

As the weather warms, people increase the amount of time spent outside in the sun.

Of course this means buying a good sun screen to protect yourself from UV rays. The sun produces two types of ultraviolet (UV) rays--UVA and UVB. These rays cause cancer, sunburn, and premature aging. Additionally, UV rays sensitize the skin so it reacts to medications, soaps, and cosmetics.

In order to protect yourself from the sun, most people have been educated to wear protective clothing, limit the amount of time in the sun, and cover our skin with sunscreen or sunblock. While many people believe they are taking appropriate measures to protect themselves, most are unaware that the ingredients in popular sun care products are toxic--even carcinogenic.

Ironically, many of the most popular sun care products list suspected carcinogens as well as endocrine disrupters--synthetic chemicals suspected in declining sperm counts and cancer of the testicles, prostate, and breast. Look at the listed ingredients of the most popular sun care products and you will find at least one of the following:

Suspected Carcinogens

diethanolamine and related ingredients (DEA, TEA),
padimate-o,

Suspected Endocrine Disrupters

benzophenone (oxybenzone),
homosalate

octyl-methoxycinnamate (octinoxate)
parabens (methyl, ethyl, butyl, & propyl).

While these chemicals are bad for people, they are equally harmful to the environment. When we swim, the chemicals enter the water. Diethanolamine has been found in waterways, and benzophenone has been found in the water, air and soil.

Sunscreens can also contain other chemicals associated with skin irritation such as avobenzone, benzophenone, octyl-methoxycinnamate, and PABA (para-aminobenzoic acid).

There are good alternatives available, but consumers must educate themselves to make better choices. One solution is zinc oxide. It does not irritate the skin and is not linked to any environmental problems. Keep in mind, the *Environmental Protection Agency* does not regulate any personal care products.

Ten Synthetic Cosmetic Ingredients to Avoid

By Aubrey Hampton

If you want natural products, you have to be willing to search them out. Learn to read labels, and refuse to settle for half-natural hair and skin care. Below I've listed and described my "ten most wanted" I most want to see off the labels of so-called natural hair and skin care products.

1. imidazolidinyl Urea and Diazolidinyl Urea — These are the most commonly used preservatives after the parabens. They are well established as a primary cause of contact dermatitis (American Academy of Dermatology). Two trade names for these chemicals are Germall II and Germall 115. Neither of the Germall chemicals have a good antifungal, and must be combined with other preservatives. Germall 115 releases formaldehyde at just over 10°. These chemicals are toxic.
2. Methyl and Propyl and Butyl and Ethyl Paraben — Used as inhibitors of microbial growth and to extend shelf life of products. Widely used even though they are known to be toxic. Have caused many allergic reactions and skin rashes. Methyl paraben combines benzoic acid with the methyl group of chemicals. Highly toxic.
3. Petrolatum — I see this on lip products from time to time, which is humorous to me because they're usually advertised as protecting the lips from sunburn, chapping and so forth. Petrolatum is mineral oil jelly, and mineral oil causes a lot of problems when used on the skin photosensitivity (i.e., promotes sun damage), and it tends to interfere with the body's own natural moisturizing mechanism, leading to dry skin and chapping. You are being sold a product that creates the very conditions it claims to alleviate. Manufacturers use petrolatum because it is unbelievably cheap.
4. Propylene Glycol — Ideally this is a vegetable glycerin mixed with grain alcohol, both of which are natural. Usually it is a synthetic petrochemical mix used as a humectant. Has been known to cause allergic and toxic reactions.
5. PVP/VA Copolymer — A petroleum-derived chemical used in hairsprays, wavesets and other cosmetics. It can be considered toxic, since particles may contribute to foreign bodies in the lungs of sensitive persons.
6. Sodium Lauryl Sulfate — This synthetic substance is used in shampoos for its detergent and foam-building abilities. It causes eye irritations, skin rashes, hair loss, scalp scurf similar to dandruff, and allergic reactions. It is frequently disguised in pseudo-natural cosmetics with the parenthetical explanation "comes from coconut."
7. Stearalkonium Chloride — A chemical used in hair conditioners and creams. Causes allergic reactions. Stearalkonium chloride was developed by the fabric industry as a fabric softener, and is a lot cheaper and easier to use in hair conditioning formulas than proteins or herbals, which do help hair health. Toxic.
8. Synthetic Colors — The synthetic colors used to supposedly make a cosmetic "pretty" should be avoided at all costs, along with hair dyes. They will be labeled as FD&C or D&C, followed by a color and a number. Example: FD&C Red No. 6 / D&C

Green No. 6. Synthetic colors are believed to be cancer-causing agents. If a cosmetic contains them, don't use it.

9. Synthetic Fragrances — The synthetic fragrances used in cosmetics can have as many as 200 ingredients. There is no way to know what the chemicals are, since on the label it will simply say "Fragrance." Some of the problems caused by these chemicals are headaches, dizziness, rash, hyperpigmentation, violent coughing, vomiting, skin irritation by a cosmetic that has the word "Fragrance" on the ingredients label.

10. Triethanolamine — Often used in cosmetics to adjust the pH, and used with many fatty acids to convert acid to salt (stearate), which then becomes the base for a cleanser. TEA causes allergic reactions including eye problems, dryness of hair and skin, and could be toxic if absorbed into the body over a long period of time.

To Summarize: Look for natural ingredients in the products you buy. Do not use cosmetics that are artificially colored. Is the shampoo bright green or blue? Very likely it contains a coal tar color. Does the product contain synthetic fragrances? Don't buy it. You may find that some of your allergy problems will suddenly disappear when you no longer use cosmetics formulated with petrochemicals and other synthetics.

What You Don't Know *Can Hurt You*

by Claudia Keith, Founder

When we truly understand how incredible our bodies really are, we take better care of them. Believe it or not, it takes a lot to keep someone as complex as *you* running properly! Take your nose, for instance. . . . did you know it can detect 10,000 distinct chemical odors? How about your circulatory system? Your blood vessels are 60,000 miles long if laid end to end, and 100 trillion cells make up your body. Your bone marrow makes 140,000 blood cells each minute. Your eye's retina has 100 million light receptor cells, and can distinguish 7,290,000 shades of color, unless you're my colorblind (but wonderful) husband.

Covering all of this is the largest organ, your skin. Again, the numbers are staggering: you have 2.5 million sweat glands on your body, . . . one square inch of skin has 650 sweat glands, 65 hair follicles, 234 feet of nerves, 57 feet of capillaries, 19,000 sensory cells, 94 sebaceous (oil) glands, 1250 pain receptors, 13 cold and 78 heat receptors, plus Langerhans (immune) cells. Our skin has adapted to protect us from Mother Nature's

onslaught, but it is also designed to let things in as well. Back before the industrial age came along, the types of chemicals that touched our skin were pretty much those that the Earth made on her own. Today it's a different story. What you are putting on your skin day after day, year after year, may be doing much more harm than good. Have you ever stopped to think how many hours a day your face spends under a layer of makeup, and what ingredients are penetrating your skin?

One of the arguments I hear from skincare manufacturers and ingredient suppliers is that a little Propylene Glycol or Sodium Lauryl Sulfate in a cream or shampoo won't hurt. Fine -- but we're not talking about a single exposure, here -- more like ten or twenty thousand, several times a day! Over the years, using these products every day *can* affect the body. And when shampoo runs into your eyes, the potential harm an ingredient like SLS can do is downright frightening.

A note to my salon-owning friends: If you have formulated your own line through a private label company, BEWARE! You may be saving money, but the majority of these companies use the dangerous ingredients I list below!! *Do not* expose yourself to these ingredients.

Remember -- your skin *absorbs* chemicals into your bloodstream and tissue. It is *not* a barrier to them!

A Few Qualifiers for the personal care products Hit List

Here's a partial list of ingredients found in many skin care items. For a thorough list, please refer to *Beauty to Die For*, by Judi Vance (available through Amazon.com), or *A Consumer's Dictionary of Cosmetic Ingredients*, by Ruth Winter.

DEA (Diethanolamine), MEA (Monoethanolamine), TEA (Triethanolamine)

As if the long names are not frightening enough . . . these three are hormone-disrupting chemicals and form cancer-causing agents. They are commonly found in bubble baths (in which we relax and soak for long periods), shampoos, soaps and facial cleansers. They are easily absorbed by the skin, and research indicates a strong link to liver and kidney cancer. There is also evidence that carcinogens form when Cocamide DEA (a cleanser, thickener and foam booster) is applied to the skin.

FD&C Color Pigments

You see these at the end of every ingredient list, but not because they are inconsequential. Many cause skin sensitivity and irritation, or even oxygen depletion in the blood. Most are made from coal tar and studies show that almost all of them are carcinogenic (cancer causing). For example, FD&C Red #4 is no longer available for use in foods because of a known threat to the adrenal glands and urinary bladder. It is considered a carcinogen but is still used in non-food products.

Fragrance

The term "fragrance" appearing on a product label indicates the presence of any number of up to 4,000 different ingredients. The majority of these are synthetic and are either cancer-causing or otherwise toxic. Exposure to fragrances has been shown to affect the central nervous system. Fragrance is found in most deodorants (and the underarm is too close to the breast area), shampoos, sunscreens, skincare and bodycare products. Essential oils are the healthful alternative.

Imidazolidinyl Urea and DMDM Hydantoin

These are two of many preservatives that are formaldehyde donors. While other less dangerous preservatives exist and are necessary, formaldehyde-based chemicals are best left to morticians, as they can cause joint pain, allergies, depression, headaches, chest pain, ear infections, chronic fatigue, dizziness, loss of sleep, or even function as asthma triggers. Serious side effects include the weakening of the immune system, and, as usual, cancer. These chemicals are commonly found in skincare, bodycare and haircare products, antiperspirants and nail polish.

Quaternium-15

Quaternium-15 is also used as a preservative in cosmetics and toiletry items, as well as skin moisturizers and hair care products. It commonly causes allergic reactions and dermatitis, and breaks down into formaldehyde (see above).

Isopropyl Alcohol

Isopropyl Alcohol is petroleum derived, and is used in antifreeze and shellac. Side effects are headache, dizziness, mental depression, nausea, vomiting, and coma. It is commonly found in hair color rinses, body rubs, hand lotion and aftershave lotions. It penetrates the skin easily and is thought to destroy intestinal flora, leaving your body's major organs open to parasites, and thus to cancers. The sad fact is that isopropyl alcohol simply isn't needed, but the petroleum industry makes a killing off of this industrial byproduct (read: industrial *waste*).

Mineral Oil

Mineral oil sounds nice, doesn't it? It isn't. It is a petroleum derivative that coats the skin like plastic wrap, which stands in the way of the skin's natural function of releasing toxins from the body. It slows the skin's natural cell development, causing the skin to age prematurely.

Baby oil is *100% mineral oil!!!*

Healthful alternatives are moisture magnets such as saccharide isomerate from beets, ceramides, jojoba and other vegetable oils.

PEG (Polyethylene Glycol)

PEG's are used to dissolve oil and grease, and to thicken products. They strip the skin of its natural moisture factor, leaving the skin and hence the immune system vulnerable. They are also potentially cancer causing. They are used in spray-on oven cleaners and, not surprisingly, in many haircare and skincare products.

Propylene Glycol

Propylene Glycol is a very beneficial product -- for your car's radiator. It is, after all, the active ingredient in antifreeze. Used as a surfactant (or wetting agent), it also breaks down protein and cellular structure, yet it is still found in bodycare products, including toothpaste, makeup and deodorants. The EPA requires workers to wear protective gloves, clothing and goggles when working with it. Direct contact can cause brain, liver and kidney abnormalities. Stick deodorants are higher in concentration of PG than is allowed for most industrial use! Also beware of Butylene Glycol, a petroleum plastic like PG.

Sodium Lauryl Sulfate and Sodium Laureth Sulfate

Both are used as detergents and surfactants in car wash soaps, garage floor cleaners, and engine degreasers. Yet these two are most widely used in cosmetics, toothpaste, hair conditioner, shampoo and other foaming products. Exposure causes eye damage, depression, diarrhea and many other ailments. This is perhaps the MOST DANGEROUS of all ingredients, and when used in combination with other chemicals, can form nitrosamines, a potent class of carcinogen. We use a gentle, safe alternative: Sodium Cocoyl Methyl Taurate, which may not be easier to pronounce, but it certainly is easier on your body.

Triclosan

Triclosan is a synthetic antibacterial ingredient with a chemical structure similar to that of Agent Orange. And it behaves the same way: The Environmental Protection Agency registers it as a pesticide, highly toxic to any living organism. It is also classified as a chlorophenol, a chemical class suspected of causing cancer in humans. It is a hormone disrupter, which means it affects sexual function and fertility and may foster birth defects. Its manufacturing process produces Dioxin (need we say more?), a powerful hormone-disrupting chemical with toxic effects in quantities as small as parts per trillion (that's one drop in 300 Olympic-size swimming pools). Triclosan stores away in body fat and can accumulate to toxic levels in the liver, kidneys and lungs. It can cause paralysis, suppression of the immune system, brain hemorrhages, and heart problems. It is widely used in antibacterial cleansers, toothpaste (not ours!), and household products.

A study reported by the Associated Press on 9/9/2000 reports that nearly half of all hand and bar soaps contain anti-bacterial ingredients, which some experts say could be killing *harmless* germs and contributing to the spread of *hard-to-kill germs*: "With more commercial soaps containing anti-bacterials, bacteria may become resistant to these soaps, and the speed with which the resistance develops is likely related to the amount used by the public. . . . Anti-bacterial soaps and lotions should be reserved for the sick patients, not the healthy household." Synthetic antibacterials such as Triclosan have been banned in Europe, but *Anti-Bacterial* is still available in the United States. Finally, why are we, in the United States, so fanatic about destroying bacteria. Most is harmless.

Talc

Talc has been around for a long time, which isn't reason enough to use it. It is widely used in makeup, baby and adult powders and foundation. It conveniently provides slip and covering, with the inconvenience of being strongly linked to ovarian and testicular cancer.

Retinyl Palmitate

A topical form of Vitamin A derivative. It is listed on the Health Canada Product Safety Bureau's Hit List as: TOXIC.

Petrolatum

Petrolatum is a petrochemical that contains two well-known carcinogens: Benzo-A-Pyrene and Benzo-B-Fluroanthene. It prevents the skin from taking in oxygen or respiring waste. It is used in hand and skincare products to form an occlusive barrier on the skin (again, preventing the skin from doing what it is meant to do, detoxify).

Two final warnings: Please be careful when using deodorant. Most odor can be eliminated by implementing a healthy diet and getting exercise. Sweating allows the body to detoxify. And if you must powder under the arms, use corn starch. It simply isn't worth compromising your health. Hair color is another issue I need to address. Because chemical absorption is greater through the hair because of the hair follicles, you are far more at risk. Hair color has been linked to lymphoma, a form of blood cancer.