

## What is a VOC?

The U.S. Environmental Protection Agency (U.S. EPA) defines and uses the term VOC as follows: “Volatile organic compound (VOC) means any compound of carbon, excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate, which participates in atmospheric photochemical reactions.” In short, VOCs are chemicals that, along with oxides of nitrogen (almost exclusively from fossil fuels) and sunlight create ground level ozone, a major component of smog.

VOCs can be divided into two broad categories: anthropogenic (man-made) and biogenic (naturally occurring, primarily from trees). According to the EPA, biogenic VOC emissions are thought to exceed man-made VOC emissions on a national basis by up to a factor of two. Most man-made VOCs come from burning fossil fuels, farming and landfills. Since coatings and many other consumer products (e.g., aerosols, dry cleaning, pesticides, and textiles) also emit VOCs, however, they too are regulated. As it turns out, VOCs from coatings have a very small impact on smog formation, especially compared to the burning of fossil fuels, farming and livestock and landfills.

What this means is that VOCs are regulated to mitigate smog, not to protect the air in your home. This is why some volatile chemicals, like acetone (think nail polish remover), are exempt from these regulations. Since they are not reactive (non-smog forming), they are allowed in coatings in spite of their potentially harmful side effects. While smog mitigation is indeed important, we believe that most consumers are just as concerned about indoor air quality and want to avoid introducing any sort of potentially harmful emissions regardless of how the EPA categorizes them. That is why we submit all our Green Promise products for third party emissions testing—we want to be sure that they exceed the strict emissions standards set by both Greenguard and California’s Collaborative for High Performance Schools (CHPS).

## Coatings redefined for the environment

For the last 50 years, every paint manufacturer, including Benjamin Moore, has relied on a universal tint colorant system (UTC) for tinting paint in the retail store. Put simply, these UTCs have allowed us to use one set of colorants to tint both oil- and water-based products.

This has offered great convenience at retail, but not without tradeoffs. While a UTC provides good performance in latex coatings, it compromises performance in deep colors. Of greater importance, it can introduce volatile organic compounds (VOCs) where there were none: **a conventional zero-VOC paint product tinted with UTC can end up with a VOC emission level over 120 gpl.**

About five years ago, Benjamin Moore scientists set about developing a zero-VOC waterborne colorant system designed to work exclusively with our newest products and to deliver superior color performance across the color spectrum. Although no regulations exist about adding VOCs to paint at retail, we decided that these new colorants should be zero-VOC. Here’s why: if we are trying to rid our paint of all VOCs, what is the point of putting them back in at the store? We didn’t want to do that, and we didn’t think our customers would want to either.


**If we are trying to rid our paint of all VOCs, what is the point of putting them back in at the store?**

Five years and millions of dollars later, we succeeded in building a colorant platform that sets the new standard for paint performance and low emissions. In 2005, with the introduction of our Gennex® patented waterborne colorant system, Benjamin Moore established a foundation for the growth of the greenest portfolio of products in the industry. Starting with Aura®, which has revolutionized the industry with its combination of high performance and low emissions, Benjamin Moore is redefining what is possible with environmentally friendly coatings.

## Defining Green

**Paper or plastic?** For years now, every American consumer has heard the same question—“paper or plastic?”—at the check-out counter of the neighborhood grocery store. Depending on whom you ask, you’ll get a compelling argument about which is the “greener” choice. According to the plastic bag folks, it takes 40-70% less energy to create a plastic bag than a paper bag. Plastic bags, however, add to landfills, do not degrade easily, and are not widely recycled. Paper, on the other hand, is easily recycled and decomposes readily. So which choice is “greener?” Clearly, it depends on what “green” means to you.

**What is “green” paint?** Unlike other products, defining what’s “green” when it comes to paint is not black and white—nor is it simple. With all the information out there about VOCs and air quality, consumers trying to make a “greener” choice must navigate a bewildering array of standards as well as terms that are mostly foreign to them.



**WITH OUR PATENTED GENNEX® WATERBORNE COLORANT SYSTEM, WE ESTABLISHED A FOUNDATION FOR THE GROWTH OF THE GREENEST PORTFOLIO OF PRODUCTS IN THE INDUSTRY.**

The coatings industry is filled with third-party organizations, both private and governmental. The U.S. Green Building Council (LEED®), Master Painter’s Institute (MPI®), Greenguard®, California’s Collaborative for High Performance Schools (CHPS), and Green Seal®, among others, are each trying to define what “green” means for coatings as well as for other consumer products.

Some, like Green Seal and MPI, focus on what is actually in the paint. Others, like CHPS and Green Guard, focus more on what the paints emit. Although, we applaud the goals of these organizations—and they have certified some of our products—the net result of so many competing standards is a confused and sometimes frustrated consumer.

### Green paint choice simplified

Given the confusion, Benjamin Moore concluded that we needed to make it easier for our customers (DIYers, painting contractors, architects, designers, facility managers, and specifiers) to make sense of all these standards while also bringing clarity to our unique perspective on “green.” That’s why we created our Green Promise® designation, which applies to specific Benjamin Moore coatings that offer both lower emissions and ensured paint performance.

**Our Green Promise logo assures our customers both that the coating is environmentally friendly and that it provides the performance they expect from Benjamin Moore.**



Unlike many products in today’s market claiming to meet self-proclaimed “green” standards that are often more hype than substance, Benjamin Moore’s Green Promise products must pass stringent third-party testing to ensure they live up to both the emissions and the product-performance benchmarks set by the paint category’s major third-party standards organizations.

In other words, for a product to carry the Green Promise designation, it must meet or exceed standards established by Green Seal®, Greenguard®, MPI® and the California CHPS programs. Among other things, these programs limit emissions (VOCs) and restrict certain chemicals (like formaldehyde, crystalline silica, and other carcinogens). They also establish baselines for dry-film performance (like hide, scrubability and adhesion).

No other program in the paint category comes close to meeting the standards Benjamin Moore adheres to for its Green Promise products. This is part of our commitment to offer transparent, meaningful responses to those asking “what is green?” in a paint product.

## OUR GREEN PROMISE PRODUCT PORTFOLIO



### Aura® — Quite simply the finest paint we've ever made®

- Proprietary Color Lock® Technology for exceptional color
- Never more than two coats even in the deepest colors
- Exceptional flow and leveling
- Low VOC even after tinting (under 50 grams per liter)



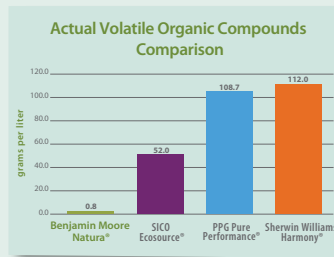
### Aura® Bath and Spa

- Matte finish in a formula optimized for humid environments
- Proprietary Color Lock® technology for exceptional color
- Never more than two coats needed in even the deepest colors
- Mildew resistant
- Low VOC even after tinting (under 50 grams per liter)



### Natura®

- The greenest paint available
- Premium performance
- Lowest total emissions of any national paint brand on the market
- Virtually odorless
- Zero VOC even after tinting; available in any color



### Regal® Select

- Excellent application and dry film performance
- Paint and primer together
- Low VOC even after tinting (under 50 grams per liter)
- Low odor



### ben®—everyday premium for style conscious consumers

- Premium quality at a value price
- Available in any color
- Low odor
- Easy application; great hide and touch-up
- Low VOC even after tinting (under 50 grams per liter)



### Waterborne Ceiling Paint

- Ultra flat
- Available in any color
- Specifically designed for ceilings
- Outstanding hide
- Low VOC even after tinting (under 50 grams per liter)



### EcoSpec® WB

- The "greenest" premium commercial product
- Easy application
- Minimal odor
- Fast drying for quick return to service
- Zero VOC even after tinting; available in any color



### EcoSpec® WB Silver

- Utilizes the known antimicrobial properties of silver to create a mildew resistant coating
- Easy application
- Minimal odor
- Fast drying for quick return to service
- Zero VOC even after tinting; available in any color

## AWARD WINNING PRODUCTS:

**Aura®** was named the **Best of What's New in 2007** by Popular Science Magazine, received Quick & Simple Magazine's **2007 Best Products Award for Environmental Consideration**, and was named **Best of the Best 2008** by the Robb Report.

**Natura®** was named one of the **Top Ten Products for 2008** by Environmental Building News and received Building Products Magazine **2009 Green Products Award**.

# Post-consumer paint-product stewardship

**As part of our product-stewardship efforts, we care about the final destination of our products.**

Since this affects the entire industry, we have long partnered with the American Coatings Association (ACA) to find ways to reduce the disposal of leftover paint. Benjamin Moore representatives initially participated in an effort to develop the “5-point program for leftover paint,” based on the three Rs: reduce, reuse, and recycle. Educational materials now available due to these efforts inform consumers how to buy the correct amount of paint, how to store it properly, and how to reuse and/or recycle any leftover paint—and ultimately dispose of what remains properly.

**Paint disposal pilot program**

To address the broader issues involved in the disposal of unwanted paint, in the 1990s Benjamin Moore developed

a pilot program in partnership with the Product Stewardship Institute (PSI) and the Massachusetts Department of Environmental Protection to reclaim the leftover paint slated for disposal. Our program involved working with the local community to set up paint-return collection sites, transporting leftover paint to our Milford, Massachusetts, facility, and reclaiming/reutilizing it as raw materials. The pilot was successful—so successful, in fact, that we realized it could benefit the entire industry. And so we shared it.

For the last five years, Benjamin Moore has worked closely with the ACA and other member companies to promote a model solution for post-consumer paint management (similar to our pilot program). The joint efforts bore fruit in July of 2009 when the state of Oregon passed this country’s first-ever paint product stewardship law. To implement the program,



the ACA created a non-profit organization Paint Care, which will manage an industry wide program. In keeping with our product-stewardship philosophy, Benjamin Moore will continue our stewardship role as a contributing board member of Paint Care. Our shared goal is to have each state adopt this national model so that all post-consumer paint is handled effectively and in an environmentally responsible manner.

For more information, visit [aca.org](http://aca.org).



**A BENJAMIN MOORE MID TO END 20TH CENTURY ENVIRONMENTAL TIMELINE**

1950s	1960s	1970s	1990s	2000s	2006	2008
Latex paint is introduced to the market. Original latex paint, an emulsion of plastic materials, was a byproduct of the research for synthetic rubber conducted during WWII.	Benjamin Moore begins eliminating lead from the formulations of its architectural coatings. The EPA, created in 1970, bans the use of lead in paints over a decade later in 1978.	Benjamin Moore eliminates mercury from its formulations. It will be several decades (1992) before the EPA bans the use of mercury in paints.	Benjamin Moore introduces Pristine (soon renamed Eco Spec®) paint, a 100% acrylic latex paint system that contains no solvents and is formulated to be the most eco-friendly product possible.	Eco Spec® is certified by the Greenguard Environmental Institute for meeting GREENGUARD Indoor Air Quality® standards. Eco Spec® earns Green Seal® certification from the independent, non-profit organization that identifies and promotes environmentally friendly products.	Benjamin Moore introduces Aura®, a 100% acrylic paint matched with Benjamin Moore’s newly created Gennex® waterborne colorant system, is both eco-friendly and performance enhancing.	Natura®, a zero-VOC interior waterborne paint, dubbed Benjamin Moore’s “Greenest Paint” is launched. Natura®, built on the Gennex® waterborne colorant system is the only zero-VOC paint available throughout North America that, in any sheen, remains zero-VOC after tinting in any color.