

Toxins	Description
Lead	A neurotoxin that can accumulate in the body over time. Found in lipsticks, hair dyes, hair care, etc. Often listed as lead and lead acetate.
Mercury	Known to cause damage to the brain and diminish function. Found in mascaras, etc. Often listed as mercury, thimerosal, mercuric oxide, phenyl mercuric acetate, and phenyl mercuric benzoate.
Pthalates	These tiny plasticizers can cause infertility, feminization of baby boys and sperm damage. Found in "fragrance," nail polish, nail treatment, etc. Often listed as phthalate, dibutyl phthalate and diethyl phthalate. These tricky toxins can legally be left out of ingredient list, encompassed under "fragrance." So when buying a product that does not specify fragrance as being naturally derived, I suggest contacting the company.
Hydroquinone	This skin bleaching ingredient can cause ochronosis, an irreversible skin condition causing black and black raised bumps on the skin. Found in skin lighteners, anti-agers, hair color/bleach, SPF products, concealer, acne treatments, astringent/toners, etc. Often listed as hydroquinone.
Petroleum	Byproducts of this non-renewable, industrial resource still make their way into cosmetic products despite the high-incidence of cancer causing contaminants. Found in facial cleansers, moisturizers, facial treatments, styling products, eye make-up, soap, anti-perspirants, concealer, sunscreens, etc. Often listed as petroleum, petrolatum, petroleum distillates, mineral oil, mineral spirits, unspecified waxes and paraffins.
Parabens	These estrogen-mimickers have been found in breast tumors, linked to breast cancer and known to cause hormonal activity in the body. Found in deodorants, lotions, eye shadows, shampoos, facial cleansers, body washes, facial moisturizers, etc. Often listed as methylparaben, ethylparaben, propylparaben, butylparaben, isobutylparaben, (I pretty much avoid anything ending in "paraben").
Sodium Lauryl Sulfates	These commonly found chemicals have been shown to cause severe changes to the skin, though studies linking them to cancer are still debatable. Found in toothpastes, shampoos, facial cleansers, body wash, acne treatment, exfoliants, moisturizers, hair color/bleach, etc. Often listed as sodium lauryl sulfate, sodium dodecyl sulfate, sulfuric acid, monodecyl ester and monododecyl ester.
Formaldehyde	This awful embalmer is not just awful smelling, it is also known to cause respiratory irritation as well as cancer. Found in nail polish, baby soaps, eye lash adhesives, hair products, sunscreens, etc. Often listed as formaldehyde, formalin, formic aldehyde, Merthaldehyde, methanal, methyl aldehyde, oxomethane, oxymethylene.

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Coal Tar	A known carcinogen that still makes its way in to beauty products used daily. Found in shampoo, skin treatment, anti-redness creams, bath oils, conditioners, bath salts, bath soaks, etc. Often listed as coal, tar and coal tar solution.
Food Allergen	Though little research is currently available on the subject, food allergies and sensitivities can cause rashes, irritation and breakouts. My suggestion is to check all labels for any ingredients that may be of concern to you.
Arginine (L'Arginine)	A naturally occurring amino acid that's found in various foods, but has links to possible neurotoxicity, increased cancer risk, endocrine disruption and is a human growth hormone (HGH) when used on its own. Considered a low hazard, but shows some effects on animals at low doses.
PBA	Bisphenol A (BPA) is a hormone-mimicking chemical used in polycarbonate plastic resins, epoxy resins, and other products. It is most commonly used in baby bottles or any type of hard shatterproof plastic containers. It is also found in the lining of canned goods, plastic wrap and other household plastics. Bisphenol has estrogenic properties which, in animal tests has shown to cause a bevy of health problems such as an increase in prostate and breast cancer, uro-genital abnormalities in male babies, a decline in semen quality in men, early onset of puberty in girls, metabolic disorders including insulin-resistant (Type 2) diabetes and obesity and neurobehavioral problems such as Attention Deficit Hyperactivity Disorder. Research is showing that when plastic containers, mostly those used to hold liquids and foods, are leeching Bisphenol into the foods and liquids they are holding. Heating food and liquids with these plastics is shown to increase the leeching of this contaminate.
Propylene Glycol	Propylene glycol is a thickening/filling agent derived from glycerin and is in everything from store bought hair dyes to many of your natural deodorants. Propylene glycol has been determined as "generally safe for use" by the FDA for both food and cosmetic use, yet it raises your risk of cancer, carries toxins that affect reproduction, is a known allergen and eye irritant and can also be toxic to your immune system.
Butylene Glycol	Petroleum based humectant that can cause skin irritation, with higher doses leading to endocrine disruption, possible neurotoxicity. The hazard on this is low, but given that it's petroleum based and a glycol, we steer clear of it.
Brominated Vegetable Oil	(BVO) Used as a flame retardant in foam furniture, babies' furniture and clothing, television sets and other electronics, and household dusts. BVO could also be found in drinks (sodas and sport drinks) as an emulsifier. BVO has been linked to memory loss, hormone disruption and neurological symptoms.

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PEG's	(also known as Polyethylene Glycol) – Polyethylene glycol is a family of synthetic chemicals that function in cosmetic formulations as surfactants, cleansing agents, emulsifiers, skin conditioners, and humectants. PEG's are thought to increase cancer risks, including women's risk of breast cancer. PEG compounds often contain small amounts of ethylene oxide. According to experimental results reported on in the National Toxicology Program's Eighth Annual Report on Carcinogens, ethylene oxide increases the incidences of uterine and breast cancers and of leukemia and brain cancer. PEG compounds are routinely contaminated with the carcinogen 1,4-dioxane.
Phenoxyethanol	An anti-bacterial in cosmetics as well as a stabilizer in perfume. The FDA has warned that phenoxyethanol can cause shut down of the central nervous system, vomiting and contact dermatitis. It has also been shown to cause reproductive problems in mice. It's popping up more and more because companies are trying to go paraben-free and using this as an alternative. The FDA issued a warning for a nipple cream stating phenoxyethanol could cause “respiratory distress or vomiting and diarrhea in infants”.
Cocamidopropyl Betaine	Surfactant which gives shampoos and liquid soaps their cleansing and lathering properties. It is derived from coconut oil and dimethylaminopropylamine. According to a study done by the Environmental Working group in 2006, roughly 10% of all products containing cocamidopropyl betaine contained harmful traces of carcinogenic nitrosamines. In addition, cocamidopropyl betaine is a known skin, eye, and lung irritant. My problem with it lies with the fact that companies lean on the “from coconut” part but leave out the fact that it's been chemically processed. So it's not really natural at all.
Polyvinyl Chloride	PVC is one of the most widely used plastics, making up everything from shower curtains, water pipes, electrical wire, signs and toys. It is said that PVC can release numerous toxins during its lifetime and breakdown including mercury, dioxins, and phthalates. Not to mention, this and other plastic are filling up landfills at an alarming and bulky rate. Recently, some large chain stores including target and Wal-Mart have vowed to reduce the use of PVC in packaging and urge their suppliers to do the same.
Oxybenzone	Used significantly in sunscreens. Associated with photoallergic reactions. This chemical absorbs through the skin in significant amounts. It contaminates the bodies of 97% of Americans according to Centers for Disease Control research. Oxybenzone is an endocrine disruptor which can affect the nervous system, has been linked to cancer in some laboratory studies, and creates free-radicals when exposed to the sun which are harmful.

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Triclosan	A chemical that is added to household items and body care products to restrict the growth of bacteria on a particular item. It can be found (and must legally be listed in body care items) dishwashing liquid, toothpaste, toothbrushes, towels, mattresses, sponges, shower curtains, phones, kitchen ware, food containers, shoes, flooring and carpet, cutting boards, clothing and fabric (think work out gear), and toys. It has been linked to hormone disruption in animal studies and may possibly make bacteria resistant to antibiotics.
2-BROMO-2-NITROPROPANE-1,3-DIOL	An antimicrobial and preserving agent with known immunotoxicity (immune system toxicant), skin irritant, neurotoxicity, endocrine disruption. There are also possible contamination concerns with formaldehyde and nitrosamines. Nitrosamines are known carcinogens. While this ingredient isn't used as frequently, it's a higher hazard than other preservatives.
PFOA	Or perfluorooctanoic. PFOA is an acronym for perfluorooctanoic acid, a synthetic (man-made) chemical that does not occur naturally in the environment. PFOA is sometimes called "C8." Companies use PFOA to make fluoropolymers, substances with special properties that have thousands of important manufacturing and industrial applications. PFOA can also be produced by the breakdown of some fluorinated telomers, substances that are used in surface treatment products to impart soil, stain, grease, and water resistance. PFOA is very persistent in the environment and has been found at very low levels both in the environment and in the blood of the general U.S. population. Studies indicate that PFOA can cause developmental and other adverse effects in laboratory animals. PFOA also appears to remain in the human body for a long time. All of these factors, taken together, prompted the Agency to investigate whether PFOA might pose a risk to human health and the environment at the levels currently being found, or at levels that might be reached in the future as PFOA continues to be released into the environment.
Ceteareth-20	This ingredient has contamination concerns with 1,4-dioxane, with links to neurotoxicity, and skin irritation. It is also a known penetration enhancer, which makes it a more moderate hazard.
Disodium Cocoamidopropionate	A fatty acid derived from coconut, it has a known immunotoxicity and has contamination concerns with nitrosamines, which makes this a moderate hazard.
Disodium EDTA	Penetration enhancer, possible endocrine disruption (higher doses), reproductive /developmental toxicity, possible carcinogen. Due to limited studies, this is a lower to moderate hazard.
Tetrasodium EDTA	Penetration enhancer, can cause skin irritation. Not hazardous on its own, but given that it's a penetration enhancer, should be avoided.
DMDM Hydantoin	Preservative that releases formaldehyde. Known immunotoxicity , skin irritant/allergen.

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Geraniol	An essential oil and alcohol that is also used as an effective pesticide. Is known to cause immunotoxicity, skin irritation, possible neurotoxicity.
Iodopropynyl Butylcarbamate	possible liver toxicity, possible allergen
Limonene	Citrus peel extract and essential oil, also contains insecticidal compounds and causes possible immunotoxicity, known skin irritant.
Linalool	Citrus peel extract and essential oil, also contains insecticidal compounds and causes possible immunotoxicity, possible increased cancer risk, skin irritant.
Methylchloroisothiazolinone	Preservative with antibacterial and antifungal properties. One of the most potent allergenic preservatives causing immunotoxicity, skin irritation and allergies, however, has conflicting evidence on cancer risk.
Methylisothiazolinone	preservative causing possible immunotoxicity, possible neurotoxicity.
Myristyl alcohol	skin irritation, organ toxicity. Not highly hazardous, however, high doses may cause cancer.
Polysorbate 20	Surfactant and emulsifier, can cause skin irritation and endocrine disruption at high doses.
Quaternium 15	Preservative that releases formaldehyde . Used in cleaners, paints and beauty products. Causes known immunotoxicity, skin toxicity.
Tocopheryl Acetate	May be contaminated with Hydroquinone (known carcinogen) , possible skin irritant.
Triethanolamine	Used to balance the pH in beauty products. known immunotoxicity, skin irritant, limited evidence of cancer risk.
	<h2>Helpful Links</h2>
Environmental Working Group	http://www.ewg.org/ and http://www.ewg.org/skindeep/ (you can look up products and see their toxic ratings)
Environment California	http://www.environmentcalifornia.org/programs/green-chemistry
FDA	http://www.fda.gov/NewsEvents/Newsroom/PressAnnouncements/2008/ucm116900.htm
Chemical of the Day	http://chemicaloftheday.squarespace.com/todays-chemical/2009/6/19/phenoxyethanol.html
Truth in Aging	http://www.truthinaging.com/ingredient-spotlight/what-is-it-phenoxyethanol-and-is-it-safe
Green Beauty Guide	http://thegreenbeautyguide.com/?p=169

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Safer Chemicals, Healthy Families Resources	http://www.saferchemicals.org/resources/obesity.html
Wikipedia	www.wikipedia.com
	Disclaimer: Dr. Camhy Hall doesn't present this material as opinion or fact, just as a brief overview of what each item is, what the possible concerns associated with them are, and where to find definitions. There is a wealth of links where you can find more information on most of these topics.
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