Trends and developments ...

Organic Standards for Personal Care Products

Developing common-sense standards to boost the personal care industry *and* aid the consumer

By Jack Corley, Royal Aromatics Inc.

ew subjects in the personal care world have generated as much interest and attention in recent years as the development of new standards in organic personal care.

For those involved in the productdevelopment side of the natural/organic personal care business, it has been a reflective — and sometimes pensive period. Many companies have adopted, for good reason, a "wait-and-see" attitude as the proposed standards evolve. The purpose of this article is not to point to the controversy that has, at times, overshadowed the main intent of creating the new standards. Rather, it will focus on the current activities of the Organic Personal Care Joint Committee (OPCJC), which seeks to establish realistic standards and identify the positive impact those proposed standards could have on the product-development and marketing plans of companies committed to organic personal care.

Some Definitions ... and a Bit of History

What exactly is meant by "organic personal care"? I define personal care as products made for the skin care, hair care, fragrance, makeup and personal hygiene markets.

The Food, Drug, and Cosmetic Act defines personal care as "articles intended to be applied to the human body for cleansing, beautifying, promoting attractiveness, or altering the appearance without affecting the body's structure or functions. This definition includes skin care creams, lotions, powders and sprays,

perfumes, lipsticks, fingernail polishes, eye and facial makeup, permanent waves, hair colors, deodorants, baby products, bath oils, bubble baths and mouthwashes, as well as any material intended for use as a component of a cosmetic product."

Organic is a method of growing and processing natural ingredients under controlled conditions that must meet stringent purity standards. It is a system of crop cultivation employing biological methods of fertilization and pest control as substitutes for chemical fertilizers and pesticides. Although most organic producers may see personal care as marginally related to their organic endeavors, the expansion of organic standards to cover the sector continues to have profound conceptual and regulatory implications for the entire organic industry.

What's in a name: Fervent organic supporters consider personal care products to be notoriously underregulated because any number of chemical and synthetic additives are used in their processing. Consumers buy organic personal care products under the illusion that the products are held to organic food standards. This is a mistake. Unfortunately, the word "organic" is used on the labels of products that, in truth, often contain toxic materials that do not comply with the National Organic Program (NOP). To further confuse the issue, NOP has flip-flopped on its position regarding whether organic personal care products should be held to the same standards as organic foods.

Label confusion: When the United States
Department of Agriculture (USDA) created the
Certified Organics seal in 2002, the primary intent was
to certify the organic claims made by food producers,
such as meat from animals that are free of antibiotics
and not confined indoors, or vegetables grown without

pesticides. In a foundational May 2002 policy statement on the scope of the NOP, the USDA made clear that producers of nonfood products, such as personal care containing agricultural ingredients, "are eligible to seek certification under the NOP." In so doing, the USDA opened the door to making a wide range of other products eligible for the label: cosmetics and personal care items, pet food, dietary supplements, fish and even textiles, such as cotton T-shirts.

Three years later, the department decided that it had gone too far. In April 2005, the USDA began telling companies that their cosmetics and other personal care products couldn't be government-certified as organic after all. The organization mandated that the round, green USDA Organic label must be removed from personal care products and cosmetic packaging. Then, in June of that year, two organic soap companies — Dr. Bronner's Magic Soaps and Sensibility Soaps — combined resources with lobbying groups, including the Organic Consumers Association and the American Herbal Products Association, and sued the USDA for ordering the removal of its USDA Organic seal.

Olive Oil is Olive Oil ... Isn't It?

In filing suit, David Bronner (Dr. Bronner's) argued that "Organic olive oil does not become magically nonorganic when used in a lotion instead of a

salad dressing. Consumers and retailers want personal care that is nothing less than organic food for the skin. High-quality

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certified organic body care products like ours should be distinguishable from lowquality so-called 'organic' personal care that is based on standard conventional synthetic ingredients. Retailers and consumers who want organic food-grade personal care should look for the USDA organic seal." The plaintiffs' voices were heard. On August 25, 2005, the USDA issued a memorandum, which specified:

"There are agricultural products, including personal care products, which, by virtue of their organic agricultural product content, may meet the NOP standards and be labeled as '100 percent organic,' 'organic' or 'made with organic,' pursuant to the National Organic Program (NOP) regulations. Businesses that manufacture and distribute such products may be certified under the NOP, and such products may be labeled as '100 percent organic,' 'organic' or 'made with organic,' so long as they meet NOP requirements."

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The decision affected all consumer products manufactured using agricultural products ingredients, which meant that, besides personal care products, organic certification of supplements and other products, such as pet foods, will be ensured.

Ensuring Integrity Requires New Standards

Throughout the past few years, many companies have taken advantage of the lack of regulated organic standards, profiting from the understandably confused consumer. Recently, a personal care magazine article noted that, "Body care manufacturers have seized on the label 'organic' as a marketing scheme, sometimes heralding a negligible amount of organic ingredients while their bottles are filled with the same old synthetic chemicals." The article goes on to say that, "Unwitting consumers

pay premium prices for 'organic' products under the misconception that they are materially different from the nonorganic products on the shelf. New chemical scares and unverified claims about the health benefits of organic personal care products will continue to drive phenomenal sales growth."

Organic Trade Association (OTA, www.ota.com) member companies have renewed calls to the association and the USDA (which oversees the NOP) to set standards to assure customers about the integrity of personal care products labeled as "organic." OTA commissioned, in August 2004, the assistance of NSF International to oversee a "standards-development process" and bring "meaning and integrity" to products labeled as organic. According to Katherine DiMatteo, executive director of the organization, "OTA made a strategic decision to collaborate with NSF International because its consensus standardsdevelopment process is accredited by the highly reputable American National Standards Institute (ANSI). Standards accredited by ANSI historically are recognized and referenced by federal agencies."

In September 2004, a committee (OPCJC) was formed after a meeting at the NSF headquarters in Ann Arbor, Michigan, to solicit support from OTA members, as well as consumers interested in participating in the development of new organic standards for personal care. In total, the committee consists of 20 individuals from different segments of the personal care industry, including manufacturers, consumer associations, retailers and farmers.

Goals

The need for standards is evident. Body care manufacturers have set out to develop their own standards for organic processing. Many insist that their products simply cannot be made in a manner that is compliant with existing organic standards.

The goal of the OPCJC is to take the work already done by an earlier OTA task force and, based on its body of work and a scientific and practical view of what is and is not organic, draft a set of realistic standards that ultimately will be adopted by the NOP. The challenge for this "committee" is to establish realistic organic personal care standards that balance between a strict NOP agricultural mandate and consumer demand for safe, yet functional, personal care products. However, it must be noted that this standard *only* controls those companies that certify to it.

According to Ray Green, chairman of the OPCJC, "It will not prevent someone from making organic claims outside of this standard or outside the NOP scope. This standard will not solve all the marketing problems; it only will provide a good standard of identity for educated consumers who know what it entails. Once this standard is in place for some time, we do expect it to be changed from voluntary to a legal requirement under the auspices of the USDA." This is the desire of organic standard proponents and advocates.

Recently, the OPCJC formed a chemical process task force (OPCTF) commissioned to investigate and address chemical processes that are to be permitted under the potential gradient of "organic levels." In certain types of products, some processes may be allowed, but, in other products, these same or other processes may not be permitted. The task group must address the possibility that some types of products may not be able to meet the strictest form/gradient of organic, hence the purpose of a chemical process task force.

The chemical processes that will be recommended by the OPCTF will be driven primarily by the needs and wants of the consumer, combined with the ability of the industry to deliver these as products. Many large corporations would like to be able to market an organic product that would be similar to a traditional one already on a grocery store shelf. However, many of these traditional products may not be able to meet the requirements of this *or* the NOP standard. The perception would be that a product meeting this standard arguably would be superior by the nature of it being certified as organic. Knowing where to draw the line on the types of products to be covered under this standard needs to be addressed by the entire OPCIC.

What follows are some of the more important "chemical processes" presented by the OPCJC technical task force and that are under consideration for possible inclusion into an organic standard.

Esterification

Esterification is a combination of two ingredients — an organic acid and an alcohol — to make a new ingredient. For example, amyl alcohol, derived from grains, can be mixed with acetic acid from vinegar, a dilute solution of acetic acid. If one applies heat and vacuum, these two materials combine to make amyl acetate, which is an aroma compound. An acid and an alcohol can be combined to form an ingredient that has properties distinct from the two parent materials. It also can be done to make an ingredient that is more stable.

Tocopherol, which is vitamin E, tends to break down fairly quickly. Combining it with acetic acid and esterifying it produces tocopheryl acetate, which is stable enough to use in cosmetics and other products.

The cosmetics and food industries use a wide range of esters for many different functions. Glycerin, from vegetable oils, can be combined with stearic acid (also from vegetable oils, such as palm oil) to form the emulsifier glyceryl stearate for creams and lotions.

Glyceryl caprate, another vegetablederived ester, helps to preserve products against microbiological contamination. There are thousands of cosmetic esters, many of which are petrochemical-free, used in personal care products.

No reagents or catalysts are required for esterification, but many are used in the cosmetic ingredient industry, including mineral acids such as hydrochloric and sulfuric acids. Others, called Lewis acids, include zinc oxide. Some catalysts can be mined, such as sodium carbonate.

Transesterification

Transesterification is a special type of esterification: an exchange of one alcohol or one acid for another. Vegetable oils are made of acids (called fatty acids), such as with glycerin (a type of alcohol) in esters.

If ethanol is added to soybean oil, along with a little lye or alkali, such as sodium hydroxide, and the mixture is heated, the fatty acids from the vegetable oil will be transferred from the glycerin and combine with the ethanol to make a new ester — soybean oil ethyl ester, or "ethyl soyate." ("Biodiesel" fuel, incidentally, is made via this process, combining methanol and vegetable oils. The glycerin released by the

process is separated out easily, leaving an inexpensive and sustainable fuel. Ethanol also can be used in this process.)

Transesterification also can be performed with vegetable oils and glycerin. For example, mixing one part coconut oil with two parts glycerin and adding a small amount of lye or acid with heat will produce glyceryl monococoate, a very effective cosmetic emulsifier. If transesterification is carried out using a lye catalyst and vegetable oils having different compositions, interesterification occurs and the result is a modified oil with a different composition than either of the original oils. Their melt point, skin feel and other attributes can be altered in this manner.

Serving All Interests

Aside from those mentioned previously, there are other processes currently under review. The OPCJC hopes to have consensus on all allowable processes very soon. At that point, its recommendations will be presented to NSF, followed by consideration and development of an ANSI organic personal care standard. As noted earlier, the goal would be to have this standard (hopefully to be completed this year) adopted by the USDA.

In summary, the time for realistic, credible and practical organic standards for personal care products that transcend self-interest is now. Consumers should

accept nothing less from those engaged in the manufacture or commercialization of this product category. The OPCJC has been summoned to rise to that challenge.

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Stay tuned.

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