

April 11, 2025

Stacey Callaway, WA Department of Ecology, PO Box 47600, Olympia, WA 98504-7600

Re: Chapter 173-339 WAC

Dear Ms Callaway:

We are writing to share our research relevant to the proposed rulemaking Chapter 173-339 WAC, which restricts formaldehyde and formaldehyde releasers intentionally used in cosmetic products

The **Taking Stock Study**, a community-academic research study focused on consumer product use and chemical exposures among women of color living in California. As part of the study, in 2021, we asked 70 women (Black women and Latinas living in South Los Angeles) to log their product use over one week and also take photos of the ingredient lists on their products. We used this information to create a detailed product ingredient database based on products that our study participants are using.

We recently analyzed this ingredient data set to identify personal care products—skincare, haircare, cosmetics—that listed formaldehyde and/or formaldehyde releasing preservatives as ingredients. Like the Department of Ecology, we used a list of 35 formaldehyde releasers presented in de Groot et al. 2009. A scientific manuscript summarizing our findings is currently undergoing peer-review.

Over half of the Taking Stock participants—Black women and Latinas living in South LA—are using products with formaldehyde releasers. These include body lotions, soaps and cleaners, and hair products. Women in this study reported using many of these products several times a week, some lotions and cleansers were used multiple times a day. The majority of products identified with formaldehyde releasers were used at least twice over the one-week study period.

Looking across all personal care products used by participants in our study, we found that **about** 4% of products listed formaldehyde releasers as ingredients. We compared that to national data from the United States Environmental Protection Agency's (EPA) Consumer Product Database (also known as CPDat). In the national dataset, we found that approximately 8% of personal care

¹ de Groot AC, Flyvholm MA, Lensen G, Menné T, Coenraads PJ. Formaldehyde-releasers: relationship to formaldehyde contact allergy. Contact allergy to formaldehyde and inventory of formaldehyde-releasers. Contact Dermatitis. 2009 Aug;61(2):63-85. doi: 10.1111/j.1600-0536.2009.01582.x.

products listed formaldehyde and/or formaldehyde releasers. Previous estimates were higher—approximately 15 to 20% of products.^{2,3} And, while the overall prevalence of formaldehyde releasers in products may seem relatively low, we can see from our data that formaldehyde releasers are found in commonly used products; hence, half of our study participants are using products with formaldehyde releasers listed on the products.

Similar to Department of Ecology's own analysis, **DMDM hydantoin was the most common formaldehyde releaser** listed on products used by our Taking Stock Study products and the EPA's Consumer Product Database (CPDat). Both diazolidinyl urea and imidazolidinyl urea were also common.

As noted in Ecology's documents, "chemicals that release formaldehyde don't have a commonly used structural chemical definition." They do not have common naming conventions so that consumers can readily identify them within an ingredient list. For consumer who want to avoid these chemicals, they cannot be expected to read labels for chemicals like DMDM hydantoin, diazolidinyl urea, and imidazolindyl urea. We shouldn't be putting this burden on the consumer. Instead, restricting the use of these chemicals in personal care products will better protect consumers from exposure to formaldehyde, a known carcinogen.

On behalf of the Taking Stock Study team, we hope our study findings are helpful as you consider this rulemaking.

Sincerely,

Bhavna Shamasunder, Ph.D.

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University of California, Santa Barbara

Taking Stock Study Principal Investigator

Robin Dodson, Sc.D. Silent Spring Institute

John SI) advo

Taking Stock Study Co-Investigator

Ami Zota, Sc.D. Columbia University

Taking Stock Study Co-Investigator

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² de Groot AC, White IR, Flyvholm MA, Lensen G, Coenraads PJ. Formaldehyde-releasers in cosmetics: relationship to formaldehyde contact allergy. Part 1. Characterization, frequency and relevance of sensitization, and frequency of use in cosmetics. Contact Dermatitis. 2010 Jan;62(1):2-17. doi: 10.1111/j.1600-0536.2009.01615.x.

³ Johnson PI, Favela K, Jarin J, Le AM, Clark PY, Fu L, Gillis AD, Morga N, Nguyen C, Harley KG. Chemicals of concern in personal care products used by women of color in three communities of California. J Expo Sci Environ Epidemiol. 2022 Nov;32(6):864-876. doi: 10.1038/s41370-022-00485-y.