



Frequently Asked Questions:

Community-engaged study on formaldehyde releasing preservatives in personal care products

We recently published [a study](#) in *Environmental Science & Technology Letters* in which we identified formaldehyde releasing preservatives listed on the ingredient labels for a wide range of personal care products. The research was part of the [Taking Stock Study](#), a community-academic research partnership between Occidental College, Black Women for Wellness, Silent Spring Institute, and Columbia University. We recruited 70 Black women and Latinas living in the Los Angeles area and asked them to track their use of personal care products over the course of a week. Participants used a smartphone app developed for the study to log their products and capture photos of the ingredient labels. We then analyzed the ingredient lists to determine if the products contained formaldehyde releasing preservatives.

Why did we ask participants to take photos of the products' labels?

- We asked participants to take photos of their products because we needed the most accurate information about the products they were using. Compared with online databases of ingredient lists, which are sometimes outdated, ingredient labels on the products themselves provide the most up-to-date information on the products' contents.
- We created a smartphone app that allowed participants to collect detailed information about the personal care products they used on a regular basis. Participants were asked to provide the name of the product and the product category (e.g., skincare), as well as answer questions about how they obtained the product.
- For each product, the app prompted participants to take a photo of the front of the product as well as the ingredient list. Participants were also asked to log each time they used the product over a period of five to seven days.

What did we do with the photos?

- We used optical character recognition (OCR) to convert the images of the ingredient labels into machine readable text. To assess the accuracy of the technology, we used two different approaches – one developed by Silent Spring and the other developed by Clearya. Only products with information from both approaches were included in the analysis.
- From the OCR results, we developed an ingredient database covering more than 1,100 personal care products used by participants in the Taking Stock Study. Each entry included the ingredient

name as well as the Chemical Abstract Service (CAS) number allowing us to search for specific ingredients without needing to account for chemical synonyms.

What did we find?

- We identified formaldehyde releasing preservatives in 3.6% of the personal care products used by Taking Stock participants.
- The products spanned a range of categories including body lotions, soaps, hair products, and some cosmetics.
- Of the products we found that listed formaldehyde releasing preservatives on the label, 20 (49%) were body lotions.
- DMDM hydantoin was the most common formaldehyde releasing preservative. Roughly 47% of skincare products and 58% of hair products with formaldehyde-releasing preservatives contained DMDM hydantoin ([see table](#)).

Do all body lotions list formaldehyde releasing preservatives on the label?

- Of the 95 body lotions we analyzed, 20 (21%) contained formaldehyde releasing preservatives.
- The fact that nearly 80% of body lotions did not contain any formaldehyde releasing preservatives suggests alternatives are available.
- Our product label analysis shows that it's possible for consumers to identify safer products that don't contain formaldehyde releasing preservatives by reading the ingredient list. We know that product formulations may change over time, therefore it may be more effective for people to look at the list of ingredients on a product rather than make purchasing decisions based on specific brands.

What are the potential health effects of using products with formaldehyde releasing preservatives?

- These chemicals are designed to release formaldehyde in the product, acting as a preservative to extend the product's shelf life. Scientists and health professionals are concerned about people's exposure to formaldehyde because it is classified as carcinogenic to humans by the International Association for Research on Cancer (IARC Group 1). Furthermore, there is no safe level of exposure to a carcinogen and consumers should be aware if they are using a product that contains a carcinogen.
- Formaldehyde is also used in other consumer products, including building materials and furniture. Therefore people can be exposed to the carcinogen from multiple sources, including personal care products, and these exposures add up.

Are there any laws regulating or restricting the use of formaldehyde and formaldehyde releasing preservatives in personal care products?

- Several U.S. states, including Washington and California, have laws that prohibit the use of formaldehyde and some formaldehyde releasing preservatives in personal care products.
- In 2023, the U.S. Food and Drug Administration proposed a ban on the use of formaldehyde in hair straightening products, however, that ban has been delayed.

- Formaldehyde is prohibited in personal care products in Europe. Additionally, any cosmetics sold in Europe that contain formaldehyde-releasing preservatives must display a warning that says 'releases formaldehyde' if the resulting concentration of formaldehyde in the product exceeds 0.001%.

Reference: Dodson, R.E., E.T. Franklin, A.R. Zota, R. LaPointe Jameson, J. Robinson Flint, L. Edwards, E.B. Weaver, B. Shamasunder. 2025. **Formaldehyde and formaldehyde releasing preservatives in personal care products used by Black women and Latinas.** *Environmental Science & Technology Letters*. DOI: [10.1021/acs.estlett.5c00242](https://doi.org/10.1021/acs.estlett.5c00242)