



# Solarade

A shade from the sun, for  
every shade of person

**Innovation Plan**

**South Plantation High School**

**1300 SW 54th Ave, Plantation FL 33317**

**Damian Howson**

**Daniel Auerbach**

**April 7, 2022**

# Table of Contents

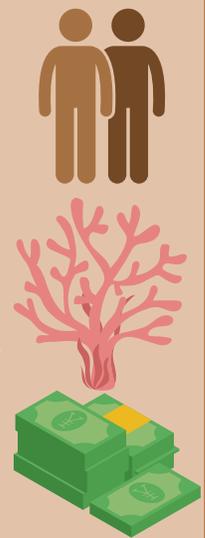
I. Executive summary	1
II. Problem	2
III. Customer Segments	4
IV. Unique Value Proposition	5
V. Solution	6
VI. Conclusion	8
VII. Bibliography	8
VIII. Appendix	9

# I. Executive Summary

## Solarade

**Mission Statement:** To have a sunscreen that allows and encourages everyone, people of color included, to wear sunscreen

**Problem Identification:** In the sunscreen industry, consistently it is found that products are made for faint or light-skinned people and people of darker complexion are left with near to no products that match their skin tones. Many companies have tried to be inclusive, but in doing so put harmful chemicals into their products, some of which hurt wildlife immensely. Ingredients like oxybenzone, which is one of the main ingredients used in sunscreens, cause coral bleaching, deformities, and skeletal growths in aquatic wildlife. The few sunscreens that are inclusive and eco-friendly tend to be very costly, ranging up to 20 to 30 dollars per ounce. If we want to be able to save our planet's aquatic life and combat the daily colorism (a form of racial discrimination based on one's skin tone) in the cosmetic industry by making sunscreen available to people of all skin tones, we must make an effort to do so now with Solarade.



**Product Description:** Our product, Solarade, exists to combat the problem of colorism in the sunscreen market. Coming in multiple different shades, there's a Solarade sunscreen shade for everybody, providing protection excluding any white cast. In addition to the wide range of shades, our product contains naturally sourced ingredients that provide a healthy layer of protection from the sun while also being conscious of surrounding wildlife. We believe that Solarade will help to revolutionize the sunscreen market as a whole.

**Target Market:** Solarade's primary target market is people of color who often have trouble finding sunscreens that match their skin tones. Solarade's secondary market is young people, ages 10-25, who are invested in protecting the environment, something Solarade aims to do. Solarade's tertiary market is people of middle class income who would prefer a product that has good value.

## II. Problem

Skin cancer is the most common cancer in the United States (American Academy of Dermatology). The sun's ultraviolet (UV) radiation is the #1 cause of skin cancer in the US (Cleveland Clinic). Sunscreen acts as a thin barrier between one's skin and the harmful UV rays emanating from the sun. This thin barrier deflects and filters these UV rays, protecting the skin from sunspots, early aging, and skin cancer. Considering the numerous issues that stem from these UV rays, people should have access to sunscreen that works with their skin tone while also meeting their needs, being affordable and environmentally friendly. A sunscreen like Solarade.

### Problem #1: Sunscreens Lack Inclusivity

As we know, sunscreen is essential in preventing skin damage, but mainstream sunscreen brands and companies target their products towards people of lighter skin. This means people of marginalized groups, more specifically with darker skin tones, are once again left wondering what products work for them. Commonly, sunscreens leave a white sheen, or 'white cast' on people, especially those of a darker complexion. The few sunscreens that have no white cast and are therefore accessible to people of color tend to be composed of chemical sunscreen ingredients which can be problematic. Rather than having a very light-toned sunscreen that isn't inclusive to those with deeper complexions, Solarade has a range of sheerly tinted sunscreens so that it will naturally blend into any skin tone.

## Problem #2: Chemical Sunscreens Have Negative Environmental Impact

Chemical sunscreens are controversial for a multitude of reasons. In recent years, there have been studies on the effects of common chemical sunscreen ingredients (ex. avobenzone, oxybenzone, octinoxate) causing coral bleaching. In addition to coral bleaching, sunscreen entering marine waters can cause deformities in offspring and unnatural skeletal growths in marine life (National Oceanic and Atmospheric Association). Due to the harm inflicted by chemical sunscreens to the environment, legislators in Hawaii and the Florida Keys have put bans into effect against the sale of chemical sunscreens in those regions. By the use of mineral sunscreen ingredients in Solarade, it crucially has a less negative impact on the environment than sunscreens using chemical sunscreen ingredients.

## Problem #3: Sunscreen Is Costly

Sunscreen can be really expensive. For example, the Supergoop Mineral Mattescreen is a popular tinted mineral sunscreen that is \$38 for 1.5 oz, which means it's a pricey ~\$25 per ounce. If used as directed daily, the average 50 mL (1.7 oz) bottle of sunscreen only lasts 20 days. Because the sun's UV rays can cause skin damage year-round, it's important that you wear sunscreen year-round. The cost of sunscreen can add up so price-conscious consumers would prefer a sunscreen that cost less per ounce. Solarade is significantly more cost-effective than other higher-end sunscreens while still outshining them in sustainability and shade inclusivity.

### III. Customer Segments

Solarade addresses a wide range of problems from a sunscreen's white cast to the price of sunscreen. This allows for more potential consumers as it satisfies many consumers' needs.

The primary market of Solarade is people of color who want a sunscreen that works for their skin tone. People of color have very few options for sunscreens and when you include the needs of being environmentally friendly and affordable there are no products that fit the criteria. People of color, whether they wear sunscreen to begin with or not, will be more encouraged to wear sunscreen when there's a sunscreen that works for their skin tone and when it fulfills their wants.

The secondary market of Solarade is people who are simply environmentally conscious and want an effective sunscreen. Retaining to aspirations, Solarade targets people who strive to protect both themselves and the environment around them. These aspirations make themselves more apparent in younger people. A survey from CNBC shows that Gen Z's (ages 13 to 22) number one concern is protecting the environment. Conservationists and people who work in the field of nature want a sunscreen that reduces harm inflicted to the environment, hence a product that uses environmentally friendly ingredients and packaging is fitting to their wants.

Solarade's tertiary market is people of middle class income. Nowadays, sunscreens are very pricey. It's hard to find products people actually want that are affordable. A sunscreen that has a shade for every skin tone and causes minimal harm to the environment would usually be very costly, but not with Solarade. Solarade will provide a high-quality product at a low cost.

We plan to sell Solarade in-store at large-scale retailers/cosmetic stores such as Target and Sephora as well as online on Amazon and on our personal website, Solarade.com. This allows our target markets to conveniently purchase Solarade in addition to having mass-market discovery potential.

#### IV. Unique Value Proposition

Solarade sunscreen is different from any other sunscreen on the market. While other sunscreens have been just inexpensive or just environmentally friendly or inexpensive and inclusive, so on and so forth, no other sunscreen has been able to work on all skin colors while also being environmentally friendly and inexpensive. Because Solarade addresses so many problems with sunscreens currently on the market, it is utterly unique as a product.

Why is this product needed?

The need for this product is dire. While we know that the need to wear sunscreen is crucial, many don't wear sunscreen or get discouraged trying, especially with people of color who shouldn't have to get discouraged from using sunscreen just because they can't find one that works for them while also fitting their wants. A study held by Skin Cancer Foundation shows that 63% of African Americans have never applied sunscreen. Relative to this, 69% of people in black populations survive from melanoma, the most dangerous form of skin cancer, opposed to the 94% in white populations. The truth is, many consumers aren't going to use a product if it doesn't fit their needs. When it comes to sunscreen, something that can help protect the largest organ in the body, people shouldn't be discouraged from using it because they can't find a product that works for them.

## V. Solution

Solarade is an innovative, inclusive sunscreen of the future. Our product checks off all the boxes by working for all skin tones while still being environmentally friendly and affordable. This product could pave the way for encouraging sunscreen use for everybody, even people with deeper skin.

### Wide Range of Shades

Solarade has an expansive amount of different bottles, all having different shades in each. With Solarade's wide shade range of sheer tinted sunscreens, it leaves zero white cast and everybody has a flexible shade for them, combating the crucial issue of colorism in sunscreen. Bringing up the example we saw earlier, even popular tinted sunscreens currently on the market such as the Supergoop Mineral Mattescreen have a tint drastically too light for the millions upon millions of people with darker complexions. By providing multiple shades of tint instead of one geared towards light-skinned people, Solarade undoubtedly has a shade for everyone, which is important when sunscreen is a necessity.

### Better For The Environment

According to National Geographic, "14,000 tons of sunscreen are thought to wash into the oceans each year", with this, there is potential to destroy coral reefs and cause harm to marine life. However, Solarade uses mineral sunscreen ingredients zinc oxide and titanium dioxide, greatly decreasing any risks to coral/marine life. As well as using better sunscreen ingredients, Solarade also has a bigger bottle than the standard sunscreen (1.7 oz) and the bottle is made from recycled materials. This means that we use less packaging and the packaging we do use is more sustainable.

## Affordability

In a post-pandemic time as such, it is important to have affordable products. Having a less expensive sunscreen like Solarade allows everyone to purchase sunscreen that is fitted to their needs. By using cost-effective, yet still high-quality ingredients, Solarade manages to be a high-quality sunscreen for all, at an affordable price.

Solarade costs \$19.95 for a 2.5 oz bottle. At almost \$8 per ounce, it's cheaper than many other higher-end facial sunscreens, usually costing up to \$18 per ounce.

### SOLUTION: COSTS

#### Development Costs

Equipment/Property Costs: \$200,000

Direct labor: \$240,000

Web Development: \$12,000

FDA Approval/Regulation Fees: \$50,000

Launch Marketing: \$25,000

#### Year 1 Financials

##### Expenses

Equipment Maintenance/Property Costs: \$112,000

Direct Labor: \$470,000

Marketing: \$50,000

Website Maintenance: \$3,000

Year 1 Expenses: \$635,000

## VI. Conclusion

The current market for sunscreen is a white one. These sunscreens not only leave people of color with few sunscreen options, but also are expensive and/or cause harm to the environment. Solarade is an affordable sunscreen that encourages people of all skin tones to wear sunscreen by having a wide range of shades. Solarade also avoids using any ingredients that may negatively affect the environment. It excels in its uniqueness, this makes it more visible to the public eye and in doing so makes more sales. Solarade is a shade from the sun, for every shade of person.

## VII. Bibliography

<https://www.aad.org/media/stats-skin-cancer>

<https://my.clevelandclinic.org/health/diseases/10985-sun-exposure--skin-cancers>

<https://www.fda.gov/drugs/understanding-over-counter-medicines/sunscreen-how-help-protect-your-skin-sun>

<https://oceanservice.noaa.gov/news/sunscreen-corals-noaa-studies.html>

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2291012/>

<https://www.yalemedicine.org/news/is-sunscreen-safe>

<https://www.ewg.org/sunscreen/report/the-trouble-with-sunscreen-chemicals/>

<https://www.cnbc.com/2021/08/10/the-environment-is-gen-zs-no-1-concern-but-beware-of-greenwashing.html>

<https://supergoop.com/products/smooth-and-poreless-mattescreen>

<https://www.nationalgeographic.com/travel/article/sunscreen-destroying-coral-reefs-alter>

Natives-travel-spd

<https://www.skincancer.org/blog/ask-the-expert-is-there-a-skin-cancer-crisis-in-people-of-color/>

## VIII. Appendix

Expenses	1	2	3
Equipment Maintenance/Property Costs	\$ 112,000	\$ 152,000	\$ 197,000
Direct Labor	\$ 470,000	\$ 523,000	\$ 612,000
Marketing	\$ 50,000	\$ 98,000	\$ 118,000
<u>Website Maintenance</u>	<u>\$ 3,000</u>	<u>\$ 3,000</u>	<u>\$ 8,000</u>
Total Expenses:	\$ 635,000	\$ 776,000	\$ 935,000
Revenue			
<u>Units sold (Approximately):</u>	<u>423,000</u>	<u>804,000</u>	<u>1,087,000</u>
Total Revenue:	\$ 3,997,511	\$ 7,597,800	\$ 10,272,150
Gross Income:	\$ 3,362,511	\$ 6,821,800	\$ 9,337,150
Investor Share:	\$ 504,376.65	\$ 1,023,270	\$ 1,400,572.50
Net Income Before Taxes	\$2,858,134.35	\$ 5,798,530	\$ 7,936,577.50