LOOKING INWARD

Where popular personal care brands stand on ingredient safety and disclosure

MAKE it TOXIC FREE

U.S. PIRG | Education Fund

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U.S. PIRG Education Fund
Make It Toxic-Free Campaign

Written by Gina Werdel
April 29, 2021

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Report layout and cover: Gina Werdel

Executive Summary

EVERY DAY, WE USE A MULTITUDE of beauty and personal care products on our bodies. But, contrary to popular belief, these products do not require pre-market approval by any U.S. government agency.[1,2] While some legislation has attempted to regulate the ingredients in these products, cosmetic companies in the U.S. can put nearly any ingredient they want in their products,[3] often without full ingredient disclosure,[4] exposing consumers to potentially harmful chemicals that could contribute to serious health impacts.[5]

Little federal legislation addressing the issue of cosmetic safety or ingredient disclosure has been passed[6] by Congress since the Food, Drug, and Cosmetic Act was enacted in 1938.[7] Meanwhile, some states have taken action.[8] In 2013, Minnesota banned formaldehyde, a carcinogen,[9] from children's products. In 2019, New York banned cosmetics containing 1,4-Dioxane, a likely human carcinogen, according to the EPA.[10] And in 2020, California passed two cosmetic safety laws. The first law bans 24 toxic cosmetics ingredients[11] linked to endocrine disruption, cancer, and other health impacts.[12] The second law requires the public disclosure of designated hazardous fragrance and flavor ingredients in beauty and personal care products sold in California.[13]

In addition, some companies have voluntarily taken action to protect their customers' health by reformulating products to eliminate toxic ingredients and disclosing all ingredients in their products. For example, U.S. PIRG, the Campaign for Safe Cosmetics and other advocacy groups convinced the cosmetic giants Procter & Gamble and Unilever to disclose more ingredients in a public database.[14,15] In addition, Procter & Gamble announced that it would remove two hormone disruptors, triclosan and diethyl phthalate, from all its products by 2014.[16,17] And in 2020, Johnson & Johnson announced it would stop selling its talc-based baby powder in the U.S. and Canada, after consumers raised concerns that the main ingredient might be dangerous or at risk of contamination with asbestos, which can cause cancer and other serious illnesses.[18]

With only a patchwork of state legislation and voluntary action on the part of some companies, consumers may be wondering -- how safe are cosmetic products today? This report seeks to address that question by evaluating current progress made by popular brands in eliminating unsafe chemicals and disclosing ingredients.

We surveyed nearly 1,000 products to evaluate 26 popular personal care brands on two criteria (*see full report cards below*):

1. **Ingredient Safety:** Based on the use of 24 toxic ingredients recently banned in California, and the use of 11 other related and potentially hazardous ingredients.
2. **Ingredient Disclosure:** Based on a consumer's ability to find full product ingredient lists, including fragrance and flavor ingredients.

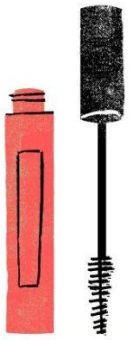
This report has three main findings:

1. **20 out of 26 brands surveyed are not adequately disclosing ingredients, and the average ingredient disclosure grade was an F.** Ingredient disclosure is very poor across all brands studied, and is inadequate for ensuring that consumers can make informed decisions about the personal care products they purchase.
2. **Of the mega-companies studied (including Unilever, Procter & Gamble, and L'Oréal), L'Oréal[19] is significantly behind the others in terms of full ingredient disclosure.** In 2018, L'Oréal made a commitment to disclose more ingredients in its products, but did not set a clear timeline, and we were not able to locate evidence that it has followed through on its commitment.[20] L'Oréal controls nearly 40 brands[21,22] and is the largest beauty company by revenue worldwide.[23] Given its size, L'Oréal has the resources to follow through on commitments to ingredient disclosure.
3. **Based on what was visible in the ingredient lists, only 11 products surveyed (1.1% of all surveyed products) contained at least one of the ingredients recently banned in California. In addition, only 4 of the 24 banned chemicals were found on ingredient lists surveyed.** This suggests that companies should be able to reformulate products to eliminate these banned chemicals faster than required by the new California law.

In this report, we offer recommendations to L'Oréal and other companies for improvement of ingredient safety and disclosure.

REPORT CARD

FACE MAKEUP



C	URBAN DECAY, L'ORÉAL	ud	Hazardous Ingredient Use Score: **9.55/10** Ingredient Disclosure Score: **5/10** Total Score: **14.55/20**
C	L'ORÉAL PARIS	L'ORÉAL PARIS	Hazardous Ingredient Use Score: **9.41/10** Ingredient Disclosure Score: **5/10** Total Score: **14.41/20**
C	M.A.C., ESTEE LAUDER	MAC	Hazardous Ingredient Use Score: **9.38/10** Ingredient Disclosure Score: **5/10** Total Score: **14.38/20**
C	NYX, L'ORÉAL	NYX	Hazardous Ingredient Use Score: **9.35/10** Ingredient Disclosure Score: **5/10** Total Score: **14.35/20**
F	COVERGIRL, COTY	COVERGIRL®	Hazardous Ingredient Use Score: **7.51/10** Ingredient Disclosure Score: **0/10** Total Score: **7.51/20**

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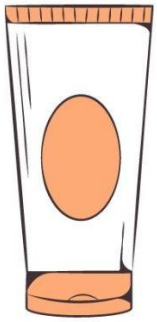
REPORT CARD

SKINCARE



A+	**DERMALOGICA, UNILEVER**	dermalogica®	Hazardous Ingredient Use Score: **10/10** Ingredient Disclosure Score: **10/10** Total Score: **20/20**
A	**CLINIQUE, ESTÉE LAUDER**	CLINIQUE	Hazardous Ingredient Use Score: **9.92/10** Ingredient Disclosure Score: **10/10** Total Score: **19.92/20**
A	**CERAVE, L'ORÉAL**	CeraVe® DEVELOPED WITH DERMATOLOGISTS	Hazardous Ingredient Use Score: **9.63/10** Ingredient Disclosure Score: **10/10** Total Score:**19.63/20**
A	**ST. IVE'S, UNILEVER**	St. Ives.	Hazardous Ingredient Use Score: **10/10** Ingredient Disclosure Score: **8/10** Total Score: **18/20**
C	**ESTÉE LAUDER, ESTÉE LAUDER**	ESTĒE LAUDER	Hazardous Ingredient Use Score: **10/10** Ingredient Disclosure Score: **5/10** Total Score:**15/20**
C	**L'ORÉAL PARIS, L'ORÉAL**	L'ORÉAL PARIS	Hazardous Ingredient Use Score: **9.76/10** Ingredient Disclosure Score: **5/10** Total Score:**14.76/20**
C	**GARNIER(FRUCTIS AND COLOR SENSATIONS), L'ORÉAL**	GARNIER	Hazardous Ingredient Use Score: **9.54/10** Ingredient Disclosure Score: **5/10** Total Score:**14.54/20**

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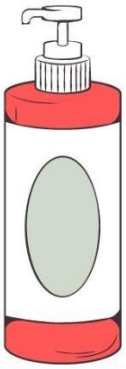
HAIR CARE



B	**TRESEMMÉ, UNILEVER**	TRESemmé	Hazardous Ingredient Use Score: **9.4/10** Ingredient Disclosure Score: **8/10** Total Score: **17.4/20**
C	**PUREOLOGY, L'ORÉAL**	PUREOLOGY® serious colour care	Hazardous Ingredient Use Score: **10/10** Ingredient Disclosure Score: **5/10** Total Score: **15/20**
C	**AVEDA, ESTÉE LAUDER**	AVEDA	Hazardous Ingredient Use Score: **10/10** Ingredient Disclosure Score: **5/10** Total Score:**15/20**
C	**MADISON REED**	MADISONREED®	Hazardous Ingredient Use Score: **9.93/10** Ingredient Disclosure Score: **5/10** Total Score: **14.93/20**
C	**L'ORÉAL PARIS, L'ORÉAL**	L'ORÉAL PARIS	Hazardous Ingredient Use Score: **9.91/10** Ingredient Disclosure Score: **5/10** Total Score: **14.91/20**
D	**GARNIER, L'ORÉAL**	GARNIER	Hazardous Ingredient Use Score: **8.88/10** Ingredient Disclosure Score: **5/10** Total Score: **13.88/20**
F	**SUAVE, UNILEVER**	Suave	Hazardous Ingredient Use Score: **7.97/10** Ingredient Disclosure Score: **3/10** Total Score: **10.97/20**

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REPORT CARD

NAIL PRODUCTS

C	ELLA + MILA	ella+mila	Hazardous Ingredient Use Score: **10/10** Ingredient Disclosure Score: **5/10** Total Score: **15/20**
C	ESSIE, L'ORÉAL	essie	Hazardous Ingredient Use Score: **10/10** Ingredient Disclosure Score: **5/10** Total Score: **15/20**
C	SALLY HANSEN, COTY	Sally Hansen	Hazardous Ingredient Use Score: **9.5/10** Ingredient Disclosure Score: **5/10** Total Score: **14.5/20**
F	ZOYA	ZOYA	Hazardous Ingredient Use Score: **10/10** Ingredient Disclosure Score: **0/10** Total Score: **10/20**
F	REVLON	REVLON	Hazardous Ingredient Use Score: **10/10** Ingredient Disclosure Score: **0/10** Total Score: **10/20**
F	OPI, COTY	O·P·I	Hazardous Ingredient Use Score: **8.75/10** Ingredient Disclosure Score: **0/10** Total Score: 8.75**/20**

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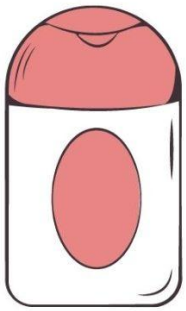
REPORT CARD

DEODORANT



A	DOVE, UNILEVER	Dove	Hazardous Ingredient Use Score: **10/10** Ingredient Disclosure Score: **10/10** Total Score: **20/20**
A	OLD SPICE, PROCTOR & GAMBLE	Old Spice	Hazardous Ingredient Use Score: **10/10** Ingredient Disclosure Score: **10/10** Total Score: **20/20**
A	SUAVE, UNILEVER	Suave	Hazardous Ingredient Use Score: **10/10** Ingredient Disclosure Score: **10/10** Total Score: **20/20**
A	SECRET, PROCTOR & GAMBLE	Secret	Hazardous Ingredient Use Score: **10/10** Ingredient Disclosure Score: **10/10** Total Score: **20/20**
F	DEGREE, UNILEVER	Degree DEODORANT	Hazardous Ingredient Use Score: **10/10** Ingredient Disclosure Score: **3/10** Total Score: **13/20**

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Background

MANY AMERICANS ASSUME that a government agency, such as the Food and Drug Administration (FDA) or the Consumer Product Safety Commission (CPSC), is checking to make sure their beauty and personal care products are safe. Unfortunately, this is not the case. Cosmetics are outside the CPSC's jurisdiction[24] and the FDA has very little authority over cosmetics, requiring no pre-market approval for any products or ingredients, apart from color additives, before these products go to the store shelves.[25] Safety checks are left to the manufacturers and retailers.[26]

As a result of this lack of regulation, toxic chemicals show up in beauty and personal care products in the U.S. more often than they should. The FDA has banned only 11 ingredients[27] from cosmetics and does not require pre-market approval for any ingredients except color additives.[28] (For context, regulators in the European Union have banned or restricted over 1,300 cosmetic ingredients that have been linked to health concerns.[29]) Lead, a neurotoxin,[30] can still be found in some lipsticks.[31] Asbestos, a carcinogen, can still be found contaminating some talc-based makeup,[32] and was even found in children's makeup as recently as 2019.[33] And, formaldehyde, a known human carcinogen, according to the U.S. National Toxicology Program and the International Agency for Research on Cancer,[34] is still legal to use in baby shampoo[35] and other personal care products under federal law (though it is banned in children's products in Minnesota; must no longer be in children's products imported, sold, or distributed in New York by 2023; and it must be phased out of all personal care products in California by 2025).[36,37] All of these potentially harmful chemicals may enter the body through skin contact, inhalation, or ingestion, depending on where and how the chemical is being used.[38]

In addition, current regulations allow companies to hide certain ingredients from consumers. Any number of ingredients that are used to create the scent of a product can simply be listed as "fragrance" on a product label. Likewise, ingredients that are used to create the flavor (of a flavored lip balm, for example) can simply be listed as "flavor."[39] Currently, there are about 4,000 chemicals that are used in fragrance, and of them, more than 1,200 are known or potential "chemicals of concern," according to the state of California, the World Health Organization, and the EU. These fragrance chemicals have been included on international warning lists because they have been linked to cancer, hormone disruption, or other health

hazards.[40,41] The lack of disclosure means that consumers have no way of knowing when they are using these potentially harmful ingredients on their bodies.

While the industry says that small amounts of even known toxic chemicals are safe,[42] it's not clear whether these claims account for the continuous, repeated exposure that comes with daily use of a combination of products.[43] Safety studies for toxic chemicals don't always look at repeated use over time or consider cumulative exposure from multiple products. And without ingredient disclosure, consumers don't have the opportunity to decide for themselves which potentially toxic ingredients they're willing to risk exposure to or advocate for the removal of harmful ingredients and a shift to safer alternatives.

Last year, the state of California enacted two laws that attempt to address cosmetic ingredient safety issues. While these are state laws, not federal legislation, their impact will go beyond state boundaries and benefit all Americans.

First, the Cosmetic Fragrance and Flavor Right to Know Act of 2020 requires that, as of January 1, 2022, companies disclose ingredients that are included on 23 designated "hazard lists" referenced by the law[44] to a public database administered by the state's Department of Public Health so that consumers across the country have more information about the safety of their products.[45] In this report, we evaluated the performance of ingredient disclosure in popular brands to demonstrate the disclosure problem that this legislation seeks to address.

Second, the Toxic-Free Cosmetics Act bans 24 toxic chemicals from beauty and personal care products sold in California.[46] The legislation goes into effect on January 1, 2025.[47] The 24 chemicals are all currently banned from cosmetic products sold in the EU but may be present in cosmetic products legally sold in the U.S. (except for mercury, which is also banned by the U.S. FDA as well as the EU).[48] However, because companies will have to reformulate their products in order to continue to sell them in California, large national companies will likely reformulate their products for sale in all 50 states, rather than creating a separate formula for California, thereby helping consumers across the country.

To measure the impact of the Toxic-Free Cosmetics Act and identify opportunities for further progress, we focused our ingredient safety review on these banned chemicals, as well as a set of related chemicals that were not banned but share certain chemical properties with the banned ingredients and have been linked to similar health risks. This report aims to make the public aware of where the industry has

progressed, and what additional steps are needed to improve cosmetic safety.

The newly banned ingredients:

1. Formaldehyde
2. Paraformaldehyde
3. Methylene glycol
4. Quaternium 15
5. Mercury
6. Dibutyl phthalate
7. Diethylhexyl phthalate
8. Isobutyl paraben
9. Isopropyl paraben
10. M-phenylenediamine and salts
11. O-phenylenediamine and salts
12. Thirteen long chain per- and polyfluoroalkyl substances (PFAS)
    a. Perfluorooctane sulfonate (PFOS); heptadecafluorooctane-1-sulfonic acid
    b. Potassium perfluorooctanesulfonate; potassium heptadecafluorooctane-1-sulfonate
    c. Diethanolamine perfluorooctane sulfonate
    d. Ammonium perfluorooctane sulfonate; ammonium heptadecafluorooctanesulfonate
    e. Lithium perfluorooctane sulfonate; lithium heptadecafluorooctanesulfonate
    f. Perfluorooctanoic acid (PFOA)
    g. Ammonium pentadecafluorooctanoate
    h. Nonadecafluorodecanoic acid
    i. Ammonium nonadecafluorodecanoate
    j. Sodium nonadecafluorodecanoate
    k. Perfluorononanoic acid (PFNA)
    l. Sodium heptadecafluorononanoate
    m. Ammonium perfluorononanoate

Ingredients #1-4: Formaldehyde and Formaldehyde-Releasing Preservatives

The first four ingredients banned by California are formaldehyde and formaldehyde-releasing chemicals: formaldehyde, paraformaldehyde, methylene glycol, and quaternium 15.

Formaldehyde is commonly known as a preservative for cadavers.[49] Formaldehyde and formaldehyde-releasing chemicals are used as preservatives in cosmetics.[50,51] They are found in nail polish, nail glue, eyelash glue, hair gel, hair-smoothing products, baby shampoo, body soap, and body wash.[52] Formaldehyde has been identified as a known human carcinogen by the U.S. National Toxicology Program and the World Health Organization.[53] People can be exposed to formaldehyde through skin contact, inhalation, or ingestion.[54] It is also an allergen for some people, causing a red, itchy skin rash.[55]

There are two ways formaldehyde can end up in personal care products: it can be an intentionally added ingredient, or it can be released by what's called a "formaldehyde-releasing preservative," meaning the original ingredient breaks down into formaldehyde. However it gets there, the end result is the same: formaldehyde may be present in a product consumers are using on their bodies. That's a problem because, while it's easy to see formaldehyde on a label, most consumers don't know to check for formaldehyde releasers and therefore can't adequately protect themselves.[56]

Formaldehyde and Formaldehyde-Releasers banned in California

- formaldehyde
- paraformaldehyde
- quaternium 15
- methylene glycol

Formaldehyde-Releasers not banned in California

- DMDM hydantoin
- imidazolidinyl urea
- diazolidinyl urea
- polyoxymethylene urea
- sodium hydroxymethylglycinate
- 2-bromo-2-nitropropane-1,3-diol (bromopol)
- glyoxal

Formaldehyde-releasers are still in regular use, and only three of them were banned in California. One of the most common chemicals to watch out for is "DMDM hydantoin." This chemical, which was not included in this recent bill, is a preservative that releases small amounts of formaldehyde over time.[57]

Ingredient #5: Mercury

Mercury is a highly toxic heavy metal[58] that may be used in cosmetics as a skin lightener or preservative.[59] Mercury is more likely to be found in products manufactured outside of the U.S. and sometimes in cosmetic products marketed to women of color.[60] It can be damaging to the kidneys and brain, and can cause a variety of system-wide damages, depending on exposure and form.[61] Given these health impacts, it is one of the 11 toxic chemicals the FDA has restricted from use in cosmetics. However, there isn't sufficient enforcement of this FDA ban, and it has been found in skin lightening creams, anti-aging creams, and acne treatments.[62]

For residents of other states who will not benefit from California's enforcement of the ban on mercury, the FDA advises to stop using products that contain mercury or "mercurous chloride," "calomel," "mercuric," or "mercurio."[63] The Environmental Working Group has also advised avoiding "Hg," "mercuric iodide," "ammoniated mercury," "amide chloride of mercury," "quicksilver," "cinnabaris," "mercury sulfide," "hydrargyri oxydum rubrum,"

"mercury oxide" or "mercury iodide." But many times, illegally marketed products won't have an ingredient list at all.[64] Online purchases from retailers such as Amazon or eBay should be made with care, since this is one place where mercury containing products can be illegally sold.[65] In summary, if you don't know where your skin cream came from or if it doesn't have a label, it's best to stop using it.

Ingredients #6-7: Dibutyl and diethylhexyl phthalate (DBP, DEHP)

Dibutyl and diethylhexyl phthalate (DBP and DEHP) are two types of ingredients that are a part of a large class of chemicals called phthalates (pronounced THAL-ATES).[66] Phthalates are often not included on a product's label because they are commonly used as fragrance ingredients, which don't have to be disclosed under current federal law.[67] Phthalates are included in the fragrance as a solvent or fixative.[68] Phthalates such as DBP and DEHP have also been used as plasticizers to make nail polish less brittle.[69] DEHP has been linked to cancer. DBP and DEHP have also been found to cause birth defects and reproductive problems. This is especially problematic for children and pregnant women.[70,71] Because of these well-established harmful health effects, DEHP and DBP have been restricted to a concentration no higher than 0.1 percent in children's toys since 2008.[72] But until the recent California ban, they were still allowed in personal care products used by pregnant women every day.

While it isn't as common to find these two phthalates in cosmetic products today because many companies have voluntarily phased them out, other phthalates are still common. Today, the most commonly found phthalate still in cosmetics is diethyl phthalate (DEP).[73] Unfortunately, at least one recent study found that DEP may cause similar effects to those of DEHP.[74] Scientists and advocates have been calling for restrictions on the entire class of phthalates, given the health risks they pose.[75]

While phthalates are a problem for our health, they also reveal the underlying problem of fragrance disclosure laws. We should have the right to know what's in the products that we use every day, but we don't. Most companies are not disclosing fragrance ingredients, nor are they required to. We advise anyone who wants to limit their exposure to phthalates to avoid any products that list "fragrance" or "parfum" on the label, unless fragrance ingredients are disclosed elsewhere, confirming the absence of phthalates and other chemicals of concern.

Ingredients #8-9: Isobutyl and isopropyl paraben

Parabens are a group of chemicals used as preservatives in lotions, face cleansers, sunscreen, deodorant, shaving gel,

toothpaste, and makeup. Parabens are used in cosmetics because they prevent growth of bacteria and fungi and lengthen a product's shelf life.[76]

Parabens in cosmetics can be easily absorbed through the skin[77] and can disrupt hormones, acting as estrogen mimickers in the body.[78,79] While shorter chain parabens (methyl-, ethyl-, propyl- and butylparaben) may have lesser hormone disrupting effects, some studies have shown that some of these parabens have effects on estrogen receptors.[80] Considering the potential risks of these chemicals, they are not worth the longer shelf life they help ensure.

Fortunately, our report suggests the two recently banned parabens, isobutyl and isopropyl paraben, are being used in few personal care products. However, other small chain parabens such as ethyl-, methyl-, propyl-, and butylparabens are still in use in many products.

We recommend avoiding all parabens. While products labeled "paraben-free" are not necessarily toxic-free, it should be one criterion to use when shopping for clean cosmetics.

Ingredients #10-11: M- and o-phenylenediamine and their salts

M- and o-phenylenediamine can be found in hair dyes.[81,82] M-phenylenediamine is suspected to mutate genetic material and cause skin allergies.[83] O-phenylenediamine is listed on California's Proposition 65 hazard list as causing cancer[84] and is banned from cosmetic use in the EU[85] because it is suspected of causing cancer, genetic mutation and skin allergies.[86]

While some research has found m- and o-phenylenediamine and their salts (structural variations of the chemicals) in hair dyes as recently as 2019,[87] we did not identify any of these chemicals in the products we surveyed, suggesting that their use in cosmetics may be declining. However, a sister chemical, p-phenylenediamine (PPD), is used frequently in hair dyes.[88] PPD is legal for use in cosmetics sold in the U.S., despite being classified as a hazardous air pollutant by the EPA.[89] Products sometimes contain PPD listed under different names,[90] so it's best to avoid products containing:

- PPD
- Phenylenediamine
- Para-phenylenediamine
- 4-aminoaniline
- 1,4-benzenediamine
- P-diaminobenzene
- 1,4-diaminobenzene
- 1,4-phenyl diamine

Some animal studies have concluded that PPD is linked to cancer,[91] but there is some scientific debate over whether or not PPD, as it is used in hair dyes, causes cancer.[92] Keeping in mind the precautionary principle, the chemical should not be used until it is proven safe.

Ingredient #12: Thirteen long-chain per- and polyfluoroalkyl substances (PFAS)

Banned PFAS:

1. *Perfluorooctane sulfonate (PFOS); heptadecafluorooctane-1-sulfonic acid*
2. *Potassium perfluorooctanesulfonate; potassium heptadecafluorooctane-1-sulfonate*
3. *Diethanolamine perfluorooctane sulfonate*
4. *Ammonium perfluorooctane sulfonate; ammonium heptadecafluorooctanesulfonate*
5. *Lithium perfluorooctane sulfonate; lithium heptadecafluorooctanesulfonate*
6. *Perfluorooctanoic acid (PFOA)*
7. *Ammonium pentadecafluorooctanoate*
8. *Nonadecafluorodecanoic acid*
9. *Ammonium nonadecafluorodecanoate*
10. *Sodium nonadecafluorodecanoate*
11. *Perfluorononanoic acid (PFNA)*
12. *Sodium heptadecafluorononanoate*
13. *Ammonium perfluorononanoate*

What are all these chemicals?

PFAS or per- and polyfluoroalkyl substances, are a class of thousands of synthetic chemicals[93] that are used ubiquitously across multiple industries. They are in rain gear, non-stick cookware, food packaging, carpets, and more.[94] According to the FDA, these chemicals are used in cosmetics for the purpose of smoothing and adding shine to the skin. They have been found in lotions, cleansers, nail polish, shaving cream, foundation, lipstick, eyeliner, eyeshadow, and mascara.[95]

The World Health Organization's International Agency for Research on Cancer has listed one type of PFAS, PFOA, as a possible human carcinogen,[96] and some types of PFAS have been linked to other serious health effects, including liver damage, birth defects, and decreased vaccine response in children.[97] To make matters worse, these chemicals have also been given the nickname "forever chemicals"[98] because they don't break down in our bodies or in the environment. As a result, they now pollute many drinking water systems in the U.S.[99] and are estimated to be in the bodies of around 97 percent of Americans.[100] The combined persistence, ubiquitous use, and toxic effects of these chemicals make them a public health nightmare.

This bill will ban 13 long-chain PFAS. However, according to the EPA, there are more than 9,000 different PFAS chemicals,[101] many of which are in use today.[102] To see if one of your products has PFAS, look at the ingredient lists and search for "PTFE" or anything that has "fluoro" as a part of the ingredient name.

Methodology

THE PURPOSE OF THIS REPORT is to assess the progress and performance of leading cosmetic brands in eliminating the twenty-four toxic ingredients banned in California, as well as their use of ingredients we determined to be related, or sister chemicals, to the banned ingredients. In addition, companies were evaluated based on the strength of their ingredient disclosure because comprehensive disclosure greatly impacts consumers' ability to find safer products and was essential to the researchers' ability to evaluate the products' ingredients. Brands were evaluated based on publicly available and accessible information that the average consumer would be able to find while shopping for cosmetic products online. We attempted to contact all parent companies surveyed for comment. At the time of publishing this report, Unilever was the only company to reply.

Choosing brands to research

To ensure that this report would have the greatest impact possible, including being accessible and helpful to as many people as possible, we chose which companies to evaluate based on the breadth of products sold and high brand recognition, which we treated as indicators of reaching a wide consumer audience.

In the personal care product industry, the most recognizable beauty brands are owned by parent mega-companies, such as Procter & Gamble, L'Oréal, and Unilever. Each of the parent companies owns many brands, so it is difficult to evaluate these companies for hazardous ingredient use in individual products. However, these parent companies can be evaluated by general chemical safety policy, such as a commitment ingredient disclosure. Because of this dilemma, we chose to evaluate well-known brands underneath these parent companies that would be recognizable by the average person, while also noting the parent company of each brand and how its performance related to parent company commitments.

Assessing brand eligibility

After a brand was added to our list for consideration, a researcher reviewed several sources to determine if the brand listed its product ingredients online, including the brand's website, the SmartLabel database, and retailers' websites, such as CVS Health, Ulta or Target. Wherever brands listed ingredients on their own websites or linked to a list in SmartLabel, these lists were used as the source for evaluation of ingredient safety. If the brand did not list its product ingredients on its own site, a different retailer's

ingredients list was used, for example, CVS Health, Ulta, or Target. If the brand did not have ingredients listed online, it was considered ineligible for the study, because it could not be evaluated for ingredient safety.

Choosing product categories

Product categories selected for evaluation are those that the average person would use somewhat regularly or would be familiar with.

Selecting a sample

For all brands excluding deodorant product brands, a sample size of at least 30% of total products available from that brand on the website used for data collection was surveyed for hazardous ingredient use. For example, if a brand had 100 different mascara products, we surveyed at least 30 of them. For deodorant product brands, the sample size was at least 10% of all deodorant products on the brand or retailer site.

Data collection

To ensure that companies' scores fairly reflected the proportion of products that contained the hazardous ingredients relative to all products in the sample, all products surveyed were included in the final data analysis, regardless of whether the ingredients of concern were present.

For the purposes of this report, ingredients of concern included the 24 chemicals recently banned by the California Toxic-Free Cosmetics Act as well as 11 related chemicals that were not banned but that are in the same family of chemicals as those that were banned and are linked to similar health effects. Banned ingredients and related ingredients were recorded separately for scoring purposes, with banned ingredients receiving more weight than the related ingredients.

Table 1. Ingredients Included in this Survey

Type	Banned Ingredients	Related Ingredients
Formaldehyde and formaldehyde-releasers	Formaldehyde	Imidazolidinyl urea
	Paraformaldehyde	Diazolidinyl urea
	Quaternium 15	Polyoxymethylene urea
	Methylene glycol	DMDM hydantoin
		Glyoxal

Mercury	Mercury	
Parabens	Isobutylparaben	Propylparaben
	Isopropylparaben	Butylparaben
Phthalates	Dibutyl phthalate	Diethyl phthalate
	Diethylhexyl phthalate	
Phenylenediamines	M-phenylenediamine	P-phenylenediamine
	O-phenylenediamine	N,N-bis(2-hydroxyethyl)-p-phenylenediamine Sulfate
PFAS	Perfluorooctane sulfonate (PFOS); Heptadecafluorooctane-1-sulfonic acid	PTFE, teflon
	Potassium perfluorooctanesulfonate; Potassium heptadecafluorooctane-1-sulfonate	
	Diethanolamine perfluorooctane sulfonate	
	Ammonium perfluorooctane sulfonate; Ammonium heptadecafluorooctanesulfonate	
	Lithium perfluorooctane sulfonate; Lithium heptadecafluorooctanesulfonate	
	Perfluorooctanoic acid (PFOA)	
	Ammonium pentadecafluorooctanoate	
	Nonadecafluorodecanoic acid	
	Ammonium nonadecafluorodecanoate	

	Sodium nonadecafluorodecanoate	
	Perfluorononanoic acid (PFNA)	
	Sodium heptadecafluorononanoate	
	Ammonium perfluorononanoate	

To ensure that all instances of hazardous ingredient use could be verified by a second researcher, for all products that were found to use any banned or related ingredients, the source page was archived using the Wayback Machine and a screenshot was recorded and annotated to highlight the ingredients of concern. If no banned or related ingredients from the lists above were found, no screenshot was recorded and the link was not archived.

Timeline of Data Collection

Initial data collection and research began in October 2020 and concluded in February 2021. Data-checking began in March 2021 and was finalized in April 2021.

Tools used

Wayback Machine

The Wayback Machine allowed us to save pages exactly as they appeared when we first searched them. Because California's Toxic-Free Cosmetics Act goes into effect on January 1, 2025, this report will allow us to measure the progress made by key industry leaders based on their use or discontinued use of the new law's 24 banned chemicals. We used https://web.archive.org/save and input the link to the product page to the "save page now" function and saved archived links.

Web Scraper

To expedite the data collection process, we utilized Web Scrapers, which allowed us to download data from a website in spreadsheet form, a faster alternative than manual data collection. However, this tool was only compatible with some website structures, so it was only used for a few data downloads; the rest of our data collection was manual.

For full instructions on how we used the web scraper, please refer to Appendix B.

Criteria for Grading Brands

Brands were evaluated based on their **ingredient disclosure** and their **use of the list of 24 toxic ingredients** banned by the California Toxic-Free Cosmetics Act, as well as **11 related ingredients** that are similar to these banned chemicals and may have similar health impacts. These criteria were chosen for a few reasons:

1. Disclosing ingredients and phasing out toxic ingredients are the first two steps that companies can take to improve cosmetic safety. Consumers should have both the right to know which ingredients are in their products, and assurance that products do not contain potentially toxic or known toxic ingredients.
2. The recent law passed in California was a landmark decision that is an important step for cosmetic safety. Producing this report is important for measuring the bill's success as well as identifying areas for improvement that could be addressed by corporate commitments and future legislation.
3. These criteria were chosen based on publicly available information provided by the company. These criteria are meant to reflect what the average consumer would look for and be able to find when shopping online. We did attempt to reach out to all parent companies mentioned in the report to confirm our findings. We received no responses as of the date of publishing this report except from Unilever. A representative from Unilever stated that the company is working to address the ingredient disclosure issues we identified.
4. These criteria are objective and relatively easy to evaluate. The hazardous ingredients we highlighted were compiled by a third party (the California state legislature) and were selected before we began any data collection. The grading criteria were chosen based on the planks of our platform for chemical safety. We did not attempt to compare the toxicity of each ingredient or each product's unique formula to provide a more granular analysis with greater room for subjectivity. Instead, we focused on identifying which brands are providing sufficient information for their customers to make informed choices about their purchases and which are not, as well as which brands are avoiding some of the worst toxic ingredients in their products and which are still using toxic ingredients that are bad enough to be banned by law in California. This report has undergone external review, all claims have been fact-checked internally, and all data that negatively impact a brand's score are backed up by screenshots and archived links.

Point System

Hazardous Ingredient Use Score

A company could score a maximum of 10 points if it used no banned or any of the 11 related ingredients in any products surveyed.

To calculate a company's score, we totaled all of a brand's products that contained banned ingredients as well as those that contained only related ingredients[103] and separately calculated the proportion of products out of the set of surveyed products that contained at least one banned ingredient and the proportion that contained at least one of the related ingredients but did not contain any banned ingredients. Then, we weighted the numbers so that the use of banned ingredients would have a greater impact on the score than would the use of related ingredients. Thus, the proportion of products that contained banned ingredients was multiplied by 10, while the proportion of products that contained only related ingredients was multiplied by 5. We then deducted these numbers from the maximum total of 10 points. The final number is the Hazardous Ingredient Use Score.

The number of "uses" was the number of products with instances of the hazardous ingredients; if a product used formaldehyde and mercury, it only counted as 1 use. If a product contained a banned ingredient and a related ingredient, that product only counted as 1 use of a banned chemical.

Hazardous Ingredient Use Score = 10 points - ((Proportion of products with uses of banned ingredients * 10) + (Proportion of products with uses of only related ingredients*5))

Highest possible score: 10/10 = no uses of banned or related ingredients in any products surveyed
Lowest possible score: 0/10 = at least one use of banned or related ingredients in all products surveyed

An average score for each company was calculated by taking an average of all the present product category scores for each brand. We are not factoring the number of products evaluated into the final score - however, the Hazardous Ingredient Use Score is based on the percentage of total products surveyed that had the ingredients.

Ingredient Disclosure Score
A company could score a maximum of 10 points.

1) Each company could receive 5 points for disclosing ingredient lists on the company website.

2) Each company could then receive a max of 5 points for disclosing fragrance ingredients.
    a) 5 Points = Full disclosure of fragrance ingredients on company website OR no added fragrance in the products OR direct, working link(s) to another site that listed all fragrance ingredients
    b) 3 points = Full disclosure on an external site, such as SmartLabel, but no direct links from the brand website product pages. These points are also given if the links on the website don't work, but all ingredients on SmartLabel are disclosed
    c) 2 points = Central listing of fragrance ingredients on parent company's website (i.e. this example from Procter & Gamble) but no listing on SmartLabel and no links from the brand website.
    d) 0 points = No ingredient lists presented on the brand website, no links to external ingredient listings, and no fragrance ingredient disclosure

Highest possible score: 10/10 = the company discloses ALL ingredients on its own website or its website has a direct, working link to an external source with all ingredients listed.
Lowest possible score: 0/10 = the company does not list ingredients on its own website, and where ingredients are listed on external sites, fragrance ingredients are still hidden.

Total Score is the sum of the Hazardous Ingredient Use Score and the Ingredient Disclosure Score.
The highest possible Total Score is 20/20. Letter grades were awarded as follows:

- 18-20 = "A"
- 16-17.9 = "B"
- 14-15.9 = "C"
- 12-13.9 = "D"
- <12 = "F"

Limitations to evaluations

1. A score of 20/20 doesn't necessarily mean that a product or company is 100% safe because there are many other ingredients in use in personal care products

that may be linked to adverse health effects but that are not included in this evaluation.

2. Given the breadth of personal care products on the market and the limitations of conducting a survey of only those products sold online, this report only reviewed a representative sample of products sold by the brands surveyed rather than all products sold.
3. Companies regularly update product formulations, add new products, and discontinue old products, making it difficult for advocacy groups to inform consumers about specific brands and products accurately. This points to the need for improved consumer awareness and government regulation.
4. Companies often include the disclaimer that ingredients on their websites are not as accurate as ingredient labels on the package, so these findings may not be as updated as products' current packaging. However, this highlights the problem of inconsistent, non-standardized ingredient disclosure, even within a given brand.
5. Similarly, ingredient sources and central ingredients listings such as SmartLabel may not be updated with sufficient regularity, so ingredient lists from these sources may be out of date.

Findings

1. THE AVERAGE INGREDIENT DISCLOSURE SCORE **for all brands was 5.56, with scores ranging from 0 to 10, or an F to an A.**

20 of the 26 brands surveyed failed to adequately disclose ingredients to customers. The average Hazardous Ingredient Use Score for all companies was 9.60, an A, with scores ranging from 7.51 to 10, or a C to an A. The average Total Score for all brands was 15.17, or a C. These results suggest an important caveat: unless and until we have better ingredient disclosure, we will have insufficient information to accurately assess companies' ingredient safety.

2. Of the surveyed products, only **4 of the 24 banned chemicals were found in any products**.

Of the 24 ingredients banned, only formaldehyde, isobutylparaben, isopropylparaben, and quaternium-15 were found in the products surveyed. However, some ingredients may not have been disclosed in the ingredient lists (for example, phthalates can be included in hidden fragrance components) so this percentage may actually be higher.

3. Based on what was visible in the ingredient lists, **11 products surveyed (1.1%) contained at least one of the banned ingredients**.

This points to our conclusion that these ingredients can easily be phased out faster than the California law mandates. See table below.

4. **108 products surveyed (10.84%) contained ingredients that were determined to be similar or related to the banned ingredients**.

This points to an area where future legislation and progress by these brands is needed. See *tables* below.

Table 2. Summary of Findings

	Total products surveyed	Products containing banned ingredients	Products containing related ingredients
Nail Products	47	1	1
Deodorant and Antiperspirants	45	0	0
Skincare	249	2	7
Hair Products	316	0	52
Face Makeup	339	8	48
Total	**996**	**11**	**108**
		1.1% products used banned ingredients	**10.84% products used related toxic ingredients**

**Refer to the methodology section for more details on scoring criteria.*

Table 3. Face Makeup Scores

Brand, Parent Company	Hazardous Ingredient Use Score	Ingredient Disclosure Score	**Total Score**	**Letter**
Urban Decay, L'Oréal	9.55	5	14.55	**C**
L'Oréal Paris, L'Oréal	9.41	5	14.41	**C**
MAC, Estée Lauder	9.38	5	14.38	**C**
NYX, L'Oréal	9.35	5	14.35	**C**
Covergirl, Coty	7.51	0	7.51	**F**

Table 4. Hair Product Scores

Brand, Parent Company	Hazardous Ingredient Use Score	Ingredient Disclosure Score	**Total Score**	**Letter**
TRESemmé, Unilever	9.4	8	17.4	B
Pureology, L'Oréal	10	5	15	C
AVEDA, Estée Lauder	10	5	15	C
Madison Reed	9.93	5	14.93	C

L'Oréal Paris, L'Oréal	9.91	5	14.91	C
Garnier, L'Oréal	8.88	5	13.88	D
Suave, Unilever*	7.97	3	10.97	F

**A representative from Unilever informed us that the company is aware of the ingredient disclosure issues we identified, and informed us that they are currently working to address the issues.*

Table 5. Skincare Product Scores

Brand, Parent Company	Hazardous Ingredient Use Score	Ingredient Disclosure Score	**Total Score**	**Letter**
Dermalogica, Unilever	10	10	20	A+
Clinique, Estée Lauder	9.92	10	19.92	A
CeraVe, L'Oréal	9.63	10	19.63	A
St. Ive's, Unilever	10	8	18	A
Estée Lauder, Estée Lauder	10	5	15	C
L'Oréal Paris, L'Oréal	9.76	5	14.76	C
Garnier (Fructis and Color Sensations), L'Oréal	9.54	5	14.54	C

Table 6. Nail Product Scores

Brand, Parent Company	Hazardous Ingredient Use Score	Ingredient Disclosure Score	**Total Score**	Letter
Ella + Mila	10	5	15	C
Essie, L'Oréal	10	5	15	C
Sally Hansen, Coty	9.5	5	14.5	C
OPI, Coty	8.75	0	8.75	F
Revlon, Revlon	10	0	10	F
Zoya	10	0	10	F

Table 7. Deodorant Product Scores

Brand, Parent Company	Hazardous Ingredient Use Score	Ingredient Disclosure Score	**Total Score**	**Letter**
Dove, Unilever	10	10	20	A+
Old Spice, Procter & Gamble	10	10	20	A+
Suave, Unilever	10	10	20	A+
Secret, Procter & Gamble	10	10	20	A+
Degree, Unilever*	10	3	13	F

**A representative from Unilever informed us that the company is aware of the ingredient disclosure issues we identified, and informed us that they are currently working to address the issues.*

5. Some product categories were more likely to contain banned or related ingredients than were others.

Mascara products (Face Makeup) performed the worst, with an average Hazardous Ingredient Use Score of 8.24, while Deodorants, Dry Shampoos, Hair Sprays, Eye Creams, and Skin Treatments performed the best, with an average Hazardous Ingredient Use Score of 10, indicating there were no banned or related ingredients present in any of the products surveyed in these categories.

Table 8. Average Hazardous Ingredient Score by Product Type

Product Type	**Average Hazardous Ingredient Score (Max 10)**
Eye Cream	10
Skin Treatment	10
Deodorant	10
Dry Shampoo	10
Hair Spray	10
Highlighter	9.89
Conditioner	9.86

Cleansers	9.83
Face Masks	9.81
Nail Products	9.71
Lotion	9.63
Brow	9.6
Lipstick	9.55
Styling	9.40
Eyeshadow	9.11
Foundation	8.99
Shampoo	8.96
Eyeliner	8.67
Dye	8.39
Blush	8.27
Mascara	8.24

Skincare companies seemed much more likely to provide comprehensive ingredient disclosure and seemed less likely to use these toxic ingredients. Oppositely, nail polish ingredients were often not disclosed on the brand website, and face makeup scores were low in comparison to other big categories of products. This highlights the need for improvement for these lagging product categories.

Some products, such as hair dye, are inherently more toxic than others. However, for some other types of products, it's possible that the company could quickly formulate the specific product without toxic ingredients. We assume this because a company may have one type of mascara, for example, with parabens, and one type of mascara without parabens. For instances like this one, clearly the company doesn't need to use parabens in the formulation of that type of product. This demonstrates how, **for many of these products, toxic ingredients are completely unnecessary and that there's no excuse for including them.**

As a result, the Hazardous Ingredient Use Score may be skewed for some companies. For the hair product brands, the brands that had the lowest average Hazardous Ingredient Use Scores all made hair dye because hair dye is where many toxic chemicals are likely included, while brands that didn't make hair dye scored better.

6. Difficulties in research demonstrate the issue of accessible ingredient information on company websites

Because some ingredients, such as diethylhexyl phthalate, are normally included in fragrance ingredients, **for brands with undisclosed fragrance, it is unknown whether or not certain banned ingredients were used in the products surveyed.** This unknown highlights the issue of hidden fragrance ingredients.

Ingredient lists were often difficult to locate on a brand website, or were not included at all. Even companies that scored well seemed to make an effort to "hide" the link to the comprehensive ingredient list or put the link in a small font.

When ingredients were included on company websites, they often included the disclaimer that ingredients are subject to change, and therefore the ingredient list shown on the website may not match the ingredient list on the package. This is a problem for consumers because it means that people shopping online could purchase a product that has a toxic ingredient not included in the website ingredient list. This was a problem for our research because it may impact the accuracy of the data collected. While this disclaimer is most likely a legal requirement and not truly necessary for most products, **it is a reasonable expectation that a company updates its website when changes are made to product formulas.**

Many companies do not include lists of ingredients on their own websites, but instead include links to SmartLabel, an ingredient database. Unfortunately, too often these links are broken or not yet updated, meaning there is no reliable place to find any ingredients beside searching these products on a retailer's site. Even companies that scored well on ingredient disclosure had this problem for some of their products. Meanwhile, other brands, such as Suave hair care, had this problem of broken links for so many products that they did not get points for ingredient disclosure. While Unilever, Suave's parent company, informed us that the company is working to address this issue, this highlights the fact **that many companies make statements about ingredient disclosure and even set up systems to include ingredients, but then do not follow through so that the system actually works for consumers.** If companies make statements about ingredient disclosure, they should follow through consistently.

Conclusions

1. THE INGREDIENTS BANNED in the California Toxic-Free Cosmetics Act of 2020 showed up in around 1% of the products surveyed, pointing to the need for further corporate improvement and more expansive legislation. In addition, it's clear that there are more related ingredients in products that still need to be eliminated, as they remain in more than 10% of products.

2. The difficulties faced in gathering data for this report highlight the lack of standardization for ingredient safety and disclosure that consumers face when purchasing and using personal care products. Until such standardization exists, consumers can follow our recommendations below to more easily find safe products.

3. Many companies have opportunities for improvement. The average Ingredient Disclosure Score for all brands was 5.56, or an F. The average Hazardous Ingredient Use Score for all companies was 9.60, or an A, but with the significant caveat that many of the ingredients included in this report may be in the products surveyed, but hidden. Companies that received lower scores can improve their scores by following the recommendations below. Companies that received high scores but are using any of the banned or related ingredients and are simply hiding them under the "fragrance" label should also follow these recommendations to protect their customers' health.

Recommendations

BASED ON THE CONCLUSIONS of this report, we are offering the following recommendations to improve ingredient safety and disclosure:

To Consumers:

1. Consumers should check product ingredient lists for "fragrance" or "parfum." Fragrance can be included in almost any kind of cosmetic product, but it is especially likely to be included in scented products like lotions, shampoos, perfumes, and deodorants.
2. Consumers should avoid the banned and related ingredients that were described in this report. Refer to page 18 for the full list.
3. Consumers should consider using existing tools to help them shop for safer products, such as this report, the Environmental Working Group's Skin Deep Database or Healthy Living app, the Think Dirty app, the Clearya Chrome extension or app, or our cosmetic shopping guide.
4. Consumers should take action to call for change on this issue by advocating for stronger legislation and pressuring companies to take the necessary steps to protect customers.

To Companies:

1. Companies should commit to disclosing all beauty and personal care product ingredients to the public by 2022. This disclosure should be comprehensive and easy to access for all products on the company website and on the product packaging. This list should be updated regularly with ingredient changes and new products so that information is up to date for consumers.
2. To protect their customers, companies should take action faster than is required by the California Toxic-Free Cosmetics Act and eliminate all of the recently banned ingredients by the end of 2022 instead of by 2025. Since these chemicals are in so few of the products we analyzed, it should be a reasonable time frame.
3. Companies should eliminate all ingredients that are similar and related to the banned ingredients. Although these ingredients have not been banned, research suggests they may be linked to similar health harms to those that were banned by the recent law. Therefore, to protect their customers' health, companies should eliminate them from all products as well.
4. Companies should eliminate all potentially harmful ingredients and contaminants from products and seek out safer alternatives. While the

ingredients mentioned in this report are important to remove, there are more toxic chemicals that need to be removed from products before personal care products are safe.

5. Each company should adopt a Precautionary Principle policy across the entire company, which would mean ensuring the safety of products and ingredients by adopting a comprehensive chemical safety policy.

To Policy-makers:

1. Congress should provide the FDA with the authority and funding needed to conduct pre-market review for cosmetic products and to monitor the presence of toxic chemicals in cosmetic products.
2. Congress should direct the FDA to adopt the Precautionary Principle for the approval of cosmetic products and ingredients, which would mean ensuring the safety of chemicals before they are used in cosmetic products.
3. Congress should require full disclosure of all ingredients on cosmetic labels, including fragrance ingredients, such that consumers can make informed decisions when shopping for products.
4. Congress should pass a federal ban on the 24 toxic ingredients and all the related ingredients that were highlighted in this report.

Appendix A

Products with Hazardous ingredients

These tables include live links that are subject to change by the company or retailer. We cannot guarantee that the information in them will stay the same. For more information about our data collection, refer to the methodology section.

Table 9. Face Makeup Products with Hazardous Ingredients

Brand	Product Name	Banned Ingredient Uses	Related Ingredient Uses	Type	Link
Covergirl	Cheekers Blush	Quaternium-15	Polyoxymethylene Urea, Propylparaben	Blush	Link
Covergirl	Classic Color Blush	Quaternium-15	Polyoxymethylene Urea, Propylparaben	Blush	Link
Covergirl	Easy Breeze Brow Micro Fine	None	Propylparaben	Brow	Link
Covergirl	Easy Breeze Brow Fill	None	Propylparaben	Brow	Link
Covergirl	4 Kit Eyeshadow Eye Enhancers Prodid	None	Propylparaben	Eye Shadow	Link
Covergirl	3 Kit Eye Enhancers	None	Propylparaben	Eye Shadow	Link
Covergirl	Perfect Point Plus Eyeliner	None	Propylparaben, Butylparaben	Eyeliner	Link
Covergirl	Brow And Eyemakers Eyeliner	None	Propylparaben, Butylparaben	Eyeliner	Link
Covergirl	Perfect Point Plus Eye Pencil	None	Propylparaben, Butylparaben	Eyeliner	Link
Covergirl	True Match Powder	None	Propylparaben, Butylparaben	Foundation	Link
Covergirl	Clean Liquid Makeup	None	Propylparaben	Foundation	Link
Covergirl	Trublend Liquid Makeup	None	Propylparaben	Foundation	Link
Covergirl	Clean Liquid Matte Makeup	None	Propylparaben	Foundation	Link

Covergirl	Trublend Pressed Powder	None	Propylparaben	Foundation	Link
Covergirl	Professional Face Powder	Quaternium-15	Propylparaben	Foundation	Link
Covergirl	Clean Oil Control Pressed Powder	Quaternium-15	Propylparaben	Foundation	Link
Covergirl	Simply Ageless Foundation	None	Propylparaben	Foundation	Link
Covergirl	Continuous Color Lipstick	None	Propylparaben	Lipstick	Link
Covergirl	Exhibitionist Lipstick	None	Propylparaben	Lipstick	Link
Covergirl	Color Idol Satin Lipstick	None	Propylparaben	Lipstick	Link
Covergirl	Exhibitionist Lipstick Demi Matte	None	Propylparaben	Lipstick	Link
Covergirl	Exhibitionist Lip Gloss	None	Propylparaben	Lipstick	Link
Covergirl	Lashblast Mascara	None	Propylparaben	Mascara	Link
Covergirl	Lashblast Clump Crusher Mascara	None	Propylparaben	Mascara	Link
Covergirl	Exhibitionist Unscented Mascara	None	Propylparaben	Mascara	Link
Covergirl	Lashblast Fusion Mascara	None	Propylparaben	Mascara	Link
Covergirl	Regular Brush Mascara	None	Propylparaben	Mascara	Link
Covergirl	Flourish By Lashblast Mascara	None	Propylparaben	Mascara	Link
L'oreal Paris	True Match Blush	Isobutylparaben	Propylparaben, Butylparaben	Blush	Link
L'oreal Paris	Liner Noire	None	Propyl Paraben	Eyeliner	Link
L'oreal Paris	Telescopic Liquid Precision	Isobutylparaben	Propylparaben, Butylparaben	Eyeliner	Link
L'oreal Paris	Brush Tip Liquid Eyeliner	None	Imidazolidinyl Urea, Propylparaben	Eyeliner	Link
L'oreal Paris	Felt Tip Liquid Eyeliner	None	Imidazolidinyl Urea, Propylparaben	Eyeliner	Link
L'oreal Paris	Self-advancing Eyeliner	None	Propylparaben	Eyeliner	Link
L'oreal Paris	Waterproof Precision Liquid Eyeliner	None	Propylparaben	Eyeliner	Link

L'oreal Paris	Advanced Never Fail Makeup	None	Ptfe	Foundation	Link
L'oreal Paris	Hydra Perfecte	None	Ptfe	Foundation	Link
L'oreal Paris	Magic Lumi Highlighting Concealer	None	Butylparaben	Highlighter	Link
M.A.C.	Extended Gigablack Lash Mascara	None	Ptfe	Mascara	Link
M.A.C.	In Extreme Dimension 3d Black Lash Mascara	None	Ptfe	Mascara	Link
M.A.C.	In Extreme Dimension Waterproof Mascara	None	Ptfe	Mascara	Link
Nyx	Nude Matte Shadow	None	Propylparaben	Eye Shadow	Link
Nyx	Jumbo Eyeshadow Pencil	Isobutylparaben, Isopropylparaben	Butylparaben	Eyeliner	Link
Nyx	Mineral Finishing Powder	None	Propylparaben	Foundation	Link
Nyx	Worth The Hype Waterproof Mascara	None	Propylparaben	Mascara	Link
Nyx	Doll Eye Mascara	None	Propylparaben	Mascara	Link
Urban Decay	Naked Honey Eyeshadow Palette	None	Ptfe	Eye Shadow	Link
Urban Decay	Naked Honey Drop Vault	None	Ptfe	Eye Shadow	Link
Urban Decay	Naked Reloaded Eyeshadow Palette	None	Ptfe	Eye Shadow	Link
Urban Decay	On The Run Mini Palette	None	Ptfe	Eye Shadow	Link
Urban Decay	Naked Cherry Eyeshadow	None	Ptfe	Eye Shadow	Link
Urban Decay	Born To Run Eyeshadow Palette	None	Ptfe	Eye Shadow	Link
Urban Decay	Naked2 Basics Eyeshadow Palette	None	Ptfe	Eye Shadow	Link
Urban Decay	Eyeshadow Singles	None	Ptfe	Eye Shadow	Link

Urban Decay	Heavy Metal Eyeliner	Isobutylparaben	Propylparaben, Butylparaben	Eyeliner	Link

Table 10. Hair Products with Hazardous Ingredients

Brand	Product Name	Banned Ingredient Uses	Related Ingredient Uses	Type	Link
Garnier	Color Sensation 6.17 - Out Of The Blue	None	N,N-bis(2-hydroxyethyl)-p-phenylenediamine Sulfate	Dye	Link
Garnier	Color Sensation 8.21 - Sweet Lavender Dreams	None	N,N-bis(2-hydroxyethyl)-p-phenylenediamine Sulfate	Dye	Link
Garnier	Color Sensation 8.10 - Head In The Clouds	None	N,N-bis(2-hydroxyethyl)-p-phenylenediamine Sulfate	Dye	Link
Garnier	Color Sensation 9.20 - Smell The Roses	None	N,N-bis(2-hydroxyethyl)-p-phenylenediamine Sulfate	Dye	Link
Garnier	Color Sensation 11.0 - Extra Light Natural Blonde	None	P-phenylenediamine	Dye	Link
Garnier	Color Sensation 2.0 - Soft Black	None	N,N-bis(2-hydroxyethyl)-p-phenylenediamine Sulfate	Dye	Link
Garnier	Color Sensation 6.0 - Light Natural Brown	None	P-phenylenediamine	Dye	Link
Garnier	Color Sensation 9.0 - Light Natural Blonde	None	P-phenylenediamine	Dye	Link
Garnier	Color Sensation 5.0 - Medium Natural Brown	None	N,N-bis(2-hydroxyethyl)-p-phenylenediamine Sulfate, P-phenylenediamine	Dye	Link
Garnier	Extra-light Ash Blonde 111 (White Chocolate)	None	P-phenylenediamine	Dye	Link

Garnier	Intense Blue Black	None	N,N-bis(2-hydroxyethyl)-p-phenylenediamine Sulfate	Dye	Link
Garnier	Medium Golden Brown 53 (Chestnut)	None	P-phenylenediamine	Dye	Link
Garnier	Light Natural Copper	None	P-phenylenediamine	Dye	Link
Garnier	535-medium Golden Mahogany Brown Chocolate Caramel	None	P-phenylenediamine	Dye	Link
Garnier	Light Natural Brown 60 (Acorn)	None	N,N-bis(2-hydroxyethyl)-p-phenylenediamine Sulfate, P-phenylenediamine	Dye	Link
Garnier	True Red 66 (Pomegranate)	None	P-phenylenediamine	Dye	Link
Garnier	Medium Golden Blonde 83 (Cream Soda)	None	P-phenylenediamine	Dye	Link
Garnier	Dark Beige Blonde 72 (Sweet Latte)	None	P-phenylenediamine	Dye	Link
Garnier	Curl Scrunch Controlling Gel	None	Dmdm Hydantoin	Styling	Link
L'oréal Paris	Créme Permanent Triple Protection Hair Color	None	P-phenylenediamine	Dye	Link
Madison Reed	Manarola Blonde - 10na Light Vanilla Blonde	None	N,N-bis(2-hydroxyethyl)-p-phenylenediamine Sulfate	Dye	Link
Suave	Suave, Essentials, Aloe & Waterlily Conditioner	None	Dmdm Hydantoin	Conditioner	Link
Suave	Suave, Professionals, Coconut Milk Infusion Intense Moisture Mask	None	Dmdm Hydantoin	Hair Mask	Link
Suave	Uave, Professionals, Moisture Mask With Almond + Shea Butter	None	Dmdm Hydantoin	Hair Mask	Link
Suave	Suave, Extra Hold Shaping Mousse	None	Dmdm Hydantoin	Mousse	Link

Suave	Suave, 2 In 1 Shampoo & Conditioner	None	Dmdm Hydantoin	Shampoo	Link
Suave	Suave, Essentials, 2 In 1 Shampoo + Conditioner, Almond Verbena	None	Dmdm Hydantoin	Shampoo	Link
Suave	Suave, Essentials, Aloe & Waterlily Shampoo	None	Dmdm Hydantoin	Shampoo	Link
Suave	Suave, Essentials, Daily Clarifying Shampoo	None	Dmdm Hydantoin	Shampoo	Link
Suave	Suave, Essentials, Everlasting Sunshine Shampoo	None	Dmdm Hydantoin	Shampoo	Link
Suave	Suave, Essentials, Juicy Green Apple Shampoo	None	Dmdm Hydantoin	Shampoo	Link
Suave	Suave, Essentials, Morning Bliss 2 In 1 Shampoo + Conditioner	None	Dmdm Hydantoin	Shampoo	Link
Suave	Suave, Essentials, Ocean Breeze Shampoo	None	Dmdm Hydantoin	Shampoo	Link
Suave	Suave, Essentials, Rainforest Fresh Shampoo	None	Dmdm Hydantoin	Shampoo	Link
Suave	Suave, Essentials, Sun-ripened Strawberry Shampoo	None	Dmdm Hydantoin	Shampoo	Link
Suave	Suave, Essentials, Tropical Coconut Shampoo	None	Dmdm Hydantoin	Shampoo	Link
Suave	Suave, Essentials, Wild Cherry Blossom Shampoo	None	Dmdm Hydantoin	Shampoo	Link
Tresemmé	Tresemmé, Anti-breakage Conditioner	None	Dmdm Hydantoin	Condition er	Link
Tresemmé	Tresemmé, Color Revitalize Conditioner	None	Dmdm Hydantoin, Imidazynole Urea	Condition er	Link
Tresemmé	Tresemmé, Moisture Rich Conditioner	None	Dmdm Hydantoin	Condition er	Link
Tresemmé	Tresemmé, 24 Hour Body, Healthy Volume Shampoo	None	Dmdm Hydantoin	Shampoo	Link

Tresemmé	Tresemmé, Anti-breakage Shampoo	None	Dmdm Hydantoin	Shampoo	Link
Tresemmé	Tresemme, Beauty-full Volume, Shampoo	None	Dmdm Hydantoin	Shampoo	Link
Tresemmé	Tresemme, Botanique Shampoo	None	Dmdm Hydantoin	Shampoo	Link
Tresemmé	Tresemme, Botanique With Coconut Milk & Aloe Vera, Shampoo	None	Dmdm Hydantoin	Shampoo	Link
Tresemmé	Tresemmé, Botanique, Detox & Restore Shampoo With Green Tea & Ginger	None	Dmdm Hydantoin	Shampoo	Link
Tresemmé	Tresemmé, Botanique, Nourish & Replenish Shampoo With Coconut Milk & Aloe Vera	None	Dmdm Hydantoin	Shampoo	Link
Tresemmé	Tresemme, Damage Protect, Shampoo	None	Dmdm Hydantoin	Shampoo	Link
Tresemmé	Tresemme, Keratin Smooth Color With Moroccan Oil, Shampoo	None	Dmdm Hydantoin	Shampoo	Link
Tresemmé	Tresemmé, Moisture Rich Shampoo	None	Dmdm Hydantoin	Shampoo	Link
Tresemmé	Botanique Curl Hydration With Shea Butter & Hibiscus Oil, Shampoo	None	Dmdm Hydantoin	Shampoo	Link
Tresemmé	Botanique With Macadamia Oil & Wheat Protein, Shampoo	None	Dmdm Hydantoin	Shampoo	Link

Table 11. Skincare Products with Hazardous Ingredients

Brand	Product Name	Banned Ingredient Uses	Related Ingredient Uses	Type	Link
Cerave	Sa Cream For Rough & Bumpy Skin	Yes	Propylparaben	Lotion	Link
Cerave	Sa Lotion For Rough & Bumpy Skin	Yes	Propylparaben	Lotion	Link
Cerave	Daily Moisturizing Lotion	Yes	Propylparaben	Lotion	Link
Clinique	Deep Comfort™ Body	Yes	Ptfe	Lotion	Link

	Moisture				
Garnier Skin Active	The Super Hydrating Sheet Mask-mattifying	Yes	Propylparaben	Face Mask	Link
Garnier Skin Active	The Super Hydrating Sheet Mask - Soothing	Yes	Propylparaben	Face Mask	Link
Garnier Skin Active	Ultra-lift Anti-wrinkle Firming Moisturizer	Yes	Ptfe	Lotion	Link
L'oréal Paris	Radiant Smoothing Cream Cleanser	Isobutylparaben	Butylparaben, Propylparaben	Cleanser	Link
L'oréal Paris	Radiant Smoothing Wet Cleansing Towelettes	Quaternium 15	None	Cleanser	Link

Table 12. Nail Products with Hazardous Ingredients

Brand	Product Name	Banned	Related	Type	Link
Opi	Opi Nail Envy Original Formula Nail Strengthener	Formaldehyde	None	Nail Strengthener	Link
Sally Hansen	Miracle Gel	None	Propylparaben	Gel Nail	Link

Appendix B

Detailed Methodology

Steps to using the Web Scraper "ScrapeStorm"

1. Download Chrome Extension "ScrapeStorm"
2. Copy the Website URL (this needs to be the page with all the product links on it) to page and click "start" in "Smart Mode."
3. Click the top left link to the first product and click "scrape in." This will tell the program where it's supposed to pull data from.
4. This will open a new tab on the program and go into the product link. If the ingredients are not visible without clicking "ingredients," follow steps A and B below.
    a. In the top, right toolbar, there is a green button. Click this to pre-execute the command.

    b. Once inside this mode, click the ingredient button/link. Then in the upper left, click "click." This will tell the computer to open the ingredients once it's inside this page. Click "Save."
    c. After that, the ingredients should remain open after it loads. If this doesn't work, repeat this step. If it continues to fail, collect the data manually.
5. If the ingredients are readily visible, click "add field" in the lower right toolbar. Then hover over the ingredients until they turn blue, and click. Then save.
6. Next, click start. Watch as rows fill in. Make sure all the fields are being filled, especially the ingredients. If this isn't working, repeat the programming.
7. Stop or pause at any time. If you notice the program is not downloading what it's supposed to - stop, and redirect it.
8. If multiple tries have been made with the same webpage and it's just working, the program is likely just struggling with the structure of the website. It's best just to stop and do these pages manually.

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