Why This Matters — Cosmetics and Your Health

[By Environmental Working Group]

Have you ever counted how many cosmetics or personal care products you use in a day? Chances are it's nearly 10. And chances are good that they include shampoo, toothpaste, soap, deodorant, hair conditioner, lip balm, sunscreen, body lotion, shaving products if you're a man, and cosmetics if you are a woman.

Most people use these products without a second thought, and believe that the government must certainly be policing the safety of the mixtures in these myriad containers. But they are wrong about this. The government does not require health studies or pre-market testing for these products before they are sold.

And as people apply an average of 126 unique ingredients on their skin daily, these chemicals, whether they seep through the skin, rinse down the drain, or flush down the toilet in human excretions, are causing concerns for human health, and for the impacts they may have to wildlife, rivers and streams.

Why personal care products?

At first blush it may seem that mascara and shaving cream have little relevance to the broader world of environmental health. Think again. In August 2005, when scientists published a study finding a relationship between plasticizers called phthalates and ***feminization of U.S. male babies***, they named fragrance as a possible culprit.

When estrogenic industrial chemicals called parabens were found in human ***breast tumor tissue*** earlier this year, researchers questioned if deodorant was the source. And when studies show, again and again, that ***hormone systems in wildlife*** are thrown in disarray by common water pollutants, once again the list of culprits include personal care products, rinsing down drains and into rivers.

At the Environmental Working Group we have researched and advocated on personal care product safety for five years now, and consider it an integral part of our work to strengthen our system of public health protections from industrial chemicals. Here's why:

- **Industrial chemicals are basic ingredients in personal care products.** The 10,500 unique chemical ingredients in these products equate to about one of every eight of the 82,000 chemicals registered for use in the U.S. Personal care products contain carcinogens, pesticides, reproductive toxins, endocrine disruptors, plasticizers, degreasers, and surfactants. They are the chemical industry in a bottle.
- **No premarket safety testing required** — this is a reality of both the personal care product industry and the broader chemical industry as a whole.
- **Everyone uses personal care products.** Exposures are widespread, and for some people, extensive. Our 2004 product use survey shows that more than a quarter of all women and one of every 100 men use at least 15 products daily. These exposures add up, and raise questions about the potential health risks from the myriad of unassessed ingredients migrating into the bodies of nearly every American, day after day.

No safety testing.

According to the agency that regulates cosmetics, the FDA's Office of Cosmetics and Colors, ***"...a cosmetic manufacturer may use almost any raw material as a cosmetic ingredient and market the product without an approval from FDA"*** (FDA 1995).

The industry's self-policing safety panel falls far short of compensating for the lack of government oversight. An EWG analysis found that in its 30-year history, the industry's self-policing safety panel has reviewed the safety of just 11 percent of the 10,500 ingredients used in personal care products. FDA does no systematic reviews of safety. And collectively, the

ingredients in personal care products account for one of every eight of the 82,000 chemicals industries have registered for commercial use with the Environmental Protection Agency.

- *Eighty-nine (89) percent of the 10,500 ingredients FDA has determined are used in personal care products have not been evaluated for safety by the CIR, the FDA, or any other publicly accountable institution.*

Companies choose to use known human carcinogens or developmental toxins like coal tar and lead acetate. When risky chemicals are used in cosmetics, the stakes are high.

These are not just trace contaminants like those found at part-per-million or even part-per-billion levels in food and water. *These are the base ingredients of the product, just as flour is an ingredient in bread.*

These chemicals are found in percent levels in personal care products, nearly all easily penetrate the skin, and some we ingest directly from our lips or hands.

Are our products harming our health?

To learn about the safety of ingredients in personal care products, the Environmental Working Group compiled an electronic database of ingredient labels for 14,100 name-brand products and cross-linked it with 37 toxicity or regulatory databases. Here's what we found:

- More than one-third of all personal care products contains at least one ingredient linked to **cancer**.
- 57 percent of all products contain "**penetration enhancer**" chemicals that can drive other ingredients faster and deeper into the skin to the blood vessels below.
- 79 percent of all products contain ingredients that may contain harmful **impurities** like known human carcinogens, according to FDA or industry reviews. Impurities are legal and unrestricted for the personal care product industry.

At Environmental Working Group we consider these results cause for concern. *Cosmetic ingredients do not sit tight of the surface of the skin — they are designed to penetrate, and they do.*

Scientists have found many common cosmetic ingredient in human tissues, including industrial plasticizers called phthalates in urine, preservatives called parabens in breast tumor tissue, and persistent fragrance components like musk xylene in human fat.

A recent study showing feminization of human male babies in the U.S. linked to a common fragrance component (diethyl phthalate) joins a small but growing number of studies that serve as scientific red flags when it comes to the safety of ingredients in personal care products.