

DAVID Y. IGE  
GOVERNOR OF HAWAII



STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES

POST OFFICE BOX 621  
HONOLULU, HAWAII 96809

Testimony of  
SUZANNE D. CASE  
Chairperson

Before the House Committee on  
ENERGY & ENVIRONMENTAL PROTECTION

Tuesday, March 13, 2018  
8:30 AM  
State Capitol, Conference Room 325

In consideration of  
SENATE BILL 2571, SENATE DRAFT 2  
RELATING TO WATER POLLUTION

Senate Bill 2571, Senate Draft 2 proposes to ban the sale, offer for sale, or distribution in the State of any SPF sunscreen protection personal care product that contains oxybenzone or octinoxate, or both, without a prescription issued by a licensed healthcare provider. **The Department of Land and Natural Resources (Department) appreciates the intent of this measure and offers the following comments.**

The Department recognizes the concerns about the presence of oxybenzone and octinoxate in the nearshore marine environment. Peer-reviewed studies have documented the negative impact of these chemicals on corals and other marine life in a laboratory setting. Very little is known about the actual impacts of these chemicals in a natural marine setting. Prohibiting the sale of products containing oxybenzone and octinoxate may benefit the health and resiliency of Hawai'i's coral reef ecosystems. The Department recommends support of increased monitoring of oxybenzone and octinoxate at high-use swimming areas and the support of further research examining the effects of these chemicals on the nearshore marine environment in Hawai'i.

The Department also recognizes the hazards associated with UV exposure and the need for preventative measures to mitigate negative health effects, as well as the challenges of implementation and enforcement of any oxybenzone and octinoxate sale and distribution provisions. Visitors to our islands often bring their own sunscreen products with them, and a ban on sale would not address this issue.

The Department supports the use of sunscreens that do not contain oxybenzone or octinoxate when in or on the water, as well as sun protective clothing, as alternatives. The Department continues to conduct outreach efforts to help the public understand the issues regarding using

SUZANNE D. CASE  
CHAIRPERSON  
BOARD OF LAND AND NATURAL RESOURCES  
COMMISSION ON WATER RESOURCE MANAGEMENT

ROBERT K. MASUDA  
FIRST DEPUTY

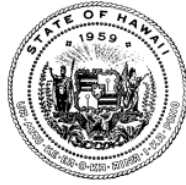
JEFFREY T. PEARSON P.E.  
DEPUTY DIRECTOR - WATER

AQUATIC RESOURCES  
BOATING AND OCEAN RECREATION  
BUREAU OF CONVEYANCES  
COMMISSION ON WATER RESOURCE MANAGEMENT  
CONSERVATION AND COASTAL LANDS  
CONSERVATION AND RESOURCES ENFORCEMENT  
ENGINEERING  
FORESTRY AND WILDLIFE  
HISTORIC PRESERVATION  
KAHOOLAWE ISLAND RESERVE COMMISSION  
LAND  
STATE PARKS

oxybenzone and similar chemicals in the ocean so they can be better informed and make better choices regarding sun protection. These efforts include information on the Department's Division of Aquatic Resources website, focused one-on-one outreach and distribution of oxybenzone-free sunscreen samples at public events, outreach at the 'Āhihi-Kīna'u Natural Area Reserve, news releases, videos, interaction with partner organizations, and meetings with boat tour operators and vendors who sell sunscreen to spread the word. The Department continues to explore other ways to inform the public on this issue.

It should be noted that the primary stressors of coral reefs in Hawai'i are related to land-based source pollution, over-fishing, invasive species, and climate change. Continued legislative support of efforts to reduce these stressors will have the largest impact on coral reef resilience and recovery.

Thank you for the opportunity to comment on this measure.



**STATE OF HAWAII**  
**DEPARTMENT OF HEALTH**  
P. O. Box 3378  
Honolulu, HI 96801-3378  
doh.testimony@doh.hawaii.gov

**Testimony COMMENTING on SB 2571, SD2  
RELATING TO THE ENVIRONMENT**

REPRESENTATIVE CHRIS LEE CHAIR  
REPRESENTATIVE NICOLE E. LOWEN, VICE CHAIR

HOUSE COMMITTEE ON ENERGY & ENVIRONMENTAL PROTECTION

Hearing Date: March 13, 2018  
Time: 8:30 A.M.

Room Number: 325

1 **Fiscal Implications:** No funding is provided to implement this measure and the Department  
2 defers to the Governor's Supplemental Budget Request for appropriation priorities.

3 **Department Testimony:** S.B. 2571 seeks to prohibit the use, sale or distribution of non-  
4 prescription sunscreen protection personal care products containing oxybenzone or octinoxate.  
5 The Department supports the intent of this measure and has the following comments.

6 The Department of Health is concerned about the release of chemicals from personal care  
7 products into the marine environment. We support further research by the Environmental  
8 Protection Agency and United States Food and Drug Administration on the human and  
9 environmental risks of sunscreen ingredients. Research by local and national coral experts has  
10 shown that levels of oxybenzone and octinoxate in the marine environment may be high enough  
11 to pose deleterious effects on coral reef ecosystems. Oxybenzone and octinoxate may have  
12 negative effects on human health as well. However, oxybenzone and octinoxate are two of eight  
13 FDA approved active ingredients currently in use that play important roles in reducing the risk of  
14 some forms of skin cancer, so balancing public health protection here in Hawaii is a very  
15 important consideration. Oxybenzone and octinoxate are widely used in chemical sunscreen  
16 products so a key concern from the public health perspective is the availability and user  
17 acceptance of safe, affordable and effective alternatives.

1 S.B. 2571 seeks to amend the Water Pollution Statute (Chapter 342D) to implement this  
2 measure. Chapter 342D is not the appropriate chapter to regulate the sale and distribution of  
3 consumer products. The Department is hesitant to take on responsibility for this ban under any  
4 state statute without having a clear understanding of the safety, efficacy and user acceptance of  
5 alternative sunscreen products to protect public health. Further, enforcement of this measure by  
6 the Department would require significant staffing and take away limited resources from other  
7 critical public health priorities.

8 The Department is not aware of any impending federal or state regulations to remove or restrict  
9 oxybenzone or octinoxate from sunscreens, or significant voluntary reformulation of popular  
10 products by major sunscreen manufacturers to offer consumers “reef safe” alternatives.

11 The Department strongly supports DLNR’s and the National Park Services’ public education  
12 efforts and outreach strategies to reach out to inform Hawaii beachgoers about steps that they can  
13 take to reduce the unintended impacts of oxybenzone and octinoxate use while safely enjoying  
14 our tropical marine waters and sunny beaches throughout Hawaii. The Department also supports  
15 academic and applied research efforts further investigating the fate and environmental effects of  
16 oxybenzone and other sunscreen compounds in the nearshore marine environment.

17 Thank you for the opportunity to testify.

18 **Offered Amendments:** None.





**SB2571 SD2**  
**RELATING TO WATER POLLUTION**  
House Committee on Energy & Environmental Protection

March 13, 2018

8:30 a.m.

Room 325

The Office of Hawaiian Affairs (OHA) **SUPPORTS** SB2571 SD2, which would mitigate the impacts of oxybenzone and related chemicals on our coral reefs.

**Hawai'i's marine environment and nearshore resources serve as a cultural, socioeconomic, and scientific foundation for our islands.** OHA notes that economic studies in 2002 and 2003 found an overall contribution of \$800 million in revenue generated from our coral reefs and coastal resources, with an added recreational, amenity, fishery, biodiversity and educational value of \$364 million per year. A more recent report released in 2011 utilizing "innovative economic survey techniques" found that across U.S. households, the economic value of protecting Hawai'i's nearshore environment could be estimated at \$34 billion a year. While our ocean waters clearly hold cultural, spiritual, and biological significance beyond any monetary value, these economic analyses clearly reflect the critical nature of our marine environment to our islands.<sup>1</sup>

**This measure represents a small step towards ensuring greater resilience in our coral reefs and nearshore waters.** With the overarching threats of climate change and a growing population base, it is incumbent upon the state and its residents to ensure that our foundational nearshore resources are sufficiently resilient, to best withstand the inevitably increasing pressures that will be placed upon them. While oxybenzone- and octinoxate-based sunscreen is just one of many stressors on our coral reefs, reducing the prevalence of this known chemical threat is a small yet positive step towards ensuring such greater

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<sup>1</sup> See Carlie S. Weiner, Mark D. Needham, & Paul Wilkinson, *Hawaii's real marine life park: interpretation and impacts of commercial marine tourism in the Hawaiian Islands*, 12 CURRENT ISSUES IN TOURISM 489, 489-90 (2009) citing P.J. van Beukering & H.S. Cesar, *Ecological economic modeling of coral reefs: Evaluating tourist overuse at Hanauma Bay and algae blooms at the Kihei Coast, Hawai'i* 58 PAC. SCIENCE 243 (2007); A.M. Friedlander et. al., *The state of coral reef ecosystems of the main Hawaiian Islands* in THE STATE OF CORAL REEF ECOSYSTEMS IN THE UNITED STATES AND PACIFIC FREELY ASSOCIATED STATES 222-269 (2005), K. DAVIDSON, M. HAMNET, & C. MINATO, ECONOMIC VALUE OF HAWAII'S NEARSHORE REEFS (2003), available at [http://nature.forestry.oregonstate.edu/sites/default/files/2009-2%20CIT%20-%20Wiener%20Needham%20Wilkinson%20\(2009\).pdf](http://nature.forestry.oregonstate.edu/sites/default/files/2009-2%20CIT%20-%20Wiener%20Needham%20Wilkinson%20(2009).pdf); HERMAN CESAR ET. AL, ECONOMIC VALUATION OF THE CORAL REEFS OF HAWAII FINAL REPORT 74 (2002), available at [http://www.coralreef.gov/meeting18/evhcri\\_samoa\\_2007.pdf](http://www.coralreef.gov/meeting18/evhcri_samoa_2007.pdf); RICHARD C. BISHOP ET. AL., TOTAL ECONOMIC VALUE FOR PROTECTING AND RESTORING HAWAIIAN CORAL REEF ECOSYSTEMS: EXECUTIVE SUMMARY (2011), available at [http://coralreef.noaa.gov/aboutcrp/news/featuredstories/oct11/hi\\_value/resources/protecting\\_restoring\\_hawaiian\\_cre.pdf](http://coralreef.noaa.gov/aboutcrp/news/featuredstories/oct11/hi_value/resources/protecting_restoring_hawaiian_cre.pdf).

resilience. Notably, this measure may not only directly reduce the impacts of oxybenzone and octinoxate on our most popular nearshore areas, but its passage may also promote greater public awareness of the need to better protect the resources we so substantially rely upon.

Accordingly, OHA urges the Committee to **PASS** SB2571 SD2. Thank you for the opportunity to testify on this measure.

**SB-2571-SD-2**

Submitted on: 3/12/2018 2:49:04 AM

Testimony for EEP on 3/13/2018 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Melodie Aduja	OCC Legislative Priorities Committee, Democratic Party of Hawai'i	Support	No

Comments:

PRESENTATION OF THE  
OAHU COUNTY COMMITTEE ON LEGISLATIVE PRIORITIES  
DEMOCRATIC PARTY OF HAWAII  
TO THE COMMITTEE ON ENERGY & ENVIRONMENTAL PROTECTION  
THE HOUSE OF REPRESENTATIVES  
TWENTY-NINTH LEGISLATURE  
REGULAR SESSION OF 2018

Tuesday, March 13, 2018

8:30 p.m.

Hawaii State Capitol, Conference Room 325

RE: Testimony in **Support with Amendments** of **SB2571 SD2**, RELATING TO  
WATER POLLUTION

To the Honorable Chris Lee, Chair; the Honorable Nicole E. Lowen, Vice-Chair and  
Members of the Committee on Energy & Environmental Protection:

Good morning. My name is Melodie Aduja. I serve as Chair of the Oahu  
County Committee ("OCC") Legislative Priorities Committee of the Democratic Party of  
Hawaii. Thank you for the opportunity to provide written testimony on **SB2571 SD2**,  
relating to the Environment; Sunscreen Protection Personal Care Products;  
Oxybenzone; Octinoxate; Sale; Distribution; and a Prohibition.

The OCC Legislative Priorities Committee is in favor of **SB2571 SD2** and  
**supports its passage with amendments.**

**SB2571 SD2** is in accord with the Platform of the Democratic Party of Hawai'i  
("DPH"), 2016, as it bans the sale, offer of sale, or distribution in the State of any SPF  
sunscreen protection personal care product that contains oxybenzone or octinoxate, or  
both, without a prescription issued by a licensed healthcare provider.

However, the OCC Legislative Priorities Committee recommends that this  
measure be amended to delete the "prescription issued by a licensed provider"  
provision as there are alternative oxybenzone/octinoxate-free personal products that

protect the health interests of those requiring a medically-prescribed sunscreen; thereby making this exception unnecessary.

Specifically, the DPH Platform provides that we "support the democratic participation of citizens and residents to protect (i) valuable coastal ecosystems and reefs from misuse and (ii) beaches for public use and recreation. The Hawai'i Coastal Zon Management (CZM) law, HRS Chapter 205A, currently provides for public participation in the management of coastal resources." (Platform of the DPH, P. 8, Lines 427-430 (2016)).

Given that **SB2571 SD2** bans the sale, offer of sale, or distribution in the State of any SPF sunscreen protection personal care product that contains oxybenzone or octinoxate, or both, without a prescription issued by a licensed healthcare provider, it is the position of the OCC Legislative Priorities Committee to support this measure with the amendment to eliminate the "prescription issued by a licensed healthcare provider" exception.

Thank you very much for your kind consideration.

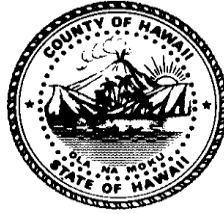
Sincerely yours,

/s/ Melodie Aduja

Melodie Aduja, Chair, OCC Legislative Priorities Committee

Email: legislativepriorities@gmail.com, Text/Tel.: (808) 258-8889

**Eileen O'Hara**  
Council Member  
Council District 4



**Phone:** (808) 965-2712  
**Fax:** (808) 961-8912  
**Email:** eileen.ohara@hawaiicounty.gov

**Chair:** Environmental  
Management Committee

**Vice Chair:** Planning Committee and  
Agriculture, Water & Energy  
Sustainability Committee

**County of Hawaii**  
**Hawaii County Council**

25 Aupuni Street, Suite 1402 • Hilo, Hawai'i 96720

Representative Chris Lee  
Chair, House Committee on Energy & Environmental Protection  
Hawai'i State House of Representatives

March 12, 2018

**Re: In Support of Senate Bill 2571, from Hawai'i County Council District 4**  
**To be heard by EEP on Tuesday, 03-13-18 8:30AM in House conference room 325**

Aloha Chair Lee and Committee Members:

I'm writing to express my support of Senate Bill 2571, which bans the sale, offer of sale, or distribution in the State of any SPF sunscreen protection personal care product that contains oxybenzone or octinoxate, or both, without a medically-licensed prescription.

Hawai'i's coral reefs are being bleached at an unprecedented rate, and recent studies show that oxybenzone may be part of the problem. Though our economy is heavily supported by tourists coming to visit these reefs, and sunscreen is essential to ensure the health of our citizens and these visitors, protecting our reefs must be paramount. Alternatives to oxybenzone in sunscreen products are available, and banning sunscreen containing oxybenzone for sale will send a message to further research and promote other viable options.

I do not hesitate to support any measure which has such positive impacts on the ecology and environment of Hawai'i. Please contact me if you have any questions about my support or knowledge of the subject.

Sincerely,

Eileen O'Hara  
Council Member  
Council District 4

**SB-2571-SD-2**

Submitted on: 3/9/2018 5:36:11 PM

Testimony for EEP on 3/13/2018 8:30:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Benton Kealii Pang, Ph.D.	Hawaiian Civic Club of Honolulu	Support	No

Comments:

The Hawaiian Civic Club of Honolulu supports SB2571 SD2. Hawai'i's marine environment and nearshore resources serve as a cultural, socioeconomic, and scientific foundation for our islands. Pass SB2571 SD2.

**SB-2571-SD-2**

Submitted on: 3/10/2018 11:24:42 AM

Testimony for EEP on 3/13/2018 8:30:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Tina Owens	LOST FISH Coalition	Support	No

Comments:

Our great thanks to Chair Lee, Rep. Lowen and committee members for hearing this bill SB 2571 so quickly. I represent the LOST FISH Coalition, a group of very involved, and very dilligent champions of the West Hawaii reefs and ocean. The discovery that what we were once taught to do so habitually (lathering on sunscreen) would eventually prove toxic to our already over-stressed corals, is distressing in the extreme. To further realize it is harmful to prenatal babies and damage the motility of sperm in human males is a double whamnee.

There are other options available to us and to the retailers who sell these toxic sunscreens. There are a wide number of oxybenzone- and octinoxate-free sunscreens already out there on the market. People should be encouraged to wear hats, t-shirts, etc. and to sit in the shade. There really is no reason not to take this small step to protect our reefs and ourselves.

We strongly encourage that the effective date on this bill be changed to no later Jan. 1. 2019. That's plenty of time to sell off existing stocks of the bad stuff. The corals, however, don't have much time. And without them, Hawaii will no longer be Hawaii.

Aloha, and Mahalo for you r consideration.

Tina Owens, Executive Director

LOST FISH Coalition

**SB-2571-SD-2**

Submitted on: 3/10/2018 12:07:40 PM

Testimony for EEP on 3/13/2018 8:30:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Joseph Cruz	Aloha Boardshop	Support	No

Comments:

Aloha,

We are passionate about preservation and protection of our natural environment. Even though 99% the public has not reached out to provide any testimony in regards to their position on this, we can step forward to testify that EVERY customer we serve feels strongly that chemical sunscreens and personal care products need to stop.

It's your duty as informed representatives to make the changes the public supports, as well as to take the information scientific research proves and provides you and make our islands a better, safer, cleaner and more pono place for us all to live. It's also a duty and responsibility for humans in general to care for the planet and animals.

Scientific studies indicate oxybenzone, octinoxate, avobenzone, ethylhexyl methoxycinnamate, homosalate, octisalate, and octocrylene harm corals, which are threatened by multiple stressors. Corals protect our shoreline and are critical to our ocean ecosystems, economy, recreation and fisheries. We need to ban the sale of personal care products containing these chemicals! Please pass this bill to stop this madness!

Mahalo



**SB-2571-SD-2**

Submitted on: 3/10/2018 3:41:53 PM

Testimony for EEP on 3/13/2018 8:30:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Rick Gaffney	Hawaii Fishing & Boating Association	Support	No

Comments:

Our members in the fishing and boating communities across the State of Hawaii would like to strongly support the passage of SB2571 SD2 because it is essential to the protection of our coral reefs, which are the very basis of our marine environment. Oxybenzone and octinoxate have been proven in peer reviewed scientific studies to be extremely detrimental to coral, limu and fish, and the banning of sunscreens containing these noxious chemicals will remove a significant contributor to the decline of our essential coral reefs.

There are plenty of alternative sunblock fomulations that are equally effective, and the increasing availability of practical sun-block clothing is an additional alternative, also proven to be extremely effective in preventing skin cancers.

We can't stop global warming locally, and over-fishing is a complex issue that cannot to solved overnight, but we can go a long way toward eliminating the damage caused by these chemicals in our waters, by banning the sale of sunscreens containing oxybenzone and octinoxate in Hawaii.

Please vote to move this bill forward, today.

Mahalo,

Rick Gaffney, President

**SB-2571-SD-2**

Submitted on: 3/10/2018 11:17:53 PM

Testimony for EEP on 3/13/2018 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Leimomi Khan	Democratic Party of Hawaii, Hawaiian Affairs Caucu	Support	No

Comments:

Comments:

Testifier Position

Present at Hearing



Leimomi Khan Hawaiian Affairs Caucus Democratic Party of Hawaii Support Yes



Aloha, the Hawaiian Affairs Caucus of the Democratic Party of Hawaii continues to urge your support of SB 2571 SD2, especially because researchers have found oxybenzone concentrations in some Hawaiian waters at more than thirty times the level considered safe for coral. Studies from around the world have highlighted the detrimental impact of chemicals in sunscreen products on coral health and reproduction.

“Malama ‘Aina; Malama Kai”, from a spiritual and Hawaiian cultural view, the Kumulipo, a Hawaiian Creation Chant, tells us that the first organism born was the coral polyp, a very small and simple organism that was the basic building block for life in the seas. Thus, this is not just about protecting the coral, but also all life that it supports.

As an island community, coral reefs help protect our coastlines from the damaging effects of wave action and tropical storms and provide habitats and shelter for many marine organisms. Too, from an economic lens, healthy reefs contribute to our economy through fishing, tourism that offers diving tours, hotels, restaurants and other businesses based near reef systems that provide jobs and contribute to the economy.

Failure to take action now endangers healthy coral reefs. We should not want our legacy for future generations to be dead coral reefs, one contributing factor being the adverse impact of oxybenzone.

LEIMOMI KHAN

**SB-2571-SD-2**

Submitted on: 3/11/2018 9:59:59 AM

Testimony for EEP on 3/13/2018 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Pat B Lindquist	Napili Bay and Beach Foundation, Inc	Support	No

Comments:

Napili Bay and Beach Foundation is strongly supportive of this bill, as it will help us protect the health of our reef life. Napili beach and bay are very popular with tourists, who now buy products at Costco, ABC, other stores - to protect their skin from UV damage. With an estimated 200,000 guests per year, a half a ton sunscreen chemicals are being put into the bay each year.

Our resorts and watersport stores are doing their part by selling ONLY sunscreen products without oxybenzone or octinoxate, but the effort would be even more effective if all Hawaiian stores would limit sales in the same manner.

We therefore strongly encourage passing **SB2571 SD2** with the **amendment** that it go into full effect by January 1, 2019.

Hawaii's reefs are under siege by many factors: warming waters, polluted runoff and more. This bill makes protecting coral reefs a matter of personal choice and action, sacrificing nothing in the way of personal safety, which is much easier than cooling the ocean and mitigating runoff from land based sources.

Respectfully,

Pat B Lindquist

President, Napili Bay and Beach Foundation

**SB-2571-SD-2**

Submitted on: 3/11/2018 12:54:19 PM

Testimony for EEP on 3/13/2018 8:30:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Azita Ganjali	Wipeout Crew	Support	No

Comments:

Aloha,

My name is Azita Ganjali and I am a senior at Kaiser High School. I am the Vice President of Wipeout Crew, a student led organization that focuses on preserving and protecting Hawaii's ocean environment. Oxybenzone and Octinoxate causes coral bleaching, deformities, and complications in reproduction in marine organisms.

This year we partnered with Friends of Hanauma Bay to host a Sunscreen Exchange at our school, in order to educate our community about the harmful effects of sunscreen on our reefs. Wipeout Crew received donations from reef safe sunscreen companies, some as many as 500 samples. People brought in bottles of Oxybenzone sunscreen and swapped it for goodie bags filled with reef safe sunscreen.

If we continue using Oxybenzone and Octinoxate products in the ocean, the reefs will die; not only will the fish be affected, our economy which is based solely on reefs will die also. It is so easy to switch to reef safe alternatives, we as students already made a difference with 200 people. Therefore, it is possible to make a change to our entire state.

**SB-2571-SD-2**

Submitted on: 3/11/2018 1:27:55 PM

Testimony for EEP on 3/13/2018 8:30:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Michael ko	Littlehandshawaii	Support	No

Comments:

Aloha,

On behalf of the health and life of our coral and our bodies, especially our keiki, we support this bill and hope you take it into consideration as well. There have been more than enough studies done. Bottom line is Hawaii depends on tourism and if we continue to not malama our reef and ecosystem, we feel drastic things will change. Tourist come here to snorkel and if there are dying coral with no fish, no color and no life, they will chose to go elsewhere.

What about our keiki. We continue to lather them with toxic chemicals. Don't you think we should end this already?

Me and my family have been making a reef safe and human safe sunscreen here in Hawaii for 7 years now, and have seen a huge change. People are actually reading ingredients and trying to find a better, cleaner product. Well guess what, they came to the right place. There are a handful of companies here in Hawaii that have been doing our best to educate, spread awareness and provide something better not only for Hawaii's people, but for Hawaii's biggest resource, our ocean. Our ocean provides us with so much. Businesses make a living, puts food on our tables, provides healing, I can go on and on. Coming form a local family, please let this happen for Hawaii. Let's give back to what has given us and our ancestors for generations.

Mahalo.

**SB-2571-SD-2**

Submitted on: 3/11/2018 2:26:35 PM

Testimony for EEP on 3/13/2018 8:30:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Alicia Rittenberry	Student Ohana for Sustainability	Support	No

Comments:

Aloha and thank you for allowing us the opportunity to weigh in on this important water resource management bill. My name is Alicia Rittenberry and I am representing The Student Ohana for Sustainability (SOS), a student led organization based at the University of Hawaii Maui College that works towards the goals of creating a sustainable Maui and Hawaii. We support including restrictions on the sale of sunscreen containing oxybenzone and octinoxate to coral reefs. Coral reefs are incredibly important for marine ecosystems, culture, and to the economy. It has been estimated that Hawaii's nearshore reefs annually generate \$800 million in gross revenues and \$34 million for Kihei alone. Reefs provide an ecosystem for many marine organisms, protect the shoreline by dispersing wave energy, which lessens storm damage, and provide recreational and cultural value.

There are many increasing threats to the health of the world's coral. One that has recently been discovered are ingredients found in many sunscreens. Oxybenzone negatively impacts coral health in several different ways and is a threat to Hawaii's reefs in particular. Oxybenzone can be toxic to baby coral at levels as low as 62 parts per trillion. That's the equivalent to one drop in 6.5 Olympic swimming pools. In a 2015 study, 11 out of 13 tested areas in Maui's waters showed levels several times that amount. There are recently published studies that prove Oxybenzone and Octinoxate are having negative impacts on a variety of marine organisms, including sea urchins, algae (including limu), and fish that depend on the ability to change sex, such as parrotfish and wrasse. Oxybenzone can also negatively impact human health, especially in children, and was named the Contact Allergen of the Year in 2014 by the American Contact Dermatitis Society. Because of the many negative effects of oxybenzone and octinoxate, sunscreens containing these ingredients should not be sold or used in Hawaii. The most dangerous threat to coral reef health is rising ocean temperatures, which is a complex issue that has many causes, is difficult for an individual to affect a change, and will take a significant amount of time to counter. In the meantime, we should stand up and be leaders and do all we can to give coral reefs, that are so important to us, every opportunity for success. Removing oxybenzone and octinoxate from the water could be immediate (if the bill takes effect sooner than 45 years from now), there is only one targeted source, and it is easy for an individual to affect change.

There are safer alternatives that can protect the health of the people on our shores, such as clothing and zinc sunscreens. Zinc oxide, by the way, is the only fda approved sunscreen ingredient to offer completely full protection from both UVB and UVA rays.

FDA Monograph Sunscreen Ingredients	Amount of Ray Protection		Chemical (C) or Physical (P)
	UVA	UVB	
Aminobenzoic acid (PABA)	○	●	C
Avobenzone	●	◐	C
Cinoxate	◐	●	C
Dioxybenzone	◐	●	C
Ecamsule	●	◐	C
Homosalate	○	●	C
Menthyl anthranilate	◐	●	C
Octocrylene	◐	●	C
Octyl methoxycinnamate	◐	●	C
Octyl salicylate	○	●	C
Oxybenzone	◐	●	C
Padimate O	○	●	C
Phenylbenzimidazole	○	●	C
Sulisobenzone	◐	●	C
Titanium dioxide	◐	●	P
Trolamine salicylate	○	●	C
Zinc Oxide	●	●	P

Protection Level: ● = extensive ◐ = considerable ◑ = limited ○ = minimal

For the most up-to-date information on approved sunscreen ingredients, visit the FDA Web site at <[www.fda.gov](http://www.fda.gov)>.

So, as to the question of how well alternative products using this ingredient work, the answer is very well. As to the question of how available these products are, there are multiple stores that are able to exclusively carry sunscreens without oxybenzone and octinoxate. Down to earth, hawaiian moons, Mana foods, and several surf and snorkel shops, as well as snorkel boats. Longs/cvs in kihei has about a fourth of their sunscreen section dedicated to zinc sunscreens and even have their own store brand.

Some people point to education as the path to rid our marine ecosystem of these harmful chemicals. However, education can only go so far, as Jeff Bagshaw, steward of 'Ahihi Kina'u Natural Reserve, has testified to. For years now, Jeff, the SOS club, the Sierra club, and other organizations have made efforts to educate the public on the effects of these sunscreen ingredients and those we have spoken to have been receptive and eager to change. And yet, testing for these chemicals done this past summer actually shows an increase from 2015. It is time for legislation.

The companies that produce toxic sunscreen reap the benefits of profits, yet we, the community, are paying the consequences. The environment not only provides us with our basic needs of survival, but is the backbone of our tourism based economy, provides leisure activities that we all enjoy, and gives many a spiritual connection to



something greater than ourselves. My question that I please ask you to consider is, What is the benefit to our community to continue to allow the sale and use of products that poison the environment on which we depend when there are alternative products available? I understand there are valid concerns about logistical details, but I hope you can find a way to make this work and show the world that, in Hawaii, we value the health of our ecosystems and community. We do not support the few benefitting at the expense of the overall community. Please change this bill to take effect sooner than 45 years from now, when it will be our GRANDCHILDREN'S responsibility to see it through, if there is enough healthy reef ecosystem for it to matter.

Thank you for your consideration  
Student Ohana for Sustainability

contact

Alicia Rittenberry

ar31@hawaii.edu

808-298-9337



**TO:** Honorable Chair Lee, Vice Chair Lowen, and Energy and Environmental Protection Committee Members, 3-13-18, 8:30 a.m.

**SUBMITTED BY:** Keith Dane, Hawaii Policy Advisor, State Affairs, Humane Society of the United States, [kdane@humanesociety.org](mailto:kdane@humanesociety.org), Tel: 301-312-1489; and Teresa M. Telecky, Ph.D., Vice President, Wildlife, Humane Society International, [ttelecky@hsi.org](mailto:ttelecky@hsi.org), Tel: 301.258.1430

**RE: SUPPORT for SB 2571 SD2, Relating to Water Pollution**

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The Humane Society of the United States (HSUS) and Humane Society International (HSI), support SB 2571 SD2 which would, if enacted, prohibit the sale, offer for sale, or distribution for sale of non-prescription SPF sunscreen products containing octinoxate or oxybenzone, unless the product is sold or distributed to fulfill a prescription. We thank the Committee for addressing this important matter that affects Hawaii's nearshore coral reefs.

Numerous studies have shown that oxybenzone in the marine environment can be harmful to coral reefs and marine life (Kim et al. 2014; Kim & Choi 2014; Tsui et al. 2014; Downs et al. 2015). These studies clearly indicate that oxybenzone poses a risk to fishes, through endocrine disruption and reproduction performance, for example, and to hard corals through bleaching. These threats are heightened in marine recreational areas frequented by beach goers, swimmers, snorkelers and divers whose sunscreen washes off when they enter the water. Worldwide, it is estimated that 90% of snorkeling or diving tourists are concentrated on 10% of the reefs (US National Park Service). Hawaii's Marine Life Conservation Districts (MLCDs) have an abundance of fishes compared to the majority of the state's reefs which are severely depleted. This abundance of wildlife is a major draw to tourists and, Hawaii's most beautiful and popular reefs are likely exposed to the most sunscreen pollution.

It has been estimated that 4,000 – 14,000 tons of sunscreen enters coral reef areas around the world annually (U.S. National Park Service, Downs et al. 2015). Surveys around Hawaii's coral reefs found oxybenzone levels at concentrations 12 times higher than the level at which it impacts juvenile coral (Downs et al. 2015).

The unprecedented coral bleaching events of 2014 and 2015 had devastating effects on Hawaii's corals. A 2016 report by The Nature Conservancy found of 32 – 90% of bleached

coral colonies died in some West Hawaii areas. New research shows that by mid-century, coral reefs will annually experience the heat stress that causes bleaching, and the authors conclude that the future conditions of reefs depends on both the reduction of global emissions and our capacity to build resilience to bleaching through management of local stressors (Hughes et al. 2018). Though sunscreen toxins, such as oxybenzone and octinoxate, may be just one of many stressors impacting Hawaii's coral reefs, the inevitability of future ocean warming events and subsequent coral bleaching makes it imperative to reduce the stressors to corals and increase their potential to recover and survive.

HSUS and HSI have previously submitted testimony in support of HB 2264, a bill which would have similarly prohibited the sale of the same products which this bill addresses, however that legislation included a penalty of a petty misdemeanor for a violation of the section. We suggest that SB 2571 SD2 be amended to include the same penalty, and sincerely thank the Committee for taking up this important matter. ***We urge the Committee to amend and pass SB 2571 SD2*** which will help reduce SPF sunscreen pollution and harm to Hawaii's coral reefs and wildlife.

Thank you for this opportunity to provide testimony.

**SB-2571-SD-2**

Submitted on: 3/11/2018 2:51:16 PM

Testimony for EEP on 3/13/2018 8:30:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Lisa Bishop	Friends of Hanauma Bay	Support	Yes

Comments:

To: House Committee on Energy and Environmental Protection

Chris Lee, Chair

Nicole Lowen, Vice Chair

Re: SB2571 SD2 Relating to Water Pollution

Hearing: Tuesday, March 13, 2018, 8:30 am, Room 325

Position: STRONG SUPPORT, Requesting an effective date of 1 January 2019.

Aloha Chair Lee, Vice Chair Lowen, and other Committee members, thank you for the opportunity to testify in SUPPORT of SB2571 SD2.

A multitude of undisputed scientific studies over the past 20 years demonstrate that the chemicals oxybenzone and octinoxate found in some SPF sunscreen are toxic to corals and other marine animals. They threaten the overall health of coral reefs by harming and killing coral larvae by inducing gross deformities, cellular degradation, and genetic damage. Exposure to oxybenzone and octinoxate makes coral more susceptible to bleaching at lower temperatures, and reduces the resiliency of a reef and its ability to recover from the impacts of other environmental hazards like sedimentation and climate change. Its greatest ecological threat is that it will prevent a reef from recovering if these chemicals continue to taint a reef area. We all know of reefs that looked good 30-40 years ago, but now are denuded and desolate – Hanauma Bay, west coast of Maui, and Captain Cook Monument are just a few prime examples.

Again undisputed is that oxybenzone and octinoxate are poisonous to more than just corals. They are noxious endocrine disruptors that will feminize male fish and cause deformities in developing fry, threatening fish populations by reducing reproductive success. Both chemicals are also highly toxic to algae (limu) and sea urchins. Both chemicals will bioaccumulate in organisms, and can reach extremely high levels in edible fish (Kumu, Uhu), cetaceans (dolphins), shellfish and limu.

You can find these chemicals in the water almost everywhere you go swimming in Hawaii. Recent water sampling of Hanauma Bay (November 2017) at 10 different sample sites measured oxybenzone levels as high as 27,880 PPT, the highest levels measured anywhere in Hawaii. This is especially critical since Hanauma Bay is Hawaii's first Marine Life Conservation District and one of Hawaii's 12 Class AA marine embayments under the Federal Clean Water Act whose waters are supposed to remain pristine. This alarming amount of oxybenzone pollution at Hanauma Bay does not in any way meet the definition of "pristine".

By threatening our coral reefs, these chemicals also threaten our livelihoods, our businesses, our traditions, our very way of life. We must do everything we can to mitigate this pollution of our fragile near-shore marine environments. Banning the sale of SPF sunscreen containing the known reef-toxins oxybenzone and octinoxate is something effective we can do today - right now - to help improve the health and resiliency of our fragile coral reefs.

We therefore respectfully request that you pass SB2571 SD2 out of the EEP Committee with an effective date of 1 January 2019.

Sincerely,

Lisa Bishop

President

Friends of Hanauma Bay



SIERRA CLUB OF HAWAII  
MĀLAMA I KA HONUA. *Cherish the Earth.*

HOUSE COMMITTEE ON ENERGY AND ENVIRONMENTAL PROTECTION

Tuesday, March 13, 2018 8:30AM Conference Room 325

In **SUPPORT** of **SB 2571 SD2** Relating to water pollution

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Aloha Chair Lee, Vice Chair Lowen and members of the Committee,

On behalf of our 20,000 members and supporters, the Sierra Club of Hawai'i, a member of the Common Good Coalition, **strongly supports SB 2571 SD2**, which seeks to ban the sale, offer of sale, or distribution in the state of any SPF sunscreen protection personal care product that contains oxybenzone or octinoxate, or both, without a medically-licensed prescription. We suggest to effectuate this ban starting January 1, 2019.

Oxybenzone is a chemical UV filter that is added to nearly 70% of non-mineral sunscreens.<sup>1</sup> It commonly washes into our oceans when applied at the beach, effectively harming our coral reef ecosystems. The chemical ingredient oxybenzone damages coral DNA and inhibits their ability to reproduce, causes deformities on the coral, makes them more susceptible to bleaching, and initiates endocrine disruption.<sup>2,3</sup> These pathologies can occur at concentrations as low as 62 parts per trillion, but some beaches in Hawai'i have oxybenzone levels higher than 700 parts per trillion<sup>4</sup>, a major concern when our reef system annually generates about \$800 million in gross revenues.<sup>5</sup>

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<sup>1</sup> <http://www.ewg.org/sunscreen/report/the-trouble-with-sunscreen-chemicals/>

<sup>2</sup> Downs CA, Kramarsky-Winter E, Segal R, et al. Toxicopathological Effects of the Sunscreen UV Filter, Oxybenzone (Benzophenone-3), on Coral Planulae and Cultured Primary Cells and Its Environmental Contamination in Hawaii and the U.S. Virgin Islands. *Arch Environ Contam Toxicol* 2015 Oct 20. doi: 10.1007/s00244-015-0227-7

<sup>3</sup> DiNardo, JC and Downs, CA. Dermatological and environmental toxicological impact of the sunscreen ingredient oxybenzone/benzophenone-3. *J Cosmet Dermatol* 2017; 00:1–5.

<https://doi.org/10.1111/jocd.12449>

<sup>4</sup> <http://www.marinesafe.org/blog/2016/05/12/how-sunscreen-is-putting-coral-reefs-at-risk/>

<sup>5</sup> [http://www.hawaii.edu/ssri/cron/files/econ\\_brochure.pdf](http://www.hawaii.edu/ssri/cron/files/econ_brochure.pdf)

In addition to the deleterious harm oxybenzone inflicts on our fragile reef systems, it is also a known endocrine disruptor and the science is becoming ever more conclusive in its link to illnesses ranging from skin allergies, to thyroid problems, to cancer.<sup>6,7,8,9,10</sup>

Panels held at the International Union for the Conservation for Nature (IUCN) and International Coral Reef Symposium (ICRS) in Honolulu have both suggested that oxybenzone is toxic to corals and urge that we stop using these products.<sup>11,12</sup> The State's Department of Land and Natural Resources (DLNR) is also asking people who enter the ocean to avoid using sunscreens which contain oxybenzone.<sup>13</sup>

While these voluntary, educational efforts to curb the usage of these products are commendable, an effective way to prevent these chemicals from entering our waterways is to pass SB 2571 SD2 and prohibit the sale of sunscreens containing oxybenzone. Many visitors purchase sunscreen once they arrive to the islands and this bill ensures that oxybenzone and other reef harming chemicals will not be sold in the state.

Although there are many causes of reef degradation, SB 2571 SD2 provides a sensible opportunity to help maintain the economic, ecological, cultural, and recreational value of Hawai'i's reef systems. No one likes to see a film of floating chemical-laden sunscreen on our ocean surfaces. Banning oxybenzone protects our vulnerable reef ecosystems from toxic products and promotes the usage of reef-safe sunscreens that are mineral, not chemical based.

**We strongly support SB 2571 SD2** and urge the Committee to pass this measure.

Thank you very much for this opportunity to provide testimony on this important issue.

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<sup>6</sup> <http://www.haereticus-lab.org/oxybenzone/>

<sup>7</sup> Alamar, M. (2017). Effects of exposure to six chemical ultraviolet filters commonly used in personal care products on motility of MCF-7 and MDA-MB-231 human breast cancer cells in vitro. *Wiley Journal of Applied Toxicology*.

<sup>8</sup> Huo, W. (2015). The relationship between prenatal exposure to BP-3 and Hirschsprung's disease. *Chemosphere*, 144.

<sup>9</sup> Kunisue, T., Chen, Z., Louis, G. M., Sundaram, R., Hediger, M. L., Sun, L., & Kannan, K. (2012). Urinary Concentrations of Benzophenone-type UV Filters in U.S. Women and Their Association with Endometriosis. *Environmental Science & Technology*, 46(8), 4624-4632. doi:10.1021/es204415a

<sup>10</sup> Molins-Delgado, D., Olmo-Campos, M. D., Valeta-Juan, G., Pleguezuelos-Hernández, V., Barceló, D., & Díaz-Cruz, M. S. (2018). Determination of UV filters in human breast milk using turbulent flow chromatography and babies' daily intake estimation. *Environmental Research*, 161, 532-539. doi:10.1016/j.envres.2017.11.033

<sup>11</sup> <http://www.civilbeat.org/2016/09/drop-the-oxybenzone-or-stop-swimming-in-hawaiian-waters/>

<sup>12</sup>

<http://www.honolulumagazine.com/Honolulu-Magazine/June-2016/Your-Sunscreen-Might-Be-Killing-Coral-Reefs-in-Hawaii/>

<sup>13</sup>

<http://governor.hawaii.gov/newsroom/latest-news/dlnr-news-release-ocean-users-urged-to-use-reef-safe-sunscreens/>

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We provide the following photos as evidence that alternatives to oxybenzone-containing sunscreen are readily available on the consumer market, including in high-tourist zones, at this time.



PHOTO 1. Taken at an ABC Store on Lewers Street in Waikiki 2/11/2018.





PHOTO 2. Taken at the Surfjack Hotel in Waikiki 2/11/2018.

**SB-2571-SD-2**

Submitted on: 3/11/2018 3:43:43 PM

Testimony for EEP on 3/13/2018 8:30:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Melissa Benjamin	The Garden Club of Honolulu	Support	No

Comments:

On behalf of the Conservation Committee of The Garden Club of Honolulu, I am writing to express our strong support of SB2571 banning sunscreens that contain oxybenzone and octinoxate. The Garden Club of Honolulu was organized in 1930 and has 145 members, many of whom are leaders in the Honolulu community. Our board has expressed strong support of a new reef-safe sunscreen project that will begin in fall 2018, and we expect the project to be voted in by our club's general membership meeting this Wednesday, March 14. Our new project would entail closely following the progress of SB2571, as well as encouraging citizens to purchase reef-safe products. We believe that Hawaii has an opportunity to take a leadership role in saving coral reefs around the world and in saving our State's shorelines and economic viability. Our island environment dictates that we do everything possible to preserve our coral reefs, and we must protect our citizens from the endocrine-disrupting effects of oxybenzone and octinoxate.

**SB-2571-SD-2**

Submitted on: 3/11/2018 5:29:26 PM

Testimony for EEP on 3/13/2018 8:30:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Maureen Datta	Hawaii Farmers Union United Kona Chapter	Support	No

Comments:

Aloha,

I have been regularly swimming in Kealahou Bay and along the Kona Coast since I moved here in 1990. I live in Honaunau, I am Democratic Precinct Chair for District 5, Precinct 5 and President of the Kona Chapter of Hawaii Farmers Union United. I also support the mission and efforts of the West Hawaii Fisheries Council. I urge you to protect our at-risk reefs with this effective and simple bill.



## HAWAII KAI NEIGHBORHOOD BOARD

March 12, 2018

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**HERB SCHREINER**

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**LASHA SALBOSA**

Subdistrict #7

**Vacant**

Subdistrict #8

**Vacant**

Subdistrict #9

**PAIGE ALTONN**

Subdistrict #11

**Hawaii Kai**

**Neighborhood Board #1**

c/o Neighborhood  
Commission Office  
925 Dillingham Blvd., #160  
Honolulu, Hawaii 96817  
Phone: (808) 768-3710  
Fax: (808) 768-3711  
[www.honolulu.gov/nco](http://www.honolulu.gov/nco)

The Board meets the last  
Tuesday of every month  
except Dec., 7 p.m., Hahaione  
Elementary School cafeteria.  
The public is welcome to  
attend.

Hawaii State Legislature:

RE: Testimony in SUPPORT of SB 2571 – regarding the prohibition of  
the sale and distribution of sunscreens with oxybenzone and  
octinoxate

Dear Legislators:

At its regularly scheduled meeting of February 27, 2018, the Hawaii Kai  
Neighborhood Board voted unanimously to support Senate Bill 2571 to prohibit  
the sale and distribution of sunscreens with the chemicals oxybenzone and  
octinoxate.

The Hawaii Kai Neighborhood Board has long been an advocate for the  
preservation and protection of Hawaii's natural resources. As the chemicals  
oxybenzone and octinoxate, found in several sunscreen products, have been  
shown to be dangerous to marine life, we urge the legislature to pass this  
legislation to prevent potential further damage to our marine environment.

We strongly support the intent of SB 2571 and urge its passage. Thank you for  
your time and consideration of our comments.

Aloha,

Roberta Mayor, Chairperson  
Hawai'i Kai Neighborhood Board

cc (via email): Senator Laura Thielen  
Senator Stanley Chang  
Representative Gene Ward  
Representative Mark Hashem  
Councilmember Trevor Ozawa  
Suzanne Case, Department of Land and Natural Resources  
Members of the Hawai'i Kai Neighborhood Board

**SB-2571-SD-2**

Submitted on: 3/11/2018 7:11:37 PM

Testimony for EEP on 3/13/2018 8:30:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Joseph Kohn MD	We Are One, Inc. - www.WeAreOne.cc - WAO	Support	No

Comments:

Enforce the public trust doctrine!

[www.WeAreOne.cc](http://www.WeAreOne.cc)

**SB-2571-SD-2**

Submitted on: 3/12/2018 12:29:17 AM

Testimony for EEP on 3/13/2018 8:30:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Natalie Parra	Keiko Conservation	Support	No

Comments:



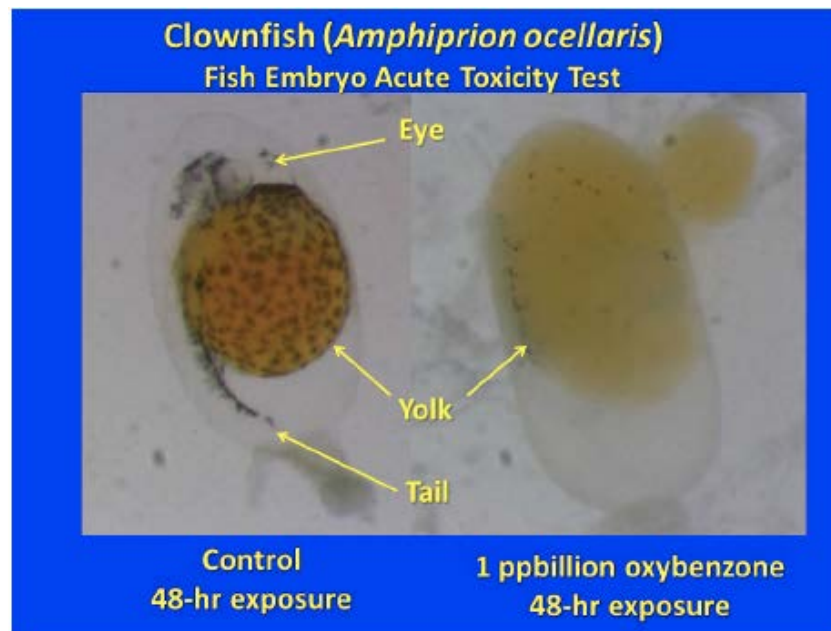
March 12, 2018

SUPPORTING Hawaii Legislative Bills That  
Prohibit the Sale of SPF Sunscreen Products Containing Oxybenzone & Octinoxate

Dear Hawaii Legislative Chairperson and Committee Members,

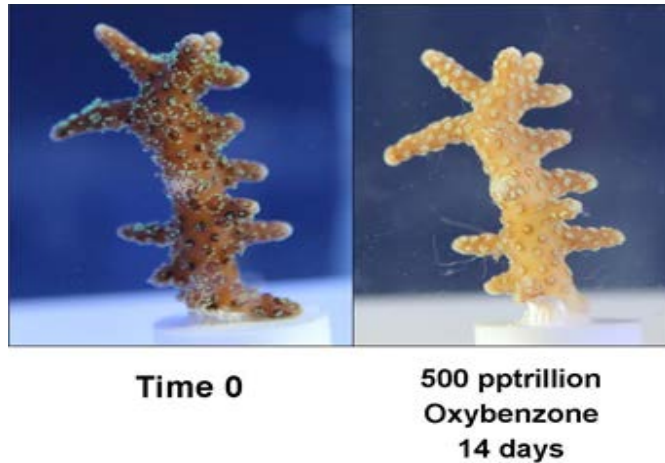
I was the lead scientist who co-authored the scientific paper in Archives of Environmental Contamination and Toxicology regarding the impact of oxybenzone on coral planula and oxybenzone contamination along the coasts of Hawai'i and the U.S. Virgin Islands. I am also a graduate of the **John A. Burns School of Medicine at the University of Hawai'i at Mānoa**.

Oxybenzone/Octinoxate in the marine environment can have detrimental effects to all marine life, including changes in fish behavior, pathological changes to fish sexual identity, damage to genomic and DNA integrity, and the developmental success of almost ALL of Hawaii's marine biodiversity. Its greatest **DANGER** is as a poison that can kill or maim juveniles of corals, sea urchins, and fish. This poison **THREATENS** the restoration of Hawaii's already degraded coral reefs by preventing juvenile marine life from recruiting into an area that is polluted by oxybenzone/octinoxate. The image below is what 1 part per billion (1,000 ng/L) OXYBENZONE can do to a fish embryo in 48 hours! This concentration can be seen soon after high tide in areas along Maui's West Coast and in many popular swimming areas/reefs along the coasts of Oahu and Kauai.

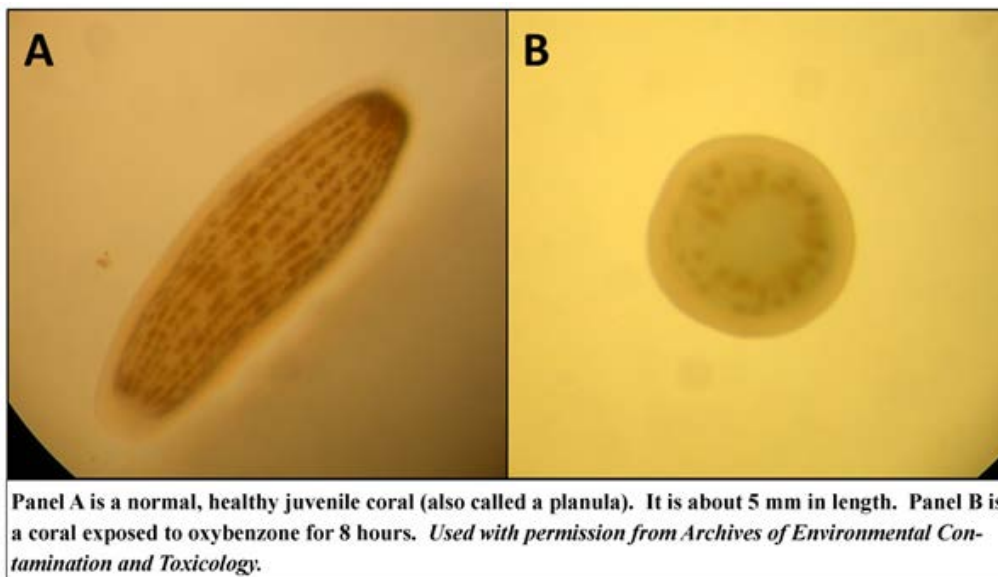


The SCIENCE is strong that Oxybenzone & Octinoxate poses a threat to marine life, from directly killing juveniles to inducing pathological behaviors in fish. There are at least 13 other scientific papers that have been published in peer-reviewed scientific journals since 2015 on the Ecotoxicology of Oxybenzone & Octinoxate on aquatic and marine life. There are over 25 papers in the scientific literature that demonstrate the toxic effects in aquatic and marine life, or the contamination of wildlife.

Lace coral, (*Pocillopora damicornis*) which is found nearshore in Hawaii, was exposed for 14 days under ~35% sunlight at a temperature of 80°F to 500 parts per trillion (500 ng/L) Oxybenzone. As you can see, the coral is bleaching.

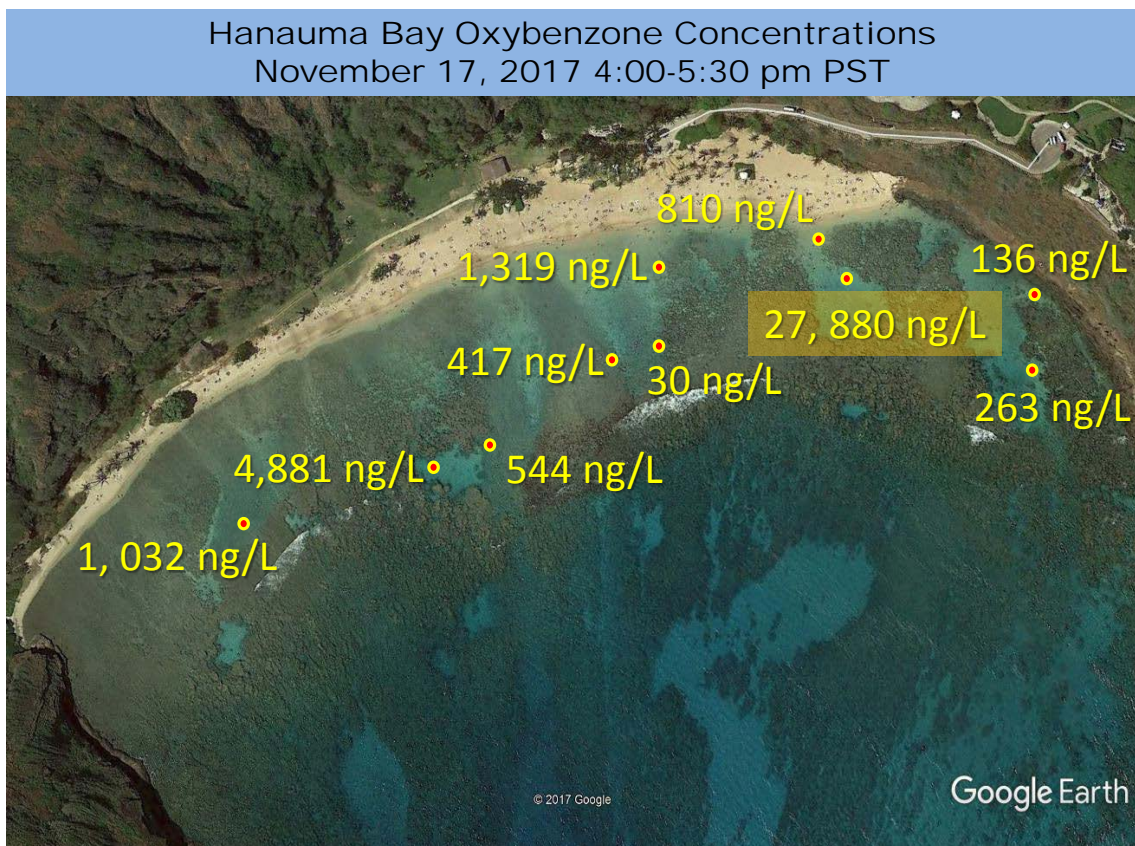


Oxybenzone is toxic to adult and juvenile coral. In a related coral species, oxybenzone caused in less than 24 hour exposure (a) DNA damage to juvenile coral, (b) induced coral bleaching, (c) caused morbid deformities, (d) induce an endocrine disruption event by causing the coral planula to incase itself in its own coral skeleton (effectively killing it), and (d) killing the planula quickly. Oxybenzone can cause these toxicities to juvenile coral in the parts per trillion level (nanograms/liter = ng/L).





**What are the concentrations of oxybenzone (or octinoxate) in the waters in Hawaii?** One recent study of oxybenzone contamination was conducted in Hanauma Bay Marine Conservation District with the help of State Senator Will Espero and State Representative Gene Ward (<http://www.hawaiinewsnow.com/story/36876108/samples-taken-from-hanauma-bay-could-lead-to-ban-on-certain-sunscreens>).



The lowest concentration of oxybenzone that we detected was 30ng/L, the highest concentration was 27,880 ng/L, while the mean of all 10 sampling sites was 3,731 ng/L. Remember, coral can exhibit toxicity to oxybenzone as low as 62 ng/L.

There is a formal process to determine if a chemical poses a potential threat to wildlife called a Hazard Assessment. This process differs very little among nationalized governments:

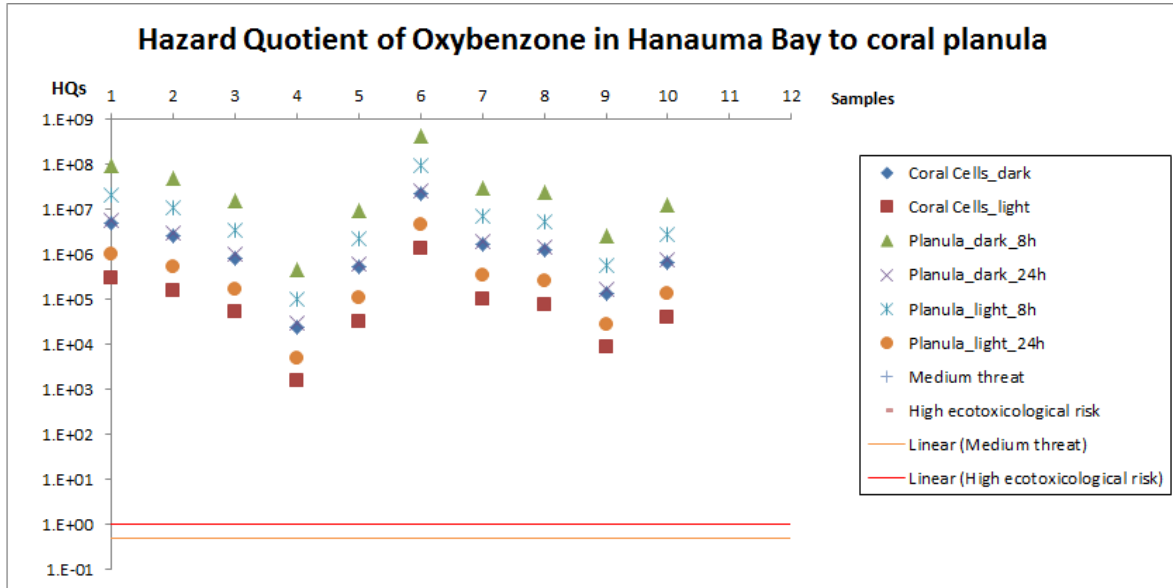
[www.epa.gov/pesticide-science-and-assessing-pesticide-risks/technical-overview-ecological-risk-assessment-risk](http://www.epa.gov/pesticide-science-and-assessing-pesticide-risks/technical-overview-ecological-risk-assessment-risk)

and

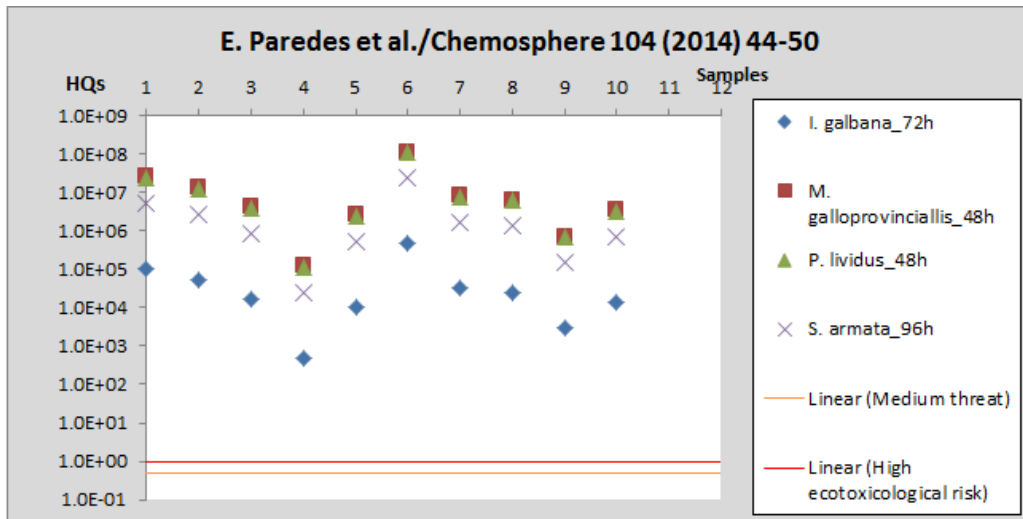
[www.ema.europa.eu/docs/en\\_GB/document\\_library/Scientific\\_guideline/2009/10/WC500003978.pdf](http://www.ema.europa.eu/docs/en_GB/document_library/Scientific_guideline/2009/10/WC500003978.pdf).

Using the lethality dose-responses curves to coral planula found in our paper (Downs et al., (2016) Toxicopathological effects of the sunscreen UV filter, oxybenzone (benzophenone-3), on coral planulae and cultured primary cells and its environmental contamination in Hawaii and the

U.S. Virgin Islands. Archives of Environmental Contamination and Toxicology. DOI 10.1007/s00244-015-0227-7. We determined that all 10 concentrations pose a potential threat to the survival of coral planula in Hanauma Bay. In the graph below, anything above 1.E+00 line is considered a “Hazard” to coral planula.



Using data generated for other marine organisms such as algae, shrimp, and mussels conducted by an independent scientific laboratory in Spain, we conduct a second Hazard Assessment, and again see that the concentrations in Hanauma Bay pose a threat to this biodiversity (see graph below).



Data for this Hazard Assessment was taken from:

Paredes et al., (2014) Ecotoxicological evaluation of four UV filters using marine organisms from different trophic levels *Isochrysis galbana*, *Mytilus galloprovincialis*, *Paracentrotus lividus*, and *Siriella armata*. *Chemosphere* 104:44-45.

The large amount of scientific publications on this topic sets a foundation for environmental contaminant data and ecotoxicological data to make a case in a forensic setting that sunscreen pollution, specifically oxybenzone pollution, poses a clear violation of specific standards set forth in the U.S Clean Water Act. Mitigating oxybenzone and Octinoxate pollution in Hawaii's water by banning the sale of SPF sunscreen products containing oxybenzone and octinoxate may prove critical in preventing possible future lawsuits from shutting down tourism access to many marine conservation districts, and even within Federally managed waters, such as in a National Marine Sanctuary.

Many legislators have asked me why doesn't the U.S. Food and Drug Administration ban the use of this oxybenzone and octinoxate already, especially if the chemical poses such a toxicological threat. There are over 100 scientific papers describing the toxicity of Oxybenzone/Octinoxate to humans and mammalian laboratory models! A recent study has provided strong evidence of an association between prenatal exposure of human fetuses and the occurrence of Hirschsprung's Disease – a congenital intestinal disease that strikes between 1:5,000 to 1:2,000 infants (Huo et al. (2016) The relationship between prenatal exposure to oxybenzone and Hirschsprung's disease. *Chemosphere* 144:1091-1097). We encourage every member of the Hawaii Legislature and the Hawaii Governor's office to petition the U.S. FDA to conduct a formal risk assessment based on new scientific literature that has been published since 2015 on the impacts of oxybenzone to developing fetuses and children.

Haereticus Environmental Laboratory and I support this effort as being an effective means in reducing oxybenzone/octinoxate pollution, preserving and restoring Hawaii's coral reefs, and protecting the resource that so many local businesses depend upon.

Respectfully submitted,



---

Craig A. Downs, Ph.D.  
Executive Director

Many companies and NGOs in Hawaii are concerned about Sunscreen Pollution, and the impacts of oxybenzone. See following page



# CORAL REEFS ARE DYING

and those in the  
waters of Hawai'i  
are among the  
most at risk

## Sunscreen pollution,

especially the  
chemical oxybenzone,  
plays a role in that loss.

The toxicity of oxybenzone  
can cause both coral bleaching  
and coral death, as well as  
induce reproductive diseases in fish.

Oxybenzone can play a destructive role  
in preventing the natural restoration of a  
damaged reef—ultimately leaving the seascape  
barren and desolate. Sunscreen pollution's worst  
impacts occur on reefs where locals and tourists  
love to swim and experience the ocean.

To learn more about sunscreen  
pollution and coral reefs,  
and to see a short film, visit

**ReefsAtRisk.org**



To learn more about what  
Hawai'i and its elected  
representatives are doing, go to  
**Haereticus-lab.org**  
**bereefsafe.com**

PHOTO COURTESY OF SARAH LEE AT  
WWW.SARAHLEE.PHOTO



**AQUA-ASTON**  
HOSPITALITY



HAERETICUS  
ENVIRONMENTAL LABORATORY

As a community of businesses, scientists, and non-profits, we are asking you to learn more  
about this issue, and like us, become part of the solution in rebuilding healthy coral reefs.

## BUSINESSES:

808 Boards, Inc.  
Hawaiian Paddle Sports  
Hawaii Mermaid Adventures  
Valley Isle Excursions  
Maui Marketing  
Maui Standup  
Maui Surf Lessons LLC  
Snorkel Depot  
Waterworks Sports  
Sunrise Surf Lessons Kauai  
BeReefSafe.com  
Rainbow Kayaks  
Maui Kayak Adventures  
Kai Kanani Sailing Charters  
Tuga Sunwear  
Pakaloha Bikinis  
Snorkel Bob's  
Hale Napili  
Napili Shores Resort  
Nalu Koa Maui  
Napili Kai Resort  
Napili Surf Resort  
The Mauian  
Napili Sunset  
Ozone by Outrigger Resorts  
Aqua-Aston Hospitality  
Hawaii Fishing & Boating Assoc.  
Aloha Surfing Ohana  
Haleiwa Vacation Rental

## SCIENTISTS:

Dr. Robert Richmond, University of Hawaii  
Dr. Michael J Risk, McMaster University  
Dr. Abbas Haghshenas, University of Tehran  
Dr. Eugene Shinn, University of South Florida  
Dr. Ariel Kushmaro, Ben Gurion University  
Dr. Esti Winter-Kramarsky, Weizmann Institute  
Dr. John Fauth, University of Central Florida  
Dr. Silvia Diaz Cruz, Spanish Council for  
Scientific Research  
Dr. Omri Bronstein, Natural History Museum of  
Vienna, Austria  
Dr. Kim Sheehan, University of Oregon  
Dr. Heather Hamlin, University of Maine  
Dr. Craig A. Downs, Haereticus Environmental  
Laboratory

## COSMETIC COMPANIES:

Joe Dinardo, (ret) VP, Revlon-Almay  
Raw Elements USA  
All Good  
Stream2Sea  
Sea & Summit  
Suntegrity Skincare  
Mama Kuleana  
Raw Love Sunscreens  
TropicSport

## NGOs:

Napili Bay and Beach  
Foundation  
Friends of Hanauma Bay  
Hawaii Ocean Ambassadors  
For the Fishes  
Hawai'i Wildlife Fund  
Sustainable Coastlines Hawaii  
Maui Huliau Foundation  
Malama O Puna  
Pacific Whale Foundation  
Humane Society of the US  
Maui Nui Marine Resource  
Council  
Boxerwood Education Assoc.  
Humane Society International  
Save the Waves  
Hawaii Ecotourism Association  
Save Honolulu Coalition  
KUPU  
Colorado Ocean Coalition  
Inland Ocean Coalition  
Hawaii Association for Marine  
Education & Research  
Conservation Council for  
Hawai'i  
Coral Restoration Foundation  
Hui O Ka Wai Ola  
Hui O Ho'ohonua  
Toxic Free NC  
Hui o Ko'olaupoko  
One Ocean Diving  
The Kohala Center  
Haereticus Environmental  
Laboratory

**Ua Mau ke Ea o ka 'Āina i ka Pono**  
(The Life of the Land is Perpetuated in Righteousness)





Institute of Geophysics  
University of Tehran

No. ....

Date. ....

**In The Name of God**

**Date:** For the 2018 Hawaii Legislative Season

**To:** The State of Hawaii Legislature, its Committees and Chairpersons, and Governor Ige

**Re:** Restriction of the Sale of Oxybenzone & Octinoxate SPF products  
DANGER of UV chemicals to climate change and its carbon footprint.

I am an environmental scientist and oceanographer at the Institute of Geophysics within the University of Tehran, Tehran, Iran. I am one of the foremost experts in my country that studies the impact of human activities on the marine environment.

To the point, I want to express my support for HB2264 and SB2571. These bills were written with the broad input of a number of independent scientists that strikes a wise and effective balance to diminish Oxybenzone/Octinoxate environmental pollution to coral reefs and other marine habitats, while NOT impacting tourism.

I am sure there will be a number of scientists worldwide who will provide scientific testimony to the toxicology and pollution of these two dangerous chemical that impacts all matter of marine life, but also the integrity of human health.

Carbon footprint - I would like to point out something that my other scientific colleagues may not. The CARBON FOOTPRINT of hydrocarbon-based sunscreens is considerable. If Hawaii DLNR is correct, that over 55 gallons of sunscreen pollutes the coast line of Maui per day, then we can calculate that the input of oxybenzone alone is contributing to 3,174lbs (1.44 metric tons) of CO<sub>2</sub> per year. If you include Octinoxate into the calculation, that is almost 3 metric tons of CO<sub>2</sub> per year. For Hanauma Bay, assuming that 4,515 pounds of oxybenzone pollutes the bay per year, that is equivalent to more than 5.5. metric tons of CO<sub>2</sub> per year. That is over 11 metric tons of CO<sub>2</sub> per year for oxybenzone/octinoxate.

Sunscreen pollution is not just the direct toxic impact it has to nearshore and mesophotic reef habitats, and migrating cetaceans. The use of these chemicals in Hawaii has a direct contribution of the CO<sub>2</sub> load to atmospheric and oceanic condition. The State of Hawaii government has made a promise to recognize and mitigate the overall size of their carbon footprint. Sunscreen pollution and its impact to climate change is an issue that Hawaii can show leadership and responsibility.

Your efforts in legislative conservation have been noted around the world, and we applaud your effort and leadership.

Respectfully submitted,

**S. Abbas Haghshenas**, PhD  
Assistant Professor in Physical Oceanography  
Institute of Geophysics -University of Tehran  
Tehran, Iran  
Tel: +98 21 6111 8318  
Email: sahaghshenas@ut.ac.ir





February 8, 2018

Dear Honorable Members of the Hawai'i Legislature:

**I am a co-author of the scientific paper that demonstrated the damaging effects of oxybenzone on corals<sup>i</sup> and I urge you to ban the nonprescription sale and use of sunscreens and cosmetic products containing this ingredient.**

**Oxybenzone damages corals in five different ways.** Oxybenzone causes

1. DNA damage
2. cell death
3. deformities in coral larvae
4. coral bleaching, which is a disease
5. increased susceptibility to viral infections.<sup>ii</sup>

Significant negative effects occur when corals are exposed to minute concentrations of oxybenzone (in the part per billion to part per trillion range), including concentrations lower than those observed on popular Hawaiian beaches. **All published scientific evidence agrees: oxybenzone damages corals and other marine life.** In addition, dermatologists have known for decades that oxybenzone can cause allergic reactions<sup>iiiiv</sup>, and recent scientific studies implicate oxybenzone as a causative agent of Hirschsprung's disease<sup>v</sup>, which causes intestinal blockages in newborns.

**I personally do not use sunscreens that contain oxybenzone and I urge my family, friends and colleagues not to use them, either.** Fortunately, almost every major sunscreen manufacturer has a product that uses safe and effective ingredients such as zinc oxide and titanium dioxide instead of oxybenzone. Lightweight beach clothing such as hats, rash guards, fishing shirts and sundresses

also provide protection against UV radiation. When Dr. Craig A. Downs and I did our initial field work in the US Virgin Islands<sup>vi</sup>, to ensure we were clean, we showered with a harsh laboratory soap and were not allowed to use any personal care products: no sunscreen, no deodorant, no lotion – nothing. We expected to endure a smelly and sunburned week lugging our SCUBA gear and scientific equipment all over St. John, but that did not happen. Instead, wearing hats and loose-fitting clothing while on land (and working in the shade whenever possible) and lightweight dive skins in the water was sufficient protection. This is an especially good combination for tourists from higher latitudes visiting the tropical shores of Hawai'i.

As a scientist who believes in solving problems, I urge you to ban both the sale and use of sunscreens, sun block and cosmetic products containing oxybenzone. All waters in Hawai'i eventually drain to the ocean, so even sunscreens applied and washed off at home eventually will reach the ocean. A sales ban will be more effective and easier to enforce, and **clever vendors actually could increase sunscreen, sun block and cosmetic sales by offering a discount to any customer who turns in a product containing oxybenzone.**

I spent my honeymoon on O'ahu and Kaua'i, and returned with warm memories of beautiful islands, vibrant marine life and welcoming people. Passing legislation to ban the nonprescription sale and use of sunscreens and other products containing oxybenzone will help ensure that future generations of honeymooners and tourists return with similar memories . . . and perhaps with a new bottle of sunscreen containing safer active ingredients! I urge you to enact comprehensive legislation that bans the nonprescription sale and use of sunscreens, sun block and other cosmetics containing oxybenzone. Acting now is vital to protect Hawai'i's coral reefs, its people and visitors.

Sincerely,

*John E. Fauth*

John E. Fauth, Ph.D.

Associate Professor of Biology

- 
- <sup>i</sup> Downs, C.A., E. Kramarsky-Winter, R. Segal, J. Fauth, S. Knutson, O. Bronstein, F. R. Ciner, R. Jeger, Y. Lichtenfeld, C.M. Woodley and P. Pennington. 2016. Toxicopathological effects of the sunscreen UV filter, Oxybenzone (Benzophenone-3), on coral planulae and cultured primary cells and its environmental contamination in Hawaii and the US Virgin Islands. *Archives of Environmental Contamination and Toxicology* 70(2):265-288.
- <sup>ii</sup> Danovaro, R., L. Bongiorno, C. Corinaldesi, D. Giovannelli, E. Damiani, P. Astolfi, L. Greci, and A. Pusceddu. 2008. Sunscreens cause coral bleaching by promoting viral infections. *Environmental Health Perspectives* 116(4):441-447.
- <sup>iii</sup> Szczurko, C., A. Domp Martin, M. Michel, A. Moreau, and D. Leroy. 1994. Photocontact allergy to oxybenzone: ten years of experience. *Photodermatology, Photoimmunology & Photomedicine* 10:144-147.
- <sup>iv</sup> Heurung, A.R, S. I Raju, and E. M. Warshaw. 2014. Contact allergen of the year - Benzophenones. *Dermatitis* 25:3-10.
- <sup>v</sup> Huo W., P. Cai, M. Chen, H. Li, H. J. Tang, C. Xu, D. Zhu, W. Tang, and Y. Xia. 2016. The relationship between prenatal exposure to BP-3 and Hirschsprung's disease. *Chemosphere* 144:1091-1097.
- <sup>vi</sup> Downs, C.A., C. M. Woodley, J. E. Fauth, S. Knutson, M.M. Burtcher, L.A. May, A.R. Avadanei, J.L. Higgins, and G.K. Ostrander. 2011. A survey of environmental pollutants and cellular-stress markers of *Porites astreoides* at six sites in St. John, US Virgin Islands. *Ecotoxicology* 20:1914-1931.





School of Geography  
and Earth Sciences

1280 Main Street West  
Hamilton, Ontario, Canada  
L8S 4K1

To: Interested parties.

From: Dr. Michael J Risk  
Durham, Ontario Canada

Date: Feb. 2, 2018

Re: Oxybenzone

I am a coral reef ecologist, with many decades of experience with coral reefs of the Pacific. To date, my work has been cited more than 8000 times in the scientific literature. I have been to Hawaii several times, usually as a guest of your federal government. I have been greatly impressed by the beauty of the coral reefs in the state. It seems to me to be sensible to preserve what you have.

I try to keep up with recent science, and to those of us who know the literature is no secret that oxybenzone is a coral killer. The damaging effect on coral larvae can be seen at unbelievable low concentrations. Not only that: oxybenzone is incorporated into the food chain.

The use of this compound in sunscreen can no longer be defended. There are many companies producing more reef-friendly products at competitive prices.

The news of your struggle in Hawaii has spread around the globe. Coral reefs are in terrible shape now, under many threats. Removing this one would be easy to do, and would send a message to the rest of the world that Hawaii cares.

A handwritten signature in black ink, appearing to read "MJ Risk".

Dr. Michael J. Risk  
MJRiskEnvironmental Ltd.  
PO Box 1195, Durham ON  
Canada



SPANISH MINISTRY  
OF ECONOMY AND  
COMPETITIVENESS



Institute of Environmental Assessment  
and Water Research (IDAEA)

SPANISH NATIONAL RESEARCH COUNCIL (CSIC)

From: Silvia Díaz-Cruz, Ph.D.  
Spanish National Research Council (CSIC)  
Institute of Environmental Assessment and Water Research (IDAEA)  
Barcelona, Spain

Barcelona, 2nd February 2018

#### TO WHOM IT MAY CONCERN

Hereby I, Dr. Silvia Diaz Cruz, from the Spanish National Research Council CSIC, (Spain) want to support the prohibition of the use or application of products containing

Oxybenzone, 2-Hydroxy-4-methoxyphenyl)-phenylmethanone under the International Union of Pure and Applied Chemistry (IUPAC) chemical nomenclature registry, has a chemical abstract service registry number 131-57-7, and whose synonyms include benzophenone-3, Escalol 567, Eusolex 4360, KAHSCREEN BZ-3, 4-methoxy-2-hydroxybenzophenone, and Milestab 9,

and/or

Octinoxate (RS)-2-Ethylhexyl (2E)-3-(4-methoxyphenyl)prop-2-enoate under the IUPAC nomenclature registry, has a chemical abstract service registry number 5466-77-3, and whose synonyms include ethylhexyl methoxycinnamate, octyl methoxycinnamate, Eusolex 2292, and Uvinul MC80,

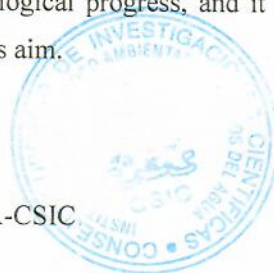
in areas close to marine ecosystems to help marine life preservation. So far there are many evidences supported by reliable scientific studies published in prestigious scientific journals, showing the risk this sunscreen agent pose for marine environments, and especially relevant for coral reefs ecosystems.

Based on my own scientific research experience of more than a decade studying the impact of UV filters and blockers in the environment, I support **SB2985** and **HB2264**.

My institution, the CSIC, is the largest public institution dedicated to research in Spain and the third largest in Europe. Belonging to the Spanish Ministry of Economy and Competitiveness through the Secretary of State for Research, Development and Innovation, its main objective is to develop and promote research that will help bring about scientific and technological progress, and it is prepared to collaborate with Spanish and foreign entities in order to achieve this aim.

Silvia Díaz-Cruz, PhD

Researcher at the Department of Environmental Chemistry. IDAEA-CSIC  
E-mail address: [sdcqam@cid.csic.es](mailto:sdcqam@cid.csic.es)



id<sup>2</sup>æa

C/ Jordi Girona, 18  
08034 Barcelona, Spain  
Tel. 93 400 61 00  
Fax.: 93 204 59 04

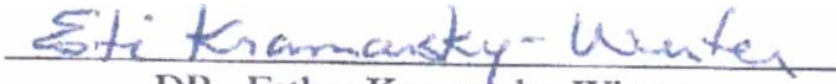


Feb 2 2018

Dear Honorable Members of the Hawaiian Legislature;

As a co-author of a number of studies regarding the effects of oxybenzone and their derivatives on corals and sea urchins I strongly suggest banning these chemicals from use from use in products that may enter the marine environment. Our studies have shown that without a shadow of a doubt these chemicals even at very low concentrations (parts per thousand and parts per million) have deleterious effects on larvae and adult form of these organisms. These studies were carried out in the US, in the Caribbean and in the Red Sea, and all revealed their deleterious effect on marine organisms causing numerous types of cellular damage. In addition, these chemicals were also found to affect human health as they penetrate the skin and can be found in human milk and urine of those who use these products (references are available upon demand). I urge you to take into consideration all these studies when making your decisions regarding this important issue. I personally have been using alternative sunscreens, as well as hats and long sleeved sun (or rash)-guards, there are good alternatives out there.

Sincerely

  
DR. Esther Kramarsky-Winter

Dr E. Kramarsky-Winter  
Dept. of Biotechnology Engineering  
Ben Gurion University, Beer Sheva Israel  
EKW Research Development Rehovot, Israel  
esti.winter@gmail.com  
972-544881227



UNITED STATES DEPARTMENT OF COMMERCE  
National Oceanic and Atmospheric Administration  
NATIONAL OCEAN SERVICE  
Hollings Marine Laboratory  
331 Fort Johnson Road  
Charleston, South Carolina 29412

April 24, 2017

Senator Will Espero  
Senate District 19  
Hawaii State Capitol  
Room 226  
415 S. Beretania St  
Honolulu, HI 96813

Dear Senator Espero:

I am writing in response to your request for comments on SB1150, an Act to protect Hawai'i's coral reefs from the impacts of sunscreens and cosmetics containing oxybenzone.

I am a NOAA scientist working within the National Ocean Service's National Centers for Coastal Ocean Science. I have over 30 years of experience in molecular and cellular biology, biochemistry and pathobiology, which I have applied to aspects of coral health and disease research for the past 20 years. I am also one of the co-authors of a 2016 peer-reviewed article in *Archives of Environmental Contamination and Toxicology* that examined the toxicological effects of oxybenzone on coral larvae, cultured primary coral cells and measured environmental concentrations in coral reef areas in the Caribbean and at multiple sites in Hawaii.

The preponderance of scientific evidence indicates that oxybenzone is toxic to coral and threatens overall coral reef health by:

- inducing coral bleaching;
- harming or killing coral larvae by inducing gross deformities, DNA damage, and bleaching;
- acting as an endocrine disruptor; and
- bioaccumulating in coral tissue.

In support of this conclusion, I have provide the attached summary of the relevant peer-reviewed literature (Appendix A). As you will see, the research documenting the toxicity of oxybenzone on corals is extensive. While additional research may incrementally add to our understanding of its impacts to additional coral reef species, additional research on the impacts of oxybenzone should not be a prerequisite to management action.

Managing exposure of corals to oxybenzone is a key step in threat-reduction, and is a critical aspect in improving coral reef health now and for the future.

Sincerely,

Cheryl M. Woodley, PhD  
Coral Health & Disease Program and  
Coral Disease & Health Consortium



## HAWAI'I REEF AND OCEAN COALITION

**To: House Committee on Energy & Environmental Protection**  
**Rep. Chris Lee, Chair**  
**Rep. Nicole E. Lowen, Vice Chair**

**House Committee on Finance**  
**Rep. Sylvia Luke, Chair**  
**Rep. Ty J.K. Cullen, Vice Chair**

**Re: SB 2571, SD 2 to Ban Sunscreens with OXYBENZONE and/or OCTINOXATE**

**Hearing: Tuesday, March 13, 2018, 8:30 p.m., Room 325**

**Position: STRONG SUPPORT with amendments**

The HAWAI'I REEF AND OCEAN COALITION – HIROC – was formed last year by coral reef scientists, educators, local Hawai'i environmental organizations, elected officials, and others to address a crisis facing Hawaii's coral reefs and ocean. We are currently asking the Legislature to pass a handful of very important bills to save our coral reefs – they are bills relating to sunscreens – this bill; plus bills on cesspools; Styrofoam; plastic straws, bottles and other marine debris; and sea level rise.

We strongly support SB 2571, SD which would ban sunscreens containing either oxybenzone or octinoxate, which quite simply are toxicants that are poisoning our reefs. **The science is clear; there is no reason for further delay; there are already commercially readily available alternatives on the market; and we must just stop killing our reefs**, which are essential to what is so basic to what is Hawai'i. HIROC thanks the Committee for this opportunity to testify on this very important bill.

Coral reefs are dying around the world. According to the U.S. Commission on Ocean Policy, the top three causes of coral reef decline are over-fishing of coral reef resources, reduction in water quality due to pollution, and massive bleaching events tied to global climate change. Because of Hawai'i's remote location in the middle of the Pacific, ocean acidification can pose a threat to Hawai'i's coral reefs in the future. Hawai'i is more dependent on healthy coral reefs than any other state and so needs to take the lead on reef protection measures.

Our shorelines, beaches, tourist-based economy, and pristine recreational waters are dependent on healthy coral reefs. Hawai'i cannot reach out and fix global pressures that contribute to coral reef deterioration, but we can increase the resiliency of our own coral reefs by reducing local "insults" that degrade reefs and prevent their restoration and sustainability.

We can increase the strength and health of our coral reefs by actively managing and mitigating localized stressors, such as: 1) runoff containing sediment, pesticides, fertilizers, and other pollutants; 2) nutrients from human waste, especially raw human waste from cesspools; 3) overfishing, especially of herbivores and other fish critical for reef health; 4) plastic marine

**Commented [h1]:** I completely agree with this, but just thinking about the political blow back that would come from CropLife and ACC.



debris; and 5) chemical sunscreens and other personal care products containing the chemicals oxybenzone and octinoxate.

This bill addresses the problem of sunscreens containing oxybenzone and octinoxate. The purpose of the bill is to help protect Hawai'i's coral reefs by prohibiting the sale, offer to sell, and distribution of non-prescription sunscreen products that contain oxybenzone or octinoxate (or both).

Oxybenzone data in Hawai'i include concentrations in Honolua Bay on Maui in 2015 at 1.9 parts per billion. Octinoxate data in 2015 at 11 coral reef sites had concentrations from 6.9 to 1,516 parts per trillion. Studies show that far more minute amounts of oxybenzone and octinoxate severely harm corals and other reef organisms, such as fish, sea urchins, and seaweeds. Studies from around the globe indicate that oxybenzone and octinoxate appear to harm corals in four ways:

(1) By causing young and adult corals to bleach – or lose the living photosynthetic organism that feeds them – when exposed to natural stressors such as heat, cold, lack of light and lack of salt;

(2) By damaging coral DNA, which can reduce coral's lifespan and immunity to disease, as well as disrupting normal development and reproduction;

(3) By causing deformities in coral larvae that ultimately kill them.

(4) By the fact that oxybenzone and octinoxate are documented and recognized endocrine disruptors that adversely affect skeletal development, sexual characteristics, reproductive competency, and even critical survival behaviors. For example, in coral larvae, oxybenzone can cause the larvae to encase themselves in their own skeletons, effectively killing them.

In vertebrate toxicological studies, a preponderance of independent investigations have demonstrated that oxybenzone causes proliferation of **human breast cancer** cells, by accelerating the spread of cancer cells. Other studies have demonstrated that **exposure to oxybenzone increases prostate and lung cancer cell proliferation.**

The U.S. Centers for Disease Control have concluded from studies that over 97% of the U.S. population is contaminated with oxybenzone and octinoxate and found in their blood, urine and breast milk. Several studies have concluded that oxybenzone transfers into the fetus *in utero* via the umbilical cord, apparently reducing birth rate and overall weight in girls up to the age of 7. A pivotal study published in 2016 identified an etiological link between oxybenzone and the occurrence of a neurological disease call Hirschsprung's deformity (congenital megacolon) that can be fatal without surgery and occurs in demographics between one birth in 268 to 5,000 births. Numerous studies have shown strong links between oxybenzone/octinoxate exposure and negative impacts on fertility, ranging from unviability of sperm and low sperm counts to issue with inhibition of conception and other infertility diseases. Dating back to the early 1980s, there are over 100 scientific papers and industry reports demonstrating mutagenicity, reproductive toxicology and endocrine disruption, as well correlation of sunscreen abuse and misuse with the rise in global skin cancer statistics.

HIROC has received at least two dozen recent scientific articles supporting the contentions in this testimony relating to the toxicity of oxybenzone and/or octinoxate that we will gladly and promptly provide to the Committee upon request.

Science on endocrine disruption is still developing, but the current data and scientific studies already indicate potentially harmful health effects on humans, as well as harmful effects on corals and other marine biota. **Banning sales of oxybenzone and octinoxate now is amply justified under the precautionary principle**, and should be subject to a transparent formal human and ecological risk assessment as proposed by both the U.S. National Academy of Sciences and the U.S. Environmental Protection Agency.

We urge the Committees to make THREE AMENDMENTS to the bill: FIRST, to change the effective date to an early one, preferably no later than January 1, 2020; SECOND, to delete the exemption for medical prescription by “an advanced practice registered nurse” (page 4, line 3) – we believe you will find this exemption to be impractical; and THIRD, we are informed that the scientific definitions of oxybenzone and octinoxate, as contained in this bill, are not precisely correct; corrections are in the footnote, below.

Thank you again for the opportunity to testify on this measure.

Alan B. Burdick, for HIROC  
[Burdick808@gmail.com/486-1018](mailto:Burdick808@gmail.com/486-1018)

"Octinoxate" means the chemical (RS)-2-Ethylhexyl (2E)-3-(4-methoxyphenyl)prop-2-enoate under the International Union of Pure and Applied Chemistry chemical nomenclature registry that has a chemical abstract service registry number 5466-77-3, and whose synonyms include [but are not limited to] ethylhexylmethoxycinnamate, octyl methoxycinnamate, Eusolex 2292, and Uvinul MC80, and is intended to be used as protection against ultraviolet light radiation with a spectrum wavelength from ~~370~~ 400 nanometers to ~~220~~ 280 nanometers in an epidermal sunscreen-protection personal care product.

"Oxybenzone" means the chemical (2-Hydroxy-4-methoxyphenyl)-phenylmethanone under the International Union of Pure and Applied Chemistry chemical nomenclature registry that has a chemical abstract service registry number 131-57-7, and whose synonyms include [but are not limited to] benzophenone-3, Escalol 567, Eusolex 4360, KAHSCREEN BZ-3, 4-methoxy-2-hydroxybenzophenone and Milestab 9, and is intended to be used as protection against ultraviolet light radiation with a spectrum wavelength from ~~370~~ 400 nanometers to ~~220~~ 280 nanometers in an epidermal sunscreen-protection personal care product.



March 12, 2018

Representative Chris Lee, Chair  
Representative Nicole E. Lowen, Vice Chair

Members of the House Committee on Energy & Environmental Protection  
Twenty-Ninth Legislature  
Regular Session 2018

**RE: OPPOSITION to Senate Bill 2571, SD2 – RELATING TO WATER POLLUTION  
Hearing Date – Tuesday, March 13, 2018**

Dear Chair Lee, Vice Chair Lowen and members of the Committee on Energy and Environmental Protection:

Mahalo for allowing me to submit testimony in OPPOSITION to Senate Bill 2571, SD2 which would seeks to ban sale or distribution of sunscreen products containing oxybenzone in the State of Hawaii. Bayer is one of the world's leading, innovative, life science companies whose aim is to discover, develop, manufacture, and market products that will improve human, plant, and animal health worldwide.

As the manufacturer of Coppertone sunscreens, Bayer is committed to providing a wide variety of safe and effective sun protection products to consumers. To ensure that these products provide broad spectrum protection from the sun, Bayer – like most sunscreen manufacturers in the United States – depends on a limited number of Food and Drug Administration (FDA) approved ingredients, including oxybenzone. Despite the fact that scientific evidence does not demonstrate that banning sunscreens containing oxybenzone is likely to have any measurable impact on the health of Hawaii's coral reefs – which are threatened primarily from causes associated with global warming, sewage discharge, and over fishing – we are sensitive to the concerns Hawaii residents have related to the decline in coral health and commend the Legislature's efforts to protect this natural treasure.

Unfortunately, Bayer's ability to provide consumers a full range of sun protection products which do not include oxybenzone has been hampered by the lack of U.S. market introduction of new sunscreen ingredients. Currently, there are limited active ingredients available within the U.S. that have the same proven effectiveness as oxybenzone for sunscreens over SPF 50 and no new sunscreen ingredients have been introduced into the U.S. market in over 15 years.

***1201 K Street, Suite 1030 / Sacramento, CA 95814 / (916) 208-4761***



Representative Chris Lee, Chair  
Representative Nicole E. Lowen, Vice Chair  
March 13, 2018  
Page 2

There are currently eight sunscreen ingredients pending review and approval from the FDA, several of which have been pending for over a decade. Bayer is committed to working with the FDA and other stakeholders to expedite the approval process and to bring more innovative sunscreen products to the U.S.

As such, Bayer has serious concerns with efforts to ban oxybenzone before the FDA has approved alternative ingredients and without allowing adequate time for manufacturers to reformulate their products with these ingredients. Proposals to ban oxybenzone threaten the health and safety of Hawaii residents and visitors by limiting consumer choice to lower SPF and less effective sunscreen products.

Alternatively, Bayer could support legislation which would ban sunscreen products containing oxybenzone products in the future. Delaying implementation of such ban until 2023, would strike the right balances between the State's desire to reduce the level of oxybenzone found in the marine environment with its obligation to protect the health and safety of its residents and visitors. Further, by ensuring a uniform statewide standard for the regulation of sun protection products containing FDA approved ingredients, the legislation will give manufacturers the certainty necessary to invest the time and resources needed to reformulate their products.

We urge the legislature to provide a reasonable timeline for sunscreen product manufacturers to reformulate products which protect Hawaii residents and visitors alike from the deadly effects of skin cancer. Thank you for the opportunity to provide this written testimony and please do not hesitate to contact me if you have any questions.

Craig M. Swaim  
Deputy Director, State Government Affairs  
West Region

# Ban Toxic Sunscreens

To: House Committee on Energy and Environmental Protection

Rep Chris Lee, Chair; Rep Nicole Lowen, Vice Chair

Hearing: Tuesday, March 13, 2018, 8:30am, Room 325

**We support SB2571 SD2** to ban sunscreens containing oxybenzone and octinoxate. The science is well established, with well over 100 scientific papers and reports on the dangers of these ingredients to people, corals, marine life.

Regardless of whether we choose to use these sunscreens or not, we are exposed to the toxic ingredients daily. They are impossible to avoid at the beach (we inhale them through aerosols, swim in the chemical sunscreen pollution), parks, hiking areas and almost all popular tourist spots. Locals find themselves curtailing when they go to these areas and what time of the day to try to avoid peak spray hours. We've spoken to many who have no choice – lifeguards, surf instructors, boat tour operators, concessions... –who are concerned that they must breathe these toxic sunscreen aerosols all day long. Researchers are now finding these chemicals in our local fish, which could have a negative impact on people who consume them. When word gets out this could negatively impact related businesses (fishermen to fish markets to restaurants) supplying fish to the public. These chemicals are a stew of hormone disruptors, toxins, carcinogens many of which bioaccumulate in humans and marine life, with a variety of impacts on human health ([https://www.youtube.com/watch?v=EOfh\\_qGXqrg](https://www.youtube.com/watch?v=EOfh_qGXqrg)).

Regardless to how corals are stressed, whether it be storms, sediment, pesticides, warming... if oxybenzone is in the water these ingredients damage coral DNA and kill coral larvae to the point coral restoration can not occur. (<https://www.youtube.com/watch?v=28qWIPeOkvl>) There's no reason to risk the health of people, Hawaii corals and near shore aquatic environment when there are plenty of options.

It's often suggested that if we ban oxybenzone and octinoxate there will not be adequate sunscreen choices in Hawai'i. As we saw last year when legislation related to sunscreen was introduced in Hawai'i, local stores started displaying shelves filled with sunscreens with "Oxybenzone Free" stickers on them. Since it takes upwards of 18 months to reformulate, it seems companies were already prepared with updated formulations. As a result, today there are many oxybenzone-free and octinoxate-free options available.

There's also an increasing number of efficient mineral sunscreens available in shops across the islands: **All Good, Babo Botanicals, Badger, Goddess Garden, Happy As Larry, Kuleana Sun Protection, Little Hands Hawaii, Hawaii Medicinals, Manda Naturals, Mama Kuleana, Raw Elements, Raw Love, Sea & Summit, Sol Kine Maui...** to name a few. They're sold in a variety of locations: convenience stores, health food stores, grocery stores, surf and paddle shops, snorkel and dive shops, boat tours, activity booths, coffee shops, boutiques, farmer's markets and more! Even tour companies and large hotel chains are beginning to offer safer natural sunscreens to their guests. There is now a growing store finder at [sunscreensafe.com](http://sunscreensafe.com) to help consumers to find shops that carry safe brands. Keeping Hawaii as an eco-tourism destination with a vibrant life-filled underwater seascape will have many long-term benefits.

At this point there's really no excuse. It's time we get these chemicals out of the water to protect human health, marine life, and give our corals a chance at restoration. Mahalo.

Wil McClaren **Ban Toxic Sunscreens** [bantoxicsunscreens.com](http://bantoxicsunscreens.com)



1050 Bishop St. PMB 235 | Honolulu, HI 96813  
P: 808-533-1292 | e: info@hawaiiifood.com

#### **Executive Officers**

**Beau Oshiro**, C&S Wholesale Grocers, *Chair*  
**John Erickson**, Meadow Gold Dairies, *Immediate Past Chair*  
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**Barry Taniguchi**, KTA Superstores, *Advisor*  
**Derek Kurisu**, KTA Superstores, *Advisor*

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TO:  
Committee on Energy and Environmental Protection  
Rep. Chris Lee, Chair  
Rep. Nicole E. Lowen, Vice Chair

FROM: HAWAII FOOD INDUSTRY ASSOCIATION  
Lauren Zirbel, Executive Director

DATE: Tuesday, March 13, 2018  
TIME: 8:30am  
PLACE: Conference Room 325

RE: SB 2571 Relating to Water Pollution

Position: Oppose

The Hawaii Food Industry Association is comprised of two hundred member companies representing retailers, suppliers, producers, and distributors of food and beverage related products in the State of Hawaii.

The HFIA proposes that since this bill would ban many products that are used to prevent skin cancer, that a higher standards of review should be conducted to ensure that taking this action would indeed improve outcomes for reefs. The State of Hawaii recently conducted an information review from top Hawaii scientist studying our reefs. The presenters discussed, increased water temperatures, run-off, sewage and overfishing. Not one of Hawaii's top reef scientists mentioned sunscreen as an issue.

A new study released on March 1, 2018 on the human and natural impacts on coral reefs<sup>1</sup> used 10 years worth of data to learn about what is negatively affecting our reefs. This study concluded that overfishing, sedimentation, coastal development, and runoff are the biggest threats to Hawaii's corals. The study did not cite any sunscreen ingredients as posing dangers to our reefs.

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1 <http://www.hawaiinewsnow.com/story/37628769/researchers-map-out-the-impact-of-humans-environment-on-hawaiis-coral-reefs>

Advancing the integration of spatial data to map human and natural drivers on coral reefs  
<http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0189792#sec012>

Studies that have been done specifically on the effects of these chemicals have been conducted only in lab settings and not all studies have shown bleaching even at high levels<sup>2</sup>. It is not known what the levels of oxybenzone and octinoxate are around most of Hawaii's reefs, and if those levels pose any threats to coral or other marine life in the open ocean.

We care about offering products individuals feel comfortable with and which are affordable for use on a daily basis to prevent skin cancer. Many products that have sun protection factor, such as lotions, tinted moisturizers, and anti-aging products are intended for daily use in small amounts. These products are not used in large quantities anywhere near the ocean. However, all of these products would be unnecessarily banned under this bill, as would other federally approved and regulated healthcare products. Having access to these products is especially important here in Hawaii where the rate of skin cancers, including deadly melanoma, is significantly higher than on the mainland.<sup>3</sup>

Given that this ban would not do anything to alleviate the known primary causes of coral bleaching, and that it would deprive people of products they use to prevent possibly life threatening skin cancers, we do not think the potential benefit is worth the risk and we ask that this measure be held.

Thank you for the opportunity to testify.

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<sup>2</sup> 26th Annual Meeting of the Society of Environmental Toxicology and Chemistry (SETAC), conducted at La Cité Nantes Congress Center in Nantes, France, from 22 - 26 May 2016

**Predictive laboratory methodology to assess coral bleaching: application to UV filters**

J. Fel, L'Oréal Research & Innovation, Aulnay-sous-Bois, France / Environmental Research; M. Leonard, IOREAL SA

Increasing ocean temperature and acidification, overfishing, coastal development and pollution are well known stressors on coral reefs. They may induce coral bleaching, a process by which corals lose their symbiotic microalgae (zooxanthellae). Ultimately, corals may die when these stressful environmental conditions last too long. Weakened corals, more susceptible to infectious diseases, show poor resilience from episodic bleaching events. Some studies have reported that certain UV filters (mostly 4-methylbenzylidene-camphor, benzophenones and octylmethoxycinnamate) contained in sunscreens lotions and washed off by swimmers, could contribute to coral bleaching. Media took it for granted and suspicion has been extended to all organic UV filters present in sunscreens products. The present study was aimed at clarifying the potential effect that organic UV filters (such as Avobenzone, Octocrylene, Terephthylidene-dicamphor sulfonic acid, Silatrizole, etc...) may have on different coral species. Two herbicides (Monuron and Diuron) were used as positive references. First a preliminary laboratory screening test was developed to assess potential adverse effect of short exposure (48h) to elevated concentrations (from 1 to 100 mg/L) of the compounds. As a sublethal endpoint predictive of coral bleaching, chlorophyll photosynthetic efficiency of the symbiotic micro-algae (zooxanthellae) was monitored with PAM (Pulse Amplitude Modulated) fluorimetry on nubbins of hard coral species *Seriatopora caliendrum* and *Styllophora pistillata*. In a second step, coral nubbins of *Styllophora pistillata* (hard coral) and *Turbinaria reniformis* (soft coral) were exposed for 5 weeks at lower concentrations in 15 liters aquariums, under semi static conditions with weekly solution renewal. **A specific analytical methodology was developed, combining automated solid phase extraction with UPLC-UV detection, to monitor the compounds concentrations in sea water and analyze large number of samples.**

**5 weeks of chronic exposure to these UV filters at concentrations above those reported in natural sea waters, did not induce coral bleaching nor reduce the photosynthetic efficiency of the symbiotic micro-algae.**

<sup>3</sup> <http://www.staradvertiser.com/2018/02/28/editorial/island-voices/healthy-people-healthy-places-include-sunscreen/>



March 12, 2018

To: The Honorable Chris Lee, Chair  
House Committee on Energy and Environmental Protection

From: Tim Shestek  
American Chemistry Council

RE: **SB 2571 SD2 – OPPOSE**

On behalf of the American Chemistry Council (ACC), I am writing to express our opposition to SB 2571 SD2, legislation that would ban non-prescription sunscreens containing octinoxate or oxybenzone.

Oxybenzone and octinoxate are effective active ingredients in over-the-counter sunscreens approved by the U.S. Food and Drug Administration (FDA). These products are designed to protect skin against the damaging effects of ultraviolet light.

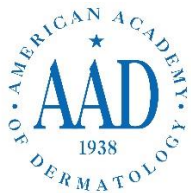
The FDA, the Centers for Disease Control and Prevention (CDC), the U.S. Surgeon General, the American Academy of Dermatology (AAD), the Skin Cancer Foundation and health care professionals worldwide emphasize that using sunscreens is a critical part of a safe sun regimen. The dangers of sun exposure are clear and universally recognized by public health professionals and dermatologists. The National Institutes of Health Report on Carcinogens identifies solar UV radiation as a “known human carcinogen.” A single bad burn in childhood doubles the risk of developing skin cancer later in life.

ACC shares the concerns regarding the threat to the world’s coral reefs. Climate change and ocean warming are the most notable culprits for reef bleaching. According to the U.S. National Oceanic and Atmospheric Administration’s (NOAA) Coral Reef Conservation Program, coral reefs are impacted by an increasing array of hazards, primarily from global climate change, ocean acidification, and unsustainable fishing practices.

This legislation, although well intended, lacks sufficient scientific evidence demonstrating that this sunscreen ingredient is responsible for coral bleaching. Moreover, this legislation could create consumer confusion and unnecessarily put consumers at risk by discouraging the use of sunscreen.

Thank you for the opportunity to share these comments. Should you have any questions, please do not hesitate to contact me or ACC’s Hawaii based representative Ross Yamasaki at 808-531-4551.





**AMERICAN ACADEMY of  
DERMATOLOGY | ASSOCIATION**



March 12, 2018

The Honorable Chris Lee  
Chair, Committee on Energy and Environmental Protection  
Hawaii House of Representatives  
Hawaii State Capitol, Room 436  
Honolulu, HI 96813

Dear Chairman Lee:

On behalf of the Hawaii Dermatological Society and the more than 13,500 U.S. members of the American Academy of Dermatology Association, we write to share our thoughts on SB 2571 SD2, which would prohibit the sale and distribution in Hawaii of ultraviolet sun protection factor sunscreen personal care products containing oxybenzone and octinoxate without a prescription. As dermatologists, we dedicate our lives to promoting habits in our patients that ensure healthy skin. Ultraviolet radiation damages the skin's DNA, which is the beginning stage of skin cancer. We are concerned about policies that would remove access to sunscreens containing oxybenzone, a necessary ingredient for broad-spectrum sunscreens, thereby putting the public at increased risk of developing skin cancer. We urge you and your colleagues to strongly consider the broad implications of banning oxybenzone sunscreens, and bear in mind the dangers of sun exposure without adequate protection that Hawaii residents and visitors would face.

While multiple factors are contributing to the damage of our beautiful planet, the current scientific evidence on the effects of oxybenzone on coral reefs is not sufficient to establish a link. The only study claiming oxybenzone could be

harmful to coral is based upon laboratory research, which does not accurately simulate the complex natural marine environment.<sup>1</sup> According to a recent review of the ecological risks of oxybenzone, systematic monitoring and thorough toxicological studies are needed to better understand the risks of this ingredient in the aquatic environment.<sup>2</sup> The National Oceanic and Atmospheric Administration (NOAA) cites increased ocean temperatures, storm-generated runoff, overexposure to sunlight, and extremely low tides as contributors to the problem of coral bleaching.<sup>3</sup> The Great Barrier Reef Marine Park Authority of Australia conducted a study in 2016 that not only reported coral bleaching in remote areas unfrequented by human contact, but also points to rising ocean temperatures as the main suspected cause.<sup>4</sup>

Oxybenzone is one of the few FDA-approved sunscreen ingredients that provides broad-spectrum protection from the sun's harmful UVA and UVB rays. UVA damages deeper layers of the skin and contributes to the development of melanoma, the deadliest form of skin cancer. UVB is the primary cause of sunburn and plays a key role in the development of skin cancer in the skin's more superficial layers. In addition, both types of rays can cause suppression of the immune system.<sup>5</sup>

Unprotected sun exposure is the most preventable risk factor for skin cancer. According to current estimates, at least one in five Americans will develop skin cancer in their lifetime.<sup>6 7</sup> Melanoma, the deadliest form of skin cancer, is now the second most common form of cancer for females aged 15-29 years old, and Caucasian men over 50 years of age are at a higher risk of developing melanoma than the general population.<sup>8 9 10 11</sup> In Hawaii alone, 490 new cases of melanoma will be diagnosed in 2018.<sup>12</sup> Further, Hawaii has

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<sup>1</sup> Downs CA, Kramarsky-Winter E, Segal R, Fauth J, Knutson S, Bronstein O, Ciner FR, Jeger R, Lichtenfeld Y, Woodley CM, Pennington P. Toxicopathological effects of the sunscreen UV filter, Oxybenzone (Benzophenone-3), on coral planulae and cultured primary cells and its environmental contamination in Hawaii and the US Virgin Islands. Archives of environmental contamination and toxicology. 2016 Feb 1;70(2):265-88.

<sup>2</sup> Kim S, Choi K. Occurrences, toxicities, and ecological risks of benzophenone-3, a common component of organic sunscreen products: a mini-review. Environment international. 2014 Sep 30;70:143-57.

<sup>3</sup> National Oceanic and Atmospheric Administration. What is Coral Bleaching?.

[http://oceanservice.noaa.gov/facts/coral\\_bleach.html](http://oceanservice.noaa.gov/facts/coral_bleach.html)

<sup>4</sup> Great Barrier Reef Marine Park Authority 2016, Interim report: 2016 coral bleaching event on the Great Barrier Reef, GBRMPA, Townsville.

<sup>5</sup> Lim HW, James WD, Rigel DS, Maloney ME, Spencer JM, Bhushan R. Adverse effects of ultraviolet radiation from the use of indoor tanning equipment: time to ban the tan. Journal of the American Academy of Dermatology. 2011 Apr 30;64(4):e51-60.

<sup>6</sup> Stern RS. Prevalence of a history of skin cancer in 2007: results of an incidence-based model. Arch Dermatol. 2010 Mar;146(3):279-82.

<sup>7</sup> Robinson JK. Sun Exposure, Sun Protection, and Vitamin D. JAMA 2005; 294: 1541-43.

<sup>8</sup> American Cancer Society. Cancer Facts & Figures 2017. Atlanta: American Cancer Society; 2017.

<sup>9</sup> Siegel RL, Miller KD, Jemal A. Cancer statistics, 2017. CA Cancer J Clin. 2017; 67:7-30.

<sup>10</sup> Little EG, Eide MJ. Update on the current state of melanoma incidence. Dermatol Clin. 2012;30(3):355-61.

<sup>11</sup> NAACCR Fast Stats: An interactive quick tool for quick access to key NAACCR cancer statistics. North American Association of Central Cancer Registries. <http://www.naacccr.org/>. (Accessed on 3-10-2016).

<sup>12</sup> American Cancer Society. Cancer Facts and Figures 2018. <https://www.cancer.org/content/dam/cancer-org/research/cancer-facts-and-statistics/annual-cancer-facts-and-figures/2018/cancer-facts-and-figures-2018.pdf>

the highest rate of new melanoma diagnoses in the United States among Caucasians and the rate of new melanoma diagnoses among Caucasians is nearly triple the national average. Melanoma has the third fastest rising death rate among cancers in Hawaii, and the death rate from melanoma in Hawaii is more than 30% higher than the national average.<sup>13</sup>

Dermatologists have an interest in patient and public access to safe and effective sunscreen ingredients. The U.S. Food and Drug Administration (FDA) is currently considering eight time-and-extent applications (TEAs) for new sunscreen ingredients to be added to the FDA over-the-counter (OTC) monograph. This issue highlights the need for new safe and effective ingredients to be introduced in the United States. With the approval of ingredients that utilize alternative UV filters available to sunscreen manufacturers, the public's health will be protected. Should scientific evidence on the effects of oxybenzone on coral reefs demonstrate a stronger link, concerns about preserving the environment can be allayed.

If Hawaii removes access or attaches stigma to sunscreens containing oxybenzone, an ingredient necessary for broad spectrum protection, the public will be placed at an even greater risk for skin cancer. We urge you and your colleagues to strongly consider this as you deliberate SB 2571 SD1. We appreciate the opportunity to provide written comments on this important public health issue. For further information, please contact Lisa Albany, director of state policy for the AADA, at [LAlbany@aad.org](mailto:LAlbany@aad.org) or (202) 712-2615.

Sincerely,

Suzanne M. Olbricht, MD, FAAD  
President  
American Academy of Dermatology Association

Rodd H. Takiguchi, MD, FAAD  
President  
Hawaii Dermatological Society

cc: Members of the Committee on Energy and Environmental Protection

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<sup>13</sup> Environmental Protection Agency Office of Air and Radiation. Just the facts: Skin cancer in Hawaii. 2014. [https://www.epa.gov/sites/production/files/2014-05/documents/sunsafety\\_fs\\_hawaii\\_v18\\_release\\_print.pdf](https://www.epa.gov/sites/production/files/2014-05/documents/sunsafety_fs_hawaii_v18_release_print.pdf)



**SB-2571-SD-2**

Submitted on: 3/12/2018 10:50:37 AM

Testimony for EEP on 3/13/2018 8:30:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Megan Lamson	Hawai'i Wildlife Fund	Support	No

Comments:

Aloha and many thanks for hearing this important bill (SB 2571). Our coral reefs are currently facing numerous threats at this juncture - from overfishing to climate change, Hawai'i's reefs are being hit by local and global sources of stressors.

Oxybenzone and octinoxate chemicals contained in certain sunscreens have been found to negatively impact our marine species, including corals. While our state resources may be limited to solve the scope of problems created worldwide by climate change, we CAN make small steps to protect our native wildlife and island communities, like the oxybenzone ban proposed in this bill. Please vote to pass this bill that would reduce one of the local-sources of chemical pollution on our waters and reefs.

Mahalo for your time and consideration.

Me ke aloha,

Megan Lamson, M.S.

Hawai'i Wildlife Fund

President / Hawai'i Island Program Director



**TO:** Honorable Chair Lee and Members of Energy and Environmental Protection Committee, 3-13-18 830am

**SUBMITTED BY:** Inga Gibson, Policy Consultant, For the Fishes  
[ponoadvocacy@gmail.com](mailto:ponoadvocacy@gmail.com), 808.922.9910

**RE: SUPPORT for SB2571, Relating to Water Pollution**

For the Fishes supports SB2571 which, if enacted, would prohibit the sale, offer for sale, or distribution for sale of non-prescription SPF sunscreen products containing octinoxate or oxybenzone, unless the product is sold or distributed to fulfill a prescription.

Numerous studies have shown that oxybenzone in the marine environment can be harmful to coral reefs and marine life (Kim et al. 2014; Kim & Choi 2014; Tsui et al. 2014; Downs et al. 2015). These studies clearly indicate that oxybenzone poses a risk to fishes, through endocrine disruption and reproduction performance, for example, and to hard corals through bleaching. These threats are heightened in marine recreational areas frequented by beach goers, swimmers, snorkelers and divers whose sunscreen washes off when they enter the water. Worldwide, it is estimated that 90% of snorkeling or diving tourists are concentrated on 10% of the reefs (US National Park Service). Hawaii's MLCs have an abundance of fishes compared to the majority of the state's reefs which are severely depleted. This abundance of wildlife is a major draw to tourists and, Hawaii's most beautiful and popular reefs are likely exposed to the most sunscreen pollution.

It has been estimated that 4,000 – 14,000 tons of sunscreen enters coral reef areas around the world annually (U.S. National Park Service, Downs et al. 2015). Surveys around Hawaii's coral reefs found oxybenzone levels at concentrations 12 times higher than the level at which it impacts juvenile coral (Downs et al. 2015).

The unprecedented coral bleaching events of 2014 and 2015 had devastating effects on Hawaii's corals. A 2016 report by The Nature Conservancy found of 32 – 90% of bleached coral colonies died in some West Hawaii areas. New research shows that by mid-century, coral reefs will annually experience the heat stress that causes bleaching, and the authors conclude that the future conditions of reefs depends on both the reduction of global emissions and our capacity to build resilience to bleaching through management of local stressors (Hughes et al. 2018). Though oxybenzone may be just one of many stressors impacting Hawaii's coral reefs, the inevitability of future ocean warming events and subsequent coral

bleaching makes it imperative to reduce the stressors to corals and increase their potential to recover and survive.

We respectfully urge the Committee's support of this measure which will help reduce oxybenzone pollution and harm to Hawaii's coral reefs and wildlife.

Thank you for this opportunity to provide testimony.



March 12, 2018

The Honorable Chris Lee  
Chairman, Committee on Energy & Environmental Protection  
House of Representatives  
State Capitol, Room 325  
415 South Beretania Street  
Honolulu, HI 96813

**RE: Oppose SB 2571 SD 2**

Chairman Lee:

On behalf of the Personal Care Products Council (the Council), I am writing to express opposition to Senate Bill 2571 SD 2, which prohibits the sale, offer for sale, or distribution of nonprescription SPF sunscreen protection personal care product containing oxybenzone or octinoxate.

The Council is the leading national trade association representing the cosmetic and personal care products industry. The Council's approximately 600 member companies manufacture and distribute the vast majority of products marketed in the United States. As the makers of a diverse range of products that consumers rely on daily, from sunscreen, shampoo, and toothpaste to antiperspirant, moisturizer and lipstick, personal care products companies are global leaders committed to safety, quality and innovation.

Sunscreens are regulated as over-the-counter drugs by the U.S. Food and Drug Administration (FDA). Oxybenzone and octinoxate are **FDA approved ingredients** that are critical to the U.S. sunscreen market.

Coral reef degradation is an important environmental issue that we all take seriously. However, this legislation does not address the main causes of coral bleaching, which National Oceanic and Atmospheric Administration (NOAA) states as being pollution, climate change and overfishing. In fact, a recent publication in the scientific journal *Nature* implicates climate change as the main cause of coral bleaching. The authors also point out that coral reefs continue to be impacted even when human activities are prohibited in areas near coral habitats, indicating that climate change alone can drive reef degradation. Additionally, in January 2017, scientists from the University of Hawaii published a study showing that climate change has resulted in coral bleaching and subsequent reef decline in Hawaiian coastal waters. Professor Terry Hughes, Director of the Australian Research Council Centre of Excellence for Coral Reef Studies at James Cook University, reaffirmed these

1620 L Street, NW Suite 1200 Washington, DC 20036 Tel: 202.331.1770

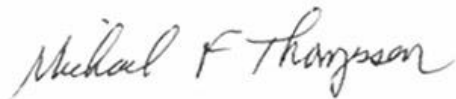
conclusions in a January 2018 article in *The New York Times*, stating that “coral bleaching is caused by global warming full stop.” In a separate article published by *Mashable* in 2015, Professor Hughes suggested that extrapolations asserting sunscreen is damaging the world’s coral “are a bit of a stretch’, and “the conclusion from the media is sunscreen is killing the world’s coral, and that’s laughable.”

While the coral bleaching events are of great importance, of similar great concern is the prevalence of skin cancer diagnoses and deaths. Skin cancer is the most common cancer in the U.S. In fact, more than 10,000 people die of melanoma every year and there are more new cases of skin cancer each year than breast, prostate, lung and colon cancers combined. The FDA, the Centers for Disease Control and Prevention (CDC), the U.S. Surgeon General, the American Academy of Dermatology (AAD), the Skin Cancer Foundation and health care professionals worldwide emphasize that using sunscreens is a critical part of a safe sun regimen.

The dangers of sun exposure are clear and universally recognized by public health professionals and dermatologists. The National Institutes of Health Report on Carcinogens identifies solar UV radiation as a ‘known human carcinogen.’ A single bad burn in childhood greatly increases the risk of developing skin cancer later in life. In Hawaii alone, 2-out-of-3 adults report using sunscreens, and 4-out-of-5 parents report using sunscreen on their children. The risk of skin cancer without sunscreen is proven, and a ban on sunscreen would create a serious public health problem.

Please oppose SB 2571 SD2. Thank you for your consideration.

Sincerely,

A handwritten signature in cursive script that reads "Michael F. Thompson".

Michael F. Thompson  
Senior Vice President, Government Affairs



## Eyes of the Reef: Community Reporting Network

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From:  
K. Lindsey Kramer, M. S.  
Eyes of the Reef Network  
Hawai'i Island Coordinator  
PO Box 3112  
Kailua-Kona, HI 96740

TO: HOUSE OF REPRESENTATIVES, 29<sup>th</sup> LEGISLATURE  
COMMITTEE ON FINANCE  
Meeting Date: 2/28/2018, 12:00

Mar 12, 2018

### RE: SUPPORT for SB2571\_SD2, RELATING TO WATER POLLUTION

Aloha,

Mahalo for the opportunity to testify in **support** of **SB2571\_SD2, RELATING TO WATER POLLUTION**, which would ban the sale, offer of sale, or distribution in the State of any SPF sunscreen protection personal care product that contains oxybenzone or octinoxate, or both, without a medically licensed prescription.

I currently serve as the Hawai'i Island Coordinator for the Eyes of the Reef Network, which offers free community outreach and trainings on the health of Hawai'i's coral reef ecosystems. I've also worked in the field of coral reef management and research for over 15 years. As many of you know, our community in West Hawai'i experienced a massive and devastating coral bleaching and subsequent mortality event in the summer of 2015, which resulted in the loss of 49.6% of our live coral population. This massive loss of coral, which serves as the foundational habitat for all other coral reef species, should be a cause for great concern from our state legislators, and a catalyst to support this and other urgent marine conservation efforts.

Both oxybenzone (a.k.a. benzophenone-3) and octinoxate have been shown to cause damage to larval and adult corals by causing deformities in coral larvae, making them unable to swim, settle, or form new colonies. Additionally, oxybenzone exposure was also linked to increased bleaching severity when coupled with thermal stress.

Scientists and coral reef managers at the International Coral Reef Symposium (June 2016) and the IUCN World Conservation Congress (September 2016), both hosted in Honolulu, Hawai'i, agreed on the negative impacts of oxybenzone and other sunscreen chemicals on corals, and recommended an elimination of use in areas with coral reefs.

Please PASS SB 2571, and improve our corals chances for post-bleaching recovery.

Mahalo for your consideration,

K. Lindsey Kramer  
Eyes of the Reef Network  
Hawaii Island Coordinator

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**TESTIMONY OF TINA YAMAKI  
PRESIDENT  
RETAIL MERCHANTS OF HAWAII  
March 13, 2018**

**SB 2571 SD 2 Relating to Water Pollution**

Good morning Chairman Lee and members of the Committee on Energy & Environmental Protection. I am Tina Yamaki, President of the Retail Merchants of Hawaii and I appreciate this opportunity to testify.

The Retail Merchants of Hawaii (RMH) is a statewide not-for-profit trade organization is committed to support the retail industry and business in general in Hawaii. The retail industry is one of the largest employers in the state, employing 25% of the labor force.

The Retail Merchants of Hawaii opposes SB 2571 SD 2 Relating to Water Pollution Retailers continue to be concerned about our land and ocean, and have supported many initiatives that preserve and protect our environment. However, we need to maintain a fair balance regarding the environment, sunscreen, and other sunblock products.

Banning the use and sale of sunscreen and other products is not the one-shot solution that will solve the issues surrounding the coral reefs and water pollution. Consumers, both visitors and kama' aina may have very limited choices on sunscreen and products that are often less effective at blocking the sun and may cost a lot more. This would especially be true if many oxybenzone free alternatives are not available, are price sensitive or if the US Food and Drug Administration does not approve new sun screen alternative ingredients by the effective date of this measure.

We may also run the risk of people no longer wearing sunscreen and thus increasing their chances of skin cancer. This ban would also penalize those who do not go to the beach but use sunscreen on a regular basis like hikers, golfers, tennis players and joggers to name a few.

Hawaii's retailers unquestionably support initiatives to preserve and protect our environment. And we do support the measure's effort to ban the counties from regulating oxybenzone type products. However, the solution to the issue of oxybenzone type based products is not in a total ban of the products. More education and comprehensive studies of the coral reefs in their natural environment are needed. And we must be sure that there are truly a large variety of effective non-oxybenzone type based products that are easily available and are not cost prohibitive.

Mahalo for this opportunity to testify.



**LATE**

March 12, 2018

**Support for SB 2571 SD2: Relating to Oxybenzone**

**Committee: Energy & Environmental Protection (EEP)**

**Hearing: March 13, 2018, 8:30am, Rm. 325**

Dear Chair Lee, Vice Chair Lowen and Members of the EEP Committee,

As the Hawaii Manager of the Surfrider Foundation, I am writing in strong support of SB2571 SD2, which prohibits the sale or distribution for sale of non-prescription SPF sunscreen products containing octinoxate or oxybenzone. The Surfrider Foundation's five chapters in Hawaii and our extensive network of supporters are concerned about the damage chemicals like oxybenzone and octinoxate are doing to our reef system, which annually generates about \$800 million in gross revenues to the state of Hawaii. We are also part of the Hawaii Reef and Ocean Coalition, which was formed last year by concerned coral reef scientists, educators, government officials and environmental groups, and one of our top priorities is banning sunscreens with oxybenzone.

On behalf of thousands of supporters, activists and members across the state, we strongly support efforts to ban the sales and distribution of sunscreens containing the toxic chemical oxybenzone due to its destructive effects on Hawaii's coral reefs. As a chemical UV filter, oxybenzone is added to nearly 70 percent of non-mineral sunscreens and commonly washes into our oceans when applied at the beach, harming our coral reef ecosystems. Yet there are many other chemical and mineral-based sunscreens that don't contain these toxic ingredients.

Along with damaging coral DNA and inhibiting its ability to reproduce, oxybenzone causes deformities in coral reefs, makes them more susceptible to bleaching, and initiates endocrine disruption. In 2016, scientific panels held at the International Coral Reef Symposium (ICRS) and the International Union for the Conservation for Nature (IUCN) in Honolulu both showed that Oxybenzone is toxic to corals and recommended a ban on sunscreen products that contain it. There have also been studies showing that this chemical and its many derivatives are toxic to human health as well.

We support educational efforts to curb the usage of these products, but they are not enough. The most effective way to prevent these chemicals from entering our waterways is to ban the sale and distribution of these products statewide. Many visitors purchase sunscreen once they arrive in the Islands, and we need a bill to ensure that oxybenzone and other reef-harming chemicals will not be sold in the State. Our reefs are an important and valuable part of Hawaii's ecosystem and economy, and we must do all we can to protect them.

There may be other causes of reef degradation, but this bill offers an important first step to help maintain the economic, ecological, cultural, and recreational value of Hawai'i's reef systems. As a regular ocean swimmer and surfer on Oahu's South Shore, I can tell you that I often see a film of chemical-laden sunscreen in our waters. This bill will promote the usage of reef-safe sunscreens that are mineral-based and not made from harmful chemicals to our reefs and skin. Mahalo for your consideration.

Aloha,

**Stuart Coleman**

Stuart H. Coleman, Hawaii Manager



**LATE**



COMMITTEE ON ENERGY AND ENVIRONMENT  
Tuesday March 13<sup>th</sup> 2018  
Support of SB 2571 SD1 Relating to Water Pollution

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Aloha Chair Baker and members of the House EEP Committee,

The Surfrider Foundation's Oahu Chapter is writing to support SB 2571 to protect both our coral reef ecosystems and human health from adverse effects of the chemical oxybenzone often found in sunscreens. Our members are greatly concerned about these effects and encourage the State to exercise the precautionary principle in dealing with oxybenzone based sunscreens.

Oxybenzone damages coral DNA and inhibits its ability to reproduce, causes deformities on the coral, makes coral more susceptible to bleaching, and initiates endocrine disruption. These negative can occur at concentrations as low as 62 parts per trillion, but some beaches in Hawai'i have oxybenzone levels higher than 700 parts per trillion, a major concern when our reef system annually generates about \$800 million in gross revenues.

Surfrider spent time during 2016 at both the International Coral Reef Symposium and the International Union on Conservation of Nature World Conservation Congress (both held in Honolulu) in focus groups on the issues associated with oxybenzone based sunscreens. Top scientists on coral reef health indicated in localized studies that this chemical was not only detrimental to reef health but also to humans, exhibiting endocrine disrupting effects. In September 2016, Governor Ige made a World Conservation Congress Legacy Commitment to have 30 percent of Hawaii's nearshore waters effectively managed by 2030. Taking steps to reduce harmful chemicals that are damaging our reefs is a step toward effective management.

In addition to scientific studies, Surfrider is continuously alerted by recreational users of the nearshore environment of slicks of sunscreen creating a sheen across ocean water in highly used regions. There are also reports of a smell of sunscreen emanating from beaches in Waikiki and other tourist locations. Alternatives to oxybenzone exist and education and outreach will need to accompany a ban so that ocean users understand that they have other options to protect themselves from UV sun rays.

Surfrider advocates for a precautionary principle in which we take measures to protect both environmental and human health when possible harmful agents exist. Given that Hawaii's economy relies almost exclusively on our ocean resources, it is imperative that we take necessary steps to protect these areas. Banning the use of oxybenzone based products is a step towards limiting the damage we are doing to our reefs.

Mahalo for Considering this bill.

A handwritten signature in black ink, appearing to read 'Rafael Bergstrom'. The signature is stylized with a large 'R' and 'B'.

Rafael Bergstrom  
Oahu Chapter Coordinator, Surfrider Foundation.



**Testimony COMMENTING on S.B. 2571 SD2 (crossed over to house)**

**Hearing Date: March 13, 2018 Room Number: 325 Time: 8:30 a.m.**

Honorable Chris Lee, Chair  
Honorable Nicole E. Lowen, Vice Chair  
Committee on Energy & Environmental Protection  
Hawai'i State Capitol, House  
Conference Room 3325  
Honolulu, Hawai'i  
96813  
USA

Wädenswil/Switzerland, March 13, 2018

**Re: S.B. 2571 SD2**

Honorable Chair Lee and Vice Chair Lowen:

OceanCare is an international ocean conservation non-governmental organisation based in Switzerland and has been working to protect oceans and wildlife since 1989. OceanCare has Special Consultative Status on marine issues with the Economic and Social Council of the United Nations and is accredited as a Major Group to the United Nations Environment Assembly (UNEA).

We welcome this opportunity to provide testimony in support of S.B. No. 2571 SD2 currently under consideration in the Hawaii House of Representatives, but wish to highlight an important exception that we believe that Hawaii's coral reefs, fish, invertebrates, and marine mammals require relief from oxybenzone and octinoxate much more quickly than the current draft of the bill envisions. We would ask that the legislature commit to the implementation of the bill by January 1, 2020. This will give retailers plenty of time to work through existing stocks of sunscreens containing oxybenzone and octinoxate but take into account the urgency of the situation.

OceanCare adds our voice to the many other voices of organisations that work tirelessly for the protection of the oceans, marine ecosystems and wildlife who have already submitted testimony. We support the science that many of these other groups have cited which points clearly in favor of moving with speed and focused effort to drastically reduce the occurrence of oxybenzone and octinoxate in the waters around Hawaii. We won't repeat references of all the relevant scientific studies here, however as a Swiss based organisation we would like to highlight crucial studies<sup>1</sup> from Dr. Margret Schlumpf, from the Toxicological Institute of the University of Zurich and colleagues, which have

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<sup>1</sup> Schmitt C., Oetken M., Dittberner M., Wagner M., Oehlmann, J. 2008. Endocrine modulation and toxic effects of two commonly used UV screens on the aquatic invertebrates *Potamopyrgus antipodarum* and *Lumbriculus variegatus*. *Environ Pollut.* 152(2): 322-9

The Trouble With Sunscreen Chemicals (Krause 2012, Schlumpf 2001, 2004, 2008).  
The Trouble With Ingredients in Sunscreens (Schlumpf 2008, Schlumpf 2010)



shown that the hormone-active substances in sunscreens are very harmful, causing hormone disruption, issue with gender and an increase in hermaphrodites in some species.

We would also like to draw your attention to the UN's 2030 Agenda for Sustainable Development, and in particular Sustainable Development Goal 14 on the conservation and sustainable use of the oceans, which in target 14.1 (SDG14.1) urges a significant reduction of marine pollution of all kinds by 2025. Implementation of all the SDGs is of highest priority on the global agenda and the timeframes for implementation makes it clear that action on marine pollution cannot be delayed.

The purpose and intent of S.B. 2571 SD2 is to preserve marine ecosystems, including coral reefs, by prohibiting the sale, offer for sale, and distribution in Hawaii of sun protection factor sunscreen protection personal care products containing oxybenzone and octinoxate without a prescription issued by a licensed healthcare provider. It is the opinion of OceanCare, that nothing short of the prohibition of "the sale, offer for sale, and distribution in Hawaii of sun protection factor sunscreen protection personal care products containing oxybenzone and octinoxate" will have the impact needed.

We expect there may be pressure to weaken the bill, as there was with bills that sought this same objective in the last legislative session and also earlier in this session. We respectfully ask, for the good of the fragile and wonderful marine ecosystems of Hawaii, that you resist such pressure.

Given the range of effective, highly regarded sunscreens available worldwide that contain neither oxybenzone nor octinoxate, and given the provision in the bill that exemptions can be granted to the ban in cases in which a person is given a "prescription issued by a licensed healthcare provider," we do not think there is ample justification for weakening of this bill on account of human health.

To the contrary this bill, provided the time period for implementation is brought forward as requested in this testimony, will offer much needed protection to Hawaii's reefs and the biodiversity and natural resources that it supports for the long-term benefit of both wildlife and humans.

We thank you for your consideration of both the bill and these comments.

Yours sincerely,

A handwritten signature in black ink that reads "Sigrid Lüber".

Sigrid Lüber  
President

A handwritten signature in blue ink that reads "f. McLellan".

Fabienne McLellan  
MES, Co-Director International Relations

**SB-2571-SD-2**

Submitted on: 3/9/2018 5:47:11 PM

Testimony for EEP on 3/13/2018 8:30:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Donna L. Ching	Individual	Support	No

Comments:

Dear Chair Lee and Vice Chair Lowen,

thank you for your support of SB2571 SD 2 and for amending the bill's effective date back to something more urgent than 2063. A retail ban of a substance that is not only harming our marine environment, but also public health via our endocrine disrupting chemicals should be implemented as quickly as feasible. There is a reason "baby safe" physical sunscreens do not contain oxybenzone and octinoxate. I urge you to replace the effective date of the retail ban with the original date in 2019.

Mahalo for your leadership on the matter of keeping our oceans and people safe.

Aloha, Donna L. Ching

**SB-2571-SD-2**

Submitted on: 3/9/2018 9:42:34 PM

Testimony for EEP on 3/13/2018 8:30:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Nancy Davlantes	Individual	Support	No

Comments:

**SB-2571-SD-2**

Submitted on: 3/9/2018 10:30:04 PM

Testimony for EEP on 3/13/2018 8:30:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
janice palma-glennie	Individual	Support	No

Comments:

a no-brainer. reefs, subsistence, livelihoods and life on earth can't wait



**SB-2571-SD-2**

Submitted on: 3/10/2018 12:26:08 PM

Testimony for EEP on 3/13/2018 8:30:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Cynthia Punihaole Kennedy	Individual	Support	No

Comments:

Aloha

Research has shown that oxybenzone and octinoxate are detrimental to coral reefs, fish species, and even affect human health. It is important that we start to help our environment and stand up for what is *pono*. It is about caring for our 'aina and our future generations. Mahalo

**SB-2571-SD-2**

Submitted on: 3/10/2018 12:44:12 PM

Testimony for EEP on 3/13/2018 8:30:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Rene Umberger	Individual	Support	No

Comments:

**SB-2571-SD-2**

Submitted on: 3/10/2018 3:39:49 PM

Testimony for EEP on 3/13/2018 8:30:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Lisa Diaz	Individual	Support	No

Comments:

**Aloha Senate EEP Committee Members:**

**As a West Hawaii public school marine science teacher, and as an avid ocean diver, I strongly support SB 2571. I urge all EEP members to pass this important bill with an ammendment to move the effective date up to no later than Jan. 2019. Retailers will still have a good amount of time to stock safe sunscreens and rid their shelves of the products that poison our corals.**

**Our coral reefs are essential to Hawaii's tourism economy, storm protection, food security and natural environment. SB 2571 is an important step to protect Hawaii's coral reefs from dangerous chemicals in current sunscreens sold in our state. The effective date needs to be moved up to Jan. 2019 so that we can begin to protect Hawaii's corals.**

**Mahalo,**

**Lisa Diaz**

**scidiaz@gmail.com**

**76-223 Haoa St.**

**Kailua Kona, HI 96740**

**SB-2571-SD-2**

Submitted on: 3/10/2018 3:55:35 PM

Testimony for EEP on 3/13/2018 8:30:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
M. Markl	Individual	Support	No

Comments:

Hello Chair(s) And Committee Members:

Please support passage of this bill to protect our health as well as the health of the water from such dangerous chemicals. Thank you.

**SB-2571-SD-2**

Submitted on: 3/10/2018 4:29:16 PM

Testimony for EEP on 3/13/2018 8:30:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Erica Scott	Individual	Support	No

Comments:

**SB-2571-SD-2**

Submitted on: 3/10/2018 4:32:08 PM

Testimony for EEP on 3/13/2018 8:30:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Craig Michael Bisgard	Individual	Support	No

Comments:

I live in West Hawaii and am an avid visitor of our beaches. I believe we should do what we can to protect our ocean and environment. I support this bill.

**SB-2571-SD-2**

Submitted on: 3/10/2018 4:49:49 PM

Testimony for EEP on 3/13/2018 8:30:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Mio Chee	Individual	Support	No

Comments:

I strongly support SB2571.



**SB-2571-SD-2**

Submitted on: 3/10/2018 5:40:50 PM

Testimony for EEP on 3/13/2018 8:30:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Joan Gannon	Individual	Support	No

Comments:

To: EEP Committee hearing on 3/13/18 at 8:30am in room 325

Re: SB 2571. Please pass this bill. I swim and snorkel often in the ocean and can see the damage that is happening to the coral. It seems to me the least we can do is use proper sun screen. And also please amend the bill to read to take effect Jan. 1, 2019.

From: Joan Gannon West Hawaii ocean goer

**SB-2571-SD-2**

Submitted on: 3/10/2018 6:11:30 PM

Testimony for EEP on 3/13/2018 8:30:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Jaunette Itsuno	Individual	Support	No

Comments:

I support SB2571, SD2 which aims to reduce the dangerous chemicals oxybenzone and octinoxate from our environment by prohibiting its sale and distribution unless prescribed by a licensed healthcare provider. Please move the effective date to be much earlier than January 1, 2063.

**SB-2571-SD-2**

Submitted on: 3/11/2018 5:03:36 AM

Testimony for EEP on 3/13/2018 8:30:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Patricia Blair	Individual	Support	No

Comments:

Protecting the ocean, coral is your duty.

**SB-2571-SD-2**

Submitted on: 3/11/2018 5:24:35 AM

Testimony for EEP on 3/13/2018 8:30:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Dyson Chee	Individual	Support	No

Comments:

**SB-2571-SD-2**

Submitted on: 3/11/2018 5:31:10 AM

Testimony for EEP on 3/13/2018 8:30:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Micah Chee	Individual	Support	No

Comments:

**SB-2571-SD-2**

Submitted on: 3/11/2018 5:39:04 AM

Testimony for EEP on 3/13/2018 8:30:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
David Chee	Individual	Support	No

Comments:

**SB-2571-SD-2**

Submitted on: 3/11/2018 12:48:32 PM

Testimony for EEP on 3/13/2018 8:30:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Dale Sarver	Individual	Support	No

Comments:

I am a fisherman, diver, spearfisher, marine biologist, and ocean enthusiast. Over the years the condition of the coral reefs and fish populations has seriously deteriorated. The corals are the base of all the marine ecosystems and anything that threatens the coral threatens all of it. There is compelling proof that these chemicals in the sunscreens are harmful to corals. What else do you need? There are reef friendly sunscreens in all the stores. There is no excuse not to outlaw them.



**SB-2571-SD-2**

Submitted on: 3/11/2018 2:16:19 PM

Testimony for EEP on 3/13/2018 8:30:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Robert Richmond	Individual	Support	No

Comments:

I am submitting this testimony in support of SB2571 SD2. I am a coral reef biologist who has been studying coral reefs for the past 44 years. During this time there has been a 50% loss of coral reefs worldwide. Hawaii's coral reefs were particularly hard hit by recent bleaching events on top of other local stressors including sedimentation, coastal pollution and the effects of overfishing.

During the 13th International Coral Reef Symposium hosted by Hawaii in June 2016, there was a consensus among the 2,500 participants that coral reefs are threatened but not doomed. The outcome depends on us.

Due to the overwhelming impacts of climate change on coral reefs, including temperature induced bleaching events and ocean acidification, the needed response is to reduce local stressors now to buy time to address climate change in the longer term. The reduction of coastal pollution is an important step forward to support coral reef resilience.

Numerous peer-reviewed scientific studies have found that specific chemicals in sunscreens, including oxybenzone and octinoxate have detrimental effects on coral, their larvae and key life processes. With a full appreciation for the need to protect one's skin from UV exposure from the sun, alternatives exist including the use of protective clothing and (according to published studies) sunblocks containing non-nanotized zinc oxide and titanium dioxide.

Hawaii's coral reefs have been valued at \$33.57 billion ([https://www.coris.noaa.gov/activities/hawaii\\_econeval/resources/execsumm.pdf](https://www.coris.noaa.gov/activities/hawaii_econeval/resources/execsumm.pdf) and [https://www.coris.noaa.gov/activities/hawaii\\_econeval/resources/tev\\_factsheet\\_two\\_summaryofvalues.pdf](https://www.coris.noaa.gov/activities/hawaii_econeval/resources/tev_factsheet_two_summaryofvalues.pdf)). They also have important cultural value. It is incumbent upon Hawaii's leaders to be proactive in their responses to coral reef losses and the associated impacts on Hawaii's people and economy.

A recent review of the literature and issues associated with sunscreens performed under the International Coral Reef Initiative states the following:

"Considering the many stresses already faced by reefs and current concerns about the toxicity of certain components of sunscreens to corals, a proactive and precautionary

approach to dealing with this issue may be required. Reducing the amount of harmful sunscreen components that reach the reef environment is a high priority and will require the involvement of governments, reef managers, divers, snorkelers and swimmers, and the tourism and pharmaceutical industries. The following measures are recommended:

- Encouraging the manufacture of reef-friendly sunscreens.
  - Promoting the use of reef-friendly sunscreens and other methods of UV protection
  - Regulating the sale and use of sunscreens containing toxins
  - Exerting consumer pressure to encourage development and use of eco-friendly sunscreens.
  - Introducing financial disincentives for manufacture and use of potentially damaging sunscreens
- “ ([https://www.icriforum.org/sites/default/files/ICRI\\_Sunscreen.pdf](https://www.icriforum.org/sites/default/files/ICRI_Sunscreen.pdf)).

I strongly encourage the Hawaii State Legislature to take the appropriate action as presented in SB 2571 SD2.

Respectfully submitted,

Robert H. Richmond, Ph.D.

Research Professor and Director

Kewalo Marine Laboratory

**SB-2571-SD-2**

Submitted on: 3/11/2018 2:31:22 PM

Testimony for EEP on 3/13/2018 8:30:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
tom wallace	Individual	Support	No

Comments:

Our reefs are so important! They are a source of beauty, yes.

But even economically reefs support young fish that grow up to be a part of the chain of life.

Banning sunscreen that may harm the reef is such an easy thing to do. There are plenty of sunscreens that do not contain oxybenzone or octinoxate. I know, I have not used these harmful chemicals for years. A side benefit is that according to enviromental working group, there is moderate evidence that oxybenzone is a Human endocrine disruptor, among other bad things. I highly encourage you to read up on this chemical that is dangerous to humans as well as the reefs.

<https://www.ewg.org/skindeep/ingredient/704372/OXYBENZONE/#>

Please vote yes on SB2571. Save the reefs, save the people

Tom Wallace

Hawaii Kai

**SB-2571-SD-2**

Submitted on: 3/11/2018 2:46:46 PM

Testimony for EEP on 3/13/2018 8:30:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
De Austin	Individual	Support	No

Comments:

Honorable committee members:

I support and strongly plead that you support the passage of this bill. There are numerous scientific studies which show the connection between these products and coral reef die off.

As a citizen and resident of Hawaii, I firmly believe is part of our duty to protect our waters and our land. My mother's family is from Maui and has been here for several generations, with native Hawaiian bloodlines.

Keeping our coral reefs alive and healthy has many benefits, which I will let others list for you in their testimonies. If you have done your own judicious research as you well should, there should be absolutely no pause in passing this bill.

I am appalled that this bill will take forty-five years before it can go into effect. However, I would see this bill as one small step toward the ongoing push to continuously protect our environment.

If there is a concern that companies which produce these products would take away their business from Hawaii or if they may attempt to confuse you with non-scientific information, I would suggest that the passage of this bill would and SHOULD inspire them to research and develop alternative, ecologically safe products instead. Other companies have done so. Why not them?

The one product on island store shelves that claim to be "REEF SAFE" is actually LYING to the public because it contains these self-same chemicals. This is because, until this bill, there is no regulation against the usage of these chemicals. This situation is akin to the use of red dye #5 or using asbestos in our homes during construction. We have learned from those experiences and we changed. We must learn from THIS experience and change again.

I am grateful for your support of this bill.

Sincerely.

Dezireen Austin

Educator, Maui resident

**SB-2571-SD-2**

Submitted on: 3/11/2018 2:49:49 PM

Testimony for EEP on 3/13/2018 8:30:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Bob Smith	Individual	Support	No

Comments:

Aloha. Please support SB2571. I have lived in Kona now for over 17 years. I have swam in the ocean well over 1000 times and have seen the impact of sunscreens (and other factors such as climate change) on our reefs. Our reefs need all the help we can give them. SB2571 is a budget conscious action we can take to help our reefs and dependent sea life. Mahalo.

**SB-2571-SD-2**

Submitted on: 3/11/2018 2:51:51 PM

Testimony for EEP on 3/13/2018 8:30:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Deborah Wallace	Individual	Support	No

Comments:

It is really important to bend the sunscreens that contain oxybenzone or oxyoctate.

There are many sunscreens on the market that have a significantly high SPF factor and do not contain ingredients that harm the coral reef system . It is crucial that we take every step possible to help our ailing coral reef's . The reefs are already in danger from a warming temperature . I see bleached coral in my daily Hanauma Bay swim, and I know that this is destructive to our ecosystem.

Please help our oceans and pass this measure .

**SB-2571-SD-2**

Submitted on: 3/11/2018 3:12:00 PM

Testimony for EEP on 3/13/2018 8:30:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Michael Law	Individual	Support	No

Comments:

Oxybenzone and octinoxate have been scientifically proven (in international, peer reviewed scientific publications) to have a very damaging effect on coral and other marine life. There are many commercially sunscreens available that do not have these harmful chemicals in them so consumers can still protect themselves with these alternatives. By taking action on this bill, Hawaiian legislators could be world leaders in the protection of coral and marine life that have no voice of their own. The science is clear. The alternatives are available. Please pass this bill.



**SB-2571-SD-2**

Submitted on: 3/11/2018 3:51:29 PM

Testimony for EEP on 3/13/2018 8:30:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Mark Gordon	Individual	Support	No

Comments:

Please SUPPORT SB2571 SD2.

Oxybenzone has been found to be harmful and detrimental to not only coral, but other marine wildlife as well and possibly humans.

I believe banning the Sale of sunscreen which contain oxybenzone, octinoxate, or both, in the State is a necessary step. Even a very small amount of oxybenzone in the waters can have very devastating effects.

Thanks

Mark Gordon, Environmental, Health and Safety Engineer

Waikoloa HI

**SB-2571-SD-2**

Submitted on: 3/11/2018 3:54:34 PM

Testimony for EEP on 3/13/2018 8:30:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Douglas Perrine	Individual	Support	No

Comments:

Section 1 of this bill lays out in detail the reasons why it is so important. Half of our corals have already died due to the bleaching event of 2015-2016. It is imperative that we stop polluting the ocean with coral-damaging chemicals when there are much more benign solutions available to the need for sun protection. Please pass this bill.

**SB-2571-SD-2**

Submitted on: 3/11/2018 5:29:27 PM

Testimony for EEP on 3/13/2018 8:30:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Dee Fulton	Individual	Support	No

Comments:

The toxic impacts of oxybenzone to both coral reefs, reef life and human life has been amply demonstrated by researchers. This hormone disruptor, as well as octinoxate, promotes metastasis of breast cancer, inhibits sperm fertilization capabilities, has been demonstrated to be a cause of serious birth defect (Hirshsprung's Disease). It causes the death of coral animals and other species of marine life through feminization, mutations, and recruitment failure.

The drug oxybenzone is so ubiquitous that it is showing up in our fish. Furthermore, it is easily absorbed through the skin and passes into breast milk, dosing developmentally sensitive infants with drugs that act like estrogen.

PLEASE ban the sale of sunscreens using these toxic chemicals and ADVANCE THE EFFECTIVE DATE to JANUARY 1, 2019.

Mahalo,

Dee Fulton

Holualoa, HI

**SB-2571-SD-2**

Submitted on: 3/11/2018 6:32:13 PM

Testimony for EEP on 3/13/2018 8:30:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Randy Ching	Individual	Support	No

Comments:

**SB-2571-SD-2**

Submitted on: 3/11/2018 6:35:05 PM

Testimony for EEP on 3/13/2018 8:30:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Ralph Bishop	Individual	Support	No

Comments:

Aloha Chair Lee,

Sunscreen pollution is real and it is slowly destroying the reefs of Hawaii and around the world. And it is PREVENTABLE. How can anyone critically examine the evidence and NOT ACT?? I STRONGLY urge passage of SB2571 SD2 with an effective date of 1 January 2019. Don't miss the opportunity to do the right thing.

**SB-2571-SD-2**

Submitted on: 3/11/2018 7:00:58 PM

Testimony for EEP on 3/13/2018 8:30:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
amber loring	Individual	Support	No

Comments:

Sunscreens containing oxybenzone and octinoxate are toxic to humans, corals, marine life.

The people of Hawai'i depend upon our reef systems, whether it be for sustenance, recreation, tourism economy... coral reefs are a vital component to life on the islands. (Not to mention, they supply 25% of the world's oxygen).

They have lost 40% of our reefs since 2011 due to coral bleaching. Regardless of the initial stressors - whether they be chemicals, pesticides, sediment, storms... –sunscreen ingredients like oxybenzone deform coral DNA and kill coral larvae so we are seeing less restoration after bleaching events.

Whether we choose to use these sunscreens or not, we are constantly exposed to these ingredients through air (aerosols), water (we swim in it or through our tap water), and our food supply (local restaurant fish now bioaccumulating these are testing positive for oxybenzone). Endocrine disruptors can affect our hormones and contribute to higher risk of breast and prostate cancer, among other diseases.

Sunscreen formulations free of these harmful chemicals are already available throughout Hawai'i. Non-Nano Zinc Oxide is proven not only more safe, but a more effective UV filter.

**SB-2571-SD-2**

Submitted on: 3/11/2018 7:01:11 PM

Testimony for EEP on 3/13/2018 8:30:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
holly heiman	Individual	Support	No

Comments:

Sunscreens containing oxybenzone and octinoxate are toxic to humans, corals, marine life.

We in Hawai'i depend upon our reef systems, whether it be for sustenance, recreation, tourism economy... coral reefs are a vital component to life on the islands. (Not to mention, they supply 25% of the world's oxygen).

We've lost 40% of our reefs since 2011 due to coral bleaching. Regardless of the initial stressors - whether they be chemicals, pesticides, sediment, storms... - sunscreen ingredients like oxybenzone deform coral DNA and kill coral larvae so we are seeing less restoration after bleaching events.

Whether we choose to use these sunscreens or not, we are constantly exposed to these ingredients through air (aerosols), water (we swim in it or through our tap water), and our food supply (local restaurant fish now bioaccumulating these are testing positive for oxybenzone). Endocrine disruptors can affect our hormones and contribute to higher risk of breast and prostate cancer, among other diseases.

Sunscreen formulations free of these harmful chemicals are already available throughout Hawai'i. Non-Nano Zinc Oxide is proven not only more safe, but a more effective UV filter.

**SB-2571-SD-2**

Submitted on: 3/11/2018 7:03:28 PM

Testimony for EEP on 3/13/2018 8:30:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Andrea Nandoskar	Individual	Support	No

Comments:

**Please support this bill!** Sunscreens containing oxybenzone and octinoxate damage precious coral reefs on which Hawaii's shoreline, beaches, recreation and tourist economy all depend. They toxic chemicals deform coral DNA and kill coral larvae so we are seeing less restoration after bleaching events. These chemicals can disrupt our hormones and contribute to higher risk of breast and prostate cancer, among other diseases. Even if we personally choose not to use these products we are being exposed. Sunscreen formulations free of these harmful chemicals are already available throughout Hawai'i. It's up to us to steward and protect our precious and irreplaceable natural resources for today and future generations. What will you tell your grandchildren when they ask what actions you took to ensure the protection of our aina and moana? Please do right by our aina and moana.

Mahalo for your consideration.



**SB-2571-SD-2**

Submitted on: 3/11/2018 7:07:43 PM

Testimony for EEP on 3/13/2018 8:30:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
mike massey	Individual	Support	No

Comments:

Whether we choose to use these sunscreens or not, we are constantly exposed to these ingredients through air (aerosols), water (we swim in it or through our tap water), and our food supply (local restaurant fish now bioaccumulating these are testing positive for oxybenzone). Endocrine disruptors can effect our hormones and contribute to higher risk of breast and prostate cancer, among other diseases.

Sunscreen formulations free of these harmful chemicals are already available throughout Hawai'i. Non-Nano Zinc Oxide is proven not only more safe, but a more effective UV filter.

The people of Hawai'i depend upon our reef systems, whether it be for sustenance, recreation, tourism economy... coral reefs are a vital component to life onthe islands. (Not to mention, they supply 25% of the world's oxygen).

We've lost 40% of our reefs sunce 2011 due to coral bleaching. Regardless of the initial stressors - whether they be chemicals, pesticides, sediment, storms... –sunscren ingredients like oxybenzone deform coral DNA and kill coral larvae so we are seeing less restoration after bleaching events

**SB-2571-SD-2**

Submitted on: 3/11/2018 7:16:16 PM

Testimony for EEP on 3/13/2018 8:30:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Sherry Pollack	Individual	Support	No

Comments:

**SB-2571-SD-2**

Submitted on: 3/11/2018 7:38:02 PM

Testimony for EEP on 3/13/2018 8:30:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
A Kathleen Lee	Individual	Support	No

Comments:

Aloha Honorable Senators,

Part of what the guests that I share this beautiful land with is the joy of snorkeling with me here. We need to protect our marine environment by passing this bill. Please support this bill, as when I am in a store looking for sun screen, it is almost impossible to find one that is made to protect our reefs! It will be worth our efforts and many of us and our guests are so supportive.

Mahalo for your kokua to protect our valuable coral and habitats they provide,

April Lee

Hawi, HI

**SB-2571-SD-2**

Submitted on: 3/11/2018 7:39:03 PM

Testimony for EEP on 3/13/2018 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Shannon Murphy	Individual	Support	No

Comments:

**Aloha, my name is Shannon Murphy and I am a 17 year old attending Kaiser High. I am also the president of a beach cleanup club called the Wipeout Crew at school. I learned about oxybenzone and octinoxate roughly about 3 years ago. Little did I know that my sunscreen is killing coral reefs, causing coral bleaching, and creating deformities in a variety of marine organisms. Oxybenzone is pouring into our oceans, especially in places such as Waikiki and Hanauma Bay; isn't it ironic that Hanauma Bay is a Nature Preserve and the coral reefs should be protected here, but yet we are killing it?**

**This issue is significant to our community and island as our healthy reefs and its organisms are critical components of a healthy ocean, our island's food, coastal protection, biomedical products, and play a significant role in Hawaii's tourism economy. Two chemicals in sunscreen could potentially destroy this all.**

**But the greatest thing about this bill is the fact that there is a solution. Switch your sunscreen to reef-safe alternatives containing zinc oxide and titanium dioxide. Have it tested by the FDA and you will be satisfied with its results because it does protect from UV rays.**

**On January 13th, I had my own oxybenzone sunscreen exchange event. Community members came down to Kaiser High School and swapped their sunscreen containing oxybenzone and octinoxate and I gave out a goodie bag containing reef-safe sunscreens. I ended up collecting a wheelbarrow full of chemical sunscreens and gave away 135 goodie bags. My community had no clue about this issue, but now they do. People want to be the change and switch their sunscreen for the sake of our coral reefs. This switch is so simple, yet it makes such a drastic change.**

**I will keep fighting my whole life to save the coral reefs and to educate my family, friends, community, and complete strangers. This bill will help my future and the generations after me. Please ignite the change that our island needs. Say no to oxybenzone and octinoxate. Let's stop polluting our ocean and revive the health of the reefs and the entire ecosystem.**

**Thank you for your consideration.**



**SB-2571-SD-2**

Submitted on: 3/11/2018 9:28:16 PM

Testimony for EEP on 3/13/2018 8:30:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
jillian	Individual	Support	No

Comments:

I support the ban of any chemical that damages the marine life and our Mother Earth and ocean.

**SB-2571-SD-2**

Submitted on: 3/11/2018 9:53:14 PM

Testimony for EEP on 3/13/2018 8:30:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Barbara Barry	Individual	Support	No

Comments:

Aloha Chair and Committee Members,

Now is the time to pass this SB 2571 SD2 NOW. Our coral reefs are dying at an extraordinary rate. Oxybenzone and octinoxate are so toxic that if they were introduced now, they would not be approved due to the serious health threats as endocrine disruptors and deadly environmental threats that we are witnessing now with the rapid decline of our coral reefs.

I sat through days of testimony in the Maui County Council listening to scientists and environmentalists present their very comprehensive reports on the death of coral reefs in Hawaii including the rapid destruction of our fragile coral reefs due to toxicity of oxybenzone and octinoxate in our oceans and waste water systems. Maui County is leading the way to ban the sale and use of these toxic spf sunscreens, please follow suit.

SPF sunscreens with these toxic ingredients are not even proven to prevent skin cancer!

Our coral reefs supply oxygen and protect our fragile ecosystem. They are a reason people come to visit our islands. They support cultural food gathering. It's our kuliana to protect this precious resource.

Please, please, do not listen to the attorneys and lobbyists who are here shilling for the multi million dollar cosmetic industry. They can all reformulate their sunscreen formulas to remove these harmful ingredients. There are many "safe for human and coral reefs" sunscreens available for sale in Hawaii. I use them daily.

On their website, the association that represents the corporations who make these deadly sunscreens like Johnson and Johnson said their number one goal was to squash anyone from banning the sale or use of sunscreens containing oxybenzone and octinoxate. They clearly do not factor in immense cost of the death of coral reefs world wide in the cost of their product. They clearly do not care about their environment. If the Board of Directors of these Corporations who make spf sunscreens with these poisonous ingredients had to be held personally responsible for the cost of restoring

coral reefs and human health, these products would be replaced with environmentally friendly and good for humans mineral based sunscreens very fast.

Be bold and be strong for the land and oceans you were elected to protect.

Pass this Bill today,

Mahalo nui loa,

Ms. Barbara Barry



**SB-2571-SD-2**

Submitted on: 3/11/2018 9:39:25 PM

Testimony for EEP on 3/13/2018 8:30:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Michael Traub ND	Individual	Support	No

Comments:

I live and vote in West Hawaii and as I'm sure the committee is aware, West Hawaii people are very concerned about protecting the reefs and ocean environment.

As a swimmer and naturopathic physician, I strongly support this bill.

Please amend the bill to give it an effective date no later than January 2019.

Mahalo,

Michael Traub ND

**SB-2571-SD-2**

Submitted on: 3/11/2018 11:19:38 PM

Testimony for EEP on 3/13/2018 8:30:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Philipp LaHaela Walter	Individual	Support	No

Comments:

**SB-2571-SD-2**

Submitted on: 3/11/2018 11:16:48 PM

Testimony for EEP on 3/13/2018 8:30:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Jacqueline Chico	Individual	Comments	No

Comments:

I support a ban on the sale of oxybenzone sunscreens but I am asking that the effective date be January 2019. There are already alternatives sunscreens that do not use oxybenzone. If they can do it, so can the rest. Oxybenzone is harming coral reefs and marine life. Please help protect our ocean environment.

Thank you

Jacqueline Chico

Charessa Fryc  
954 Akepo Ln  
Honolulu, HI 96817

In SUPPORT of SB2571 Relating to Water Pollution

Aloha Chair Chris Lee, Vice Chair Nicole Lowen, and members of the EEP Committee,

My name is Charessa Fryc and I am the Chair of the Environmental Committee for the Young Progressives Demanding action, Co Chair of the Sierra Student Coalition, as well as a student at the University of Hawai'i at Manoa. As a young environmentalist and student, I am deeply concerned about the effects of oxybenzone and octinoxate on our oceans, and sea life, which is why I am in STRONG SUPPORT of SB2571.

Oxybenzone and octinoxate have chemical properties, and have been known to be endocrine disrupters, and damage the DNA of coral reefs. The science concludes that these chemicals are toxic to our reefs, and they need to be banned from sale, so that we do not harm our oceans anymore. Many environmental organizations such as the International Union for the Conservation of Nature (IUCN) and the International Coral Reef symposium (ICRS) have already concluded the danger of the use of Oxybenzone and Octinoxate.

While it's important to educate people about these issues, and ask them to buy other sunscreens instead, it is not nearly as effective as as banning them, so that we can use alternative sunscreens, so we can protect our oceans for future generations to enjoy, and enjoy the prosperous sea life which we try so hard to protect. So please, for our keiki and for the ocean pass SB2571.

For these reasons I am in STRONG support of SB2571

Mahalo for the opporitunity to testify

**SB-2571-SD-2**

Submitted on: 3/11/2018 11:46:52 PM

Testimony for EEP on 3/13/2018 8:30:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Amy Fonarow	Individual	Support	No

Comments:

Aloha!

I am writing to respectfully request that you pass SB2571 SD2.

Our coral reefs face many threats from many quarters, but oxybenzone and octinoxate are two that we have the power to remove now.

The less stress anyone is under, the better they can heal, right? Let's give our reefs a permanent break from these chemicals, so they can deal with everything else being thrown at them. Mother Nature is resilient, but she can only take so much. Please help.

Mahalo nui, and malama i ke kai.

Sincerely,

Maui resident Amy Fonarow

**SB-2571-SD-2**

Submitted on: 3/12/2018 12:32:28 AM

Testimony for EEP on 3/13/2018 8:30:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
sylvia litchfield	Individual	Support	No

Comments:

Aloha,

Please protect our coral reefs from sunscreen pollution. Our reefs are disappearing and we must do everything we can before it's too late! Please support this bill and move the effective date up to 2019.

Note that when the FDA approved oxybenzone back in 1978, we did not have the studies available that we have today. From international peer-reviewed studies, we now know that oxybenzone kills coral and other marine life, and that it is also toxic to humans. There are no current studies which dispute this finding - however, the industry lobbyisis do assert false scientific arguments, so I would urge the committee to have expert testimony available from marine biologists and toxicologists who specifically study the effects of sunscreen pollution on corals.

Mahalo,

Sylvia Litchfield

**Table 1: FDA Data Standards for Drug Approval 1978 versus 2016 (US Dept HHS)**

**Oxybenzone Data from 1978**

Animal/Human irritation and sensitization studies

Animal/Human photo-safety studies

**Not Conducted**

**Not Conducted**

**Not Conducted**

**FDA Standards in 2016**

Animal/Human irritation and sensitization studies

Animal/Human photo-safety studies

Human Absorption Studies and Maximal Usage Trial

Pediatric Considerations

Nonclinical Safety Testing

**Not Conducted**

**Not Conducted**

Post-marketing Data

Effectiveness testing (SPF)

**Not Conducted**

Carcinogenicity Studies: Dermal and Systemic

Developmental and Reproductive Toxicity Studies

Toxicokinetics

Post-marketing Data

Effectiveness testing (SPF)

Anticipated final formulation testing (Broad-Spectrum, Water-resistant ... etc.)

**SB-2571-SD-2**

Submitted on: 3/12/2018 2:35:04 AM

Testimony for EEP on 3/13/2018 8:30:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Joe DiNardo	Individual	Support	No

Comments:

**In Support of SB2571 SD2 Testimony for EEP 3/13/18 Hearing**

Aloha Representatives, thank you for taking the time to hear SB2571 relating to banning Oxybenzone and Octinoxate use in all SPF products - these chemicals are toxic to both the environment and to human life. Based on the data, they have little to no value in protecting anyone from skin cancer and have a wide range of toxic adverse reactions associated with them ... the toxicological risks associated with these chemicals out ways any benefit. In fact FDA approved both of these chemicals in 1978, ABOUT 15 YEARS BEFORE WE EVEN UNDERSTOOD THE ROLE OF UVA IN SKIN CANCER and was based on a few studies (submitted by industry) that were inaccurately summarized to be safe for human use.

Please support the banning of these chemicals from all SPF products sold in Hawaii ... the more time they are allowed to be used in any product, the more contaminated our bodies and our environment become ... Mahalo, Joe DiNardo Hawaiian Tourist & Toxicologist.



**SB-2571-SD-2**

Submitted on: 3/12/2018 6:31:46 AM

Testimony for EEP on 3/13/2018 8:30:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Nancy Loewe	Individual	Support	No

Comments:

I support this bill to protect our oceans and reefs. I commend the progressive position Hawaii legislation is proposing to protect our environment from harsh chemicals like oxybenzone, octinoxate, and even the combo of avobenzone and octicrylene.

**SB-2571-SD-2**

Submitted on: 3/12/2018 7:04:07 AM

Testimony for EEP on 3/13/2018 8:30:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
laura Ramirez	Individual	Support	No

Comments:

I strongly support a ban on sunscreens containing oxybenzone and octinoxate which we know are toxic to humans, coral, and marine life!

**SB-2571-SD-2**

Submitted on: 3/12/2018 7:18:09 AM

Testimony for EEP on 3/13/2018 8:30:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Richard Reed	Individual	Support	No

Comments:

As there are plenty of alternative sunblocks that do not pose a hazzard to marine life, there is no reason to not ban the questionalbe ones.. Our aquatic resources are already stressed too much.

**SB-2571-SD-2**

Submitted on: 3/12/2018 7:35:16 AM

Testimony for EEP on 3/13/2018 8:30:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Jenny Pawai	Individual	Support	No

Comments:

**SB-2571-SD-2**

Submitted on: 3/12/2018 7:41:34 AM

Testimony for EEP on 3/13/2018 8:30:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Ashlie McGuire	Individual	Support	No

Comments:

Aloha my name is Ashlie McGuire and I grew up in Kihei, Maui. I all too often saw people spraying their aerosol sunscreens all over the place on the beach and it was wasteful and harmful to say the least.

Sunscreens containing oxybenzone and octinoxate are toxic to humans, corals, marine life.

The people of Hawai'i depend upon our reef systems, whether it be for sustenance, recreation, tourism economy... coral reefs are a vital component to life on the islands. (Not to mention, they supply 25% of the world's oxygen).

We've lost 40% of our reefs since 2011 due to coral bleaching. Regardless of the initial stressors - whether they be chemicals, pesticides, sediment, storms... - sunscreen ingredients like oxybenzone deform coral DNA and kill coral larvae so we are seeing less restoration after bleaching events.

Whether we choose to use these sunscreens or not, we are constantly exposed to these ingredients through air (aerosols), water (we swim in it or through our tap water), and our food supply (local restaurant fish now bioaccumulating these are testing positive for oxybenzone). Endocrine disruptors can affect our hormones and contribute to higher risk of breast and prostate cancer, among other diseases.

Sunscreen formulations free of these harmful chemicals are already available throughout Hawai'i. Non-Nano Zinc Oxide is proven not only more safe, but a more effective UV filter.

Mahalo

**SB-2571-SD-2**

Submitted on: 3/12/2018 8:14:30 AM

Testimony for EEP on 3/13/2018 8:30:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Bob Kern	Individual	Support	No

Comments:

I support a ban on the sale of oxybenzone sunscreens. Please have an effective date of January 2019 for SB2571 SD2 as we need to add protection for our reefs as soon as possible.

Micki Stash

**SB-2571-SD-2**

Submitted on: 3/12/2018 8:27:25 AM

Testimony for EEP on 3/13/2018 8:30:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Miya DeVoogd	Individual	Support	No

Comments:

Aloha. My name is Miya DeVoogd and I'm an honors college graduate living in Kapolei.

Reefs are rapidly diminishing due to multiple stressors like chemicals, pesticides, storms, warming waters, runoff, etc. Ask any scientist: coral reefs are imperative to a huge amount of the ocean ecosystem. Because of the connections in an ecosystem, this means that commercially caught fish will be impacted as well, which could be huge for the economy and sports fishing industry. It'll also undoubtedly have an impact on tourism, which is partly driven by ocean scenery and ocean life.

40% of reefs have died off since 2011. It's only going to get worse if we don't decrease the stressors that kill coral. Banning toxic sunscreens is one of the easiest ways we can help right now. By setting an example, this will eventually become a norm and industries will be forced to use alternative ingredients that prevent sunburn just as well; there are already multiple options for local consumers to buy and many are making their way into convenience stores.

These chemicals are also shown to be hurting young aquatic life aside from corals if it can do damage to other life, what can it do to our children?

i am in support of this bill, but waiting so long to implement it is going to be extremely destructive. There may hardly be any coral left by that time. Now is the time to enforce, not after irreversible damage has been done.

Mahalo for supporting our native ecosystems, economy and public health.

Miya DeVogd



**SB-2571-SD-2**

Submitted on: 3/12/2018 8:51:08 AM

Testimony for EEP on 3/13/2018 8:30:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Tulsi Greenlee	Individual	Support	No

Comments:

Aloha, I strongly support this bill and hope you will too .

Sunscreens containing oxybenzone and octinoxate are toxic to humans, corals, marine life.

The people of Hawai'i depend upon our reef systems, whether it be for sustenance, recreation, tourism economy... coral reefs are a vital component to life on the islands. (Not to mention, they supply 25% of the world's oxygen).

We've lost 40% of our reefs since 2011 due to coral bleaching. Regardless of the initial stressors - whether they be chemicals, pesticides, sediment, storms... –sunscreen ingredients like oxybenzone deform coral DNA and kill coral larvae so we are seeing less restoration after bleaching events.

Whether we choose to use these sunscreens or not, we are constantly exposed to these ingredients through air (aerosols), water (we swim in it or through our tap water), and our food supply (local restaurant fish now bioaccumulating these are testing positive for oxybenzone). Endocrine disruptors can affect our hormones and contribute to higher risk of breast and prostate cancer, among other diseases.

Sunscreen formulations free of these harmful chemicals are already available throughout Hawai'i. Non-Nano Zinc Oxide is proven not only more safe, but a more effective UV filter.

thank you

Tulsi Greenlee

haiku Hi 96708

**SB-2571-SD-2**

Submitted on: 3/12/2018 9:32:49 AM

Testimony for EEP on 3/13/2018 8:30:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Hattie Gerrish	Individual	Support	No

Comments:

Please vote yes, and also please make the ban take effect in no less than a year. We can not afford to wait while the reefs keep dying.

**SB-2571-SD-2**

Submitted on: 3/12/2018 10:13:20 AM

Testimony for EEP on 3/13/2018 8:30:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
lindsey whitcomb	Individual	Support	No

Comments:

From: Judy Mick <ppchawaii@yahoo.com>  
Sent: Sunday, March 11, 2018 10:50 AM  
To: EEPtestimony  
Subject: TESTIMONY SB2571 SD2 EEP, Room 325, 3-13, 8:30am

Please pass SB 2511. The ocean are the lungs of our planet. As toxic substances from sunscreen enter the water and kill our coral ,the ocean can no longer breathe and soon neither will those of us doing the polluting. Sunscreens containing oxybenzone and octinoxate are toxic to humans, corals, marine life. The people of Hawai'i depend upon our reef systems, whether it be for sustenance, recreation, tourism economy... coral reefs are a vital component to life onthe islands. (Not to mention, they supply 25% of the world's oxygen). We've lost 40% of our reefs since 2011 due to coral bleaching. Regardless of the initial stressors - whether they be chemicals, pesticides, sediment, storms... –sunscreen ingredients like oxybenzone deform coral DNA and kill coral larvae so we are seeing less restoration after bleaching events. Whether we choose to use these sunscreens or not, we are constantly exposed to these ingredients through air (aerosols), water (we swim in it or through our tap water), and our food supply (local restaurant fish now bioaccumulating these are testing positive for oxybenzone). Endocrine disruptors can effect our hormones and contribute to higher risk of breast and prostate cancer, among other diseases. Sunscreen formulations free of these harmful chemicals are already available throughout Hawai'i. Non-Nano Zinc Oxide is proven not only more safe, but a more effective UV filter.

Mahalo. Judy Mick, Kailua Oahu

**SB-2571-SD-2**

Submitted on: 3/12/2018 10:29:44 AM

Testimony for EEP on 3/13/2018 8:30:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
patrick coan	Individual	Support	No

Comments:

There are several sunscreen options for consumers to purchase/use that do not contain oxybenzone or octinoxate. Readily available information spans all forms of media, and the public, knowing of all this current legislation acts to make a positive impact on the health of our oceans as well as protecting our tourism based economy for generations.

you are looking for citizens to relay information to you to make these vital decisions, if you get in the public, then you will see how important this issue is.

**SB-2571-SD-2**

Submitted on: 3/12/2018 10:32:13 AM

Testimony for EEP on 3/13/2018 8:30:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
june chee	Individual	Support	No

Comments:

Aloha my name is June Chee and I am a resident of Honolulu (1888 Kalakaua Ave #3103 Honolulu 96815). I am submitting testimony in support of this bill. I have sensitive skin and have had to use oxybnzone-free sunscreens and cosmetic products for many years. I also have 2 very close friends who bring their own chemical free sunscreens when they visit me because they are also allergic to most sunscreens that contain oxybenzone and other chemicals. This bill will help businesses transition to selling healthy and more environmentally conscious products in their retail shops in Hawaii. It is important for residents and tourists to take care of the oceans and leave the beaches better than they found it.

Thank you for your time and consideration of this testimony.

Mahalo,

June

**SB-2571-SD-2**

Submitted on: 3/12/2018 10:40:55 AM

Testimony for EEP on 3/13/2018 8:30:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Kersten L Johnson	Individual	Support	No

Comments:

I strongly support this ban on oxybenzone or octinoxate to protect Hawaiian marine ecosystems.

**SB-2571-SD-2**

Submitted on: 3/12/2018 10:50:10 AM

Testimony for EEP on 3/13/2018 8:30:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
R. Kinslow	Individual	Support	No

Comments:

Our coastlines, near shore waters and the Natural life that amazingly still exists despite the on-shore pollution loads, is one of our greatest assets in these islands. Banning substances that devolve and destroy these systems is a system failure this bill can correct, to some extent. We should be making all efforts to reduce the pollution loads on our nearshore assets.



**LATE**

**SB-2571-SD-2**

Submitted on: 3/12/2018 2:24:10 PM

Testimony for EEP on 3/13/2018 8:30:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
bailey a ferguson	Individual	Support	No

Comments:

Sunscreens containing oxybenzone and octinoxate are toxic to humans, corals, marine life.

The people of Hawai'i depend upon our reef systems, whether it be for sustenance, recreation, tourism economy... coral reefs are a vital component to life on the islands. (Not to mention, they supply 25% of the world's oxygen).

We've lost 40% of our reefs since 2011 due to coral bleaching. Regardless of the initial stressors - whether they be chemicals, pesticides, sediment, storms... - sunscreen ingredients like oxybenzone deform coral DNA and kill coral larvae so we are seeing less restoration after bleaching events.

Whether we choose to use these sunscreens or not, we are constantly exposed to these ingredients through air (aerosols), water (we swim in it or through our tap water), and our food supply (local restaurant fish now bioaccumulating these are testing positive for oxybenzone). Endocrine disruptors can affect our hormones and contribute to higher risk of breast and prostate cancer, among other diseases.

Sunscreen formulations free of these harmful chemicals are already available throughout Hawai'i. Non-Nano Zinc Oxide is proven not only more safe, but a more effective UV filter.

**LATE**

**SB-2571-SD-2**

Submitted on: 3/12/2018 5:18:57 PM

Testimony for EEP on 3/13/2018 8:30:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Barbara Best	Individual	Support	No

Comments:

**LATE**

**SB-2571-SD-2**

Submitted on: 3/12/2018 5:59:51 PM

Testimony for EEP on 3/13/2018 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Tatyana Cerullo	Individual	Support	No

Comments:

Testimony in **STRONG SUPPORT**

Tatyana Cerullo

OWNER

KÅ• kua Sun Care

SB2571 SD2; EEP; Room 325; 3/13 8:30am

Dear Committee Members:

Oxybenzone and octinoxate are "noxious endocrine disruptors" that "feminize male fish," so what are they doing to us? Oxybenzone is found in around 65% or more of non-mineral sunscreens and is not only an allergen and kills coral with drastic effects to Hawaii's economy and way of life, but it also acts as a weak estrogen, has potent anti-androgenic effects, and lowers testosterone levels in men and boys. The Centers for Disease Control and Prevention has detected oxybenzone in more than 96 percent of the American population, based on a representative sampling of children and adults.

"You can find these chemicals in the water almost everywhere you go swimming in Hawaii. They come not just from swimmers, but our sewage, which is loaded with these and other personal care product chemicals. In less than 30 minutes after applying an oxybenzone sunscreen to your skin, you can detect it in your urine. Everything that comes off of us or out of us goes back to the ocean.... It is estimated that over 500 tons of sunscreen pollute the waters surrounding Hawaii." - excerpt from Honolulu Advertiser 3/8/2018 article by Craig Downs, executive director of Haereticus Environmental Laboratory, and Lisa Bishop, president of Friends of Hanauma Bay.

There are many alternatives on the market to toxic sunscreens. I am the owner of a Hawaii-based company called KÅ• kua Sun Care that is selling 3 oz tubes of a Hawaiian Natural Zinc Sunscreen 50 SPF/80 minute water resistance. See [www.kokuasuncare.com](http://www.kokuasuncare.com). The active ingredient is 25% zinc and reef safe, and we are using 7 Hawaii-grown antioxidant ingredients. It was formulated and is manufactured in a FDA-certified facility, FDA-tested, labeled and registered in accordance with FDA regulations. There are many sunscreens on the market free of

these harmful chemicals available throughout Hawai'i. Non-nano zinc oxide is the most effective broad spectrum (i.e., UVA and UVB) sunscreen on the market and the safest for the environment.

I strongly support this bill along with a large community of people who do, too.

Mahalo for your consideration.

**LATE**

**SB-2571-SD-2**

Submitted on: 3/12/2018 6:25:55 PM

Testimony for EEP on 3/13/2018 8:30:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Jade Moss	Individual	Comments	No

Comments:

This bill would take effect inn 2063!?! Who added that amendment? This is a joke and the reef will enduring suffering for decades more. Why bother at all! So sad and this proves how ineffective business-as-usual-politics is. #huli2018

**LATE**

**SB-2571-SD-2**

Submitted on: 3/12/2018 6:37:45 PM

Testimony for EEP on 3/13/2018 8:30:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Ken Stover	Individual	Support	No

Comments:

**LATE**

**SB-2571-SD-2**

Submitted on: 3/12/2018 7:46:48 PM

Testimony for EEP on 3/13/2018 8:30:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Chuck Flaherty	Individual	Support	No

Comments:

Aloha Committee Members,

I am testifying in support of SB2571 SD2.

I've known about the toxic effects of certain chemicals in certain sunscreens for several years and have watched the impact of sunscreens on the nearshore areas where tourism has increased exponentially as a result of internet coverage.

Flying back to Hawai'i two weeks ago, an announcement was made to "be sure to put on your sunscreen". There was no mention of the dangers of sunscreen chemical on the very reefs many passengers were expending large sums of money to see.

SB2571 SD2 will not only help our coral reefs already being threatened in some many other ways, but will serve to educate everyone about the need to think about how their activities and use of our fragile nearshore marine environments affect the very resources they have come to enjoy.

Please support SB2571 SD1. It will have positive impacts in ways we have not yet imagined or considered.

Mahalo,

Charles Flaherty

**LATE**

**SB-2571-SD-2**

Submitted on: 3/12/2018 10:10:58 PM

Testimony for EEP on 3/13/2018 8:30:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Shannon Rudolph	Individual	Support	No

Comments:

Support!



**Testimony COMMENTING on S.B. 2571 SD2 (crossed over to House)**

**LATE**

**RELATING TO PRESERVING CORAL REEFS**

REPRESENTATIVE CHRIS LEE, CHAIR

REPRESENTATIVE NICOLE E. LOWEN, VICE CHAIR

COMMITTEE ON ENERGY & ENVIRONMENTAL PROTECTION

Hearing Date: March 13, 2018 Room Number: 325 Time: 8:30 a.m.

March 12, 2018

Honorable Chris Lee, Chair

Honorable Nicole E. Lowen, Vice Chair

Committee on Energy & Environmental Protection

Hawai'i State Capitol, House

Conference Room 3325

Honolulu, Hawai 'i

96813

Re: S.B. 2571 SD2

Honorable Chair Lee and Vice Chair Lowen:

Aloha and mahalo a nui loa for this opportunity to provide testimony in support of S.B. No. 2571 SD2 currently under consideration in the Hawaii House of Representatives. The purpose and intent of S.B. No. 2571 SD2 is to preserve marine ecosystems, including coral reefs, by prohibiting the sale, offer for sale, and distribution in Hawaii of sun protection factor sunscreen protection personal care products containing oxybenzone and octinoxate without a prescription issued by a licensed healthcare provider.

I am the Executive Director of the Pegasus Foundation and am writing today in strong support of the passage of S.B. 2571 SD2 as drafted, with the one change that my organization and I favor an implementation date of January 1, 2023 (as suggested by Bayer, the producers of Coppertone Sunscreens) or earlier.

Like Bayer, the Hawaii Reef and Ocean Coalition, The Humane Society of the United States, Sierra Club Hawaii, Friends of Hanauma Bay, Hawaii Fishing and Boating Association, Hawaiian Civic Club of Honolulu, Sustainable Coastlines Hawaii, Kona-Kohala Chamber of Commerce, Kona Chapter of Hawaii Farmers Union, the League of Woman Voters Hawaii, and many others our strong support of this bill comes from deep concern about the dramatic, serious and unnecessary damage caused by obybenzone and

octinoxate to Hawai'i's coral reefs, to various species of fish and marine mammals. As others have duly noted, the damage caused by these chemical to fish and marine mammals comes both through damage to their fragile reef habitat and directly to them.

The Pegasus Foundation ([www.pegasusfoundation.org](http://www.pegasusfoundation.org)) is a widely respected and internationally recognized donor to significant environmental and animal protection causes worldwide. In addition to our financial contributions to important causes, we also advocate internationally for changes to important laws and regulations that provide aide to critical habitat and important ecological issues.

We, like your esteemed colleagues in the Senate Committee on Commerce, Consumer Protection, and Health (CCP), would be hesitant to lend support to this measure – no matter how desperately needed for the sake of protection Hawai'i's reefs, the multitude of magnificent (and in some cases rare) fish and marine mammals that live in and around Hawaii's reefs and coastal waters – if we believed that such a measure would imperil the health of residents of Hawaii and visitors to Hawaii (many of whom are drawn to visit your fine state by a desire to snorkel and dive in the reefs and to celebrate the diversity of creatures that live your coastal waters).

Though it is not our usual bailiwick, I have had my team review information on ingredients used in various leading sunscreen products. We have found, as your colleagues in Senate CCP Committee also found, that there are ample alternative forms of sun protection that do NOT contain either oxybenzone or octinoxate. Some of these sunscreens rely on formulas that use other chemicals approved by the Food and Drug Administration, and others rely on the use of minerals. Sunscreens in each of these categories are in plentiful supply and made by multiple sunscreen manufacturers. We were pleased to find that products without oxybenzone and octinoxate made by firms including Coppertone, Hawaiian Tropic, and Banana Boat have received high ratings from both Consumer Reports and the Environmental Working Group. An examination of the range of effective sunscreen products for sale in the United States that contain neither of the chemicals this bill would ban quickly calls into serious question the validity of arguments against this bill that attempt to present it carrying a dangerous human health risk.

Bayer is to be applauded for already producing sunscreens that contain neither oxybenzone nor octinoxate and for writing to the Hawaii State Legislature indicating both its commitment to produce more such sunscreens and its support of this bill.

In submitting her Committee's report to the Honorable Ronald D. Kouchi, President of the Senate, Honorable Senator Rosalyn H. Baker, concisely and accurately summed up the situation regarding the question of whether Hawaii can offer its reefs, fish and marina mammals the protection they badly need without causing hard to humans:



“Your Committee has heard concerns from the Consumer Healthcare Products Association, Personal Care Products Council, American Chemistry Council, and American Academy of Dermatology that a ban on oxybenzone and octinoxate will lead to an increase in human ultraviolet light exposure and skin cancer. **Your Committee also finds that alternative forms of sun protection exist, mitigating this harm.**”

Were there any remaining doubt on this issue – which there is not in my mind – one would surely find added comfort in the fact that the bill allows for an exemption to prohibition on the sale, offer for sale, and distribution in Hawaii of sun protection factor sunscreen protection personal care products containing oxybenzone and octinoxate in cases in which one has a “prescription issued by a licensed healthcare provider.”

I am impressed – but not surprised by – the balanced approach Senator Gabbard and others have taken in crafting a bill that exerts the appropriate – but too often overlooked – need to assess and work to limit the damage we humans do to the environment and to other creatures around us. Hawai’i is a magical place. Protection of its reefs and the fish and marine mammals that call the waters around Hawai’i home is profoundly important for the survival of these species and fragile ecosystems they call home, but also for humankind, both for concrete reasons (on-going tourism income, enjoyment of one’s home state, etc) but also for bigger more abstract but no less weighty reasons having to do with Lokahi, unity expressed with harmony and of leaving this world to the next generation in as good (or better) condition than it was in when given to us.

Many thanks for your consideration of both the bill and these comments.

Sincerely yours,

A handwritten signature in blue ink, appearing to read 'John W. Grandy', written in a cursive style.

John W. Grandy, PhD  
Executive Director  
The Pegasus Foundation

**LATE**

**SB-2571-SD-2**

Submitted on: 3/13/2018 6:48:30 AM

Testimony for EEP on 3/13/2018 8:30:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Deborah Ward	Individual	Support	No

Comments:

Aloha,

I strongly support this measure. We must make sure our near-shore coastal ecosystems are not harmed by the use of sunscreens, and I hope that you will amend this bill to make it effective by January 2019. I have used the alternative sunscreens without the harmful chemicals, and they are effective and pleasant to use. Please take action to protect Hawaii--it is the right thing to do!

Mahalo, Deborah Ward

**LATE**

**SB-2571-SD-2**

Submitted on: 3/13/2018 7:48:58 AM

Testimony for EEP on 3/13/2018 8:30:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Naomi Rose	Animal Welfare Institute	Support	No

Comments:

Dear Chair Lee and Vice Chair Lowen:

The Animal Welfare Institute, a national animal protection organization based in Washington, DC and founded in 1951, supports SB 2571 SD2, a bill to ban two toxic components of sunscreen from Hawaii's waters. The state's coral reefs and the life they sustain must be protected from these chemicals, which are introduced to Hawaii's coastal marine ecosystem by the many visitors to the islands every year.

While it is important for people to protect themselves from the sun's carcinogenic impacts, there are ways to do this without polluting the ocean and its inhabitants. SB 2571 is an important step forward in making Hawaii's tourism industry fully sustainable, one that must be taken sooner than 2063. Please pass SB 2571, but do so with an implementation date that makes more sense from the ecosystem's point of view. AWI's understanding of the situation suggests the ban can go into effect as soon as January 1, 2019, but if the sunscreen industry feels a need for more time, then the deadline can be reasonably extended to January 1, 2023, which is a far better implementation date than 40 years later, when the negative effects of these contaminants will merely be compounded.

Thank you for your consideration of our views on this matter.

Sincerely,

Naomi A. Rose, Ph.D. Marine Mammal Scientist

Animal Welfare Institute, 900 Pennsylvania Ave SE, Washington, DC 20003