



Association pour la santé environnementale du Québec  
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### Beauty Products for Skin & Hair: Health and Environmental Effects

Beauty products and cosmetics make up a growing and evolving industry (Lopaciuk & Loboda, 2013). Beauty care products include lotions, face wash, shampoos, deodorants, perfumes, and many more. As consumers are likely to use such products regularly, it is important to evaluate them more cautiously. Additionally, as beauty brands are expanding, concerns for the environment begin to rise. The following article will cover health and environmental issues that are attached to beauty care products.

#### ***What is in your product?***

The best way to evaluate a product is by scanning the ingredients that are indicated on the label. The following table lists some toxins commonly found in beauty products and their health effects.

Toxins	Products	Health Effects
<b>Phthalates:</b> <i>plasticizer</i>	Hair sprays, deodorants, creams, perfumes	The absorption of phthalates in large quantities has been shown to decrease the proper functioning of the endocrine system and can be

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		especially problematic for pregnant women (Frederiksen et al., 2007).
<b>Parabens:</b> <i>product scent</i>	Makeup, moisturizers, shaving products	Studies have shown a link between prolonged paraben exposure and DNA damage leading to the growth of cancer cells (Bledzka et al., 2014). Parabens are suspected for the development of breast cancer and the disruption of the thyroid hormone.
<b>Imidazolidinyl Urea:</b> <i>preservative</i>	Face masks, hair dyes, makeup, shaving products	Imidazolidinyl urea turns into formaldehyde through a chemical reaction, and as a result, it can cause skin irritation in certain individuals (De Groot & Veenstra, 2010).
<b>Siloxanes:</b> <i>silicones</i>	Hair products, moisturizers, deodorants	Silicones can be valuable in medical products, but in the production of beauty products, silicone use may not be properly regulated, creating possibly toxic and potentially carcinogenic products (Mojsiewicz-Pienkowska et al., 2016).
<b>Triclosan:</b> <i>anti-bacterial agent</i>	Deodorants, hand sanitizers, cleansers	Triclosan has been found in human urine, blood, and breast milk (Wang & Tian, 2015). It disrupts the endocrine system, especially reproductive hormones like testosterone and estrogen.
<b>Diethanolamides (DEA):</b> <i>foaming agent, viscous</i>	Moisturizers, shampoo, sunscreen	In certain individuals, some forms DEA can cause skin irritation such as dermatitis (Fiume et al., 2013). Nonhuman studies show that DEA could also have carcinogenic effects at elevated concentrations.

It is important to note that this list is by no means all-inclusive. Other toxins in beauty products include butylated compounds (e.g., BHA), dyes and colors, fragrances, petrolatum, polyethylene glycols (PEGs), and sodium laureth sulfate ("The Dirty Dozen': Cosmetic Chemicals to Avoid", 2020). These toxins can be

found in a variety of personal care products, and prolonged exposure may have negative effects on health depending on the individual.

### ***Are your products good for the environment?***

Some of the toxins mentioned above are known pollutants. These include phthalates, siloxanes, and triclosan amongst others (Bledzka et al., 2014; Dann & Hontela, 2010; Fromme et al., 2002). Another way beauty products contribute to pollution is through the growth of the cosmetic industry because growing industries produce a higher amount of waste over time (Hettige et al., 2000). Product packaging made of plastic also adds to current plastic pollution (Purwanto & Permana-Citra, 2019). Fortunately, there are alternatives in the making. Researchers in Italy formed ecological packaging made from biodegradable materials that can be composted (Cinelli et al., 2019). Otherwise, glass packaging is also a good option as it can be recycled indefinitely (Shivsharan et al., 2014).

### ***Some final tips for shopping and alternatives:***

- For healthy products and solutions, visit [www.EcoLivingGuide.ca](http://www.EcoLivingGuide.ca) from the Environmental Health Association of Québec
- Use mobile applications like *Think Dirty* and *EWG's Healthy Living* that allow for quick identification of toxic ingredients and health concerns (Environmental Working Group, 2013; Think Dirty, 2016). Both of these applications also indicate sources that can be visited for detailed information.
- Look for products that come in ecological packaging such as glass. Certain brands may offer refillable options that can help reduce packaging waste.
- Buy from local brands like Zorah Biocosmetiques (certified by Ecocert) and Reversa (vegan and cruelty-free) that create eco-friendly and safe beauty products.

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