Article

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Warning: What Your Shampoo's Label Won't Tell You...

by Harry Terhanian

With the tremendous growth of the natural products industry in recent years, it is no wonder that a whole new generation of "all-natural" products is springing up in neighborhood drug and health food stores alike. The descriptive, "all-natural", has become a buzzword used by big and small companies trying to exploit the niche market of natural products. It implies the wholesomeness of a product and its environmental friendliness. Yet, do the companies using this marketing tool really have the integrity to carefully select their ingredients so that their claims are factual? Major companies anxious to tap into the natural products market with its 20% yearly average growth rate are scrambling to produce "all-natural" shampoos, hair dyes, and skincare products. These "natural" products are primarily composed of synthetic chemicals mixed with some natural ingredients.

Body care and cosmetic products are not considered medicines and are therefore not subject to FDA approval, nor does the FDA try to regulate the body care industry. This provides a large margin of freedom for manufacturers to formulate their products without too much government interference. However, the FDA classifies cosmetic ingredients according to their degree of toxicity and prohibits the use of certain ingredients proven to be unsafe for use on humans such as certain colorants and some prohibited or restricted ingredients (such as hexachlorophene, mercury compounds, and chloroform). Body care product manufacturers, on their own responsibility, use any raw material as a cosmetic ingredient and market the product. The FDA will only investigate a product and possibly pull it off the shelf if extensive mass consumer complaints and lengthy accumulations of evidence point to its harmfulness. Thus, there are many commonly used ingredients in cosmetics today with potential carcinogenic effects which have been so-far overlooked by the FDA and continue to be used in alarming proportions in daily cosmetic applications, even in "natural" products.

The fact is that there is, according to Aubrey Hampton a Chemist and the Founder of Aubrey Organics, "no legal definition for 'natural', and a chemist's definition of organic simply requires that the molecule contain carbon". This means in simple terms that there are no legal guidelines and boundaries for manufacturers, controlling the substance of their "all-natural" claims. Thus, "it is all in the wordplay". So-called "natural" cosmetics can still contain potentially harmful or irritant chemical preservatives, cheap, chemically derived aesthetic and texture enhancing additives, chemically derived sudsing agents, artificial colorants and fragrances. The proof is in the labeling. Most people tend to think that a shampoo bottle whether sold in a health food store or not, which costs four times as much as a regular shampoo, with pictures of flowers and the labels "all-natural" and "herbal extracts" in an attractive, earth-tonish, environmentally friendly bottle, is a safe and healthy choice for washing hair. Well, one need only read the ingredients of the "natural" shampoo and to compare it to any conventional brand sold in every drugstore.

It is very likely that the ingredients list of the "natural" shampoo will contain one of the following three chemical additives, as do all other regular shampoos, as one of its top three ingredients: DEA or Diethanolamine, Propylene Glycol, SLS or Sodium Lauryl Sulfate, and SLES or Sodium Laureth Sulfate.

Diethanolamine or DEA is a common ingredient in shampoos and in bath products. DEA and any combinations of DEA, including the widely used Cocamide DEA has been found to pose a serious health risk to consumers. The dangers of DEA were reported last year on CBS This Morning, in which Dr. Samuel Epstein, M.D. of the University of Illinois and one of the world's foremost toxicologists, testified about the results of his study in which he found that DEA is " a potential carcinogen" and that in even small doses, repeated use of DEA increases the risk of cancer. Further comments by Dr. Epstein criticized regulatory agencies and the cosmetic industry in the US for knowing that DEA "reacts with nitrites in cosmetics to form another potent carcinogen, nitrosos/DEA" and not taking any action to phase out its use although European governments and industries had done so already since the 1980's. This, in addition to the fact that the National Toxicology Program (NTP) has issued a study proving (cocamide and lauramide) DEA cause cancer in laboratory tests.

Propylene Glycol, also known as the main TOXIC ingredient in industrial antifreeze, is also a commonly used humectant ingredient that may be used in your shampoo to give it its "glide" and in order to prevent the drying of the product. It usually constitutes 10-20% of a typical cosmetic formulation. The American Academy of Dermatologists, Inc. published a clinical review in January 1991 which implicated Propylene Glycol as a cause of a significant number of reactions and as a primary irritant to the skin even in low levels of concentrations. Some of its adverse effects include dermatitis, kidney and liver abnormalities and it has been shown to inhibit skin cell growth and damage cell membranes causing rashes, dry skin and surface damage to the skin. This is the result of the effect of Propylene Glycol which is to repel important components necessary for healthy skin and scalp, including moisturizing water, and to act as a synthetic replacement for the moisture which the body cannot assimilate. This is the cause of the skin irritations and dryness and other negative reactions associated with PG.

Two other ingredients that commonly find themselves at the top of the list of ingredients of your "natural" shampoo are Sodium Lauryl Sulfate (SLS) and its sister chemical Sodium Laureth Sulfate (SLES). SLS is found in 90% of all shampoos and toothpastes. It is used so freely by manufacturers as it is a cheap detergent that produces a lot of foam and bubbles which we all equate with cleansing. Sodium Laurel Sulfate is an irritant, and a shampoo containing 15% SLS is mainly tolerable because it comes in contact with the scalp for only a few minutes and it is diluted with water while in use. It is deliberately used in clinical studies to irritate the skin so that the effects of other substances can be tested. It is a caustic cleaner and corrodes hair follicles and impairs ability to grow hair. It is similar to detergent in dishwashing liquids as it cleans hair so thoroughly, it strips the protective lipids from the surface of the scalp, impeding its ability to regulate moisture, so that in order to manage it you have to pour on a chemical conditioner. A Material Safety Data Sheet which "contains written or printed material concerning a hazardous material as prescribed by law", including information "needed to insure the safety and health of the user at all stages of manufacture, storage, use, and disposal", for SLS reports that it is harmful if inhaled, ingested, left on skin too long, and

it poses dangers to the eyes as it can accumulate in the tissues of the eye causing possible cataracts.

Sodium Lauryl Sulfate is the subject of great controversy and the cause of the greatest concern to many scientists. While on one hand, it is considered non-carcinogenic by the Occupational Safety and Health Administration (OSHA), the National Toxicology Program (NTP), and the International Agency for Research on Cancer (IARC), there is still unveiling evidence that SLS produces a potential carcinogenic effect in your shampoo when it interacts with other nitrogen bearing ingredients to form nitrosamines ornitrates. This is a cause of concern, as SLS enters and maintains residual levels in the lungs, liver, and brain from skin contact, causing major problems in these areas.

Sodium Laureth Sulfate is a milder version of SLS and is commonly used in industrial engine degreasers and in concrete cleansers among others with similar effects as SLS.

A good example of the dangers of Sodium Lauryl Sulfate and Cocamide DEA is your children's bubble bath. Unlike shampoo, which contains the same foaming chemicals and is essentially the same thing (it produces foam), bubble bath is regulated by the FDA. Bubble bath is defined by the FDA as "any product intended to be added to the bath for the purpose of producing foam and containing a surface active agent serving as a detergent or foaming agent" and produces "risks" which "have been known for some time". Thus, it is required by law to bear the following warning on its label:

> *Caution* - Use only as directed. Excessive use or prolonged ex-posure may cause irritation to skin and urinary tract. Discontinue use if rash, redness, or itching occur. Consult your physician if irritation persists. Keep out of reach of children.

As has been shown and described, there are many harmful substances used in regular, conventional shampoos which have now found their way into "all-natural" shampoos. Every day, new evidence is accumulating about chemicals previously thought of as safe. New research is proclaiming that they may be combining in our body in ways that science and medicine research have still not identified and whose harmful results have still not been "officialized" due to the formalities of the product safety system and due to the lengthiness of testing periods. The result is that many cosmetic products, including "all-natural" shampoos sold today, are not good for the body, skin, and hair. As a consumer, your best chances of protecting yourself today are to educate yourself about the products you use, to keep informed, and especially to READ LABELS and ingredient lists. Play it safe: use as many truly natural products as you can.