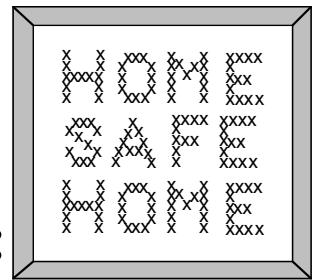


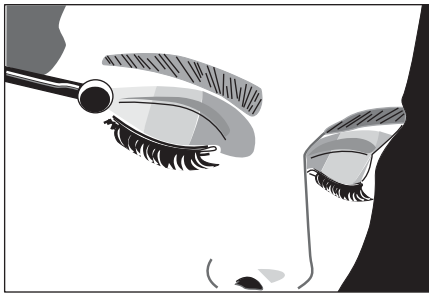
Alternatives

A Washington Toxics Coalition Fact Sheet



Cosmetics and Personal-Care Products: Avoiding Bodily Harm

by Philip Dickey



If you think you don't use cosmetics, think again. Legally, the term cosmetics includes any products you apply to your body that are not drugs. Haircolor, shampoo and conditioner, hand soap, deodorant, suntan lotion, and hand lotion are all cosmetics, just like lipstick, makeup, and nail polish. A recent survey found that the average adult uses nine cosmetic products every day, with a total of 126 different ingredients. Most of us use these products without a thought as to their safety. But considering that they are applied directly to our bodies, these products are regulated quite loosely in the United States. In recent years concerns have been raised about several ingredients used in cosmetics, some of which are turning up in our bodies in unexpected amounts. What does this mean for your health, and how can you choose safer products? This fact sheet is designed to help answer those questions.

Regulation, Testing, and Labeling

Cosmetics are regulated by the Food and Drug Administration (FDA), but compared to food and drugs, cosmetic products receive little government scrutiny. Except for nine chemicals that are prohibited or highly restricted, as well as color additives, which are strictly regulated, virtually anything can be put in a cosmetic product. No safety testing is required. FDA, in its own words, "is only able to regulate cosmetics after products are released to the marketplace. Neither cosmetic products nor cosmetic ingredients are reviewed or approved by FDA before they are sold to the public. FDA cannot require companies to do safety testing of their cosmetic products before marketing." Consumers must place their trust in the manufacturers' own safety assessments. These assessments are now being called into question, and some companies are abandoning ingredients they formerly considered safe. (Regulation is more stringent in Europe. A new law that went into effect in October 2004 prohibits the use of known or suspected carcinogens, mutagens, and reproductive toxicants in cosmetics in the European Union.)

The main safeguard for users of cosmetic products is the label. The label contains warning statements designed to avoid improper product use, such as "do not smoke while using" on a hairspray product containing alcohol and propane. The label also contains a list of ingredients, with the most prominent ingredients listed first. Unfortunately, companies can hide specific ingredients from the list in two ways: identify them as a fragrance or flavoring (see sidebar on phthalates) or claim that their identity is a trade secret.

Many ingredients that are listed have complicated names like cocamidopropyl hydroxysultaine or methylchloroisothiazolinone. Some folks may believe that chemicals with long names must be especially harmful, but it is not necessarily the case: 25-hydroxycholecalciferol (vitamin D compound, long name, necessary for good health) and lead (short name, extremely toxic, no safe dose known). You need to do some homework first.

Cosmetic product labels do not use the signal words *caution*, *warning*, and *danger* that indicate increasing levels of hazard on other kinds of consumer or household products. If you see the words caution or warning on a cosmetic label, it essentially



means “pay attention” but does not signify a particular level of hazard.

Hazards

Cosmetics can pose various short-term hazards, such as flammability (hairspray, deodorant, nail polish remover) or skin irritation (e.g. hair colors). Products contain a wide variety of ingredients, including many different dyes and fragrances. Some ingredients can cause allergic reactions or sensitivity in certain individuals. Others may cause cancer or other serious illness.

Recently, concerns have been raised about some specific ingredients in cosmetics (see sidebar). Many of these ingredients can cause health effects from inhalation or skin exposure through continued use. Testing has shown that some of these ingredients make their way inside our bodies, sometimes in amounts that could be harmful. The safety of particular ingredients is often controversial, and removing them from products can take years, even after the risk is documented. Some companies are responding to consumer health and safety concerns and are removing certain ingredients voluntarily without being required by law or regulation to do so. (See “Shop carefully” below, and Phthalates sidebar.)

Some ingredients in cosmetics, such as certain detergents, alcohols, and plant oils can irritate your skin if there is enough of the ingredient in the product. If these ingredients are used in small amounts, they may have no health effects at all and are of little concern. Ingredients with very serious health effects or those that can build up in our bodies or the environment (like those listed in the sidebar) can be a problem even in small amounts.

Specific Products

We don’t have space to consider every type of cosmetic product here, but let’s look at a few of the more commonly used ones.

• hair color

Hair coloring products are among the more hazardous cosmetics. Least dangerous are probably the temporary dyes. Permanent dyes contain a mixture of potent chemicals that can cause skin, eye, or respiratory irritation at the least and more serious health effects such as cancer are possible. The gradual hair colors may contain lead acetate. Lead is an extremely toxic chemical that harms children’s intelligence, and no safe level of has been found. Although the FDA has specifically stated that lead-based hair dyes are safe if used as directed, we suggest that you avoid them as a precaution, especially if you will have contact with children. Another ingredient of concern is dye made from coal tar.

• fragrances

Perfumes, colognes, after-shave lotions, and other scented products contain volatile chemicals meant to be inhaled. Some people find these odors pleasant, even alluring, while others have adverse reactions. Be sensitive to your friends’ and colleagues’ requests to spare them from your perfumes and other fragrances (remember that they linger on clothing). The myriad ingredients in fragrances are mostly highly secret, but recent research has shown that most fragrance products contain toxic chemicals called phthalates that may cause health problems (see sidebar).

• nail polish and remover

Nail polish is essentially a solvent-based paint, and nail polish remover is like paint remover. Most are highly flammable, and over-exposure can be bad for your health. Like fragrances, many polishes have also been found to contain phthalates, but nail polishes contain the more toxic DBP form (see sidebar). Leftover products are usually classified as hazardous waste for disposal purposes (see disposal sidebar).

Ingredients of Concern

coal-tar colors: dyes derived from coal tar; many are carcinogenic.

diethanolamine (DEA): shown to cause cancer in mice (but not rats) from skin contact; absorbed into body. DEA itself is rarely used in cosmetics, but derivatives such as cocamide DEA are common and may be contaminated with DEA. The FDA is investigating and suggests that consumers who wish to avoid DEA and its derivatives use ingredient lists to do so. Related ingredients MEA and TEA are less hazardous themselves but may also be contaminated with small amounts of DEA.

formaldehyde: carcinogen and sensitizer.

metals, esp. lead and mercury: neurotoxic even at small doses.

nonoxynol (or nonylphenol ethoxylate): breaks down in water treatment into nonylphenol, a synthetic estrogen that feminizes male fish.

parabens: preservatives that cause endocrine-system effects.

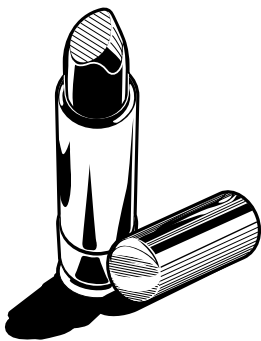
phenylenediamine: reactive ingredient in hair dyes; may be carcinogenic.

phthalates: group of chemicals, some of which may cause reproductive or developmental effects. See sidebar on opposite page. Not identified on labels of cosmetics because they are usually fragrance ingredients.

triclosan: antibacterial ingredient widely used in soaps and detergents. May promote resistance, making germs harder to control. For more information, see chapter 2, beginning on page 9.

Focus on Phthalates

Phthalates are plasticizers used in all kinds of products. Reproductive effects and birth defects are a concern for those most highly exposed, especially women of reproductive age. Two types (DEP and DBP) often used in cosmetics are often found in our bodies. DEP is common in fragrances and is found in many cosmetics. DBP is usually found in nail polish. Recent studies have shown that phthalate exposure is higher and more common than previously thought. Health advocates are calling for the removal of phthalates from products. To find lists of cosmetics that do and don't contain phthalates, go to the Not Too Pretty website (see link in Resources box). As a result of consumer pressure, L'Oreal, Revlon, Estee Lauder, and Unilever have taken the important first step of agreeing to remove two phthalates, DEHP and DBP, from their products sold in the United States and globally.



• deodorants and antiperspirants

Aerosol deodorants are pressurized and usually highly flammable, thanks to lots of alcohol and propellant gas, with the potential to become blowtorches. Many deodorants and antiperspirants contain toxic phthalates as well. Partially full containers are considered hazardous waste for disposal purposes.

• hair spray

Spraying your hair with plastic may seem like a strange thing to do, but the application of these gravity- and wind-defying products continues to be popular, though perhaps not in the amounts required by 1970s hairstyles. Flammability is an obvious hazard with most of them, so smokers should allow plenty of drying time before lighting up. Many hair sprays, as well as mousses and gels, have been shown to contain phthalates. Partially full containers are considered hazardous waste for disposal purposes.

• makeup

The various paints, powders, and other concoctions known as makeup are too diverse to discuss in a single description. Of particular concern here may be some of the artificial colors if they contain coal-tar pigments (see sidebar).

• hand soap

Soaps are generally fairly benign and essential for good hygiene. We do suggest that you stay away from soaps marketed as “antibacterial.” There is considerable doubt that these products are necessary—thorough washing with hot water and plain soap is adequate—and concerns have been expressed in the public health community that these antibacterial ingredients may foster growth of bacteria that become resistant to control. For more information, see our fact sheet *Antimicrobial Products, Who Needs Them?*

• lotions

Few cosmetic products have as significant and long-term skin contact as lotions. They are used frequently, applied to large areas of skin, and are rubbed in thoroughly. They mainly consist of various oils and alcohols, and, of course, fragrances. Many, however, also contain phthalates.

What's a Body to Do?

Many cosmetic products are necessary, and others are desired by a large fraction of the population. While it makes sense to avoid unnecessary use of any chemical products, especially ones applied to our bodies, abstinence (from cosmetics) will not be a complete solution for most people. So, we are left with selecting safer products and working for more regulation and corporate responsibility.

Shop Carefully

You can read labels and avoid obvious labeled hazards and the ingredients listed in the sidebar, but remember that phthalates are rarely identified. Or, you can choose by brands. Unfortunately, there is some inconsistency in recommendations among different publications, but we believe that the following sources are reliable:

Products without phthalates: see the report *Not too Pretty* at www.nottoopretty.org/report.htm

An online searchable database of toxic chemicals in cosmetics and personal care products and safer alternatives can be found at www.ewg.org/reports/skindeep.

Companies recommended by *The Green Guide* (www.thegreenguide.com): Aveda, Real Purity, Logona, and Sante Kosmetics

Companies that have pledged not to use chemicals that are known or strongly suspected of causing cancer, mutation, or birth defects in their products and to implement substitution plans that replace hazardous materials with safer alternatives in every market they serve. (<http://www.safecosmetics.org/companies/signers.cfm>)

Be wary of claims that cosmetic products are “natural” or “organic.” These terms have no official definitions in chemical products and are often used in misleading ways. Some naturally derived materials are very toxic or may have synthetic components, while some synthetic chemicals are very benign. “Organic” means something when applied to food but has a very different definition in chemistry. Without more information, these terms are not useful to evaluate cosmetic products.

Speak Out

If you find that the products you use are hazardous or contain highly toxic ingredients, stop buying them, certainly, but also let the manufacturer know what you think. If you’re not sure about a particular product, we think it’s better to be safe than sorry. Either way, write a letter or e-mail, or call their consumer comment line. When consumers speak with a single voice, companies ignore it at their economic peril.

Join the Movement

The Washington Toxics Coalition and other groups we work with are striving to phase out the worst chemicals in cosmetics and other products. By becoming a member, you help support our work and add your voice to the growing chorus demanding better regulations and safer products. We are having an effect. Don’t go it alone; join us. ■

Resources

The Safe Shoppers Bible by David Steinman and Samuel Epstein. Macmillan. 1995.

Skin Deep: a safety assessment of ingredients in personal care products. Includes a searchable database of 7500 products. (www.ewg.org/reports/skindeep/browse_products.php)

Not Too Pretty, Phthalates in Cosmetic Products, (www.nottoopretty.org/report.htm)

The Campaign for Safe Cosmetics. (www.safecosmetics.org)

List of companies that have signed the Compact for Global Production of Safe Health and Beauty Products. (<http://www.safecosmetics.org/companies/signers.cfm>)

The Washington Toxics Coalition is a non-profit organization dedicated to protecting public health and the environment by identifying and promoting alternatives to toxic chemicals. Please write or phone for information: WTC, 4649 Sunnyside Ave N, Suite 540, Seattle, WA 98103. Phone: 206-632-1545. Visit our Internet Web site at www.watoxics.org.

The Washington Toxics Coalition assumes no responsibility for any injury or damage resulting from the use or effect of any product or information specified in this publication. Mention of particular products by name does not constitute an official endorsement.

Summary

Why be concerned?

- ❖ You probably use more cosmetics than you think.
- ❖ Safety testing is not required.
- ❖ Cosmetic labels list most ingredients but the names are confusing.
- ❖ Toxic ingredients in fragrances don’t have to be listed.

What you can do

- ❖ Read the label before buying. Learn what to avoid and why.
- ❖ Support companies that have pledged to use only non-toxic ingredients.
- ❖ Go easy on fragrances, especially in public places.
- ❖ Learn more (see “Resources”).
- ❖ Get involved and make your voice heard.

Disposal of Cosmetics

Some cosmetic products are considered hazardous waste when they are no longer wanted. In general, these are flammable products such as aerosol deodorants, hairspray, nail polish, and nail polish remover. Some other bottles in your medicine cabinet may contain hazardous materials, such as rubbing alcohol or certain drugs. Check with your solid waste agency or health department for local disposal guidelines. In Seattle/King County, call the Hazards Line at 206-296-4692 or 1-888-TOXIC-ED, or go to www.govlink.org/hazwaste/house/disposal.