

Allergen Avoidance Makeup Collection

Part I. Collection description and its information objects:

1.1 Location of collection:

The collection is located within an online database at www.avoiditmakeup.com. The database is run by a volunteer corps of predominantly makeup artists and estheticians, assisted by other volunteers as offered. It seeks endorsements from national and international makeup organizations, such as the National Organization of Makeup Artists, as well as national and international standards and ethics review boards.

1.2 Purpose of the collection:

The Allergen Avoidance Makeup Collection will serve as a detailed catalog of allergen-free makeup, while noting additional merits regarding unique belief systems or restrictions including vegan products, kosher products, and cruelty free. The collection's key feature is its searchable list of ingredients that includes all known alternative names for each ingredient. The collection eliminates the need for users to find multiple access points for this information, instead aggregating it into one searchable catalog so users may easily find makeup products that fit multiple needs.

1.3 Physical and intellectual aspects of objects:

This collection specifically includes various makeup items that are searchable by specific ingredients. Searches also cross-reference for alternative names for those irritating ingredients, and range. This collection will not include makeup items known to have extremely irritating or common irritants, and instead focus on items free of major allergens that can then be narrowed down by more specific and less-common allergies. These items will include foundations (liquid, powder, gel, and cream), lipsticks, eyeliners (gel, liquid, kohl, other), mascaras, eyeshadows, and priming/setting sprays. Individual colors will also be marked with potential (or known) dye allergens.

1.4 Extent of collection and plans for growth

Since the collection is a digital database referring to physical items, it has endless potential for growth as new products are created or old products cease production. It does not need to physically house items, merely digital information. Additional bandwidth or storage space may need to be purchased as the data mine grows, but being a primarily-text format means documents and records will utilize minimal digital storage space. Maintenance of the collection will rely heavily on a corps of knowledgeable volunteers to report and discover new products, as well as input the items information into the database. This includes cross-referencing ingredients using other databases, such as the Agency for Toxic Substances and Disease Registry (<https://www.atsdr.cdc.gov/>). The collection is expected to grow slowly during the first few years

as ingredients are initially added with their alternative names, as well as initial records collected. Maintenance is expected to proceed at a quicker pace as the database will have an already established vocabulary to for new records to pull from.

Part II. Users of the collection:

2.1 User group(s)

The main users of this collection are makeup users (often self-described as “makeup junkies” in the online community) with specific makeup allergies. More generally, other makeup junkies without makeup allergies may use the collection out of curiosity or simply to avoid irritating products that might cause other issues. Makeup artists are also likely to utilize the collection until the category of general makeup users, especially as they may have clients with a range of allergies and prefer to purchase or have options on hand when allergies might be a problem.

2.2 Demographics:

The user groups will be primarily female, though a growing number of makeup users are male as male makeup artists and simple “junkies” are more often celebrated and accepted into the makeup community. The ethnicity will be primarily Caucasian or lighter skinned ethnicities as the range of available makeup shades is limited in most makeup collections and often excludes darker tones. Allergen-free makeup also tends to come from smaller companies that are not able to offer as many color options either. Age range will more likely be 18-35 as the digital collection will require some knowledge and comfort with online searches. As most allergen-free makeup is usually produced with higher quality ingredients and in smaller batches, it is also likely that the costs are slightly higher and users will need a level of disposable income with which to invest in items in the collection, though the collection is viewable by all. Demographics might impact various filtering features such as problems a user wishes to address (allergen-free with wrinkle reducing or anti-aging features, for example).

2.3 Types and levels of knowledge:

Domain knowledge:

Beginning or very young users will have a limited ability to navigate an informational system without additional assistance, as they have not yet garnered the knowledge of vocabulary and search language needed. While this collection attempts to be straight forward enough for beginner use, the narrow scope of field means that some terminology and vocabulary will be more familiar to advanced users. Those of high school, college, or higher-level education will have more experience utilizing and searching unfamiliar databases and an easier time navigating the specialized collection. Most users will be utilizing the collection knowing what information they are looking for.

System knowledge:

Generally, most users will have a high system knowledge, allowing them to navigate the system. It uses common vocabulary for the field, as well as many indexed and searchable fields.

Millennial-aged users will likely have the easiest time navigate the collection due to their technological and search knowledge, while younger users may be newer to the vocabulary used or the search features involved. Older users should find the system straightforward but may require some assistance in managing the various search features and terminology.

Task knowledge:

Most users will be looking for more precise information based on previously received knowledge. They will know which terms they are looking for or looking to avoid allergen-wise based on their allergens, which is the main purpose of the collection.

Part III. System design:

3.1 Entity level or unit of analysis and why appropriate

Each record represents one unit of a specific product line at a 1:1 ratio. For example, each varying kind of foundation created by a specific brand would have a single listing, with that listing containing a list of all available shades as opposed to separate records for each shade of the same product. This is modeled after the library catalogs that list all volumes of a series under a single catalog record with notations of which copy is which volume. As this database is a reference collection rather than a space from which users will be ordering a specific product, it would be nonsensical and time inefficient to list each shade of each product type separately in this database.

3.2 Attributes chosen and their appropriateness to the collection

Type: Foundation, lipstick, eyeliner, eyeshadow, etc., which help a user located makeup for various placing preferences (face, eyes, lips, etc.). Would serve in place of subject field in a typical library catalog, as makeup is traditionally defined by type of product as opposed to a related subject.

Item Name: The actual name or title of the individual product. For example, the brand Bareminerals offers several different versions of their foundation, one named Original Broad Spectrum and one named Matte Broad Spectrum. These item names would serve the collection in place of 'Title' in a typical library catalog record.

Creator/Brand: Brand as an attribute in makeup categorization works much the same way 'Author' or 'Creator' would serve a typical library catalog record. As this collection is aimed at those interested in makeup, utilizing already established controlled vocabularies of that culture makes the collection most relevant and accessible to its users, as opposed to twisting that vocabulary to fit another kind of collection.

3.3 Field names and indexing decisions

General Attribute	Field Name	Searchable? (y or n)
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Name	Item	Yes
Creator	Brand	Yes
Description	Ingredient	Yes
	Shades	Yes
	Packaging	No
	Consistency	Yes
Type (Subject)	Placement ¹	Yes
Classification	Type	Yes
Notes	Certifications	Yes
	Database Number	No

Searchability is a key feature of making a usable resource that meets the needs of a diverse set of users. Though users of the Allergen Avoidance Makeup Collection are most likely to be makeup enthusiasts, they will likely be utilizing multiple points of entry during their search- whether they are looking by specific allergen, for a foundation instead of lipstick, or simply a face product without knowing whether it is specifically a powder or a foundation. Or they might be looking for a range of products that might fit their needs instead of more specific options. For this reason, searchability through a variety of entry points lead to the decision to index all data where possible. However, packaging and database number will not be searchable as packaging this is a relevant attribute to note, but not one relevant to the core purpose of the database. Database number is for staff reference only and is relevant for statistical or maintenance purposes (such as auditing older records for current information or noting the number of records available), but not relevant to searches or use of database from a user perspective.

Part IV: Semantics, Syntax, and Input Rules

4.1 Field Names and Semantics:

Field Name	Semantics
Item	Product name/title
Brand	Creator of product
Ingredients	List of ingredients, including known alternative names for those ingredients
Shades Available	Number of available shades for product
Packaging	Product packaging type, if known
Consistency	Product consistency
Placement	Typical application area of product
Type	Product type

¹ In categorizing makeup, there is no real subject. The closest correlation to Subject and Classification organization would be makeup type or placement (face, eyes, cheeks, lips) for subject, and classification as a more specific genre for that type/placement (ex: "Face: foundation" or "Face: Powder")

Certifications	Any certifications or endorsements of the product
Database Number	Order in which product was entered into the system

4.2: Record content and input rules

Field Name: Item

Semantics: Product name/title

Chief Source of Information: Product packaging or manufacturer's website

Input Rules: All words except articles are capitalized, one space between each word.

Non-repeatable field.

Example: Ultra HD Invisible Cover

Double Wear Stay-in-Place

Field Name: Brand

Semantics: Creator of product

Chief Source of Information: Product packaging or manufacturer's website

Input Rules: All words except articles are capitalized, one space between each word.

Non-repeatable field.

Example: Benefit Cosmetics

Fenty Beauty by Rihanna

Field Name: Ingredients

Semantics: List of ingredients, including known alternative names for those ingredients

Chief Source of Information: Product packaging, Agency for Toxic Substances and Disease Registry

Input Rules: Enter ingredients exactly as they appear on packaging with cross-referenced alternative names in parenthesis following their synonym. These alternative names should be listed before any provided sub-ingredients within the ingredient list. Alternative names and sub-ingredients separated by semi-colon, with ingredients separated by commas. Single space between words. Repeatable field, repeated for each separate ingredient.

Example: Propylene glycol (1,2-dihydroxypropane; 1,2-propanediol; methyl glycol; trimethyl glycol)

Dimethicone

Field Name: Shade

Semantics: Number of available shades for product

Chief Source of Information: Product packaging or manufacturer's website

Input Rules: Number of shades available entered numerically. Non-repeatable field.

Example: 4

38

Field Name: Packaging

Semantics: Product packaging type, if known.

Chief Source of Information: Product packaging or manufacturer's website

Input Rules: Capitalize the first word. Use standard packaging for "full-size" product (not sample or jumbo).

Example: Pump
Compact

Field Name: Consistency

Semantics: Product consistency

Chief Source of Information: Product or manufacturer's website

Input Rules: Capitalize first word. Hyphenate products that change consistency with original consistency and final consistency separated by "-to-". Non-repeatable field

Example: Gel
Liquid-to-powder

Field Name: Placement

Semantics: Typical application area of product

Chief Source of Information: Product packaging or manufacturer's website

Input Rules: Capitalize first letter. Repeatable field.

Example: Face
Eyelids

Field Name: Type

Semantics: Product type

Chief Source of Information: Product packaging or manufacturer's website

Input Rules: Capitalize first letter. Repeatable field. Items with more than one use should be labeled 'Multiuse.'

Example: Lip stick
Lip stain
Eyeshadow
Foundation

Field Name: Certifications

Semantics: Any certifications or endorsements of the product

Chief Source of Information: Product packaging, manufacturer's website, announcements following influential beauty awards

Input Rules: Capitalize first; lowercase all others, unless word is a proper name. No abbreviations. If award is listed, include year following award. Repeatable field.

Example: Allure Best of Beauty award 2016
Kosher
Vegan

Field Name: Record

Semantics: Unique numerical code given to each record and based on entry into catalog

Chief Source of Information: This field is created by the cataloger at time of creation.

Input Rules: Based on numerical previous entry, enter the next numerical value. Periods

will be used instead of commas for every thousandth item. Non-repeatable.

Example: 4

2.303

3.345.989

Part 5: Records for your objects

Item: Pro Filt'r Soft Matte Longwear

Brand: Fenty Beauty by Rihanna

Ingredients: Water, Dimethicone, Talc, Peg-10 Dimethicone, Trimethylsiloxysilicate, Polypropylene, Isododecane, Cetyl Peg/Ppg-10/1 Dimethicone, Nylon-12, Hdi/Trimethylol Hexyllactone Crosspolymer, Phenoxyethanol (Phenoxytol; Phenoxyethol; Rose ether; Phenyle cellosolve; Ethylene glycol monophenyl ether), Sodium Chloride, Hydrogen Dimethicone, Glycerin, Magnesium Sulfate, Sodium Dehydroacetate, Disteardimonium Hectorite, Aluminum Hydroxide, Methicone, Benzoic Acid, Dehydroacetic Acid, Propylene Carbonate, Ethylhexylglycerin, Parfum/Fragrance, Silica, Biosaccharide Gum-4, Ananas Sativus (Pineapple) Fruit Extract, Carica Papaya (Papaya) Fruit Extract, Paullinia Cupana Seed Extract, Potassium Sorbate, Sorbic Acid. May Contain (+/-): Titanium Dioxide (CI 77891), Iron Oxides (CI 77491, CI 77492, CI77499).

Shades Available: 40

Packaging: Bottle

Consistency: Liquid

Placement: Face

Type: Foundation

Certifications: Cruelty-free

Database Number: 1

Item: Multistick

Brand: Bite Beauty

Ingredients: Triisostearoyl Polyglyceryl-3 Dimer Dilinoleate*, Hydrogenated Ethylhexyl Oliviate*, Squalane*, Silica*, Coconut Alkanes*, C10-18 Triglyceride*, Cera Albla (Beeswax)**, Butyrospermum Parkii (Shea) Butter**, Euphorbia Cerifera (Candelilla) Wax**, Jojoba Esters*, Copernicia Cerifera (Carnauba) Wax**, Mica*, Helianthus Annuus (Sunflower) Wax, Bismuth Oxychloride*, Hydrogenated Olive Oil Unsaponifiables*, Flavor*, Stearoyl Glutamic Acid*, Coco-Caprylate/Caprates*, Tocopherol*, Acacia Decurrens Flower Wax*, Polyglycerin-3*, Trans-Resveratrol*, Vitis Vinifera (Grape) Seed Oil**. +/- May Contain: Titanium Dioxide (Ci 77891)*, Iron Oxides (Ci 77491, Ci 77492, Ci 77499)*, Carmine (Ci 75470)*, Blue 1 Lake (Ci 42090), Yellow 5 Lake (Ci 19140), Red 40 Lake (Ci 16035), Manganese Violet (Ci 77742)*. *Natural, **Organic.

Shades Available: 20

Packaging: Tube

Consistency: Cream-to-powder

Placement: Eyes

Placement: Lips

Placement: Cheeks

Type: Multiuse

Certifications: Cruelty-free

Database Number: 1.345

Item: Perfect Brow Pencil

Brand: Anastasia Beverly Hills

Ingredients: C10-18 Triglycerides, Hydrogenated Vegetable Oil, Mica, Hydrogenated Cottonseed Oil, Caprylic/Capric Triglyceride, Talc, Ascorbyl Palmitate, Tocopherol. May Contain: Iron Oxides (CI 77491, CI 77492, CI 77499).

Shades Available: 8

Packaging: Pencil

Consistency: Solid

Placement: Eyebrows

Type: Eyebrow pencil

Certifications:

Database Number: 74

Item: Agave Lip Balm

Brand: Bite Beauty

Ingredients: Lanolin* (Pharma Grade), Butyrospermum Parkii (Shea) Butter**, Hydrogenated Soybean Oil*, Glyceryl Rosinate*, Cera Alba (Beeswax)**, Ricinus Communis (Castor) Seed Oil**, Stearyl Alcohol*, Hydrated Silica*, Punica Granatum (Pomegranate) Sterols*, Copernica Cerifera (Carnauba) Wax**, Heptyl Undecylenate*, Crambe Abyssinica Seed Oil*, Mica*, Kaolin*, Olea Europaea (Olive) Oil Unsaponifiables*, Simmondsia Chinensis (Jojoba) Cera (Wax)*, Hydrogenated Cottonseed Oil*, Flavor (Aroma), Helianthus Annuus (Sunflower) Seed Wax*, Glycerin**, Tocopherol*, Sorbitan Stearate*, Vanilla Tahitensis (Vanilla) Fruit Extract*, Agave Tequilana (Blue Agave) Nectar**, Vanilla Planifolia (Vanilla) Fruit Extract*, Helianthus Annuus (Sunflower) Seed Oil**, Acacia Decurrens Wax*, Polyglycerin-3*, Trans-Resveratrol*, Vitis Vinifera (Grape) Seed Extract**. *Natural, **Organic.

Shades Available: 1

Packaging: Tube

Consistency: Solid

Placement: Lips

Type: Lip balm

Certifications: Cruelty-free

Database Number: 12.932

Item: Amazonian Clay 12-hour Blush

Brand: Tart

Ingredients: Talc, Zinc Stearate, Tricaprylin, Polyethylene, Caprylic/Capric Triglyceride, Cera Alba, PEG-150 Distearate, Lanolin, Laureth-4, Tocopherol, Polysorbate 20, Tetrasodium EDTA, Potassium Sorbate, Chlorphenesin, Ascorbyl Palmitate, Kaolin, Tin Oxide, Mica, Carmine (CI 75470). (+/-): Iron Oxides (CI 77491, CI 77492, CI 77499), Titanium Dioxide (CI 77891), Ultramarines (CI 77007), Manganese Violet (CI 77742), Bismuth Oxychloride (CI 77163), Red 6 And Red 7 Lake (CI 15850), Red 27 Lake (CI 45410), Yellow 5 Lake (CI 19140), Yellow 6 Lake (CI 15985), Blue 1 Lake (CI 42090).

Shades Available: 15

Packaging: Compact

Consistency: Pressed powder

Placement: Cheeks

Type: Blush

Certifications: Cruelty-free

Database Number: 46

Part 6: Project summary

For this project, I chose to tackle the organization of a makeup collection with the specific intent of allowing users to find makeup that does not contain ingredients to which they are allergic. I chose to veer away from the standard library collections because of my 12+ years working in public libraries. In that time, I have worked at over 25 libraries in two different systems, and have become quite familiar with some typical organizational styles. This experience made me want to challenge myself by organizing an unexpected type of material. I chose makeup, as it has long been a personal hobby of mine. I used to enjoy receiving boxes full of samples of new products, or purchasing sale items to try, and would review these items for friends, family, and other makeup enthusiasts online.

However, this all changed last November when I woke up with my face complete swollen, flaking, red, and irritated. A trip to Urgent Care left me on several medications that seemed to heal things, but a few weeks later the incident re-occurred. It was at this point that we discovered I was having a severe allergic reaction to something, and after months of careful attention to what I was using both in makeup and beauty products, and much allergy testing, we discovered I was allergic to several chemicals commonly found in makeup products. In trying to navigate what I could and couldn't use, I had difficulty searching every label and cross-referencing every ingredient by the 10-20 other names such ingredients could go by. It was a nearly impossible task, and I wished for a database that would simply list an ingredient and all its known names for me in the same space for an easy search. Or, better yet, provide me a list of makeup products that did not contain those specific ingredients. Thus, the Allergy Avoidance Makeup Collection was born.

The difficulty in best creating an organizational system for this collection is that it doesn't correspond neatly in all categories with the systems available. I had to discover the closest classification means using the existing vocabulary and terminology in the makeup industry and translate it into similar fields for typical library items for the organizational system to make sense for this project from a grading and learning perspective. There was the also the issue of cross-referencing ingredient lists (which were sometimes lengthy) on my own. It was a time-consuming process. However, I do believe my system is, at least for a first prototype, ideal in its organizational structure. It is both searchable from a user's perspective and sensible from a cataloger's perspective. While individual records may be a bit time-consuming to originally input, the pay-off is helpful to users and well-worth the effort.

I think the hardest part of the assignment was making sure I understood how to translate the typical library definitions and categorizations/attributes that I'm used to into a new vocabulary, and then picking items that appropriately represented the vast multitude of items and information without spending all my time seeking them out. I was able to identify what I believe

to be a strong sampling of products and how they might be organized in a database collection such as I have proposed.

While I would love to implement this system for an operational collection, the idea behind it might be too big for me to take on my own. It might be something I work on based on product use, and for my own reference, it is not likely to become something public due to the amount of time it would take to input and maintain without seeking help. I may, eventually decide to try it and reach out to other makeup enthusiasts, but I do think it's unlikely to be anytime in the near future.