



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

WRITTEN
TESTIMONY ONLY

**Testimony COMMENTING on HB1860-HD1
RELATING TO WATER POLLUTION**

REPRESENTATIVE ROY TAKUMI, CHAIR
HOUSE COMMITTEE ON CONSUMER PROTECTION AND COMMERCE
Hearing Date: 2/5/2020 Room Number: 329

- 1 **Fiscal Implications:** This measure may impact the priorities identified in the Governor's
2 Executive Budget Request for the Department of Health's (Department) appropriations and
3 personnel priorities.
- 4 **Department Testimony:** HB 1860 seeks to add octocrylene, octisalate and homosalate to the
5 list of active ingredients restricted from sale or distribution in Hawaii in non-prescription
6 sunscreens, and allow the Department to add additional, future chemical restrictions through the
7 administrative rule making process. The Department has the following comments.
- 8 The Department recognizes the benefits of the 2018 legislation prohibiting the sale of
9 oxybenzone and octinoxate containing sunscreen products in Hawaii. It is heartening to see the
10 dramatic increase in availability, variety and consumer acceptance of oxybenzone and
11 octinoxate-free options and mineral sunscreen products that have entered the consumer market in
12 the past two years. Use of these products meets standards for public health protection and offers
13 the public a concrete choice to help protect Hawaii's coral reefs and marine environment when
14 enjoying our beaches. However, the risk of skin cancer from sun exposure remains a hazard for
15 the people of Hawaii and visitors and it is imperative that the public health consequences of
16 additional prohibition on sunscreen ingredients are considered.
- 17 This measure seeks to amend Chapter 342D-21 to further prohibit the sale and distribution of
18 three additional sunscreen ingredients and use administrative rulemaking to add additional
19 chemicals. The Department is hesitant to take on responsibility for prohibition of additional

1 chemicals as we lack the technical expertise or resources needed to assess both human and
2 ecological impacts of such prohibitions. As a small agency, the Department relies on ongoing
3 research by the Environmental Protection Agency to identify the environmental risks of
4 sunscreen ingredients and the United States Food and Drug Administration to determine safe and
5 effective active ingredients for sun protection. Further, implementation of this measure would
6 take away limited resources from other critical public health priorities.

7 The Department strongly supports public education efforts and outreach strategies to inform
8 Hawaii beachgoers about steps they can take to reduce the unintended impacts of sunscreen use
9 while safely enjoying our tropical marine waters and sunny beaches. The Department also
10 supports academic and applied research efforts further investigating the fate and environmental
11 effects of homosalate, octocrylene, octisalate and other sunscreen compounds in the nearshore
12 marine environment.

13 **Offered Amendments:** None

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

HB-1860-HD-1

Submitted on: 2/3/2020 3:25:43 PM

Testimony for CPC on 2/5/2020 2:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Lisa Bishop	Friends of Hanauma Bay	Support	No

Comments:

From: FRIENDS OF HANAUMA BAY

To: HOUSE COMMITTEE ON CONSUMER PROTECTION AND COMMERCE (CPC)

Roy Takumi, Chair

Linda Ichiyama, Vice Chair

Re: HB1860 RELATING TO WATER POLLUTION

Hearing: Wednesday, February 5, 2020 2 p.m., Room 329

Position: STRONG SUPPORT, with implementation date of January 2021

Aloha Chair Takumi, Vice Chair Ichiyama, and Committe members,

Thank you for the opportunity to testify in strong support of HB1860.

Approximately one-fourth of the plants, fish, and invertebrates found in Hawaiian coral reefs are endemic to Hawaii. Coral reefs are intrinsic to Hawaiian culture, and provide critical natural protection against coastal erosion and sea level rise. Further, our coral reefs underpin the tourism industry, Hawaii's primary and vital economic engine.

Since the enactment of Act 104, Session Laws of Hawaii 2018, evolving science clearly demonstrates that the sunscreen chemicals homosalate, octocrylene, and octisalate are toxic to our coral reefs and the wildlife they support.

Further, in February 2019, the U.S. Food and Drug Administration declared that it does not have sufficient scientific evidence that homosalate, octocrylene, and octisalate are safe and effective for human use - never mind our marine ecosystems!

It is therefore critical to add them to the Act 104 sale and distribution sunscreen ban starting 1/1/2021.

Please support HB1860.

Respectfully,

Lisa Bishop

President

Friends of Hanauma Bay



**TESTIMONY OF TINA YAMAKI
PRESIDENT
RETAIL MERCHANTS OF HAWAII
February 5, 2020
HD 1860 HD1 Relating to Water Pollution**

Good afternoon Chairman Takumi and members of the Committee on Consumer Protection & Commerce. 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 1860 HD1 Relating to Water Pollution. This measure adds the chemicals homosalate, octocrylene, and octisalate to the sale and distribution sunscreen ban beginning on 1/1/2021. Allows the Department of Health to adopt rules to add additional harmful chemicals to the sale and distribution ban. Effective 7/1/50.

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 homosalate, octocrylene, and octisalate free alternatives are not available, are price sensitive or if the US Food and Drug Administration does not approve new sunscreen alternative ingredients by the effective date of this measure.

Skin cancer is the most common form of cancer. Every year there are more cases of skin cancer in the United States than incidences of breast cancer, prostate cancer, lung cancer, and colon cancer combined. One out of five Americans will develop skin cancer in their lifetime, and one person dies of melanoma (the deadliest form of skin cancer) every hour. The vast majority of melanomas are caused by the sun, and a person's risk of melanoma doubles if he or she has had more than five sunburns.

Sunscreen products containing oxybenzone and octinoxate are an affordable, accessible first line of defense for individuals seeking protection from the sun's cancer-causing UV rays. Users include little leaguers, hikers, golfers, soccer and baseball players, and joggers to name a few who are not in the water when using sunscreen protection products on a regular basis. Banning the sale of these products containing homosalate, octocrylene, and octisalate will drastically reduce the selection of sunscreen products available in Hawaii as well as compel local residents to purchase products containing homosalate, octocrylene, and octisalate online and possibly our visitors to bring their own in their suitcases.

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. Most people will not take time off from their work to have to pay for a visit to the doctors and then have to pay for an expensive prescription for sunscreen that may not be covered under their healthcare.

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

Mahalo for this opportunity to testify.



To: The Honorable Roy M. Takumi, Chair,
The Honorable Linda Ichiyama, Vice Chair, and Members
House Committee on Consumer Protection and Commerce
Re: HB 1860, HD 1 – relating to water pollution
Hearing: Wednesday, February 5, 2020, 2:00 p.m. Room 329
Position: **Strong Support**

The HAWAII REEF AND OCEAN COALITION – HIROC – was formed in 2017 by coral reef scientists, educators, local Hawaii environmental organizations, elected officials, and others to address a crisis facing Hawaii’s coral reefs and ocean – namely, the pollution of our near-shore environment by sunscreens that are literally killing our marine life. 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, plus bills on cesspools, plastic marine debris, the climate crisis and sea level rise.

We thank the Legislature for passing, in 2018, Act 104, which provides for the ban of sunscreens containing oxybenzone and octinoxate, two of the most problematic chemicals that interfere with the life-cycles of marine life, effective as of January 2021. (Please change the defective effective date.)

The present bill builds directly on Act 104 by adding three more chemicals to the list -- octocrylene, octisalate, and homosalate. Scientific evidence is now available that clearly shows these chemicals interfere with the life-cycles of Hawaii marine life and therefore these chemicals should be banned from use in Hawaii waters. We will be supplying scientific papers supporting these conclusions on request.

The bill also authorizes the Department of Health to use administrative rules under HRS Chapter 91 to add more chemicals to the list, so that – we hope – it will not be necessary to come back to the Legislature every time there is sufficient scientific evidence to justify the ban of another chemical as critically dangerous to the marine environment.

The need for this bill is obvious and critical. Our reefs already show great damage. We must begin major efforts to stop the damage and help them recover. Thank you for the opportunity to testify!

Alan B. Burdick, on behalf of HIROC, 486-1018
Burdick808@gmail.com



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

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Derek Kurisu, KTA Superstores, *Advisor*
Beau Oshiro, C&S Wholesale Grocers, *Advisor*
Toby Taniguchi, KTA Superstores, *Advisor*

TO:
Committee on Consumer Protection and Commerce
Rep. Roy M. Takumi, Chair
Rep. Linda Ichiyama, Vice Chair

FROM: HAWAII FOOD INDUSTRY ASSOCIATION
Lauren Zirbel, Executive Director

DATE: February 5, 2020
TIME: 2pm
PLACE: Conference Room 329

RE: HB1860 Relating to Water Pollution

Position: Oppose

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

HFIA is opposed to this measure, which disadvantages local retailers and benefits mainland and online retailers. This bill dramatically limits the number of desirable sunscreen products available for sale by local businesses. Internet sales of these same products will likely continue as it is very difficult to enforce this law for items sold online.

This ban would impact a number of products that are used to prevent skin cancer, we believe that a higher standard of review is necessary before banning products that many Hawaii residents rely on to prevent cancer.

Per the Food and Drug Administration:

“In a study recently published in the Journal of the American Medical Association (JAMA), 1 CDER scientists conducted a pilot study and learned that four active ingredients commonly found in sunscreen (avobenzone, oxybenzone, octocrylene, and ecamsule) were absorbed through the skin into the body.

These results do not mean that the ingredients are unsafe. Rather the results support the need for further absorption testing and other safety studies of these ingredients for repeated use. While industry and other interested parties develop further data, **the public should continue to use sunscreens** with other sun protective measures. Broad spectrum sunscreens with sun protection factor (SPF) values of at least 15 remain a critical element of a skin-cancer prevention strategy.”¹

We understand that there are some mineral sunscreens available that do not have these ingredients, however, there are serious concerns about the effectiveness of these alternative products. Consumer Reports (CR) has noted, “**Mineral sunscreens have consistently underperformed in CR’s testing, not always testing at the claimed SPF label** on the package and failing to provide adequate protection from either UVA or UVB rays. None of the 18 sunscreens in our current ratings that contain only titanium dioxide, zinc oxide, or both scored high enough to receive a recommended designation from CR.”²

There are also still questions about which ingredients are safest for the environment. In April 2019 Civil Beat reported, “The new research introduces the possibility that titanium dioxide sunscreen is not as safe for ocean life and human health as previously thought.”³ **Researcher Craig Downs, who was a leading proponent of the oxybenzone ban, is now stating that only expensive sunscreen is acceptable.**⁴

The head of science for the Great Barrier Reef Marine Park Authority is not supporting calls to ban people from using certain sunscreens on the Reef. Amid calls for a crackdown on the products in Queensland, the acting Chief Scientist for the Great Barrier Reef Marine Park Authority (GBRMPA) said currently, the health benefits are outweighing any reef risks. “There’s ample evidence oxybenzone plays a role in human health, so protecting us from DNA damage and the risks of skin cancer,” Dr James Kerry told the ABC. “**The science behind the impact of the products on corals is not well established at all.** The only studies that have established any link to damage to corals have been done in a lab and they haven’t replicated the conditions on the reef. They’ve been done these in confined spaces, in tanks, and if you treat coral that way it tends to get stressed. When we look for concentration of these chemicals out on the reef we’re finding very, very low concentrations.” Dr Kerry said people who are concerned about the health of the reef would be far better off reducing their carbon footprint. “**This issue of sunscreen is a distraction from what we really need to focus on the reef, which is climate change,**” he said.

Hawaii has high rates of skin cancer and we don’t believe there is enough evidence to warrant additional bans on functional products.

Thank you for the opportunity to testify.

¹ <https://www.fda.gov/drugs/news-events-human-drugs/spotlight-cder-science-new-fda-study-shines-light-sunscreen-absorption>

² <https://www.consumerreports.org/sunscreens/what-you-need-to-know-about-sunscreen-ingredients/>

³ <https://www.civilbeat.org/2019/08/some-reef-safe-sunscreens-may-not-be-safe-after-all/>

⁴ <https://www.civilbeat.org/2019/08/some-reef-safe-sunscreens-may-not-be-safe-after-all/>



COMMITTEE ON CONSUMER PROTECTION & COMMERCE
Representative Roy M. Takumi, Chair
Representative Linda Ichiyama, Vice Chair

Wednesday, Feb 5, 2020 2:00PM
Room 329 State Capitol

In Support of HB1860 HD1

Dear Representative Roy M. Takumi, Chair and Representative Linda Ichiyama, Vice Chair and Committee Members,

My name is Mendy Dant, and I am Exec. Vice President of Fair Wind Cruises and Kona Sunrise Charters in Keauhou Kona, Hawaii. We have been taking visitors and residents alike snorkeling to Kealakekua Bay since 1971. Over the years as tourism has grown, we have seen a negative effect on our coral reef's health. Since we have had a couple of very warm summers, we have seen further decline.

We understand the harmful chemicals in the popular sunscreens have caused many of our corals to become sterile. Now, that the FDA has declared its concerns about the effects of chemical sunscreens on human health, removing the chemicals from sunscreen should be supported by everyone concerned with the health of every living thing that has an endocrine system. That is every mammal, cetacean, fish and corals.

The mineral sunscreen prevents sunburns when used as directed, that is why FDA has given it their GRASE stamp of approval. There are many locally made, safe mineral sunscreens available for us to buy and use. Please make this the only choice! 100% zinc and or mixed with titanium dioxide, are all mineral and safe and effective. These mineral sunscreens are #1 Dermatologist recommended for sun care, and it gives superior sun protection against UVA & UVB rays to prevent sunburns.

Please support this bill HB1860 HD1 and protect our oceans from these harmful and dangerous chemicals.

Sincerely,

Mendy Dant
Exec. Vice President Fair Wind Cruises
Kona Sunrise Charters Inc
78-6775 Makenawai St
Kailua Kona, Hi 96740

78-6775 MAKENAWAI ST., BOX A
KAILUA-KONA, HAWAII 96740
TELE: 808-322-2644
FAX: 808-322-2913

WWW.FAIR-WIND.COM

HB-1860-HD-1

Submitted on: 2/4/2020 12:35:34 AM

Testimony for CPC on 2/5/2020 2:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Victor Muh	Individual	Support	No

Comments:

In Support of HB 1860 - HD1

Dear Rep. Roy M. Takumi, CPC Chair and Rep. Linda Ichiyama, CPC Vice Chair and other committee members,

My name is Joe DiNardo, I am a retired personal care products toxicologist, formulator and regulatory affairs person with 44+ years experience and have been working with Dr. Craig Downs for the last 6+ years or so studying the impact of sunscreens on the environment and humans.

I would like to present a different picture than what the personal care and chemical industry lobbyists are claiming in their testimony against HB 1860. With that said, the information outlined below is supported by published peer review scientific literature and not personal opinion and/or related to protecting the \$10 billion sunscreen industry.

Per their testimony on January 27, 2020 opposing HB 1860 there were several points made that are not quite as accurate as one may think. For example:

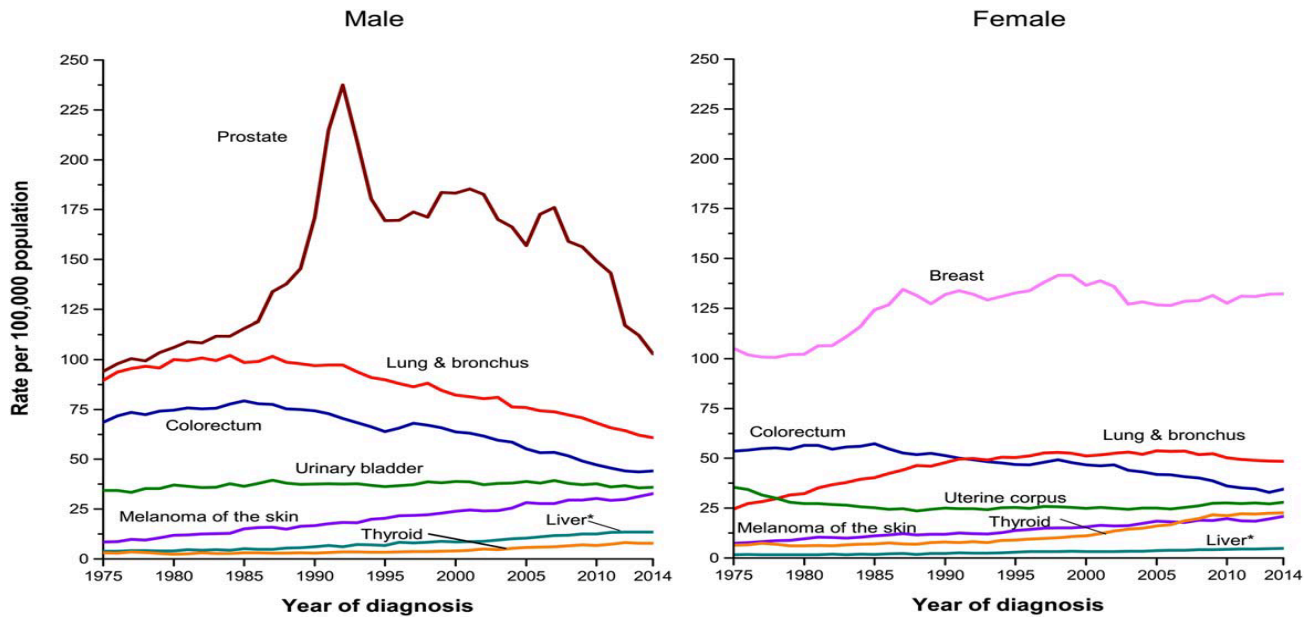
Statement I ... *“Skin cancer is the most common form of cancer, with one-in-five people in the U.S. expected to be diagnosed within their lifetime.”*

According to the **American Cancer Society** (Siegel et al 2018 Cancer statistics, CA Cancer J Clin., 68:7-30.), there are **91,270 Melanomas expected with 9,320 (~10%) cases leading to death** compared to **Breast Cancer 268,670 with 41,400 expected deaths (15.4%), Prostate Cancer 164,690 with 29,430 expect deaths (17.8%), Lung Cancer 234,030 with 154,050 expected deaths (65.8%), Colon Cancer 97,220 with 50,630 expected deaths (52%)**. Additional statistics with higher incidence rates than Melanoma are as follows: Digestive Cancers expected 319,160 with 160,820 expected deaths, Genital System Cancers 286,390 with 62,330 expected deaths, Urinary System Cancers 150,350 with 33,170 deaths expected and Lymphoma 83,180 with 20,960 deaths expected. Realizing that statistics vary from group to group, I would still say that breast, prostate, lung and colon cancers occur more frequently with a significantly higher death rate than melanoma – at least according to the American Cancer Society.

Statement II: *“Ninety percent of non-melanoma skin cancers are associated with exposure to ultraviolet (UV) radiation from the sun. Sunscreens are a proven preventative barrier to the harmful effects of solar radiation, and we are concerned that restricting the use of vital sunscreen ingredients could lead to higher skin cancer rates in the U.S.”*

Unfortunately, based on the **actual** scientific data published there is no evidence that sunscreens do anything to prevent skin cancer, in fact skin cancer rates around the world have dramatically increased over the last 40 years since their introduction. In the United States the **American Cancer Society** data (Figure 1) demonstrates that Melanoma of the skin (purple line) has increased 4 fold in men (1975 ~ 8/100,000; 2014 ~ 32/100,000) and 3 times in women (1975 ~ 7/100,000; 2014 ~ 21/100,000). Globally, the **World Health Organization** has stated **“No conclusion can be drawn about the cancer-preventive activity of sunscreens against basal cell carcinoma and melanoma. Use of sunscreens extends sun exposure ... which increases the risk of melanoma”** (Table 1). Even Australia, a country thought to have skin cancer under control, reported “Non-melanoma skin cancers increased from 412,493 in 1997 to 767,347 in 2010 and estimated 938,991 in 2015.” (Table1). In fact, even the most recent article published (Waldman and Grant-Kels, JAAD 2019, 80:574–576) on this topic concluded that: *“there are only 4 prospective studies that examine sunscreen’s role in preventing skin cancer, and none of these studies examine the efficacy of sunscreen in preventing skin cancer in otherwise healthy individuals.” ... “Some prevention of premature aging, actinic keratosis and squamous cell carcinoma was observed, but little to no benefits were observed for basal cell carcinoma or melanoma.”*

FIGURE 1. Trends in Incidence Rates for Selected Cancers by Sex, United States, 1975 to 2014



Reference: Siegel RL, Miller KD, Jemal A. (2018). Cancer statistics, 2018. CA Cancer J Clin., 68(1):7-30.

Table 1: Sunscreen and Skin Cancer: Report Card

Group	Reference	Comment
Food & Drug Administration	FDA Labeling Guidelines: https://www.fda.gov/downloads/drugs/guidancecomplianceregulatoryinformation/guidances/ucm330696.pdf .	Allowable Claims – “ helps prevent sunburn” and “if used as directed with other sun protective measures (meaning sun avoidance and protective clothing), decreases the risk of skin cancer and early skin aging caused by the sun.”
US Health and Human Resources	Guy G.P. Jr., et al. (2015). Prevalence and costs of skin cancer treatment in the U.S., 2002-2006 and 2007-2011. Am J Prev Med., 48(2):183-187.	“Skin cancer cases increased from 3.4 million in 2002–2006 to 4.9 million in 2007– 2011.”
American Cancer Society	American Cancer Society: Cancer Facts and Figures 2017: https://www.cancer.org/content/dam/cancer-org/research/cancer-facts-and-statistics/annual-cancer-facts-and-figures/2017/cancer-facts-and-figures-2017.pdf	“87,110 people will get melanoma in 2017.”
International Agency for Research on Cancer – Sunscreen Abuse	Vainio H., et al. (2000). An international evaluation of the cancer-preventive potential of sunscreens. Int. J. Cancer., 88, 838–842. Autier P. (2009). Sunscreen abuse for intentional sun exposure. Br J Dermatol., 161 Suppl 3:40-45.	“No conclusion can be drawn about the cancer-preventive activity of sunscreens against basal cell carcinoma and melanoma Use of sunscreens extend sun exposure ... which increases the risk of melanoma”
Division of Dermatology, David Geffen School of Medicine - UCLA	Chesnut C., Kim J. (2012). Is there truly no benefit with sunscreen use and Basal cell carcinoma? A critical review of the literature and the application of new sunscreen labeling rules to real-world sunscreen practices. J Skin Cancer., 480985	“There has only been one randomized and controlled study to examine sunscreen’s role in the prevention of Basal Cell Carcinoma, and no significant protective benefit was found.”
University of Granada	Martín García E., et al (2017). Changes in the	“Skin cancer incidence via World

University of Granada Spain - School of Medicine	Martín García E., et al (2017). Changes in the Incidence of Skin and Lip Cancer Between 1978 and 2007. <i>Actas Dermosifiliogr.</i> , 108(4):335-345.	"Skin cancer incidence via World Health Organization data from the Cancer Incidence in Five Continents - observed increases in global skin and lip cancers for the period 1978 to 2007."
University of Melbourne Australia - Department of Medicine	Fransen M., et al. (2012). Non-melanoma skin cancer in Australia. <i>Med J Aust.</i> , 197(10):565-568.	"Non-melanoma skin cancers increased from 412,493 in 1997 to 767,347 in 2010 and estimated 938,991 in 2015."
Cancer Council of Western Australia	Slevin T. (2013). Sunscreen, skin cancer and the Australian summer. <i>The Conversation</i> : (Retrieved from) http://theconversation.com/sunscreen-skin-cancer-and-the-australian-summer-11633 .	"It's important to understand that sunscreen is a useful adjunct to other sun protection measures (sun avoidance and protective clothing). Rather than being our first line of

Statement III: *"This proposed ingredient ban ignores the real causes of coral decline according to scientists from around the world, the foremost being climate change. Coral reefs are impacted by an increasing array of hazards – primarily from effects of pollution (acidification and runoff), global climate change and unsustainable fishing practices."*

The real cause of coral decline is simply chemical pollution – which also drives global warming (CO2 is a chemical). No one has every said that getting rid of sunscreens would make all the coral come back and/or bring peace on earth. However, **Kalalu'u Bay** through control of chemical sunscreen use appears to be seeing some **new growth** of corals (preliminary data). Globally, coral bleaching occurs when water temperature reaches ~86° F ... in Hawaii coral bleaching is occurring between 80° – 83° F. This would imply that more than global warming is at hand. We all know that there are several factors involved in the decline of coral, however, replacing chemical sunscreens with sun safe behaviors and mineral sunscreen is something everyone can do NOW!

Statement IV: *"Published studies claiming to show adverse impacts of sunscreens on coral (e.g. Downs et al. 2016) are unreliable and should therefore not be used when making important policy decisions. Measured sunscreen levels in U.S. coastal waters where coral live are extremely low (parts per trillion levels have been detected) - equivalent to adding a few drops of sunscreen to the Rosebowl Stadium filled with seawater (Mitchelmore et al., 2019)" ... "HB 1860 lacks the necessary scientific evidence to demonstrate that sunscreen ingredients are responsible for coral bleaching"*

There are several other scientists, other than Downs et al, that have demonstrated that sunscreens are toxic to corals – this is why the phrase "*Published studies*" (plural) was used in their statement (see references below). Industry continues to vilify Downs and his colleagues, however, industry has done **ZERO** to scientifically disprove anyone's findings. Instead they **hired** Mitchelmore (not an independent scientists) who initially came out to Hawaii and collected water samples from areas that have no people around because of sharks! There are literally hundreds of scientists, around the world that have identified sunscreens in virtually every body of water on our planet. In fact, all you have to do is stand at the top of Hanauma Bay (see photo below) ... the areas where coral appears blurry are clouds of sunscreen! Water samples taken by Rep. Ward and Senator Espero a few years ago demonstrated levels as high as 28 parts per billion in areas of the Bay.



Statement V: *“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. We respectfully ask that you oppose HB 1860.”*

The only thing that industry fears is losing billions of dollars more from loss of sunscreen sales. They have proven time and time again that only the bottom line matters ... the environment isn’t even an after thought. The only confusion that consumers are experiencing is what they are being told by lobbyists and past presidents of the American Academy of Dermatology and the Skin Cancer Foundation ... who have been telling people things like ... *“sunscreens save lives”* and *“sunscreens reduce cancer by 50%”* which is not only deceptive, but the complete opposite of what the scientific data indicates!

Please support HB 1860 ... not only to protect the environment from chemical pollution, but also to minimize the toxic impact that these chemicals have on all living things – including humans.

Most Respectfully, Joe DiNardo

PS: Based on published safety data (see info for testimony supporting SB 2778 below), again by hundreds of scientists from around, it appears that the chemical sunscreens currently in question by FDA are more likely to cause cancer than to prevent it.

PSS: Other published scientific papers relating to coral toxicity:

- 1) Tsui et al. Environ Sci Technol. 2017 Apr 18;51(8):4182-4190
- 2) Corinaldesi et al. Sci Rep. 2017 Aug 10;7(1):7815.
- 3) He et al. Environ Pollut. 2019 Feb;245:462-471.
- 4) Paredes et al. Chemosphere. 2014 Jun;104:44-50.
- 5) Stien et al. Anal Chem. 2019 Jan 2;91(1):990-995.

In Support of SB 2778 - Sale of only GRASE I Sunscreens in Hawaii

First, I would like to Mahalo Senators Gabbard, Riviere, Ruderman, Moriwaki, Nishihara for introducing SB 2778 which will add measures to further protect Hawaii's environment, constituents and the 10 million visitors that come to enjoy its natural beauty.

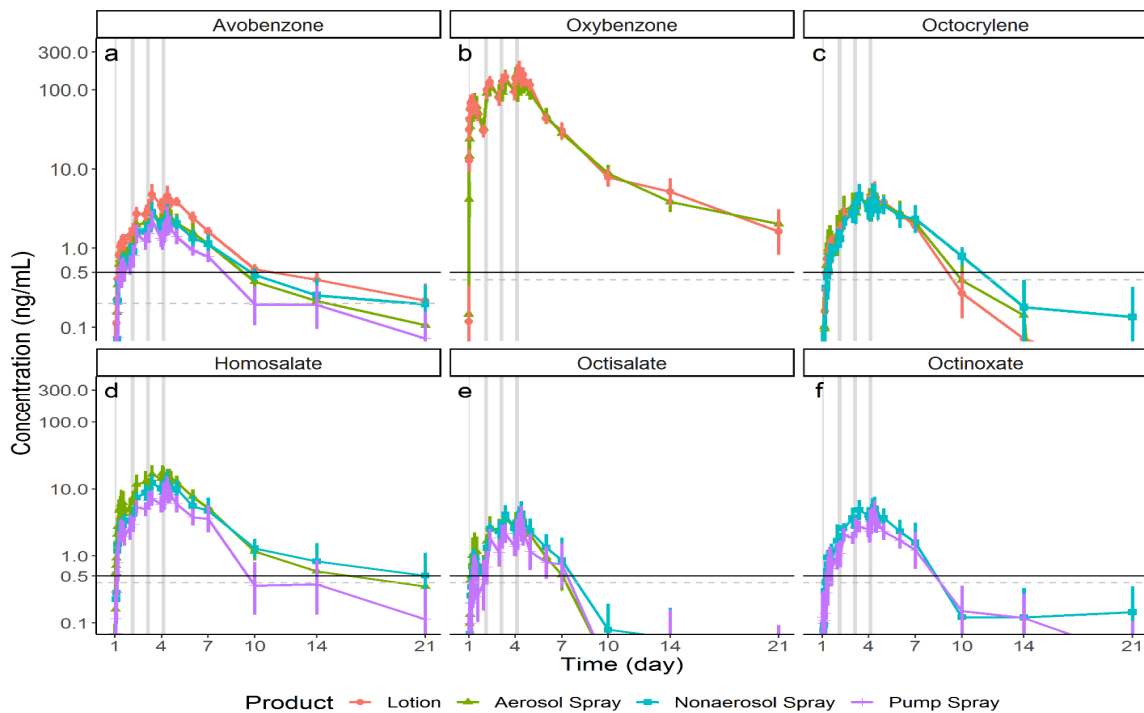
As you know, Hawaii's Act 104 (banning the sale of sunscreens containing oxybenzone or octinoxate) has caused the world to open its eyes to the environmental destruction that sunscreens have caused and continue to cause globally. Because of this, Palau, Aruba, Bonaire, the U.S. Virgin Islands, Marshall Islands, and the city of Key West have followed Hawaii's example and have introduced similar/identical bans.

Another impact of Hawaii's innovative planning/action has caused the Food & Drug Administration (FDA) to question the human safety of not just oxybenzone and octinoxate, but of all 16 sunscreens actives currently approved for use in the United States. This action has caused FDA to identify that only Zinc Oxide and Titanium Dioxide actives **are Generally Recognized as Safe and Effective** (GRASE - Category I) for human use. The remaining 14 chemicals have been reclassified as **not being GRASE** "because the public record does not currently contain sufficient data to support positive GRASE determinations". FDA has published their reasoning for this action in the February 26, 2019 Federal Register:

"For example, the available literature includes studies indicating that oxybenzone is absorbed through the skin to a greater extent than previously understood and can lead to significant systemic exposure, as well as data showing the presence of oxybenzone in human breast milk, amniotic fluid, urine, and blood plasma. The significant systemic availability of oxybenzone, coupled with a lack of data evaluating the full extent of its absorption potential, is a concern, among other reasons, because of questions raised in the published literature regarding the potential for endocrine activity in connection with systemic oxybenzone exposure. Nearly all of these sunscreen active ingredients also have limited or no data characterizing their absorption." (FYI - by law, it is industry's responsibility to provide this data)

Because of industry's inability to provide adequate safety data to FDA and their apprehension to confirm FDA's concerns about "significant systemic exposure" the FDA conducted their own study on products currently being sold that contained 6 of the chemicals in question (Figure 1) ... FDA concluded that all posed a significant risk to human health because they absorb into our blood stream above the safety cut-off point of 0.5 ng/ml (horizontal line at 0.5 on each of the graphs below) **after one day** of application. Additionally, even when applications were **stopped after 4 days**, the level of sunscreens in the blood stayed above the 0.5 ng/ml level (oxybenzone never dropped below this line even 17 days after applications were stopped).

Figure 1: Human Absorption of 6 of the 12 Chemicals in Question:



Reference: Matta et al JAMA 2020; 323:256-267

The information obtained from this experiment, confirms FDA's concerns about the safety of these chemicals and justifies their request to industry to provide data that, among other things, demonstrates these chemicals will not cause cancer or reproductive effects to offspring based on absorption levels. Another point that justifies FDA's safety concerns is based on the results obtained from a recent 2-year carcinogenicity study that was conducted by the US National Toxicology Program (NTP) on oxybenzone. The summary data released by NTP states that at the **levels tested** oxybenzone produced:

- 1) Increased incidence of **thyroid** C-cell adenomas and uterine stromal polyps in female rats.
- 2) Occurrence of brain and spinal cord malignant meningiomas in male rats.
- 3) Increased incidences of non-neoplastic lesions of the uterus and **adrenal cortex** in female rats and of the **testis** and **pancreas** in male rats.
- 4) No evidence of carcinogenic activity in male or female mice.
- 5) Increased incidences of non-neoplastic lesions of the bone marrow, spleen, and kidney in female mice and of the bone marrow, spleen, kidney, and liver in male mice.

These findings were based on oxybenzone being tested at 0.1%, 0.3% and 1% concentrations, which is **6 to 60 times lower** than the 6% level that is commonly used in sunscreen products.

So, how does the human absorption and animal carcinogenicity data presented above tie into the environmental concerns in coral and other aquatic life forms that Act 104 was based on?

- 1) FDA's long history determining that human safety is tied into the amount of chemical that is in the blood. For lack of a better term, this is "guilt by association", but something cannot produce an adverse event if it is not present.
- 2) The NTP data not only identifies the carcinogenic potential of oxybenzone, but demonstrates that it targets endocrine glands (thyroid, adrenal glands, testies, pancrease ... etc). The chemical is introduced into the system (rodents) and it produces specific adverse reactions (damage to endocrine glands) ... this is called "causation".

Therefore, one can summarize that exposure to oxybenzone is associated with specific adverse effects that impact living organisms or "**association is related to causation**". How can we extrapolate this concern to all living organisms; simple! The World Health Organization has stated that chemicals that impact endocrine glands (endocrine disruptors) are not specific to a certain species. In other words, chemicals with this potential do not care (differentiate) if you are a coral, fish, bird, democrat or republican ... the only prerequisite is that an endocrine receptor is there to impact!

Based on published safety data, it appears that the chemical sunscreens currently in question by FDA are more likely to cause cancer than to prevent it. **Please vote to support SB 2778** and continue to protect Hawaii's environment, citizens and visitors.

Most Respectfully,

Joe DiNardo (retired toxicologist with 44+ years experience and frequent Hawaii visitor)

HB-1860-HD-1

Submitted on: 2/4/2020 2:50:30 PM

Testimony for CPC on 2/5/2020 2:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Tatyana Cerullo	Kokua Sun Care (Hawaii company)	Support	No

Comments:

Dear House Representatives:

I am testifying to assure you that there are many alternatives to chemical sunscreens on the market that use only zinc oxide and/ or titanium dioxide. I am the owner of a Hawaii-based company, a registered Hawaii limited liability company, called KĀ• kua Sun Care that is selling 3 oz, 1oz tubes, and sample packets of a Hawaiian Natural Zinc Sunscreen 50 SPF/80 minute water resistance. See www.kokuasuncare.com. The active ingredient is 25% non nano zinc oxide, and we are using 7 Hawaii-grown antioxidant ingredients. It was formulated and is manufactured to meet all over-the-counter drug regulations in a FDA-inspected drug licensed facility, FDA-tested, labeled in accordance with FDA regulations, and the label is registered with the FDA. Our products are widely available via Amazon Prime, our website, Whole Foods Markets, Down to Earth stores, Island Naturals, Mana Foods, and many shops and hotels around the islands, and the list continues to expand daily.

We strongly support HB1860 to ban additional chemical chemicals due to the established widely accepted scientific data that these chemicals are harmful to our coral reef ecosystem and human health. There is NO basis to claim there should not be a more extensive ban because no other sunscreens exist. There is concrete evidence from my company and many others that effective quality sunscreens that would be compliant with this law do exist and are widely available.

Mahalo for your consideration.

Tatyana Cerullo

Co-owner, KĀ• kua Sun Care

Honolulu, Hawaii

Personal Care  Products Council
Committed to Safety,
Quality & Innovation



**CONSUMER HEALTHCARE
PRODUCTS ASSOCIATION**

February 5, 2020

Representative Roy Takumi, Chair
Representative Linda Ichiyama, Vice Chair
Committee on Consumer Protection & Commerce
State Capitol
415 South Beretania Street
Honolulu, HI 96813

Chair Takumi and Vice Chair Ichiyama:

As a coalition of health, wellness and business organizations, we respectfully request that you oppose HB 1860.

HB 1860 would add homosalate, octocrylene, and octisalate to the sunscreen sale and distribution ban and allows the Department of Health to adopt rules to ban additional ingredients. Policy decisions that will likely adversely impact public health should not be made ahead of a scientific consensus on this issue. This bill would create a serious public health issue by banning the sale of safe and effective sunscreen protection for the millions of consumers and tourists in Hawaii.

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.

According to the Skin Cancer Foundation, skin cancer is the most common form of cancer, with one-in-five people in the U.S. expected to be diagnosed within their lifetime. Ninety percent of non-melanoma skin cancers are associated with exposure to ultraviolet (UV) radiation from the sun. Sunscreens are a

proven preventative barrier to the harmful effects of solar radiation, and we are concerned that restricting the use of vital sunscreen ingredients could lead to higher skin cancer rates in the U.S.

The decline of coral reefs in Hawaii and other parts of the world has been linked to rising ocean temperatures as the result of climate change. For example, Hughes et al. (2017) published a study linking mass coral bleaching events to climate change in the journal *Nature*. Moreover, another study by Bruno and Valdivia (2016) in the journal *Science Reports* demonstrated that local policy actions aimed at reducing the impact of human activities on coral reefs had no discernable success since climate change was still damaging reefs despite other factors being addressed.

U.S. coral are also under threat from a number of diseases, such as Stony Coral Disease which is decimating reefs in Florida and other locations (Walton et al., 2018). To protect fragile coral reef systems, proven major causes of reef decline must be urgently addressed.

PCPC is concerned that the scientific studies linking sunscreen ingredients to adverse impacts on coral do not meet environmental data reliability standards published by NOAA's Office of Restoration and U.S. Environmental Protection Agency Office of Pesticide Programs (EPA OPP) (U.S. EPA, 2011; NOAA, 2011). Both agencies provide published data reliability guidelines for the use of peer-reviewed studies in environmental risk assessment activities. This guidance is designed to ensure that NOAA and the USEPA comply with the Information Quality Act, (passed by Congress in December 2000) (IQA, 2000). For example, a 2015 study by Downs et al. fails multiple data reliability criteria published by NOAA and the U.S. EPA such as the need for sufficiently controlled experiments and analytical confirmation of test chemicals.

PCPC is committed to assessing the potential impacts of sunscreen ingredients on coral by conducting high quality, reliable research with independent academic experts. For example, Mitchelmore et al. (2019) conducted a study which measured sunscreen levels in Hawaiian coastal waters. Extremely low levels (parts per trillion - equivalent to adding a few drops of sunscreen to the Rosebowl Stadium filled with seawater) were detected, even in busy tourist areas such as Waikiki Beach (Mitchelmore et al., 2019). Further studies measuring similarly low UV filter levels in Hawaii and Florida have also been completed and are currently being prepared for publication in a peer reviewed scientific journal. In addition, PCPC is currently undertaking research to evaluate the toxicity of UV filters to coral. These studies have been designed to produce results that will meet NOAA and U.S. EPA's data reliability criteria.

We understand that the decline of coral reefs is an urgent issue requiring policymakers to take pressing action. However, we urge you to direct attention to proven causes of coral reef decline while awaiting reliable and conclusive research on the impacts of UV filters on coral before taking legislative action.

HB 1860 lacks the necessary scientific evidence to demonstrate that sunscreen ingredients are responsible for coral bleaching in Hawaii. 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.

We respectfully ask that you oppose HB 1860.

References

Bruno, JF and Valdivia, A. 2016. Coral reef degradation is not correlated with local human population density. *Scientific Reports*, 6:29778. doi:10.1038/srep29778.

Downs, CA, Kramarsky-Winter, E, Segal, R, Fauth, J, Knutson, S, Bronstein, O, Ciner, FR, Jeger, R, Lichtenfeld, Y, Woodley, CM. 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.

Hughes, TP et al. 2017. Global warming and recurrent mass bleaching of corals. *Nature*, 543 (7645): 373-377. doi: 10.1038/nature21707.

Information Quality Act (IQA). 2000. Pub. L. No. 106-554, Sec. 515 (a) and (b).

Mitchelmore, CL, He, K, Gonsior, M, Hain, E, Heyes, A, Clark, C, Younger, R, Schmitt-Kopplin, P, Feerick, A, Conwat, A and Blaney, L. 2019. Occurrence and distribution of UV filters in coastal surface water, sediment and coral tissue from Hawaii. *Science of the Total Environment* 670, 398-410.

NOAA. 2011. NAO 2002-735D: Scientific Integrity:

https://www.corporateservices.noaa.gov/ames/administrative_orders/chapter_202/202-735-D.html

USEPA. 2011. Evaluation Guidelines for Ecological Toxicity Data in the Open Literature,

https://www.epa.gov/pesticide-science-and-assessing-pesticide-risks/evaluation-guidelines-ecological-toxicity-data-open#att_5.

Walton, CJ, Hayes, NK, Gilliam DS. 2018. Impacts of a Regional, Multi-Year, Multi-Species Coral Disease Outbreak in Southeast Florida. *Frontiers in Marine Science* 5, 323. doi.org/10.3389/fmars.2018.0023.

HB-1860-HD-1

Submitted on: 2/4/2020 8:52:57 PM

Testimony for CPC on 2/5/2020 2:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Cynthia Punihaole Kennedy	Individual	Support	No

Comments:

Aloha Honorable Rep. Takumi and Rep. Ichiyama

I am writing in support of HB 1860. On January 21, 2020 this article <https://www.webmd.com/skin-problems-and-treatments/news/20200121/fda-skin-absorbs-dangerous-sunscreen-chemicals> raised concerns of the dangers of sunscreen chemicals. The chemicals in question are listed on the **FDA GRASE Category III list as insufficient data for use in sunscreen.**

<https://www.fda.gov/media/124655/download> by being proactive we "err on the side of caution" to protect our environment/corals and our communities and visitors.

Please support HB 1860