

February 8, 2007

EWG Research Shows 22 Percent of All Cosmetics May Be Contaminated With Cancer-Causing Impurity

New Product Tests Find Contaminant Above Government-Recommended Limits

Many of the cosmetic industry's chemical safety assessments reveal that common petroleum-based cosmetic ingredients can be contaminated with a cancer-causing impurity called 1,4-dioxane. Studies show that this chemical readily penetrates the skin. EPA classifies it as a probable human carcinogen, and the National Toxicology Program considers it a known animal carcinogen. Although companies can easily remove it from ingredients during manufacture, tests documenting its common presence in products show that they often don't, leaving their customers at risk for potential chronic and widespread exposures to this cancer-causing compound.

In a new, computerized assessment of ingredients in 15,000 cosmetics and other personal care products, Environmental Working Group (EWG) researchers found that 22 percent of all products may be contaminated with 1,4-dioxane, based on its common presence in workhorse detergent-like ingredients that the cosmetics industry uses in a wide array of products. This finding is confirmed by new product tests finding this cancer-causing chemical in 18 of more than two dozen products, including 15 products for babies and children.

Our analysis shows that 1,4-dioxane may be present in 57% of all baby soaps, and 34% of all body lotions. The potential for contamination with 1,4-dioxane is highest for 11 of 62 product types assessed, where the contaminant could be found in at least one-third, and up to 97 percent, of all products:

- 97% - hair relaxers
- 82% - hair dyes and bleaching
- 66% - hair removers
- 57% - baby soap
- 45% - sunless tanning products
- 43% - body firming lotion
- 36% - hormonal creams
- 36% - facial moisturizers
- 35% - anti-aging products
- 34% - body lotion
- 33% - around-eye creams

When it comes to harmful impurities in cosmetics, 1,4-dioxane is just the tip of the iceberg. Our analyses show that 80 percent of all products may be contaminated with one or more of the two dozen recognized cosmetic impurities that are linked to cancer and other health concerns. These trace contaminants in petroleum-based ingredients often readily penetrate the skin according to government and industry studies, and their presence in products is not restricted by government safety standards — they are legal at any level.

In our 2004 online survey of the cosmetics and personal care products used by 2,300 people, we found that impurities are so ubiquitous that one of every five adults is potentially exposed every day to all of the top seven carcinogenic impurities common to personal care product ingredients — hydroquinone, ethylene dioxide, 1,4-dioxane, formaldehyde, nitrosamines, PAHs, and acrylamide. The top most common impurity ranked by number of people exposed is hydroquinone, which is a potential contaminant in products used daily by 94 percent of all women and 69 percent of all men, and which is the subject of a recent FDA proposal to regulate all products containing the chemical as drugs.

FDA, the agency that regulates the safety of personal care products, cannot require safety testing of products before they are sold, and does not systematically assess the safety of ingredients. Instead, the cosmetic industry polices the safety of its own products through a safety panel that is run and funded by the industry's trade association. In the absence of mandated testing or even Agency guidance on product safety, some companies make products safe enough to eat, while other companies add carcinogens to their formulations. Until cosmetic safety standards are overhauled, consumers must choose products carefully, with an eye toward avoiding potentially hazardous ingredients.

As a start, we recommend that consumers choose products free of carcinogenic impurities. To avoid 1,4-dioxane, read ingredient labels and avoid any of the 56 cosmetic ingredients that can contain the contaminant, including "sodium laureth sulfate" and ingredients that include the clauses "PEG," "xynol," "cetareth," and "oleth."