

Cosmetics Containing Ingredients Linked to Cancer or Reproductive Harm

*Data Reported to the
California Safe Cosmetics Program
2009-2015*



August 2016

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Contents

Acknowledgements	ii
Contents.....	iii
Executive Summary	1
Part 1: Introduction.....	3
Background	3
What Should Be in the Database.....	4
What’s Not in the Database	6
Part 2: Reported Products.....	7
Number of Products Reported by Year.....	7
Product Categories	8
Part 3: Reported Ingredients	9
All Reported Ingredients	9
Titanium Dioxide.....	12
Retinol / Retinyl Esters	13
Heavy Metals.....	14
Trade Secret Ingredients	14
Discontinued Products and Removed Ingredients.....	16
Ingredients Obtained from Secondary Suppliers	16
Part 4: Reporting Compliance	18
Part 5: Discussion and Conclusion.....	20
Web Statistics.....	20
Limitations of the Data.....	20
Conclusion.....	21
Appendix A: Companies Reporting to CSCP	23
Table 7. Companies.....	23
Appendix B: Ingredients Reported by Primary Product Category.....	35
Table 8. Baby Products	35
Table 9. Bath Products	35
Table 10. Fragrances.....	37
Table 11. Hair Care Products (non-coloring)	37
Table 12. Hair Coloring Products.....	39

Table 13. Makeup Products.....	40
Table 14. Nail Products	41
Table 15. Oral Hygiene Products.....	42
Table 16. Personal Care Products.....	42
Table 17. Shaving Products.....	43
Table 18. Skin Care Products.....	44
Table 19. Sun-Related Products.....	46
Table 20. Tattoos and Permanent Makeup.....	47
Appendix C: Removed Ingredient Data	48
Table 21. Companies with Reports of Ingredients Removed from Products.....	48
Table 22. Ingredients Removed by Frequency	59

Executive Summary

The term “cosmetics” includes a wide variety of personal care products used by virtually everyone across their lifespan. Cosmetics contain many different chemical ingredients, including some that are known or suspected to cause cancer or reproductive or developmental harm.¹ Cosmetics are minimally regulated by government agencies. The U.S. Food and Drug Administration has no authority to require safety testing of cosmetics, and there is no approval process for cosmetics products prior to sale in the U.S.²

The California Safe Cosmetics Program (CSCP) in the California Department of Public Health (CDPH) was created in response to the passage of the California Safe Cosmetics Act (Migden, SB 484; Chapter 729, Statutes of 2005). Manufacturers of cosmetics are required to report to CSCP if they sell products in California and intentionally add ingredients that have been identified by authoritative bodies as known or suspected carcinogens or reproductive or developmental toxicants. Ingredient reporting started in 2009 and, in 2014, CSCP launched its online searchable database³, which provides the public with access to the information reported by cosmetics manufacturers, packers, and distributors. Users can search the database by product name, type of product, brand or company name.

This is the first report from CSCP summarizing the cosmetics product data reported between the launch of the online reporting system in 2009 and the cut-off date for this report (December 17, 2015). The purpose of this report is to share the information that has been collected under the California Safe Cosmetics Act. The report is publicly available for cosmetics companies, organizations or agencies working on chemicals and cosmetics issues, and other interested groups or individuals.

Key findings:

- 77 unique ingredients have been reported in over 57,000 products by almost 500 companies.
- Cosmetics products in 13 different categories of personal care, ranging from beauty products to shaving and baby care products, have been reported to contain ingredients that may cause cancer or reproductive or developmental harm.

¹ Reproductive harm refers to effects related to reproduction, for example, including but not limited to, fertility, fecundity, alterations in reproductive organs, pregnancy complications, endocrine function or hormone levels. Developmental harm refers to effects occurring during prenatal or postnatal development periods, for example, including but not limited to, fetal loss, alterations in sex ratio, altered fetal or postnatal growth, altered gestation length, or structural malformations.

² <http://www.fda.gov/Cosmetics/GuidanceRegulation/LawsRegulations/ucm074162.htm>

³ <https://safecosmetics.cdph.ca.gov/search/>

- The majority of products reported (63%) were makeup. Nail products comprised 13%, skin care products, 8%, and sun-related products, 6%.
- Titanium dioxide, a common ingredient in pigmented products, is by far the most frequently reported ingredient (83%), followed by the anti-aging ingredient retinol/retinyl esters (5.7%), the surfactant cocamide diethanolamine (2.2%), and the preservative butylated hydroxyanisole (BHA, 1.8%).
- Titanium dioxide was listed by the International Agency for Research on Cancer as a possible human carcinogen based on sufficient evidence of lung cancer in rats that inhaled airborne particles of titanium dioxide. Although companies reporting to the CSCP may declare the product form (e.g., powder, aerosol, lotion), companies do not routinely report particle size data, and the potential hazard from inhalable titanium dioxide is uncertain.
- Heavy metals (lead, arsenic, cadmium, mercury) are among the hazardous ingredients that have been reported in cosmetics products.
- Not all companies are complying with reporting requirements. The database may not contain all cosmetic products that should be reported under the Safe Cosmetics Act, and it may not contain all reportable ingredients for all reported products; the extent of noncompliance is difficult to assess.
- 14 companies asked to have reportable ingredients publicly listed as a “trade secret.”
- Some cosmetics companies have reported removing ingredients from products since they began reporting to CSCP, although CSCP has not verified the reason for removal. Among companies reporting data to CSCP, 151 companies have removed at least one chemical from a total of 1,784 products.

Manufacturers, packers, and/or distributors of cosmetics are responsible for reporting and updating their own information in the database. The data are limited by incomplete disclosure by some companies, including claims of “trade secret” ingredients, not reporting about ingredients supplied by other companies, and a lack of updating information in the database when products are reformulated. Future efforts of CSCP will include devoting resources to improving the quality of the data in the database through outreach to the cosmetics industry and more frequent data quality audits.

The intention of the Safe Cosmetics Act was to improve access to information about potentially harmful ingredients in cosmetics so that consumers can make informed choices. It was also meant to influence the reformulation of some products toward safer alternatives. Although the reporting requirements apply to carcinogens and reproductive or developmental toxicants rather than all potential toxicants, and there are other important limitations to the data, the CSCP public searchable database serves to identify products that contain known or suspected hazards.

Part 1: Introduction

Background

We use the term “cosmetics” in this report to denote a wide variety of personal care products used by people of all genders and ages. Cosmetics by legal definition are any product sold or marketed with the intent that they be applied to any part of the human body for cleansing, beautifying, promoting attractiveness, or otherwise altering the appearance of a person (see expanded definition below). Some cosmetic products contain chemicals known or suspected to cause cancer, birth defects, or other developmental or reproductive harm.⁴ Those who work with cosmetics, e.g., barbers, hair stylists, and skin care, body care and nail salon workers, may be more vulnerable to the adverse health effects posed by these products because they handle greater quantities of cosmetics with greater frequency. Pregnant women, fetuses, and children are more vulnerable to developmental toxicants than the general population.

There is currently no mandatory safety testing of cosmetic products sold in the U.S. The U.S. Food and Drug Administration (FDA) does not have the legal authority to approve cosmetics before they go on the market. Companies that manufacture or market cosmetics have the responsibility to ensure the safety of their products, but no law or FDA regulation requires specific tests to demonstrate the safety of individual products or ingredients.⁵ Cosmetic products may contain ingredients with very limited safety testing or, for example, no data on reproductive effects from prenatal exposure. In addition, full ingredient disclosure is not required in the cases of fragrances and flavors, and products for professional use are not required to have any ingredients listed on the label. Therefore, a user cannot make fully informed decisions or be sure of which ingredient to avoid if they have an adverse reaction to a product.

Following the signing of the California Safe Cosmetics Act in 2005, the CSCP was established within the Occupational Health Branch of the Division of Environmental and Occupational Disease Control in CDPH. The Program is funded by the state General Fund and employs two full-time staff.

The Act requires manufacturers, packers, and/or distributors, with aggregate sales of greater than \$1 million and whose products are sold in California, to disclose to the State (CSCP) all intentionally added chemical ingredients in their products that are known or suspected to cause cancer or reproductive and or developmental toxicity, regardless of the concentration of the chemical. The California Safe Cosmetics Act is based on the principle of “Right to Know.” That is, the bill’s author and supporters

⁴ Reproductive harm refers to effects related to reproduction, for example, including but not limited to, fertility, fecundity, alterations in reproductive organs, pregnancy complications, endocrine function or hormone levels. Developmental harm refers to effects occurring during prenatal or postnatal development periods, for example, including but not limited to, fetal loss, alterations in sex ratio, altered fetal or postnatal growth, altered gestation length, or structural malformations.

⁵ <http://www.fda.gov/Cosmetics/GuidanceRegulation/LawsRegulations/ucm074162.htm>

believed that consumers have the right to know about the ingredients in personal care products that have the potential to cause or contribute to serious health effects such as cancer or reproductive harm. The intent of this type of product information disclosure is that improved access to information will allow consumers to make informed choices based on their own values and preferences. This is particularly important for ingredients not required to be on the label, such as fragrances, flavors, and colors. In addition, enhanced consumer awareness may drive the reformulation of some products toward safer alternatives. The Safe Cosmetics Act was also intended to authorize and encourage CDPH to conduct investigations and health studies related to cosmetics and report concerns to regulatory agencies.

CSCP receives from manufacturers, distributors, and packers of cosmetic products sold in California required information on hazardous and potentially hazardous ingredients added to their products and makes it available to the public. To facilitate this, CSCP launched a unique electronic reporting system in 2009, which industry representatives helped to design. CSCP launched a database the public can use to search for reported cosmetic products and ingredients in 2014. The same data is also available to download from the California Health and Human Services Open Data Portal.⁶ This is the first data report from CSCP. It summarizes the attributes of the reporting system and the data that have been reported since the inception of the program through December 17, 2015. The purpose of this report is to share the information that has been collected under the California Safe Cosmetics Act. The report is publicly available for cosmetics companies, organizations or agencies working on chemicals and cosmetics issues, and other interested groups or individuals.

What Should Be in the Database

As noted above, for all cosmetic products sold in California, the Safe Cosmetics Act requires the manufacturers, packers, and/or distributors named on the product label to report to CSCP all products that contain any ingredients known or suspected to cause cancer, birth defects, or other developmental or reproductive harm. The reporting requirement exempts ingredients that are contaminants or were otherwise not intentionally added. Fragrances, flavors, and color additives, even though not required by FDA to be identified on product labels, are not exempt from CSCP reporting requirements.

The list of reportable chemical ingredients includes those identified as being known or suspected to cause cancer, birth defects, or other developmental or reproductive toxicity by any one of five authoritative scientific bodies cited in the Safe Cosmetics Act (California Health and Safety Code Section 111791.5). These bodies are: 1) the California Environmental Protection Agency's Office of Environmental Health Hazard Assessment (OEHHA Proposition 65 List of Chemicals Known to Cause Cancer or Reproductive Toxicity); 2) the U.S. Environmental Protection Agency (U.S. EPA); 3) the National Toxicology Program (NTP) Office of Health Assessment and Translation

⁶ <https://chhs.data.ca.gov/Environment/Chemicals-in-Cosmetics/7kri-yb7t>

(OHAT) (formerly Center for the Evaluation of Risks to Human Reproduction (CERHR)); 4) the NTP's Report on Carcinogens (RoC); and 5) the International Agency for Research on Cancer (IARC). CSCP maintains a guidance list of "reportable ingredients," which is an aggregate list from the authoritative bodies, to assist companies with reporting to CSCP.⁷

The Safe Cosmetics Act requires that companies report products based on the *presence* of a reportable ingredient, regardless of that ingredient's concentration in the product or how the user may be exposed to the ingredient in the product. The likelihood of a cosmetic product leading to cancer or reproductive or developmental harm may depend on many factors, including but not limited to the amount and route of exposure to chemicals in the product. The reportable ingredients are listed on the CSCP guidance list because of findings from research on the individual chemicals and not on cosmetic products containing those ingredients. The presence of a product in the CSCP database does not necessarily indicate that the product is known to cause health harm. CSCP does not assess the safety of cosmetic products, but instead implements the "right-to-know" intent of the Safe Cosmetics Act. This approach is consistent with the view that use of multiple products may lead to greater cumulative exposure and that for some substances, particularly carcinogens, there is no threshold for toxicity (i.e., any exposure at any dose has the potential to cause damage).

Companies with reportable ingredients in their products must submit information to CSCP if the company: 1) Has annual aggregate sales of cosmetic products of one million dollars or more; and 2) Has sold cosmetic products in California on or after January 1, 2007. CSCP maintains an online reporting system for companies to report products, including specific color, scent, or flavor variations. Companies can also edit records to indicate if a product is no longer sold or to reflect product reformulations. The online searchable database for the public reflects real-time product ingredient information that has been reported to CSCP (i.e., it is updated daily).

The definition of "cosmetics" is broad, and therefore many types of products fall under the reporting requirement of the Safe Cosmetics Act. According to § 201 (i) of the Federal Food, Drug, and Cosmetics Act (21 U.S. C § 321 (i)), cosmetics are defined as "1) articles intended to be rubbed, poured, sprinkled, or sprayed on, introduced into, or otherwise applied to the human body or any part thereof for cleansing, beautifying, promoting attractiveness, or altering the appearance; and 2) articles intended for use as a component of any such articles; except that such term shall not include soap."⁸ Some soaps, however, may also be considered a cosmetic, for example, if the soap is labeled with additional cosmetic claims.⁹ Some products meet the definitions of both cosmetics and drugs. This may happen when a product has two intended uses. For example, a shampoo is a cosmetic because its intended use is to cleanse the hair. An anti-dandruff treatment is a drug because its intended use is to treat dandruff. Consequently, an anti-

⁷ <http://www.cdph.ca.gov/programs/cosmetics/Documents/chemlist.pdf>

⁸ <https://legcounsel.house.gov/Comps/Federal%20Food,%20Drug,%20And%20Cosmetic%20Act.pdf>

⁹ <http://www.fda.gov/Cosmetics/GuidanceRegulation/LawsRegulations/ucm074201.htm#Soap>

dandruff shampoo must be reported under the Safe Cosmetics Act if it contains a reportable ingredient. Among other cosmetic-drug combinations are toothpastes that contain fluoride, deodorants that are also anti-perspirants, and moisturizers and makeup marketed with sun protection claims.

What's Not in the Database

Products that do not contain ingredients linked to cancer or reproductive or developmental harm are not required to be reported and will not be found in the CSCP database. In addition, products may fall under the two exemptions described above (annual sales less than one million dollars, or not selling in California since 2006). Products containing ingredients that may cause other potential health impacts, such as asthma, allergies, or hormone disruption, are not required to be reported.

Cosmetics companies are required by law to report to the CSCP the presence and identity of all reportable ingredients, including those in mixtures obtained from a supplier. However, it may be difficult for companies to obtain information from their suppliers, and not all companies have reported the identity of reportable ingredients in supplied mixtures.

As stated in the Safe Cosmetics Act, "incidental ingredients" are not required to be reported. Incidental ingredients are substances present at "insignificant" levels and have no functional effect in the cosmetic. These substances might be residual from processing or be impurities of other ingredient mixtures. Although not required, companies may choose to report these ingredients.

Finally, not all products containing carcinogens or developmental or reproductive toxicants can be found in the database due to companies' failing to fully report. The extent of noncompliance is difficult to assess because there is no mandatory registration system or other source to indicate the total number of cosmetics companies or products and whether the products should be reported.

Part 2: Reported Products

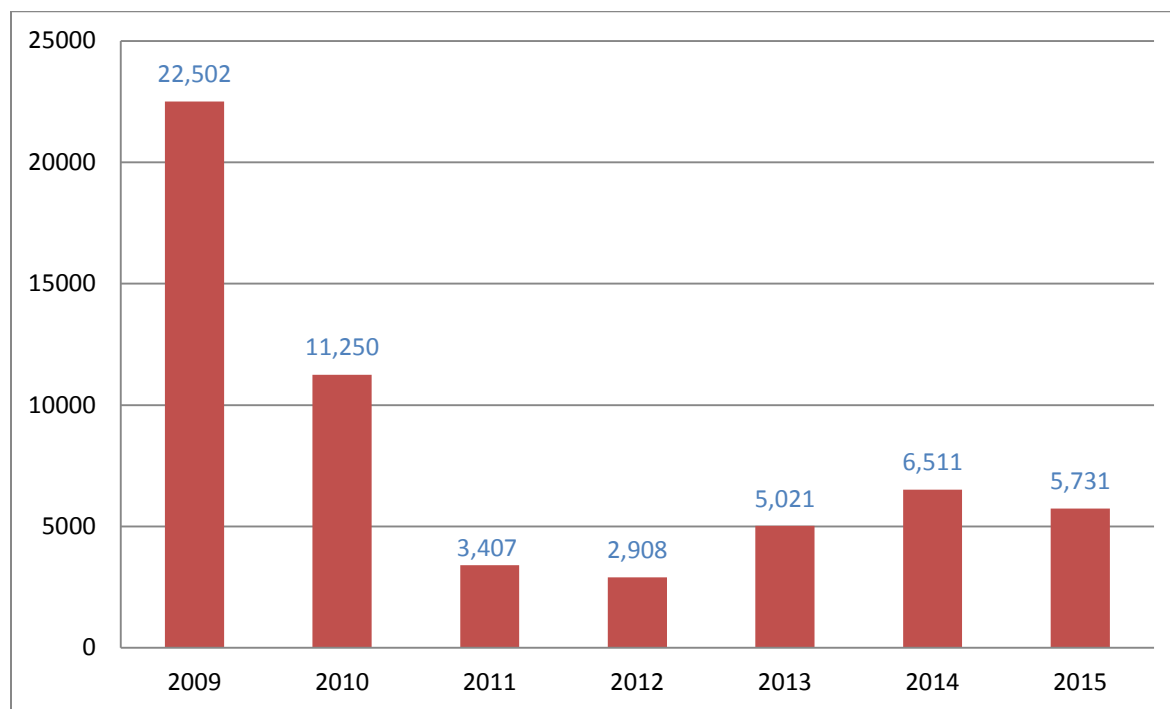
Since the launch of the online reporting system on June 15, 2009, and as of the cut-off period for this report (December 17, 2015), 77 unique ingredients have been reported in over 57,313 total products by 481 companies. This includes some products that have been discontinued since they were initially reported. The companies that have reported to CSCP are listed by number of products in Appendix A of this report (Table 7). The public online database may also be searched by company name, but Table 7 compiles the information in one location.

Because data are reported by companies, CSCP does not guarantee the accuracy or completeness of the data contained in the public searchable database or in this report. Companies are responsible for completing and updating their data as applicable.

Number of Products Reported by Year

The CSCP online reporting system was launched in 2009, and not surprisingly that year had the greatest number of submitted reports (Figure 1). Companies reported products that had been sold in California since 2007. There was a subsequent decline in reporting over the next few years, but in 2013-2014, around the time the public searchable database was launched, there was an apparent increase in reporting.

Figure 1. Number of Products¹⁰ Reported by Year



¹⁰ The number of products represents total number of products reported and includes some products that have been subsequently discontinued.

Product Categories

Companies reporting to CSCP select at least one of 13 product categories for each product reported. Within each primary category are subcategories which describe the reported product. Products may fall into more than one category.

The following is a breakdown of the numbers of products reported by primary category (Table 1). The majority of products reported (63%) were makeup products, followed by nail products and skin care. There were 33 baby care products reported. Appendix B contains the ingredients reported by primary product category (Tables 8 through 20).

Table 1. Products by Primary Category

Product Categories	Number of	
	Products	Percentage ¹¹
Makeup Products (non-permanent)	38,896	63%
Nail Products	7,979	13%
Skin Care Products	5,012	8.1%
Sun-Related Products	3,715	6.0%
Bath Products	2,077	3.3%
Hair Coloring Products	1,391	2.2%
Hair Care Products (non-coloring)	1,038	1.7%
Tattoos and Permanent Makeup	691	1.1%
Personal Care Products	577	0.9%
Fragrances	397	0.6%
Oral Hygiene Products	217	0.3%
Shaving Products	161	0.3%
Baby Products	33	0.1%
Total¹²	62,184	

¹¹ Percentage = total products in each primary category / total number of products reported x 100; does not necessarily sum to 100 because some products are included in more than one category.

¹² Total is larger than the total number of products reported because some products are included in more than one category.

Part 3: Reported Ingredients

All Reported Ingredients

Cosmetics companies have reported 77 unique chemicals to CSCP (Table 2). Some companies have designated reportable ingredients as “trade secret,” discussed further in Part 3 of this report in “Trade Secret Ingredients.”

“Reported Ingredients” includes those in products still on the market and those in products reported to CSCP and then discontinued. See also in Part 3 of this report, “Discontinued Products and Removed Ingredients.”

To view the latest updates to reported ingredients, or for more information on specific chemicals, refer to the online database.¹³

Table 2. Reported Ingredients by Frequency of Report

Chemical Ingredient ¹⁴	Number of Products	Percentage ¹⁵
Titanium dioxide	52,311	83%
Retinol/retinyl esters, when in daily dosages in excess of 10,000 IU, or 3,000 retinol equivalents (includes retinyl palmitate, Vitamin A palmitate, retinol, Vitamin A, retinyl acetate, "acetic acid, retinyl ester" and retinol palmitate)	3,552	5.7%
Cocamide diethanolamine (includes cocamide DEA, cocamide, and "cocamide diethanolamine (DEA)")	1,373	2.2%
Butylated hydroxyanisole	1,160	1.8%
Trade secret	469	0.7%
Carbon black (includes carbon-black extracts)	469	0.7%
Mica	436	0.7%
Silica, crystalline (airborne particles of respirable size)	403	0.6%
Mineral oils, untreated and mildly treated	393	0.6%
Triethanolamine	374	0.6%
Carbon black (airborne, unbound particles of respirable size)	303	0.5%
Talc (includes cosmetic talc and "talc (powder)")	281	0.4%
Estragole	130	0.2%
Methyleugenol	127	0.2%
Formaldehyde (gas) (includes methylene glycol and formaldehyde)	126	0.2%

¹³ <https://safecosmetics.cdph.ca.gov/search/reportedchemicals.aspx>

¹⁴ Ingredient names are as listed by authoritative bodies, and in some instances, where noted, include alternate names (synonyms) as reported and aggregated for this report.

¹⁵ Percentage = products reported for each chemical / total products in database; does not necessarily sum to 100 because ingredients may be reported in more than one product.

Chemical Ingredient¹⁴	Number of Products	Percentage¹⁵
Coffee (includes coffea arabica extract, coffee extract and coffee bean extract)	113	0.2%
Cocamide MEA (monoethanolamine)	76	≤0.1%
Toluene	54	≤0.1%
1,4-Dioxane	53	≤0.1%
Styrene	51	≤0.1%
Acetaldehyde	49	≤0.1%
Coal tars (includes coal tar, coal tar extract, coal tar solution and "distillates (coal tar)")	39	≤0.1%
Phenacetin	33	≤0.1%
Safrole	31	≤0.1%
Benzophenone	30	≤0.1%
Ethylene oxide	27	≤0.1%
Progesterone	25	≤0.1%
Lauramide diethanolamine (includes lauramide DEA)	22	≤0.1%
Diethanolamine	21	≤0.1%
Benzophenone-3	19	≤0.1%
Ginkgo biloba extract	19	≤0.1%
Caffeine	18	≤0.1%
Di-n-butyl phthalate (DBP)	16	≤0.1%
Ethylene glycol	14	≤0.1%
Oil Orange SS (FD&C Orange No. 2)	14	≤0.1%
Quartz	13	≤0.1%
N-Methylpyrrolidone	12	≤0.1%
Quinoline and its strong acid salts	9	≤0.1%
Arsenic (includes inorganic arsenic compounds and inorganic oxides)	9	≤0.1%
All-trans retinoic acid	8	≤0.1%
o-Phenylphenol	8	≤0.1%
Talc containing asbestiform fibers	8	≤0.1%
Aspirin	7	≤0.1%
Lead	7	≤0.1%
Methyl chloride	7	≤0.1%
2,4-Hexadienal (89% trans, trans isomer; 11% cis, trans isomer)	6	≤0.1%
beta-Myrcene	6	≤0.1%
Dichloromethane (methylene chloride)	6	≤0.1%
Genistein (purified)	6	≤0.1%
Lead acetate	6	≤0.1%
Methanol	6	≤0.1%
o-Phenylenediamine and its salts	6	≤0.1%
Selenium sulfide	6	≤0.1%
C.I. Acid Red 114	5	≤0.1%

Chemical Ingredient¹⁴	Number of Products	Percentage¹⁵
Propylene oxide	5	≤0.1%
Pulegone	5	≤0.1%
Benzene	4	≤0.1%
Benzyl chloride	4	≤0.1%
Caffeic acid	4	≤0.1%
Ethyl acrylate	4	≤0.1%
Mercury and mercury compounds	4	≤0.1%
Musk xylene	4	≤0.1%
N-Nitrosodimethylamine	4	≤0.1%
Acrylamide	3	≤0.1%
Avobenzene	3	≤0.1%
Chromium (hexavalent compounds)	3	≤0.1%
Dichloroacetic acid	3	≤0.1%
Propylene glycol mono-t-butyl ether	3	≤0.1%
Benzophenone-4	2	≤0.1%
Ethanol in alcoholic beverages	2	≤0.1%
Nickel (metallic)	2	≤0.1%
p-Aminodiphenylamine	2	≤0.1%
Permethrin	2	≤0.1%
TEA-Lauryl sulfate (triethanolamine lauryl sulfate)	2	≤0.1%
Acetylsalicylic acid	1	≤0.1%
Cadmium and cadmium compounds	1	≤0.1%
Sodium bromate	1	≤0.1%
Titanium dioxide (airborne, unbound particles of respirable size)	1	≤0.1%
Total Number of Ingredient Reports¹⁶	62,841	

¹⁶ The total number of ingredient reports is greater than the total number of products reported because products may contain more than one reportable ingredient.

Titanium Dioxide

Titanium dioxide is by far the ingredient most frequently reported to CSCP. Over 80% of all products reported to CSCP contain titanium dioxide (over 50,000 products; Table 2). Titanium dioxide is a common ingredient in cosmetics, sunscreens, some processed foods, plastics, paints, and many other pigmented consumer products. It is an FDA approved over-the-counter sunscreen drug active ingredient (21 CFR § 352.10 (p)), as well as an FDA approved food color additive (21 CFR § 73.575) and cosmetic color additive (21 CFR § 73.2575).

Titanium dioxide is reportable to CSCP based on its listing by IARC as a possible human carcinogen. The IARC listing is based on sufficient evidence of carcinogenicity in experimental animal studies, i.e., evidence that rats exposed to an airborne respirable form of titanium dioxide developed lung cancer. The respirable form is the portion of airborne particles that are small enough to be inhaled into the small airways region of the lung where they can contribute to disease. CSCP allows cosmetics companies to choose either “titanium dioxide” or “titanium dioxide (airborne, unbound particles of respirable size)” when reporting their products. Of the more than 50,000 reports of titanium dioxide in the CSCP database, only one was designated a respirable form. Although CSCP has not verified the physical forms of titanium dioxide in products reported to the Program, companies may declare the product form when they report, such as whether the product is available in a powder or aerosol versus a lotion (Table 3). However, companies do not routinely report particle size data, and the potential hazard from respirable titanium dioxide is uncertain.

CSCP has not collected data on whether titanium dioxide or other reported ingredients are nano-sized. “Nano-sized” refers to a particle size of a substance that is in the nanometer (nm) range, i.e., generally 1-100 nm in at least one dimension. Nano-sized particles may be added to cosmetics, sunscreens, and other products, and may behave differently and have different human exposure routes and health impacts than larger particles of the same substance. In some cases, nano-sized particles may pass through biological membrane barriers that larger particles cannot penetrate, but this may depend on the material and the particle size and surface characteristics. Research is ongoing to understand exposure to nanomaterials and potentially related health effects. See the guidance documents from FDA and the Centers for Disease Control and Prevention (CDC) for more information.¹⁷ The Environmental Working Group compiled a list of personal care products with nano-sized ingredients, including titanium dioxide.¹⁸ The list does not include toxicity evaluations of any of the ingredients or products.

¹⁷ <http://www.fda.gov/cosmetics/guidanceregulation/guidancedocuments/ucm300886.htm>

<http://www.cdc.gov/niosh/topics/nanotech/>

¹⁸ <http://www.ewg.org/skindeep/2007/08/25/hundreds-of-personal-care-products-contain-poorly-studied-nano-materials/>

Table 3. Physical Form of Products Reported to CSCP Containing Titanium Dioxide

Product Form	Number of Products	Percentage
Liquid	13,295	25%
Powder	10,455	20%
Cream/Gel/Foam	9,589	18%
No response ¹⁹	8,364	16%
Stick or Pencil	7,890	15%
Other	2,678	5.1%
Spray - Non-Aerosol	79	0.2%
Spray - Aerosol	76	≤0.1%
Total	52,426	

Retinol / Retinyl Esters

Retinol, or retinyl esters (vitamin A), is the second most frequently reported ingredient in the CSCP database (Table 2). It is listed under Proposition 65 as a developmental toxicant with the unique qualifying clause “when in daily dosages in excess of 10,000 IU, or 3,000 retinol equivalents. (NOTE: Retinol/retinyl esters are required and essential for maintenance of normal reproductive function. The recommended daily level during pregnancy is 8,000 IU.)” There is also some evidence from studies in mice that retinyl palmitate (a retinyl ester) and retinoic acid (a metabolite of retinol) may contribute to skin cancer susceptibility.²⁰ Retinol or retinyl esters are used in cosmetics as anti-aging ingredients. They may also be prescribed as drugs for acne or other skin disorders, with warnings about increased sensitivity to sunlight.

Vitamin A is an essential nutrient for human health. Both deficiency and excess of vitamin A have produced birth defects in studies of animals and humans. Vitamin A and carotene, a vitamin A precursor, are dietary sources of vitamin A. Carotene has not been associated with vitamin A toxicity. The Teratology Society, in a position paper addressing vitamin A supplementation, recommended that women of reproductive age should be informed that excessive use of vitamin A shortly before or during pregnancy may harm their babies, supplementation of 8,000 IU vitamin A per day (as retinol/retinyl esters) should be considered the maximum prior to or during pregnancy, and women

¹⁹ Company did not provide a response to this question.

²⁰ National Toxicology Program (NTP). 2012. Photocarcinogenesis Studies of Retinoic Acid and Retinyl Palmitate [CAS Nos. 302-79-4 (All-trans-retinoic acid) and 79-81-2 (All-trans-retinyl palmitate)] in SKH-1 Mice (simulated solar light and topical application study). Report TR-568.

who may become pregnant should consider their dietary intake of vitamin A before taking supplements.²¹

Heavy Metals

There have been several reports of heavy metals in the CSCP database, including arsenic, lead, mercury, and cadmium (Table 2). It is unknown whether these metals are intentionally added ingredients. If they are low-level contaminants, they may be considered incidental ingredients that are not required to be reported under the Safe Cosmetics Act. However, even at low levels, heavy metals can be a concern. The CDC has stated that there is no safe blood lead level, and children, pregnant women, and women of childbearing age are most vulnerable to the dangers of lead exposure.²² Lead is a developmental and reproductive toxicant and was listed by IARC as a probable human carcinogen. Exposure to lead is also associated with a variety of health effects, including damage to the kidneys, blood, nerves, and brain. Mercury is a developmental toxicant and can damage the kidneys, nerves, and brain. Arsenic and cadmium were listed by IARC as human carcinogens.

Trade Secret Ingredients

Chemical ingredients considered “trade secret,” and other ingredients exempt from disclosure on cosmetic product labels (e.g., ingredients used in fragrances, colors, and flavors), are not exempt from the reporting requirements of the Safe Cosmetics Act. Some companies have declared trade secret status for a chemical ingredient reported to CSCP. The identity of these ingredients is replaced with “Trade Secret” in the public searchable database. If “Trade Secret” is listed as an ingredient, it means that one or more ingredients are reportable to CSCP (i.e., known or suspected to cause cancer, birth defects, or other developmental or reproductive harm), but the reporting company has elected to designate it as “trade secret.” CSCP investigates trade secret claims and, if deemed inappropriate, will release the information to the public as permitted by law.

For the purposes of the Safe Cosmetics Act, trade secret designation is determined “pursuant to the procedures established in Part 20 and Section 720.8 of Part 720 of Title 21 of the Code of Federal Regulations” (California Health and Safety Code § 111792). CSCP requires that companies provide documentation from FDA granting trade secret status, indicating that the information so designated is indeed trade secret under federal law. FDA has rarely received requests for trade secret status, and they have only granted one request, as of the cutoff date of this report.²³

The ingredient(s) must also meet the definition of “trade secret” under California law. Under the California Uniform Trade Secrets Act, “trade secret” is defined as information

²¹ Teratology Society position paper: recommendations for vitamin A use during pregnancy. *Teratology*. 1987 Apr; 35(2):269-75.

²² http://www.cdc.gov/biomonitoring/Lead_FactSheet.html

²³ <http://www.fda.gov/Cosmetics/Labeling/ucm414211.htm>

including a formula, that 1) Derives independent economic value from not being generally known to the public or to other persons who can obtain economic value from its disclosure or use; and 2) Is the subject of efforts that are reasonable under the circumstances to maintain its secrecy (California Civil Code § 3426.1). Ingredients listed on the labels of products sold to the public do not meet the definition of a trade secret.

In 2015, CSCP reminded companies about the legal requirements and the definition of a trade secret, and provided detailed instructions for correcting trade secret designations in the database. At that time, 21 companies had reported a total of 794 products with trade secret ingredients. Subsequently, the number of trade secret reports in the database declined, as companies removed trade secret designations for some ingredients. As of December 2015, 469 products had trade secret ingredients. Seven companies removed trade secret designations for all of their products, leaving 14 companies with trade secret reports (Table 4). A few of the products with trade secret claims have been discontinued or their ingredients have been reported as removed. CSCP continues to work with companies to remove additional inappropriate trade secret designations.

Table 4. Companies Reporting Ingredients as Trade Secret (TS)²⁴

Company	Number of TS Products	Number of Discontinued TS Products	Number of TS Chemicals Removed	Number of Active TS Products ²⁵
Farouk Systems, Inc.*	266	14	2	251
Lumene Oy	76	0	2	75
Tammy Taylor Nails, Inc.*	56	0	0	56
rolland srl*	20	0	1	20
Alberto Culver USA, Inc.	12	0	12	0
Demeter Fragrance Library, Inc.	10	0	0	10
Great Clips, Inc.*	9	0	0	9
Alberto Culver	8	0	0	8
Jan Marini Skin Research, Inc.	4	4	0	0
Regis Corporation	3	1	2	0
Rowpar Pharmaceuticals, Inc.*	2	0	0	2
Henkel Consumer Goods Inc.	1	1	0	0
Melaleuca, Inc.	1	0	1	0
Robell Research*	1	0	0	1
Totals	469	20	20	432

*Companies declared trade secret for all ingredients in all products reported.

²⁴ As of December 2015

²⁵ "Active" products are products that have not been reported by companies to be discontinued.

Discontinued Products and Removed Ingredients

Companies may report that a product has been discontinued or that an ingredient has been removed from a product, but all information is kept in the public database along with the discontinued or removed date.

There are 169 companies that have reported at least one product discontinuation and a total of 7,480 discontinued products.

There are 151 companies that reported removing at least one chemical from a total of 1,784 products. The total number of removed ingredients is 2,193. The companies that have removed ingredients and the tabulation by ingredient are shown in Appendix C.

CSCP does not require companies to disclose the reasons for ingredient removals or product discontinuations or how the reporting requirements may have affected their decision making.

Ingredients Obtained from Secondary Suppliers

Cosmetics manufacturers may purchase ingredients, such as fragrance, flavor, color, or other mixtures, from other sources to add into to their own product formulas (these will be referred to as “external” or “externally supplied” components). Companies are required to report to CSCP all reportable ingredients in their products, including those contained in external components obtained from secondary suppliers. However, some manufacturers report that they do not know the identity of the ingredients in externally supplied components. A company that does not know the identity of ingredients or the composition of a product is not exempt from reporting. CSCP collects data on the manufacturers’ attempts to obtain ingredient identity information from their suppliers (Table 5).

There are 41,487 products (72% of total products in database) reported with externally supplied components. Of these reports, 1,909 (4.6%) state that the reporting company does not know the identity of the external component ingredients. The majority of companies’ attempts to obtain external component identities (68%) have resulted in verification by the supplier that the external component does not contain a reportable ingredient; however, 2% report that the external component contains a reportable ingredient but the identity is undisclosed (Table 5). The remainder of the reports (30%) has unverified external components that may contain reportable ingredients. CSCP has not made further attempts to obtain the identity of unknown reportable ingredients in externally supplied components.

Table 5. Cosmetics Manufacturers' Attempts to Obtain Ingredient Identity from Suppliers

Number of Reports	Percentage	Status of Attempt to Obtain External Component Identity²⁶
112	5.9%	We have NOT CONTACTED the supplying company
458	24%	We contacted the supplying company, but they have NOT RESPONDED
2	0.1%	We contacted the supplying company, but they REFUSED to tell us whether their formula contains a reportable chemical(s)
1,298	68%	We contacted the supplying company, and they VERIFIED that their formula DOES NOT CONTAIN a reportable chemical(s)
39	2.0%	We contacted the supplying company, and they VERIFIED that their formula DOES CONTAIN a reportable chemical(s), but they REFUSED to provide chemical specific information
1,909		Total Attempts

²⁶ The status of attempts is displayed as the actual response choices in the online reporting system.

Part 4: Reporting Compliance

The data reported to CSCP does not include all cosmetic products that should be reported under the law. However, the overall extent of noncompliance is difficult to assess. There is no entity that registers or compiles a complete list of all cosmetics companies, and no readily available information about whether companies are required to report to CSCP, i.e., sell products in California, make at least one million dollars in annual sales, and have products with reportable ingredients. In addition, all reportable ingredients contained in reported products may not be listed due to incomplete reporting by some companies or companies' inability to get information from their suppliers about the components of mixtures of chemicals used in their products.

CSCP has been involved in several efforts to promote compliance with the Safe Cosmetics Act. Before the reporting system was launched in 2009, CSCP sent approximately 16,000 notices to addresses of businesses with certain Standard Industrial Classification (SIC) codes associated with cosmetics products, as identified by the business data organization Dun and Bradstreet. The notice informed businesses of their responsibilities under the Safe Cosmetics Act. When the reporting system was activated, CSCP sent an email notice to cosmetics companies who responded to the previous mailing and provided an email address, informing them about how to report qualifying products.

In April 2010, CSCP, in collaboration with the California Department of Justice (DOJ), sent letters to 7,046 companies in the U.S. and Canada identified by the commercial business listing InfoUSA with cosmetics-associated SIC codes. The letter informed companies of their responsibilities under the Safe Cosmetics Act and gave a deadline by which they should report any qualifying products to CSCP. By June 30, 2010, there was a 53% increase in new user accounts. There were 197 new user accounts created, in addition to the 371 existing accounts. Users reported 6,426 new products, in addition to the 24,942 products reported prior to mailing.

In 2010, CSCP contributed to an investigation by DOJ of the hair straightener product Brazilian Blowout.²⁷ Following up on concerns from hair stylists and clients, CSCP investigated complaints of health effects from using Brazilian Blowout. Complaints included burning eyes, nose, and throat, hair loss, asthma episodes, and skin blisters, which are effects consistent with exposure to formaldehyde. The product was being marketed as "formaldehyde free," but it actually contained formaldehyde in solution (methylene glycol) and released formaldehyde gas during normal use. The DOJ filed a lawsuit against the Brazilian Blowout company. This ended with a settlement and correction of the false marketing and failure to report the presence of formaldehyde in the products. Although banned in several other countries, the product is still legally sold in the U.S.

²⁷ <http://www.cdph.ca.gov/programs/cosmetics/Documents/BrazilianBlowoutQA.pdf>

CSCP recently assessed claims of “trade secret” ingredients and worked to clarify with reporting companies what constitutes a valid trade secret claim. Due to this effort, the number of trade secret claims has declined. CSCP will occasionally attempt to verify reports or identify products that should be reported by checking product ingredient labels, as resources permit. CSCP also uses information from other organizations to promote compliance. In 2013, the consumer advocacy group Center for Environmental Health (CEH) brought lawsuits against companies that sold products containing cocamide diethanolamine (cocamide DEA) without warning labels under California’s Proposition 65. CSCP used the published list of products generated by CEH to identify products that should be reported to the database. We found that a large majority of the products were not reported to the database and therefore the companies were in violation of the Safe Cosmetics Act, and we are currently in the process of contacting those companies.

Part 5: Discussion and Conclusion

Web Statistics

As of July 2014, CSCP has had the ability to collect website statistics, which can be used as an indication of the extent to which members of the public are accessing the searchable database. From July 2014 through November 2015, there have been 21,946 visits (monthly average is 1,290) to the CSCP public database search page. There were a total of 131,184 searches for products, companies, chemicals, or product categories.

Limitations of the Data

The number of products on the market that should be reported to CSCP, but are not reported, is unknown, as is the number of cosmetics companies selling products that would require reporting. Cosmetics companies are responsible for reporting and updating their own data. CSCP cannot guarantee the accuracy or completeness of the data contained in the public searchable database, or in this report.

Although all ingredients reportable under the Safe Cosmetics Act, including those in fragrances or in other mixtures from secondary suppliers, must be reported to CSCP, not all of these ingredients have been identified in the database or reported to CSCP. Additionally, trade secret claims in the database limit the value of data reporting and are not helpful to database users. The only information that is conveyed to the searcher is that the product contains a known or suspected carcinogen or reproductive or developmental toxicant, but the company has chosen to not disclose the identity of that ingredient. In addition, there may be some products containing reportable ingredients made by small companies that do not meet the one million dollar annual revenue cutoff established by the Safe Cosmetics Act, and presumably these products would not be reported to CSCP.

Of the 77 unique cosmetic ingredients that have been reported to CSCP, there are some that may be more hazardous than others, depending on the particular product or use. For example, titanium dioxide, if not in respirable form, may not be as hazardous as formaldehyde, a chemical that readily vaporizes and is a known human carcinogen based on sufficient evidence in both human and experimental animal studies. The risk of adverse health effects posed by certain ingredients depends not only on the presence of the ingredient in the cosmetic product, but may also depend on the amount and type of exposure. CSCP does not routinely collect exposure data on cosmetic products, although the Program has the authority to request additional information under the scope of the Safe Cosmetics Act. The identification of products in the CSCP database is independent of ingredient concentrations or exposure routes, and does not represent a finding that a product is known to cause health harm.

Finally, it is important to recognize the scope of the database. Cosmetics companies are required to routinely report to CSCP only intentionally added ingredients that have been identified as known or suspected to cause cancer or reproductive or developmental harm by the authoritative bodies cited in the Safe Cosmetics Act. The Safe Cosmetics

Act does not require reporting of other known or potential hazards, such as ingredients associated with asthma, allergies, and endocrine disruption. Concerned consumers, physicians and others must search elsewhere for this information. There is significant concern among the scientific and medical community that preventable exposures to endocrine-disrupting chemicals cause perturbations that contribute to disease, including cancer and reproductive and developmental harm.²⁸

Conclusion

Future priorities of CSCP will include improving the quality of the data in the CSCP database. CSCP will increase outreach to cosmetics companies to promote compliance and accurate reporting, as well as increase the frequency of quality audits of existing data. Resources permitting, CSCP will collect information from companies to verify removed chemicals, and make improvements to data collection. Possible changes to the data reporting system for improved product identification include using Universal Product Codes (UPC) and determining whether a product is available to general consumers (and thus requires ingredient disclosure, with exceptions, on the label) or for professional use only (ingredient disclosure not required on label).

The intention of the CSCP database is to increase awareness of potential hazards in cosmetics and support the consumers' right-to-know approach of the Safe Cosmetics Act. Since reporting began in 2009, numerous products have been reported, but there are significant data gaps. This data report is the first assessment by CSCP of what has been reported and represents a step towards using the data to inform future efforts of the Program. Along with efforts to improve the quantity and quality of the data in the database, CSCP can investigate impacts of the Safe Cosmetics Act on product reformulation. Further, the scope of the Safe Cosmetics Act is not limited to the database. CSCP can use the authority of the Act to obtain information on other products and ingredients that may pose additional health hazards, conduct investigations, and report hazard concerns to the CDPH Food and Drug Branch, California Environmental Protection Agency, DOJ, or FDA.

²⁸ EDC-2: The Endocrine Society's Second Scientific Statement on Endocrine-Disrupting Chemicals. (AC Gore et al.) *Endocr Rev.* 2015 Dec;36(6):E1-E150. doi: 10.1210/er.2015-1010. Executive Summary available at: http://press.endocrine.org/doi/10.1210/er.2015-1093?url_ver=Z39.88-2003&rft_id=ori:rid:crossref.org&rft_dat=cr_pub%3dpubmed; American College of Obstetricians and Gynecologists/ American Society for Reproductive Medicine joint Committee Opinion. Exposure to toxic environmental agents. *Obstet Gynecol.* 2013 Oct;122(4):931-5. doi: 10.1097/01.AOG.0000435416.21944.54. Available at: <http://www.acog.org/Resources-And-Publications/Committee-Opinions/Committee-on-Health-Care-for-Underserved-Women/Exposure-to-Toxic-Environmental-Agents>; International Federation of Gynecology and Obstetrics opinion on reproductive health impacts of exposure to toxic environmental chemicals (GC Di Renzo et al.). *Int J Gynaecol Obstet.* 2015 Dec;131(3):219-25. doi: 10.1016/j.ijgo.2015.09.002. Available at: [http://www.ijgo.org/article/S0020-7292\(15\)00590-1/fulltext](http://www.ijgo.org/article/S0020-7292(15)00590-1/fulltext); APHA position statement (Available at: <http://www.apha.org/policies-and-advocacy/public-health-policy-statements/policy-database/2014/07/09/09/03/a-precautionary-approach-to-reducing-american-exposure-to-endocrine-disrupting-chemicals#Anchor 1>).

Despite the limitations to the data collection, the CSCP public searchable database identifies products that contain ingredients known or suspected to cause cancer or reproductive or developmental harm. Cosmetics products across various categories of personal care, ranging from beauty products to baby care, have been reported. In a market with little regulatory oversight, the database serves as a “right-to-know” resource for consumers and workers who want to make informed choices about personal care products and as a potential driver towards safer alternative ingredients.

Appendix A: Companies Reporting to CSCP

Table 7. Companies

Company Name ²⁹	Total Products Reported ³⁰	Percentage ³¹
L'Oreal USA	5,350	9.3%
Coty	3,502	6.1%
The Procter & Gamble Company	2,948	5.1%
Bare Escentuals Beauty, Inc.	2,007	3.5%
American International Industries	1,889	3.3%
S+	1,761	3.1%
Victoria's Secret Beauty	1,304	2.3%
Nars Cosmetics	1,274	2.2%
NYX Los Angeles, Inc.	1,114	1.9%
Beauty 21 Cosmetics, Inc.	1,087	1.9%
Revlon Consumer Products Corporation	1,067	1.9%
Buth-na-bodhaige, Inc	1,064	1.9%
tarte inc.	998	1.7%
Elizabeth Arden, Inc.	937	1.6%
Merle Norman Cosmetics	933	1.6%
The Boots Company PLC	894	1.6%
Bath & Body Works	686	1.2%
Avon Products Inc.	671	1.2%
CLARINS S.A.	668	1.2%
CHANEL, INC	627	1.1%
Caleel+Hayden	621	1.1%
Xtreme Color, Inc.	578	1.0%
LI Pigments	567	1.0%
Guerlain SA	524	0.9%
Ventura International, Ltd	521	0.9%
Demeter Fragrance Library, Inc.	488	0.9%
Shiseido Co., Ltd.	478	0.8%
Palladio Beauty Group	471	0.8%
Arbonne International LLC	431	0.8%
MAKEUP ART COSMETICS	429	0.7%
LVMH FRAGRANCE BRANDS - PARFUMS GIVENCHY	407	0.7%

²⁹ Company names appear as they were reported by the companies.

³⁰ Products reported includes products that are active (not reported as discontinued by company) and products that were since reported to the CSCP as discontinued.

³¹ Percentage = Products reported by company / total number products in database

Company Name ²⁹	Total Products Reported ³⁰	Percentage ³¹
Benefit Cosmetics	403	0.7%
Markwins International, Markwins Beauty Products, Physicians Formula	396	0.7%
MAESA LLC	389	0.7%
Physicians Formula Holdings, Inc.	389	0.7%
Yves Rocher Inc.	371	0.6%
Hand & Nail Harmony, Inc	364	0.6%
Alessandro International GmbH	350	0.6%
Armand Dupree Inc.	350	0.6%
Cover FX Skin Care Inc.	341	0.6%
Anastasia Beverly Hills, Inc	328	0.6%
Melaleuca, Inc.	319	0.6%
Shiseido Americas Corporation	315	0.5%
Conopco, Inc.	298	0.5%
Ulta Salon, Cosmetics & Fragrance, Inc.	286	0.5%
CLINIQUE LABORATORIES, LLC	280	0.5%
Vi-Jon, Inc.	275	0.5%
Added Extras LLC	270	0.5%
C.F.E.B. SISLEY	270	0.5%
Philosophy	270	0.5%
Farouk Systems, Inc.	266	0.5%
Bonne Bell, LLC	252	0.4%
Stila Styles LLC	252	0.4%
Kendo Holdings, Inc.	250	0.4%
Lush Manufacturing Ltd.	240	0.4%
Mary Kay Inc.	239	0.4%
OPI PRODUCTS INC.	237	0.4%
Arcadia Beauty Labs LLC	235	0.4%
Estee Lauder Inc.	233	0.4%
Too Faced Cosmetics	229	0.4%
PRESCRIPTIVES INC.	225	0.4%
Kanebo Cosmetics Inc	222	0.4%
Studio Gear Cosmetics, Inc.	215	0.4%
Laboratoire Biosthetique Kosmetik GmbH & Co.	214	0.4%
Ivy Enterprises, Inc.	212	0.4%
BeautiControl, Inc.	210	0.4%
LABORATOIRES M&L SA (L'Occitane - Melvita)	206	0.4%
Schwarzkopf, Inc.	206	0.4%
Femme Couture International, Inc.	179	0.3%
Japonesque	179	0.3%
AROMCA S.A	177	0.3%

Company Name ²⁹	Total Products Reported ³⁰	Percentage ³¹
Kingdom Animalia, LLC.	173	0.3%
Parfums Christian Dior	171	0.3%
purminerals	163	0.3%
Greenbrier International, Inc.	162	0.3%
GAP INC.	159	0.3%
Kryolan GmbH	158	0.3%
Artistic Nail Design - Nail Alliance LLC	157	0.3%
Sunrider Manufacturing, L.P.	157	0.3%
KORRES S.A - NATURAL PRODUCTS	148	0.3%
ORLY INTERNATIONAL	148	0.3%
TIGI Linea Corp	147	0.3%
Smashbox Cosmetics	143	0.2%
Trish McEvoy Cosmetics Limited	140	0.2%
Nail Alliance - Entity	139	0.2%
Access Business Group International, LLC	138	0.2%
Hallmark Cards, Inc.	132	0.2%
Bobbi Brown Professional Cosmetics, Inc.	126	0.2%
AMCO International	124	0.2%
NSE Products, Inc.	124	0.2%
Shiseido America, Inc.	122	0.2%
Soap and Glory Ltd	122	0.2%
Colorescience	121	0.2%
Fisk Industries Inc	121	0.2%
Nippon Menard Cosmetic Co., Ltd.	120	0.2%
Zotos International, Inc.	116	0.2%
Deborah Lippmann	108	0.2%
Atlas Development Limited	107	0.2%
Nail Alliance, LLC	107	0.2%
Lumene Oy	105	0.2%
Red Carpet Manicure	105	0.2%
DHC USA Inc.	97	0.2%
Fashion Fair, LLC	97	0.2%
NeoStrata Company, Inc.	93	0.2%
BeautyBank Inc.	90	0.2%
Pacific World Cosmetics	89	0.2%
Johnson & Johnson Consumer Companies	87	0.2%
Levlad LLC	85	≤0.1%
Allure Labs, Inc.	83	≤0.1%
Burt's Bees Inc.	83	≤0.1%
Beauty Selectives	81	≤0.1%
Lush Ltd	81	≤0.1%

Company Name²⁹	Total Products Reported³⁰	Percentage³¹
Aveda Corporation	79	≤0.1%
MAKE UP FOR EVER	79	≤0.1%
COLGATE-PALMOLIVE COMPANY	77	≤0.1%
McConnell Labs, Inc.	77	≤0.1%
theBalm	77	≤0.1%
Börlind of Germany, Inc.	73	≤0.1%
Bliss World LLC	71	≤0.1%
Paula's Choice LLC	70	≤0.1%
Aloette Cosmetics Inc.	68	≤0.1%
MOR Cosmetics International LLC	64	≤0.1%
Neways	64	≤0.1%
Sun Pharmaceuticals, LLC	63	≤0.1%
The Hain Celestial Group, Inc	63	≤0.1%
Olympic Mountain Products	61	≤0.1%
TRUE COSMETICS, LLC	61	≤0.1%
Fresh, Inc.	59	≤0.1%
STENDHAL	59	≤0.1%
Black Up	58	≤0.1%
Crabtree & Evelyn, Ltd	58	≤0.1%
Young Nails, Inc.	57	≤0.1%
Nudestix	56	≤0.1%
Tammy Taylor Nails, Inc.	56	≤0.1%
Thierry Mugler Parfums	56	≤0.1%
Fusion Brands Inc.	54	≤0.1%
Molton Brown Ltd	53	≤0.1%
Dermalogica	52	≤0.1%
Hoyu America Co.	52	≤0.1%
Australian Gold	51	≤0.1%
Beauty Solutions, Ltd.	48	≤0.1%
Regis Corporation	47	≤0.1%
Henkel Consumer Goods Inc.	46	≤0.1%
BEAUTY SOCIETY, INC.	44	≤0.1%
Kiss Products, Inc.	42	≤0.1%
Natura Bisse International	41	≤0.1%
J. Strickland & Co.	40	≤0.1%
Reckitt Benckiser	40	≤0.1%
CERAS ESPECIALES MARTINEZ DE SAN VICENTE SA	38	≤0.1%
Mario Zunino & C. S.r.l.	38	≤0.1%
salerm cosmética profesional, Inc.	38	≤0.1%
Alfalfa Nail Supply, Inc.	37	≤0.1%
Max Huber Research Labs, Inc.	37	≤0.1%

Company Name²⁹	Total Products Reported³⁰	Percentage³¹
BR SAS	36	≤0.1%
MIRAGE COSMETICS INC	36	≤0.1%
LABORATOIRE NUXE	35	≤0.1%
Chattem, Inc.	34	≤0.1%
Iredale Mineral Cosmetics	34	≤0.1%
Sysco Guest Supply LLC.	34	≤0.1%
Chantecaille Beauté Inc	33	≤0.1%
Hatchbeauty Products, LLC	32	≤0.1%
Beiersdorf, Inc.	31	≤0.1%
Deb USA, Inc.	31	≤0.1%
GOJO Industries, Inc.	31	≤0.1%
Marianna Industries	31	≤0.1%
I Love Cosmetics Limited	30	≤0.1%
Alberto Culver USA, Inc.	29	≤0.1%
BEAUTE PRESTIGE INTERNATIONAL	28	≤0.1%
Penhaligon's Limited	28	≤0.1%
Exclusive Fragrances & Cosmetics	27	≤0.1%
NV Perricone LLC	27	≤0.1%
RMS Beauty	27	≤0.1%
Aramis Inc.	26	≤0.1%
Kao Brands Company	26	≤0.1%
Skinn Cosmetics, LLC	26	≤0.1%
Thymes LLC	26	≤0.1%
WORLD CLUB SUPPLY CORP.	26	≤0.1%
Aubrey Organics Inc	25	≤0.1%
GERMAINE DE CAPUCCINI	25	≤0.1%
John Paul Mitchell Systems	25	≤0.1%
AMOREPACIFIC US INC.	24	≤0.1%
Biocosmética Exel Argentina S.R.L.	24	≤0.1%
CCA Industries, Inc.	24	≤0.1%
MSD Consumer Care, Inc.	24	≤0.1%
Enchante Accessories, Inc.	23	≤0.1%
Murad Skin Research Laboratories, Inc.	23	≤0.1%
Orlane, Inc	23	≤0.1%
CARITA INTERNATIONAL	21	≤0.1%
Cos.brands, LLC	21	≤0.1%
Georgia-Pacific Consumer Products LP	21	≤0.1%
Jemma Kidd Make Up Ltd	21	≤0.1%
PBIGROUP INC	21	≤0.1%
Puritan's Pride	21	≤0.1%
S.C. Johnson & Son, Inc.	21	≤0.1%

Company Name ²⁹	Total Products Reported ³⁰	Percentage ³¹
Dongguan Changping Mei Ya Cosmetics Factory	20	≤0.1%
rolland srl	20	≤0.1%
Space Brands Limited	20	≤0.1%
Delon Laboratories (1990) Inc	19	≤0.1%
Harmon Stores Inc.	19	≤0.1%
Laboratoires Dr N.G. Payot	19	≤0.1%
LVMH FRAGRANCE BRANDS - KENZO PARFUMS	19	≤0.1%
CosMedix	18	≤0.1%
Custom Amenities Inc.	18	≤0.1%
Fresh Inc.	18	≤0.1%
Valeant Pharmaceuticals North America	18	≤0.1%
Framesi-North America	17	≤0.1%
Freeze 24/7 International, LLC	17	≤0.1%
Laboratoires DECLEOR	17	≤0.1%
SUPRE	17	≤0.1%
Lise Watier Cosmétiques Inc.	16	≤0.1%
Unite Eurotherapy	16	≤0.1%
MULTALER & CIE S.A.	15	≤0.1%
Physician's Care Alliance, LLC	15	≤0.1%
SOTHYS USA INC	15	≤0.1%
Walt Disney Parks & Resorts	15	≤0.1%
Yes To Inc.	15	≤0.1%
Blistex Inc.	14	≤0.1%
DARPHIN LLC	14	≤0.1%
Energizer Personal Care, LLC	14	≤0.1%
Fragrances of Ireland Ltd.	14	≤0.1%
Jan Marini Skin Research, Inc.	14	≤0.1%
Laboratoires Dr N.G PAYOT	14	≤0.1%
US Cosmeceutechs, LLC	14	≤0.1%
Betco Corporation, Ltd	13	≤0.1%
boom creative development llc	13	≤0.1%
Earth Essentials	13	≤0.1%
Express, LLC	13	≤0.1%
Kao Germany GmbH	13	≤0.1%
Swanson Health Products	13	≤0.1%
Alberto Culver	12	≤0.1%
eos Products, LLC	12	≤0.1%
McKesson Medical-Surgical	12	≤0.1%
Rituals Cosmetics USA, Inc.	12	≤0.1%
Scruples Professional Salon Products, Inc.	12	≤0.1%
Aesop USA Inc.	11	≤0.1%

Company Name²⁹	Total Products Reported³⁰	Percentage³¹
Interparfums Inc.	11	≤0.1%
MDSolarSciences™	11	≤0.1%
Perron Rigot	11	≤0.1%
SkinMedica Aesthetics, Inc.	11	≤0.1%
Trade West, Inc.	11	≤0.1%
Tropical Seas, Inc.	11	≤0.1%
ZACH'S WAX	11	≤0.1%
ZO Skin Health, Inc	11	≤0.1%
Zohar Cosmetics (M.F.O.) Ltd.	11	≤0.1%
Apollo Health and Beauty Care	10	≤0.1%
Champneys Henlow Limited	10	≤0.1%
Herbalife International of America, Inc.	10	≤0.1%
laboratoire Sintyl SA	10	≤0.1%
LCA - Laboratori di Chimica Applicata srl	10	≤0.1%
Pro-Link	10	≤0.1%
Rodan + Fields	10	≤0.1%
SkinMedica, Inc.	10	≤0.1%
Vitamin World	10	≤0.1%
WAXIE Sanitary Supply	10	≤0.1%
Ziba Beauty	10	≤0.1%
APLICARE, INC	9	≤0.1%
Bioelements, Inc.	9	≤0.1%
DERMAQUEST, INC.	9	≤0.1%
Great Clips, Inc.	9	≤0.1%
I.C.O.N. Line, Inc.	9	≤0.1%
Kimberly-Clark Global Sales, LLC	9	≤0.1%
Ligi Import Corp.	9	≤0.1%
Pure & Basic Products	9	≤0.1%
Rite Aid Corporation	9	≤0.1%
AFFLINK	8	≤0.1%
Alqvimia	8	≤0.1%
AmSan	8	≤0.1%
ANTONIO PUIG S.A.	8	≤0.1%
Avlon Industries, Inc.	8	≤0.1%
Central Solutions, Inc.	8	≤0.1%
Colomer U.S.A., Inc.	8	≤0.1%
Cosswiss AG	8	≤0.1%
Entity Beauty, Inc.	8	≤0.1%
GDCP International Ltd	8	≤0.1%
Jean Philippe Fragrances Inc	8	≤0.1%
Key Brands International Ltd.	8	≤0.1%

Company Name ²⁹	Total Products Reported ³⁰	Percentage ³¹
LAUREN HUTTON'S GOOD STUFF LLC	8	≤0.1%
Selected Chemical Products Company	8	≤0.1%
Walmart	8	≤0.1%
California Baby	7	≤0.1%
Davines S.p.A.	7	≤0.1%
Dollar Connection Ltd	7	≤0.1%
Garcoa Laboratories, Inc.	7	≤0.1%
Guthy-Renker, LLC	7	≤0.1%
High Ridge Brands	7	≤0.1%
Hillyard Industries	7	≤0.1%
JAFRA COSMETICS INTERNATIONAL	7	≤0.1%
New Directions Aromatics Inc.	7	≤0.1%
Parfums Nina Ricci	7	≤0.1%
Pharmaceutical Specialties, Inc.	7	≤0.1%
Pinnacle Cosmetics	7	≤0.1%
Primorance	7	≤0.1%
The Kroger Co.	7	≤0.1%
Coria Laboritories	6	≤0.1%
Country Life, LLC	6	≤0.1%
Dr. Nona International LTD	6	≤0.1%
Novelty, Inc.	6	≤0.1%
Parfums de Coeur, Ltd.	6	≤0.1%
ProStrong Inc.	6	≤0.1%
Sexy Hair	6	≤0.1%
Sonya Dakar Skin Care	6	≤0.1%
The Mentholatum Company	6	≤0.1%
Tom's of Maine, Inc.	6	≤0.1%
ANC SPA INC	5	≤0.1%
Archipelago Inc.	5	≤0.1%
Athena Cosmetics	5	≤0.1%
Beauty Treats International Co., Inc.	5	≤0.1%
Edward Don & Company	5	≤0.1%
IBS BEAUTY INC	5	≤0.1%
Kate Somerville Skin Care	5	≤0.1%
Kenra Professional, LLC	5	≤0.1%
Kingman Industries, Inc	5	≤0.1%
KINGS AND QUEENS LTD	5	≤0.1%
Kmart Corporation	5	≤0.1%
L&S Cosmetics & Toiletries (M) Sdn Bhd	5	≤0.1%
MORRIS PROFUMI SPA	5	≤0.1%
Neoteric Cosmetics Inc	5	≤0.1%

Company Name ²⁹	Total Products Reported ³⁰	Percentage ³¹
Ninghai Jixiang stationery Factory	5	≤0.1%
Obagi Medical Products, Inc.	5	≤0.1%
Pettenon Cosmetici srl	5	≤0.1%
Prime Source LLC	5	≤0.1%
Private Brand, Consumer Products, Division of McKesson	5	≤0.1%
Signatry, Inc.	5	≤0.1%
SRC	5	≤0.1%
Sun & Skin Care Research, Inc	5	≤0.1%
TAIZHOU XINZHIXUAN DAILY-USE CO.,LTD	5	≤0.1%
Unisource Worldwide, Inc	5	≤0.1%
University Medical Pharmaceuticals Corp	5	≤0.1%
Watkins, Inc	5	≤0.1%
Yiwu Aris Cosmetic Manufactory	5	≤0.1%
AG PROFESSIONAL HAIR CARE PRODUCTS LTD	4	≤0.1%
American Consumer Products, LLC	4	≤0.1%
Astara Skin Care	4	≤0.1%
Benev Company, Inc.	4	≤0.1%
CALI CHEM INC	4	≤0.1%
Combe Incorporated	4	≤0.1%
Core Brands	4	≤0.1%
Corporate Express	4	≤0.1%
Design Plus International Ltd	4	≤0.1%
Diversey, Inc	4	≤0.1%
Elysee Cosmetics	4	≤0.1%
Eng Kah Enterprise Sdn Bhd	4	≤0.1%
Excelon	4	≤0.1%
FRAGRANCE AND SKINCARE	4	≤0.1%
GO SMiLE, Inc.	4	≤0.1%
Good 'N Natural	4	≤0.1%
Home Health	4	≤0.1%
ITALIAN GROUP SRL	4	≤0.1%
Jo Malone Inc.	4	≤0.1%
label.m USA INC	4	≤0.1%
Look Beauty Products	4	≤0.1%
LT White, Inc.	4	≤0.1%
MD SolarSciences Corp	4	≤0.1%
Montagne Jeunesse	4	≤0.1%
New Spirit Naturals, Inc.	4	≤0.1%
NOEVIR CO., LTD	4	≤0.1%
Nutrimetics Australia Pty Limited	4	≤0.1%
Ojon Corporations	4	≤0.1%

Company Name²⁹	Total Products Reported³⁰	Percentage³¹
Origins Natural Resources Inc.	4	≤0.1%
Paco Rabanne Parfums	4	≤0.1%
Revision Inc	4	≤0.1%
Scherer, Inc.	4	≤0.1%
Sexy Hair Concepts	4	≤0.1%
Supervalu Inc.	4	≤0.1%
The Sanctuary Spa Holdings Ltd	4	≤0.1%
Topco Associates, LLC	4	≤0.1%
Upper Canada Soap & Candle Makers Corp.	4	≤0.1%
Advanced Aesthetics, Inc.	3	≤0.1%
Aloecare International, LLC	3	≤0.1%
B & C PRODUCTS, INC.	3	≤0.1%
BABOR Cosmetics America Corp	3	≤0.1%
Bio-Derm Laboratories, Inc.	3	≤0.1%
Bremenn Research Labs	3	≤0.1%
California Mango	3	≤0.1%
CCS, Clean Chemical Sweden AB	3	≤0.1%
Concept Laboratories, Inc.	3	≤0.1%
Dr. Babor GmbH & Co. KG	3	≤0.1%
Expanscience Laboratoires	3	≤0.1%
Frank Body	3	≤0.1%
GIB, LLC	3	≤0.1%
Giovanni Cosmetics, Inc.	3	≤0.1%
IPD Inc	3	≤0.1%
Jurlique International Pty. Ltd.	3	≤0.1%
Kevin Murphy	3	≤0.1%
Mazunte LLC	3	≤0.1%
PARFUMS GIVENCHY S.A.	3	≤0.1%
Paula's Choice LLC.	3	≤0.1%
PSS World Medical, Inc	3	≤0.1%
Soma	3	≤0.1%
The BrowGal	3	≤0.1%
The Village Company, LLC	3	≤0.1%
Triple S	3	≤0.1%
Tweezerman International LLC	3	≤0.1%
W. W. Grainger, Inc.,	3	≤0.1%
Zhejiang Yiwu Lucy Cosmetics Co.,Ltd.	3	≤0.1%
American Consumer Products	2	≤0.1%
Calibre Beauté, a division of Quadrant Cosmetics Corp.	2	≤0.1%
CALIFORNIA NORTH	2	≤0.1%
CAMEO TRADING CO., INC.	2	≤0.1%

Company Name ²⁹	Total Products Reported ³⁰	Percentage ³¹
Continental Fragrances, Ltd.	2	≤0.1%
E.T. Browne Drug Co. Inc.	2	≤0.1%
Hangzhou Beja Commodity Co., Ltd	2	≤0.1%
Herbal Authority	2	≤0.1%
Klein-Becker USA, LLC.	2	≤0.1%
KMC EXIM CORPORATION/DASHING DIVA FRANCHISE CORP	2	≤0.1%
LagasseSweet	2	≤0.1%
Le Groupe Fruits & Passion Inc.	2	≤0.1%
Mannatech Incorporated	2	≤0.1%
Nail Magic LLC	2	≤0.1%
Namaste Laboratories	2	≤0.1%
Nature's Bounty	2	≤0.1%
Nature's Sunshine Products, Inc.	2	≤0.1%
NEOCUTIS, Inc	2	≤0.1%
PBH Marketing Inc.	2	≤0.1%
R AND T CREATION LTD	2	≤0.1%
Rexall, Inc.	2	≤0.1%
Romane Fragrances	2	≤0.1%
Rowpar Pharmaceuticals, Inc	2	≤0.1%
Science of Skincare, LLC	2	≤0.1%
The Himalaya Drug Company	2	≤0.1%
Tressa Inc.	2	≤0.1%
Voss Laboratories	2	≤0.1%
Yantai Dupont Daily Necessities Co., Ltd.	2	≤0.1%
ZEE Medical, Inc	2	≤0.1%
A. P. Deauville, LLC	1	≤0.1%
Amway Corporation	1	≤0.1%
Athena Cosmetics, Inc.	1	≤0.1%
Beautopia LLC	1	≤0.1%
Beilis Development	1	≤0.1%
Cardinal Health	1	≤0.1%
Cool Cuts 4 Kids	1	≤0.1%
Cypress Medical Products	1	≤0.1%
Dreambrands, Inc	1	≤0.1%
ERBAVIVA LLC	1	≤0.1%
General Motors	1	≤0.1%
Goodier Cosmetics Inc	1	≤0.1%
Green Mountain Biotech Co., Ltd	1	≤0.1%
Guangzhou Zixuan Beauty Equipment Co.,Ltd	1	≤0.1%
GURWITCH PRODUCTS	1	≤0.1%
Hada S.A.	1	≤0.1%

Company Name²⁹	Total Products Reported³⁰	Percentage³¹
Hayashi Tecnica, LLC	1	≤0.1%
Herbal Harvest, Inc.	1	≤0.1%
Interparfums	1	≤0.1%
Izar Sarl	1	≤0.1%
Kaoder Industry Company, Ltd	1	≤0.1%
KMC Exim	1	≤0.1%
LES SALONS DU PALAIS ROYAL SHISEIDO	1	≤0.1%
Luxury Brand Partners	1	≤0.1%
Modere, Inc.	1	≤0.1%
Natural Solter S.L.	1	≤0.1%
Natural Wealth	1	≤0.1%
New Fragrance Continental Inc.	1	≤0.1%
No Lift Nails Inc.	1	≤0.1%
Parfums Loris Azzaro	1	≤0.1%
Perfect Angel Cosmetics & Health Co., Limited	1	≤0.1%
Perfectly Pure	1	≤0.1%
PhysioLogics	1	≤0.1%
Prai Beauty Group Inc	1	≤0.1%
Prima-Derm, S.L.	1	≤0.1%
Private Label Select LTD	1	≤0.1%
ProClean Inc.	1	≤0.1%
PureTek Corporation	1	≤0.1%
Radiance	1	≤0.1%
Rapha Racing Ltd.	1	≤0.1%
Rexall-Sundown	1	≤0.1%
Robell Research	1	≤0.1%
RT Group	1	≤0.1%
San Joaquin Supply	1	≤0.1%
Smart Brands Inc	1	≤0.1%
Smith & Vandiver Corporation	1	≤0.1%
Tahitian Noni International, Inc.	1	≤0.1%
The Kama Sutra	1	≤0.1%
The Tend Skin Company	1	≤0.1%
Trivani International, L.L.C.	1	≤0.1%
Tupperware U.S., Inc.	1	≤0.1%
Urban Decay Cosmetics	1	≤0.1%
Wellmade Household & Health Care Co., Ltd	1	≤0.1%
Whiter Image	1	≤0.1%
Woosin Cosmetics Co., Ltd	1	≤0.1%
Zalan Products, Inc.	1	≤0.1%

Appendix B: Ingredients Reported by Primary Product Category

For Tables 8 - 21, the number of products reported includes products that are active (not reported as discontinued by company) and products that were since reported to CSCP as discontinued.

Table 8. Baby Products

(Baby Products includes *baby shampoos, baby skin care, baby wash/soap, diaper rash treatment, and other baby products*)

Ingredients Reported in Baby Products	Number of Products	Percentage
Titanium dioxide	14	44%
Retinol/retinyl esters, when in daily dosages in excess of 10,000 IU, or 3,000 retinol equivalents (includes Retinyl palmitate, Vitamin A palmitate, Retinol, Vitamin A, Retinyl acetate, "Acetic acid, retinyl ester" and Retinol palmitate)	6	19%
Cocamide diethanolamine (includes Cocamide DEA, Cocamide, and "Cocamide diethanolamine (DEA)")	4	13%
Formaldehyde (gas)	2	6.3%
Acetaldehyde	1	3.1%
Butylated hydroxyanisole	1	3.1%
Cadmium and cadmium compounds	1	3.1%
Lead	1	3.1%
Styrene	1	3.1%
Trade Secret	1	3.1%
Total Number of Reports for Baby Products	32	

Table 9. Bath Products

(Bath Products includes *bath additives, body washes and soaps, bubble and foam bath products, scrubs and exfoliants, and other bath products*)

Ingredients Reported in Bath Products	Number of Products	Percentage
Titanium dioxide	1,110	51%
Cocamide diethanolamine (includes Cocamide DEA, Cocamide, and "Cocamide diethanolamine (DEA)")	731	37%

Ingredients Reported in Bath Products	Number of Products	Percentage
Retinol/retinyl esters, when in daily dosages in excess of 10,000 IU, or 3,000 retinol equivalents (includes Retinyl palmitate, Vitamin A palmitate, Retinol, Vitamin A, Retinyl acetate, "Acetic acid, retinyl ester" and Retinol palmitate)	79	3.6%
Cocamide MEA	53	2.4%
Triethanolamine	32	1.5%
Estragole	22	1.0%
Trade Secret	19	0.9%
Butylated hydroxyanisole	17	0.8%
Lauramide DEA	15	0.7%
Methyleugenol	15	0.7%
Coffee (includes Coffea arabica extract, Coffee extract and Coffee bean extract)	15	0.7%
1,4-Dioxane	14	0.6%
Silica, crystalline (airborne particles of respirable size)	11	0.5%
Mineral oils, untreated and mildly treated	6	0.3%
Safrole	5	0.2%
Styrene	5	0.2%
C.I. Acid Red 114	5	0.2%
Ethylene glycol	4	0.2%
Formaldehyde (gas)	4	0.2%
Acetaldehyde	3	≤0.1%
Diethanolamine	2	≤0.1%
All-trans retinoic acid	2	≤0.1%
Benzophenone-4	2	≤0.1%
Benzophenone	1	≤0.1%
Caffeine	1	≤0.1%
Chromium (hexavalent compounds)	1	≤0.1%
Toluene	1	≤0.1%
Lauramide diethanolamine	1	≤0.1%
Total Number of Reports for Bath Products	2,176	

Table 10. Fragrances

(Fragrances includes *colognes, perfumes – oils and lotions, perfumes – solids and powders, perfumes/eaux de parfum, toilet water/eaux de toilette, and other fragrances*)

Ingredients Reported in Fragrances	Number of Products	Percentage
Titanium dioxide	260	63%
Butylated hydroxyanisole	40	9.6%
Estragole	24	5.8%
Styrene	24	5.8%
Methyleugenol	18	4.3%
Retinol/retinyl esters, when in daily dosages in excess of 10,000 IU, or 3,000 retinol equivalents (includes Retinyl palmitate, Vitamin A palmitate, Retinol, Vitamin A, Retinyl acetate, "Acetic acid, retinyl ester" and Retinol palmitate)	10	2.4%
Trade Secret	10	2.4%
Acetaldehyde	6	1.4%
2,4-Hexadienal (89% trans, trans isomer; 11% cis, trans isomer)	5	1.2%
Safrole	4	1.0%
Mica	3	0.7%
Silica, crystalline (airborne particles of respirable size)	3	0.7%
Cocamide diethanolamine (includes Cocamide DEA, Cocamide, and "Cocamide diethanolamine (DEA)")	2	0.5%
Coffee (includes Coffea arabica extract, Coffee extract and Coffee bean extract)	2	0.5%
Benzophenone	1	0.2%
Ethylene glycol	1	0.2%
Mineral oils, untreated and mildly treated	1	0.2%
Pulegone	1	0.2%
Total Number of Reports for Fragrances	415	

Table 11. Hair Care Products (non-coloring)

(Hair care products (non-coloring) includes *hair conditioners (leave-in), hair conditioners (rinse-out), hair rinses (non-coloring), hair shampoos (making a cosmetic claim), hair shampoos with anti-dandruff properties, hair straighteners, hair styling products, permanent waves and wave sets, and other hair care products*)

Ingredients Reported in Hair Care Products (non-coloring)	Number of Products	Percentage
Titanium dioxide	387	33%

Ingredients Reported in Hair Care Products (non-coloring)	Number of Products	Percentage
Cocamide diethanolamine (includes Cocamide DEA, Cocamide, and "Cocamide diethanolamine (DEA)")	306	26%
Trade Secret	79	6.8%
Retinol/retinyl esters, when in daily dosages in excess of 10,000 IU, or 3,000 retinol equivalents (includes Retinyl palmitate, Vitamin A palmitate, Retinol, Vitamin A, Retinyl acetate, "Acetic acid, retinyl ester" and Retinol palmitate)	56	4.8%
Coal tars (includes Coal Tar, Coal tar extract, Coal tar solution and "Distillates (coal tar)")	36	3.1%
1,4-Dioxane	35	3.0%
Estragole	27	2.3%
Triethanolamine	26	2.2%
Ethylene oxide	23	2.0%
Formaldehyde (gas) (includes Methylene glycol and Formaldehyde)	21	1.8%
Styrene	14	1.2%
Mineral oils, untreated and mildly treated	13	1.1%
Coffee (includes Coffea arabica extract, Coffee extract and Coffee bean extract)	12	1.0%
Methyleugenol	11	0.9%
Butylated hydroxyanisole	11	0.9%
Acetaldehyde	10	0.9%
Cocamide MEA	7	0.6%
Methyl chloride	7	0.6%
Dichloromethane (Methylene chloride)	6	0.5%
Selenium sulfide	6	0.5%
Safrole	5	0.4%
Propylene oxide	5	0.4%
Arsenic (includes inorganic arsenic compounds and inorganic oxides)	5	0.4%
Benzophenone	5	0.4%
Diethanolamine	5	0.4%
Benzyl chloride	4	0.3%
Benzene	4	0.3%
All-trans retinoic acid	4	0.3%
Pulegone	4	0.3%
N-Nitrosodimethylamine	4	0.3%
Silica, crystalline (airborne particles of respirable size)	3	0.3%
Ethylene glycol	3	0.3%
Lead	2	0.2%
Lead acetate	2	0.2%

Ingredients Reported in Hair Care Products (non-coloring)	Number of Products	Percentage
Methanol	2	0.2%
Lauramide DEA	3	0.3%
Dichloroacetic acid	2	0.2%
Phenacetin	2	0.2%
Mica	2	0.2%
Musk xylene	2	0.2%
N-Methylpyrrolidone	1	≤0.1%
Progesterone	1	≤0.1%
Sodium Bromate	1	≤0.1%
Talc (includes Cosmetic talc and "Talc (powder)")	1	≤0.1%
Ethyl acrylate	1	≤0.1%
Acrylamide	1	≤0.1%
Caffeine	1	≤0.1%
Carbon black (airborne, unbound particles of respirable size)	1	≤0.1%
Total Number of Reports for Hair Care Products (non-coloring)	1,169	

Table 12. Hair Coloring Products

(Hair Coloring Products includes *hair bleaches, hair color sprays (aerosol), hair conditioners (leave-in), hair conditioners (rinse-out), hair dyes and colors, hair lighteners with color, hair shampoos (making a cosmetic claim), products related to hair coloring, and other hair coloring products*)

Ingredients Reported in Hair Coloring Products	Number of Products	Percentage
Titanium dioxide	1,104	79%
Trade Secret	209	15%
Phenacetin	31	2.2%
Triethanolamine	11	0.8%
Cocamide diethanolamine (includes Cocamide DEA, Cocamide, and "Cocamide diethanolamine (DEA)")	8	0.6%
o-Phenylphenol	8	0.6%
o-Phenylenediamine and its salts	6	0.4%
Lead acetate	4	0.3%
Mica	3	0.2%
Talc (includes Cosmetic talc and "Talc (powder)")	3	0.2%
Coffee (includes Coffea arabica extract, Coffee extract and Coffee bean extract)	2	≤0.1%
Mineral oils, untreated and mildly treated	2	≤0.1%
p-Aminodiphenylamine	2	≤0.1%

Ingredients Reported in Hair Coloring Products	Number of Products	Percentage
Carbon black (airborne, unbound particles of respirable size)	1	≤0.1%
Coal tars (includes Coal Tar, Coal tar extract, Coal tar solution and "Distillates (coal tar)")	1	≤0.1%
Retinol/retinyl esters, when in daily dosages in excess of 10,000 IU, or 3,000 retinol equivalents (includes Retinyl palmitate, Vitamin A palmitate, Retinol, Vitamin A, Retinyl acetate, "Acetic acid, retinyl ester" and Retinol palmitate)	1	≤0.1%
Silica, crystalline (airborne particles of respirable size)	1	≤0.1%
Total Number of Reports for Hair Coloring Products	1,397	

Table 13. Makeup Products

(Makeup Products includes *blushes, eye shadow, eyeliner/eyebrow pencil, face powders, foundations and bases, lip balm (making a cosmetic claim), lip color – lipsticks, liners and pencils, lip gloss/shine, makeup fixatives, makeup preparations, mascara/eyelash products, paints (e.g., facial, body), rouges, and other makeup products*)

Ingredients Reported in Makeup Products (non-permanent)	Number of Products	Percentage
Titanium dioxide	36,806	89%
Retinol/retinyl esters, when in daily dosages in excess of 10,000 IU, or 3,000 retinol equivalents (includes Retinyl palmitate, Vitamin A palmitate, Retinol, Vitamin A, Retinyl acetate, "Acetic acid, retinyl ester" and Retinol palmitate)	1,799	4.4%
Butylated hydroxyanisole	923	2.2%
Mica	387	0.9%
Mineral oils, untreated and mildly treated	276	0.7%
Silica, crystalline (airborne particles of respirable size)	274	0.7%
Talc (includes Cosmetic talc and "Talc (powder)")	263	0.6%
Carbon black (airborne, unbound particles of respirable size)	183	0.4%
Triethanolamine	71	0.2%
Carbon black (includes Carbon-black extracts)	66	0.2%
Formaldehyde (gas) (includes Methylene glycol and Formaldehyde)	36	≤0.1%
Trade Secret	35	≤0.1%
Acetaldehyde	25	≤0.1%
Ginkgo biloba extract	19	≤0.1%
Benzophenone-3	15	≤0.1%
Quartz	12	≤0.1%
Talc containing asbestiform fibers	7	≤0.1%
Coffee (includes Coffea arabica extract, Coffee extract and Coffee)	6	≤0.1%

Ingredients Reported in Makeup Products (non-permanent)	Number of Products	Percentage
bean extract)		
C.I. Acid Red 114	5	≤0.1%
Cocamide diethanolamine (includes Cocamide DEA, Cocamide, and "Cocamide diethanolamine (DEA)")	5	≤0.1%
Estragole	5	≤0.1%
N-Methylpyrrolidone	4	≤0.1%
Methyleugenol	3	≤0.1%
Ethylene glycol	1	≤0.1%
Methanol	1	≤0.1%
Propylene glycol mono-t-butyl ether	1	≤0.1%
Safrole	1	≤0.1%
Titanium dioxide (airborne, unbound particles of respirable size)	1	≤0.1%
Total Number of Reports for Makeup Products	41,230	

Table 14. Nail Products

(Nail Products includes *artificial nails and related products, basecoats and undercoats, cuticle softeners, nail creams and lotions, nail decorations, nail polish and enamels, nail polish and enamel removers, UV gel nail polish, and other nail products*)

Ingredients Reported in Nail Products	Number of Products	Percentage
Titanium dioxide	7,563	87%
Carbon black (includes Carbon-black extracts)	403	4.6%
Retinol/retinyl esters, when in daily dosages in excess of 10,000 IU, or 3,000 retinol equivalents (includes Retinyl palmitate, Vitamin A palmitate, Retinol, Vitamin A, Retinyl acetate, "Acetic acid, retinyl ester" and Retinol palmitate)	290	3.3%
Carbon black (airborne, unbound particles of respirable size)	111	1.3%
Silica, crystalline (airborne particles of respirable size)	57	0.7%
Trade Secret	57	0.7%
Butylated hydroxyanisole	50	0.6%
Toluene	48	0.6%
Formaldehyde (gas) (includes Methylene glycol and Formaldehyde)	38	0.4%
Benzophenone	19	0.2%
Di-n-butyl phthalate (DBP)	16	0.2%
Mica	16	0.2%
N-Methylpyrrolidone	6	≤0.1%
Ethyl acrylate	3	≤0.1%
Cocamide diethanolamine (includes Cocamide DEA, Cocamide, and "Cocamide diethanolamine (DEA)")	2	≤0.1%

Ingredients Reported in Nail Products	Number of Products	Percentage
Triethanolamine	2	≤0.1%
Acrylamide	1	≤0.1%
Talc (includes Cosmetic talc and "Talc (powder)")	1	≤0.1%
Total Number of Reports for Nail Products	8,683	

Table 15. Oral Hygiene Products

(Oral Hygiene Products includes *mouthwashes and breath fresheners, teeth cleaning products, teeth whitening products, and other oral hygiene products*)

Ingredients Reported in Oral Hygiene Products	Number of Products	Percentage
Titanium dioxide	171	97%
Trade Secret	3	1.7%
Silica, crystalline (airborne particles of respirable size)	2	1.1%
Coffee (includes Coffea arabica extract, Coffee extract and Coffee bean extract)	1	0.6%
Total Number of Reports for Oral Hygiene Products	177	

Table 16. Personal Care Products

(Personal Care Products includes *anti-perspirants (making a cosmetic claim), douches, feminine deodorants, hand cleansers and sanitizers, lubricants (e.g., personal, sexual, massage oil), underarm deodorants, and other personal care products*)

Ingredients Reported in Personal Care Products	Number of Products	Percentage
Retinol/retinyl esters, when in daily dosages in excess of 10,000 IU, or 3,000 retinol equivalents (includes Retinyl palmitate, Vitamin A palmitate, Retinol, Vitamin A, Retinyl acetate, "Acetic acid, retinyl ester" and Retinol palmitate)	195	31%
Titanium dioxide	153	24%
Cocamide diethanolamine (includes Cocamide DEA, Cocamide, and "Cocamide diethanolamine (DEA)")	148	24%
Progesterone	21	3.3%
Triethanolamine	20	3.2%
Butylated hydroxyanisole	17	2.7%
Diethanolamine	13	2.1%
Estragole	13	2.1%
Cocamide MEA	12	1.9%

Ingredients Reported in Personal Care Products	Number of Products	Percentage
Methyleugenol	5	0.8%
Formaldehyde (gas)	4	0.6%
Mineral oils, untreated and mildly treated	4	0.6%
Talc (includes Cosmetic talc and "Talc (powder)")	4	0.6%
Silica, crystalline (airborne particles of respirable size)	3	0.5%
Trade Secret	3	0.5%
Benzophenone	2	0.3%
Lauramide diethanolamine (includes Lauramide DEA)	2	0.3%
Permethrin	2	0.3%
Quinoline and its strong acid salts	2	0.3%
Safrole	2	0.3%
Coffee (includes Coffea arabica extract, Coffee extract and Coffee bean extract)	1	0.2%
Oil Orange SS	1	0.2%
TEA-Lauryl Sulfate	1	0.2%
Total Number of Reports for Personal Care Products	628	

Table 17. Shaving Products

(Shaving Products includes *aftershave products, shaving cream and other beard softeners, and other shaving products*)

Ingredients Reported in Shaving Products	Number of Products	Percentage
Titanium dioxide	83	46%
Retinol/retinyl esters, when in daily dosages in excess of 10,000 IU, or 3,000 retinol equivalents (includes Retinyl palmitate, Vitamin A palmitate, Retinol, Vitamin A, Retinyl acetate, "Acetic acid, retinyl ester" and Retinol palmitate)	30	17%
Butylated hydroxyanisole	21	18%
Triethanolamine	14	7.8%
Aspirin	6	3.3%
Estragole	6	3.3%
Cocamide diethanolamine (includes Cocamide DEA, Cocamide, and "Cocamide diethanolamine (DEA)")	5	2.8%
Methyleugenol	4	2.2%
beta-Myrcene	3	1.7%
Mineral oils, untreated and mildly treated	3	1.7%
Acetylsalicylic acid	1	0.6%
Diethanolamine	1	0.6%
Mica	1	0.6%

Ingredients Reported in Shaving Products	Number of Products	Percentage
Safrole	1	0.6%
Styrene	1	0.6%
Total Number of Reports for Shaving Products	180	

Table 18. Skin Care Products

(Skin Care Products includes *acne products (making a cosmetic claim)*, *anti-wrinkle/anti-aging products (making a cosmetic claim)*, *depilatories*, *facial cream*, *facial masks*, *foot powders and sprays*, *nighttime skin care*, *powders (excluding aftershave, baby powder and makeup face powder)*, *skin astringent (making a cosmetic claim)*, *skin bleaching (making a cosmetic claim)*, *skin cleansers*, *skin fresheners*, *skin moisturizers (making a cosmetic claim)*, *skin toner (making a cosmetic claim)*, *sprays (excluding fragrances)*, and *other skin care products*)

Ingredients Reported in Skin Care Products	Number of Products	Percentage
Titanium dioxide	3,019	60%
Retinol/retinyl esters, when in daily dosages in excess of 10,000 IU, or 3,000 retinol equivalents (includes Retinyl palmitate, Vitamin A palmitate, Retinol, Vitamin A, Retinyl acetate, "Acetic acid, retinyl ester" and Retinol palmitate)	999	20%
Cocamide diethanolamine (includes Cocamide DEA, Cocamide, and "Cocamide diethanolamine (DEA)")	213	4.2%
Triethanolamine	196	3.9%
Mineral oils, untreated and mildly treated	94	1.9%
Butylated hydroxyanisole	85	1.7%
Methyleugenol	73	1.4%
Coffee (includes Coffea arabica extract, Coffee extract and Coffee bean extract)	48	1.0%
Trade Secret	46	0.9%
Silica, crystalline (airborne particles of respirable size)	42	0.8%
Estragole	31	0.6%
Mica	23	0.5%
Formaldehyde (gas) (includes Methylene glycol and Formaldehyde)	22	0.4%
Caffeine	16	0.3%
Oil Orange SS	13	0.3%
Safrole	13	0.3%
Progesterone	12	0.2%
Talc (includes Cosmetic talc and "Talc (powder)")	8	0.2%
Cocamide MEA	7	≤0.1%
Quinoline and its strong acid salts	7	≤0.1%
Genistein (purified)	6	≤0.1%

Ingredients Reported in Skin Care Products	Number of Products	Percentage
Ethylene glycol	5	≤0.1%
Styrene	5	≤0.1%
1,4-Dioxane	4	≤0.1%
Acetaldehyde	4	≤0.1%
Caffeic acid	4	≤0.1%
Ethylene oxide	4	≤0.1%
Toluene	4	≤0.1%
Acetic acid, retinyl ester	3	≤0.1%
beta-Myrcene	3	≤0.1%
Diethanolamine	3	≤0.1%
Lead	3	≤0.1%
Methanol	3	≤0.1%
Arsenic (includes inorganic arsenic compounds and inorganic oxides)	2	≤0.1%
Avobenzene	2	≤0.1%
Benzophenone	2	≤0.1%
Coal tars (includes Coal Tar, Coal tar extract, Coal tar solution and "Distillates (coal tar)")	2	≤0.1%
Ethanol in alcoholic beverages	2	≤0.1%
Mercury and mercury compounds	2	≤0.1%
Musk xylene	2	≤0.1%
Nickel (Metallic)	2	≤0.1%
2,4-Hexadienal (89% trans, trans isomer; 11% cis, trans isomer)	1	≤0.1%
Acrylamide	1	≤0.1%
All-trans retinoic acid	1	≤0.1%
Aspirin	1	≤0.1%
Benzophenone-3	1	≤0.1%
Cadmium and cadmium compounds	1	≤0.1%
Carbon black (airborne, unbound particles of respirable size)	1	≤0.1%
Chromium (hexavalent compounds)	1	≤0.1%
Dichloroacetic acid	1	≤0.1%
Lauramide DEA	1	≤0.1%
N-Methylpyrrolidone	1	≤0.1%
Propylene glycol mono-t-butyl ether	1	≤0.1%
Pulegone	1	≤0.1%
Quartz	1	≤0.1%
Talc containing asbestiform fibers	1	≤0.1%
TEA-Lauryl Sulfate	1	≤0.1%
Total Number of Reports for Skin Care Products	5,050	

Table 19. Sun-Related Products

(Sun-Related Products includes *indoor tanning products, sunscreen (making a cosmetic claim), suntan enhancers, and other sun-related products*)

Ingredients Reported in Sun-Related Products	Number of Products	Percentage
Titanium dioxide	3,508	88%
Retinol/retinyl esters, when in daily dosages in excess of 10,000 IU, or 3,000 retinol equivalents (includes Retinyl palmitate, Vitamin A palmitate, Retinol, Vitamin A, Retinyl acetate, "Acetic acid, retinyl ester" and Retinol palmitate)	321	8.1%
Butylated hydroxyanisole	43	1.1%
Coffee (includes Coffea arabica extract, Coffee extract and Coffee bean extract)	41	1.0%
Silica, crystalline (airborne particles of respirable size)	9	0.2%
Trade Secret	8	0.2%
Methyleugenol	7	0.2%
Triethanolamine	6	0.2%
Estragole	5	≤0.1%
Benzophenone-3	3	≤0.1%
Formaldehyde (gas) (includes Methylene glycol and Formaldehyde)	3	≤0.1%
Mica	3	≤0.1%
Arsenic (includes inorganic arsenic compounds and inorganic oxides)	2	≤0.1%
Avobenzone	2	≤0.1%
Ethylene glycol	2	≤0.1%
Lead	2	≤0.1%
Mercury and mercury compounds	2	≤0.1%
Oil Orange SS	2	≤0.1%
Toluene	2	≤0.1%
2,4-Hexadienal (89% trans, trans isomer; 11% cis, trans isomer)	1	≤0.1%
All-trans retinoic acid	1	≤0.1%
beta-Myrcene	1	≤0.1%
Caffeine	1	≤0.1%
Chromium (hexavalent compounds)	1	≤0.1%
Cocamide diethanolamine (includes Cocamide DEA, Cocamide, and "Cocamide diethanolamine (DEA)")	1	≤0.1%
Mineral oils, untreated and mildly treated	1	≤0.1%
Safrole	1	≤0.1%
Styrene	1	≤0.1%
Talc (includes Cosmetic talc and "Talc (powder)")	1	≤0.1%
Total Number of Reports for Sun-Related Products	3,981	

Table 20. Tattoos and Permanent Makeup

Ingredients Reported in Tattoos and Permanent Makeup	Number of Products	Percentage
Titanium dioxide	690	99%
Carbon black (airborne, unbound particles of respirable size)	6	0.9%
Propylene glycol mono-t-butyl ether	1	≤0.1%
Total Number of Reports for Tattoos and Permanent Makeup	697	

Appendix C: Removed Ingredient Data

Table 21. Companies with Reports of Ingredients Removed from Products

Company	Chemical Ingredient	Number of Products
Added Extras LLC	Ethyl acrylate	3
Aesop USA Inc.	Cocamide diethanolamine (includes Cocamide DEA, Cocamide, and "Cocamide diethanolamine (DEA)")	11
Alberto Culver USA, Inc.	Trade Secret	12
Aloecare International, LLC	Titanium dioxide	1
	Titanium dioxide	9
Aloette Cosmetics Inc.	Retinol/retinyl esters, when in daily dosages in excess of 10,000 IU, or 3,000 retinol equivalents (includes Retinyl palmitate, Vitamin A palmitate, Retinol, Vitamin A, Retinyl acetate, "Acetic acid, retinyl ester" and Retinol palmitate)	1
AMCO International	Titanium dioxide	4
	Titanium dioxide	4
American International Industries	Retinol/retinyl esters, when in daily dosages in excess of 10,000 IU, or 3,000 retinol equivalents (includes Retinyl palmitate, Vitamin A palmitate, Retinol, Vitamin A, Retinyl acetate, "Acetic acid, retinyl ester" and Retinol palmitate)	1
Amway Corporation	Benzophenone-3	1
Anastasia Beverly Hills, Inc	Titanium dioxide	3
ANC SPA INC	Retinol/retinyl esters, when in daily dosages in excess of 10,000 IU, or 3,000 retinol equivalents (includes Retinyl palmitate, Vitamin A palmitate, Retinol, Vitamin A, Retinyl acetate, "Acetic acid, retinyl ester" and Retinol palmitate)	1
Arbonne International LLC	Titanium dioxide	14
	Titanium dioxide	50
Arcadia Beauty Labs LLC	Cocamide diethanolamine (includes Cocamide DEA, Cocamide, and "Cocamide diethanolamine (DEA)")	3
	Toluene	2
	Coal tars (includes Coal Tar, Coal tar extract, Coal tar solution and "Distillates (coal tar)")	1
	Estragole	1
Atlas Development Limited	Triethanolamine	1
Aubrey Organics Inc	Titanium dioxide	7

Company	Chemical Ingredient	Number of Products
B & C PRODUCTS, INC.	Acetylsalicylic acid	1
Bare Escentuals Beauty, Inc.	Retinol/retinyl esters, when in daily dosages in excess of 10,000 IU, or 3,000 retinol equivalents (includes Retinyl palmitate, Vitamin A palmitate, Retinol, Vitamin A, Retinyl acetate, "Acetic acid, retinyl ester" and Retinol palmitate)	12
Bath & Body Works	Titanium dioxide	6
	Retinol/retinyl esters, when in daily dosages in excess of 10,000 IU, or 3,000 retinol equivalents (includes Retinyl palmitate, Vitamin A palmitate, Retinol, Vitamin A, Retinyl acetate, "Acetic acid, retinyl ester" and Retinol palmitate)	2
BEAUTE PRESTIGE INTERNATIONAL	Cocamide diethanolamine (includes Cocamide DEA, Cocamide, and "Cocamide diethanolamine (DEA)")	7
Beauty 21 Cosmetics, Inc.	Titanium dioxide	29
Beauty Selectives	Titanium dioxide	43
BEAUTY SOCIETY, INC.	Titanium dioxide	3
Beauty Solutions, Ltd.	Titanium dioxide	3
Beiersdorf, Inc.	Cocamide diethanolamine (includes Cocamide DEA, Cocamide, and "Cocamide diethanolamine (DEA)")	1
Benefit Cosmetics	Titanium dioxide	1
Bioelements, Inc.	Retinol/retinyl esters, when in daily dosages in excess of 10,000 IU, or 3,000 retinol equivalents (includes Retinyl palmitate, Vitamin A palmitate, Retinol, Vitamin A, Retinyl acetate, "Acetic acid, retinyl ester" and Retinol palmitate)	1
	Titanium dioxide	5
Bliss World LLC	2,4-Hexadienal (89% trans, trans isomer; 11% cis, trans isomer)	1
	Retinol/retinyl esters, when in daily dosages in excess of 10,000 IU, or 3,000 retinol equivalents (includes Retinyl palmitate, Vitamin A palmitate, Retinol, Vitamin A, Retinyl acetate, "Acetic acid, retinyl ester" and Retinol palmitate)	1
Bonne Bell, LLC	Titanium dioxide	3
Börlind of Germany, Inc.	Titanium dioxide	1
BR SAS	Mineral oils, untreated and mildly treated	2
Burt's Bees Inc.	Titanium dioxide	33

Company	Chemical Ingredient	Number of Products
Buth-na-bodhaige, Inc	Cocamide diethanolamine (includes Cocamide DEA, Cocamide, and "Cocamide diethanolamine (DEA)")	34
	Triethanolamine	13
	Titanium dioxide	4
C.F.E.B. SISLEY	Titanium dioxide	91
	Estragole	11
	Cocamide diethanolamine (includes Cocamide DEA, Cocamide, and "Cocamide diethanolamine (DEA)")	2
	Silica, crystalline (airborne particles of respirable size)	1
CALI CHEM INC	Toluene	1
CARITA INTERNATIONAL	Retinol/retinyl esters, when in daily dosages in excess of 10,000 IU, or 3,000 retinol equivalents (includes Retinyl palmitate, Vitamin A palmitate, Retinol, Vitamin A, Retinyl acetate, "Acetic acid, retinyl ester" and Retinol palmitate)	3
Central Solutions, Inc.	Cocamide diethanolamine (includes Cocamide DEA, Cocamide, and "Cocamide diethanolamine (DEA)")	1
CHANEL, INC	Cocamide diethanolamine (includes Cocamide DEA, Cocamide, and "Cocamide diethanolamine (DEA)")	3
CLARINS S.A.	Titanium dioxide	42
CLINIQUE LABORATORIES, LLC	Coffee (includes Coffea arabica extract, Coffee extract and Coffee bean extract)	6
COLGATE-PALMOLIVE COMPANY	Titanium dioxide	3
	Quinoline and its strong acid salts	2
Colorescience	Titanium dioxide	10
Conopco, Inc.	Titanium dioxide	57
	Estragole	7
	Benzophenone	3
Coty	Carbon black (airborne, unbound particles of respirable size)	70
	Retinol/retinyl esters, when in daily dosages in excess of 10,000 IU, or 3,000 retinol equivalents (includes Retinyl palmitate, Vitamin A palmitate, Retinol, Vitamin A, Retinyl acetate, "Acetic acid, retinyl ester" and Retinol palmitate)	45
Country Life, LLC	Titanium dioxide	17
	Titanium dioxide	4

Company	Chemical Ingredient	Number of Products
Cover FX Skin Care Inc.	Silica, crystalline (airborne particles of respirable size)	25
Crabtree & Evelyn, Ltd	Cocamide diethanolamine (includes Cocamide DEA, Cocamide, and "Cocamide diethanolamine (DEA)")	7
Davines S.p.A.	Butylated hydroxyanisole	5
Deb USA, Inc.	Cocamide diethanolamine (includes Cocamide DEA, Cocamide, and "Cocamide diethanolamine (DEA)")	12
	Titanium dioxide	3
	Triethanolamine	1
Design Plus International Ltd	Titanium dioxide	1
DHC USA Inc.	Titanium dioxide	6
	Talc (includes Cosmetic talc and "Talc (powder)")	3
Diversey, Inc	Cocamide diethanolamine (includes Cocamide DEA, Cocamide, and "Cocamide diethanolamine (DEA)")	3
Earth Essentials	Retinol/retinyl esters, when in daily dosages in excess of 10,000 IU, or 3,000 retinol equivalents (includes Retinyl palmitate, Vitamin A palmitate, Retinol, Vitamin A, Retinyl acetate, "Acetic acid, retinyl ester" and Retinol palmitate)	3
	Titanium dioxide	1
Elizabeth Arden, Inc.	Butylated hydroxyanisole	45
	Styrene	14
	Estragole	13
	Retinol/retinyl esters, when in daily dosages in excess of 10,000 IU, or 3,000 retinol equivalents (includes Retinyl palmitate, Vitamin A palmitate, Retinol, Vitamin A, Retinyl acetate, "Acetic acid, retinyl ester" and Retinol palmitate)	12
	Methyleugenol	8
	Acetaldehyde	7
	Ethylene glycol	5
	2,4-Hexadienal (89% trans, trans isomer; 11% cis, trans isomer)	3
	Titanium dioxide	3
	Coffee (includes Coffea arabica extract, Coffee extract and Coffee bean extract)	1
Excelon	Cocamide diethanolamine (includes Cocamide DEA, Cocamide, and "Cocamide diethanolamine (DEA)")	1

Company	Chemical Ingredient	Number of Products
Exclusive Fragrances & Cosmetics	Methyleugenol	1
Expanscience Laboratoires	Genistein (purified)	1
	Titanium dioxide	1
Farouk Systems, Inc.	Trade Secret	2
Fashion Fair, LLC	Titanium dioxide	11
Fisk Industries Inc	Silica, crystalline (airborne particles of respirable size)	1
Fresh, Inc.	Titanium dioxide	1
GAP INC.	Titanium dioxide	4
	Diethanolamine	7
Georgia-Pacific Consumer	Triethanolamine	4
	Cocamide diethanolamine (includes Cocamide DEA, Cocamide, and "Cocamide diethanolamine (DEA)")	3
	TEA-Lauryl Sulfate	1
GOJO Industries, Inc.	Cocamide diethanolamine (includes Cocamide DEA, Cocamide, and "Cocamide diethanolamine (DEA)")	4
	Titanium dioxide	1
Greenbrier International, Inc.	Cocamide diethanolamine (includes Cocamide DEA, Cocamide, and "Cocamide diethanolamine (DEA)")	3
Guerlain SA	Mica	9
Guerlain SA	Titanium dioxide	1
Guthy-Renker, LLC	Retinol/retinyl esters, when in daily dosages in excess of 10,000 IU, or 3,000 retinol equivalents (includes Retinyl palmitate, Vitamin A palmitate, Retinol, Vitamin A, Retinyl acetate, "Acetic acid, retinyl ester" and Retinol palmitate)	1
Hallmark Cards, Inc.	Titanium dioxide	4
Hand & Nail Harmony, Inc	Carbon black (includes Carbon-black extracts)	2
	Titanium dioxide	1
Harmon Stores Inc.	Cocamide diethanolamine (includes Cocamide DEA, Cocamide, and "Cocamide diethanolamine (DEA)")	1
Henkel Consumer Goods Inc.	Estragole	7
	Titanium dioxide	4
Herbalife International of America, Inc.	Retinol/retinyl esters, when in daily dosages in excess of 10,000 IU, or 3,000 retinol equivalents (includes Retinyl palmitate, Vitamin A palmitate, Retinol, Vitamin A, Retinyl acetate, "Acetic acid, retinyl ester" and Retinol palmitate)	2

Company	Chemical Ingredient	Number of Products
	Titanium dioxide	1
Hillyard Industries	Cocamide diethanolamine (includes Cocamide DEA, Cocamide, and "Cocamide diethanolamine (DEA)")	1
Hoyu America Co.	Titanium dioxide	5
I Love Cosmetics Limited	Cocamide diethanolamine (includes Cocamide DEA, Cocamide, and "Cocamide diethanolamine (DEA)")	9
Iredale Mineral Cosmetics	Titanium dioxide	2
Ivy Enterprises, Inc.	Titanium dioxide	3
J. Strickland & Co.	Titanium dioxide	3
JAFRA COSMETICS INTERNATIONAL	Titanium dioxide	1
	o-Phenylenediamine and its salts	3
John Paul Mitchell Systems	Cocamide diethanolamine (includes Cocamide DEA, Cocamide, and "Cocamide diethanolamine (DEA)")	1
Johnson & Johnson Consumer Companies	Titanium dioxide	27
Kate Somerville Skin Care	Titanium dioxide	1
Kendo Holdings, Inc.	Titanium dioxide	14
	Estragole	1
Kenra Professional, LLC	Methyleugenol	1
Kimberly-Clark Global Sales, LLC	Cocamide diethanolamine (includes Cocamide DEA, Cocamide, and "Cocamide diethanolamine (DEA)")	7
Kingdom Animalia, LLC.	Titanium dioxide	1
KORRES S.A - NATURAL PRODUCTS	Titanium dioxide	101
	N-Methylpyrrolidone	4
L&S Cosmetics & Toiletries (M) Sdn Bhd	Styrene	2
LABORATOIRE NUXE	Titanium dioxide	1
Laboratoires DECLEOR	Nickel (Metallic)	2
LABORATOIRES M&L SA (L'Occitane - Melvita)	Titanium dioxide	1
LES SALONS DU PALAIS ROYAL SHISEIDO	Estragole	1
	Cocamide diethanolamine (includes Cocamide DEA, Cocamide, and "Cocamide diethanolamine (DEA)")	1
Levlad LLC	Estragole	1
	Methyleugenol	1

Company	Chemical Ingredient	Number of Products
	Retinol/retinyl esters, when in daily dosages in excess of 10,000 IU, or 3,000 retinol equivalents (includes Retinyl palmitate, Vitamin A palmitate, Retinol, Vitamin A, Retinyl acetate, "Acetic acid, retinyl ester" and Retinol palmitate)	1
	Safrole	1
Lumene Oy	Trade Secret	2
	Caffeine	1
Lush Ltd	Silica, crystalline (airborne particles of respirable size)	1
	Titanium dioxide	1
Lush Manufacturing Ltd.	Cocamide diethanolamine (includes Cocamide DEA, Cocamide, and "Cocamide diethanolamine (DEA)")	24
	Titanium dioxide	2
LVMH FRAGRANCE BRANDS - PARFUMS GIVENCHY	Carbon black (airborne, unbound particles of respirable size)	6
MAESA LLC	Titanium dioxide	6
MAKE UP FOR EVER	Titanium dioxide	6
	Retinol/retinyl esters, when in daily dosages in excess of 10,000 IU, or 3,000 retinol equivalents (includes Retinyl palmitate, Vitamin A palmitate, Retinol, Vitamin A, Retinyl acetate, "Acetic acid, retinyl ester" and Retinol palmitate)	1
Mannatech Incorporated	Silica, crystalline (airborne particles of respirable size)	1
	Cocamide diethanolamine (includes Cocamide DEA, Cocamide, and "Cocamide diethanolamine (DEA)")	2
Marianna Industries	Butylated hydroxyanisole	1
	Titanium dioxide	1
	Cocamide diethanolamine (includes Cocamide DEA, Cocamide, and "Cocamide diethanolamine (DEA)")	31
	Butylated hydroxyanisole	7
Mary Kay Inc.	Titanium dioxide	1
	Titanium dioxide	5
Melaleuca, Inc.	Trade Secret	1
	Cocamide diethanolamine (includes Cocamide DEA, Cocamide, and "Cocamide diethanolamine (DEA)")	1
Molton Brown Ltd	Cocamide diethanolamine (includes Cocamide DEA, Cocamide, and "Cocamide diethanolamine (DEA)")	1

Company	Chemical Ingredient	Number of Products
	Silica, crystalline (airborne particles of respirable size)	1
	Talc (includes Cosmetic talc and "Talc (powder)")	1
	Titanium dioxide	1
MULTALER & CIE S.A.	Formaldehyde (gas) (includes Methylene glycol and Formaldehyde)	9
	Methyleugenol	5
	Estragole	1
	Ethylene glycol	1
	Safrole	1
Nail Alliance, LLC	Titanium dioxide	2
Nail Magic LLC	Formaldehyde (gas) (includes Methylene glycol and Formaldehyde)	1
	Titanium dioxide	1
	Toluene	1
Namaste Laboratories	Cocamide diethanolamine (includes Cocamide DEA, Cocamide, and "Cocamide diethanolamine (DEA)")	1
Nature's Sunshine Products, Inc.	Progesterone	2
Neoteric Cosmetics Inc	Cocamide diethanolamine (includes Cocamide DEA, Cocamide, and "Cocamide diethanolamine (DEA)")	1
Neways	Titanium dioxide	23
Ninghai Jixiang stationery Factory	C.I. Acid Red 114	5
NOEVIR CO., LTD	Titanium dioxide	1
NSE Products, Inc.	Titanium dioxide	1
NYX Los Angeles, Inc.	Titanium dioxide	104
	Butylated hydroxyanisole	1
ORLY INTERNATIONAL	Titanium dioxide	3
	Retinol/retinyl esters, when in daily dosages in excess of 10,000 IU, or 3,000 retinol equivalents (includes Retinyl palmitate, Vitamin A palmitate, Retinol, Vitamin A, Retinyl acetate, "Acetic acid, retinyl ester" and Retinol palmitate)	1
Pacific World Cosmetics	Titanium dioxide	6
	Formaldehyde (gas) (includes Methylene glycol and Formaldehyde)	5
	Benzophenone	1
Palladio Beauty Group	Titanium dioxide	22
	Butylated hydroxyanisole	1
Parfums Christian Dior	Titanium dioxide	2

Company	Chemical Ingredient	Number of Products
Penhaligon's Limited	Lauramide DEA	16
Penhaligon's Limited	Cocamide diethanolamine (includes Cocamide DEA, Cocamide, and "Cocamide diethanolamine (DEA)")	14
Physician's Care Alliance, LLC	Cocamide diethanolamine (includes Cocamide DEA, Cocamide, and "Cocamide diethanolamine (DEA)")	3
	Titanium dioxide	1
	Genistein (purified)	1
Physicians Formula Holdings, Inc.	Titanium dioxide	1
Pure & Basic Products	Titanium dioxide	2
Reckitt Benckiser	Titanium dioxide	1
	Titanium dioxide	8
	1,4-Dioxane	4
	Ethylene oxide	4
	Propylene oxide	3
	Acetaldehyde	3
	Dichloromethane (Methylene chloride)	3
	Benzene	2
Regis Corporation	Benzyl chloride	2
	Formaldehyde (gas) (includes Methylene glycol and Formaldehyde)	2
	N-Nitrosodimethylamine	2
	Trade Secret	2
	Lead	1
	Methyl chloride	1
	Arsenic (inorganic arsenic compounds)	1
	Dichloroacetic acid	1
Revlon Consumer Products Corporation	Titanium dioxide	3
rolland srl	Trade Secret	1
S.C. Johnson & Son, Inc.	Titanium dioxide	1
Science of Skincare, LLC	Titanium dioxide	1
Shiseido Americas Corporation	Titanium dioxide	1
Signatry, Inc.	Cocamide diethanolamine (includes Cocamide DEA, Cocamide, and "Cocamide diethanolamine (DEA)")	1
	Titanium dioxide	4
Soap and Glory Ltd	Cocamide diethanolamine (includes Cocamide DEA, Cocamide, and "Cocamide diethanolamine (DEA)")	3

Company	Chemical Ingredient	Number of Products
	Caffeic acid	2
	Retinol/retinyl esters, when in daily dosages in excess of 10,000 IU, or 3,000 retinol equivalents (includes Retinyl palmitate, Vitamin A palmitate, Retinol, Vitamin A, Retinyl acetate, "Acetic acid, retinyl ester" and Retinol palmitate)	1
Studio Gear Cosmetics, Inc.	Titanium dioxide	1
	Silica, crystalline (airborne particles of respirable size)	81
	Titanium dioxide	66
	Retinol/retinyl esters, when in daily dosages in excess of 10,000 IU, or 3,000 retinol equivalents (includes Retinyl palmitate, Vitamin A palmitate, Retinol, Vitamin A, Retinyl acetate, "Acetic acid, retinyl ester" and Retinol palmitate)	31
Sunrider Manufacturing, L.P.	Carbon black (includes Carbon-black extracts)	7
	Cocamide diethanolamine (includes Cocamide DEA, Cocamide, and "Cocamide diethanolamine (DEA)")	5
	Coffee (includes Coffea arabica extract, Coffee extract and Coffee bean extract)	3
	Lauramide diethanolamine	2
tarte inc.	Titanium dioxide	1
The Boots Company PLC	Titanium dioxide	4
The Procter & Gamble Company	Titanium dioxide	2
Thymes LLC	Titanium dioxide	1
TIGI Linea Corp	Titanium dioxide	1
	Mica	1
Trish McEvoy Cosmetics Limited	Titanium dioxide	14
	Titanium dioxide	1
	Retinol/retinyl esters, when in daily dosages in excess of 10,000 IU, or 3,000 retinol equivalents (includes Retinyl palmitate, Vitamin A palmitate, Retinol, Vitamin A, Retinyl acetate, "Acetic acid, retinyl ester" and Retinol palmitate)	1
US Cosmeceutechs, LLC		
Valeant Pharmaceuticals North America	Titanium dioxide	1
	Titanium dioxide	29
	Acetaldehyde	22
Ventura International, Ltd	Silica, crystalline (airborne particles of respirable size)	1

Company	Chemical Ingredient	Number of Products
Vi-Jon, Inc.	Titanium dioxide	31
	Cocamide diethanolamine (includes Cocamide DEA, Cocamide, and "Cocamide diethanolamine (DEA)")	25
	Retinol/retinyl esters, when in daily dosages in excess of 10,000 IU, or 3,000 retinol equivalents (includes Retinyl palmitate, Vitamin A palmitate, Retinol, Vitamin A, Retinyl acetate, "Acetic acid, retinyl ester" and Retinol palmitate)	8
Victoria's Secret Beauty	Titanium dioxide	3
Walmart	Mineral oils, untreated and mildly treated	1
Walt Disney Parks & Resorts	Titanium dioxide	2
WAXIE Sanitary Supply	Cocamide diethanolamine (includes Cocamide DEA, Cocamide, and "Cocamide diethanolamine (DEA)")	1
Xtreme Color, Inc.	Titanium dioxide	3
Young Nails, Inc.	Titanium dioxide	2
Yves Rocher Inc.	Titanium dioxide	12
Zotos International, Inc.	Cocamide diethanolamine (includes Cocamide DEA, Cocamide, and "Cocamide diethanolamine (DEA)")	9
	Estragole	9

Table 22. Ingredients Removed by Frequency

Chemical Ingredient	Number of products
Titanium dioxide	1,035
Cocamide diethanolamine (includes Cocamide DEA, Cocamide, and "Cocamide diethanolamine (DEA)")	236
Retinol/retinyl esters, when in daily dosages in excess of 10,000 IU, or 3,000 retinol equivalents (includes Retinyl palmitate, Vitamin A palmitate, Retinol, Vitamin A, Retinyl acetate, "Acetic acid, retinyl ester" and Retinol palmitate)	129
Silica, crystalline (airborne particles of respirable size)	112
Carbon black (airborne, unbound particles of respirable size)	76
Butylated hydroxyanisole	60
Estragole	52
Acetaldehyde	32
Trade Secret	20
Triethanolamine	19
Formaldehyde (gas) (includes Methylene glycol and Formaldehyde)	17
Lauramide DEA	16
Methyleugenol	16
Styrene	16
Coffee (includes Coffea arabica extract, Coffee extract and Coffee bean extract)	10
Mica	10
Carbon black (includes Carbon-black extracts)	9
Diethanolamine	7
Ethylene glycol	6
C.I. Acid Red 114	5
1,4-Dioxane	4
2,4-Hexadienal (89% trans, trans isomer; 11% cis, trans isomer)	4
Benzophenone	4
Ethylene oxide	4
N-Methylpyrrolidone	4
Talc (includes Cosmetic talc and "Talc (powder)")	4
Toluene	4
Dichloromethane (Methylene chloride)	3
Ethyl acrylate	3
Mineral oils, untreated and mildly treated	3
o-Phenylenediamine and its salts	3
Propylene oxide	3
Benzene	2
Benzyl chloride	2
Caffeic acid	2

Chemical Ingredient	Number of products
Genistein (purified)	2
Lauramide diethanolamine	2
Nickel (Metallic)	2
N-Nitrosodimethylamine	2
Progesterone	2
Quinoline and its strong acid salts	2
Safrole	2
Acetylsalicylic acid	1
Arsenic (includes inorganic arsenic compounds and inorganic oxides)	1
Benzophenone-3	1
Caffeine	1
Coal tars (includes Coal Tar, Coal tar extract, Coal tar solution and "Distillates (coal tar)")	1
Dichloroacetic acid	1
Lead	1
Methyl chloride	1
TEA-Lauryl Sulfate	1