



Healthy Business Strategies for Transforming the Toxic Chemical Economy



**CLEAN
PRODUCTION
ACTION**

HEALTHY BUSINESS STRATEGIES FOR TRANSFORMING THE
Toxic Chemical Economy

**A
Clean Production Action
Report**

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Clean Production Action

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Clean Production Action promotes the use of products that are safer and cleaner across their life cycle for consumers, workers and communities. Our mission is to advance Clean Production which we define as the design of products and manufacturing processes in harmony with natural ecological cycles, the elimination of toxic waste and inputs and the use of renewable energy and materials.

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Pure Strategies helps companies improve their environmental and social performance using clean production tools, sustainable materials, strong community relationships and transparent measures of progress.

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Avalon Natural Products: Consciousness in Cosmetics

Since its founding in 1989, California-based Avalon Natural Products has been a leader in making cosmetics from natural and organic ingredients. Avalon sells mainly in the organic and natural foods market, through stores such as Whole Foods and Wild Oats, but is seeing increased interest from mainstream retailers who wish to attract the growing numbers of health-conscious consumers. The company initially developed two major lines of cosmetic products — Avalon Organics, using a high proportion of organic ingredients, and Alba, with exotic fragrances that can't be fully achieved with organic ingredients. And in 2006, Avalon introduced a complete line of safe, hypo-allergenic baby products.

In spite of Avalon's commitment to natural and organic ingredients, the company still used several industry-standard chemical preservatives and surfactants at the time the founders sold Avalon in 2002 to North Castle Partners (an investment firm specializing in "healthy living" companies). The sale, and the formation of a new management team over the next 18 months, coincided with a series of events that drew increased attention to the risks of toxic chemicals in cosmetics.

Europe Bans Use of Toxic Chemicals in Cosmetics

In 2004, the European Union (EU) banned the use of over 1,100 carcinogens and reproductive toxics in cosmetic products. The cosmetics industry in Europe argued unsuccessfully that the bans would be costly because of the expense of reformulating products and unnecessary, since the amounts of these chemicals in any single cosmetic product were minuscule. In the U.S., which lacks similar legal

AVALON ORGANICS®



AVALON NATURAL PRODUCTS

Avalon Natural Products sells environmental and health cosmetics primarily through health food stores such as Whole Foods and Wild Oats.

- Founded in 1989 by Mark and Stacey Egide
- Based in Petaluma, California, employs 50 people
- \$90 million annual retail sales
- 2004–2005 sales growth rate of over 20%

requirements and only bans nine cosmetic substances, the Campaign for Safe Cosmetics launched an effort to eliminate toxic chemicals in cosmetics, including the use of chemicals that cause cancer and birth defects. In addition, the Breast Cancer Fund drew attention to studies suggesting that the principal family of preservatives — parabens — used in cosmetics might be associated with cancer or endocrine disruption.

While many cosmetics companies pointed to uncertainties in the evidence and the potentially high costs of reformulation, the new management team at Avalon believed their responsibility to their customers compelled them to take precautionary action and reformulate in the face of the new scientific findings. As a result, they ended up differentiating Avalon products from competitors and increasing Avalon's leadership position by making customers more conscious of the need

for healthy skin and of Avalon cosmetics as a leader in healthy cosmetics.

Avalon's Health Screens for Cosmetic Ingredients

Avalon's initial step was to become one of the first companies to sign the Campaign for Safe Cosmetics' Compact for Global Production of Safe Health & Beauty Products — agreeing that all their cosmetics sold in all markets would meet the EU standard. Avalon then developed a formulation methodology requiring a series of four screens for approving ingredients in their products. These screens included restricting hazardous substances, using renewable resources, and incorporating certified organic ingredients where possible (see box below).

Avalon provides these guidelines to the laboratories that formulate their products. Beyond these guidelines, assessment of

AVALON NATURAL PRODUCTS FORMULATION SCREENS

1. Prohibit chemicals banned under the EU cosmetics directive.
2. Avoid additional chemicals based on information from sources such as the Breast Cancer Fund and the Environmental Working Group's "Skin Deep" analysis of chemicals in cosmetics. This has led Avalon to work on removing the following chemicals:
 - Parabens: A family of preservatives commonly used to prevent cosmetics from deteriorating in hot, steamy bathrooms, intense sunlight or other extreme conditions.
 - Phthalates: The EU banned two of the six phthalates commonly used for making fragrances longer-lasting or nail polishes chip-resistant. Avalon decided to eliminate all phthalates in their products.
 - Formaldehyde donors: Preservatives in cosmetics that can react with other chemicals to form formaldehyde.
 - Sodium laurel/laureth sulfates: Harsh surfactants used as cleansers in soaps and shampoos, which can be irritating to the skin.
3. Follow Natural Product industry standards by avoiding the use of non-renewable resources. Specifically, don't use any petroleum-based ingredients.
4. Use certified organic ingredients (from plant sources only), such as essential oils for fragrances, to the greatest extent possible – especially for the Avalon Organics.



alternative ingredients also involves reviewing literature and examining whether chemicals with similar structures have toxicity issues since full information on toxicity characteristics of alternatives isn't always available. Avalon established a Scientific Advisory Board — including industry leaders, chemists, suppliers, consumer health advocates and university scientists — to provide guidance for the initiative. The Advisory Board recommended that Avalon conduct testing on ingredients and finished products, such as repeat-insult patch testing and hypo-allergenic testing. Avalon carried out both of these tests on its new line of baby products.

“Consciousness in Cosmetics”

Along with screening chemicals in company formulations, Avalon launched a public “Consciousness in Cosmetics” campaign to increase public and customer awareness of the role of cosmetics in health. According to Avalon Vice President Morris Shriftman, “We want our customers to be conscious of what they put on their skin. We want them to understand that it’s not just about the small amount of a chemical in a single cosmetic. It’s about the cumulative risk for a woman applying and re-applying cosmetics 15, 20, even 25 times in a single day

— shower gels, cleansers, toners, shampoos, conditioners, moisturizers, mascara, lipstick, deodorants, creams with penetration enhancers and so on.”

“Consciousness in Cosmetics” highlights the safety of Avalon products due to the avoidance of toxic chemicals, the environmental benefits from organic ingredients grown with sustainable agricultural practices and the effectiveness and sensuality of cosmetics made from natural products.

Meeting the Challenge of Eliminating Parabens

Parabens (para-hydroxybenzoate compounds) are the most common class of preservatives in cosmetic products — designed to kill damaging bacteria. They are cheap and effective, widely used throughout the cosmetics industry and well understood by the chemists who mix cosmetic ingredients in the laboratory. A 1999 study by Creative Developments (Cosmetics) Ltd reports parabens as the dominant preservative in cosmetics for decades.

While parabens were not included in the EU ban, some studies have shown the presence of parabens in breast cancer tumors (though

AVALON ORGANICS TIMELINE

1989

Founding of Avalon Natural Products

August 2002

North Castle Partners buy Avalon from founders

January 2003

European Union (EU) proposes directive banning use of over 1100 toxic chemicals from use in cosmetics

2004

North Castle Partners brings in new management team for Avalon

Spring 2004

EU Directive goes into effect. Campaign for Safe Cosmetics asks cosmetics companies to adopt the EU restrictions for all products in all markets. Avalon one of the first to sign

Fall 2004

Avalon launches Consciousness in Cosmetics, pushes to increase organic content in Avalon Organics products, adopts screens to eliminate toxic chemicals

June 2005

Lavender Renewal and Vitality paraben-free skin care formulations released

Late 2005

All Avalon Organics products paraben-free

March 2006

A quarter of Alba products paraben-free. Research and development on alternative preservatives continuing for remainder.

May 2006

Release date for line of organic-based, hypoallergenic, paraben-free, fragrance-free baby cleansers and moisturizers

December 2006

All Avalon Organics & Alba products expected to be paraben-free, EU compliant

without any evidence of a causal relationship), breast milk and umbilical cord blood, and have indicated that parabens could disrupt early development of reproductive systems in male animals. These studies were not definitive but, adopting the precautionary principle, Avalon chose to find replacements for parabens as preservatives.

Replacing parabens is not a simple process. Parabens are effective as preservatives in a wide range of cosmetics applications, and no single alternative replicates that performance. Instead, formulators must develop different preservative systems for each application — a lengthy and expensive research and development effort. Notes Shriftman, “Some people thought we were crazy. We were already the leader in health-conscious, organic cosmetics. Why should we go through this reformulation effort?”

Avalon began working closely with its manufacturing partners and suppliers to develop alternative preservatives. Initially the chemists at the manufacturing partners expressed serious reservations about formulating alternatives. They knew how to work with parabens rather than with the alternative preservatives Avalon wanted to create. But they rose to the challenge.

By early 2006, Avalon had invested over \$1 million in formulating alternative preservatives. Focusing first on its Avalon Organics line, the company replaced parabens in over 150 products, including its entire Avalon Organics line and about a quarter of its Alba products. To continue driving the reformulation effort, as well as to develop additional ingredients meeting the company’s standards, Avalon hired an in-house research chemist in 2006.

TABLE 6. **Avalon Natural Products: Percent Change in Sales (February 2005 – February 2006)**

Product Area	Average all Cosmetics Companies (% change)	Avalon Organic (% change)
Body Lotions & Cremes	14	20
Facial Cleansers & Exfoliants	19	37
Facial Lotions & Cremes	16	37
Mists & Toners & Astringents	22	37
Shaving Cremes & Lotions & Aftershave	10	29

Helping to Grow the Market for Organic Cosmetics

As part of its program to reduce synthetic chemicals in cosmetics, Avalon aggressively pursued organic ingredients and worked with an industry task force to more clearly define what counts as an organic constituent. In its efforts to increase available sources of organic materials, Avalon goes beyond the usual role of giving specifications to its manufacturing partners — who then find the necessary supplies, mix ingredients and manufacture the final product. Instead, Avalon goes directly to its suppliers and spells out the organic ingredients the suppliers should provide to the labs.

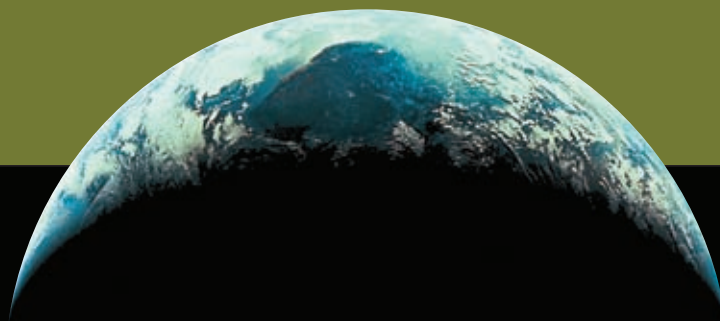
Determining what constitutes an organic constituent for a cosmetic product, however, can be controversial. The United States Department of Agriculture's National Organic Program standards for organic foods do not neatly apply to cosmetic ingredients. To make surfactants from coconuts or soybeans, for example, processors must use non-organic chemicals to extract ingredients. Avalon's Shriftman points out the uncertainty of whether firms can use these kinds of non-organic processing aids for a product that is labeled organic. To resolve this, Avalon participates with a range of industry and other

representatives on the Organic Trade Association's Personal Care Task Force. A final resolution is likely to be some time away.

Business Benefit of Avalon's Strategy for Reducing Toxic Risks

Avalon ranks first in cosmetics brand in the health food channel and is the fastest growing brand in this market segment — a clear indication of the bottom line benefit of Avalon's strategy for reducing chemical risks and expanding the use of organics. Annual data for the period ending February 2006 shows that Avalon outpaced the market-average growth rates for a range of products in the health food channel by anywhere from 37 percent to 300 percent (see Table 6).

An additional, unanticipated, benefit has been the enthusiastic internal response at Avalon. The employees feel proud of their company's actions and proud of their role. They see themselves as helping health as well as beauty. They feel connected with something important. In the words of one of the Avalon employees, "I enjoy working at Avalon and am proud of its high sense of purpose, because it is not only focused on making safe, natural products but also gives so much back to the community."



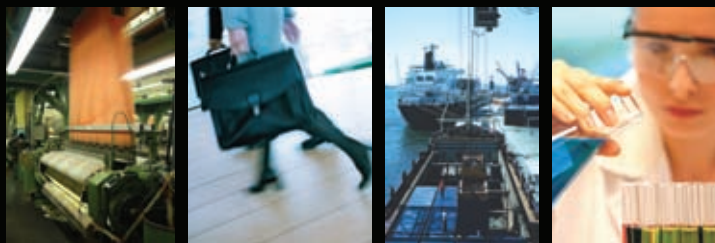
Healthy Business Strategies for Transforming the Toxic Chemical Economy

Business leaders are creating value by embedding concerns for human health and the environment into their products. Healthy business strategies differentiate a company's brand from its competitors — lowering costs, enhancing consumer and employee loyalty and increasing market share by creating healthier products for people and nature. For these leading companies, using environmentally preferred chemicals and materials is a core value, not a secondary assignment relegated to the periphery of the company.

This report profiles six companies that are crafting healthy strategies for using chemicals and materials in their products. While their individual actions to address toxic chemicals vary, their best practices, when gathered together define the terrain of healthy chemical strategies:

- Identify all chemicals in products.
- Eliminate high hazardous chemicals.
- Strive to use only green chemicals.
- Commit to product re-design.
- Take responsibility for products from cradle-to-cradle.
- Adopt internal chemical policies, including the precautionary principle.
- Work collaboratively with environmental advocates.
- Publicly support government reform of chemical policies.

These strategies exemplify the approaches companies must take if they are serious about creating a healthy chemical economy.



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