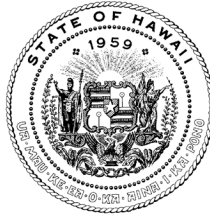


DAVID Y. IGE
GOVERNOR OF HAWAII



**STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES**

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

**Testimony of
SUZANNE D. CASE
Chairperson**

**Before the Senate Committee on
AGRICULTURE AND ENVIRONMENT**

**Monday, January 31, 2022
1:00 PM**

State Capitol, Conference Room 224 & Videoconference

**In consideration of
SENATE BILL 2949
RELATING TO ENVIRONMENTAL PROTECTION**

Senate Bill 2949 proposes to prohibit the sale and distribution of sunscreen products containing ingredients not generally recognized as safe and effective as defined by the Food and Drug Administration (FDA). **The Department of Land and Natural Resources (Department) appreciates the intent of this measure and offers the following comments.**

Currently, the FDA has listed 16 active ingredients as “generally recognized as safe and effective” (GRASE) for use in sunscreen products, including the two that are currently banned in Hawai‘i (oxybenzone and octinoxate) as well as several for which bans have been proposed previously (octocrylene, avobenzone, homosalate, and octisalate).

A proposed rule currently being reviewed by the FDA would change the status of 14 of these ingredients to “not GRASE”. The status changes for two of these, aminobenzoic acid and trolamine salicylate, are due to data showing concerns regarding human health and safety. The status changes for the remaining 12 are due to inadequate data to support a complete safety finding. Further, in the FDA’s outreach on this subject, they suggest that a ruling on the safety of a subset of these ingredients could be deferred to allow time for additional safety information to be gathered.

As these changes have not yet been finalized, this bill would not have a meaningful effect until such time that the FDA creates a definitive ruling per their proposed rule. Until then, it is not clear which particular ingredients would end up being prohibited in Hawai‘i as a result of Senate Bill 2949.

Beyond this, the FDA bases their rules and status determinations on the effects of these ingredients on humans with no consideration regarding potential environmental effects. The

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original purpose of the Act that banned the sale of sunscreen with oxybenzone or octinoxate¹ was to preserve marine ecosystems. If the intent of Senate Bill 2949 is to limit the usage of chemicals that may have deleterious effects on coral reef ecosystems and other natural resources, the Department would recommend that the bill name specific ingredients which have documented negative environmental effects.

The following ingredients found in sunscreens would fit this criterion: octocrylene, avobenzone, homosalate, and octisalate.

The Department recognizes the concerns about the presence of avobenzone and octocrylene in the nearshore marine environment. There is growing body of science that suggests these chemicals may have negative effects on corals and other marine life. Octocrylene is now the dominant UV-sunscreen contaminant in coastal waters.² Recent scientific studies suggest that octocrylene may have negative impacts in aquatic environments equivalent to oxybenzone (already banned from sunscreens in Hawai‘i). Octocrylene functions as an endocrine disruptor, a metabolism disruptor, and a reproductive disruptor. It has also been shown to reduce the ability of coral symbionts to photosynthesize, and evidence suggests that it can have toxic impacts to a variety of aquatic organisms including corals, fish, mammals, and plants.³

Avobenzone has been shown to cause toxicity to the light-reactions of photosynthesis which can cause corals to bleach. Avobenzone is also an endocrine disruptor, and can disrupt fat metabolism.³ This could reduce coral resilience during warming events as bleached corals depend extensively on fat metabolism in order to survive.⁴

Octisalate has displayed multiple hormonal disrupting activities with in vitro lab studies. In addition, disruption of mitochondrial membrane function, and possible apoptosis (programed cell death) was found. No coral toxicity studies were found for homosalate, but this chemical has been readily found in reef waters. Lab based studies have shown hormone-receptor disrupting activities in in-vitro assays. Lethal and sublethal effects were found when the marine algae (*Tetraselmis* sp.) was exposed to homosalate, indicating potential impacts to phytoplankton communities⁵. This highlights concerns that it could affect corals and suggests the need for testing for these potential the effects. Both homosalate and octisalate are teratogens, which are known to cause embryonic development defects in mammals, fish, and larvae.

As a result of these recent scientific findings, we feel that prohibiting the sale of products containing octocrylene, avobenzone, homosalate, or octisalate would likely benefit the health and resiliency of Hawai‘i’s coral reef ecosystems. At the very least, the Department would recommend support for increased monitoring of various sunscreen chemicals at high-use swimming areas and further research examining the effects of these chemicals on the nearshore marine environment in Hawai‘i.

¹ Act 104 (SLH 2018) established section 342D-21, which prohibits the sale or distribution of sunscreen that contains oxybenzone or octinoxate.

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The Department supports the use of sunscreens that do not contain chemicals that are harmful to marine life, particularly non-nano particle, mineral-based sunscreens, as well as sun-protective clothing, as alternatives to organic chemical sunscreens. The Department continues to conduct outreach efforts to help the public understand the issues regarding use of chemical sunscreens in the ocean so they can be better informed and make better choices regarding sun protection. These efforts include information on the Department's Division of Aquatic Resources website, focused one-on-one outreach, news releases, videos, interaction with partner organizations, and meetings with boat tour operators and vendors who sell sunscreen. The Department continues to explore other ways to inform the public on this issue.

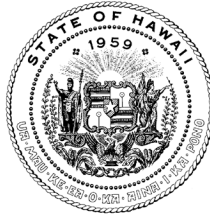
It should be noted that, although it is important to address all potential coral reef ecosystem stressors, the primary concerns with Hawaii's coral reefs continue to be related to land-based sources of pollution, unsustainable fishing practices, invasive species, and climate change. Continued legislative support to reduce these main stressors will have the largest impact on coral reef resilience and recovery.

Thank you for the opportunity to comment on this measure.

Citations

- Ahn, Sungjin, et al (2019), A long-wave UVA filter avobenzone induces obesogenic phenotypes in normal human epidermal keratinocytes and mesenchymal stem cells, Archives of Toxicology <https://doi.org/10.1007/s00204-019-02462-1>
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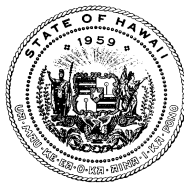
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**STATE OF HAWAII
DEPARTMENT OF HEALTH**

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

**Testimony COMMENTING on SB2949
RELATING TO ENVIRONMENTAL PROTECTION**

**SENATOR MIKE GABBARD , CHAIR
HOUSE COMMITTEE ON AGRICULTURE and ENVIRONMENT**

Hearing Date: 1/31/2022

Room Number: 224/videoconference

Fiscal Implications: This measure may impact the priorities identified in the Governor's Executive Budget Request for the Department of Health's (Department) appropriations and personnel priorities.

Department Testimony: SB2949 seeks to amend HRS 342D to require that sunscreens sold or distributed in Hawaii only contain active ingredients classified by the United States Food and Drug Administration (FDA) as Category 1: *Generally Recognized as Safe and Effective*. The Department has the following comments.

The Department recognizes the benefits of the 2018 legislation prohibiting the sale of oxybenzone and octinoxate containing sunscreen products and shares the concerns about the potential impacts of some sunscreen chemicals on coral reefs and human health. It is heartening to see the dramatic increase in availability, variety and consumer acceptance of local and national brand oxybenzone and octinoxate-free options and mineral sunscreen products that have entered the marketplace in the past two years. Use of these products meets standards for public health protection and offers the public a concrete choice to help protect Hawaii's coral reefs and marine environment when enjoying our beaches.

However, the risk of skin cancer from sun exposure remains a hazard for the people of Hawaii and visitors and it is imperative that the public health consequences of additional prohibition on sunscreen ingredients are considered.

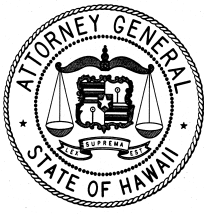
1 Currently, under the FDA’s proposed update, the only FDA Category 1 active ingredients
2 in sunscreens would be zinc oxide and titanium dioxide, both of which are mineral sunscreens.
3 Of the remaining fourteen approved ingredients, twelve would be classified as Category 3 –
4 *insufficient evidence to determine if they are safe and effective* and two as Category 2 – *Not safe*
5 *or effective*.

6 Restricting the sale and distribution of sunscreens to only two approved active ingredients
7 has the potential to increase the risk of skin cancer to Hawaii residents and visitors. This is
8 particularly pertinent to certain individuals who have skin sensitivity or allergy to mineral
9 sunscreens. While the language describing Category 3 - *insufficient evidence to determine if they*
10 *are safe and effective* may sound alarming, it reflects lack of data, not evidence that they are
11 harmful. In fact, many commonly used over-the-counter products rely on Category 3
12 medications, such as aspirin, some antacids, dandruff shampoos and cough medicines among
13 many others. The Department is not aware of any states or jurisdictions that have passed
14 legislation using FDA Category 3 status as justification for banning or restricting medications or
15 personal care products.

16 The Department supports FDA efforts to evaluate the safety and effectiveness of over-
17 the-counter medications including sunscreens and encourages further study of these chemicals.
18 At this time, the risk of greatly restricting available sunscreen options in Hawaii outweighs the
19 potential benefits.

20
21 **Offered Amendments:** None

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



**TESTIMONY OF
THE DEPARTMENT OF THE ATTORNEY GENERAL
THIRTY-FIRST LEGISLATURE, 2022**

ON THE FOLLOWING MEASURE:

S.B. NO. 2949, RELATING TO ENVIRONMENTAL PROTECTION.

BEFORE THE:

SENATE COMMITTEE ON AGRICULTURE AND ENVIRONMENT

DATE: Monday, January 31, 2022 **TIME:** 1:00 p.m.

LOCATION: State Capitol, Room 224 and Via Videoconference

TESTIFIER(S): Holly T. Shikada, Attorney General, or
Dale K. Sakata, Deputy Attorney General

Chair Gabbard and Members of the Committee:

The Department of the Attorney General (Department) provides the following comments.

This bill would prohibit, from January 1, 2024, the sale, offer for sale, or distribution in the State of any sunscreen that contains ingredients that are not generally recognized as safe and effective by the United States Food and Drug Administration (FDA), except with a prescription issued by a licensed health care provider.

The Department notes that the criteria “generally recognized as safe and effective” by the FDA for sunscreens relates to the product’s use as an over-the-counter drug (as designated by the FDA), and is therefore based on the determination whether sunscreens are safe and effective for humans to use.

This bill’s title relates to “ENVIRONMENTAL PROTECTION.” It is, therefore, questionable whether the stated purpose of this bill can be considered to fall within the scope of environmental protection when the criteria on which the ban would be applied does not appear to relate to environmental protection, but rather, relates to public health and safety. This raises a concern that the bill title may violate section 14 of article III of the Hawaii State Constitution, which provides that “[e]ach law shall embrace but one subject, which shall be expressed in its title.” The Department respectfully recommends that this bill be held as there are other bills related to “SUNSCREEN” or “SUNSCREENS” which would not raise this constitutional issue.

Thank you for the opportunity to share these comments.

SB-2949

Submitted on: 1/28/2022 3:19:27 PM

Testimony for AEN on 1/31/2022 1:00:00 PM

Submitted By	Organization	Testifier Position	Remote Testimony Requested
Ted Bohlen	Testifying for Hawai'i Reef and Ocean Coalition (HIROC)	Support	No

Comments:

To: The Honorable Michael Gabbard, Chair, The Honorable Clarence Nishihara, Vice Chair, and Members of the Senate Committee on Agriculture and Environment

From: Hawai'i Reef and Ocean Coalition (by Ted Bohlen)

Re: Hearing SB2949 RELATING TO ENVIRONMENTAL PROTECTION.

Monday January 31, 2022, 1:00 p.m., by videoconference

Position: **Strongly Support SB2949 with an amendment!**

The HAWAI'I REEF AND OCEAN COALITION – HIROC – **STRONGLY SUPPORTS SB2949 and proposes an amendment to eliminate the preemption of county regulations until January 1, 2024.**

HIROC was formed in 2017 by coral reef scientists, educators, local Hawaii environmental organizations, elected officials, and others to address the crisis facing Hawaii's coral reefs and other marine life. HIROC thanks the Legislature for passing Act 104 in 2018, which provided for the world's first ban on sale or distribution for sale of sunscreens containing oxybenzone and octinoxate, effective January 1, 2021. That ban should continue, as it is needed to help protect our precious coral reefs!

This bill supplements and does not supplant the existing law. This law has a different focus: to protect consumers from petrochemical sunscreens that have not been found to be "generally safe and effective" (GRASE) by the US Food and Drug Administration (FDA). Consumers should not be exposed to chemicals that have not demonstrated to be safe, especially where there are scientific studies suggesting these chemicals disrupt hormones and may cause cancers as well as harm corals and other marine life,

HIROC recommends that the Committee amend SB2949 to eliminate the preemption of county regulations in Section 2(c) on page 3, lines 14-19. The people of Maui County have already passed their own ban on the sale and use of non-GRASE sunscreens. The State should not override the expressed will of the people of Maui County.

It has been argued that banning sunscreens containing petrochemicals from the market would lead to additional skin cancers, because people therefore won't use any sunscreen. This false argument ignores the fact that there are ample safer alternatives available on the market containing the active ingredient minerals zinc oxide or titanium dioxide.

Sunscreen preparations were designed to protect against sunburn; because of this they are assumed to protect against skin cancer, but unfortunately this relationship is inferential only. There are no definitive studies that demonstrate that sunscreens protect against skin cancers, as evidenced by research published by the World Health Organization, US Environmental Protection Agency and some dermatologists.

The argument also ignores what the World Health Organization has called "sunscreen abuse." Petrochemical sunscreens are often not applied sufficiently or frequently enough, and wash off in water, so may not actually protect as much as people are led to believe. A false sense of protection against both UVB and UVA pathologies may cause people to spend more time in the sun. This additional exposure to the sun, or "sunscreen abuse," increases the risk of melanoma and may cause MORE skin cancers.

The best course is to avoid the mid-day sun, but if you will be in the sun, wear a protective hat and clothing and sunscreens with zinc oxide or titanium dioxide. This is much better course for public health and the environment than using a petrochemical sunscreen that gets absorbed into your bloodstream and may disrupt your hormones, potentially causing cancers, and may wash off and harm coral reefs and other marine life.

Mahalo for the opportunity to testify in **STRONG SUPPORT for SB2949 with one proposed amendment!**

Hawaii Reef and Ocean Coalition (by Ted Bohlen)



1/30/2022

AEN Committee
Hawaii State Capitol
Honolulu, Hawaii 96813

Dear Chair Gabbard, Chair, Vice Chair Nishihara, and Members of the Senate Committee on Agriculture and Environment,

Position: Strongly support SB2949 and proposes an amendment to eliminate the preemption of county regulations until January 1, 2024.

The Surfrider Foundation is a national nonprofit organization dedicated to the protection and enjoyment of our ocean, waves, and beaches. Surfrider maintains a network of over 150 chapters and academic clubs nationwide, including 4 chapters in the Hawaiian Islands. The Surfrider Foundation focuses on many aspects of the environment such as coastal protection, plastic pollution, and water quality.

Already in this state we have banned the chemicals oxybenzone and octinoxate from legal sale in sunscreens. This is a huge step in protecting not only our coral reef areas but also the people who use these products, as they are shown to be harmful to both (Downs et al. 2016, DiNardo and Downs 2017, and Siller et al. 2018). This bill would add avobenzone and octocrylene to this list of banned sunscreen additives. These chemicals are among those that are readily absorbed into the skin (Matta et al. 2019) and have shown toxic hormonal effects in some vertebrates (Zhang et al. 2016).

This bill supplements and does not supplant the existing law. This law has a different focus: to protect consumers from petrochemical sunscreens that have not been found to be "generally safe and effective" (GRASE) by the US Food and Drug Administration (FDA). Consumers should not be exposed to chemicals that have not demonstrated to be safe, especially where there are scientific studies suggesting these chemicals disrupt hormones and may cause cancers as well as harm corals and other marine life.

Surfrider Foundation recommends that the Committee amend SB2949 to eliminate the preemption of county regulations in Section 2(c) on page 3, lines 14-19. The people of Maui County have already passed their own ban on the sale and use of non-GRASE sunscreens. The State should not override the expressed will of the people of Maui County.

The Surfrider Foundation works with many companies already striving to make a suitable alternative, and there are many zinc based sunscreens on the market that are hugely popular and easily accessible. Making these the norm would help drive down costs as well, further increasing accessibility to lower income sectors of Hawaii. And from personal experience, they just feel better on your skin!

Thank you for your consideration of this testimony in support of SB2949 with amendments, submitted on the behalf of the Surfrider Foundation's 4 Chapters in Hawaii and all of our members who live in the state and visit to enjoy the many coastal recreational opportunities offered by all of the islands' coastlines.

Sincerely,

Lauren Blickley
Hawaii Regional Manager
Surfrider Foundation



TO: Senate Committee on Agriculture and Environment
Senator Mike Gabbard, Chair
Senator Clarence K. Nishihara, Vice Chair

FROM: Lynn Miyahira representing Public Access to SunScreens (PASS) Coalition

DATE: Monday, January 31, 2022

TIME: 1:00 PM

PLACE: Via Videoconference

Re: SB 2949 - Relating to Environmental Protection

Position: Opposed

The [Public Access to SunScreens](#) (PASS) Coalition is a multi-stakeholder coalition composed of public health groups, dermatologists, sunscreen manufacturers, and leading advocates for skin cancer patients. The PASS Coalition opposes this measure as it will create additional barriers for consumers to access their choice of safe, effective and FDA-approved sunscreens as a skin cancer prevention tool.

We ask that the legislature hold off on passing SB 2949 or any other legislation on sunscreen ingredients, until more data on environmental and public health impacts are available.

The use of sunscreen is an important evidence-based sun-safe practice. It is well known that utilizing comprehensive sun-safe practices is one of the most effective ways to reduce the risk of skin cancer, including the regular use of sunscreen, wearing sun protective clothing, hats and sunglasses, and seeking shade. Skin cancer prevention tools, such as broad-spectrum sunscreens that protect against both UVA and UVB rays, must be combined with comprehensive educational tools to ensure consumer awareness of the risks of skin cancer due to excessive sun exposure.

Hawaii Residents Are at Higher Risk for Skin Cancer

Some notable skin cancer and sun safety behavioral statistics include:

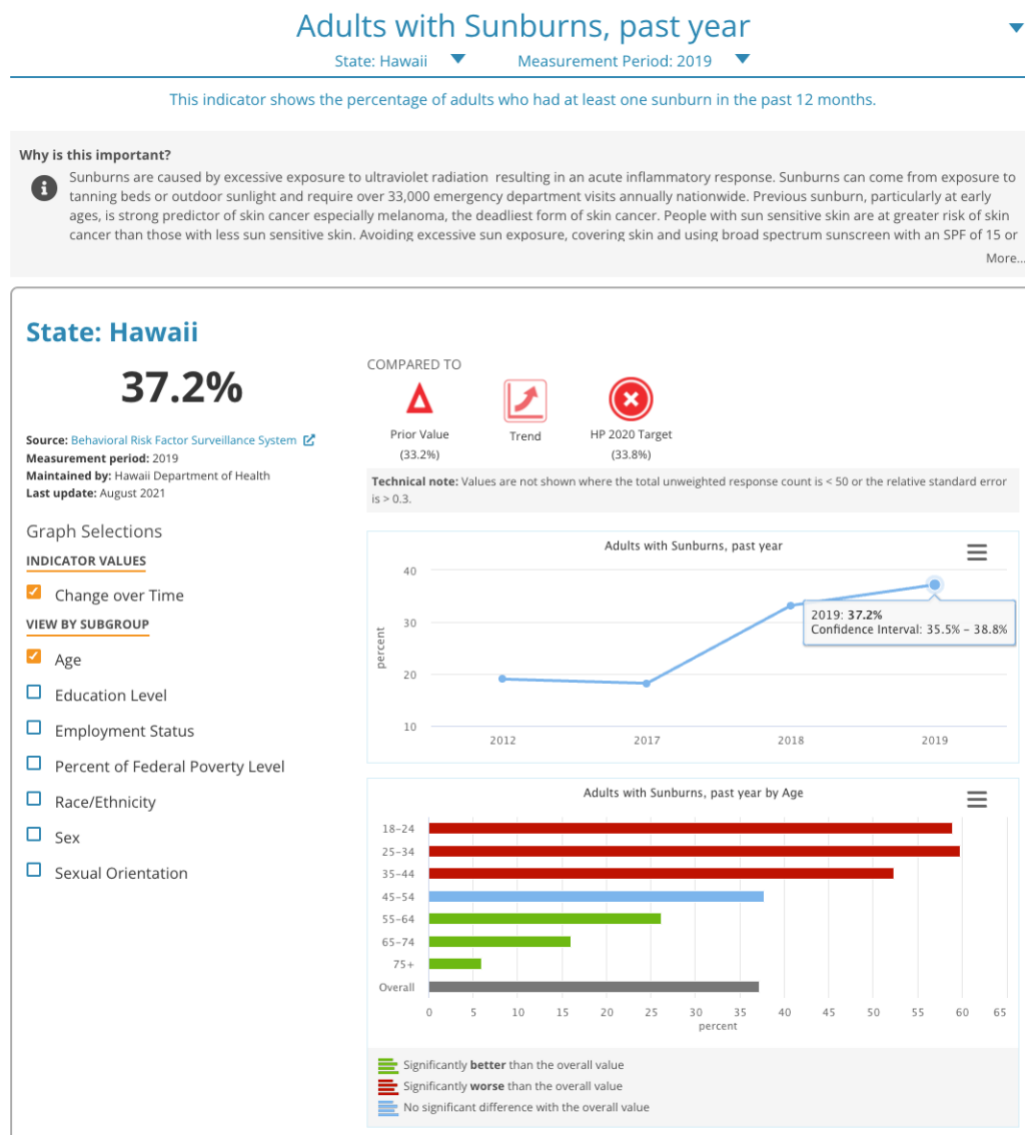
- Native Hawaiians and other Pacific Islanders suffer from double the melanoma mortality rate than the State averageⁱ
- Researchers have found that just *one* blistering sunburn in childhood or adolescence more than doubles a person's chance of developing melanoma later in lifeⁱⁱ

- Hawaii has one of the highest daily UV index averages in the nation.ⁱⁱⁱ On a scale of 0 – 12, Hawaii has over nine months of the year in very-high (8) to extremely high (11) UV indexes, making it crucial public health issue for residents to have access multiple tools to protect them from sun exposure
- In 2019, more than one in three Hawaii residents surveyed reported having a sunburn in the last 12 months, nearly double from the previous year^{iv} – and having just five or more sunburns in your lifetime is known to double your risk for melanoma^v
- Sun safe practices are getting significantly worse since 2017, especially among adults ages 18 – 44, according to the Hawaii Health Matters Community Dashboard.

Table 1: Adults with at least one sunburn in the last 12 months

Source: Hawaii Health Matters, Department of Health

<http://www.hawaiihealthmatters.org/indicators/index/view?indicatorId=3029&localeId=14>



The Science Touted by Sunscreen Ban Advocates Is Flawed

Despite the known risk of skin cancer, Hawaii and a handful of other jurisdictions have placed restrictions on the sale of sunscreens based on limited laboratory testing that led policymakers to believe banning sunscreen would improve coral reef health. The early studies, however, did not fully consider the complexity of a coral reef system and had scientific limitations. Importantly, findings from a 2019 study by Dr. Carys Mitchelmore of the University of Maryland contradicts an earlier study by Dr. Craig Downs that has been widely promoted by advocates of the sunscreen ban. Dr. Mitchelmore's study uses rigorous methodology and shows actual levels of oxybenzone sampled from sea water in Hawaii to be 141 times lower than previously stated by Dr. Downs, and 1,020 times below levels considered toxic to coral.^{vi}

The limited studies that purported to show a link between sunscreen exposure and coral toxicity are methodologically flawed and should not be used for evidence-based policy making based on EPA data reliability standards. Subsequent follow-up studies with more rigorous analyses have not replicated the work by Dr. Downs, and do not support the conclusions.

Congress Has Directed the National Academy of Sciences to Conduct a Comprehensive Study

For that reason, banning sunscreen will have little impact on protecting coral reef. The overwhelming consensus amongst the scientific community is that coral decline is primarily caused by rising ocean temperature, ocean acidification, invasive species, land-based source pollution, water quality issues due to poor wastewater management and other causes. As a result, the United States Congress directed the National Academy of Sciences (NAS) to evaluate the latest science available on the correlation between coral reefs and sunscreens and the potential public health impact of limiting access to sunscreen.

This NAS study, titled "[Environmental Impact of Currently Marketed Sunscreens and Potential Human Impact of Changes in Sunscreen Usage](#)," is being conducted right now as an objective review of these issues by leading scientific experts. The project description is as follows:

"Concerns have been raised about the potential toxicity of sunscreens to a variety of marine and freshwater aquatic organisms, particularly corals. At the same time, there are concerns that people will use less sunscreen rather than substituting sunscreens with UV filters that are considered environmentally safe. This study will review the state of science on use of currently marketed sunscreen ingredients, their fate and effects in aquatic environments, and the potential public health implications associated with changes in sunscreen usage."^{vii}

This study, sponsored by the U.S. Environmental Protection Agency, is currently examining research concerning both the environmental and human health impacts of access to sunscreen. This independent study is evaluating the scientific merit of current science and identify gaps in our current understanding of coral reef environmental health and human health risks of skin cancer. All NAS studies involve multiple strategies to reduce bias and to synthesize the best available science.

NAS Study Should be Completed Before Legislators Make Further Decisions on Consumer Sunscreen Choice

The conclusion of this NAS study – expected soon in spring 2022 – will inform future decisions of policymakers to ensure access to sunscreens while also protecting the coral reefs. Until this study is completed, legislation like SB 2949 should be suspended as there are currently insufficient data to inform a risk/benefit analysis between protecting the marine environment and protecting the public’s health. It is important that the legislature wait for unbiased scientific analysis and consensus.

FDA Advises Continued Use of Sunscreens

In addition to the lack of peer-reviewed evidence on the environmental impact of sunscreens, the impact on human health is also still being researched. On September 24, 2021, the Food and Drug Administration (FDA), which regulates sunscreens as over-the-counter (OTC) drugs for the prevention of sunburn and skin cancer, issued a [final order](#)^{viii} that concluded that, “In the short term, these new authorities essentially preserve status quo marketing conditions for these sunscreens” and that “most sunscreens on the market are in compliance with the deemed final order.” **To be clear, the FDA’s final order issued on September 24, 2021 did NOT recommend any changes to currently marketed sunscreens.**

Earlier this year, the FDA also posted an article titled, “[Shedding More Light on Sunscreen Absorption](#)^{ix}” that explained that while the FDA was seeking more information on the absorption levels of sunscreen ingredients, including avobenzone, oxybenzone, octocrylene, homosalate, octisalate, and octinoxate, it still advises their continued use. The FDA clearly stated, “Absorption does NOT equal risk – the FDA advises continued use of sunscreens” and noted that:

“The findings in these studies do not mean that the FDA has concluded that any of the ingredients tested are unsafe for use in sunscreens, nor does the FDA seeking further information indicate such. The agency’s proposed rule requested additional safety studies to fill in the current data gaps for these ingredients. The rule also proposed that two active ingredients (zinc oxide and titanium dioxide) are generally recognized as safe and effective for use in sunscreens, and additional data was not requested for them.

Given the recognized public health benefits of sunscreen use, the FDA strongly advises all Americans to continue to use sunscreens in conjunction with other sun protective measures (such as protective clothing) as this important rulemaking effort moves forward.”^x

The Hawaii state law signed in July 2018 already eliminated the OTC sale of the ingredients oxybenzone and octinoxate. **SB 2949 would expand this ban to include the most utilized alternative sunscreen**

ingredients and could potentially remove approximately 64% of the sunscreens currently available in the United States from being sold in Hawaii.

The proposed legislation could significantly reduce consumer choice of and access to sunscreen in Hawaii, where sunscreen is often used not only in the ocean, but whenever people are outdoors doing activities such as hiking, golfing, walking, running, cycling or working outside. This puts Hawaii residents at greater risk for skin cancer with only limited peer-reviewed scientific evidence on sunscreen ingredients and its impact on environmental and human health.

Again, we ask that the legislature hold off on passing SB 2949, or any other legislation on sunscreen ingredients, until more data on environmental and public health impacts are available.

If you have any questions about the PASS Coalition or the content of this testimony, please feel free to contact me at lmiyahira@iq360inc.com.

Mahalo you for the opportunity to testify.

Sincerely,

Lynn Miyahira
Public Access to SunScreens (PASS) Coalition

ⁱ <http://www.hawaiihealthmatters.org/indicators/index/view?indicatorId=2389&localeId=14&localeChartIdxs=1%7C2%7C4>

ⁱⁱ <https://www.skincancer.org/skin-cancer-information/skin-cancer-facts/>

ⁱⁱⁱ <https://www.epa.gov/sunsafety/sun-safety-monthly-average-uv-index>

^{iv} <http://www.hawaiihealthmatters.org/indicators/index/view?indicatorId=3029&localeId=14>

^v <https://www.skincancer.org/skin-cancer-information/skin-cancer-facts/>

^{vi} <https://www.sciencedirect.com/science/article/pii/S0048969719310125?via%3Dihub>

^{vii} <https://www.nationalacademies.org/our-work/environmental-impact-of-currently-marketed-sunscreens-and-potential-human-impacts-of-changes-in-sunscreen-usage>

^{viii} <https://www.accessdata.fda.gov/scripts/cder/omuf/index.cfm?event=NewMonograph&ID=D1D673977F06B1486C355A8162942E5B9CC2734AE65E4585CB6C013EDD5B03F3&OMUFID=OTC000006>

^{ix} <https://www.fda.gov/news-events/fda-voices/shedding-more-light-sunscreen-absorption>

^x <https://www.fda.gov/news-events/fda-voices/shedding-more-light-sunscreen-absorption>



1/30/2022

AEN Committee
Hawai'i State Capitol
Honolulu, Hawai'i 96813

Dear Chair Gabbard, Chair, Vice Chair Nishihara, and Members of the Senate Committee on Agriculture and Environment,

Position: Strongly support SB2949 and proposes an amendment to eliminate the preemption of county regulations until January 1, 2024.

The Surfrider Foundation is a national nonprofit organization dedicated to the protection and enjoyment of our ocean, waves, and beaches. Surfrider maintains a network of over 150 chapters and academic clubs nationwide, including 4 chapters in the Hawaiian Islands. The Surfrider Foundation focuses on many aspects of the environment such as coastal protection, plastic pollution, and water quality.

Already in this state we have banned the chemicals oxybenzone and octinoxate from legal sale in sunscreens. This is a huge step in protecting not only our coral reef areas but also the people who use these products, as they are shown to be harmful to both (Downs et al. 2016, DiNardo and Downs 2017, and Siller et al. 2018). This bill would add avobenzone and octocrylene to this list of banned sunscreen additives. These chemicals are among those that are readily absorbed into the skin (Matta et al. 2019) and have shown toxic hormonal effects in some vertebrates (Zhang et al. 2016).

This bill supplements and does not supplant the existing law. This law has a different focus: to protect consumers from petrochemical sunscreens that have not been found to be "generally safe and effective" (GRASE) by the US Food and Drug Administration (FDA). Consumers should not be exposed to chemicals that have not demonstrated to be safe, especially where there are scientific studies suggesting these chemicals disrupt hormones and may cause cancers as well as harm corals and other marine life.

Surfrider Foundation recommends that the Committee amend SB2949 to eliminate the preemption of county regulations in Section 2(c) on page 3, lines 14-19. The people of Maui County have already passed their own ban on the sale and use of non-GRASE sunscreens. The State should not override the expressed will of the people of Maui County.

The Surfrider Foundation works with many companies already striving to make a suitable alternative, and there are many zinc based sunscreens on the market that are hugely popular and easily accessible. Making these the norm would help drive down costs as well, further increasing accessibility to lower income sectors of Hawai'i. And from personal experience, they just feel better on your skin!

Thank you for your consideration of this testimony in support of SB2949 with amendments, submitted on the behalf of the Surfrider Foundation's 4 Chapters in Hawai'i and all of our members who live in the state and visit to enjoy the many coastal recreational opportunities offered by all of the islands' coastlines.

Sincerely,

Charlie Quesnel
Treasurer - Maui Chapter
Surfrider Foundation

To: The Honorable Michael Gabbard, Chair, The Honorable Clarence Nishihara, Vice Chair, and Members of the Senate Committee on Agriculture and Environment (AEN)

From: Friends of Hanauma Bay

Re: Hearing SB2949 RELATING TO ENVIRONMENTAL PROTECTION.

Monday January 31, 2022, 1:00 p.m., by videoconference

Position: **Strongly Support SB2949, with an amendment to delete county preemption**

Friends of Hanauma Bay (FOHB) commends the Committee for your consistent leadership on this issue.

We **STRONGLY SUPPORT SB2949 and propose an amendment to eliminate the preemption of county regulations until January 1, 2024.**

Act 104, Session Laws of Hawai'i 2018 led the world in banning the sale and distribution of sunscreen products containing oxybenzone and octinoxate because of their toxic impacts on coral reefs and other marine life.

Concurrently, there are hundreds of peer-reviewed scientific studies on the toxicological impact of petrochemical UV filters in sunscreens to public health. In September 2021, the FDA acknowledge the seriousness of these studies in its declared intent to issue a final proposed order for OTC sunscreens which includes the following Generally Recognized as Safe and Effective (GRASE) classification of all currently marketed sunscreen actives in the US:

GRASE* for use in sunscreens	Not GRASE for use in sunscreens because of safety concerns	Not GRASE for use in sunscreens because additional data needed
Zinc oxide and titanium dioxide	Aminobenzoic acid (PABA) and trolamine salicylate	Cinoxate, dioxybenzone, ensulizole, homosalate, meradimate, octinoxate, octisalate, octocrylene, padimate O, sulisobenzene, oxybenzone, avobenzene

<https://www.fda.gov/drugs/understanding-over-counter-medicines/questions-and-answers-fda-posts-deemed-final-order-and-proposed-order-over-counter-sunscreen>

We **strongly support SB2949** because it supplements the existing law by recognizing that further protection action is required to prohibit the sale and distribution of sunscreens the Food and Drug Administration does not categorize as GRASE. Industry is required to demonstrate the safety and effectiveness of their products, but after 40 years, has failed to demonstrate that petrochemical UV filters in sunscreens

are GRASE. Consumers should not continue to be exposed to petrochemicals which numerous studies suggest are mutagenic, carcinogenic, and endocrine disrupters in addition to being harmful to corals and other marine life.

Additionally, FOHB recommends that the Committee **amend SB2949 to eliminate the preemption of county regulations** in Section 2(c) on page 3, lines 14-19. The people of Maui County have already passed their own ban on the sale and use of non-GRASE sunscreens because of their concern about the issue, and the State should not override the expressed will of the people of Maui County.

Mahalo for the opportunity to testify in **STRONG SUPPORT OF SB2949 with one proposed amendment.**

With Aloha,

Lisa Bishop
President
Friends of Hanauma Bay



Re: Hearing SB2949 RELATING TO ENVIRONMENTAL PROTECTION
Monday, January 31, 2022, 1:00 p.m., by videoconference

Position: **Strongly Support SB2949 with an amendment!**

STRONGLY SUPPORTS SB2949 and proposes an amendment to eliminate the preemption of county regulations until January 1, 2024.

Aloha Honorable Michael Gabbard, Chair, The Honorable Clarence Nishihara, Vice-Chair, and Members of the Senate Committee on Agriculture and Environment:

On September 24, 2021, the FDA issued a proposed order concerning nonprescription sunscreen drug products. In the proposed order, two mineral products zinc oxide and titanium dioxide are deemed generally recognized as safe and effective (GRASE), and fourteen products are deemed **NOT GRASE**. Of the fourteen products, twelve products do not currently contain sufficient data to support positive GRASE classification. The twelve products that require additional data are avobenzone, cinoxate, dioxybenzone, ensulizole, homosalate, meradimate, octinoxate, octisalate, octocrylene, oxybenzone, padimate O, and sulisobenzene.

The Environmental Protection Agency, Center for Disease Control, American Cancer Society, World Health Organization, as well as hundreds of scientists and dermatologists, have reported that certain chemical sunscreens are harmful to many forms of life and have not been shown to decrease skin cancer. To protect from the sun and reduce the impact on coral reefs they suggest that people avoid the mid-day sun, wear a protective hat and clothing, and apply sunscreen with only zinc oxide or titanium dioxide as the main ingredient. This is a much better course for public health and the environment than using a petrochemical sunscreen that may cause harm to the coral reefs and other marine life.

The Kohala Center requests the Committee amend SB2949 and eliminate the preemption of county regulations in Section 2(c) on page 3, lines 14-19. The people of Maui County have already passed their own ban on the sale and use of non-GRASE sunscreens. The State should not override the expressed will of the people of Maui County.

We ask your strong support for SB2949 prohibiting the sale and distribution of sunscreen products that have questionable effects on the health of humans and marine life in alignment with the Precautionary Principle which asserts that the burden of proof for potentially harmful actions by industry or government rests on the assurance of safety and that when there are threats of serious damage, scientific uncertainty must be resolved in favor of prevention, allowing us to protect our environment and communities for future generations.

Mahalo,
Cynthia Punihaole Kennedy
Director, The Kahalu'u Bay Education Center



AMERICANS FOR DEMOCRATIC ACTION

OFFICERS

John Bickel, President
Alan Burdick, Vice President
Dave Nagajji, Treasurer
Doug Pyle, Secretary

DIRECTORS

Melodie Aduja
Keola Akana
Juliet Begley
Stephanie Fitzpatrick
Jan Lubin
John Miller
Jenny Nomura
Stephen O'Harrow

MAILING ADDRESS

P.O. Box 23404
Honolulu
Hawaii 96823

January 28, 2022

TO: Chair Gabbard and Agriculture and Environment Committee

RE: SB 2949 Relating to Environmental Protection

Support for a Hearing on February 2

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.

Americans for Democratic Action Hawaii supports this bill as it would prohibit the sale and distribution of sunscreen products containing ingredients not generally recognized as safe and effective as defined by the Food and Drug Administration.

Thank you for your consideration.

Sincerely,

John Bickel, President



To: The Honorable Michael Gabbard, Chair, The Honorable Clarence Nishihara, Vice Chair, and Members of the Senate Committee on Agriculture and Environment

Re: Hearing SB2949 RELATING TO ENVIRONMENTAL PROTECTION.
Monday January 31, 2022, 1:00 p.m., by videoconference

Position: **Strongly Support SB2949 with an amendment!**

We are a 51-year-old family-owned snorkel tour company in Kona on Hawaii Island. We have seen a huge devastating change to the coral reefs and wondered why. Then we started hearing about the chemical sunscreens damaging corals so they cannot reproduce eventually killing many corals. We researched and found much scientific data explaining the dangers. We met with DSP on Hawaii Island asking if they could ban all the chemical sunscreens from use in Kealahou Bay to protect this popular snorkel sight and already seriously damaged coral reef. They agreed and since January 1, 2020, we have furnished our customers with mineral sunscreen along with many other snorkel companies bringing people to Kealahou Bay.

We know the best sun protection is the UV clothing, hats and shade cover along with the mineral sunscreen to protect our clients without damaging the fragile coral reefs. The unfortunate confusion for customers is when stores on our island sell chemical sunscreens which are incorrectly labeled as "Reef Safe". We need to protect our natural resources that are irreplaceable. Chemical sunscreen manufacturing businesses do not care about Hawaii, they do not care about our natural resources, they only care about the profit they can make from selling cheap chemicals.

DLNR has a mission statement "Enhance, protect, conserve and manage Hawaii's unique and limited natural, cultural and historic resources held in public trust for current and future generations of the people of Hawaii nei, The state legislature needs to do the pono thing and take leadership in protecting our resources from the mainland manufacturers who do not care about Hawaii. The local sunscreen manufacturers have made wonderful mineral sunscreen products, that retailers can sell in place of these mainland brands until these mainland manufacturers learn they can only sell their clean mineral products, (which they do make) here in Hawaii Nei!

We should support the county government leadership in Maui who stepped up to protect their natural resources. The legislature has had this issue before them for the past 4 years, you can't blame Maui for moving to put in place banning all chemical sunscreens. You have this opportunity again, please do the right thing and protect Hawaii's marine life and coral reefs for generations to come.

Vote YES and support this bill with the amendment eliminating the preemption of Maui County's regulations. Thank you for this opportunity to speak on this critically sensitive environmental concern.

Sincerely,
Mendy Dant
Executive Vice President

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

WWW.FAIR-WIND.COM



Hawai'i State Senate Committee on Agriculture and the Environment

January 31, 2022, 1:00 PM | SB2949 – Testimony in Support

Hawai'i State Capitol | Honolulu, Hawai'i 96813

Dear Chair Gabbard, Chair, Vice Chair Nishihara, and Members of the Senate Committee on Agriculture and Environment,

Position: Strongly support SB2949 and proposes an amendment to eliminate the preemption of county regulations until January 1, 2024.

The Surfrider Foundation is a national nonprofit organization dedicated to the protection and enjoyment of our ocean, waves, and beaches. Surfrider maintains a network of over 150 chapters and academic clubs nationwide, including 4 chapters in the Hawaiian Islands. The Surfrider Foundation focuses on many aspects of the environment such as coastal protection, plastic pollution, and water quality.

Already in this state we have banned the chemicals oxybenzone and octinoxate from legal sale in sunscreens. This is a huge step in protecting not only our coral reef areas but also the people who use these products, as they are shown to be harmful to both (Downs et al. 2016, DiNardo and Downs 2017, and Siller et al. 2018). This bill would add avobenzone and octocrylene to this list of banned sunscreen additives. These chemicals are among those that are readily absorbed into the skin (Matta et al. 2019) and have shown toxic hormonal effects in some vertebrates (Zhang et al. 2016).

This bill supplements and does not supplant the existing law. This law has a different focus: to protect consumers from petrochemical sunscreens that have not been found to be "generally safe and effective" (GRASE) by the US Food and Drug Administration (FDA). Consumers should not be exposed to chemicals that have not demonstrated to be safe, especially where there are scientific studies suggesting these chemicals disrupt hormones and may cause cancers as well as harm corals and other marine life.

Surfrider Foundation recommends that the Committee amend SB2949 to eliminate the preemption of county regulations in Section 2(c) on page 3, lines 14-19. The people of Maui County have already passed their own ban on the sale and use of non-GRASE sunscreens. The State should not override the expressed will of the people of Maui County.

The Surfrider Foundation works with many companies already striving to make a suitable alternative, and there are many zinc based sunscreens on the market that are hugely popular and easily accessible. Making these the norm would help drive down costs as well, further increasing accessibility to lower income sectors of Hawai'i. And from personal experience, they just feel better on your skin!

Thank you for your consideration of this testimony in support of SB2949 with amendments, submitted on the behalf of the Surfrider Foundation's 4 Chapters in Hawai'i and all of our members who live in the state and visit to enjoy the many coastal recreational opportunities offered by all of the islands' coastlines.

Sincerely,

Camile Cleveland
Volunteer Policy Coordinator
Surfrider Foundation, O'ahu Chapter



January 30, 2022

The Honorable Mike Gabbard, Chair
Senate Committee on Agriculture and Environment
Hawaii State Capitol, Room 201
Honolulu, HI 96813

Dear Chairman Gabbard:

On behalf of the Hawaii Dermatological Society, we write to urge you to oppose SB 2949, legislation that would prohibit the sale, offer for sale, or distribution in the state of any sunscreen that contains active ingredients that are not generally recognized as safe and effective (GRASE) by the Food and Drug Administration (FDA) without a prescription issued by a licensed health care provider. As dermatologists we dedicate ourselves to promoting habits in our patients that ensure healthy skin. UV radiation damages the skin's DNA, which is the first stage of skin cancer. We oppose this legislation and urge you to strongly consider the broad implications of banning the use of sunscreens containing certain ingredients, bearing in mind the grave dangers of sun exposure without adequate protection that the residents and visitors of Hawaii face.

Recently, the FDA proposed a rule categorizing two ingredients, zinc oxide and titanium dioxide, as GRASE. The proposed rule also asks manufacturers to provide more data about the safety of chemical sunscreens containing avobenzone, ensulizole, homosalate, meradimate, octinoxate, octisalate, octocrylene and oxybenzone. Industry is currently working with the FDA on testing requirements for these ingredients.

The request for more data does not mean that the ingredients are unsafe. The FDA has not asked the public to refrain from using sunscreens that contain any of these ingredients.

Chemical (organic) sunscreen filters are an important component of many sunscreen products. They provide ample broad-spectrum protection against UV radiation. This

legislation would remove access to chemical filters, leaving only mineral filters, which are less effective. Mineral sunscreen products often leave a whitish residue on the skin. Many, especially individuals with darker skin tones, find these to be unacceptable for use.

UV light exposure is a risk factor for all types of skin cancer and sunscreen use is a major photo-protective method. UVA radiation damages deeper layers of the skin and contributes to the development of melanoma, the deadliest form of skin cancer. UVB radiation is the primary cause of sunburn and plays a key role in the development of skin cancer in the skin's superficial layers. Both types of rays suppress the immune system.¹ Unprotected sun exposure is the most preventable risk factor for skin cancer. At least one in five Americans will develop skin cancer.^{2,3} Melanoma, the deadliest form of skin cancer, is the second most common form of cancer in women, aged 15-29 years old. Caucasian men, age 50+ are at a high risk of developing melanoma.^{4,5,6} In 2021, 460 new cases of melanoma are expected in Hawaii.⁷ The annual cost of treating nonmelanoma skin cancer in the U.S. is estimated at \$4.8 billion, and the average annual cost of treating melanoma is approximately \$3.3 billion.⁸

To prevent skin cancer, the American Academy of Dermatology recommends comprehensive sun protection that includes seeking shade; wearing protective clothing, including hats and sunglasses; and applying a broad-spectrum, water-resistant sunscreen with an SPF of 30 or higher to exposed skin.

Dermatologists have an interest in patient and public access to safe and effective sunscreen ingredients. The FDA is currently working with industry on safety testing for currently marketed sunscreen ingredients. The FDA is also considering several time-and-extent applications (TEAs) for new sunscreen ingredients to be added to the FDA over-the-counter (OTC) sunscreen monograph. The FDA's conclusion from recent studies on

¹ Lim HW, James WD, Rigel DS, Maloney ME, Spencer JM, Bhushan R. Adverse effects of ultraviolet radiation from the use of indoor tanning equipment: time to ban the tan. *Journal of the American Academy of Dermatology*. 2011 Apr 30;64(4):e51-60.

² Stern RS. Prevalence of a history of skin cancer in 2007: results of an incidence-based model. *Arch Dermatol*. 2010 Mar;146(3):279-82.

³ Robinson JK. Sun Exposure, Sun Protection, and Vitamin D. *JAMA* 2005; 294: 1541-43.

⁴ Siegel RL, Miller KD, Jemal A. Cancer statistics, 2017. *CA Cancer J Clin*. 2017; 67:7-30.

⁵ Little EG, Eide MJ. Update on the current state of melanoma incidence. *Dermatol Clin*. 2012;30(3):355-61.

⁶ NAACCR Fast Stats: An interactive quick tool for quick access to key NAACCR cancer statistics. North American Association of Central Cancer Registries. <http://www.naaccr.org/>. (Accessed on 3-10-2016).

⁷ American Cancer Society. Cancer Facts and Figures 2021. <https://www.cancer.org/content/dam/cancer-org/research/cancer-facts-and-statistics/annual-cancer-facts-and-figures/2021/cancer-facts-and-figures-2021.pdf>

⁸ Guy GP, Machlin S, Ekwueme DU, Yabroff KR. Prevalence and costs of skin cancer treatment in the US, 2002–2006 and 2007–2011. *Am J Prev Med*. 2015;48:183–7

sunscreen ingredient absorption “supports the need for further studies to determine the clinical significance of these findings.” FDA further stated that “these findings do not indicate that individuals should refrain from the use of sunscreen.”⁹ Sunscreen ingredients have been in use for almost 50 years without any reported systemic adverse side effects. This issue highlights the urgent need for new safe and effective sunscreen ingredients in the United States. With the approval of ingredients that utilize alternative UV filters, the public’s health will be better. The American Academy of Dermatology Association continues to participate in the discussion with the FDA and manufacturers regarding availability of current and new ingredients.

We are concerned about the potential environmental impact of UV-filters. The potential adverse effects related to the levels of UV-filters in the water supply and marine life (as well as humans) are an emerging science. A review of 12 studies evaluating 14 different organic UV filters in seawater near coral reefs determined that the majority of concentrations found in seawater were in the nanograms per liter range. Nine papers reported toxicological findings from no response to a variety of biological effects; these effects were detected in the micrograms per liter to milligrams per liter range, namely, at least 1000-fold higher than those reported in seawater in real life.¹⁰ The review concludes “there is currently limited evidence to suggest that corals are adversely impacted by environmental exposure to UV filters.”

Our organizations advocated for the enactment of the Further Consolidated Appropriations Act, 2020, by which the U.S. Congress directed the Environmental Protection Agency (EPA) to contract with the National Academy of Sciences (NAS) to conduct a scientific literature review of current sunscreens’ potential risk to the marine environment. The study will consider scientific literature on the potential public health implications as a result of reduced use of sunscreens. This type of research is necessary to understand how UV filters may affect the environment. We encourage you to consider these ongoing efforts before taking any action to remove a product that has been proven to be effective against skin cancer. Based on current data, removing specific sunscreen ingredients and products from the market would be premature. Doing so would deprive

⁹ Matta, MK, Florian, J, Zusterzeel, R, Nageswara RP, Patel, V, Volpe, DAPhD, et al. Effect of Sunscreen Application on Plasma Concentration of Sunscreen Active Ingredients: A Randomized Clinical Trial. *Journal of the American Medical Association* 323, No. 3 (2020). 267.

¹⁰ Mitchelmore CS, Burns, EE, Conway A, Heyes A, Davies IA. A critical review of organic ultraviolet filter exposure, hazard, and risk to corals. *Environ Toxicol Chem.* 2020 (00);00:1-21. Online 2 February 2021 in Wiley Online Library (wileyonlinelibrary.com). DOI: 10.1002/etc.4948

Oppose SB 2949

January 30, 2022

Page 4 of 4

the public of an integral component of photoprotection to decrease the risk of skin cancer.

Please consider the public health consequences of removing access or attaching stigma to sunscreens containing certain ingredients. We urge you to oppose SB 2949 for the reasons above, and we request that Hawaii give the FDA more time to evaluate new sunscreens for public use and for the NAS to conduct its review and report its findings. We appreciate the opportunity to provide written comments on this important public health issue. For more information, please contact Lisa Albany, director of state policy for the American Academy of Dermatology Association, at LAlbany@aad.org or (202) 712-2615.

Sincerely,

Patrick M. Ellison, MD, FAAD
President
Hawaii Dermatological Society



Environmental Caucus of The Democratic Party of Hawai'i

Sunday, January 24, 2022

To: Senate Committee on Agriculture and the Environment
Hon. Mike Gabbard, Chair
Hon. Clarence K. Nishihara, Vice Chair

Re: SB 2949 relating to Sunscreens

Hearing: Monday, January 31, 2022, 1:00 p.m., Room 224 & videoconference

Position: Strong support

Aloha, Chair Gabbard, Vice Chair Nishihara, and Members of the Committee on Agriculture and Environment:

The Environmental Caucus of the Democratic Party of Hawai'i strongly supports SB 2949. This bill would expand the range of sunscreens that are not allowed for sale or use in Hawai'i by adding a blanket prohibition on sunscreens that contain ingredients that are not generally recognized as safe and effective.

This is necessary because it is now beyond clear that most sunscreens on the market today contain chemicals that cause adverse biological reactions in corals, reef fish, and other aquatic life on which Hawai'i's environment, our public health, and our economy all depend. Ideally this bill might persuade the cosmetics industry that it should not keep trying to put dangerous new products on the market in the first place.

We are pleased that this bill, if enacted and enforced, will relieve the State from having to legislate against such products one-by-one in whack-a-mole fashion. Conversely, we regret that it still appears politically necessary to preempt the counties from enacting similar legislation that would provide for an earlier effective date for such limitations.

We greatly appreciate your continuing support for protection of the environment. Thank you for the opportunity to testify.

Melodie Adyja

Alan B. Burdick

Co-Chairs,
Environmental Caucus of the
Democratic Party of Hawai'i

Email: Legislativepriorities@gmail.com



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Makai Watch Coordinator*

Federal Nonprofit Organization
501(c)(3) FEIN 27-0855937
www.pupukeawaimea.org
info@pupukeawaimea.org

January 30, 2022

Re: **STRONG SUPPORT** for **SB2924** Relating to Environmental Protection

Aloha Chair Inouye, Vice Chair Keith-Agaran, and Members of the Committee on Water and Land,

Mālama Pūpūkea-Waimea (MPW) is a Hawai'i non-profit organization founded on the North Shore of O'ahu in 2005. Our mission is "working to replenish and sustain the natural and cultural resources of the Pūpūkea and Waimea ahupua'a for present and future generations through active community stewardship, education, and partnerships." For eighteen years, we have focused our stewardship and education efforts on the Pūpūkea Marine Life Conservation District (MLCD), one of only three MLCDs on O'ahu and eleven statewide.

Due to the area's extreme popularity with visitors, we see first-hand the unfortunate destructive and cumulative impacts chemicals in sunscreens have on our nearshore environment. We **strongly support SB2924** to prohibit the sale and distribution of sunscreen products containing ingredients not generally recognized as safe and effective as defined by the Food and Drug Administration.

We make an effort to educate beachgoers about coral health and the detrimental effects chemical sunscreens have on them. In speaking with visitors, they often say they chose their sunscreen because a sticker on the front of the bottle said "reef safe – no oxybenzone" but after learning more, they realize that those products do indeed still contain coral-killing chemicals such as avobenzone, homosalate, octisalate, and octocrylene – all of which are no longer recognized as safe and effective as defined by the Food and Drug Administration.

It is our hope that the only choices available in stores will be "really reef safe" sunscreens – and thanks to environmentally conscious companies, many of which are local, there are numerous mineral sunscreen options readily available for consumers.

Please support and pass SB2924 **SB2924** to benefit the health and resiliency of Hawai'i's coral reef ecosystems.

Mahalo nui,

Jenny Yagodich

Jenny Yagodich
Director of Educational Programs &
Makai Watch Coordinator
Mālama Pūpūkea-Waimea



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

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TO: Committee on Agriculture and Environment
Senator Mike Gabbard, Chair
Senator Clarence K. Nishihara, Vice Chair

FROM: HAWAII FOOD INDUSTRY ASSOCIATION
Lauren Zirbel, Executive Director

DATE: January 31, 2022
TIME: 1pm
PLACE: Via Videoconference

RE: SB2949 Relating to Environmental Protection

Position: Oppose

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

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

The HFIA proposes that since this bill would ban many products that are used to prevent skin cancer, a strong justification should be provided for this measure and high standard of review should be conducted. The FDA is continuing to gather information about a range of sunscreen ingredients, and per their website, "Given the recognized public health benefits of sunscreen use, Americans should continue to use broad spectrum sunscreen with SPF 15 or higher with other sun protective measures as this important rulemaking effort moves forward."¹

This measure will hurt local retailers by encouraging consumers to buy their favorite sunscreens online, where it is unlikely this law will be enforceable. The promotion of this bill will adversely impact human health, serving only to demonize wearing sunscreen, and increase people's risk of skin cancer.

1

<https://www.fda.gov/media/124654/download#:~:text=Sunscreens%20active%20ingredient%20safety%20and%20effectiveness&text=FDA%20proposes%20that%20it%20needs,sulisobenzene%2C%20oxybenzone%2C%20avobenzone>

Our local businesses care about offering products individuals feel comfortable with and which are affordable for use on a daily basis to prevent skin cancer. Many products that have sun protection factor, such as lotions, tinted moisturizers, and anti-aging products are intended for daily use in small amounts. Many or all of these products would be unnecessarily banned under this bill, as would other federally approved and regulated healthcare products. Having access to these products is especially important here in Hawaii where the rate of skin cancers, including deadly melanoma, is significantly higher than on the mainland.²

Given that this ban would deprive people of products they use to prevent possibly life-threatening skin cancers, we ask that this measure be held. Thank you for the opportunity to testify.

² <http://www.staradvertiser.com/2018/02/28/editorial/island-voices/heathy-people-healthy-places-include-sunscreen/>

SB-2949

Submitted on: 1/30/2022 1:50:07 PM

Testimony for AEN on 1/31/2022 1:00:00 PM

Submitted By	Organization	Testifier Position	Remote Testimony Requested
ryan sato	Testifying for Sato General and Cosmetic Dermatology	Oppose	No

Comments:

As a board-certified dermatologist practicing in Hawaii, I urge you to oppose legislation that would further restrict access to sunscreen ingredients. Strongly consider the broad implications of banning the use of certain sunscreens, bearing in mind the grave dangers of sun exposure without adequate protection that the residents and visitors of Hawaii face.

As dermatologists we dedicate ourselves to promoting habits in our patients that ensure healthy skin. UV radiation damages the skin's DNA, which is the first stage of skin cancer. Unprotected sun exposure is the most preventable risk factor for skin cancer. At least one in five Americans will develop skin cancer. Melanoma, the deadliest form of skin cancer, is the second most common form of cancer in women, aged 15-29 years old. The annual cost of treating nonmelanoma skin cancer in the U.S. is estimated at \$4.8 billion, and the average annual cost of treating melanoma is approximately \$3.3 billion.

The potential adverse effects related to the levels of UV-filters in the water supply and marine life are an emerging science. A recent review in the journal Environmental Toxicology and Chemistry of 12 studies concludes "there is currently limited evidence to suggest that corals are adversely impacted by environmental exposure to UV filters." The studies evaluating 14 different organic UV filters in seawater near coral reefs determined that the majority of concentrations found in seawater were in the nanograms per liter range. Nine papers reported toxicological findings from no response to a variety of biological effects; these effects were detected in the micrograms per liter to milligrams per liter range, namely, at least 1000-fold higher than those reported in seawater in real life.

The National Academy of Sciences (NAS) is conducting a scientific literature review of current sunscreens' potential risk to the marine environment. The study will consider scientific literature on the potential public health implications as a result of reduced use of sunscreens. This type of research is necessary to understand how UV filters may affect the environment. We encourage you to consider these ongoing efforts before taking any action to remove a product that has been proven to be effective against skin cancer.

The data that is currently available is weak at best suggesting a ban of these sunscreens. It will only promote more skin cancer which in turn will cost lives and further burden our health care

system which could have easily been prevented. I strongly oppose this bill and it would be a detriment on our society and the people of Hawaii.

Based on current data, removing specific sunscreen ingredients and products from the market would be premature, and hazardous. Doing so would deprive the public of an integral component of sun protection to decrease the risk of skin cancer. Please oppose any future restrictions on sunscreen ingredients. Thank you.

Sincerely,

Ryan Sato

January 31, 2022

Senator Mike Gabbard, Chair
Senator Clarence K. Nishihara, Vice Chair
Committee on Agriculture and Environment
Hawaii State Legislature
415 South Beretania Street
Honolulu, HI 96813

RE: Opposition to SB 2949

Dear Chair Gabbard and Vice Chair Nishihara:

On behalf of the members of the Personal Care Products Council (PCPC),¹ I am writing to express our opposition to SB 2949, legislation to prohibit the sale, use or distribution of sunscreen ingredients. This bill will lead to a serious public health issue by banning essential, safe and effective sunscreen products.

The U.S. has Limited Number of Sunscreen Ingredients to Fight Skin Cancer

Sunscreens are a key factor in preventing and reducing the risk of skin cancer and damage from the sun's ultraviolet (UV) rays. Public health organizations, including the American Cancer Society (ACS), American Academy of Dermatology, the Mayo Clinic and the Skin Cancer Foundation, recommend using sunscreen as part of a safe-sun regimen. The Centers for Disease Control and Prevention's Sun Safety recommendations note the importance of daily sunscreen use, including on cloudy and overcast days, to help prevent most skin cancers. And, according to the World Health Organization (WHO), four out of five skin cancer cases can be prevented by following safe-sun practices, including using sunscreen regularly.

Sunscreen ingredients must be approved for use by the U.S. Food and Drug Administration (FDA) and are a crucial and well-recognized tool in the fight against skin cancer and premature skin aging. The U.S. has a limited number of approved sunscreen ingredients to develop products that protect consumers from the harmful effects of solar radiation.

Hawai'i Residents at High Risk for Skin Cancer

Hawai'i residents are at high risk for developing skin cancer. ACS estimates that melanoma, the most serious form of skin cancer, will be one of the leading causes of new cancer cases in Hawai'i in 2022, with an increase in melanoma rates over the past year. Hawai'i has one of the highest daily UV index averages in the nation, making protecting residents from sun exposure a public health priority.

Environmental Impact of Sunscreens is being Evaluated by the National Academies of Science, Engineering, and Medicine (NASEM)

¹ Founded in 1894, the Personal Care Products Council (PCPC) is the voice and advocate for 600 member companies representing the \$499.6 billion global cosmetics and personal care products industry. PCPC's members represent approximately 90% of the U.S. beauty industry and are some of the most beloved and trusted brands in beauty and personal care today. As the manufacturers, distributors and suppliers of a diverse range of products millions of consumers rely on every day – from sunscreens, toothpaste and shampoo to moisturizer, makeup and fragrance – PCPC's member companies are global leaders committed to product safety, quality and innovation.

This legislation does not consider the full body of scientific evidence to establish whether UV filters pose an ecological threat to Hawaiian reef systems. This includes considerations such as the suitability and reliability of existing data to assess environmental risks in addition to the well-recognized causes of coral reef decline in Hawai'i and the rest of the world, including climate change, land-based pollution, and other human activities, such as physical damage to corals from recreational activities.²

Policy decisions that will adversely impact public health should not be made ahead of a scientific consensus on this issue. To reduce bias and to synthesize the best available science, the United States Congress directed the NASEM to evaluate the presence and potential impacts of organic and inorganic UV filters in freshwater and marine environments, as well as the potential public health impact of limiting access to sunscreens. The findings of the review, which is sponsored by the U.S. Environmental Protection Agency (EPA), are expected in early 2022. Making environmental management decisions on sunscreens based on current insufficient and, in some cases, unreliable scientific data may lead to unintended negative health consequences, such as fewer available sunscreens and an increase in the prevalence of skin cancer while providing limited, if any, environmental improvement. PCPC encourages industry, academia, NGOs, federal agencies and the state of Hawai'i to work together to ensure that both the reef ecosystems and the health of Hawai'i's residents are protected.

By passing this bill, the Legislature could significantly reduce consumer options when making important health decisions. Ensuring consumers have access to products containing a wide variety of sunscreen active ingredients is critical and an important contribution to FDA's public health mission.

We respectfully ask that you oppose SB 2949. Thank you for your consideration and the opportunity to comment.

Sincerely,



Karin Ross
Executive Vice President, Government Affairs

² Mitchelmore, C. L., Burns, E. E., Conway, A., Heyes, A., & Davies, I. A. (2021). A critical review organic ultraviolet filter exposure, hazard, and risk to corals. *Environmental Toxicology and Chemistry*, 40(4), 967–988. <https://doi.org/10.1002/etc.4948>. See also Burns, E.E. & Davies, I.A. (2021). Coral Ecotoxicological Data Evaluation for the Environmental Safety Assessment of Ultraviolet Filters. *Environmental Toxicology and Chemistry*. DOI: 10.1002/etc.5229. See also Dyer, S.D. & Green, N.S. (2021). Use of Eco-epidemiology to Assess the Potential Risks of UV Filters to Corals. Presentation to National Academies of Science, Engineering and Medicine, 16 September 2021. <https://www.nationalacademies.org/event/09-16-2021/docs/D885731178D23BF914365FE2D192B964EC6504FE7A7B>.

SB-2949

Submitted on: 1/31/2022 7:48:24 AM

Testimony for AEN on 1/31/2022 1:00:00 PM

Submitted By	Organization	Testifier Position	Remote Testimony Requested
Inga Gibson	Testifying for For the Fishes	Support	No

Comments:

Dear Chair Gabbard and Senate AEN Committee Members,

Thank you for the opportunity to provide testimony in **support of SB2949**. We must continue to do all we can to protect our coral reefs from degradation and loss. Chemical sunscreens pose a great threat to coral reefs, especially when our reefs are already facing the impacts of climate change, ocean acidification and coral bleaching. Scientists forecast these events to continue both in frequency and intensity for the coming decades.

Please support this measure with your consideration of removal of the county preemption language.

Mahalo,

Inga Gibson, For the Fishes

SB-2949

Submitted on: 1/29/2022 7:21:56 AM

Testimony for AEN on 1/31/2022 1:00:00 PM

Submitted By	Organization	Testifier Position	Remote Testimony Requested
Angela Huntmer	Individual	Support	No

Comments:

YES. We should be promoting the use of clothing and mineral sunscreens. They offer the best and safest protection. Mahalo.

SB-2949

Submitted on: 1/29/2022 12:24:19 PM

Testimony for AEN on 1/31/2022 1:00:00 PM

Submitted By	Organization	Testifier Position	Remote Testimony Requested
Maui OFR	Individual	Support	No

Comments:

We need to protect our beautiful coral reefs!

Already in this state we have banned the chemicals oxybenzone and octinoxate from legal sale in sunscreens. This is a huge step in protecting not only our coral reef areas but also the people who use these products, as they are shown to be harmful to both. SB2949 supplements and does not supplant the existing law. This law has a different focus: to protect consumers from petrochemical sunscreens that have not been found to be "generally safe and effective" (GRASE) by the US Food and Drug Administration (FDA). Consumers should not be exposed to chemicals that have not demonstrated to be safe, especially where there are scientific studies suggesting these chemicals disrupt hormones and may cause cancers as well as harm corals and other marine life.

Recommends that the Committee amend SB2949 to eliminate the preemption of county regulations in Section 2(c) on page 3, lines 14-19. The people of Maui County have already passed their own ban on the sale and use of non-GRASE sunscreens. The State should not override the expressed will of the people of Maui County.

SB-2949

Submitted on: 1/29/2022 1:34:48 PM

Testimony for AEN on 1/31/2022 1:00:00 PM

Submitted By	Organization	Testifier Position	Remote Testimony Requested
Barbara Barry	Individual	Support	No

Comments:

Aloha,

I support SB2949. Now we just need to educate our visitor industry!

Mahalo.

Ms. Barbara Barry

SB-2949

Submitted on: 1/29/2022 3:21:00 PM

Testimony for AEN on 1/31/2022 1:00:00 PM

Submitted By	Organization	Testifier Position	Remote Testimony Requested
Victoria Anderson	Individual	Support	No

Comments:

Please pass this important bill.

SB-2949

Submitted on: 1/30/2022 8:10:56 AM

Testimony for AEN on 1/31/2022 1:00:00 PM

Submitted By	Organization	Testifier Position	Remote Testimony Requested
marina scott	Individual	Support	No

Comments:

Aloha,

As a resident of Maui County, business owner and mother of two, I strongly support bill SB2949. Visitors choose Hawaii as their dream vacation destination largely based on the beauty of our beaches, oceans and marine environment. It is that same beauty that suffers and declines due to the harmful chemicals found in sunscreens.

Already in this state we have banned the chemicals oxybenzone and octinoxate from legal sale in sunscreens. This is a huge step in protecting not only our coral reef areas but also the people who use these products, as they are shown to be harmful to both. SB2949 supplements and does not supplant the existing law. This law has a different focus: to protect consumers from petrochemical sunscreens that have not been found to be "generally safe and effective" (GRASE) by the US Food and Drug Administration (FDA). Consumers should not be exposed to chemicals that have not demonstrated to be safe, especially where there are scientific studies suggesting these chemicals disrupt hormones and may cause cancers as well as harm corals and other marine life.

I recommend that the Committee amend SB2949 to eliminate the preemption of county regulations in Section 2(c) on page 3, lines 14-19. The people of Maui County have already passed their own ban on the sale and use of non-GRASE sunscreens. The State should not override the expressed will of the people of Maui County.

Mahalo for protecting our oceans and preserving our marine environments.

SB-2949

Submitted on: 1/30/2022 10:48:54 AM

Testimony for AEN on 1/31/2022 1:00:00 PM

Submitted By	Organization	Testifier Position	Remote Testimony Requested
Shannon Rudolph	Individual	Support	No

Comments:

Support

SB-2949

Submitted on: 1/30/2022 11:08:40 AM

Testimony for AEN on 1/31/2022 1:00:00 PM

Submitted By	Organization	Testifier Position	Remote Testimony Requested
Enzo Magliozzi	Individual	Support	No

Comments:

Aloha,

As a resident of Maui County, surfer and tour operator, I strongly support bill SB2949. Visitors choose Hawaii as their dream vacation destination largely based on the beauty of our beaches, oceans and marine environment. I meet visitors every week who do not truly know what "reef safe" means. The producers of non-mineral based sunscreens continue to use deceptive marketing practices and promoting their products as "reef-safe" and "reef-friendly". This must be stopped. Consumers must also be informed about the harmful effects these chemicals have on their own bodies.

Already in this state we have banned the chemicals oxybenzone and octinoxate from legal sale in sunscreens. This is a huge step in protecting not only our coral reef areas but also the people who use these products, as they are shown to be harmful to both. SB2949 supplements and does not supplant the existing law. This law has a different focus: to protect consumers from petrochemical sunscreens that have not been found to be "generally safe and effective" (GRASE) by the US Food and Drug Administration (FDA). Consumers should not be exposed to chemicals that have not demonstrated to be safe, especially where there are scientific studies suggesting these chemicals disrupt hormones and may cause cancers as well as harm corals and other marine life.

I recommend that the Committee amend SB2949 to eliminate the preemption of county regulations in Section 2(c) on page 3, lines 14-19. The people of Maui County have already passed their own ban on the sale and use of non-GRASE sunscreens. The State should not override the expressed will of the people of Maui County.

Mahalo for protecting our oceans and preserving our marine environments.

Enzo Magliozzi

Swell Maui Surf Lessons

January 30, 2022

**Testimony on Senate Bill 2949 Relating to Environmental Protection
OPPOSE**

Committee on Agriculture and Environment
Senator Mike Gabbard, Chair
Senator Clarence Nishihara, Vice Chair

Hearing January 31, 2022 at 1:00pm, Conference Room 224 and videoconference

Dear Honorable Chair Gabbard, Vice Chair Nishihara and Committee Members,

While I support the concept of strengthening the protection of Hawaii's marine environment, Maui County has already taken such measures and this bill, with its pre-emption clause, could have the opposite effect in Maui County by potentially stalling our start date.

Additionally, I would advise caution in tying the legislation to the FDA list for the designation of "generally recognized as safe and effective" (GRASE) as I believe this list is predominantly for compounds used on humans. It may not follow that just because a sun protection ingredient is deemed safe and effective for use as a sunscreen applied to our skin that it is safe for our coral reefs, ecosystems and/or marine life.

A better solution would be to enable counties to add additional sunscreen ingredients after they are proven both safe for human use as well as for the effects they have on our ocean ecosystems. Maui's ordinance allows for these additions, but does not mandate ingredients on the GRASE list be automatically allowed.

Please defer SB2949 in favor of SB3001 and again, consider an enabling clause for the FDA GRASE list which will create more thoughtful and thorough protection of our reefs and marine life.

Mahalo,



Kelly Takaya King, Maui County Council
Chair, Climate Action, Resilience and Environment Committee
Member, Local Government Advisory Committee to U.S. EPA

SB-2949

Submitted on: 1/30/2022 11:15:53 AM

Testimony for AEN on 1/31/2022 1:00:00 PM

Submitted By	Organization	Testifier Position	Remote Testimony Requested
Lynn Murakami-Akatsuka	Individual	Oppose	No

Comments:

To: Senate Committee on Agriculture and
Environment
Chair
Nishihara, Vice Chair
Environmental Protection

Senator Mike Gabbard,
Senator Clarence K.
Re: SB 2949.- Relating to

As a public health educator and a strong advocate for sun protection for our residents and visitors to Hawaii, following the current and research and science on safe sunscreen ingredients, I strongly oppose SB 2949. **I ask that the legislature hold off on passing SB 2949 or any other legislation on sunscreen ingredients, until more data on environmental and public health impacts are available.**

The use of sunscreen is an important evidence-based sun safe practice. On September 24, 2021, the Food and Drug Administration (FDA), which regulates sunscreens as over-the-counter drugs for the prevention of sunburn and skin cancer, issued a final order that concluded that, "In the short term, these new authorities essentially preserve status quo marketing conditions for these sunscreens" and that "most sunscreens on the market are in compliance with the deemed final order."

Thank you for the opportunity to testify strongly opposing SB 2949.

Carla J. Nip-Sakamoto, M.D.
1329 Lusitana Street, Suite 109
Honolulu, Hawaii 96813

TO: Senate Committee on Agriculture and Environment
Senator Mike Gabbard, Chair
Senator Clarence K. Nishihara, Vice Chair

FROM: Carla Nip-Sakamoto MD, Dermatologist

DATE: Monday, January 31, 2022

TIME: 1:00 p.m.

TESTIMONY: Written

RE: SB 2949 – Relating to Environmental Protection

Position: Opposed

As a Hawaii dermatologist who has diagnosed and treated thousands of skin cancer patients in my 30 years of experience, I have spent countless hours educating patients, colleagues, friends and family of the proven value of comprehensive sun protection. This includes sunscreen, protective clothing, sunglasses, shade and avoidance of peak sunlight. We, as a community, have come a long way in understanding the perils of repetitive and prolonged sun exposure.

There is widespread awareness of skin cancer prevention and early detection. As a result, many skin cancers are treated at an early stage, reducing morbidity and mortality, as well as disfiguring surgeries.

Our keiki have learned that sunsafety is smart and prevents sunburn and skin damage.

One in five Americans will develop skin cancer in their lifetime. Melanoma often kills people in the primes of their lives. Unprotected sun exposure is the most preventable risk factor for skin cancer, just as not smoking reduces the risk of lung cancer.

The U.S. Food and Drug Administration (FDA) is asking for more safety information on 12 non-mineral sunscreen ingredients (oxybenzone, octinoxate, avobenzone, octocrylene, octisalate, homosalate, ensulizole, padimate O, sulisobenzene, cinoxate, dioxybenzone, meradimate). Legislation to restrict access to these ingredients before such information is presented is premature. In addition, the National Academy of Sciences (NAS) is undergoing review of the scientific literature related to sunscreen and will assess potential risk to aquatic environments

as well as the impact on public health. Their report is forthcoming this year and I encourage our legislators to await results of this important work before making policy changes that are currently poorly supported.

The current data is inconsistent and not validated amongst investigators. The most damaging influence on coral is ocean water warming. Studies implicating sunscreen have been of poor design, performed under conditions that are not real world and do not replicate actual ocean water habitats. Furthermore, beach locations with high tourist traffic do not demonstrate threatening sunscreen concentrations AND locations where coral reef degradation is high, there is minimal beach tourism. An explanation for coral reef death does not lie in sunscreen. Let's not lose sight of the bigger picture.

It is my hope, as a healer and strong proponent of skin cancer prevention, that we will look ahead toward sunscreen innovation and an unbiased assessment of current agents. It makes logical sense to await further guidance from the FDA who on September 24, 2021 (FDA Sunscreen Monograph) did not recommend any changes to currently marketed sunscreens. The NAS review will also provide much needed insight as well.

In summary, I ask that the legislature NOT pass SB 2949, or any other legislation on sunscreen ingredients until more reliable data is available.

Thank you for the opportunity to provide written testimony.

Best Regards,



Carla Nip-Sakamoto, MD
Fellow, American Academy of Dermatology
Diplomate, American Board of Dermatology
Member/Past President, Hawaii Dermatological Society
Private Practice, Queen's Physician Office Building 2
Email: cnipsakamoto@oahuderm.com

SB-2949

Submitted on: 1/30/2022 12:01:00 PM

Testimony for AEN on 1/31/2022 1:00:00 PM

Submitted By	Organization	Testifier Position	Remote Testimony Requested
Clayton Akatsuka	Individual	Oppose	No

Comments:

As a life-long Hawaii resident and a strong advocate for sun-protection, I strongly oppose SB 2949.

I ask that the Legislature hold off passing SB 2949 or any other legislation on sunscreen ingredients, until more scientific data on environmental and public health impacts are available.

Thank you for the opportunity to testify strongly opposing SB 2949.

SB-2949

Submitted on: 1/30/2022 12:22:05 PM

Testimony for AEN on 1/31/2022 1:00:00 PM

Submitted By	Organization	Testifier Position	Remote Testimony Requested
Tapani Vuori	Individual	Support	No

Comments:

Dear The Honorable Michael Gabbard, Chair, The Honorable Clarence Nishihara, Vice Chair, and Members of the Senate Committee on Agriculture and Environment (AEN),

From: Tapani Vuori

RE: Hearing SB2949 RELATING TO ENVIRONMENTAL PROTECTION on Monday January 31, 2022 at 13:00

POSTION: Strongly Support SB2949 with an amendment to delete the County Preemption.

Thank you for your Leadership in protecting our communities and natural resources from unsafe sunscreen products. The burden of proof for safety should always rest with the industry and manufacturers; not the other way around. The cost of this needs to be part of the cost of goods sold and not be put on the public to bear; many times long after the profits have been privatized.

Maui County Bill 135 prohibits the sale, use or distribution of any non-mineral sunscreen. I recommend that you consider adding "use" to the bill language,same as Maui Bill, to ensure that the message is clear where we stand. As we reevaluate what sustainable tourism means to Hawaii this will now become a powerful branding tool to deploy in our messaging.

Thank you,

Tapani Vuori

SB-2949

Submitted on: 1/30/2022 12:24:04 PM

Testimony for AEN on 1/31/2022 1:00:00 PM

Submitted By	Organization	Testifier Position	Remote Testimony Requested
June Murakami	Individual	Oppose	No

Comments:

As a lifelong Hawaii resident and a daily user of sunscreen for sun protection I STRONGLY OPPOSE SB 2949. I ASK THAT THE LEGISLATURE HOLD OFF ON PASSING SB 2949 OR ANY OTHER LEGISLATION ON SUNSCREEN INGREDIENT, UNTIL MORE DATA IS AVAILABLE ON ENVIRONMENTAL AND PUBLIC HEALTH IMPACTS.

Thank you for the opportunity to testify strongly opposing SB 2949.

SB-2949

Submitted on: 1/30/2022 12:30:43 PM

Testimony for AEN on 1/31/2022 1:00:00 PM

Submitted By	Organization	Testifier Position	Remote Testimony Requested
Ken k Shoda	Individual	Oppose	No

Comments:

I has born and raised in Hawaii. I have always used sunscreen daily. I strongly oppose SB 2949. I ASK THAT THE LEGISLATURE HOLD OFF ON PASSING SB 2949 OR ANY OTHER LEGISLATION ON SUNSCREEN INGREDIENTS, UNTIL MORE DATA IS AVAILABLE ON ENVIRONMENTAL AND PUBLIC HEALTH IMPACTS.

Thank you for the opportunity to testify STRONGLY OPPOSING SB 2949.

SB-2949

Submitted on: 1/30/2022 12:31:51 PM

Testimony for AEN on 1/31/2022 1:00:00 PM

Submitted By	Organization	Testifier Position	Remote Testimony Requested
Nicole Rosen	Individual	Support	No

Comments:

As a resident of Maui County, photographer, and ocean-lover, I strongly support bill SB2949. I photograph couples and families from all over the world every week who travel to Maui because of the stunning natural beauty that surrounds us here every day. Without it, there would be no tourism and no reason for hundreds of people to come here every day and spend their money on accommodations, activities, food, and experiences. As much as they appreciate the natural beauty, they do not understand the importance of reef safe sunscreen and certainly do not understand how to tell the difference between reef safe sunscreen and sunscreen that has simply been marketed to pretend to be reef safe. This is a huge issue for tourists and residents alike--- sunscreen companies need to be held accountable and their marketing and labels must be strictly monitored. There needs to be full transparency and honesty in regards to their ingredients and what that actually means for our reefs and oceans.

Already in this state we have banned the chemicals oxybenzone and octinoxate from legal sale in sunscreens. This is a huge step in protecting not only our coral reef areas but also the people who use these products, as they are shown to be harmful to both. SB2949 supplements and does not supplant the existing law. This law has a different focus: to protect consumers from petrochemical sunscreens that have not been found to be "generally safe and effective" (GRASE) by the US Food and Drug Administration (FDA). Consumers should not be exposed to chemicals that have not demonstrated to be safe, especially where there are scientific studies suggesting these chemicals disrupt hormones and may cause cancers as well as harm corals and other marine life.

I recommend that the Committee amend SB2949 to eliminate the preemption of county regulations in Section 2(c) on page 3, lines 14-19. The people of Maui County have already passed their own ban on the sale and use of non-GRASE sunscreens. The State should not override the expressed will of the people of Maui County.

SB-2949

Submitted on: 1/30/2022 12:33:56 PM

Testimony for AEN on 1/31/2022 1:00:00 PM

Submitted By	Organization	Testifier Position	Remote Testimony Requested
Greg Masessa	Individual	Support	No

Comments:

I support this bill. As an ocean guide I see uninformed visitors everyday using sunscreens damaging to the reef and their bodies.

SB-2949

Submitted on: 1/30/2022 12:39:47 PM

Testimony for AEN on 1/31/2022 1:00:00 PM

Submitted By	Organization	Testifier Position	Remote Testimony Requested
GALE M SHODA	Individual	Oppose	No

Comments:

I was born and raised in Hawaii. My parents taught me to always use sunscreen which I have done so daily. I have instilled in my children and grandchildren the importance of applying daily sunscreen to protect them from the UV while doing outdoor activities, even while driving. I STRONGLY OPPOSE SB 2949. I ASK THAT THE LEGISLATURE HOLD OFF ON PASSING SB 2949 OR ANY OTHER LEGISLATION ON SUNSCREEN INGREDIENTS, UNTIL MORE DATA IS AVAILABLE ON ENVIRONMENTAL AND PUBLIC HEALTH IMPACTS.

Thank you for the opportunity to testify STRONGLY OPPOSSING SB 2949.

SB-2949

Submitted on: 1/30/2022 3:37:10 PM

Testimony for AEN on 1/31/2022 1:00:00 PM

Submitted By	Organization	Testifier Position	Remote Testimony Requested
J. M.	Individual	Oppose	No

Comments:

Dear Honored Legislators,

I am a very concerned board certified dermatologist who has been practicing in Hawaii for many years. I strongly encourage you to oppose SB2949 that would severely restrict the options that practitioners and the public would have to protect themselves and their patients, friends and loved ones from the possible ravages of the sun producing not only devastating skin cancers that can be lethal (such as melanoma) along with damaging skin changes caused by UV exposure that permanently harm DNA. The human burden of skin cancer is tremendous as is the financial cost to the nation. The annual cost of treating nonmalnoma skin cancer in the U.S. is estimated at \$4.8 billion and the annual cost of treating melanoma is approximately \$3.3 billion.

No clear final conclusions have come from prestigious organizations such the the National Academy of Sciences and the Journal of Environmental Toxicology and Chemistry among others regarding the true extent of the effects of UV filters on the marine environment. Such research is ongoing and should by all means be allowed to reach some real life documented facts BEFORE any decision or legislation is put forth.

Removing the choice of products that could effectively prevent some of the horrifying cases of skin cancer that I have seen, would be an egregious and premature disservice to the community at this point until more evidence and studies can be done. I sincerely urge you to strongly oppose this measure to limit ingredients in sunscreens and thereby help yourselves, your constituents, and Hawaii's skin cancer prevention program to lessen and prevent this wave of malignant skin cancers.

SB-2949

Submitted on: 1/30/2022 6:49:42 PM

Testimony for AEN on 1/31/2022 1:00:00 PM

Submitted By	Organization	Testifier Position	Remote Testimony Requested
John D. Boyer MD	Individual	Oppose	No

Comments:

As a dual board-certified dermatologist and Mohs Surgeon practicing in Hawaii for over 20 years, I urge you to oppose legislation that would further restrict access to sunscreen ingredients. Please consider the broad implications of banning the use of certain sunscreens, bearing in mind the grave dangers of sun exposure without adequate protection that the residents and visitors of Hawaii endure. As my practice is 100% focused treatment of all varieties of skin cancer, the loss of easy access to adequate UV protection would increase morbidity and mortality.

As dermatologists we dedicate ourselves to promoting habits in our patients that ensure healthy skin. UV radiation damages the skin's DNA, which is the first stage of skin cancer. Unprotected sun exposure is the most preventable risk factor for skin cancer. At least one in five Americans will develop skin cancer. Melanoma, the deadliest form of skin cancer, is the second most common form of cancer in women, aged 15-29 years old. The annual cost of treating nonmelanoma skin cancer in the U.S. is estimated at \$4.8 billion, and the average annual cost of treating melanoma is approximately \$3.3 billion.

The potential adverse effects related to the levels of UV-filters in the water supply and marine life are an emerging science. A recent review in the journal Environmental Toxicology and Chemistry of 12 studies concludes "there is currently limited evidence to suggest that corals are adversely impacted by environmental exposure to UV filters." The studies evaluating 14 different organic UV filters in seawater near coral reefs determined that the majority of concentrations found in seawater were in the nanograms per liter range. Nine papers reported toxicological findings from no response to a variety of biological effects; these effects were detected in the micrograms per liter to milligrams per liter range, namely, at least 1000-fold higher than those reported in seawater in real life.

The National Academy of Sciences (NAS) is conducting a scientific literature review of current sunscreens' potential risk to the marine environment. The study will consider scientific literature on the potential public health implications as a result of reduced use of sunscreens. This type of research is necessary to understand how UV filters may affect the environment. We encourage you to consider these ongoing efforts before taking any action to remove a product that has been proven to be effective against skin cancer.

Based on current data, removing specific sunscreen ingredients and products from the market would be premature, and hazardous. Doing so would deprive the public of an integral component

of sun protection to decrease the risk of skin cancer. Please oppose any future restrictions on sunscreen ingredients. Thank you.

Sincerely,

John D. Boyer, M.D.

SB-2949

Submitted on: 1/30/2022 11:14:39 PM

Testimony for AEN on 1/31/2022 1:00:00 PM

Submitted By	Organization	Testifier Position	Remote Testimony Requested
Robert Shapiro	Individual	Oppose	No

Comments:

Please do not allow sunscreens to be banned in Hawaii. The evidence that there is an environmental risk is not convincing. Sunscreens are important to prevent melanoma, which can be deadly.

SB-2949

Submitted on: 1/31/2022 12:32:48 AM

Testimony for AEN on 1/31/2022 1:00:00 PM

Submitted By	Organization	Testifier Position	Remote Testimony Requested
Mika Yamazaki	Individual	Oppose	No

Comments:

As a board-certified dermatologist practicing in Hawaii, I urge you to oppose legislation that would further restrict access to sunscreen ingredients. Strongly consider the broad implications of banning the use of certain sunscreens, bearing in mind the grave dangers of sun exposure without adequate protection that the residents and visitors of Hawaii face.

As dermatologists we dedicate ourselves to promoting habits in our patients that ensure healthy skin. UV radiation damages the skin's DNA, which is the first stage of skin cancer. Unprotected sun exposure is the most preventable risk factor for skin cancer. At least one in five Americans will develop skin cancer. Melanoma, the deadliest form of skin cancer, is the second most common form of cancer in women, aged 15-29 years old. The annual cost of treating nonmelanoma skin cancer in the U.S. is estimated at \$4.8 billion, and the average annual cost of treating melanoma is approximately \$3.3 billion.

The potential adverse effects related to the levels of UV-filters in the water supply and marine life are an emerging science. A recent review in the journal Environmental Toxicology and Chemistry of 12 studies concludes "there is currently limited evidence to suggest that corals are adversely impacted by environmental exposure to UV filters." The studies evaluating 14 different organic UV filters in seawater near coral reefs determined that the majority of concentrations found in seawater were in the nanograms per liter range. Nine papers reported toxicological findings from no response to a variety of biological effects; these effects were detected in the micrograms per liter to milligrams per liter range, namely, at least 1000-fold higher than those reported in seawater in real life.

The National Academy of Sciences (NAS) is conducting a scientific literature review of current sunscreens' potential risk to the marine environment. The study will consider scientific literature on the potential public health implications as a result of reduced use of sunscreens. This type of research is necessary to understand how UV filters may affect the environment. We encourage you to consider these ongoing efforts before taking any action to remove a product that has been proven to be effective against skin cancer.

A large part of my practice involves doing skin checks and treating pre-cancers and skin cancers, and many of these patients regret not seriously taking measures to protect their skin from the sun, especially during their youth. Many of them grew up during a time when the adverse and cumulative effects of sun damage were unknown and a variety of sun protection options were not available. As a mother of two young children, who love spending time outdoors on a daily basis,

I do worry about the negative effects that prematurely banning sunscreen ingredients will have on Hawaii's youth.

Based on current data, removing specific sunscreen ingredients and products from the market would be premature, and hazardous. Doing so would deprive the public of an integral component of sun protection to decrease the risk of skin cancer. Please oppose any future restrictions on sunscreen ingredients. Thank you.

Sincerely,

Mika Yamazaki, MD, FAAD

SB-2949

Submitted on: 1/31/2022 9:01:23 AM

Testimony for AEN on 1/31/2022 1:00:00 PM

Submitted By	Organization	Testifier Position	Remote Testimony Requested
Robert Culbertson	Individual	Support	No

Comments:

Aloha Senators!

Please pass this good bill to ensure adequate protection for our marine wild life!

Mahalo!

R A Culbertson

Honokaa

SB-2949

Submitted on: 1/31/2022 9:02:02 AM

Testimony for AEN on 1/31/2022 1:00:00 PM

Submitted By	Organization	Testifier Position	Remote Testimony Requested
Rebecca B Luria, MD	Individual	Oppose	No

Comments:

January 30, 2022

To Senator Mike Gabbard and Legislators of Hawaii:

As a board-certified dermatologist practicing on Oahu, I cut off bits of patients' ears, faces, arms, and legs DAILY from largely preventable, ultraviolet radiation-induced skin cancer. THIS IS A HUGE AND EXPENSIVE PUBLIC HEALTH PROBLEM IN OUR STATE!

I strongly urge you to oppose legislation that would further restrict access to sunscreen ingredients. Please consider the implications of banning the use of certain sunscreens before we have a full picture of what threat they may or may not bring. I know FROM EXPERIENCE that many people WILL NOT USE fully mineral sunscreens because of their opaque white nature and sticky thick feeling. Furthermore, mineral sunscreens wash off during water play. I have seen this time and again in my own three children who come home from the beach burned despite a thick coat of zinc-based sunscreen only two hours before. Additionally, darker skin toned patients are much less likely to use a mineral sunscreen because of the white residue it leaves on the skin. This population is far more likely to die of melanoma because their tumors often go undetected until a later stage. They deserve good sun protection options as well as our fair-skinned patients.

Unprotected sun exposure is the most preventable risk factor for skin cancer. At least one in five Americans will develop skin cancer, and our state has an enormous skin cancer burden from our high UV index. The annual cost of treating nonmelanoma skin cancer in the U.S. is estimated at \$4.8 billion, and the average annual cost of treating melanoma is approximately \$3.3 billion.

The potential adverse effects related to the levels of UV-filters in the water supply and marine life are an emerging science. A recent review in the journal Environmental Toxicology and Chemistry of 12 studies concludes "there is currently limited evidence to suggest that corals are adversely impacted by environmental exposure to UV filters." The studies evaluating 14 different organic UV filters in seawater near coral reefs determined that the majority of concentrations found in seawater were in the nanograms per liter range. Nine papers reported toxicological findings from no response to a variety of biological effects; these effects were detected in the micrograms per liter to milligrams per liter range, namely, at least 1000-fold higher than those reported in seawater in real life.

The National Academy of Sciences (NAS) is conducting a scientific literature review of current sunscreens' potential risk to the marine environment. The study will consider scientific literature on the potential public health implications as a result of reduced use of sunscreens. This type of research is necessary to understand how UV filters may affect the environment. We encourage you to consider these ONGOING efforts before taking any action to remove a product that has been proven to be effective against skin cancer.

Based on current data, removing specific sunscreen ingredients and products from the market would be PREMATURE AND FOOLHARDY. Doing so would deprive the public of an integral component of sun protection to decrease the risk of skin cancer. Please oppose any future restrictions on sunscreen ingredients. Thank you.

Sincerely,

Rebecca B. Luria, M.D.

Member, American Board of Dermatology

Fellow, American Academy of Dermatology

Former President of the Hawaii Dermatological Society

Practicing Dermatologist, Hawaii Dermatology and Plastic Surgery Centers in Kailua, HI

SB-2949

Submitted on: 1/28/2022 8:54:35 PM

Testimony for AEN on 1/31/2022 1:00:00 PM

Submitted By	Organization	Testifier Position	Remote Testimony Requested
Klayton Kubo	Individual	Support	Yes

Comments:

Support

In Strong Support of SB2949 (AEN Public Hearing January 31, 2022)

Joe DiNardo – Toxicologist

The following comments are based on my experience with product development, regulatory compliance as well as pre-clinical and clinical toxicology testing with some environmental testing of OTC sunscreen actives and formulations dating back to 1976.

Dear Senators Gabbard, Nishihara, Acasio, Rhoads and Fevella,

I strongly support SB2949 which “Prohibits the sale and distribution of sunscreen products containing ingredients not generally recognized as safe and effective as defined by the Food and Drug Administration (FDA).”

After review of hundreds of scientific papers currently in the literature as well as authoring/co-authoring 11 publications on the topic of sunscreen toxicity, the toxicological impact of organic sunscreen actives (which are currently being removed from the FDA’s GRASE list – see below) is clear. These substances are not only reported to cause irritant/allergic contact dermatitis in humans, but have been associated with numerous types of toxicological adverse reactions including reproductive and carcinogenic effects in humans as well as in aquatic and terrestrial species.

Additionally, it is important to note that the current US Food, Drug and Cosmetic Law states that it is industry’s responsibility to demonstrate that these chemicals/products are “safe and effective for human use” and it is not the responsibility of citizen’s or the government to demonstrate these concerns. To date it is unclear if industry has conducted or is even thinking of conducting such studies; in fact, the only thing that industry has appeared to do is disagree with the data and successfully lobby congress to fund the Environmental Protection Agency (EPA) to fund the National Academy of Sciences (NAS) to review the available data with a panel consisting of mainly industry supporters. FDA is responsible for Human Health & Safety and NOAA is responsible for U.S. National Marine Sanctuaries; the EPA and/or NAS have no jurisdiction directly related to sunscreen regulations for humans or environmental impact to protected coral reefs.

FDA’s Official View:

As published by FDA in the February 26, 2019 Federal Register

(<https://www.govinfo.gov/content/pkg/FR-2019-02-26/pdf/2019-03019.pdf>): *Because the public record does not currently contain sufficient data to support positive GRASE determinations for cinoxate, dioxybenzone, ensulizole, homosalate, meradimate, octinoxate, octisalate, octocrylene, padimate O, sulisobenzene, oxybenzone, or avobenzone, we are proposing that these ingredients are Category III. 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.*

Additionally, FDA published a “Fact Sheet” outlining the specific concerns/changes needed for industry compliance (<https://www.fda.gov/media/124655/download>): *On February 21, 2019, FDA issued a proposed rule describing the conditions under which FDA proposes that OTC sunscreen monograph products are generally recognized as safe and effective (GRASE) and not misbranded.*

This action is an important example of FDA's ongoing efforts to ensure that sunscreens are safe and effective for regular, life-long use. The agency anticipates these changes will improve the quality, safety, and efficacy of sunscreens Americans use every day. FDA will continue to work with industry and public health stakeholders to make sure that consumers have access to safe and effective sunscreens.

1. Proposed GRASE Status of Active Ingredients Listed in the Stayed 1999 Final Monograph

FDA has proposed the following categories for the 16 sunscreen monograph ingredients.

GRASE* for use in sunscreens	Not GRASE** for use in sunscreens	***Insufficient data for use in sunscreens
Zinc oxide and titanium dioxide	Aminobenzoic acid (PABA) and trolamine salicylate	Cinoxate, dioxybenzone, ensulizole, homosalate, meradimate, octinoxate, octisalate, octocrylene, padimate O, sulisobenzene, oxybenzone, avobenzone

*GRASE= Generally Recognized as Safe and Effective **These ingredients are not currently marketed. ***For those ingredients in the "insufficient data" category, FDA proposes that it needs additional data to determine that sunscreens with these ingredients would be GRASE.

National Oceanic and Atmospheric Administration (NOAA) Official View -

<https://oceanservice.noaa.gov/news/sunscreen-corals.html>: Common chemicals used in thousands of products to protect against harmful effects of ultraviolet light threaten corals and other marine life.

SUNSCREEN CHEMICALS AND MARINE LIFE
How sunscreen chemicals enter our environment:

The sunscreen you apply may not stay on your skin.

When we swim or shower, sunscreen may wash off and enter our waterways.

How sunscreen chemicals can affect marine life:

Chemicals in some sunscreens that can harm marine life:

- 3-Benzylidene camphor
- 4-Methylbenzylidene camphor
- Octocrylene
- Benzophenone-1
- Benzophenone-8
- OD-PABA
- nano-Titanium dioxide
- nano-Zinc oxide
- Octinoxate
- Oxybenzone

GREEN ALGAE: Can impair growth and photosynthesis.

CORAL: Accumulates in tissues. Can induce bleaching, damage DNA, deform young and even kill.

MUSSELS: Can induce defects in young.

SEA URCHINS: Can damage immune and reproductive systems, and deform young.

FISH: Can decrease fertility and reproduction, and cause female characteristics in male fish.

DOLPHINS: Can accumulate in tissues and be transferred to young.

Here are a few ways to protect ourselves and marine life:

Consider sunscreen without chemicals that can harm marine life, seek shade between 10 am & 2 pm, and use Ultraviolet Protection Factor (UPF) sunwear.

Seek shade | Umbrella | Sun hat | Sunscreen | UV Sun glasses | Sun shirt | Leggings

Revised Sep. 2020 | oceanservice.noaa.gov/sunscreen

Mahalo for your efforts to protect your citizens, the environment and the reefs!