



"Chemical-free, based on all natural, NON-TOXIC EVERYTHING – please!" By Doug Schoon, Chief Scientific Advisor, Creative Nail Design, Inc.

Te all know that words are important tools, but it is easy to underestimate their incredible power. Words communicate useful ideas. This is especially true of the terminology used in the professional beauty industry. Professional terminology allows you to understand me, even though I'm on other side of the world. For example, if I used the word "pedicure", you'd know that I was talking about a service involving the feet.

The opposite is also true. Problems can develop when terms are misunderstood or used incorrectly. Would you want your blood drawn by a nurse who confused your "veins" and "arteries"? Imagine the problems of a jockey who always said "giddy-up" when he meant "whoa". In my last article, I used the word "cuticle" as an example of a widely misunderstood word (See Where's the Cuticle? *Professional Beauty*, July-August 2007). This issue, I'd like to talk about five more words that are causing a great deal of confusion.

THOSE DARN CHEMICALS

The first word is "chemical". The very word conjures fear in many people. To some, all "chemicals" are dangerous and others wish they could completely avoid "chemicals". But the truth is we cannot live without them – not even for a second! Why? Because everything you can see or touch, except light and electricity, is a "chemical". Water, milk, vitamins, food, air; each of these are all made entirely of "chemicals" and all living things are 100 per cent chemical. So it

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always confuses me when I see a product that is "chemical-free". How can that be true? How can any product "contain no chemicals"? What secret allows the creation of products that use no ingredients? Because the truth is – like everything else – all cosmetic ingredients are chemicals, no matter where they come from or how they're made or whether they're derived from synthetic or natural sources. Anyone who tells you differently is not telling you the truth. All of these are chemicals, so obviously there's no reason to fear chemicals. Everything (including nature) is made completely out of chemicals, so they can't be all bad. In fact, the overwhelming majority of chemicals you're exposed to during your life time will be safe and harmless.

"BUT, IT'S ORGANIC AND NATURAL"

"Organic" is another misunderstood word. Organic substances are primarily composed of carbon. Since all living things are carbon-based, they are "organic". Just about everything on Earth is organic, with the exception of rocks, sand, air, metals and water. Not surprisingly, the vast majority of cosmetic ingredients are organic and so are plastic containers, caps, ink and labels. Just about any type of product can claim to be organic, including every type of artificial nail enhancement product. Nail tips, fiberglass resins, adhesives, removers, monomers, polymers and UV gels are all organic, so this is a meaningless claim. Never choose a nail enhancement product simply because it claims to be "organic". I recommend that you choose your products based on their long-term performance, ease-of-use and the quality of the education provided; not marketing buzzwords like "organic" or "natural".

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When you think of "natural", what comes to mind, visions of cascading waterfalls, rainforests or open plains of wildflowers? All these are wonderful thoughts, but certainly not the whole picture. Think about it, nature is pretty wild and dangerous, filled with poisonous and harmful substances. For example, many millions of people suffer each year from allergies to "all natural" ragweed, pollen, cat dander, dust mites, peanuts and poison oak, etc. Natural substances cause most of the allergies we suffer from! So, why do we automatically assume that "natural" means safer and better? Remember, everything "natural" is also 100 per cent chemical. Never assume that "natural" claims make something safer or better. All the word really means is "occurs in nature". That can be said about many things including petroleum, soot and tar.



NON-TOXIC IS BEST, ISN'T IT?

A well-meaning environmental activist told me she believed that cosmetic products should contain only completely "non-toxic" ingredients. The problem is – that's an impossible expectation! "Non-toxic" is a marketing term with no set scientific definition and definitely not what's needed to ensure cosmetics are safe. Here are a few examples to illustrate my point.

Drinking excessive amounts of water over a short period has caused many deaths. Doctors will tell you that even water can be "toxic". Swallowing a large spoonful of rubbing alcohol could cause death to a small child. Does that mean that rubbing alcohol cannot be used safely? Of course not! Concentrated hydrogen peroxide is potentially dangerous and highly toxic, but two per cent solutions are safely applied to a child's injured knee to kill germs and prevent infections. Should we avoid hydrogen peroxide antiseptics or forbid water as a cosmetic ingredient because they can be "toxic"? Absolutely not! That would be ridiculous! So what is important?

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In most cases, the concentration (the percentage of an ingredient in the product) is the most important factor for determining product safety. For example, a skincare ingredient may cause some users to experience irritation, redness, swelling and itching when used at a 25 per cent concentration, but the same ingredient can be extremely soothing, moisturizing and non-irritating at a five per cent concentration. This is why manufacturers of beauty and cosmetic products utilize many types of scientific methods and techniques to ensure cosmetic ingredients are used at safe and appropriate levels.

We've all seen "non-toxic" claims, sometimes in the strangest places. Next time you see a product that claims to be "non-toxic", think about what would happen if you ate a kilogram of it every month? In most cases, I don't think that would be very safe or healthy. I'd be especially cautious if the product claims to be "100 per cent organic, chemical-free and based on all natural and non-toxic ingredients". Remember, the more you understand about the meaning of these words, the better choices you'll make. Don't be fooled; be informed! ■

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