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, February 6, 2018 8:30 AM **State Capitol, Conference Room 325** 

#### In consideration of **HOUSE BILL 2264** RELATING TO THE ENVIRONMENT

House Bill 2264 prohibits the sale, offer for sale, or distribution for sale of non-prescription SPF sunscreen products containing octinoxate or oxybenzone. 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 water. Peer-reviewed studies have documented the negative impact of these chemicals on corals and other marine life in a laboratory 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.

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.

The Department also recognizes the hazards associated with UV exposure and the need for preventative measures to mitigate negative health effects. The Department defers to the Department of Health on human health-related issues, and on the implementation and enforcement of any oxybenzone and octinoxate sale and distribution provisions.

Thank you for the opportunity to comment on this measure.

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

ROBERT K. MASUDA

#### JEFFREY T. PEARSON P.E.

AQUATIC RESOURCES
BOATING AND OCEAN RECREATION
BUREAU OF CONNEYANCES
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

DAVID Y. IGE
OVERNOR OF HAWAII

OVERNOR OF HAWAII

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OVERNOR OF HAWAII



P. O. Box 3378 Honolulu, HI 96801-3378 doh.testimony@doh.hawaii.gov

#### Testimony COMMENTING on HB2264 RELATING TO THE ENVIRONMENT

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

#### COMMITTEE ON ENERGY & ENVIRONMENTAL PROTECTION

Hearing Date: February 6, 2018 Room Number: 325

Time: 8:30 a.m.

- 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:** H.B. 2264 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
- shown that levels of oxybenzone in the marine environment may be high enough to pose
- deleterious effects on coral reef ecosystems. Oxybenzone and octinoxate may have negative
- effects on human health as well. However, oxybenzone and octinoxate are two of eight FDA
- approved active ingredients currently in use that play important roles in reducing the risk of
- some forms of skin cancer, so balancing public health protection here in Hawaii is a very
- important consideration. Oxybenzone and octinoxate are widely used in chemical sunscreen
- products so a key concern from the public health perspective is the availability and user
- acceptance of safe, affordable and effective alternatives.

- 1 H.B. 2264 seeks to amend the Water Pollution Statute (Chapter 342D) to implement this measure.
- 2 Chapter 342D is not the appropriate chapter to regulate the sale and distribution of consumer
- 3 products. The Department is hesitant to take on responsibility for this ban under any state statute
- 4 without having a clear understanding of the safety, efficacy and user acceptance of alternative
- 5 sunscreen products to protect public health. Further, enforcement of this measure by the
- 6 Department would require significant staffing and take away limited resources from other critical
- 7 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
- products by major sunscreen manufacturers to offer consumers "reef safe" alternatives.
- 11 The Department strongly support DLNR's and the National Park Services' public education
- efforts and outreach strategies to reach out to inform Hawaii beachgoers about steps that they can
- take to reduce the unintended impacts of oxybenzone use while safely enjoying our tropical
- marine waters and sunny beaches throughout Hawaii. The Department also supports academic
- and applied research efforts further investigating the fate and environmental effects of
- oxybenzone and other sunscreen compounds in the nearshore marine environment.
- 17 Thank you for the opportunity to testify.
- 18 **Offered Amendments:** None.

#### Maile Medeiros David Council District 6 Portion N. S. Kona/Ka'ū/Volcano



Phone: (808) 323-4277 Fax: (808) 329-4786 Email: maile.david@hawaiicounty.gov

#### HAWAI'I COUNTY COUNCIL

County of Hawai'i West Hawai'i Civic Center, Bldg. A 74-5044 Ane Keohokalole Hwy. Kailua-Kona, Hawai'i 96740

February 1, 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: H.B. No. 2264 – Relating to the Environment.

Honorable Chair Lee and Vice Chair Lowen:

Aloha and mahalo a nui loa for this opportunity to provide testimony in support of H.B. No. 2264. My name is Maile David, Councilmember representing Council District 6 (rural districts of South Kona, Kaʻū and Volcano Village). I am a strong supporter of prohibiting the use of sunscreen containing oxybenzone and oxtinoxate and the intent of H.B. 2264 relating to the environment.

In order to protect and preserve our cultural and natural resources of Hawai'i island, the sale and use of SPF sunscreen containing oxybenzone and octinoxate must be banned from our beaches. I fully support protecting our sensitive ecosystem and natural beauty of Hawai'i island and therefore respectfully request that H.B. 2264 be favorably considered.

Mahalo a nui loa for your positive consideration.

Very truly yours,

Maile David

Maile David, Council Member Council District 6, S. Kona, Ka<sup>\*</sup>ū, and Volcano Village Eileen O'Hara Council Member Council District 4

**Chair:** Environmental Management Committee



**Phone:** (808) 965-2712 **Fax:** (808) 961-8912

Email: eileen.ohara@hawaiicounty.gov

**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

February 2, 2018

Re: In Opposition of House Bill 2264, from Hawai'i County Council District 4
To be heard by EEP on 02-06-18 8:30AM in House conference room 325

Aloha Chair Lee and Committee Members:

I'm writing to express my opposition to House Bill 2264, which prohibits the sale, offer for sale, or distribution for sale of non-prescription SPF sunscreen products containing octinoxate or oxybenzone.

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

Elsen Offara

<u>HB-2264</u> Submitted on: 2/5/2018 8:23:08 AM

Testimony for EEP on 2/6/2018 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Melodie Aduja	OCC Legislative Priorities	Support	No

Comments:



**TO:** Honorable Chair Lee, Vice-Chair Lowen, and Energy and Environmental Protection Committee Members, 2-6-18, 8:30 a.m.

**SUBMITTED BY:** Keith Dane, Hawaii Policy Advisor, State Affairs, Humane Society of the United States, <a href="mailto:kdane@humanesociety.org">kdane@humanesociety.org</a>, Tel: 301-312-1489; and Teresa M. Telecky, Ph.D., Senior Director, Wildlife Department, Humane Society International, <a href="mailto:ttelecky@hsi.org">ttelecky@hsi.org</a>, Tel: 301.258.1430

RE: SUPPORT for HB 2264, Relating to the Environment

The Humane Society of the United States (HSUS) and Humane Society International (HSI), support HB 2264 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 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 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.

HSUS and HSI sincerely thank the Committee for taking up this important matter. *We urge the Committee to pass HB 2264* which will help reduce oxybenzone pollution and harm to Hawaii's coral reefs and wildlife.

Thank you for this opportunity to provide testimony.

### HAWAII MEDICAL ASSOCIATION



1360 S. Beretania Street, Suite 200, Honolulu, Hawaii 96814 Phone (808) 536-7702 Fax (808) 528-2376 www.hawaiimedicalassociation.org

TO:

#### **COMMITTEE ON ENERGY & ENVIRONMENTAL PROTECTION**

Rep. Chris Lee, Chair

Rep. Nicole E. Lowen, Vice Chair

DATE: Tuesday, February 6, 2018

TIME: 8:30 a.m.

PLACE: Conference Room 325

FROM: Hawaii Medical Association

Dr. Christopher Flanders, DO, Executive Director Lauren Zirbel, Community and Government Relations

Re: HB 2723 & HB 2264

Position: Oppose

Given the lack of peer reviewed evidence suggesting that sunscreen is a cause of coral bleaching and the overwhelming evidence that not wearing sunscreen increases rates of deadly cancer, the HMA would like to propose that this issue be studied more deeply before passing a policy that would severely limit the availability of sunscreens that people are likely to wear on a daily basis.



# HB2264 RELATING TO THE ENVIRONMENT

House Committee on Energy & Environmental Protection

February 6, 2018 8:30 a.m. Room 325

The Office of Hawaiian Affairs (OHA) Beneficiary Advocacy and Empowerment Committee will recommend that the Board of Trustees <u>SUPPORT</u> HB2264, which would mitigate the impacts of oxybenzone 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 is just one of many stressors on our coral reefs, reducing the prevalence of this known chemical threat

<sup>&</sup>lt;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 <a href="http://nature.forestry.oregonstate.edu/sites/default/files/2009-2%20CIT%20-">http://nature.forestry.oregonstate.edu/sites/default/files/2009-2%20CIT%20-</a>

<sup>%20</sup>Wiener%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; 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/aboutcrcp/news/featuredstories/oct11/hi\_value/resources/protecting\_restoring\_hawaiian\_cre.pdf.

is a small yet positive step towards ensuring such greater resilience. Notably, this measure may not only directly reduce the impacts of oxybenzone 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 <u>PASS</u> HB2264. Thank you for the opportunity to testify on this measure.

#### OFFICERS DIRECTORS

John Bickel, President Alan Burdick, Vice President Marsha Schweitzer, Treasurer Karin Gill, Secretary Guy Archer Juliet Begley Gloria Borland Chuck Huxel

Jan Lubin Jenny Nomura Stephen O'Harrow Doug Pyle Cameron Sato George Simson P.O. Box 23404 Honolulu Hawai'i 96823

**MAILING ADDRESS** 

#### February 2, 2018

TO: Honorable Chair Lee and Members of the Energy & Environment Committee

RE: HB 2264 Relating to Preserving Coral Reefs

Support for hearing on Feb. 6

Americans for Democratic Action is an organization founded in the 1950s by leading supporters of the New Deal and led by Patsy Mink in the 1970s. We are devoted to the promotion of progressive public policies.

We support HB 2264 as it would ban the sale of oxybenzone or octinoxate. Oxybenzone is killing our reef. This bill is in the right direction for title of the bill: preserving coral. Other sun screen products are available. So this bill is a workable improvement to our environment.

Thank you for your consideration.

Sincerely,

John Bickel President



PO Box 10823 Lahaina, HI 96761

February 4, 2018

Honorable Members of Hawaii State House of Representatives:

We have recently become aware of the growing body of scientific knowledge regarding deleterious effects of Oxybenzone on a variety of reef life.

We are concerned about the continuing losses in coral reef coverage and resilience in face of global warming trends, and diminished reef building activity in the State of Hawaii. Oxybenzone's damage to marine life includes changes in fish behavior, pathological changes to fish sexual identity, damage to genomic and DNA integrity, and loss of motility and viability in juvenile corals that are essential for building new reefs.

Passage of a ban on the sale of products containing Oxybenzone (unless it is a medical prescription by a medically licensed physician) can be a very effective means of mitigating Oxybenzone pollution in both coastal and inland waters.

Napili Bay and Beach Foundation, Inc. and I support <u>HB 2264</u> as effective means to reduce Oxybenzone pollution, without any cost to State budgets, thus helping protect the State's valuable coral reefs.

Respectfully submitted,

Pat B. Lindquist

Pat B. Lindquist, President, Napili Bay and Beach Foundation

We are a non-profit organization formed to protect and improve the health of Napili beach and bay, tax ID # 20 5394259

#### HAWAI'I REEF AND OCEAN COALITION

To: House Committee on Energy and Environmental Protection

Chris Lee, Chair Nicole Lowen, Vice Chair

Re: HB 2264, to Ban Sunscreens Containing OXYBENZONE and/or OCTINOXATE

Hearing: Tuesday, February 6, 2018, 8:30 a.m., Room 325

Position: STRONG SUPPORT

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 HB 2264, 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 debris; and 5) chemical sunscreens and other personal care products containing the chemicals oxybenzone and octinoxate.

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

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 after December 31, 2019, 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 <a href="https://human.breast.cancer">human.breast.cancer</a> cells, by accelerating the spread of cancer cells. Other studies have demonstrated that <a href="exposure to">exposure to</a> 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 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

"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.

HB 2264



#### HOUSE COMMITTEE ON ENERGY AND ENVIRONMENTAL PROTECTION

Tuesday, February 6, 2018 8:30AM Room 325

In SUPPORT of HB 2264 Relating to the environment

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 HB 2264**, which seeks to prohibit the sale, offer for sale, or distribution for sale of non-prescription SPF sunscreen products containing octinoxate or oxybenzone.

Oxybenzone and octinoxate are chemical UV filters that are added to nearly 70% of non-mineral sunscreens<sup>1</sup>. They commonly wash into our oceans when applied at the beach, effectively harming our coral reef ecosystems. They damage coral DNA and inhibit their ability to reproduce, causes deformities on the coral, making 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>

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

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

<sup>&</sup>lt;sup>5</sup> http://www.hawaii.edu/ssri/cron/files/econ\_brochure.pdf

In addition to the deleterious harm oxybenzone and octinoxate inflict on our fragile reef systems, they are also known endocrine disruptors and the science is becoming ever more conclusive in their links to illnesses ranging from skin allergies, to thyroid problems, to cancer<sup>6</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>7</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. 9

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 HB 2264 and ban the sale, offer for sale, and distribution of sun protectants containing oxybenzone or octinoxate. 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, HB 2664 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 and octinoxate protects our vulnerable reef ecosystems from toxic products and promotes the usage of reef-safe sunscreens that are mineral, not chemical based.

We applaud the requirements HB 2264 seeks to set forth and urge the Committee to pass it.

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

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

9

<sup>&</sup>lt;sup>6</sup> http://www.haereticus-lab.org/octinoxate/

<sup>&</sup>lt;sup>7</sup> http://www.civilbeat.org/2016/09/drop-the-oxybenzone-or-stop-swimming-in-hawaiian-waters/



#### **Testimony of**

Kelvin Bloom Aqua-Aston Hospitality, LLC

Before the House Committee on Energy & Environmental Protection

Tuesday, February 6, 2018, 8:30 a.m. State Capitol, Conference Room 325

# In consideration of HOUSE BILL 2264 RELATING TO THE ENVIRONMENT

Dear Chair Lee, Vice Chair Lowen, and Committee Members:

I am Kelvin Bloom, Manager of Aqua-Aston Hospitality, LLC, which manages many hotels and resorts in the State of Hawaii. Aqua-Aston Hospitality <u>supports</u> House Bill 2264, which would ban the sale or distribution of SPF sunscreen products containing oxybenzone or octinoxate. The ban would commence in 2020.

As a member of Hawaii's hospitality industry for 70 years, Aqua-Aston Hospitality is keenly aware of the important role Hawaii's beaches and oceans play in the State's tourism industry and economy. Hawaii's coral reefs are not only essential to the Pacific region ecosystem, they play a central role for tourism and contribute net benefits estimated at \$360 million a year (85% from recreational activities).

The coral bleaching crisis is a global issue, affecting not only the coral reefs in Hawaii, but also the Great Barrier Reef in Australia. NOAA has called for immediate action citing global warming and water pollution from agriculture and <a href="sunblock">sunblock</a> as the top causes of the crisis. Oxybenzone is found in over 3,500 sunscreen brands, and a 2015 study published by the Archives of Environmental Contamination and Toxicology directly linked oxybenzone to the declining health of coral reefs popular with tourists.

Aqua-Aston Hospitality has long been a champion for sustainable tourism and an advocate for timely environmental and social issues. Since 2010, we have been recognized more than any other hotel management company in Hawaii by the Hawaii Green Business Program for innovative work to conserve energy and implement sustainable practices that will protect the environment. With respect to the coral bleaching crisis, our #ForOurReef initiative seeks to raise public awareness through advertising, public relations, strategic partnerships, sampling, and trade-in programs. For example, in 2017, our radio campaigns and print ads reached over 20 million people, and we distributed 20,000 samples of reef-safe sunscreen.



Committee on Energy & Environmental Protection February 6, 2018 Page 2

House Bill 2264 seeks to protect our beaches and coral reefs and is consistent with Aqua-Aston Hospitality's sustainable tourism initiatives. For these reasons, Aqua-Aston Hospitality supports House Bill 2264. Thank you for the opportunity to testify.

Sincerely,

Kelvin Bloom

Yun Bloom

Manager

KB:krs



P.O. Box 92 Clifford, Virginia 24533 U.S.A. Email: haereticus1@hughes.net Phone/Fax: 434-263-5740 www.haereticus-lab.org

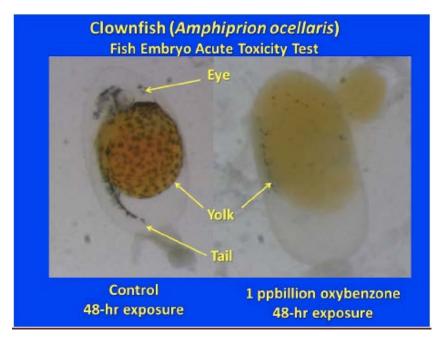
February 2, 2018

#### SUPPORTING HB2264 to PRESERVING CORAL REEFS By Prohibiting the Sale of Sunscreens Containing Oxybenzone & Octinoxate

Dear Chair Rep. Lee and esteemed Representative of the EEP committee,

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 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. We don't really understand why the U.S. Food and Drug Administration has not banned the use of this chemical already, and we hope to formally petition them in the forthcoming year. 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 Hirschspring's disease. Chemosphere 144:1091-1097).

Lace coral, which is found nearshore in Hawaii, was exposed for 14 days under  $\sim$ 35% sunlight at a temperature of 80°F to 500 parts per trillion Oxybenzone. As you can see, the coral

is bleaching.



Time 0

500 pptrillion Oxybenzone 14 days

Passage of a restriction on the sale of products containing Oxybenzone & Octinoxate can be a VERY effective means in mitigating oxybenzone pollution in both coastal and inland waters.

Haereticus Environmental Laboratory and I support House Bill 2264 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

### 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.

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

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

#### ReefsAtRisk.org





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#### Haereticus-lab.org bereefsafe.com

PHOTO COURTESY OF SARAH LEE AT WWW.SARAHLEE.PHOTO



AQUA-ASTON





#### 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 Raw Love Su Hawaii Fishing & Boating Assoc. TropicSport 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. Abbas Hagnshehas, 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 COSMETIC COMPANIES:

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.

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

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

#### 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 Boxerwood Education Assoc. Humane Society International Save the Waves Hawaii Ecotourism Association Save Honolua Coalition KUPU Colorado Ocean Coalition Inland Ocean Coalition Hawaii Association for Marine Education & Research Conservation Council for Coral Restoration Foundation Hui O Ka Wai Ola Hui O Hoʻohonua Toxic Free NC Hui o Koʻolaupoko One Ocean Diving The Kohala Center Haereticus Environmental Laboratory



Institute of Geophysics
University of Tehran

No	 	 
Date.	 	 

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  $CO_2$  per year. If you include Octinoxate into the calculation, that is almost 3 metric tons of  $CO_2$  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  $CO_2$  per year. That is over 11 metric tons of  $CO_2$  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 CO2 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,

5.A. Haghshene

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





## 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,

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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

id **æ**a

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



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.

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MJRiskEnvironmental Ltd.

PO Box 1195, Durham ON

Canada



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.

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Sincerely

Dr E. Kramarsky-Winter

Dept. of Biotechnology Engineering Ben Gurion University, Beer Sheva Israel

EKW Research Development Rehovot, Israel

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We support HB2264, to ban sunscreens containing oxybenzone &/or 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. That we are now finding these chemicals in our local fish is unfortunate, and could have a negative impact on people who consume them and well as related businesses that supply fish to the public. There's no reason to risk the health of people, our 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, 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, activity booths, coffee shops, boutiques, farmer's markets and more! Even tour companies and large hotel chains are starting to offer safer natural sunscreens to their guests.

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

Wil McClaren

Ban Toxic Sunscreens

bantoxicsunscreens.com



Dedicated to the conservation of coastal and marine environments, emphasizing stewardship of the natural resources of Hanauma Bay

#### **TESTIMONY IN SUPPORT OF HB2264**

5 February 2018

Aloha Chair Lee, Vice Chair Lowen and all other members of the Energy and Environmental Protection Committee,

Mahalo for the opportunity to testify in SUPPORT of HB2264. International peer-reviewed scientific studies have been streaming in for the last two years documenting the toxic effects that sunscreens containing oxybenzone and/octinoxate have on our fragile marine environments. There is also growing and published scientific evidence of the dangers of oxybenzone and octinoxate to Human Health.

There are also many readily available, safe, and effective sunscreen that do not contain oxybenzone or octinoxate.

Please make the 2018 Legislative Session the year Hawaii leads the world in banning the sale of sunscreens with oxybenzone and octinoxate. Please support HB2264.

Mahalo, Lisa Bishop President Friends of Hanauma Bay



**TO:** Honorable Chair Lee, Vice-Chair Lowen, and Energy and Environmental Protection Committee Members, 2-6-18, 8:30 a.m.

**SUBMITTED BY:** Inga Gibson, Policy Consultant, For the Fishes ponoadvocacy@gmail.com, 808.922.9910

#### RE: SUPPORT for HB 2264, Relating to the Environment

For the Fishes supports HB 2264 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. 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 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 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.



**TO:** Honorable Chair Lee, Vice-Chair Lowen, and Energy and Environmental Protection Committee Members, 2-6-18, 8:30 a.m.

**SUBMITTED BY:** Inga Gibson, Policy Consultant, West Hawaii Humane Society ponoadvocacy@gmail.com, 808.922.9910

# RE: SUPPORT for HB 2264, Relating to the Environment

West Hawaii Humane Society supports HB 2264 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. We thank the Committee for addressing this important matter that affects Hawaii's nearshore coral reefs.

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).

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 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.

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.



# HAWAII MEDICAL ASSOCIATION

1360 S. Beretania Street, Suite 200, Honolulu, Hawaii 96814 Phone (808) 536-7702 Fax (808) 528-2376 www.hawaiimedicalassociation.org

TO:

COMMITTEE ON ENERGY & ENVIRONMENTAL PROTECTION

Rep. Chris Lee, Chair

Rep. Nicole E. Lowen, Vice Chair

DATE:

Tuesday, February 6, 2018

TIME:

8:30 a.m.

PLACE:

Conference Room 325

FROM:

Hawaii Medical Association

Dr. Christopher Flanders, DO, Executive Director Lauren Zirbel, Community and Government Relations

Re: HB 2723 & HB 2264

**Position: Oppose** 

Given the lack of peer reviewed evidence suggesting that sunscreen is a cause of coral bleaching and the overwhelming evidence that not wearing sunscreen increases rates of deadly cancer, the HMA would like to propose that this issue be studied more deeply before passing a policy that would severely limit the availability of sunscreens that people are likely to wear on a daily basis.



Feb. 5, 2018

# **Support for <u>HB2268</u>: Relating to Cesspools**

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

Hearing: Feb. 6, 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 HB2268, the bill requiring DOH to hire a 3<sup>rd</sup> party working group to reduce the number of cesspools in the state. With more than 5000 activists and members across the state, the Hawaii Chapters of The Surfrider Foundation supported the original bill upgrade cesspools to better septic systems and aerobic treatment units (ATU). But since the passage of Act 120 two years ago, there have only been a handful of cesspool upgrades, and we are working with the Hawaii Dept. of Health (DOH) to improve their public outreach and community involvement.

Non-point source discharge from cesspools in Hawaii is a serious threat to our water quality, and this bill would create a working group to come up with the best ways to do cesspool upgrades, conversions or connections to sewer lines. With about 88,000 across the state, Hawaii has the highest number of cesspools in the country, and many pose a threat to water resources. These substandard wastewater systems leach untreated human waste, harmful pathogens and nutrient loads into nearby waters. Cesspools are a leading source of water pollution, and their effluent can contaminate drinking water sources, streams and oceans with disease-causing pathogens, algae-causing nutrients and other harmful substances.

In monitoring the water quality of North Shore beaches on Kauai, the Chapter has seen improvement after the replacement of cesspools at Kauai County beach parks and along the Hanalei River, where enterococcus counts at the beach at the Pavilion and estuary decreased approximately 56% between 2004 and 2013. Where sewer connections are not available, septic systems and ATU's are a big step forward in protecting public health and the environment. We helped pass the bill to give homeowners tax credits for upgrading their cesspools within 400 feet of the shoreline, waterways or wells because they are the most dangerous. We hope they will make sure the replacements have some form of aerobic digestion.

Unfortunately, we recognize that the \$10,000 tax credit does not cover the full cost of new septic systems, which can be as much as \$20k-\$30k. So we support creating a working group to study the issue and come up with the best solutions for the state.

Because cesspools pose serious public health and environmental problems, the proposed amendments are needed to make sure that Act 120 and the cesspool upgrade tax credits are successful. Mahalo for your consideration and leadership in dealing with these water quality issues.

Aloha,

Stuart Coleman

Stuart H. Coleman, Hawaii Manager



# TESTIMONY OF TINA YAMAKI PRESIDENT RETAIL MERCHANTS OF HAWAII February 6, 2018

# HB 2723 RELATING TO PRESERVING CORAL REEFS HB 2264 RELATING TO THE ENVIRONMENT

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 HB 2723 Relating to Preserving Coral Reefs and HB 2264 Relating to the Environment. 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, sunblock and other sun 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. 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 octinoxate and 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. However, the solution to the issue of oxybenzone and octinoxate type based products is not in a total ban. 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 and non-octinoxate type based products that are easily available and are not cost prohibitive.

Mahalo for this opportunity to testify.



February 5, 2018

To: The Honorable Chris Lee, Chair

Members, House Committee on Energy & Environmental Protection

From: Tim Shestek

American Chemistry Council

Re: **HB 2264 – OPPOSE** 

On behalf of the American Chemistry Council (ACC), I am writing to express our opposition to HB 2264, 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.





February 6, 2018

The Honorable Chris Lee Chairman, Committee on Energy and Environmental Protection Hawaii State Capitol, Room 436 415 South Beretania Street Honolulu, HI 96813

RE: Opposition to HB 2723 – relating to preserving coral reefs Opposition to HB 2264 – relating to the environment

#### Dear Chairman Lee:

On behalf of the Consumer Healthcare Products Association (CHPA), the 136-year old national trade association representing the leading manufacturers of over-the-counter medication, I am writing to express opposition to HB 2723 and HB 2264 under consideration by the House Committee on Energy and Environmental Protection (EEP) on Tuesday, February 6th. Both pieces of legislation seek to regulate the Food and Drug Administration (FDA) approved ingredients of oxybenzone and/or octinoxate in sunscreen. While we applaud attempts to limit coral decline in Hawaii, we have strong reservations of doing so by limiting access to safe ingredients which have proven benefits against deadly skin cancers.

Oxybenzone is a safe, and effective ingredient approved by the FDA in 1978 and found in nearly 2000 personal care products on the market today including some of the most popular sunscreens, lip balms, and lotions designed to guard against sun damage. In fact, oxybenzone offers broad spectrum protection against both ultraviolet A (UVA) and ultraviolet B (UVB) rays that often contribute to skin cancer.

Overwhelmingly, published research implicates global climate change as the proximate cause of coral bleaching. Secondary coral stressors include over-fishing, runoff and acidification. There are only two isolated laboratory studies which claim an association between oxybenzone exposure and coral bleaching utilizing conditions that are not indicative of a natural setting.

There is no reason to believe that these sunscreen ingredients will affect coral in the reef setting. Researchers from the Hawai`i Institute of Marine Biology at the University of Hawai`i, Kane`ohe recently suggested that localized heating and circulation patterns were primarily responsible for coral bleaching events observed across the Hawaiian Islands<sup>1</sup>. Studies performed by highly respected organizations such as the National Oceanic and Atmospheric Administration (NOAA), employing decades of data, have also implicated warming water as responsible for coral bleaching events.<sup>2</sup>

When the current state of research into the causes underlying large scale bleaching of coral reef populations throughout the world is viewed in its entirety, it is prodigiously apparent that changes in ocean temperature (warming) are responsible for the vast majority of these events. Banning the use of two sunscreen ingredients which have been shown to be safe and effective in reducing the amount of ultraviolet (UV) radiation exposure that can cause melanoma and other skin cancers would likely produce

<sup>&</sup>lt;sup>1</sup> Rodgers, K.S. et al., 2017 Patterns of bleaching and mortality following widespread warming events in 2014 and 2015 at the Hanauma Bay Nature Preserve, Hawai'I, *Peer J* https://doi.org/10.7717/peerj.3355)

<sup>&</sup>lt;sup>2</sup> National Oceanic and Atmospheric Administration, 2017 Acoustic Characterization of Mesophotic Coral Reef Ecosystems of West Hawai'i, available at <a href="https://data.nodc.noaa.gov/coris/library/NOAA/CRCP/NMFS/PIFSC/Projects/467/Suka2017\_Tech\_Memo\_NMFS-PIFSC-61.pdf">https://data.nodc.noaa.gov/coris/library/NOAA/CRCP/NMFS/PIFSC/Projects/467/Suka2017\_Tech\_Memo\_NMFS-PIFSC-61.pdf</a> (accessed January 29, 2018)

Consumer Healthcare Products Association Opposition to HB 2723 and HB 2264 February 6, 2018 - Page 2 of 2

no measurable effect on coral reef populations while at the same time resulting in harm to overall public health.

For this reason, we ask that the House EEP Committee withdraw the proposals to ban oxybenzone and octinoxate. A greater standard of evidence must be considered before such a valuable product to people's health be banned from use or sale.

Should you have any questions for CHPA, please contact me directly or our local counsel, Ms. Lauren Zirbel at 808-294-9968 or laurenzirbel@gmail.com.

Respectfully submitted,

Carlos I. Gutiérrez

Vice President, State & Local Government Affairs

Consumer Healthcare Products Association

(202) 429-3521 <u>cgutierrez@chpa.org</u>

Cc: Members, Committee on Energy and Environmental Protection



February 5, 2018

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

RE: Opposition to HB 2264

Chairman Lee:

On behalf of the Personal Care Products Council (the Council), I am writing to express opposition to House Bill 2264, which prohibits the sale, offer for sale, or distribution for sale of nonprescription SPF sunscreen products containing oxybenzone or octinoxate. HB 2264 is under consideration by the Committee on Energy & Environmental Protection on February 6, 2018.

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 U.S. 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.

Coral reef degradation is an important environmental issue that we should all take seriously. However, House Bill 2264 does not address the main causes of coral bleaching, which NOAA (National Oceanic and Atmospheric Administration) 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 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."

A single study (published by Downs et al. in 2015) linking sunscreens to coral bleaching has been used as a justification for House Bill 2264. However, it is not common practice to base regulation or legislation on a single ecotoxicological study. More commonly, these decisions are based on a body of evidence that leads the scientific community to draw solid conclusions and form a scientific consensus. As things stand, the Council has a number of concerns over the experimental design and conclusions that were drawn based on the data presented in this study. In particular, the conclusions were based on the results of tests conducted on coral species that are not native to Hawaii. It is also questionable whether results of *in vitro* cell line assays can be used as a proxy for coral bleaching. Other questionable experimental aspects include the use of a non-validated test system, inappropriate use of carrier solvents, lack of chemical analysis throughout the experiment and questions over how EC<sub>50</sub> values were derived. In addition, the high levels of oxybenzone detected by Downs et al. compared to those that have been detected by several other studies raise questions over the validity of these data. Overall, the available data do not support the conclusion that oxybenzone and other sunscreens pose an unacceptable environmental risk.

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. More than 10,000 people die of melanoma each year and there are more new cases of skin cancer each year than breast, prostate, lung and colon cancers combined. The U.S. Food and Drug Administration (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.

Oxybenzone is an FDA approved critical ingredient to the U.S. sunscreen market. It is a broad spectrum sunscreen, absorbing both UVA and UVB rays, that also photostabilizes other sunscreens to provide long lasting protection. The cost of oxybenzone containing sunscreens is substantially less than other alternative ingredients. Consumer costs for effective sunscreen products that have the same or similar high SPF levels will increase significantly with no measurable environmental impact. Similarly, octinoxate is a safe and effective ingredient approved by the FDA for use in sunscreens.

Oxybenzone is an FDA approved critical ingredient to the U.S. sunscreen market. It is a broad spectrum sunscreen, absorbing both UVA and UVB rays, that also photostabilizes other sunscreens to provide long lasting protection.

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

House Bill 2264, although well intended, lacks the necessary scientific evidence to demonstrate that these two sunscreen ingredients are responsible for Hawaii's coral bleaching. Moreover, skin cancer is the most commonly diagnosed cancer in the United States. We fear this legislation will create confusion, put consumers' health at risk and potentially discourage the use of sunscreens — an important part of a safe sun regimen. Sunscreens containing oxybenzone or octinoxate—are affordable daily use products that have excellent skin cancer prevention properties that cannot be easily attained using alternative ingredients.

Since this legislation is based on one, selectively chosen, laboratory experiment, it would seem appropriate to support further research, and not rush to judgment.

Please oppose HB 2264.

Thank you for your consideration.

Lain Davies

Sincerely,

lain Davies, Ph.D.

Senior Environmental Scientist Personal Care Products Council

Submitted on: 2/6/2018 7:10:34 AM

Testimony for EEP on 2/6/2018 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Rafael Bergstom	Surfrider Foundation Oahu Chapter	Support	Yes

### Comments:

Aloha Chair Lee and Members of the House EEP Committee,

Surfrider Foundation Oʻahu Chapter is in support of protecting our reefs and human health by eliminating products like oxybenzone from our consumer streams. The Oʻahu Chapter stands with our Hawaiʻi chapter testimony in support of this bill.

Mahalo for your time.

Rafael Bergstrom

Oahu Chapter Coordinator

<u>HB-2264</u> Submitted on: 1/31/2018 3:54:00 PM

Testimony for EEP on 2/6/2018 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
lindsey whitcomb		Support	No

Comments:

Submitted on: 1/31/2018 5:57:04 PM

Testimony for EEP on 2/6/2018 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Dorothy Norris		Support	No

#### Comments:

The effects of these chemicals are well documented in scientific journals and our coastal waters have concentrations that will eventually ruin our coral reefs, which are our economic life blood. Fisheries, tourism and coastal integrity are dependent on a healthy reef system. Please help to preserve the coral reef community by limiting the amount of oxybenzone and octinoxate in our coastal waters.

Submitted on: 2/1/2018 7:00:27 AM

Testimony for EEP on 2/6/2018 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Robyn Scarth		Support	No

#### Comments:

Until it can be proven that oxybenzone and oxtinoxate can be proven safe for humans and marine life, our state must act to protect the citizens of this state and our natural resources, ie. coral reefs. Research on oxybenzone has shown to damage coral and other marine life. Unfortunately visitors and kama'aina do not know the harmful effects of these dangerous drugs and the negative impact it causes to humans and the natural environment. There are effective alternatives to these active ingredients in sunscreen that are mineral-based and protect humans without harming marine life (non-nano zinc oxide). Please be proactive in protecting our precious resources and set an example around the world by banning the sale of oxybenzone and octinoxate in the state of Hawai'i.

Submitted on: 2/1/2018 9:09:01 AM

Testimony for EEP on 2/6/2018 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Dena Sedar		Support	No

#### Comments:

The corals in Hawaii are under a lot of stress at the moment, from bleaching due to sea temperature rises to large numbers of visitors to the islands impacting the health of the coral. Every little bit helps, and by prohibiting the use of oxybenzone in sunscreens, we will be helping corals recover faster from stressful events like coral bleaching. There are many alternatives to chemical sunscreens on the market now, and people can even make their own suncreen. I am in support of any bill that helps to protect our fragile and important coral reefs in Hawaii.

Submitted on: 2/1/2018 10:24:04 AM

Testimony for EEP on 2/6/2018 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing	
Joan Gannon	West Hawaii CHC	Support	No	

#### Comments:

I Joan Gannon resident of Captain Cook on Hawaii Island support HB2264. I snorkel often along the beaches in West Hawaii and I see the damage happening to the coral reefs. I have been watching the coral over the 44years I have been swimming in these waters.

Now we know the oxybenzone and octinoxate in the sun screen is causing harsh damage to the coral. Please prohibit oxybenzone and octinoxate in sun screen.

thanks you Joan Gannon chairman of protect Marine Life democrat party Hawaii Island

Submitted on: 2/1/2018 1:39:25 PM

Testimony for EEP on 2/6/2018 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Mark Gordon		Support	No

#### Comments:

#### Aloha!

As a resident of Hawaii Island and an environmental, health and safety engineer, I Strongly SUPPORT HB 2264 which bans the Sale of Sunscreens Products that Contain Oxybenzone and Octinoxate.

Dr. Craig Downs of Haereticus Environmental Laboratory and many other scientific organizations and groups have done Extensive research that CLEARLY shows that sunscreens which contain the compounds oxybenzone and avobenzone are killing our coral reefs.

In turn, they are having a detrimental effect on other marine life and possible humans. Even a very small amount of oxybenzone in the waters can have very devastating effects.

I also request the Senate to introduce a companion Bill.

I Request your Support of HB 2264.

Respectfully Submitted,

Mark Gordon Waikoloa Hl.

### Iowen2 - Heather

From: Susan Olson <susankukana124@gmail.com>

Sent: Thursday, February 1, 2018 1:47 PM

To: EEPtestimony

Subject: Fwd: HB2264 In favor Testimony attached

Hopefully, I have the spelling correct this time!

----- Forwarded message -----

From: **Susan Olson** <<u>susankukana124@gmail.com</u>>

Date: Thu, Feb 1, 2018 at 1:39 PM

Subject: HB2264 In favor Testimony attached

To: <u>eeptestimony@capital.hawaii.gov</u>

#### Hi Heather:

I am attaching my testimony in favor of HB2264 because I was unable to complete the online registration to submit this testimony.

Thank you for forwarding my testimony to the appropriate people..

Sincerely, Susan Olson (808) 339-7743

2/1/18

RE: HB2264 "Relating to the Environment"

I am submitting this testimony to support HB2264 "Relating to the Environment" which would prohibit Octinoxate and Oxybenzone in non-prescriptive sunscreens.

Prohibiting these chemicals would help mitigate the damage to Hawaiian coral reefs which have suffered a 50% loss from coral bleaching caused by global warming events. Global scientific studies have shown that Octinoxate and Oxybenzone are contributing to the fact that coral reefs are not coming back. These chemicals are toxic to coral in several ways. For one thing, Oxybenzone is not only an herbicide, it is more dangerously an estrogen disruptor which causes reproductive tissue to fail. It also causes an enormous imbalance of females, which results in less reproduction. These chemicals are not just affecting the coral – they are also affecting reef fish, sea birds and sea turtles. Toxins are found in their flesh, eggs are aborted and people are being poisoned from eating the fish.

Hawaiian coral reefs are a precious resource to all of us for recreation, fishing and tourism. If we lose our reefs, the tourists won't come. Our economy will suffer.

It has been documented that popular swimming and snorkeling locations attract thousands of people who can produce up to a ton of sunscreen in the water in just one year! Where there are no tourists and swimmers, the reefs are healthier and the recruitment rates are much higher for new coral.

It is interesting to note that the 2017 Ironman sponsored sunscreen with no Oxybenzone, instead lathering the athletes with safer Zinx Oxide to prevent sunburn. Our Kona Target store has signs to promote reef-friendly sunscreen. Many consumers are becoming aware of this issue and switching to products without Oxybenzone and Octinoxate, such as Banana Boat for kids.

Sunscreen manufacturers need incentive to change their ingredients. States and the federal government can pass legislation banning certain chemicals. Hawaii should provide leadership by passing this very important law in 2018.

Respectfully,

Susan Olson Kailua-Kona

Submitted on: 2/1/2018 2:37:37 PM

Testimony for EEP on 2/6/2018 8:30:00 AM

Submitted By	y Organization	Testifier Position	Present at Hearing
Gail Jackson		Support	No

Comments:

Aloha,

This is very important legislation.

It has been proven sunscreens which contain the compounds oxybenzone and avobenzone are killing our coral reefs. Coral reefs help protect our coastline (which helps prevent erosion.)

Please vote to protect our coral reefs and beaches.

Mahalo

Submitted on: 2/1/2018 2:40:16 PM

Testimony for EEP on 2/6/2018 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing	
William Simonsma		Support	No	

# Comments:

Aloha,

Sunscreens which contain the compounds oxybenzone and avobenzone are killing our coral reefs. Coral reefs help protect our coastline and are critical for our fisheries.

Please vote to protect our coral reefs and beaches.

Thank you

Submitted on: 2/1/2018 3:58:34 PM

Testimony for EEP on 2/6/2018 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing	1
La'akea Kaufman		Support	No	

Comments:

Aloha all,

As leaders I implore you to take this vital step to banning oxybenzone and oxinoxate from suncreen sold and produced in these islands. These chemicals have extremely harmful effects on coral, fish species, seaweed and human beings as well. If we want to keep the livelihood and integrity of our coral reefs, ecosystems that support millions of species, we need to take this vital action now!

Mahalo,

La'akea

Charlene Mersburgh 76-6201 Pakalana Road Kailua Kona, HI 96740

January 30, 2018

Committee on Education

RE: HB2264 RELATING TO THE ENVIRONMENT

Prohibits the sale, offer for sale, or distribution for sale of non-prescription SPF sunscreen products containing octinoxate or oxybenzone.

Dear Committee on Energy and Environmental Protection:

I am writing in support of HB2264 Relating to the environment that prohibits the sale, offer for sale, or distribution for sale of non-prescription SPF sunscreen products containing octinoxate or oxybenzone.

Octinoxate and oxybenzone are both chemical sunscreens that not only damage our environment but also human and animals. Several physical sunscreens and natural sunscreens are readily available and offer much better protection to human and our environment.

Thank you for your support of HB2264.

Sincerely,

Charlene Mersburgh

Submitted on: 2/2/2018 4:57:07 PM

Testimony for EEP on 2/6/2018 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Elizabeth Bishop		Support	No

#### Comments:

Aloha Representatives, damaging pollution from oxybenzone and octinoxate is a huge problem in Hawaii and it is something we can easily mitigate. There are also many affordable, effective and alternative sunscreens that do not contain these two chemicals. HB2264 is a reasonable and measured path to quickly mitigating sunscreen pollution at no cost to the state. Please SUPPORT HB2264. Thank you for the opportunity to testify in this matter.

E Bishop

Honolulu, HI

<u>HB-2264</u> Submitted on: 2/2/2018 6:00:05 PM

Testimony for EEP on 2/6/2018 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Kat Culina		Support	No

Comments:

Submitted on: 2/2/2018 7:43:47 PM

Testimony for EEP on 2/6/2018 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Randy Ching		Support	No

#### Comments:

Chair Lee, Vice Chair Lowen and members of the committee,

Please pass HB2264. Oxybenzone and octinoxate have been shown to harm coral reefs. We don't need these two chemicals in our oceans. The coral has enough problems with ocean warming, ocean acidification, ocean de-oxygenation, invasive starfish, algae that blanket the reefs, etc.

Thank you for the opportunity to testify.

Randy Ching / Honolulu / makikirandy@yahoo.com

Submitted on: 2/3/2018 3:57:09 AM

Testimony for EEP on 2/6/2018 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Joe DiNardo	none	Support	No

### Comments:

I support this bill 100% and I'm grateful that these chemicals are being evaluated in light of being toxic to both the environment and to humans. The faster these chemicals can be banned, the faster they will begin to clear from the Hawaiian waters. Mahalo, Joe DiNardo - Hawaiian Tourist/Toxicologist

Submitted on: 2/3/2018 9:10:42 AM

Testimony for EEP on 2/6/2018 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Jim Powers		Support	No

#### Comments:

I support HB2264, which would ban sunscreens containing two toxic chemicals, oxybenzone and octinoxate.

The science is clear that these two chemicals kill coral at very low concentrations (parts per trillion). They are also toxic to people and other marine life.

Anyone who swims in Hawaii knows that many of our once-beautiful coral reefs and the marine life that thrives on them have died or are dying, particularly near the most popular beaches. While there are many stresses on our reefs that are difficult to control, one is easy - reducing the use of coral-killing sunscreens.

There are many excellent alternatives that provide the UV protection we need to enjoy the sun in Hawaii.

I have talked to many visitors about this problem. To a person they (1) did not know about the hazard and (2) want to help with the solution.

You, the legislature, can make it easy for tourists and citizens alike to buy alternative products and stop poisoning our coral and sea life.

Please enact HB2264.

Thank you

Jim Powers, Kauai

Submitted on: 2/3/2018 10:22:17 AM

Testimony for EEP on 2/6/2018 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Erika Lechuga Disalvo		Support	No

Comments:

ALoha,

I support HB2264, which would ban sunscreens containing oxybenzone &/or octinoxate. The science is well established that these ingredients are toxic to people, corals, marine life. There are many factors which can cause stress and death to corals, but whatever the cause, when these chemicals are in the water it's more difficult for coral restoration. That we are now finding these chemicals in our local fish is devastating. There are over 100 scientific papers and industry reports demonstrating mutagenicity, reproductive toxicology and endocrine disruption. Luckily we no longer need to sell out the health of our people and the environment in order to provide UV protection for locals or the tourist market, as there are many effective alternatives free of oxybenzone and octinozate, sold in stores across the islands.

Thank you,

Erika Lechuga DiSalvo

Haiku Maui

Submitted on: 2/3/2018 1:37:09 PM

Testimony for EEP on 2/6/2018 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Wailani		Support	No

#### Comments:

I support HB2264, which would ban sunscreens containing oxybenzone &/or octinoxate. The science is well established that these ingredients are toxic to people, corals, marine life. There are many factors which can cause stress and death to corals, but whatever the cause, when these chemicals are in the water it's more difficult for coral restoration. That we are now finding these chemicals in our local fish is devastating. There are over 100 scientific papers and industry reports demonstrating mutagenicity, reproductive toxicology and endocrine disruption. Luckily we no longer need to sell out the health of our people and the environment in order to provide UV protection for locals or the tourist market, as there are many effective alternatives free of oxybenzone and octinozate, sold in stores across the islands.

Also, it is a risk to our streams and our way of life here in the Hawai'i Islands when people swim in the ponds with suncreen containing oxybenzone.

<u>HB-2264</u> Submitted on: 2/3/2018 1:42:27 PM

Testimony for EEP on 2/6/2018 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Kris Kramer	Self	Support	No

Comments:

<u>HB-2264</u> Submitted on: 2/3/2018 4:45:55 PM

Testimony for EEP on 2/6/2018 8:30:00 AM

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

Comments:

Submitted on: 2/3/2018 6:21:13 PM

Testimony for EEP on 2/6/2018 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Caitlin Maratea	Banyan Tree Divers	Support	No

#### Comments:

My name is Caitlin Maratea and I am submitting testimony as a concerned citizen in favor of HB2264 to ban the sale of sunscreens containing Oxybenzone.

I am a dive instructor and am underwater almost daily at various sites along Maui's west coast. I am an eye witness to the degradation of Maui's reefs that have declined severely over the years I have been diving here. I recently had a diver that had last been diving on Maui in the early 80s. He was horrified and brought to tears by the change he saw from then to now. My experience pales in comparison to generations of residents that have witnessed the decline of the coastal ecosystems.

According to a 2004 study, the value of Hawaii's coastal reefs was estimated at almost \$10billion, with an average annual value of \$364 million. 85% of this value is attributed to tourism. I imagine those numbers are higher today. Any action that we as a community can take to preserve this invaluable resource should be taken.

There is definitive scientific research, namely the study done by Craig Downs published in 2015, that outlines the insidious effects of Oxybenzone on live corals, especially young corals and the symbiotic algae that live inside them.

Mexico has already banned the use of Oxybenzone sunscreen in some marine protected areas. Yes, it can be done. Why? Because there alternatives. Many artisans are meeting the demand for reef safe sunscreen which contains Zinc or Titanium Dioxide. Just because we ban the use of Oxybenzone containing sunscreens does not mean that people are going to stop applying sunscreen. This move could even serve to educate residents and visitors on a wide scale about a the damaging effects of chemicals being applied to their bodies, absorbing into their systems, and leaching into the coastal waters.

In a national political climate where Climate Change is embarrassingly still a subject of debate, let Hawai'i be the leader in enacting substantial environmental legislation.

Thank You

Submitted on: 2/3/2018 6:30:28 PM

Testimony for EEP on 2/6/2018 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Eliel Starbright		Support	No

#### Comments:

I support HB2264, which would ban sunscreens containing oxybenzone &/or octinoxate. The science is well established that these ingredients are toxic to people, corals, marine life. There are many factors which can cause stress and death to corals, but whatever the cause, when these chemicals are in the water it's more difficult for coral restoration. That we are now finding these chemicals in our local fish is devastating. There are over 100 scientific papers and industry reports demonstrating mutagenicity, reproductive toxicology and endocrine disruption. Luckily we no longer need to sell out the health of our people and the environment in order to provide UV protection for locals or the tourist market, as there are many effective alternatives free of oxybenzone and octinozate, sold in stores across the islands.

Submitted on: 2/3/2018 6:52:33 PM

Testimony for EEP on 2/6/2018 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Anne Louise Catlin		Support	No

#### Comments:

Our oceans and marine life are greatly impacted by our human lifestyle. We should do everything we can to reduce our negative impacts on other ecosystems. Many other areas of the world ban the use of toxic sunscreens in order to protect the corals, turtles and thousands of other species. Protecting and restoring these ecosystems is essential to sustained tourism and economic livelihood from oceans.

i would happily purchase nontoxic sunscreen to try to save Hawaii's coral reefs and ecosystems.

Please vote yes on this bill.

Submitted on: 2/3/2018 8:52:29 PM

Testimony for EEP on 2/6/2018 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Richard Furst		Support	No

#### Comments:

I am writing to express comments to HB2264, regarding regulation of sunscreen products containing oxybenzone or oxinoxate. I strongly support the restrictions in this bill, and I think they should be implemented immediately. There area already plenty of sunscreen products available that do not contain oxybenzone, so restricting sale of those products that do contain it would not impose a economic hardship on local retailers. More importantly, the continued loss of our finite coral reef resources would pose a severe threat to Hawaii's environment and tourism-based economy. For this reason, I urge you to pass this bill to restrict sale of sunscreen products containing oxybenzone or oxinoxate.

Submitted on: 2/3/2018 8:58:17 PM

Testimony for EEP on 2/6/2018 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
bailey a ferguson		Support	No

#### Comments:

I support HB2264, which would ban sunscreens containing oxybenzone &/or octinoxate. The science is well established that these ingredients are toxic to people, corals, marine life. There are many factors which can cause stress and death to corals, but whatever the cause, when these chemicals are in the water it's more difficult for coral restoration. That we are now finding these chemicals in our local fish is devastating. There are over 100 scientific papers and industry reports demonstrating mutagenicity, reproductive toxicology and endocrine disruption. Luckily we no longer need to sell out the health of our people and the environment in order to provide UV protection for locals or the tourist market, as there are many effective alternatives free of oxybenzone and octinozate, sold in stores across the islands.

<u>HB-2264</u> Submitted on: 2/4/2018 6:52:26 AM

Testimony for EEP on 2/6/2018 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Tiare Lawrence		Support	No

Comments:

<u>HB-2264</u> Submitted on: 2/4/2018 7:10:19 AM

Testimony for EEP on 2/6/2018 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Mary Lacques		Support	No

Comments:

<u>HB-2264</u> Submitted on: 2/4/2018 7:47:13 AM

Testimony for EEP on 2/6/2018 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Shannon Rudolph		Support	No

Comments:

Support

Submitted on: 2/4/2018 8:27:08 AM

Testimony for EEP on 2/6/2018 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing	
Mary Whispering Wind	Patients Without Time	Support	No	

#### Comments:

I SUUPRT HB2264,

which would ban sunscreens containing oxybenzone &/or octinoxate, which is toxic to people, corals, marine life, and makes it more difficult for coral restoration.

Hawaii fish are demonstrating mutagenicity, reproductive toxicology and endocrine disruption. There are many effective alternatives free of oxybenzone and octinozate, sold in stores across the islands.

<u>HB-2264</u> Submitted on: 2/4/2018 8:46:32 AM

Testimony for EEP on 2/6/2018 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Lauren Ampolos		Support	No

Comments:

<u>HB-2264</u> Submitted on: 2/4/2018 8:50:36 AM

Testimony for EEP on 2/6/2018 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Patricia Blair		Support	No

Comments:

Submitted on: 2/4/2018 9:57:52 AM

Testimony for EEP on 2/6/2018 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Tina Wildberger	Supporters for Tina Wildberger	Support	No

#### Comments:

Aloha,

Please help preserve our reef and coral health by passing this bill to prohibit sale of damaging chemicals. These know endocrine disrupters do not prevent skin cancer. Their constant exposure on our reefs kills coral. This is a move in the right direction for Hawai'i Nui. Please accept these comments in support for this bill.

Submitted on: 2/4/2018 11:51:44 AM

Testimony for EEP on 2/6/2018 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Rick Gaffney	Pacific Boats & Yachts LLC	Support	No

#### Comments:

This bills, and other like it in this session of the legislatgure, are essential to the protection of our coral reefs. An increasing body of peer-reviewed scienitifc literature shows conclusively that oxybenzone and octinoxate have a severelly detrimnetal inpact on corals, other marine organisms as well as human beings.

We can't stop global warming and it impacts on our essential reefs, but we can stop poisoning our reefs by preventing the use of produccts containing chemicals that are detrimental to healthy corals, limu and reef organizms.

Submitted on: 2/4/2018 12:42:37 PM

Testimony for EEP on 2/6/2018 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Tina Owens	LOST FISH Coalition	Support	No

#### Comments:

I am horrified to find out that we, the people of Hawaii and everywhere, have been diligent lathering ourselves up in toxic chemicals because we didn't know they were toxic. Oxybenzone and Octinoxate should be banned from use in these islands. The corals and the reef that provide Hawaii with its major industry, tourism, are also being poisoned. So, we poison the corals and poison the tourists and poison ourselves. Play golf? Then you're poisoned. Triathlete? Then you are poisoning yourself and the ocean.

You can say, "Who knew?" but now we do know, and don't let the chemicals industry get away with this any more. I STRONGLY SUPPORT HB2264.

Tina Owens

<u>HB-2264</u> Submitted on: 2/4/2018 1:41:11 PM

Testimony for EEP on 2/6/2018 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Lehn Huff	Maui School Garden Network	Support	No

Comments:

<u>HB-2264</u> Submitted on: 2/4/2018 12:57:21 PM

Testimony for EEP on 2/6/2018 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Lauray Walsh		Support	No

# Comments:

Save our reefs... not to mention our bodies. ;-)

Submitted on: 2/4/2018 2:27:18 PM

Testimony for EEP on 2/6/2018 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing	
Cynthia Urry		Support	No	

#### Comments:

I support this Bill because I watch busloads of tourists come to our little Kahaluu and slather up with sunscreen and walk right out in the water forming a greazy film on top of the water. The reef is almost totally taken over by algae. Sad shape of things.

<u>HB-2264</u> Submitted on: 2/4/2018 2:47:39 PM

Testimony for EEP on 2/6/2018 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Lisa Bunge		Support	No

# Comments:

Our reefs and our health both need all the help we can get

Submitted on: 2/4/2018 2:55:35 PM

Testimony for EEP on 2/6/2018 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Barbara Barry		Support	No

#### Comments:

Aloha,

It's our Kuliana to protect our reefs from the destruction and death the use of SPF sunscreens cause here in Hawaii.

This has been heard extensively in the Maui County Council and scientific testimony has been heard and recorded for your review.

Please pass this Bill immediately and disregard the Legal advice of the Cosmetic Industries Lobbyist's. They can make reef safe sunscreens and protect Reefs everywhere. These chemicals do not belong on our bodies or in the oceans.

Mahalo,

Ms. Barbara Barry

To: Hawaii 29th Legislature, 2018

Re: HB 2264

Measure Title: RELATING TO THE ENVIRONMENT.

Report Title: Sunscreen; Octinoxate; Oxybenzone; Prohibitions

Description: Prohibits the sale, offer for sale, or distribution for sale of non-prescription SPF

sunscreen products containing octinoxate or oxybenzone

From: Fran Warren
Date: 03 February 2018

I am writing this testimony in favor of the HB Measure 2264 prohibiting the sale of sunscreen products which have been proven to be toxic to the reefs of Hawaii. The peer reviewed research was done on oxybenzone and octinoxate and that is why those two chemicals are specifically listed in the bill. I would also like to call attention to the derivatives/variations on these chemicals which are also being put into the sunscreens – and those now showing, "Reef Safe" or, even more misleading, "Oxybenzone Free" (see below). I do not want to slow down this bill but if its possible, it would be wonderful to include wording that would also cover these other substances (homosalate, octocrylene, avobenzone, nanoparticles – see Hawaii DLNR message below).

The State of Hawai'l Department of Land and Natural Resources (DLNR) Division of Forestry and Wildlife has brochures at their Maui Nature Reserves stating the following:

If You Can't Say It, Don't Spray It!

New studies have shown that several common sunscreen ingredients known as OXYBENZONES are killing our reefs today and destroying future reefs. No corals, no fish, no surf. These compounds are already banned in Mexico and parts of Europe but are in over 3,500 products in the U.S.

Please stop buying and using any sunscreens or products with the following:

OXYBENZONE

AVOBENZINE / AVOBENZONE

OCTINOZATE / ETHYLHEXLY METHOXYCINNAMATE

**OCTISALATE** 

Labeling claims such as "reef safe," "cruelty-free," and "organic" can be found on many products that still contain oxybenzones - these claims are not monitored or tested by any oversight agency.

Many brands have one formula without oxybenzones, while the same brand, in a different bottle, has them. Most of the new aerosols and sprays contain these compounds, and only about 10% percent goes on your body, the rest settles on the sand or rocks where you are spraying and goes into the water at the next high tide. Shower after a day of hiking or gardening and these compounds are so persistent they still make it to the ocean. In one test, 20 minutes after people applied these sunscreens, oxybenzones appeared in their urine.

Everyone, every day adds-up: about one 55-gallon drum of sunscreen is going into the near-shore waters of Maui each and every day, one person at a time. Levels of these compounds in the waters off Maui have been found 10-20 times higher than the "safe" levels for corals.

Below are some examples of the misleading labeling – and why we need some legislative protection for the public for the environmental welfare. This environmental protection would be a win-win for the economy too, as the healthier our reefs, the higher our reef fish population – thus bringing more tourists to visit our shores.





There are volunteer groups on The Big Island of Hawaii who are working diligently to educate tourists and local residents as well. We have been promoting:

Best Practices: use rash guards, sun shirts, hats, wraps and board shorts.

<u>If you must use a sunscreen</u>, please use zinc-oxide or titanium-dioxide sunscreens made without nanoparticles.

We need the volunteers and the public cooperation, but most of all, we need the support of the State of Hawaii to provide the protection via legislation. Please vote yes on HB 2264.

Thank You,

Fran Warren

<u>HB-2264</u> Submitted on: 2/4/2018 3:01:28 PM

Testimony for EEP on 2/6/2018 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Nancy Redfeather	Ka Ohana O Na Pua	Support	No

# Comments:

At this point in History, we must do everything we can to protect our reefs, our fish, our food, and our future.

# Testimony for the ENERGY AND ENVIRONMENTAL PROTECTION COMMITTEE

HEARING: February 6, 2018 Conf. Room 325 8:30 AMN

### **HB 2264**

(Relating to Sunscreen)

Testifier: Karen K. Cobeen

From District: House District 7, Hawaii Island

Position: IN SUPPORT.

To: Rep. Chris Lee, Chair

Rep. Nicole Lowen, Vice Chair

**Committee Members** 

Aloha:

I wish to testify in support of HB2264 in that there is an abundance of science on the topic of oxybenzone chemicals in sunscreen and other hygiene products. Perhaps give the big corporate interests some reasonable time to adapt, but ban these products to protect our reefs. We don't have much time left on this.

Respectfully, Karen K. Cobeen P.O. Box 7028 Kamuela, HI 96743 808-938-0089

Submitted on: 2/4/2018 6:26:58 PM

Testimony for EEP on 2/6/2018 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Nedi McKnight		Support	No

### Comments:

I strongly support HB2264 because our reefs are the most precious resource, not only for residents, visitors, and sea creatures, but for the islands themselves.

<u>HB-2264</u> Submitted on: 2/4/2018 6:30:21 PM

Testimony for EEP on 2/6/2018 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Jeff Mcknight		Support	No

# Comments:

I strongly support this bill. Our coral reef is our lifeline and it is being destroyed by this chemical

Submitted on: 2/4/2018 7:10:49 PM

Testimony for EEP on 2/6/2018 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing	
Barbara Wiedner		Support	No	l

#### Comments:

Sunscreens containing the chemicals oxybenzone and octinoxate damage the precious coral reefs on which Hawaii's shoreline, beaches, recreation and tourist economy all depend. These two chemicals also appear to disrupt our hormones and contribute to higher risks for breast and prostate cancer and endometriosis, among other diseases. Sunscreens that don't contain these harmful chemicals are already available on the market. Please vote in favor of bill \_\_\_\_HB2264\_\_\_\_\_.

Thank you.

Mahalo Nui Loa,

Barbara Wiedner

1774 Puu Kaa St, Kapaa Hi 96746

Submitted on: 2/4/2018 7:36:26 PM

Testimony for EEP on 2/6/2018 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Tamara Paltin		Support	No

#### Comments:

Aloha Representatives,

The science on this is very clear oxybenzone and octinoxate are harmful to our reefs and they are not good for human usage either. There are cost effective alternatives. Please ban these harmful products, other countries have successfully done this for the good of their ocean environment. Here in Hawaii our ocean is the biggest driver of our economy and so we must do all that we can to protect it. Please send the message loud and clear to these product manufacturers we want to buy their products without these harmful substances inside.

Mahalo,

Tamara Paltin

870-0052

Submitted on: 2/4/2018 8:52:29 PM

Testimony for EEP on 2/6/2018 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Amy Perruso		Support	No

### Comments:

I support strong legislation that immmediately prohibits the sale, offer for sale, or distribution for sale of non-prescription SPF sunscreen products containing octinoxate or oxybenzone.

Submitted on: 2/4/2018 8:46:12 PM

Testimony for EEP on 2/6/2018 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Nichole Raney		Support	No

#### Comments:

I support HB2264, which would ban sunscreens containing oxybenzone &/or octinoxate. The science is well established that these ingredients are toxic to people, corals, marine life. There are many factors which can cause stress and death to corals, but whatever the cause, when these chemicals are in the water it's more difficult for coral restoration. That we are now finding these chemicals in our local fish is devastating. There are over 100 scientific papers and industry reports demonstrating mutagenicity, reproductive toxicology and endocrine disruption. Luckily we no longer need to sell out the health of our people and the environment in order to provide UV protection for locals or the tourist market, as there are many effective alternatives free of oxybenzone and octinozate, sold in stores across the islands.

Submitted on: 2/4/2018 9:07:29 PM

Testimony for EEP on 2/6/2018 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Cynthia Nazara	Kona Hawaiian Civic	Support	No

### Comments:

This sale of the sunscreens without prescription cannot be allowed. Not only does is it bad for our environment it is bad for our physical bodies and our ocean and sea life..

Submitted on: 2/4/2018 9:17:22 PM

Testimony for EEP on 2/6/2018 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing	
kimberly burger		Support	No	ı

#### Comments:

As an avid waterwoman since 2011,

I have seen first hand how much the coral reefs have been negatively affected on our Hawaiian Islands by the use of the chemical sunscreens containing oxybenzone and or octinoxate.

The reefs are bleached and dying. I believe that a large reason for this is due to the chemicals in sunscreen.

A local man, born and raised on Maui told me in December of last year that when he and his friends and family harvest limu off the reefs and rocks, the limu tastes like it has been coated with chemical sunscreen.

We must stop selling these chemical sunscreens if there is any hope or chance to save our reefs in Hawaii.

Please ban and stop the sale of any sunscreen that contains the harmful chemicals mentioned above.

Respectfully,

Kimberly Burger

Submitted on: 2/4/2018 9:31:15 PM

Testimony for EEP on 2/6/2018 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing	
Randy Gonce	Self	Support	No	ĺ

#### Comments:

Aloha EEP Chair, Vice Chair, and Committee Members,

I strongly support HB2264 and hope this measure is passed out of committee. We learn new facts about the enviornment we live faster than ever before and many times that requires us to take action. How we adapt to this newly discovered data will determine the type of future we will live in and leave for the future generations. When experts in their respective fields make findings and publish that work in reputable publications we can be certian that this information needs to be apart of the conversation about our future. More and more research is being published about the harmful chemicals in products we use each day and thier dangers to our life systems. New peer reviewed studies about harmful chemicals destorying our reefs and natural capital should be looked at as serious evidence of damage to our ecosystems.

One significant study¹ clearly lays out the harmful effects of Oxybenzone's on coral cells and was published by 14 different experts.

Please take action to protect our precious finite natural capital.

-Randy Gonce	
Young Progressives Demanding Action	

#### References

1. Downs, C. A., Kramarsky-Winter, E., Segal, R., Fauth, J., Knutson, S., Bronstein, O., . . . Loya, Y. (2015). 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, 70*(2), 265-288. doi:10.1007/s00244-015-0227-7 Found at: https://link.springer.com/article/10.1007/s00244-015-0227-7#citeas

Submitted on: 2/4/2018 9:40:46 PM

Testimony for EEP on 2/6/2018 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing	
Jeanie Yong		Support	No	Ī

Comments:

Aloha,

I am submitting testimony in support of HB2264. Chemical sunscreens are detrimental to ocean ecology and causes coral bleaching. Furthermore, there are studies that point out they also have negative health affects on humans. Please ban these chemicals so that they can no longer poison our beautiful oceans or our loved ones.

Mahalo,

Jeanie Yong

Submitted on: 2/4/2018 9:49:47 PM

Testimony for EEP on 2/6/2018 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing	
Jennifer Noelani Ahia		Support	No	

Comments:

Aloha,

My name is Jennifer Noelani Ahia and I support HB 2264.

Mahalo,

Jennifer Noelani Ahia

Wailuku, Maui

Submitted on: 2/4/2018 11:25:22 PM

Testimony for EEP on 2/6/2018 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
patrick coan		Support	No

#### Comments:

There are many sunscreens that are reef safe alternatives that are readily available and affordable.

There is no benefit to a consumer to use chemical sunscreens containing oxybenzone or octinoxate other than cheap.

do the right thing and consider educating yourselvesvon how and why these chemicals came into our daily lives.

ban the sale & use of dangerous toxic chemical sunscreens.

<u>HB-2264</u> Submitted on: 2/4/2018 9:59:03 PM

Testimony for EEP on 2/6/2018 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Marion McHenry		Support	No

# Comments:

We must pass this bill. Please no more delays in protecting our states fragile reeks from these checmicals.

Submitted on: 2/4/2018 11:27:24 PM

Testimony for EEP on 2/6/2018 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Andrea Nandoskar		Support	No

#### Comments:

Aloha. Please support this bill, HB2264. The science confirms that oxybenzone and octinoxate, commonly used in sunscreen formulas, damage coral reefs. With coral reefs in freefall decline worldwide, we must do everything in our power to protect and preserve healthy coral reef ecosystems. Economically, Hawaii's tourism industry depends on healthy reefs. Add to that the likelihood that these two chemicals disrupt our hormones and contribute to increased risks of breast and prostrate cancer. As kamaaina in Hawaii we must do what is pono for our precious ocean and reef ecosystems, our sea life and our people. Alternative sun protection formulas free of these substances are available and accessible and should be promoted.

Mahalo for your consideration.

Submitted on: 2/5/2018 1:21:28 AM

Testimony for EEP on 2/6/2018 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing	
Will Lichty		Support	No	

#### Comments:

Aloha,

I support HB2264, which would ban sunscreens containing oxybenzone &/or octinoxate. The science is well established that these ingredients are toxic to people, corals, marine life. There are many factors which can cause stress and death to corals, but whatever the cause, when these chemicals are in the water it's more difficult for coral restoration. That we are now finding these chemicals in our local fish is devastating. There are over 100 scientific papers and industry reports demonstrating mutagenicity, reproductive toxicology and endocrine disruption. Luckily we no longer need to sell out the health of our people and the environment in order to provide UV protection for locals or the tourist market, as there are many effective alternatives free of oxybenzone and octinozate, sold in stores across the islands.

It is time for Hawaii to become a world leader in protecting coral reefs, by using your legislative power to make a huge, concrete step to preserving our islands.

Mahalo, Will Lichty

Submitted on: 2/5/2018 1:59:34 AM

Testimony for EEP on 2/6/2018 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
melody hill		Support	No

## Comments:

Please support HB2264 for protection of Our marine environment and Hawaiis coral reefs by banning sale of sunscreen products containing oxybenzone and octinoxate

Melody Hill

Submitted on: 2/5/2018 5:31:33 AM

Testimony for EEP on 2/6/2018 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Evelyn Salcedo	GLE	Support	No

#### Comments:

#### THE TROUBLE WITH SUNSCREEN

Research has shown that the chemical composition of sunscreen deeply contributes to coral reef decline.

Toxins found in conventional sunscreen cause severe damage to coral reefs, pose risks to human health, and threaten the tourism industry.

The Globally Harmonized System of Classification and Labeling of Chemicals (GHS), was developed by the United Nations. GHS includes criteria for the classification of hazards, as well as specifying what should be included on labels of hazardous chemicals.

**Chemicals Found In Sunscreens Include:** 

Octinoxate - GHS Code:

H413 (85.19%): May cause long lasting harmful effects to aquatic life [Hazardous to the aquatic environment, long-term hazard]Precautionary Statement Code: P273 Avoid release to the environment.

Oxybenzone - GHS CodE:

H400: Very toxic to aquatic life [Warning Hazardous to the aquatic environment, acute hazard]

H410: Very toxic to aquatic life with long lasting effects [Warning Hazardous to the aquatic environment, long-term hazard]

H411 (18.65%): Toxic to aquatic life with long lasting effects [Hazardous to the aquatic environment, long-term hazard]

Precautionary Statement Code: P273 Avoid release to the environment.

Submitted on: 2/5/2018 6:54:19 AM

Testimony for EEP on 2/6/2018 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing	
De Austin		Support	No	

Comments:

Chair Chris Lee and honorable members of the committee:

Please pass this bill which prohibits the sale of the chemicals octinoxate or oxybenzone. Other places, such as Cozumel, Mexico, have long ago banned these substances from being used by beachgoers to protective sensitive reef systems. We should be just as wise.

The studies are out there, it's all been proven without a doubt, and there is no reason to continue selling these products on our islands. There may be some complaints by visitors who dislike the change, but most reasonable people will understand our need to protect our oceans and the life it contains. There are plenty of biodegradable options available on the market.

Hawaii has a long-standing connection to the ocean. We should not ignore our responsibility to keep it clean, safe and alive.

Sincerely,

Dezireen Austin

Maui resident

Submitted on: 2/5/2018 7:57:22 AM

Testimony for EEP on 2/6/2018 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Nathan Yuen		Support	No

### Comments:

I support HB 2264 which prohibits the sale, offer for sale, or distribution for sale of non-prescription SPF sunscreen products containing octinoxate or oxybenzone. These chemical sunscreens are known to harm coral reefs. We live in a time where we need our coral reefs to protect our coastlines from sea level rise and more powerful storms fueled by climate change. I urge you to pass HB 2264 from committee.

## Charessa Fryc

Testimony for 2264 In Relation to Oxybenzone

## In Relation to Coral Reefs, Oxybenzone

Aloha Chair of the Energy and Environmental Committee Chris Lee, Vice Chair Nicole E. Loven, and Members of the committee. I am in strong Support of HB2264, which prohibits the sale of Oxybenzone sunscreen. Oxybenzone Sunscreen has harmful effects to our beautiful coral reefs, and sea life. We need to take responsibility and prohibit the sale of oxybenzone sunscreen so that we can protect our oceans, to preserve it for future generations. It is crucial that this bill is passed. Thank you for listening. I hope you will seriously consider passing this bill.

<u>HB-2264</u> Submitted on: 2/5/2018 8:45:18 AM

Testimony for EEP on 2/6/2018 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Jennifer Milholen	Kokua Hawaii Foundation	Support	No

Comments:

<u>HB-2264</u> Submitted on: 2/5/2018 8:47:42 AM

Testimony for EEP on 2/6/2018 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Judith Perino		Support	No

Comments:

Submitted on: 2/5/2018 9:05:56 AM

Testimony for EEP on 2/6/2018 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Marjorie Bonar		Support	No

## Comments:

More than reef health is at stake. Human, especially keiki , health is imperilled on a long term basis. Please make this a Hawaii nei issue, not just Maui.

<u>HB-2264</u> Submitted on: 2/5/2018 10:01:05 AM

Testimony for EEP on 2/6/2018 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Lucia You		Support	No

## Comments:

Oxybenzone and octinoxate are toxic to people, coral and marine life. Please ban the sale of products which contain these poisons.

## Iowen2 - Heather

From: Kiki Pu Chung < hawaiimedicinal@gmail.com>

Sent: Sunday, February 4, 2018 8:39 PM

To: EEPtestimony

Subject: Support - Testimony HB 2264

We have a company helping to supply consumers with Reef safe products. We want to ban all toxic sunscreens from our oceans. As an avid waterman, I want all chemical pollutants out of our oceans. Please help us to ban this chemical.

Sunscreens containing the chemicals oxybenzone and octinoxate damage the precious coral reefs on which Hawaii's shoreline, beaches, recreation and tourist economy all depend. These two chemicals also appear to disrupt our hormones and contribute to higher risks for breast and prostate cancer and endometriosis, among other diseases. Sunscreens that don't contain these harmful chemicals are already available on the market. Please vote in favor of bill HB2264. Thank you.

Aloha,

Timothy Clark

### Iowen2 - Heather

From: Jodelle < getfitwithjodelle@gmail.com>
Sent: Monday, February 5, 2018 2:23 AM

To: EEPtestimony

Subject: Support - Testimony HB 2264

Hello,

I am registered on the <u>capitol.hawaii.gov</u> website but was unable to leave my testimony.

I visit Maui every year (soon to be there February 19-March 2) and I am a professional stand up paddler that hosts a charity paddle to benefit the Whale Tales annual fundraiser and the Whale Trust Maui. It is my passion to keep our whales protected and safe and that means banning all toxic substances such as sunscreens that are not reef-safe, ocean safe and that will not harm the whales and other wildlife so precious to our seas.

Sunscreens containing the chemicals oxybenzone and octinoxate damage the precious coral reefs on which Hawaii's shoreline, beaches, recreation and tourist economy all depend. These two chemicals also appear to disrupt our hormones and contribute to higher risks for breast and prostate cancer and endometriosis, among other diseases. Sunscreens that don't contain these harmful chemicals are already available on the market. Please vote in favor of bill HB2264. Thank you.

"...live a life of love..." Eph. 5:2, Jodelle Fitzwater, CPT, CNC, FPC, CPI, Master Trainer for Juvo Board <u>iuvoboard.com</u>

www.getfitwithjodelle.com patreon.com/jodelle

Submitted on: 2/5/2018 10:37:13 AM

Testimony for EEP on 2/6/2018 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Heloise Lochman		Support	No

#### Comments:

Dear Rep. Lowen, We have been living in Kona for 15 years, having moved here from Oregon largely to pursue our passion for snorkeling. We are in the ocean several times a week, mainly at Kahalu'u Bay.

Over the years we have watched the coral dying and the fish population lose variety. Of course, the biggest coral die-off was after the bleaching of 2014. We are aware that many factors affect the corals, and we're relieved that you have introduced this bill banning poisonous chemicals from sunscreens.

It is way past time for human beings to realize that our actions have unintended effects, and way past time for us to take responsibility for the other lives in our environment. A key tenet of Hawaiian culture is respect for the aina, and we believe that respect is a duty we all share.

Companies that make consumer goods always respond when they are required to make changes — think about DDT, PCBs, the ozone layer. We strongly support the passage of HB 2264. Chris and Heloise Lochman, Kailua Kona, Hawaii

Submitted on: 2/5/2018 10:45:18 AM

Testimony for EEP on 2/6/2018 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Ruby Pap		Support	No

### Comments:

Please pass a ban on sunscreens containing oxybenzone and similar chemicals. There are plenty of alternatives on the market that protect our skin. I have been using them for years. Oxybenzone has been found harmful to reefs and our health. I wrote an article about this in 2016: http://www.forkauaionline.com/sunscreen-found-harmful-coral-sampled-kauai/. Thank you, -Ruby Pap

Submitted on: 2/5/2018 11:06:00 AM

Testimony for EEP on 2/6/2018 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Kahi Pacarro	Sustainable Coastlines Hawaii	Support	No

## Comments:

As the Executive Director of Sustainable Coastlines Hawaii, we support HB 2264. Seeing the detriments of our apathetic behaviors towards our oceans is apparent every time we visit our coastlines. More needs to be done to preserve our oceans and with Hawaii being surrounded by it, it is imperative that our leaders lead and protect our coastlines, reefs, and oceans from the toxic burden most current suncreens and lotions are unloading upon them.

Submitted on: 2/5/2018 12:36:59 PM

Testimony for EEP on 2/6/2018 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Keani		Support	No

#### Comments:

I am in STRONG SUPPORT of HB2264, prohibiting the sale of non-perscription sunscreen containing oxybenzone and octinoxate. There is substantial scientific evidence to support this measure. With the stress our reef has experienced from years of sediment run off during the pineapple and sugar cane plantation era, we must reduce the impact human activity is having on this precious resource that creates at least half the oxygen we breathe.

Molokai has the only fringing reef in our pae'aina. Our community relies on our reef for subsistence and Native Hawaiian traditional and customary practices, such as the gathering marine life for food. It is our kuleana to mĕ lama her.

I understand that there are concerns about reef safe sunscreen costing more. Sunscreens with oxybenzone and octinoxate may seem to cost less, because the price we pay for the externalities are not obvious. Just as with anything else, we will pay at the front end, or pay more in the back end, and such as with our own physical health — we can pay to prevent damage, or we can pay to fix the damage, the latter always costs more. It makes fiscal sense that we choose to prevent irreversable harm to our environment.

I strongly urge you to choose protection over destruction. Please pass HB2264.

Submitted on: 2/5/2018 2:30:43 PM

Testimony for EEP on 2/6/2018 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing	
Lilian Iverson	350corvallis	Support	No	

#### Comments:

The use of Oxybenzone and octinoxate containing sunscreens are detrimental to not only coral reefs and the marine environments, but also to the people who use them. With many sunscreens containing carcinogens, hormone disruptors, nanoparticles, allergens, harsh preservatives and skin irritants, we are polluting both our bodies and the environments with a toxcitity that can be detected with just one little drop.

#### 1 DROP OXYBENZONE CONTAMINATES 4.3 MILLION GALLONS OCEAN WATER

And it is more than just that. Oxybenzone is also a known endocrine disruptor, can reduce sperm count in men and may contribute to endometriosis in women. What is even worse is that over 1,400 sunscreens were tested by the EWG and while only 5% were considered safe to use, 40% were actually listed as potentially cancercausing. Octinoxate is another chemical that is known for its capacity to disrupt hormones in animals and very likely humans as well. Besides that, it is also very unstable and actually changes into a less UV-absorbent form when exposed to sunlight. Just as scary, there have been studies that show that octinoxate actually increases exposure to skin-damaging free radicals even after UV exposure has ended.

With an estimated 200 gallons of sunscreen dumped per day in just the Hawaiian islands alone, this bill can help hone in on an astounding statistic and hopefully start a catalyst for eliminating these two indredients from clogging our precious oceans. By insisting to phase out these two ingredients, we can bring these important issues to the forefronts of our minds and build an aware community where health in society and the environment comes first.

https://bantoxicsunscreens.com/

https://www.annmariegianni.com/chemicals-in-sunscreen

https://www.annmariegianni.com/ingredient-watch-list-octinoxate-the-potentially-dangerous-chemical-sunscreen/

<u>HB-2264</u> Submitted on: 2/5/2018 3:05:17 PM

Testimony for EEP on 2/6/2018 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Michele Chavez-Pardini	North Hawaii Action Network	Support	No

Michele Chavez-Pardini	North Hawaii Action Network	Support	No
Comments:			
Aloha,			
	sland, I Strongly SUPPOR It Contain Oxybenzone an		pans the Sale of
organizations and groups	eticus Environmental Labo have done Extensive res n the compounds oxybenz	search that CLEAR	LY shows that
	detrimental effect on othe It of oxybenzone in the wa	•	
I also request the Senate	to introduce a companior	n Bill.	
I Request your Support o	f HB 2264.		
Dago attillu Cubmittad			

Respectfully Submitted,

Michele Chavez-Pardini

To: The State of Hawaii Legislature

From: Iris Kahaulelio, Science Teacher, Kahuku High School

Date: February 5, 2018

Re: 2018 Hawaii Legislative Session-HB2264

I am in support of HB2264.

I have been a Science Teacher at Kahuku High School since 1994. Each year, my students are required to complete a science project to enter in the schools science fair. This year was more relevant as my son, who is a sixth grader at Kahuku Elementary decided to test if Oxybenzone had an effect on algae and coral bleaching. He got the idea because his older twin sisters (now Environmental Analysis majors) had come home from college on the mainland talking about how detrimental sunscreen containing Oxybenzone was to coral reefs.

His research shows that algae and coral have a symbiotic relationship where coral provides a safe haven for algae to convert sunlight into energy (photosynthesis) and coral is given essential nutrients for growth. And like all organisms living in symbiosis killing one will prevent the other from thriving thus disrupting the ecosystem. Like Oxybenzone, Octinate can awaken dormant viruses inside the coral causing them to multiply and explode. If the algae is expelled, it causes the coral to turn white, thus the "bleaching event.

Because it is against the law to take coral from the field he applied sunscreen with Oxybenzone to algae and even after only 10 minutes, 50 % of the algae started to die. They were no longer swimming and started to sink to the bottom of the test tubes. After 24 hours all of the algae was dead. This project sparked an interest in him being environmentally conscious. As a parent, having our own children care for something is fulfilling. We constantly hear slogans about "malama the aina". He/we as an ohana truly believe it is our kuleana to protect this magical place we are so fortunate to call home. Hawaii is a number one destination for tourism, but if our beautiful coral reefs continue to die due to the harmful effects of Oxybenzone and Octinate, our economy wll be effected as well. There is also current research being conducted showing the harmful effects of Oxybenzone and Octinate in our local fish as well as in human health issues.

Please support HB6624.

Mahalo,

Iris Kahaulelio, Kahuku High School Science Teacher

### Aloha,

I am a teacher at West Hawaii Explorations Academy Public Charter School in Kailua-Kona. My students recently completed an assignment in which they researched the effects of oxybenzone and octinoxate on coral. They looked at reasons to support a ban and looked at reasons some have opposed a ban. We encouraged the students to make up their own minds after researching the topic. I am in support of a ban of oxybenzone and octinoxate in sunscreens sold in our state as are the 34 students who gave me testimony to send to you. Attached are their letters to you. Thank you for your time and your commitment to the health of our coastal environment.

Sincerely,

Ben Duke Kailua-Kona, HI Zoë Zandovskis

West Hawaii Explorations Academy Public Charter School 73-4460 Queen Ka`ahumanu Hwy #105 Kailua-Kona, HI, 96740

28th January 2018

Senator Lorraine Inouye State Capitol, Room 27 415 South Beretania Street

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Dear Senator Lorraine Inouye,

I support the ban of the sale of sunscreen with oxybenzone/octinoxate in the state of Hawaii. I support the ban of the sale of sunscreen because it damages our coral reef and effects us because the chemicals are bad for our health and if the fish we eat have the sunscreen in their system, we could get extremely ill. The oxybenzone in sunscreen is one of the main reasons the health of marine life is slowly getting worse. According to the U.S. National Park Service, between 4,000 and 6,000 tons of sunscreen are leaked onto coral reef areas around the world each year. Oxybenzone sucks all of the nutrients in coral bleaching them, turning them white. Anytime people wear sunscreen, it goes with the wind and up in the waterways when they clean it off. Eighty percent of the coral reefs in the Caribbean have already been lost due to oxybenzone/octinoxate, if we don't make a change soon, the same thing could happen to ours.

Tourists come from all over the world to Hawaii making the state 356 million dollars a year, but this always comes at a cost. They do not realize the effect they are having with sunscreen on the coral reefs and need to be better about educating before buying these harmful items. The problem with the safe sunscreen is you get a lot less and it is a lot more expensive. But it's not just this sunscreen pollution that will be the end of our coral reefs, we have to take into consideration overfishing, pollution, and climate change. My school, West Hawaii Explorations Academy, is extremely focused on the ocean and nearly all of our projects have something to do with the coral reefs, without them, there would be no point. We take many trips to the beach and it is always heartbreaking when I see the sunscreen tint on our once untouched ocean. It is important we stop the oxybenzone from doing any more damage and keep our aina the way the Hawaiians once did, pure.

Sincerely,

Zoë Zandovskis

#### Kaohinani Matsuo

Kealakekua, Hawaii

2nd february 2018

#### Senator Josh Green

Senate District 3 Hawaii State Capitol Room 407

Dear Senator Josh Green,

I support the ban of the sale of sunscreen with oxybenzone/octinoxate in the state of Hawaii. My reason is because I believe this product could be one of the main causes of coral bleaching. It has been scientifically proven that 15% of coral reefs are affected by sunscreen that contain oxybenzone. I also believe that this product is very unhealthy for people that use it and is very harmful to the animals which these people interact with while wearing this product.

When you look at the facts of this situation, about 14,000 tons of sunscreen enters the ocean every year, from it going directly into the ocean from people at the beach to sewage systems that is actually the biggest source of sunscreen pollution. I believe that this can cause a negative affect in the long run because eventually these chemicals will be the death of our beautiful oceans because already 40% of the great barrier reef and 85% of the caribbean has had a coral decline. This should already be a wake up call to ban this product for good for the future of our beautiful oceans and their ecosystems.

I support the ban of the sale of sunscreen with oxybenzone/octinoxate in the state of Hawaii. I support the ban because oxybenzone damages our coral reefs. Coral reefs are one of the world's most productive ecosystem. It sucks to know that an ingredient in sunscreen is not only damaging the coral but is also killing them. 15% of the world's coral reefs are already impacted by sunscreen. Oxybenzone rapidly bleaches coral and slows new growth. Oxybenzone can kill at least 7 types of coral, and it doesn't take much to do it. If people keep using sunscreen with oxybenzone it'll continue to damage the reefs, meaning people will also be taking away the home of many marine organisms. Studies show that depending on certain areas that have been surveyed in Hawaii, fish populations have declined between 43 and 69 percent between the late 1970s and 2008. A single drop of oxybenzone in a 4.3 million gallon tank or swimming pool can be deadly. Spray on sunscreen is worse, because not only are you spraying it on your skin, most of it gets on the sand and eventually the tide will rise and wash it into the water. An estimate of 6,000 to 14,000 tons of sunscreen lotion are released into coral reef areas each year. Oxybenzone is bad for your health, just having sunscreen on your skin for approximately 20 minutes, oxybenzone can be detected in your urine. Yes, oxybenzone has a plus because it protects your skin from harmful uv rays. But I'm sure all these big manufacturers that create sunscreen can find other ingredients other than oxybenzone that will protect your skin from harmful uv rays, and will also keep the coral reefs safe.

#### **Tommy Dullam**

Kailua,Kona 1/31/2018

#### Representative or Senator

State Capitol, Room 27 415 South Beretania Street

Dear Representative Nicole Lowen,

My name is Tommy dullam, and I have done some research on the ban of oxybenzone in sunscreen and I support getting rid of the deadly chemical harming our oceans. When I first started reading about it I thought that oxybenzone wasn't that bad, but then I read an article that stated that oxybenzone causes skin cancer and is mercilessly destroying Hawaii's coral reefs my opinion drastically changed. "A single drop in 4.3 million gallons of water — about six and a half Olympic-size swimming pools — is enough to be deadly." (Peggy Orenstein)

With the risks on humans and coral reefs the fish and other organisms Species have started to deplete and the once flourishing coral reefs are slowly becoming wastelands with little fish. Oxybenzone has so many ways it can reach the ocean. It was found that 30 minutes after application sunscreen can be found in urine and when you use the bathroom that gets in the sewers and eventually in the ocean. So it's not just going to the beach we have to worry about it's everytime we apply sunscreen, whether it be for a hike or something or just a swim in your pool. Overall I definitely support the ban on oxybenzone in sunscreen and i hope that this letter helps get that bill passed.

Sincerely,

Tommy Dullam

### **Aurelia Rangel-Givens**

Kailua-Kona, Hawaii

February 1, 2018.

## Representative Cindy Evans (North Kona/Kohala)

State Capitol, Room 27 415 South Beretania Street

Dear Representative Cindy Evans,

I, Aurelia Rangel, support the ban of the sale of sunscreen with oxybenzone/octinoxate in the state of Hawaii. Sunscreens with these chemicals should not be allowed to be used considering the fact that not only are the chemicals killing sea creatures, but over time the loss of these sea creatures is going to affect economic systems all around the world. The ocean brings multi-millions of dollars of homes to people all around the world, not to mention food/gas/etc. Sea creatures suffer all the time because of humans, whether it be the humans are doing it on purpose or not. Cutting off a problem like this could potentially save millions of people from starving or becoming homeless in later years.

On the other hand, sunscreen companies with oxybenzone/octinoxate may be cheaper or easier for people to quickly get their hands on and use. These companies also bring a lot of money to so many people, this does not mean there is no way to stop the overuse of these sunscreens. If an animal which we need to be living in our oceans to help multiple ecosystems is dying off ever so slowly because of a man made chemical i think the better choice would be to stop the use of this chemical. Even when animals are not being affected by these chemical, newborn babies and not even born babies are being affected by these chemicals in so many ways, skin issues and other health issues are becoming more and more common among young children. Getting rid of this chemical in sunscreens would not be hard to do and overall would be better.

Sincerely,

Aurelia Rangel

#### **Tanner Tjarks**

Kealakekua, HI 96750

31st January 2018

#### Representative or Senator

State Capitol, Room 27 415 South Beretania Street

Dear Representative Will Espero

I support the ban of the sale of sunscreen with oxybenzone/octinoxate in the state of hawaii. I support the ban of the sale of sunscreen because it damages our coral reef in a very negative way. Studies have been taken with coral with one controlled and the other was exposed to oxybenzone. The one exposed to oxybenzone bleached while the other was healthy and thriving. Even very small amounts of oxybenzone hurts the coral.

There are very few reasons at all to why oxybenzone should not be banned. They say the same answers repeatedly which indicates they do not have much. They talk about how it helps protect people from skin cancer and ultraviolet A and B. Oxybenzone can be substituted for

other chemicals like zinc oxide. Zinc oxide works just as well and is only slightly harder to rub into the skin. Since there are alternatives to oxybenzone which do not hurt the coral why should oxybenzone keep being used?

Sincerely, Tanner Tjarks

**Daniel Vanderford** 

Kailua Kona, HI 96740

January 30, 2018

Representative Nicole Lowen House District 6, Room 425 415 South Beretania Street

Dear Representative Nicole Lowen, my name is Daniel Vanderford and I am a 9th grade student at West Hawaii Explorations Academy. I recently came upon some research about the topic of oxybenzone and the effects it has on not only humans but on our coral reef. In one article I read, it stated that around 14,000 tons of sunscreen enters the world's reefs annually and by banning the use of oxybenzone in Hawaii, it can significantly reduce damage done because some of the most sunscreen is used in Hawaii due to the large amount of visitors we receive.

Another study showed that one drop of oxybenzone in 4.3 million gallons of water (about six Olympic swimming pools) is enough to be deadly. The amount of evidence to support that oxybenzone is bad for the ecosystem is very large and there are some other alternatives to oxybenzone sunscreens. For example, zinc oxide sunscreens (I prefer over oxybenzone) are great for protecting against radiation and sunburns and sometimes you can get them in cool colors. In some areas, the department of land and natural resources found that the fish population decreased by 43 and 69 percent between the late 1970s and 2008. Adding oxybenzone to the effects of global warming only made the bleaching of coral worse and led to the record high ocean temperatures of 2014/2015. Coral is very important because it houses a large amount of marine life that without it, we will see many different species eradicated. Oxybenzone is proven to bleach coral yet some people prefer oxybenzone sunscreens because you can rub them in so it is almost unnoticeable but to me that is a small price to pay for a safe and

clean reef. This is why I ask for you to vote for the ban of oxybenzone sunscreens so we can help to restore our dying coral reefs.

#### Keao alford

Kailua kona,

January 30, 2018

#### **Senator Green**

Hawaii State Capitol, Room 407

Dear senator Josh green,

I support the ban of the sale of sunscreen with oxybenzone/octinoxate in the state of Hawaii. I support the ban of the sale of sunscreen because it damages our coral reef and effects us. It affects us by how the chemicals is bad for our health and how it has a lot of chemicals. Oxybenzone also affects us by how it can cause an adverse effect and sunscreen also damages our human lungs. This causes harm to our fish and our living organisms underwater, I don't think our people in our environment should keep buying sunscreen that has oxybenzone in it because of how much they constantly bring into the ocean. Coral reef is worldwide by the value, we should use the safer sunscreen that would be the safest for us and the environment. Oxybenzone doesn't just affect our coral, this also affects our fish and clams by how its toxic and it will contaminate. sunscreen is safe for us and to protect us but deep down it causes harm to everything around

us. This is deadly for all our coral reef and spreads, oxybenzone is too

much for us but not all have oxybenzone. It doesn't take a lot of oxybenzone to kill our coral, I think if we keep this up it will still make a huge impact on us later on in the future.

Sincerely,

Keao alford

#### Kristen Marie Adlawan

Kailua Kona, HI 96740

/ · · ·

30 January 2018

## Representative Nicole Lowen

State Capitol, Room 27 415 South Beretania Street

Dear Representative Nicole Lowen,

I support the ban on the sale of sunscreens with oxybenzone/octinoxate in the state of Hawaii. Sunscreens that have this chemical oxybenzone in it are the main reason for the decreasing health of our marine life in the Hawaiian islands. One cause by the chemical would be the decreasing population in corals by damaging and killing the coral pupas or the larvae and since native reef organisms like the state fish or urchins enjoy the shelter of reefs this causes the decreasing sighting on these species. Hawaii's coral reefs are a big attraction for tourist many people come to our islands to see these living organisms and their beauty. This makes the state 356 million USD a year alone which basically is what our islands are supported by. Not all sunscreens have oxybenzone in them but have mineral ingredients the problem is you get less and the cost is much greater and it does not work or last as long as the sunscreens with harmful ingredients.

In addition to what was previously explained in the last paragraph, Hawaii is known for its coral reefs if this very harmful ingredient that harms not only the marine life but our bodies too it could be damaging things that have not been discovered. Coral reefs are slowly decreasing to become an extinct species this ban on oxybenzone can not only help our home and our state but can show others around the world that we as humans can slowly change our damaged earth back into what it used to be. Yes this will be a long process to complete the ban and the problems that we have but the sooner we can start finding the solutions to the problem the one step closer we would be to a healthier environment The ocean is basically my second home and also to our school WHEA the ocean is very important part of our education and our learning. We the people of Hawaii must protect our homes the Hawaiian islands and take care of our 'Aina.

Sincerely,

Kristen Marie Adlawan

#### Theta Haren

January 31st, 2018

#### Representative or Senator

State Capitol, Room 27 415 South Beretania Street

Dear Cindy Evans,

I support the ban of the sale of sunscreen with oxybenzone/octinoxate in the state of Hawaii. I countenance this decision, oxybenzone is an unsafe chemical to both the marine ecosystem, and a humans health. I am antithetical to sunscreens containing oxybenzone being sold/used in the state of Hawaii due to the damage it inflicts upon coral reefs. Around 1980 to 1985 it became furthermore noticed by many locals that the coral reefs had began to deteriorate, which "coincidentally" is about the same time sunscreen was introduced to the Hawaiian islands. Thats around 38 years of damage concerning the corals exposure to chemicals from the sunscreen, that may I add wash off the person applying sunscreen immediately after they enter the water, furthermore contributing to the bleaching of coral and the defects of coral larvae. Many people are oblivious to the fact that corals are living organisms, and that when they put their sunscreen on just to wash it off in the ocean moments later, they are unknowingly causing a large quantum of corals to bleach and potentially die. This could possibly lead to something much more atrocious, if sunscreen that contains harmful chemicals is continued to be used in such a manner it could potentially lead to the extinction of coral reefs. This is incredibly disquieting, although coral reefs only cover one percent of the ocean floor, they supply food and homes for over twenty-five percent of marine life. If corals were to go extinct not only would sea food be sparse but, this could also result in many other species being endangered due to the fact that twenty-five percent of marine life not having a shelter anymore. However one could only begin to imagine the peril that would be caused if the coral reefs were to go extinct. So please I implore you, use a sunscreen that doesn't contain toxic chemicals such as oxybenzone.

Sincerely, Theta Haren, Thank you for your time! Sincerely,

Theta Haren

## Sonya Becker

Kealakekua, HI, 96750

January 14, 2018

## Representative Richard Creagan

Hawaii State Capitol, Room 331 House District 5

Dear Representative Richard Creagan,

I support the ban of the sale of sunscreen containing oxybenzone/octinoxate in the state of Hawaii. Oxybenzone, or benzophenone-3, is a chemical compound found commonly in commercial sunscreens and other cosmetic products. It's primary purpose is to absorb UV rays from the sun. It is an endocrine-disrupting chemical, meaning it interferes with hormone systems and is detrimental to the development, reproductive, neurological, and immune systems of the body in both humans and animals. The problem we are facing in Hawaii, and other tourist-attracted areas, is the effect oxybenzone is having on our reefs and ocean ecosystems. Inside of coral is a symbiotic algae which provides oxygen and discards waste in order to keep reefs healthy to supply food and shelter to all other marine animals.

Oxybenzone is toxic to this algae and causes it to die off, without oxygen and with a build-up of waste, the coral struggles to live and perishes displaying a ghostly white color. This chemical causes DNA mutations in all organisms. Young coral are soft and flexible, when their cells are exposed to oxybenzone they harden and suffocate. This bleaching has been occurring rapidly over the years and has been noticed by many natives and even tourists who consistently visit.

My view of this situation is simple. The world is a whole, and every whole has multiple parts working towards it. The best way to look at global warming and its effect on the ocean is as a whole. We have a multitude of things causing this temperature rise such as burning fossil fuels, deforestation, and greenhouse gases which are all parts of the whole. To efficiently knock down a house, you break each supporting beam till it collapses. This is how we can stop global warming. By reducing or removing every factor involved in changing the climate we can slowly but surely terminate global warming. This is why it is important to ban the use of oxybenzone in sunscreens. Though it might not be an overwhelming participant in the cause of global warming, oxybenzone is progressively doing it's part.

Sincerely,

#### Gabriel J.D. Godard

Captain cook, Hawaii

31tst January 2018

## Representative or Senator

State Capitol, Room 27 415 South Beretania Street

Dear Representative Richard Creegan ,I support the ban of the sale of sunscreen with oxybenzone/oxonate. Because Corals have a lot of stressors that are difficult to deal with such as global warming, increase in human population, pollution, and ocean acidification to name some. One pollutant in specific can be taken care of though is Oxybenzone/oxonate. Oxybenzone/oxonate being in sunscreen means it is constantly being brought into the water "up to 14,000 tons of sunscreen enters the ocean annually" while "only a drop in 4.3 million gallons is enough to kill coral" (NY times). Oxybenzone also works like estrogen causing male fish to grow female gonads causing reproductive issues making it harder to create new generations for the reef. Oxybenzone doesn't only damage the reefs it also causes problems for the human body.

Oxybenzone/Oxonate has the potential to harm humans in large numbers as well as individuals. Oxybenzone can also make it easier for other chemicals to enter the skin while oxybenzone itself can enter the bloodstream. There are studies on Oxybenzone/Oxonate that have found it mimics estrogen and can cause similar issues to humans as it does to fish causing female attributes to develop on growing males. Other studies on Oxybenzone/Oxonate have shown that it may cause cancer causing major problems for people who use the sunscreen. Oxybenzone has many downsides when used in sunscreens and there are multiple options besides it for sun protection ranging from using a rashguard or even just other sunscreens that don't use oxybenzone.

Sincerely,

**Gabriel Godard** 

#### **Jasmine James**

F C Kealakekua, HI 96750 28,January 2018.

#### Nicole Lowen.

State Capitol, Room 27 415 South Beretania Street

Dear Nicole Lowen,

I support the ban of the sale of personal care products that contain oxybenzone/octinoxate in the state of Hawai'i. I support the ban of the sale sunscreen because it contains harmful chemical pollutants that not only affects our health but damages the coral reef. Oxybenzone affects our health because this type of chemical is linked to cancer viruses, hormone disruption and asthma. 62 parts per trillion of Oxybenzone is equivalent to on drop of water in 6 and a half olympic sized swimming pools.

I support the ban of Oxybenzone because I care about my home which is Hawai'i and I care about the coral because it is a huge part of the marine environment and supports over 25 different marine species. Here in Hawai'i a majority of the population go fishing and they make a steady income by selling the fish they caught. Oxybenzone causes a gender shift in fish and reduce egg production. At Honolua Bay in Maui almost 2,000 ppt of Oxybenzone was detected in the water. Oxybenzone also affects the coral larvae because it prevents the coral larvae from reproducing because it bleaches them at a lower temperature by 10 degrees. Studies show that humans can absorb the Oxybenzone into their skin and develop skin cancer and cell damage. People are starting to develop allergic reactions to sunscreens that contain Oxybenzone. I support the ban of Oxybenzone because I care about my family's health and my health and I do not want my 3 year old nephew to develop skin cancer or have an imbalanced immune system. I support the ban of Oxybenzone because I care about my home which is Hawai'i and I care about the coral because it is a huge part of the marine environment and supports over 25 different marine species. Here in Hawai'i a majority of the population go fishing and they make a steady income by selling the fish they caught. Oxybenzone causes a gender shift in fish and reduce egg production.

Sincerely,

Jasmine James

# Teo Ippolito

Whea Student

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Teo Ippolito

Kailua

Kona

## Nicole, Lowen

e service serv

Dear Ms. Lowen,

As we both know, you have experience in defending the ban on coral damaging sunscreen products, most commonly those that include oxebenidrone. I hope that my letter of support can come in useful in pushing the bill to protect our island.

Coral reefs are arguably the most productive ecosystems on earth, between 43 and 69% of fish take refuge in their gardens.

In fact it is estimated that coral reefs are worth roughly twice as much as the entire oil industry. Making it a far more profitable resource, not to mention the possible income from island made zinc based sunscreen.

Our island's tourism relies heavily on the coral reefs,, and sunscreen has proven extremely harmful to them. Despite its convenience, it is detrimental to our community and economy. I for one believe that it has no place on this island.

Sincerely, Teo

PS: I'm that kid who eMailed you about the science fair.

#### La'anui Duarte

Feb. 1, 2018

#### Nicole Lowen

State Capitol, Room 27 415 South Beretania Street

Dear Nicole Lowen,

I support the ban of the sale of sunscreen with oxybenzone/octinoxate in the state of hawaii because of the damage that it does to the environment. Every time someone puts on sunscreen they don't know that it can harm their body because of the chemicals that it holds. Sunscreen has all kinds of chemicals one of them being oxybenzone. It may be true that oxybenzone is not yet proven to be killing coral. However if we don't stop this it can lead to death of a lot of coral reefs which also means less fish because of the lake of coral reefs for the fish.

The oxybenzone may protect our body for the sun but they said that it can also cause damage to our bodys. Not all sunscreens are bad there are some good sunscreens. 14,000 tons of sunscreen enter our waters each year. One drop of oxybenzone can kill a lot of fish. It doesn't take that much of oxybenzone to kill our coral reefs. If we get rid of the oxybenzone in sunscreens the coral reefs might be able to adapt to the climate change because it has one less chemical trying to kill it.

Sincerely,

Kapa'au 96755

cloe.parks@whea.net

January 30, 2018

TESTIMONY FROM Cloë Parks, student at West Hawai'i Explorations Academy

RE: OXYBENZONE/OCTINOXATE BAN RELATING TO SB

**Position: Support** 

Dear Representative Cindy Evans,

I support the ban of the sale of sunscreen with oxybenzone/octinoxate in the state of Hawai'i. Of course I do believe that the use of sun protection in other forms should be strongly encouraged and advertised. I am an absolute advocate of sun protection, but I also want to protect the ocean and coral reefs. The ingredient "oxybenzone" is commonly found in popular sunscreens, and though it may factor into protecting our skin from melanoma, it is a deadly toxin to the symbiotic algae that live within coral. It causes harmful mutilations to the coral, and kills off young coral with utmost speed.

This poison is affecting coral all over Hawai'i immensely and rapidly due to the enormous amount of sunscreen estimated to enter the ocean each year. The numbers come out to a whopping 6,000 to 14,000 tons. If that doesn't already sound ludacris, a single drop in 4.3 million gallons of ocean water is actually enough to kill off coral. Personally, I don't like to be around all of those chemicals anyway. It is just so obviously not right. Waikiki should not have a visible layer of sunblock oil resting amidst the surface of the water, and the smell of spray-on sunscreen should not be so potent that my eyes burn while walking along the shore. It just isn't safe or healthy. My school has actually experimented with making environmentally friendly sunscreen, and there are many out there as well that do not harbor the oxybenzone ingredient. They may be a bit more expensive, but this will easily change over time. If anything, our economy is taking a bigger hit from the dwindling amount of

beautiful coral reefs, as they earn us over \$356 million in tourist revenue alone, this is not even including the fisheries and food chain systems. Throughout my own ephemeral 16 years in Hawai'i, I've definitely noticed a decrease in functioning coral ecosystems, and I would like to be apart of the solution so that future generations will not have to carry that loss. We need to take action now in ending this course of destruction in hopes of a brighter (and more colorful) tomorrow. Ban oxybenzone!

Thank you for the opportunity to testify on this bill.

#### Vanderlei Carvalho

Kailua Kona (North)

Tuesday January 30th 2018

## Representative or Senator

State Capitol, Room 27 415 South Beretania Street

Dear (Nicole Lowsen),

I am support the ban of the sale of sunscreen with oxybenzone/octinoxate in the state of Hawaii. We know that corals have many stressors like Global warming, Ocean acidification, Pollution, and Population increase. Just to name a few if we can take just 1 local stressor like oxybenzone in sunscreen out of the big list of stressors that corals have, we can help them withstand these bigger threats better. Since just 1 drop of oxybenzone in 4.3 million gallons of water is deadly to coral. "An estimated 6,000 to 14,000 tons of sunscreen lotion are released into coral reef areas each year." (Craig Downs) But far more oxybezone than just 1 drop enters the ocean. The ocean has about 1.1 trillion gallons so if 1 gallon of oxybenzone enters the ocean 39 billion gallons of water it will still hurt coral. Why would you try to destroy something that has a total value of 29.8 Billion dollars?

But you should know Oxybenzone has the potential to harm us but we know nothing about how dangerous or bad it is. So that means it could cause cancer and disrupt hormones, which seems ironic since we put sunscreen to protect us from skin cancer. Oxybenzone is really harmful for coral. Though using non nano/chemical sunscreen may be harder to apply for everyday use, but you should know that you are helping corals.

Sincerely,

Vanderlei Carvalho

### Kasey Gacayan

Waikoloa, HI 96738

30th January 2018

## Representative or Senator

State Capitol, Room 27 415 South Beretania Street

Dear Representative or Senator Cindy Evans,

I support the ban of the sale of sunscreen with oxybenzone/octinoxate in the state of Hawaii. Sunscreen with oxybenzone as their ingredient is affecting the well being of our marine life and hawaiian residence. Sunscreen is killing the corals and that can affect the population if fish in our islands. This happening can affect the tourism in Hawaii. People around the world come to Hawaii to see the beautiful scenery, enjoy our lifestyle and to see our beautiful beach and our marine life. Since our marine life is slowing dying off, tourism is slowly going to go down and this is going to affect our income from tourism.

Sunscreen is affecting the one thing that makes Hawaii a beautiful, cultured and fascinating place. People need to start fighting for their playground, their home, and their lifestyle. This ban will help buy eliminating a huge affect towards our ocean. This is just one step towards the human race coming together to help the marine life and soon we could start focusing fixing other issues to keep our marine life a thriving ecosystem that helps millions to billions of people around the world. I love the ocean, it's my second home. My school goes to beaches for our projects to take data and soon if we don't stop this threat, our projects towards beaches are going to die off to a point where our school is pointless to learn towards marine life.

Sincerely,

Kasey Gacayan

#### Charlotte Dadzie

Kailua-Kona, HI 96740

20th January 2018

# Representative Nicole Lowen

House District 6 Hawaii State Capitol Room 425

Dear Representative Nicole Lowen,

I support the ban of the sale of sunscreen with oxybenzone/octinoxate in the state of Hawaii. One reason why I support the ban is because the oxybenzone has been killing the coral. 14,000 tons of sunscreen enter the worlds reefs annually. According to a 2015 paper published in the journal, "Archives of Environmental Contamination and Toxicology. A single drop of 4.3 million gallons of water in 6 and a half olympic size swimming pools, which is enough to be deadly for our environment. A study in 2008 was published in Environmental Health perspectives that researchers have applied to volunteers hands then immersed them in plastic bags which contains water and coral samples from the Atlantic, Pacific and Indian Oceans, as well as Red Sea. The samples bleached them within 96 hours.

Another reason why I support the ban is because oxybenzone has been absorbing inside humans skin and inside some underwater creatures. One study detected oxybenzone in 96% of the American urine samples it tested and chemical UV-filters were detected in 85% of Swiss breast milk samples. Oxybenzone has also been found to mimic estrogen in cellular studies while butylparaben is present in a host of cosmetics in addition to sunscreen being linked to endocrine disruption and causing everything from developmental delays to poor reproductive health.

A third reason why I support the ban is because it has been depleting and affecting the amount of fish in the water. Since oxybenzone has been known to damaging the endocrine system, it can feminize any

male fish in the water. Oxybenzone has been carried by some underwater creatures and has been passed on to their babies. When the oxybenzone is contaminated on the mother, it passes on to the baby. Like humans, whenever the mother uses a product that includes certain chemicals it passes on to the infant when it is not yet born even if parents are using it on their kids, it will soak into their skin their whole life. According to the "Cover-Up" video that talks about certain chemicals (including oxybenzone), the average woman loses 12 cosmetic bites a day.

A fourth reason that I support the ban of sunscreen is because it has been washing off into our ocean in order for it to kill the coral. It is detected in our urine and skin. While taking showers it has been washed off of our skin and down the drain into the ocean. Although oxybenzone sunscreen is good for our skin and protects us from getting skin cancer or melanoma, it damages our reefs and depletes the amount of fish in the sea. If we ban oxybenzone sunscreen in Hawaii, it will make a difference in the future.

Sincerely,

Charlotte Dadzie (10th grade student at West Hawaii Explorations Academy)

## **Creighton Despard**

Kailua, Kona.

# Representative or Senator

State Capitol, Room 27 415 South Beretania Street

Dear Nicole Lowen,

I support the ban of the sale of sunscreen with oxybenzone/octinoxate in the state of Hawaii. I believe that the health of our corals are very important and should be protected in as many ways possible. Oxybenzone has been causing coral bleaching at temperatures 10 degrees lower than it would without oxybenzone. I also believe that there are better chemicals to be used in sunblock to protect the human skin that do not affect the coral reefs in a negative way.

Another reason is the aerial spray cans of sunblock that people use. The spray travels further and can also harm the human lungs because of the chemicals. The spray travels a lot farther because of the wind and amount of spray. When oxybenzone gets in the water, it not only affects the coral, but all of the marine organisms such as fish, crabs and any other organisms that rely on the coral reefs. Coral reefs have a worldwide value of 10 billion dollars, which is another reason humans should be doing everything they can to keep them healthy for humans own benefit. If we don't ban it soon, who knows how bad it could be for the coral reefs in the future.

Sincerely,

Creighton Despard.

**Lauren Nichols** 

Kailua-Kona, Hawaii

28th January 2018

Representative

State Capitol, Room 27 415 South Beretania Street

Dear Representative Nicole Lowen,

I support the ban of the sale of sunscreen with oxybenzone/octinoxate in the State of Hawaii. I support the ban of the sale of sunscreen because it damages our coral reef and has some very negative effects on us. These chemicals in our sunscreen affect us by bringing chemicals that have been deemed unsafe for health reasons into our bodies. These chemicals have proven to bring horrible effects for the human body, including endometriosis in women, skin allergies that could possibly lead to angioedema attacks, thyroid and behavioral alterations (found in animal studies), hormone disruption, and a disruption of the reproductive system. Humans are basically the guinea pigs of this generation because no one really knows the full effects that oxybenzone/octinoxate can have on the human body. In addition to the damage that is done to your body these chemicals will washes off in the ocean or down the drain of your shower. Once in the sea the chemicals wreak havoc on coral reefs, oxybenzone/octinoxate are one of the main causes to coral bleaching and dying. This makes a huge problem for the states revenue.

Coral reefs are one of our biggest tourist attractions, so if we are losing the reefs we will also lose a lot of money for local companies. According to the National Oceanic and Atmospheric Administration the State of Hawaii gets 17.84 million dollars per year from tourists going to coral reefs. In my opinion, we can avoid these problems altogether. There are plenty of reef safe sunscreens that help protect against UV rays without causing issues to the human body and our reefs. In conclusion, I believe banning oxybenzone/octinoxate will improve our quality of life and help the ocean.

Sincerely,

Lauren Nichols

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Waikoloa, Hawaii 96738

Sen. Josh Green

Honolulu, Room 27 415 S Beretania St, Honolulu, HI 96813

Re: Oxybenzone

"I support the ban of the sale of sunscreen with oxybenzone/octinoxate in the state of Hawaii"
-Assignment Rubric

Dear, Senator Josh Green

Please get the sunscreen people to make cheaper and more effective sunscreen that don't include oxybenzone. As you are almost certainly aware of oxybenzone is a destructive chemical in sunscreen that most likely contributes to the coral bleaching crisis that is affecting our oceans. This is not supported by much evidence but I'm still inclined to believe that it is true. Another reason you should eventually ban oxybenzone in sunscreen is that it might also directly hurts sea creatures indirectly and also babies and unborn children, but this too has not been thoroughly looked into, and again I am inclined to believe it.

Banning sunscreen with oxybenzone immediately is not the right move in my opinion. If it were up to me I would propose something that says sunscreen without oxybenzone should be guaranteed to be as efficient as sunscreens with it. I think this would appease both sides of this debate and act as a satisfying compromise for this issue. All in all Oxybenzone has pretty terrible effects on the ocean and you should get rid of it.

-Semi sincerely

Aidan

Kailua-Kona, HI 96740

30th January 2018

# Representative or Senator

State Capitol, Room 27 415 South Beretania Street

Dear Senator Josh Green,

I support the ban of the sale with sunscreen oxybenzone/ octinoxate in the state of Hawaii because, oxybenzone contains 10 different chemicals found to be toxic to our coral reefs. 56% of beach and sport sunscreen contain oxybenzone. Oxybenzone is likely known to cause coral bleaching in both labs, and ocean. Researchers have found evidence of Oxybenzone may damage coral reefs even on a low concentration. Even though banning sunscreen will not fully solve the other problems we have in our oceans, i believe it will help our environment grow back slowly but better.

Sincerely,

Joicelyn B.

Dear Richard Creegan,

Hi my name is Alexia shaye alohinani hinchcliff, and I support the ban against oxybenzone sunscreens. Here are my reasons. The coral reefs in hawaii are dying and it's partly because of oxybenzone. Oxybenzone causes an adverse effect on the coral 62 parts per trillion that is equivalent to one drop of water in 6 ½ olympic swimming pools which is VERY VERY bad. Around 14,000 tons of sunscreen enter waters around coral reefs every year. You don't need a lot to cause a lot of damage and if you could imagine how much oxybenzone is entering the water that's a lot so just visualize how much damage that is doing to the coral reefs. This isn't only affecting the coral reefs it's also affecting every creature that lives in the reefs. Even if these animals are damaged by heat or climate change they won't be able to recover because of the oxybenzone and what it is doing and pretty soon they will go extinct. Coral reefs are so important to the marine life because that where they live that where they get food and more things, if we take that away from them where will they go? What will they eat? Not only do the coral reefs benefit the marine life but they also benefit a lot for us, they provide us with coastal protection and they provide us with some materials that can make medicine. The value of coral reefs is 9.9 trillion dollars and the value of oil is only 3.3 trillion dollars, think about how much we would lose is we didn't have any more coral.

I am a surfer and I love the ocean I love to study everything about the ocean which is why i came to WHEA. The ocean is what i enjoy most in life and when you get the chance to see all the beautiful coral and the colorful fish it's like a whole other world down there It's just so fascinating and there is still so much to learn about them and now we might not get the chance to. We need to take care of our ocean if we want to keep enjoying it. How would it feel if you had your home taken away and there was something someone could do about it but they didn't. We need to do what we can to save the coral reefs and all the animals that are living in it. We need to Malama Da Aina and stop using oxybenzone sunscreens, now i'm not saying that we should never use sunscreen just don't use sunscreen that has oxybenzone in it. I would recommend zinc.

Sincerely,

Alexia Shaye Alohinani Hinchcliff

# Skyler Varney

Kailua, Kona

January 28,2018

State Capitol, Room 27 415 South Beretania Street

#### Senator Josh Green

I support the ban of the sale of sunscreen with oxybenzone/octinoxate in the state of Hawaii. I support it because of the *fact* that oxybenzone/octinoxate is a main contributor to the decrease of coral and coral larvae, along with some other things. Sunscreen is used to protect the skin from the sun, but it is a big carrier of the chemical oxybenzone. Fifteen percent of the fourteen thousand tons of sunscreen per year go into the ocean. The lotion form is better than the spray sunscreen, due to the fact that spray sunscreen can get into peoples lungs, it soaks into the sand and gets washed back into the ocean when the tide comes back in, causing all of the oxybenzone to continue to go in the water, thus killing coral. It can also change the gender of fish, which could lead to a dramatic decrease in the fish population.

I understand why the bill was opposed, because the sunscreen industry makes a lot of profit a year, and sunscreen blocks both UVA and UVB rays, which contribute to cancer. Banning oxybenzone containing sunscreens runs the risk of increasing skin cancer rates once again. However, I am more concerned about the algae that lives on the coral leaving, which then causes the coral to lose its color and die. Alternatives to oxybenzone containing sunscreen include wearing long-sleeved rash guards, and using mineral sunscreen. The active ingredients in mineral sunscreen are titanium dioxide and zinc oxide, which will not harm the coral and sea life.

Sincerely,

Skyler Varney.

## **Jace Robinett**

isco.

28th January 2018

#### Nicole Lowen

State Capitol, Room 27 415 South Beretania Street

Dear Nicole Lowen,

I support the ban of the ban of sunscreen with oxybenzone/octinoxate in the state of hawaii. I support the ban because it damages our coral reef and effects us. It affects us because the chemicals in it are bad for our health and the health of our environment. Oxybenzone/octinoxate is damaging our coral because it is poisoning our ocean its bleaching our coral and stunting the growth of our baby coral. If we have less coral and coral that look prain then the tourists won't come here anymore.

Sincerely, Jace

**Jace Robinett** 

Jos Wettstein

1/30/18

Oxybenzone Sunscreen

To: Representative Cindy Evans

Dear Cindy Evans,

I support the ban of sunscreens with the chemical oxybenzone. I support the ban of these sunscreens not only, because tourists and people that live near the ocean using harmful sunscreens are damaging the ocean. But because people all over the world using oxybenzone sunscreen eventually are exposed to a water source, that rinses the chemicals off and essentially lead back into the ocean. Also sunscreens made for kids specifically avoid the chemical oxybenzone because it is potentially hazardous. If producers

are worried about the health effects the chemicals might have on babies, we ourselves should take caution in the fact we don't know what effects it could have on adults.

The chemical oxybenzone can be absorbed through our skin and found in our urine in minutes, it travels through our bodies. If we can't be concerned about the environments health, we should be concerned about ours. Between 4,000-6,000 tons of this chemical enters the ocean yearly, but it only takes one water sized droplet to effect the area of one Olympic sized swimming pool. Eventually over time the effects of the chemical oxybenzone will wipe out coral populations, leaving fish and other organisms without a home. That will be the first step in the entire food web being destroyed, unless people start taking action.

Sincerely,

Jos Wettstein

## Cy Chong

Kamuela, Hawaii

February 2, 2018

#### Nicole Lowen

State Capitol, Room 27 415 South Beretania Street

Dear Nicole Lowen,

I am I support the ban of sunscreen with oxybenzone. I support the ban of oxybenzone because there is alot that could not only hurt us but the entire world. Oxybenzone can hurt coral reefs, marine animals, and also it could also hurt humans. I personally think that most people and companies should consider that, the fact of the matter is that plenty other creatures are getting affected by the actions we cause in our environment.

Oxybenzone is not bad only for humans but it also affects the ocean life as well. Coral reefs are getting damaged majorly from the oxybenzone. It has been said that oxybenzone is one of the cause of hawaii's 2015 coral bleaching. Also Waikiki has been known for the plentiful of tourists which is one of the reasons why waikiki smells like sunscreen and why the water is so stink. It also has been said that oxybenzone can cause cancer for humans.

Sincerely,

Cy Chong

Dear Senator Lorraine Inouye,

My name is Zoe Stevens. I'm a 9th grader at West Hawaii Exploration Academy (WHEA) and I want to write this letter to you in regards to the ban of oxybenzone. I agree to this ban because oxybenzone is a chemical that's hurting many living creatures in the ocean. You see, oxybenzone is found in many sunscreens used today. Many locals and tourist here on Hawaii love the beach, but they don't realize that protecting themselves from the sun is also hurting the corals and animals that love the beach as well. Which is why banning sunscreen with oxybenzone will allow us humans to protect the animals that need healthy alive corals, and the corals in general, while protecting ourselves from the sun radiation. The oxybenzone is bleaching the coral reefs, which is also affecting the 1,000 of living organisms that need coral reefs to survive. Oxybenzone is causing an adverse effect on the coral reefs. When you put the sunscreen on your body and go in the ocean, the oxybenzone will rub off into the ocean. Another way it gets in the ocean is when you spray the chemical on your body, the residue ends up in the air or on the sand. Eventually, when the wave comes and washes the sand, it will wash the oxybenzone to. The oxybenzone also goes to the ocean through the sewers. How? Well Twenty Minutes after you put sunscreen on your body, it can be determined in your urine. Then when you pee, it goes through the sewers, into the lakes and straight into the ocean. So Oxybenzone will always find away to the ocean, but we can stop it. We can ban it, destroy it, and never bring it back. Okay, thanks for lending an eye. Bye:))

#### Kainalu Brown

Waikoloa, Hawaii

31st January 2018

# **Cindy Evans**

State Capitol, Room 27 415 South Beretania Street

Dear Cindy Evans my name is Kainalu Brown, I am a highschool student at WHEA and I am in support of the ban of oxybenzone. Honestly I think it's a bit odd that it has not yet been banned in this state or any other states considering how much it damages our coral. Think about it, coral reefs cover less than one percent of the earth's surface yet are producing about the same amount of oxygen and offset the same amount of carbon as rainforests. Because of oxybenzone coral population has decreased in the great barrier reef by forty percent, eighty percent in the caribbean and ninety nine percent in the florida keys. It's not just going in the ocean with sunscreen but twenty minutes after you apply it it can be found in your urine. After you use the toilet and flush it gets into the ocean through the sewers.

I definitely think we should not only ban oxybenzone but aerosol spray too. When you're on the beach spraying sunscreen it gets everywhere, on the sand, other people and directly in the water. Not only is it courteous but it's just better for the planet the less oxybenzone in the water. So I beg you "please please" pass the bill to ban oxybenzone!

Elly Rarnes

29th January 2018

Senator Josh Green State Capitol, Room 27 415 South Beretania Street

Dear Senator Josh Green,

I support the ban of the sale of sunscreen with oxybenzone/octinoxate in the state of hawaii. Oxybenzone absorbs UV radiation and gives protective benefits but not all sunscreens use it and they are still effective without it. This chemical kills coral reefs, a single drop in 4.3 million gallons of water (6.5 olympic swimming pools) is enough to be deadly to the corals. There are many other ways to avoid skin cancer that dont include using sunscreen with oxybenzone/octinoxate. One of the alternatives is trying trusted and tested aforementioned mineral sunscreens. Oxybenzone is also not just bad for the health of the coral reefs but it is bad for our health. Our bodies and the way they develop can be compared to coral, and if the oxybenzone is killing the coral it can be assumed it isn't good for our skin either. oxybenzone is also toxic to the symbiotic algae that live within coral. It is important to ban the use of sunscreen with oxybenzone in it statewide affecting even those who never go near a beach or the reefs because when the sunscreen is washed off our bodies it still ends up in the ocean no matter where we are.

Sincerely,

Elly Barnes

Ashlynn Ostrander

Kamuela, Hawaii 96743

January 30, 2018

My name is Ashlynn Ostrander. I live on the Big Island of Hawaii in Waikoloa. I am a ninth grade student at West Hawaii Exploration Academy in Kona.

I am writing you to ask that you help pass a law regarding banning sunscreen with oxybenzone. As you know Hawaii is surrounded by more than 410,000 acres of living coral. Sunscreen containing oxybenzone kills at least seven different types of coral. Coral reefs are some of the world's most productive ecosystems. Many people depend on the reefs for their livelihood. People who run tourist activities related to the ocean depend on the living coral to attract tourists. A lot of people also rely on the coral to fish and sell the fish to support their families. If the coral dies the animals around the coral will also die. It is important that this doesn't happen. There are other sunscreens available that do not contain oxybenzone so people can still wear sunscreen without damaging their skin.

I appreciate your help. Thank you for taking the time to read my letter and for considering my request.

Sincerely,

Ashlynn Ostrander

Ryder N Brown

kailua kona, HI

1th february 2018

Representative or Senator

State Capitol, Room 27 415 South Beretania Street

Dear Josh Green,

I believe that oxybenzone should be band or at least legally required to put the effects that oxybenzone has on living creatures onto the label because of the research that has been conducted showing that oxybenzone is a dangerous chemical and can cause adverse effects to the wildlife and to ourselves over time. The overuse can cause even worse effects than what we are seeing now with coral bleaching.

I do not think that making the specific chemical will put any strain on the businesses that operate through the sale of this chemical because of the success in transition from plastic check out bags to paper as an example. We can change and adapt as well as the fact that there are alternatives to oxybenzone that can work just as well such as non-nano zinc oxide Including many different mineral-based solutions. The band of oxybenzone in sunscreens and perhaps even in other products doesn't seem to be that bad of an idea.

Sincerely,

Ryder N. Brown

## Talia Ulu

Kailua kona, hawaii

3th jan 2018

# Representative or Senator

State Capitol, Room 27 415 South Beretania Street

Dear Cindy Evens , I support the ban of the sale of oxybenzone in sunscreen because it kills coral, and coral reefs are a very important part of the ecosystem. Without coral reefs many organisms would be without home and coral is also a living thing. Oxybenzone is an ingredient in sunscreen that bleaches the coral and is lethal to coral larvae. 15% of the world's coral reefs are already impacted by sunscreen. Although oxybenzone protects skin from harmful uv rays it has killed so much coral and took the habitat of many organisms. Within 20 minutes of putting sunscreen with oxybenzone on your skin it can be detected in your urine. One drop of oxybenzone in 6 olympic size swimming pools can still do damage.

Joshua Budroe

joshua.budroe@whea.net

29th January 2018

Dear Nicole Lowen,

I support the ban in the use of oxybenzone in sunscreen in the islands of Hawaii. I support this ban because oxybenzone is poisoning the ocean. All these chemicals are bad for the reef and have slowly been causing problems for hundreds of years. 14 thousand tons of sunscreen gets into the ocean each year. Sunscreen mostly ends up in the ocean from going through drains. Twenty minutes after you put sunscreen on, you can detect it in your urine. That means your flushing sunscreen down the toilet while you use the bathroom. When you get home from the beach and take a shower, you are just washing all the leftover sunscreen down the drain.

Oxybenzone is things other than sunscreen. Oxybenzone is used in cleaning products, lotions/soaps, and many other things. I think that we should ban the use of oxybenzone because there is other alternatives for sun protection that work just as good. In other countries many chemicals like oxybenzone have been banned from using, so why hasn't the United States banned those ingredients also.

#### Alana Murrill

Kailua Kona, 96740

29th January 2018

Dear Nicole Lowen,

I support the ban of the sale of sunscreen with oxybenzone/octinoxate in the state of Hawaii. I support this ban because over 14,000 tons of sunscreen end up in the ocean annually. Up to 15% of the world's reefs are affected by sunscreen. According to the Hawaii Department of Land and Natural Resources, our reefs has declined 43-69% in the last 50 years. There are many reasons that are coral is in the state that is it now, and it is not all from sunscreen. Oxybenzone and other chemicals like it are a huge problem in Hawaii. One drop of oxybenzone in 6 olympic sized swimming pools can affect a corals health, Could you imagine how much oxybenzone 14,000 tons of sunscreen can have?

Oxybenzone is not only found in sunscreen, that is just the main output. Oxybenzone, Octinoxate, and Octocrylene can also be found in lotions, soaps, perfumes and detergents. People only think about sunscreen while they are at the beach, they don't think about what happens when they get home. Once sunscreen is put on your skin, you can detect oxybenzone in your urine after 20 minutes. When you take a shower, all the leftover sunscreen just washes down the drain. All these drains lead to the ocean. Sewage is one of the biggest distributors of sunscreen. I know that banning the used of oxybenzone will not fix our reefs and make everything will go back to normal, but it is at least a start.

Sincerely,

Alana Murrill

Aloha,

My name is Merrill Ranken. I am the STEAM teacher at Pōmaika'i Elementary School in Kahului, Maui. Our fifth grade students have become aware of the problems associated with changes in our global climate and how those changes are impacting them and the islands that are, for many of them, their *one hānau*. An exciting part of being a science educator is wtnessing the habits of a scientific mind develop in students. This perspective of respectful criticism and questioning, of evidence-based explanations and data-driven solutions will elevate the potential of every child as they move through their lives. We all benefit when our citizenry is one of critical thinkers and keen observers.

As part of our discussions of the nature of science, we consider what happens to scientific findings. Where do they go? Who is the audience? Does science matter if it is only "scientists" who receive the knowledge from the process? The students have the right idea about these questions... we all need to pay attention to scientific findings and that includes our elected officials charged with our health, safety and the health of our unique home. These students understand the health and environmental problems posed by oxibenzone and octinoxate are already having an impact and, yet, the real impact will be felt in the yeatrs to come and on the children these students may some day have.

The following is direct written testimony **in support of HB2264** given by students in grade 5 at Pōmaika'i Elementary in Kahului, Maui. We read the bill together and discussed some of the more complicated words and ideas and then I simply said, "When the Legislature hears testimony on HB2264 in Honolulu on Tuesday, what would you want them to know about what you think?" Here are those thoughts: (unedited)

We agree that this law that should beneeded for this state to protect the reefs and human beings. This law will not stop those who need special prescription sunscreen. You will still have options for other sunscreens that do not have oxybenzone and/or octinoxate.

We want the legisslature to know that we support the Bill. We support this because oxybenzone and octinoxate are not only destroying our reefs but also our economyand our way of life. Our reefs are a part of a train of life because if there was no reef then fishes will not have any protection and soon will die. In Maui, since people aren't aloowed to sell sunscreen with oxibenzone and octinoxate our reefs will be healthier.

This law should be passed because it will take the stress off the corals. The research shows that these chemicals will stop the coral polyps from developing. The chemicals in sunscreen make iteasier for bleaching to happen. Coral reefs are important because it provides a home fro some unique critters that only live here and it gives us a chance to explore the sea. It is also important because of the oxygen it helps create.

Oxybenzone and octinoxate will affect our future kids. It will lower malestestosterone level when they are young and can lead to health problems and low birth weights for pregnant women.

The legislature found out that these chemicals oxibenzone and octinoxate are found in some sunscreens and can have a bad effect on the coral in the ocean. Reefs provide shelter for fish and other sea creatures. This effects the ocean food chain. It doesn't just effect us. During our future, we don't even want the coral to become extinct so there are no creatures beneath the sea. Later in teh future some small species of fish might die out.

Respectfully submitted on behalf of Ms. Lisa Fanning's 5th Grade Pōmaika'i Elementary

## Merrill L. Ranken

Ms. Franning's Grade mm omaika'i Elementary, Kahului, Maui 2



Submitted on: 2/5/2018 5:08:33 PM

Testimony for EEP on 2/6/2018 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Kari Goodbar		Support	No

Comments:

Aloha,

My name is Kari Goodbar and I am a resident of Palolo Valley and I am writing today to provide a note of support for HB2264. I am a marine mammal specialist at Dolphin Quest Oahu, volunteer Secretary of the Oahu Chapter of the Surfrider Foundation, as well as a passionate surfer and freediver (with lots to learn!). Protecting our fragile ocean ecosystems is a cause that spans across both my professional and personal life. My every day work involves caring for marine mammals and educating our guests about the issues their species face in the wild. I have the responsiblity of sharing with those guests how the most serious issues facing marine animals all have human related causes, and I encourage them to make simple changes in their own lives that can help ammeliorate such pressing issues. One of the lifestyle changes I urge people to adopt is using reef safe mineral suncreen. Although my animal family at work consists of large mammals, their species depends on the health of organisms who make up the base of the marine food chain. Oxybenzone and other closely related substances are damaging to coral reefs as the chemicals are toxic to the symbiotic algae who propogate the reefs. When I share this information with my guests at work or people I meet at beach clean ups, they are very receptive and eager to make the switch to reef friendly products because there are so many alternatives available now. I would urge the current committee to emulate that readiness by supporting this bill and ultimately taking a step in creating a brighter, healtheir future for corals and the vital ecosystems they support.

Mahalo,

Kari Goodbar

Submitted on: 2/5/2018 5:57:11 PM

Testimony for EEP on 2/6/2018 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Azita Ganjali		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 enviornment. Oxybenzone 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 recieved 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 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.

Submitted on: 2/5/2018 6:04:46 PM

Testimony for EEP on 2/6/2018 8:30:00 AM

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

### Comments:

### **Dear Committee Members:**

I am testifying to the fact that it is not premature to ban oxybenzone. There are many alternatives on the market to sunscreens with oxybenzone and octinoxate. 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.bestzincsunscreen.com or 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 in accordance with FDA regulations, and the label is registered with the FDA. This is a high performance effective sunscreen that has passed all FDA required tests:

10 subjects for SPF 50 and 80 min water resistance

Broad Spectrum testing (so that we can claim protection from both UVA and UVB rays)

Preservative efficacy testing (which shows the preservative works and the formula is not hazardous to consumers due to microbial growth)

Accelerated Stability Testing (which confirms shelf life of 2 years and no separation of active ingredients)

Assays for Zinc (to confirm that the active ingredient, 25% zinc, is present at the correct levels throughout the production batch for sunscreen efficacy)

We strongly support HB2264 to ban oxybenzone and octioxate due to the established widely accepted scientific data that these chemicals are destroying the coral reef ecosystem. There is NO basis to claim there should be no ban because no other sunscreens exist. There is concrete evidence from my company and many others that they do exist.

Mahalo for your consideration.

Submitted on: 2/5/2018 6:38:22 PM

Testimony for EEP on 2/6/2018 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Samantha Steenhuis	Kaiser High School Student	Support	No

### Comments:

My name is Samantha Steenhuis and I am a senior at Kaiser High School. I support this bill because I believe protecting the environment should be our number one priority. Oxybenzone and octinoxate are incredibly detrimental to the beaches and ocean life that draw international attention to our little island. These chemicals are known hormone disruptors that can alter the genders of marine animals. In the Archives of Environmental Contamination and Toxicology reports, it has been found that these ingredients are also toxic to young coral and cause "endocrine disruption, DNA damage and death of coral. Oxybenzone also exacerbates coral bleaching, a process by which coral reject symbiotic organisms and lose their color."

I am an active member of my school's Wipeout Crew, which is a beach clean up and environmental club. We hosted a sunscreen swap at Kaiser to inform the community about the harmful impacts of these chemicals and offered them better sunscreen products with ingredients like zinc oxide. We were able to collect over 150 bottles of oxybenzone and octinoxate containing sunscreens and offer multiple free samples as well as full sized bottles that are much safer for the reefs and human health. These chemicals get absorbed into the bloodstream also causing hormone disruption. These chemicals can easily be replaced in sunscreens with zinc oxide or titanium oxide. Our beaches and sea life will thank you if these chemicals are removed from something that is in use and damaging every single day. We can take a small step into preserving the nature around us.

Thank you for taking the time to read this and please support this bill!

HB-2264 Submitted on: 2/5/2018 7:35:28 PM

Testimony for EEP on 2/6/2018 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing	
Hattie Gerrish		Support	No	

## Comments:

I support the proposed ban. Mahalo!

Submitted on: 2/5/2018 8:36:41 PM

Testimony for EEP on 2/6/2018 8:30:00 AM

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

### Comments:

Aloha, my name is Shannon Murphy and I am a 17 year old living in Hawaii Kai. The ocean is my home, love, and passion, and over the years, we have destroyed so much of our environment. The ocean and all marine organisms are in jeopardy because of the effects of marine debris and chemicals entering the sea. Oxybenzone and octinoxate are some of those chemicals that are destroying so much of my home and my future. Oxybenzone and octinoxate are SCIENTIFICALLY proven to cause coral bleaching, deformities, and reproduction complications in marine organisms. Without the reef, fish, and larger marine mammals, Hawaii has no future. The reefs offer costal protection, biomedical products, and is a huge factor in our economy; the beautiful ocean makes Hawaii special and like no place on Earth. Without the this bill in effect, I have already taken that step into never buying oxybenzone or octinoxate products ever again. My family and friends have joined me in this effort into saving the coral reefs. On January 13th, 2018, I organized an oxybenzone exchange event where community members came down to Kaiser High School to swap chemical sunscreens containing oxybenzone and octinoxate for reef-safe sunscreen products. In the end, I gave away 135 goodie bags of reef-safe sunscreens with the help of my community. I educated my peers on the importance of the reef and the alternative sunscreens that are safe for the environment. The solution to this issue extremely simple: just change your sunscreen brand! Look for sunscreens containing zinc oxide or titanium dioxide! A healthy ocean for Hawaii is most important for my future and for the generations after me. Please join me and help make a difference for our community. Let's take that first, simple step, by changing our sunscreen to save the reef and all the marine species. Thank you for your consideration.

<u>HB-2264</u> Submitted on: 2/5/2018 8:08:27 PM

Testimony for EEP on 2/6/2018 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Bob Smith		Support	No

# Comments:

Please pass this bill. I will help protect our reefs, fishery, and visitor economy. Thank you.

Submitted on: 2/5/2018 8:49:03 PM

Testimony for EEP on 2/6/2018 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
ME Smith		Support	No

## Comments:

This bill will help protect our reefs, fisheries and the visitor industry. These 2 ingredients should be banned from use in our Hawaiian waters. Please listen to your constituents instead of the sunscreen lobbyists who are only interested in their bottom lines.

Submitted on: 2/5/2018 8:51:45 PM

Testimony for EEP on 2/6/2018 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Cherie Griffore	Malama Kona, Surfrider Foundation	Support	No

## Comments:

My name is Cherie and I am resident of Kailua-Kona. I support this bill to ban the sale of oxybenzone sunscreens

Submitted on: 2/5/2018 9:22:52 PM

Testimony for EEP on 2/6/2018 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing	
Dee Fulton	Mauna Mama Kona Coffee	Support	No	

## Comments:

There is no lack of research on the subject of oxybenzone and octinoxate. These hormone disruptors (aka endocrine disruptors) alter the function of reproduction in many species....coral animals, sea urchins, and humans. The impact to the reefs is lethal.

The impact to humans is still being measured. At this point, we know that oxybenzone is absorbed transdermally, it is passed to infants in breast milk, it lowers testosterone levels in developing boys, it interferes with sperm viability, and it is mutagenic.

Let's get this toxic chemical off the shelves in Hawaii.

Thank you,

Dee Fulton

Submitted on: 2/5/2018 10:21:32 PM

Testimony for EEP on 2/6/2018 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing	
Dwamato	UHM	Support	No	

### Comments:

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

As an academic and private sector scientist, I am writing in strong support of HB2264. There is a growing number of academic studies that indicate Oxybenzone (and similar products) pose a serious risk to coral reefs. 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. The State's Department of Land and Natural Resources is also asking people who enter the ocean to avoid using sunscreens that contain oxybenzone.

There are many reasons that this product should not sold in Hawaii. Hawaii depends on its reefs as a source of food, culture, and economic development. If Hawaii loses its reefs, the tourism industry may suffer greatly. Our reefs are an important and valuable part of Hawaii's ecosystem and economy, and we must do all we can to protect them. 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

Daniel Amato, PhD

<u>HB-2264</u> Submitted on: 2/5/2018 10:36:00 PM

Testimony for EEP on 2/6/2018 8:30:00 AM

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

Comments:

Submitted on: 2/5/2018 11:45:07 PM

Testimony for EEP on 2/6/2018 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Wai'ala Ahn		Support	No

Comments:

Aloha,

please support this bill to save our reefs and oceans.

the ocean is our livelyhood, not just locally but for the whole world. Small steps make big difference; let's do our part by banning this toxic sunscreen and supporting HB2264! There are so many other safe, viable and local options for sun protection. We shouldn't be destroying our oceans from a simple and replaceable product. Please Support HB2264 and protect our oceans for future generations.

mahalo.

Submitted on: 2/6/2018 7:03:51 AM

Testimony for EEP on 2/6/2018 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Taisa	West Hawaii Explorations Academy	Support	No

## Comments:

I Ta'isa Masalosalo-Masuda, support the ban of oxybenzone and other harmful chemical ingredients in sunscreen. They have been found to significantly affect the health of coral reefs, and pollute our coastal waters. Conveniently, there is now a plethora of alternative, reef safe sunscreen available at local stores. This ban on harmful chemicals in sunscreen will not only help the environment, but also the ecofriendly sunscreen businesses. This ban has my full support.

<u>HB-2264</u> Submitted on: 2/6/2018 9:22:55 AM

Testimony for EEP on 2/6/2018 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing	
june chee		Support	No	

Comments:

HB-2264 Submitted on: 2/6/2018 11:05:03 AM

Testimony for EEP on 2/6/2018 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Tulsi Greenlee		Support	No

## Comments:

Lease support this bill. Thank you Tulsi Greenlee

## COMMITTEE ON ENERGY & ENVIORONMENTAL PROTECTION

Testimony of Bob Kern in Favor of HB 2264 to Ban the Sale of Sunscreens Containing Oxybenzone and Octinoxate in Hawaii

February 6, 2018

Good Morning Chair Lee and members of the Committee.

My name is Bob Kern. I am Vice President of the Friends of Hanauma Bay but today I am testifying as a private citizen.

I am in support of banning sunscreens that contain oxybenzone and octinoxate.

Like many others, I have been exposed, through no choice of my own, to harmful sunscreen chemicals spread by spray sunscreen products.

Spray sunscreens spread their chemicals all over the beach. When people spray themselves or their companion it is easy to see that much of the chemical laden excess spreads in the wind and lands not only on others skin but is breathed into their lungs. These chemicals that the legislature has found harmful to human health are blown onto other beachgoers, innocent bystanders, who do not wish to be exposed to harmful sunscreen chemicals.

Please pass Bill 2264 to help protect not only coral reefs but citizens who's right not to use harmful sunscreens may be compromised by those do.

Respectfully Submitted,

Bob Kern 1615 Wilder Avenue, #601 Honolulu, Hawaii 96822 943 9241

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