - Increase in CO_2 in oceans absorbed from the atmosphere increases acidity of ocean water
- Temperature increase – Global warming
  - Ocean temperature increases due to global warming
- Sunscreen
  - Release of chemicals from sunscreen products

It is estimated that:

- 10% of all coral reefs are degraded beyond recovery
- 30% are in critical condition and may die within the next 10 to 20 years
- 60% of world's coral reefs may die completely by 2050 if we continue with 'business as usual'.

Image depicting coral bleaching. The coral on the left is a perfectly healthy one whereas the one on the right is bleached.

Sunscreen's Impact on Coral Reefs

In January 2008, Professor Robert Danovaro and a group of researchers at the Polytechnic University of Marche in Italy, published groundbreaking research regarding the impact of sunscreen on coral reefs. This research was published in the peer-reviewed journal, Environmental Health Perspectives. The following are the key findings from their research:

Chemicals in Sunscreen Responsible for Coral Reef Bleaching

There are more than 20 chemical compounds that are used in sunscreen products. Danovaro and his team tested 7 of the most common chemicals found in sunscreen products which are used as either active or inactive ingredients. Out of these 7, they found that 4 chemicals are primarily responsible for the complete bleaching of corals. The 4 chemicals (henceforth termed as the 'dirty four') are as follows:

- Benzophenone-3 (Oxybenzone) - BZ
  - Provides protection against UVA and UVB rays.
- Ethylhexylmethoxycinnamate (Octyl Methoxycinnamate) – OMC, OCT
  - Its primary use is in sunscreens and other cosmetics to absorb UV-B rays from the sun, protecting the skin from damage.
- 4-Methylbenzylidene Camphor - MBC
  - An organic camphor derivative that is used for its ability to protect the skin against UV, specifically UV B radiation.
- Butylparaben
  - It is used as an antimicrobial preservative in cosmetics such as eye shadow, foundation, sunscreen, facial moisturizer and skin anti-aging treatment.

How do the Dirty Four Kill Coral Reefs?

Corals contain an algae known as zooxanthellae. The zooxanthellae and coral are dependent on each other for survival. Zooxanthellae have latent viruses which multiply when exposed to the dirty four. The viruses eventually kill the zooxanthellae which leaves the coral with no food source. The coral, without its symbiotic partner, loses its color (coral bleaching) and eventually dies (as shown in photo above).

Loss of the corals causes all the other species dependent on the corals to lose their home and their food source. This causes a widespread destruction of coral reefs. The following video features Professor Robert Danovaro explaining how sunscreens impact the coral reefs
https://www.youtube.com/watch?v=sDia05xVy9U&noredirect=1

Data Related to Sunscreen Usage

- Between 16,000 to 25,000 tons of sunscreen are used globally by consumers in reef areas.
  - 25% of the amount applied is washed off into oceans as a result of swimming and bathing.
  - This results in 4,000 to 6,000 tons of sunscreen being released in reef areas.
  - Hence, it is estimated that 10% of the world's coral reefs are at risk of bleaching due to sunscreen use. The Great Barrier Reef, the largest coral reef system in the world, covers an area of 133,000 square miles. This equates to 13,300 square miles of the reef disappearing.

Personal Note

I applaud Goddess Garden for engaging in this project and would like to thank Nova Covington and the entire team for giving me the opportunity to work with them. It has been a great learning experience for myself and has further encouraged me to explore ways to help conserve the coral reefs at a more personal level. It is wonderful and refreshing to see a corporation engage in such efforts and I hope to see Goddess Garden succeed in this endeavor.

One of the most memorable experiences I have had in my life was swimming alongside a turtle in the coastal waters of Green Island in the Great Barrier Reef of Australia in December of 2008. I was so overjoyed when I saw the turtle and had the chance to swim near it. This experience always reminds me how beautiful the coral reefs are, tucked away under the sea, most of the time hidden from the view of humans. We must never forget that even though we don't always see the beauty of nature, we are bound to it and our actions impact it in every way.

Photo of the turtle underwater

Photo of myself following the turtle

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RE: In Support of Ordinance File#18-3253 - Banning the sale of Oxybenzone and Octinoxate Sunscreen Products

TO: Commissioner Weekley, Commissioner Hoover Commissioner Kaufman, Commissioner Wardlow, Commissioner Davila, Commissioner Lopez, and Mayor Johnston

Dear Mayor Johnston and Commissioners,

My name is Caroline Duell, and I am the Founder and CEO of All Good, a sunscreen and body care products company based on the central coast of California. I am writing this letter to show my support of the upcoming potential ban on two active sunscreen ingredients. I have a personal connection to the Keys as my great great grandfather, William J Matheson, an early conservationist, prioritized future generations of the region with his strong efforts to preserve the natural beauty in the Florida Keys. It is with the same vision I ask you to support the upcoming ordinance on January 15, 2019.

The science is real. Oxybenzone and Octinoxate have been shown to kill to coral reefs by disrupting their endocrine systems and causing DNA mutation. The level of toxicity is mind blowing at 62 parts per trillion. Living coral reefs, as you all know, are paramount for the current and future economic viability of Key West; not only for tourism, but for fishing, storm surge protection and biodiversity.

At All Good, we believe in making products that are safe, effective and enjoyable to use. We have been making Reef Friendly sunscreens since 2009. They are FDA compliant, Very Water Resistant, and they are enjoyable to use. Even the most skeptical chemical sunscreen user would have an easy time using them. They are made with non-nanoparticle Zinc Oxide as the active ingredient. Zinc offers broad-spectrum protection from harmful UV rays without causing the known harmful damage to reefs. All Good sunscreen products are available on amazon.com, and in a number of retailers including select GNC, Costco, and Target stores. In Florida we sell to Whole Foods Markets and a variety of gift and surf shops. We are dedicated to growing the mineral sunscreen industry, and we promise to make sure visitors and residents in Key West can readily find Reef Friendly sunscreens from many brands.

Subsequently, in 2017, I founded the Safe Sunscreen Council with 12 brands. We stand together to promote the use of safe ingredients in sunscreen as proven by science. For more information, please visit safesunscreencouncil.org.

If you pass this ordinance, you will be leading the nation on this incredibly important issue and truly living the Key West motto of “One Human Family”. Hawaii opened the door, but for the mainland, you will be showing the rest of the country that it really is ok to stand up for the health of our ecosystems as an extension of human health. The FDA will look to this legislation as a way to guide its own update in what is considered “safe” by their standards.

Thank you very much for your time in reading my letter and for considering all of the important science on the danger of Oxybenzone and Octinoxate as UV absorber ingredients in sunscreens. We will look back on this and be proud to have made an historical decision for future generations.

With Gratitude,

Caroline Duell, CEO, All Good

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January 6, 2019

Commissioner Weekly - jweekley@cityofkeywest-fl.gov
Commissioner Hoover - mlhoover@cityofkeywest-fl.gov
Commissioner Kaufman - skaufman@cityofkeywest-fl.gov
Commissioner Wardlow - bwardlow@cityofkeywest-fl.gov
Commissioner Davila - gdavila@cityofkeywest-fl.gov
Commissioner Lopez - clopez@cityofkeywest-fl.gov
Mayor Johnson - tjohnson@cityofkeywest-fl.gov

TropicSport in Support of Ordinance File #18-3253-Banning the Sale of Oxybenzone and Octinoxate Sunscreen Products

Dear City of Key West Commissioners and Mayor Johnson,

I am writing in support of Ordinance File #18-3253. My company, TropicSport, makes safe, non toxic, effective sunscreen and skincare products that are good for the environment and effectively protect active people from the sun.

Our sunscreens are FDA-compliant and Hawaii-compliant. We use what we consider to be the safest and most effective ingredients, and our sunscreens are widely available to the public.

Our Products Are Safe

Our products have been tested by an FDA-certified testing facility with FDA-certified quality practices to be safe and effective. TropicSport mineral sunscreen products are made with Zinc Oxide and Titanium Dioxide active ingredients only. This combination of active ingredients in our products is recognized to provide the best, and safest, broad-spectrum protection against UVA and UVB rays, compared to chemical UV filters. They provide a physical barrier between your skin and the sun's rays. They are not absorbed by the skin, so they are advantageous even for those who have sensitive, easily irritated or young skin.

TropicSport was launched in December of 2017, and within nine months we applied for, and received, a number 2 safety rating from the Environmental Working Group (EWG), meaning that we have the safest (and most effective) ingredients possible. Our sunscreen does not contain oxybenzone (or any other chemical active ingredient), which the EWG recommends that consumers avoid due to relatively high rates of skin allergy, hormone disruption and high skin penetration. The EWG notes the low toxicity (and safety) of the mineral

active ingredients Titanium Dioxide and Zinc Oxide used in TropicSport (as well as their excellent UVA protection. More information on the EWG's research and findings can be found at https://www.ewg.org/sunscreen/report/the-trouble-with-sunscreen-chemicals/.

Medical research supports the safety of our active ingredients, and the danger of chemical active ingredients like oxybenzone. Oxybenzone has been shown by multiple medical studies to be one of the most frequent allergens in sunscreens, and it has been shown to potentially affect hormones, testosterone and estrogen.

On May 22, 2018 the FDA Commissioner made a statement on new FDA actions to keep consumers safe from the harmful effects of sun exposure, and to ensure the long term safety and benefits of sunscreens. In it, the FDA recognized that it is possible for a sunscreen's active ingredients to penetrate the skin. We believe that this recognition is important for the future of the sunscreen industry, and further supports the use of physical sunscreens without toxic chemical ingredients. The FDA Commissioner's statement can be found at https://www.fda.gov/newsevents/newsroom/pressannouncements/ucm608499.htm

Our Products are Effective

Our products are also effective, and have been tested to meet both the U.S. FDA 80 minute and the Australian 4-hour water resistance requirements.

Sunscreens in Australia are regulated by the Therapeutic Goods Administration (TGA), part of the Australian Government's Department of Health. Australian sunscreen testing standards are some of the strictest in the world. TropicSport sunscreen meets the TGA testing requirements and has been tested to be water resistant for four hours.

We have gone above and beyond other manufacturers in testing our products. Not only do we meet the requirements of testing mandated by the FDA and the TGA - scientists testing the products in laboratories according to strict testing guidelines - we also have conducted real world testing under the most extreme conditions. Surfers have tested our products, finding that they provide excellent protection from the elements in varying tropical environments, and under extreme water and sun conditions.

Our Products are Widely Available

Our products are widely available nationwide, including in Key-West. Consumers can buy our products directly from our website at www.tropicsport.com as well as on amazon.com at

https://www.amazon.com/s/ref=bl_dp_s_web_0?ie=UTF8&search-alias=aps&field-keywords=TropicSport both with available fast, free shipping. Our sunscreen products are also available in a growing number of retail outlets in the Florida Keys (and nationwide), these include:

Ocean Key Resort & Spa
Noble House, Zero Duval Street
Key West, Florida 33040

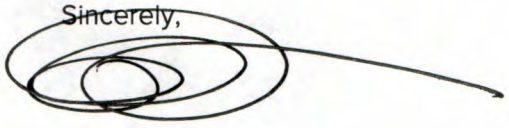
Caloosa Cove Marina
73801 Overseas Highway
Islamorada, Florida 33036

uCumbe
81868 Overseas Highway
Islamorada, Florida 33036

A full list of retailers can be found at
https://tropicsport.com/pages/where-to-buy

We strongly encourage you to pass the ban on sale of Oxybenzone and Octinoxate sunscreen products. The sale of dangerous and environmentally toxic sunscreens is not necessary for the protection of consumers. To the contrary, safe, effective alternatives, including our products, are widely available. We encourage you to join Hawaii and help lead the way in the movement to protect the environment, and your citizens' and visitors' health, by passing this important legislation. Thank you.

Sincerely,



Tony Palmer
Founder and President, TropicSport

cc:
rramsingh@cityofkeywest-fl.gov
sdsmith@cityofkeywest-fl.gov
jscholl@cityofkeywest-fl.gov
csmith@cityofkeywest-fl.gov

From: Eugene Shinn <eugeneshinn@mail.usf.edu>
Sent: Monday, January 07, 2019 4:23 PM
To: Ronald Ramsingh <rramsingh@cityofkeywest-fl.gov>; Shawn D. Smith <sdsmith@cityofkeywest-fl.gov>; James K. Scholl <jscholl@cityofkeywest-fl.gov>; Cheri Smith <csmith@cityofkeywest-fl.gov>
Subject: Oxybenzone hearing Jan 15

Dear administrators. FYI I just sent the following to all the Key West City Commissioners including the Mayor. I was advised that you would be interested in this message. Best Wishes, Gene Shinn.

Dear Commissioners, I Eugene A. Shinn am respectfully requesting a 5 minute presentation on Jan 15 to the Key West Commission regarding Oxybenzone and Coral Reefs. I am a retired geologist/coral reef researcher that worked 31 years with the U. S. Geological Survey. I am presently with the College of Marine Science in St. Petersburg Florida. I might add I was born in Key West Nov 7, 1933. My father was radio operator on the light house tender Ivy under Captain Cosgrove. I was delivered at home on Von Phister Street by Dr. DePoo. I was born during the height of the Great Depression so our family frequently moved around the US. Nevertheless, I graduated from U. of Miami in mid-year 1957. To make a long story short I retired from the U. S. Geological Survey (dept. of Interior) after 31 years in 2006 and now maintain an office at the University of South Florida College of Marine Science in St. Petersburg. I spent much of my career studying coral reefs in many parts of the World including the Florida Keys and Dr. Tortugas. I have been taking serial photographs of certain parts of Keys reefs each year since 1959 and have documented the demise of our reefs when demise peaked in 1983. They have continued to die since 1983. You can view a 50- year record at <http://gallery.usgs.gov/videos/334>

Also <http://www.youtube.com/watch?v=WnIzLTi0HGs>

The most complete record of my photographs (56 years) can be viewed at <https://coastal.er.usgs.gov/african_dust/images/CoralSequencePoster.jpg>

In 2017 I published with Barbara Lidz, “Geology of the Florida Keys” which you can find at < https://upf.com/book.asp?id=9780813056517>

In our book you will find on page 107 the following statement:

In recent years, laboratory studies have targeted a previously unsuspected coral foe. Recent research both here and abroad

indicates that the UV filter oxybenzone and other chemicals used in sunscreens and sunscreen lotions and in personal-care products such as body fragrances, hair-styling goods, shampoos and conditioners, anti-aging creams, lip balms, mascaras, and insect repellants as well as dishwasher soaps, dish soaps, hand soaps, and bath oils/salts can cause bleaching and deformation of coral larvae, or planulae. Such products and regular body oils enter popular coral reef areas either directly from swimmers and divers or via wastewater, transported in shower water, dishwasher water, and sewage. Because of their oiliness, these products tend to float, producing an oily sheen over reef areas. During spawning, coral planulae glide to the water surface to begin drift dispersal and maturation. At the surface, the planulae easily come in direct contact with the chemicals. Experimental contact with these chemicals, especially with oxybenzone (BP-3), demonstrates that extremely low concentrations (parts per trillion) can produce adverse effects on coral larvae. According to the US National Park Service, 6,000 to 8,000 *TONS* of sunscreen and personal-care products enter global coral reef areas *annually*. Expert scientists at the International Programme on the State of the Ocean think toxicity occurs at a concentration of 62 parts per trillion, equivalent to one drop of water in 6.5 Olympic-size swimming pools. Although banned in some reef parks in Mexico, at this writing,

sunscreens containing oxybenzone remain legal in the Florida Keys.

I also point out that I have served on many water quality committees in the Keys throughout the 1990s when I was an employee of the USGS. My USGS ground water study (see attached) was a key document supporting the establishment of centralized sewage systems in the Florida Keys, which is still ongoing. During our groundwater investigations (I installed approximately 100 water quality monitoring wells in reef areas all of which documented seaward movement of contaminated shallow groundwater. It was during that time I became aware of the research documenting the negative effects of sunscreens with oxybenzone. As you probably know Hawaii has recently banned these sunscreens and similar bans will likely be enacted in Belize as well as the Virgin Islands. The have long been banned in the Mediterranean. I support a similar ban in the Florida Keys including Key West.

I would appreciate approximately 5 minutes of your time at the upcoming hearing on January 15.

If you want further verification of my background contact Billy Causey who I have known since he first moved to the Keys and later became Sanctuary Manager. Since the Sanctuary is under the department of Commerce I appreciate the sensitivity of this subject to his former agency. Sincerely Gene Shinn, PhD

From: Vicki Nichols Goldstein <vgoldstein@inlandoceancoalition.org>
Date: January 10, 2019 at 6:35:14 PM EST
To: jweekley@cityofkeywest-fl.gov, mlhoover@cityofkeywest-fl.gov, skaufman@cityofkeywest-fl.gov, bwardlow@cityofkeywest-fl.gov, clopez@cityofkeywest-fl.gov, tjohnston@cityofkeywest-fl.gov, gdavila@cityofkeywest-fl.gov
Cc: rramsingh@cityofkeywest-fl.gov, sdsmith@cityofkeywest-fl.gov, jscholl@cityofkeywest-fl.gov, csmith@cityofkeywest-fl.gov
Subject: In Support of Ordinance File#18-3253 - Banning the sale of Oxybenzone and Octinoxate Sunscreen Products

Inland Ocean Coalition In Support of Ordinance File#18-3253 - Banning the sale of Oxybenzone and Octinoxate Sunscreen Products

Dear Commissioners Weekley, Hoover, Kaufman, Wardlow, Davila, Lopez, and Mayor Johnson,

On behalf of the Inland Ocean Coalition and our nine chapters around the country, I am writing to express our strong support for a ban on oxybenzone and octinoxate sunscreen products in the Florida Keys. These toxic chemicals have been shown to be harmful to corals and other marine wildlife, as well as to human health. Bans on toxic sunscreens are catching on around the world and we urge you to be an ocean leader and take this important and easy step in protecting the reefs around the Florida Keys.

The Inland Ocean Coalition is an ocean advocacy organization for inland communities. Our mission is to create an inland movement that builds land-to-sea stewardship. We all have a stake in ocean conservation and protection, no matter where we live.

Many people in our Coalition travel to Key West to go diving or snorkeling, and last year 30 students from inland communities completed our Youth Ocean Ranger Training Program in in the Florida Keys. Endorsed by the National Oceanic and Atmospheric Association's (NOAA's) National Marine Sanctuary program and in collaboration with the Florida Keys National Marine Sanctuary, students participated in field research and coral out-planting to observe, report, and implement solutions for the most important issues facing our ocean today.

Declining reefs impact many industries beyond just tourism — the restaurant industry, fishing, property values, and the health of our entire ocean. So while this is a local issue, it is one of global significance. Sunscreens that are both safe for reefs, wildlife, and human health are readily available at local retailers and online and they work just as well or better than toxic sunscreens.

We urge you to move forward with banning the sale of oxybenzone and octinoxate sunscreen products.

Sincerely,

Vicki Nichols Goldstein
Founder & Executive Director

January 9, 2019

Inland Ocean Coalition In Support of Ordinance File#18-3253 - Banning the sale of Oxybenzone and Octinoxate Sunscreen Products

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We urge you to move forward with banning the sale of oxybenzone and octinoxate sunscreen products.

Sincerely,

Vicki Nichols Goldstein
Founder & Executive Director

goddess garden
ORGANICS

To whom it may concern,

As a group of individuals who care deeply about people and the environment, and as a collective reef-safe mineral sunscreen company, we would like to express our support for Ordinance 18-3253. The danger facing our reefs is an important issue, and thanks to our experience working together at Goddess Garden, we know first hand that protecting people and the reefs do not have to be mutually exclusive efforts.

Protecting against burns and the risk of skin cancer is our main priority and the basis of our company. In fact, Goddess Garden was created by a mother who needed an option to safely protect her daughter's sensitive skin without using the irritating chemical sunscreens, like oxybenzone and octinoxate, that are commonly present in other products. Many others share a similar sensitivity to these ingredients, and have sought out mineral sunscreen to help them continue safe sun practices. However, it became clear that mineral sunscreens weren't only a great option for sensitive skin, but were also safer for our coral reefs.

Mineral sunscreen is an existing, viable option to provide people with broad-spectrum protection against UV rays and associated risks without contributing to the destruction of our marine environments. It's also an industry that has been tested and supported by consumers for years. Goddess Garden and companies like it have offered reef-safe options using readily available minerals instead of chemical sunscreens like oxybenzone and octinoxate for well over a decade. These sunscreens are already widely accessible to consumers: Goddess Garden specifically has a distribution footprint of over 25,000 locations across the U.S. and Canada, including local retailers in Key West like CVS, Walgreens and Sugar Apple Market. To pinpoint local stores that carry Goddess Garden Mineral Sunscreen, you can visit our store locator at www.goddessgarden.com/findus.

Banning the use of the chemical sunscreens mentioned by Ordinance 18-3253 would directly benefit the health of our oceans. Since alternatives exist and are readily available, we can help prevent future harm to our reefs without compromising our ability to provide people with safe and effective sunscreen options.

Thank you for considering our testimony on this important issue.

Sincerely,

The Goddess Garden Team

1821 Lefthand Cir., Ste D • Longmont, CO 80501
ph 303.651.3678 • fax 1.888.370.2878
www.goddessgarden.com

SENATOR MIKE GABBARD

20TH DISTRICT

KAPOLEI, MAKAKILO,
AND PORTIONS OF EWA, KALAELOA
& WAIPAHU

The Senate

STATE CAPITOL
HONOLULU, HAWAII 96813

CHAIRMAN
AGRICULTURE & ENVIRONMENT

MEMBER
JUDICIARY

MEMBER
LABOR

TESTIMONY TO THE

KEY WEST CITY COMMISSION

THE HONORABLE TERI JOHNSTON, MAYOR

From

MIKE GABBARD
Hawai'i State Senator – District #20
January 15, 2019

RE: *Testimony in support of Ordinance #18-3253 to Ban Sunscreen Products with Oxybenzone and Octinoxate*

Aloha. I'm writing to encourage you to pass your Ordinance #18-3253 to ban oxybenzone and octinoxate from sunscreens being sold in the City of Key West.

I'm the Chair of the Hawai'i State Senate's Agriculture and Environment Committee and was the lead author of SB 2571 (Act 104). This important legislation was enacted in 2018 and will ban the sale of sunscreens with oxbenzone and octinoxate from being sold in my state starting January 1, 2021.

In our research on this legislation, we found studies that show that these two dangerous chemicals are a threat to human health, coral reefs, and other marine life. I was very proud that our state was the first in the world to take a stand on this issue.

I commend the City of Key West for seriously considering taking action and offer the assistance of my office if you need any information on why Ordinance #18-3253 is the right thing to do. Mahalo.

415 S. BERETANIA STREET, ROOM 201 | HONOLULU, HAWAI'I 96813
PHONE: 586-6830 | FAX: 586-6679 | EMAIL: SENGABBARD@CAPITOL.HAWAII.GOV

From: Joe DiNardo <jmjdinardo@aol.com>
Sent: Friday, February 01, 2019 2:35 PM
To: Teri Johnston <tjohnston@cityofkeywest-fl.gov>; Jimmy Weekley <jweekley@cityofkeywest-fl.gov>; Mary Lou Hoover <mlhoover@cityofkeywest-fl.gov>; Samuel Kaufman <skaufman@cityofkeywest-fl.gov>; Billy Wardlow <bwardlow@cityofkeywest-fl.gov>; Gregory Davila <gdavila@cityofkeywest-fl.gov>; Clayton Lopez <clopez@cityofkeywest-fl.gov>
Cc: Cheri Smith <csmith@cityofkeywest-fl.gov>; James K. Scholl <jscholl@cityofkeywest-fl.gov>; Shawn D. Smith <sdsmith@cityofkeywest-fl.gov>; Ronald Ramsingh <rramsingh@cityofkeywest-fl.gov>
Subject: Feb 5th Vote

Dear Mayor and Commissioners ... just a reminder as to why Key West should pass the ban on Oxybenzone/Octinoxate ... Most Respectfully, Joe DiNardo

Why Ban Octinoxate and Oxybenzone

Octinoxate does not protect against UVA (skin cancer wavelength), after 1 hr of sun exposure allows free-radical formation/damage that can lead to skin cancer, can reduce avobenzone efficacy increasing the risk of skin cancer, can produce enzymes in the skin that are involved in melanoma production, is considered an endocrine disrupting chemical (impacting reproduction and other organs) AND it kills coral and other reef life:

Oxybenzoneis a "weak" UVA absorber (skin cancer wavelength), after 1 hr of sun exposures allows free-radical formation/damage that can lead to skin cancer, can produce enzymes in the skin that are involved in melanoma production, breaks down into "benzophenone" a known cancer causing chemical recently banned by the FDA, is considered an endocrine disrupting chemical (impacting reproduction and other organs) AND it kills coral and other reef life:

Additionally, there are over 200 peer review scientific papers demonstrating numerous toxic effects to many species (including humans) and literally thousands of sunscreen products currently being sold that protect from sun damage that do not contain octinoxate or oxybenzone. Regardless, all agree that sun avoidance should be used in addition to sunshade (beach umbrella/cabana), protective clothing (including sunglasses and hat) followed by sunscreen use. The sun and certain chemicals cause cancer - please protect yourself, your loved ones, Key West residents and the environment from the sun and over exposure to toxic chemicals – Vote YES to ban Octinoxate and Oxybenzone!

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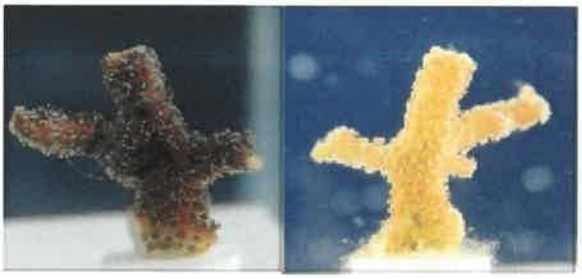

Control | 1 ppBillion Octinoxate 14 days

Time 0 | 500 pptrillion Oxybenzone 14 days

Chemicals Can Kill in 14 Days or Less, But Can Hang Around Up to 5 Years or More

Oxybenzone is a "weak" UVA absorber (skin cancer wavelength), after 1 hr of sun exposures allows free-radical formation/damage that can lead to skin cancer, can produce enzymes in the skin that are involved in melanoma production, breaks down into "benzophenone" a known cancer causing chemical recently banned by the FDA, is considered an endocrine disrupting chemical (impacting reproduction and other organs) AND it kills coral and other reef life:

Additionally, there are over 200 peer review scientific papers demonstrating numerous toxic effects to many species (including humans) and literally thousands of sunscreen products currently being sold that protect from sun damage that do not contain octinoxate or oxybenzone. Regardless, all agree that sun avoidance should be used in addition to sunshade (beach umbrella/cabana), protective clothing (including sunglasses and hat) followed by sunscreen use. The sun and certain chemicals cause cancer - please protect yourself, your loved ones, Key West residents and the environment from the sun and over exposure to toxic chemicals – Vote YES to ban Octinoxate and Oxybenzone!

From: Gina Boone <gboone@panamajack.com>
Sent: Tuesday, January 22, 2019 3:26 PM
To: Jimmy Weekley
Cc: Kim Manna
Subject: New Sunscreen Ordinance

Good afternoon Commissioner Weekley,

Panama Jack would like to take a moment to acknowledge and applaud your efforts in Key West to help preserve the coral reef. This matter is important to us, and as such, we have developed a line of sunscreen products with new reef-friendly formulas.

We will send you a package of our new products in the near future as a token of our appreciation for your environmental efforts.

Sincerely,
Gina Boone
On behalf of Kim Manna, CEO
Panama Jack
1-800-840-5225

Richard Hart

2990 Summit View Ct., Snellville, GA 30078
770-710-9650
gwinnteach@comcast.net

Dear Key West City Commission:

I am writing to extend my support, applause and appreciation for your taking the initiative and risk to ban the sale of sunscreen that contains OXYBENZONE AND OCTINOXATE. I single out Commissioner Jimmy Weekley for sponsoring the ban. Together your group has publicized and broadcast this issue throughout the country at a time when we desperately need private, local and state initiatives on environmental protection. I greatly appreciate your actions. Please continue and push this ban into law.

Key West has an earned reputation as a fun loving, eclectic and quirky community. My wife and I have warm and wonderful memories of visits to Key West and of Fantasy Fest – as do most if not all those who vacation there. So, you have a unique bully pulpit to broadcast this message. ***I urge and implore your body to continue to broadcast the message that these chemicals are death to reef and ocean ecology. Please take the next steps to make it illegal to use these chemicals not only in Key West but throughout the Conch Republic.***

These are not overly ambitious goals for the KWCC. Your body wields great influence in your realm. And I am not suggesting any aggressive enforcement – I believe a legal ban on the sale (with some enforcement) and use (without aggressive enforcement) will result in self-policing by the majority. I guarantee I (and many like me) would approach anyone I saw obviously violating the ban and begin educating them about the effects of these chemicals on the ocean's food chain and habitat. Perhaps my new friend(s) and I would continue the discussion on the pier at dusk - then delve into the more metaphysical aspects over dinner following an attitude adjustment at Rick's.

Do your thing, save the reefs and lets all party on....

Warm regards,
Richard Hart

From: Todd Feit <todd@islandlovestory.com>
Sent: Tuesday, February 5, 2019 12:52 PM
To: Teri Johnston <tjohnston@cityofkeywest-fl.gov>
Cc: Kim Romano <kromano@cityofkeywest-fl.gov>
Subject: Regarding the banning of oxybenzone and octinoxate

Hello Mayor Johnston,

As a resident of Key West I have been hearing the debate about whether Oxybenzone and Octinoxate should be banned in our city and there seems to be an abundance of evidence to support those two chemicals are highly toxic to coral reefs. There have been dozens of studies done that show that these two chemicals are bad for coral development. I know that tonight you and the commission vote on this matter and want you to take into consideration that the whole state of Hawaii approved the ban of these ingredients last May? There had to some pretty convincing and compelling evidence for the state of Hawaii to do this. I have included articles about the Hawaii ban from various news sources. In addition I have included various links to discussions on the House and Senate floor in Hawaii before the bill finally passed. I heard one commissioner wants to delay the vote for up to year to do more studies. I believe that is absurd as highly respected organizations believe what the science is saying. I hope the commission makes the right decision based on the science and what the people of Key West want.

Thank You

Todd Andrew Feit
3343 Flagler Ave
Key West, Fl 33040

Online News Articles

May 1, 2018, Hawaii became the first state to pass a bill banning the sale of sunscreen containing chemicals believed to harm coral reefs.

https://www.independent.co.uk/news/world/americas/hawaii-sunscreen-ban-illegal-coral-reef-death-damage-cream-lotion-oxybenzone-octinoxate-a8336281.html

https://www.latimes.com/travel/hawaii/la-tr-hawaii-sunscreen-bill-20180508-story.html

https://www.capitol.hawaii.gov/Search/search?IW_INDEX=2019&IW_FIELD_WEB_STYLE=sunscreen

https://www.vox.com/2018/7/2/17525496/hawaii-banning-sunscreen

https://www.capitol.hawaii.gov/

Hawaii House legislative hearings 2-13-18 HB 2723 Starts at 1:33:50 Video http://olelo.granicus.com/MediaPlayer.php?view_id=31&clip_id=65021

House Bill HB2723 https://www.capitol.hawaii.gov/Archives/measure_indiv_Archives.aspx?billtype=HB&billnumber=2723&year=2018

House Bill 2723 https://www.capitol.hawaii.gov/session2018/Bills/HB2723_HD1_.pdf

House Bill 2264 http://olelo.granicus.com/MediaPlayer.php?view_id=31&clip_id=65044

SB 2571
- http://olelo.granicus.com/MediaPlayer.php?view_id=&clip_id=64905&caption_id=13295797

Senate Hearing on SB2571
http://olelo.granicus.com/ViewSearchResults.php?view_id=13&types%5BClip%5D=on&types%5BAgendaItem%5D=on&types%5BCaption%5D=on&allwords=sb2571

STREAM2SEA®
—EcoConscious • Biodegradable—

RE: Proposed ordinance banning the sale of sunscreens that contain oxybenzone and/or octinoxate
The City Commission for the City of Key West

Saturday, December 1, 2018

Dear Key West City Commissioners,

I am writing in strong support for the proposed ordinance to prohibit the sale of sunscreens containing the chemicals oxybenzone and octinoxate in Key West. These ingredients have been proven to harm our reefs AND our bodies, and there are sufficient safe alternatives like non-nano titanium dioxide and zinc oxide.

I am the founder and formulator of Stream2Sea, an environmentally-friendly product line formulated without using oxybenzone, octinoxate or any other ingredients known or suspected to harm the coral reef environment (there are quite a few). A cosmetic chemist with more than 20 years' experience formulating natural products, a part-time Monroe County resident and an avid technical diver, I created Stream2Sea because I knew we could create effective, consumer-friendly products while not harming our precious underwater resources. We use only non-nano titanium dioxide as our active ingredient in our sunscreens. Before bringing Stream2Sea to the market, our products were proven to readily biodegrade in fresh water and saltwater, and shown to be non-toxic to various species tested, including coral *Porites astreoides* larvae. They have also been independently tested by FDA validated labs to meet or exceed FDA standards for SPF, broad spectrum and water resistance claims. Both effective and cost comparative with other performance-based sport sunscreens, without the negative environmental effects, consumers are actively looking for eco-friendly and ocean safe non-nano mineral based sunscreens like those offered by Stream2Sea.

There are enough human and environmental studies showing oxybenzone and ocintoxate are not safe for continued use. With sufficient formulas currently available that can be effectively used to protect our skin, without the detrimental effects shown by oxybenzone and octinoxate, this proposed ordinance must pass.

Again, I fully support your efforts. If I can be of any assistance, please do not hesitate to contact me.

Consciously,

Autumn P Blum
Formulator & CEO
Stream2Sea, LLC
autumn@stream2sea.com

Dear Key West City Council members,

As promised in my email last week, attached is a series of articles documenting the dangers oxybenzone and octinoxate to both coral reefs and the humans who use them. Recognizing the value of your time, we have not included full articles from most scientific journals but did include abstracts. All have been highlighted so you can skim for the most important point.

- First, an article from peer-reviewed journal Photodermatology, Photoimmunology and Photomedicine highlighting the options for dermatologists to recommend sunscreens with zinc or titanium dioxide over oxybenzone and octinoxate.
- Articles from one of the world's leading medical publications showing that skin cancer, including melanoma, has risen dramatically even as sales of sunscreen have skyrocketed.
- A series of articles from popular press highlighting the dangers of oxybenzone and octinoxate – and the steps officials in other locations have taken to prevent that damage.
- A series of articles from scientific journals documenting the damage and how it occurs.
- A series of articles from both scientific and popular press documenting damage caused by oxybenzone and octinoxate to people, mice and other aquatic animals.
- Two articles showing that chlorination in swimming pools or wastewater treatment plants actually results in oxybenzone breaking down into even more dangerous compounds.

We realize that nearly all of the big sunscreen companies use oxybenzone or its derivatives in their products because it's inexpensive and easy to formulate. We also know that safer options are available for both our coral reefs and residents of Key West and the Florida Keys.

Sincerely,

Autumn Blum
Formulator & CEO
Stream2Sea