



Additives Drive New Wipes Niches

By Susan Stansbury
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What other category of products has such wide-ranging niches, so many price points and has become a user staple in just a few years? Maybe a few, but it's always impressive when products like wipes show that kind of market muscle.

The benefits these products offered from the beginning relied heavily on convenience features. The ability to use those so-handy wet wipes wherever you need them began to transition from baby wipes to household, skin care and other applications just about nine years ago.

Nonwovens Plus Additives

The use of wet solutions and additives is a key market driver, along with continued developments in nonwoven fabrics. In fact, when these elements are designed to work together to deliver performance features, wipes continue to be a reliable growth market. Sales are now around \$8 billion worldwide and \$2.7 billion in North America.

"As you look at the wipes business in general, whether it is wet or dry wipes, you can see the multi dimensional factors that relate to each target segment—household, personal care, food service, industrial and healthcare," said Marilyn Lefler of AEGIS Environments. "Varying needs and goals will impact the decision making of the purchaser for each of those segments."

Working together, additives and nonwovens deliver:

- Liquid solutions retained in the well-designed absorbent wipe fabrics.
- Nonwoven fabrics with soft, textured, scrubbing and other characteristics play in tandem with particular wet solutions.

—Good shelf life for use and re-opening of the package for more wipes.

—Value for performance delivered by a huge myriad of wet additives combined with cloth-like, strong, thin or thick or other nonwovens types.

“For instance,” said Ms. Lefler, “personal care will require a ‘gentler’ nonwoven type and keeping



it ‘fresh’ is an important factor. Who wants to use a potentially contaminated wipe on a baby bottom or even as a make-up applicator or remover pad? Harsh chemicals are not acceptable.”

These products appeal to users because a small investment per wipe contains an enhancement like the AEGIS Microbe Shield technology. “It offers peace of mind to the user,” said Ms. Lefler.

Some wipes producers, such as Athea, do their own formulation blending and are very close to what appeals to the marketplace. “With our ability to blend on site,” said Joe Hemmer of Athea. “We are able to service a variety of market needs with specialty additives, including disinfectants for household wipes and specialty options for automotive, medical and other niches.”

Skincare and surface-contact wipes contain additives such as:

- Oil-in-water cleaning emulsions (lotions)
- Traditional perfumes, as well as more recent lemon and similar scents
- Ingredients that may enhance “rinse off” and “leave on” properties
- Additives to improve product stability and ongoing performance
- Surfactant and/or emulsifiers and additives like propylene glycol

Wet or Water Activated

Wipes that are wet are at the heart of this liquid additive driven industry. Dry wipers akin to disposable or reusable towels have been around a long time but have tended to be commodity-like products. Sometimes these dry wipes have had cleaning or other additives for use in janitorial, industrial, restaurant or “away-from-home” segments.

Now continuing to emerge are water-activated wipes where additives are playing a stronger role in delivering performance. There are so many exciting possibilities for these developing segments that can become like wet wipes if you have an available source of water.

Reduced shipping weights and potentially smaller packages using less shelf space are powerful water-activated wipes development incentives. Additionally, there are likely advantages of dry-shipped wipes offering longer shelf life and using fewer “preservatives.” Product designers are apt to reduce preservative additives, which are generally less-earth-friendly than other ingredients. Also, preservatives can cause skin irritation so removal of this ingredient can only benefit the product result.

Water...As In Wet

The next big environmental factor waiting on the horizon is water. In March this year, an industry publication asked, “How Big Is Your Water Footprint?” The question is: Will reduction of wet/water as an element in wipes drive any near-term product design change? Will it be a factor in driving water-activated wipes categories? To be fair, use of water has to be considered in production as well as final product content. So, the supply chain has to be examined and compared with other categories such as tissue or paper products that use loads of process water.

Earth-Friendly Additives

Non-petroleum or bio-based earth-friendly ingredients are making their way into wipes in fast fashion. Increasingly, marketers want to be able to say their product is A-to-Z environmentally responsible, from package to

fabric, to additives. This is causing an examination of every ingredient and chemical that goes into wipes.

"The buzzword is Green," according to Sam Naggiar of Cognis Care Chemicals. "Our new 'Green Chemical Solutions' concept helps our customers choose how 'green' they want to be and which ingredients are approved by the different regulations."

Zemea propanediol is a new ingredient from DuPont Tate & Lyle Bio Products, that has been successfully used in many skin care applications. "This is a non-petroleum based glycol that offers excellent hydration and does not irritate the skin," said Joseph DeSalvo of DuPont Tate & Lyle Bio Products. "Fermented from corn sugar, this product was recently approved by Ecocert as a natural ingredient. There has been increasing interest in Zemea because of its excellent performance as well as the fact that it is based on rapidly renewable resources." Additionally, according to DeSalvo, Cleangredients has recently designated Zemea as DFE approved, the first solvent to do so under the program. The EPA allows safer products to carry the Design for the Environment (DFE) label.

Wipes producers like Rockline Industries use several types of non-petroleum based ingredients including glycerine, coconut and avocado oils and corn-based sorbitols, according to the company's Doug Cole.

Whether wet wipes or dry, the momentum toward green products apparently has not slowed, even in today's economy. Wiper distributors such as Grainger produce entire catalogs of green items. And, Grainger stated, "According to the U.S. Green Building Council, 2008 was the year when green building became inevitable, due to the U.S. recession."

A Range of Ingredients

One way to look at ingredients for wet or water-activated wipes is to review four areas:

1. Additives that improve processing & converting operations, but do not necessarily impact the final user product.
2. Additives for performance such as cleansing, antibacterial, moisturizing and making claims

regarding skin and dermatological treatments in FDA applicable wipes. Also, very specific anti-acne, anti-irritation, tanning, sun-screening, antiperspirant, deodorant actives to name a few.

In EPA regulated performance additives, there are disinfecting additives; or a whole range from polishing, dusting, automotive, household and industrial applications.

3. Additives for fragrance and "feel good" attributes such as aloe (but are not generally part of FDA or EPA claims). Some of the recent product introductions include "illuminating" cleansing pads from multiple producers, including Neutrogena's microderm cleansing pads with a polishing "sweep away" side and a second side with "nourishing stripes" that condition and replenish skin. Revitalizing is big with the L'Oreal Revitalift pre-moistened towelettes with "revitalizing Vitamin C." A number of these products can be called "cosmeceuticals." "Natural," "herbal," "calming" and fruit-derived fragrances are trendy right now.

4. Earth-friendly, non-petroleum-based ingredients as noted above. This category is becoming a major force with introductions as entirely new product lines such as Clorox's Green Works wipes which are "biodegradable and natural." Even Clorox's latest disinfecting wipes are using the "lemon fresh" scent, rather than the traditional "Clorox" smell.

Even former commodity dry wiping categories are finding additives that add value. Georgia-Pacific's enMotion with Lotion dispenser wipers "reduce the irritation caused by frequent hand washing." It's an increasingly valued approach to meet needs of janitorial-sanitation-industrial and restaurant workers. In these categories solutions formulators have to balance things like the ability to enhance soil removal and protect the skin from irritation.

Whether it's the soothing image of aloe that turns consumers' heads or the delivery of green, and still effective, cleaning ingredients, the role of ingredients in wiper growth is still finding many avenues for advancement.

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