



PRODUCT CATEGORY REPORT

# SUN CARE

## Category Overview

After a long winter with the sun hiding behind the clouds, people are more than ready for the warmth of a summer day! Or are they? Although the American Academy of Dermatology recommends using sunscreen every day we're outside—rain or shine—most of us don't dive into our bathroom cupboards until the first warm and sunny beach day. If that bottle of sunscreen has expired or smells a little funky, it's time to buy a new one. But which ones are best to buy? We dug into more than 12,000 sun care products to find out which ones are most widely available to protect babies and adults from the sun's damaging rays.

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# SUMMARY

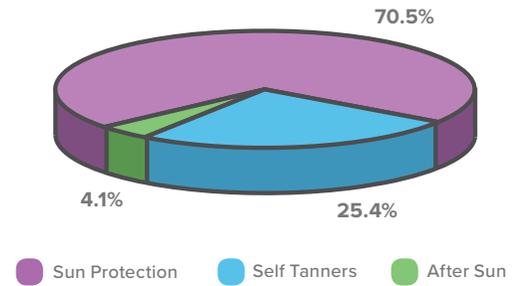
There are a lot of questions when it comes to sun care products, like: When do you need to use sunscreen? What do UVA and UVB mean? How about SPF? What are the most popular brands? Are some sunscreens better deals than others? It can be overwhelming.

To make the sunscreen selection process a little easier, we dug into the Indix Product API which has data for 17,610 sun care products. 12,422 (71%) of these are sun protection products, as opposed to self-tanners or after-sun care. We examined these to determine price and assortment differences between:

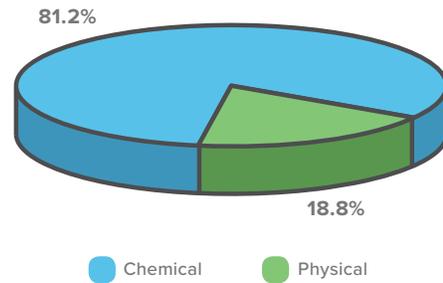
- Physical versus chemical sunscreens\*
- Adult versus baby sunscreens
- SPF levels

\* According to [Skinacea](#), physical sunscreens protect your skin from the sun by deflecting or blocking the sun's rays. By contrast, chemical sunscreens work by absorbing the sun's rays.

Sun Care Product Mix (Fig. 1.1)



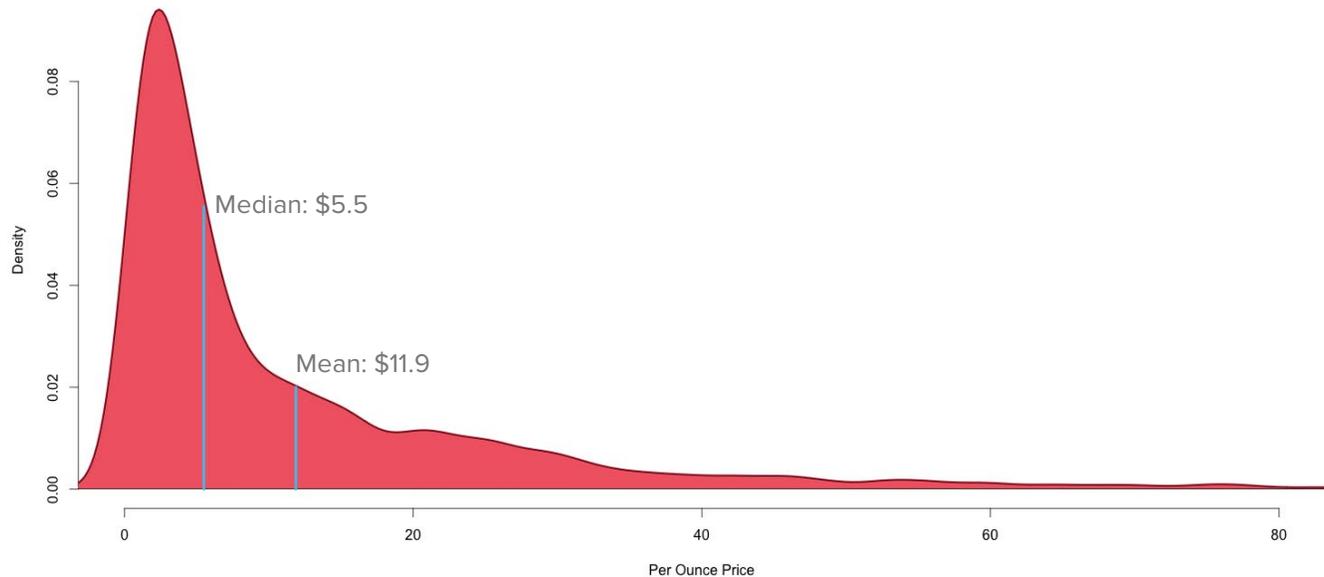
Sun Protection Blocking Agents (Fig. 1.2)



Top 16 Online Stores for Sun Care by Product Count (Fig 1.3)



## Sun Care Price Distribution (Fig. 1.4)



## Sun Care Category Highlights

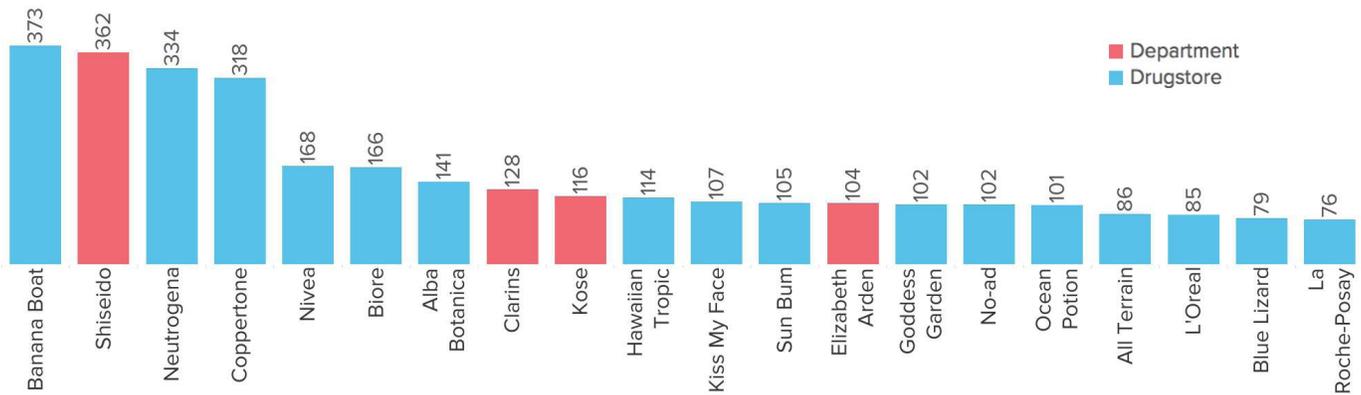
- Leading brands by product count are Banana Boat, Shiseido, Neutrogena, and Coppertone.
- Out of the top 20 brands by product count, there are only 4 department store brands:
  - Shiseido
  - Clarins
  - Kosé
  - Elizabeth Arden
- Of the top 5 brands by product count, only one (Shiseido) is a department store brand.
- Sun care products can cost over \$80 per ounce, but the average price is \$11.9.
- Chemical sunscreens comprise 81% of the market; physical sunscreens are slightly cheaper than chemical ones.
- 41% of baby sunscreen is physical sunblock compared to only 15% for adults.
- Baby sunscreen is significantly cheaper than sunscreen for adults, although some brands do apply a “Baby Tax.”
- Overall, the cost of sunscreens typically increases with SPF.

Note: All datasets were pulled from the Indix Product API in April 2016 and include only “in stock” products. The sample size was 17,610 products across more than 30 online stores. Quantitative data processing techniques including outlier tests, classification models, and frequency distribution models (histograms, box plots) were used for the statistical analysis.

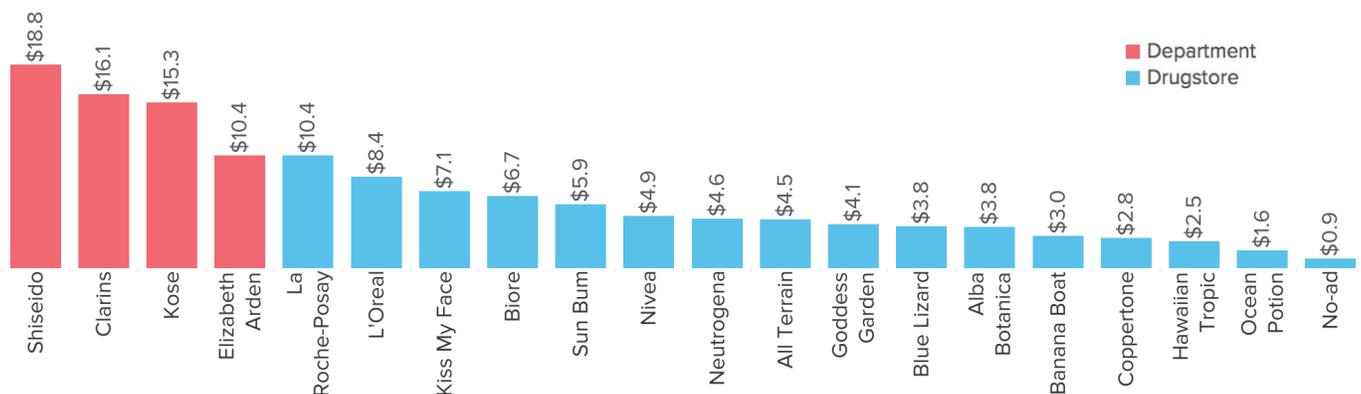
# SUNSCREEN

There's a lot more to sunscreen than meets the eye. Not only do you have to take SPF into consideration, which we'll get into later, but there's also UVA and UVB. The "A" in UVA stands for "Aging," and the "B" in UVB stands for "Burning." UVA rays prematurely age skin (UVA 320- 400 nm), and UVB rays cause sunburn (UVB 290-320 nm). Both cause cancer so you'll want to find a sunscreen that protects from both. Our analysis revealed the most popular sunscreen brands by count as well as their per ounce prices.

## Top 20 Brands by Product Count (Fig. 2.1)



## Per Ounce Price of Top 20 (Fig. 2.2)



## Sunscreen Insights

The top four brands by count have the following average pricing per ounce:

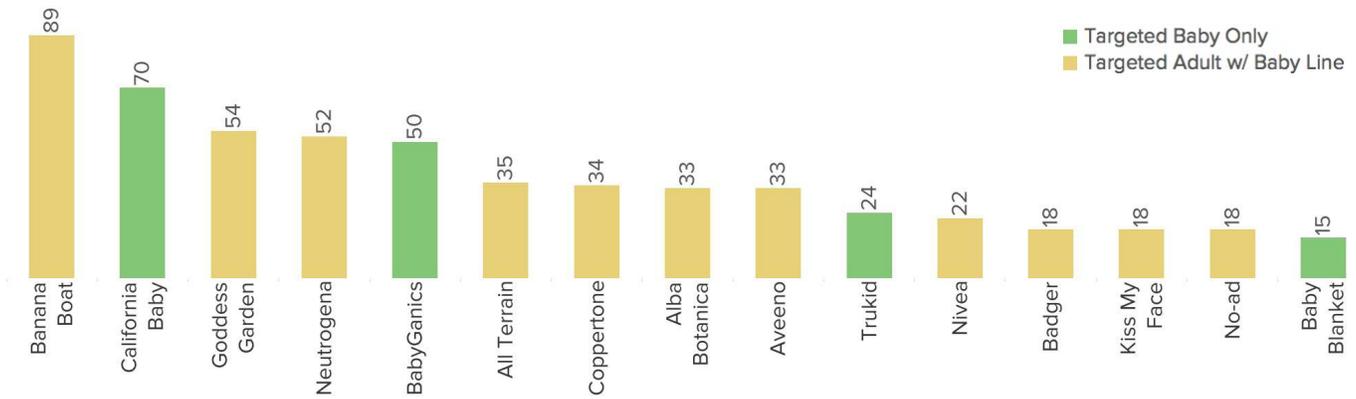
- Banana Boat \$3.0
- Shiseido \$18.8
- Neutrogena \$4.6
- Coppertone \$2.8

There are only four department store brands and they are the most expensive per ounce:

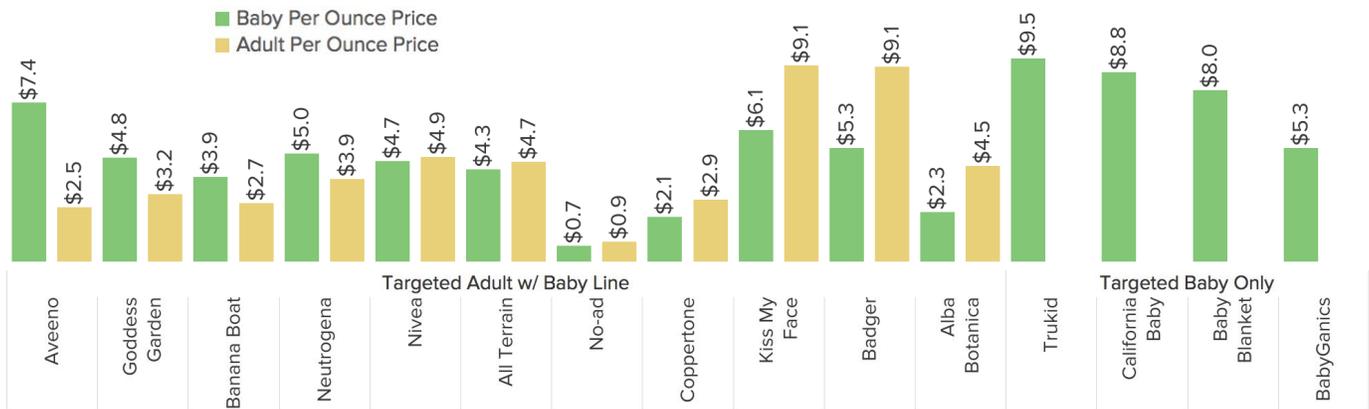
- Shiseido \$18.8
- Clarins \$16.0
- Kose \$15.3
- Elizabeth Arden \$10.4

# SUNSCREEN FOR BABY

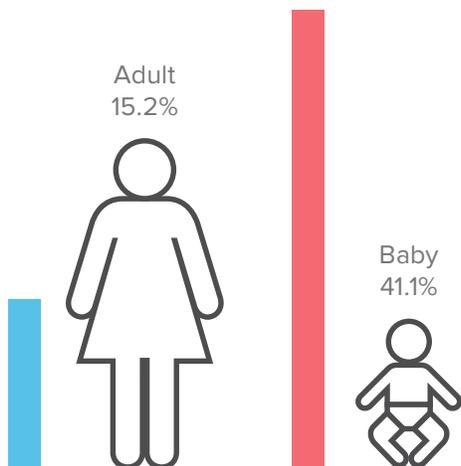
Top 15 Baby Targeted Brands (Fig. 3.1)



Price per Ounce of Top 15 Baby Brands (Fig. 3.2)



Physical Sunscreen % by Age (Fig. 3.3)



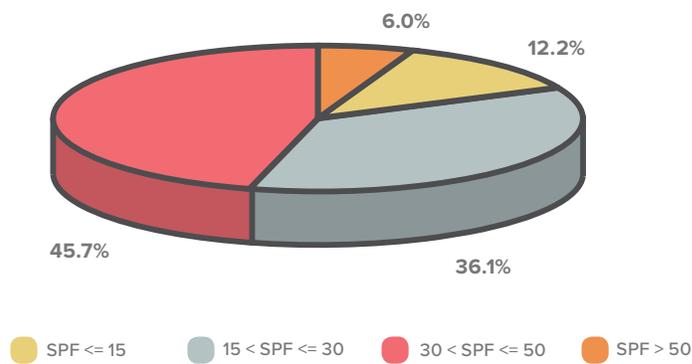
## Baby vs. Adult Insights

- “Baby Tax” refers to the same products being priced higher for babies than adults. “Adult Tax” refers to the opposite phenomenon. There is an even split between the top brands which favor adults and which favor babies (Fig 3.2).
- “Baby Tax” brands: Aveeno, Goddess Garden, Banana Boat, and Neutrogena
- “Adult Tax” brands: Coppertone, Kiss My Face, Badger, and Alba Botanica
- Physical sunscreen comprises 41% of baby sunscreen products versus 15% of adult (Fig 3.3).

# SPF ANALYSIS

The SPF factor rates how effective the sunscreen is in preventing sunburn caused by UVB rays. If you'd normally burn in 10 minutes, SPF 15 means you could go  $15 \times 10 = 150$  minutes before burning. Surprisingly, EWG's Guide to Sunscreens concludes that higher SPF doesn't work better than lower SPF. Higher SPF simply means that you can go longer before burning. For this reason, SPF is one of the most important considerations when purchasing sunscreen. The four most common SPF levels are 15, 30, 50, and over 50.

## Mix of Products by SPF (Fig. 4.1)



## Per Ounce Price by SPF (Fig. 4.2)



## SPF Insights

- Nearly half of all sunscreen products are SPF 30-50.
- There is no statistical difference in price per ounce for all sunscreen products below SPF 30. The price per ounce starts rising above SPF 30.
- Price typically increases with SPF.
- SPF 15 blocks 93% of UVB radiation, SPF 30 blocks nearly 97% and SPF 50 blocks an estimated 98% of UVB rays.

# CONCLUSION

Fun in the sun can come with some serious drawbacks, like sunburn and skin cancer. With summer fast-approaching, we all need to make sure that we're protected when we go outside. Here are some useful insights we learned while preparing our research to help you get started:

- If you have a little one, you're more likely to find physical sunscreen, which tends to be friendlier to their soft, sensitive skin.
- Choosing a higher SPF might be more expensive, but SPF 50 blocks 98% of the sun's rays versus SPF 15 blocking only 93%. If you prefer a lower SPF, make sure you choose your SPF based on how much time you plan to spend in the sun—higher gives you more time before you burn.
- Make sure you find sunscreen that protects you from both aging (UVA) and burning (UVB).

## About Indix

Indix is building the world's first Product Information Marketplace – the single largest source of structured product information. Using the web and partner sites, we collect dynamic product data such as price, promotion, availability, and seller information in addition to normalized catalog data like product identifiers and attributes. Through data science and machine learning, we cleanse and structure the data to make it readily available to businesses.

Using Indix Data-as-a-Service, businesses and developers use the power of product information to make better decisions, drive innovation, and create new models of commerce.

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