

## The Freshest, Greenest Finish

Nothing brightens up a space like a fresh coat of paint. All too often, however, the “clean” smell of new paint is actually vapor released from the toxic ingredients used as solvents in conventional paints. Known as volatile organic compounds (VOCs), these include benzene, formaldehyde, kerosene, ammonia, toluene, and xylene, all of which are known carcinogens and neurotoxins. The more VOCs the paint contains, the stronger the odor. Exposure to VOCs can worsen asthma symptoms and cause nose, skin, and eye irritation; headaches, nausea, convulsions, and dizziness; respiratory problems; nerve damage; and, in some cases, liver and kidney disease.



The VOCs emitted by paint solvents also contribute to indoor air pollution and the formation of ground level ozone. A study conducted by the U.S. Environmental Protection Agency showed that VOC levels indoors can be 1,000 times higher than outdoor levels when an indoor paint is drying. Another study found that the application and drying of paint releases VOCs at a higher rate than any other product used indoors. In sunlight, some organic solvents used in paint react with nitrous oxides in the atmosphere to form smog.

### DID YOU KNOW...?

- \* Paint made its earliest appearance about 30,000 years ago, when cave dwellers used crude paints to sketch images of their lives on ancient rock walls.
- \* Today, virtually every product created on an assembly line—from wood furniture to the latest big-screen television—uses paints and coatings to beautify, protect, and extend the lives of goods.
- \* Americans spend roughly \$17 billion on paint each year, equivalent to about 1.3 billion gallons (5,100 billion liters) annually, according to the National Paint and Coatings Association.
- \* Latex paints produce fewer VOCs than oil-based paints, but because they are used in such large volume—accounting for up to 87 percent of all indoor paint sold in the United States—they remain a major source of indoor air pollution.
- \* Milk paints, once common in households before commercial paints were available, are an environmentally sound alternative to conventional paints and are made from old curdled milk or cottage cheese, lime, and earth pigments.

### CHALLENGE YOURSELF AND OTHERS:

Educate yourself about low-VOC paints by visiting websites like Chicago’s “Clean Air Counts” ([www.cleanaircounts.org](http://www.cleanaircounts.org)), which offers a free fact sheet on this topic. Use your findings to make smart purchases the next you have a painting project. Share the information you gather with your school, work, or place of worship.

## SUCCESS STORIES

- ❖ Many concerned consumers are switching from conventional “low-VOC” paints to paints labeled “VOC-free,” “no-VOC,” or “zero-VOC,” which are virtually free of a wide range of chemical solvents, preservatives, and biocides (though some do contain synthetic ingredients like acrylic and vinyl). Options include natural paints made from citrus and other plant ingredients, milk protein, or clay, as well as simple whitewashes made from lime paste, water, and salt.
- ❖ In 1978, the U.S. Consumer Product Safety Commission banned the use of lead in all household paints. (In homes built before 1978, however, lead from paint chips and dust still poses serious health hazards if not taken care of properly.)
- ❖ California’s South Coast Air Quality Management District has developed legislation limiting the amount of solvents used in paint, as a way to address the role of VOCs in smog formation. Clean Air Counts, an initiative to reduce ozone-causing emissions in Chicago, also recommends using paint that meets the California VOC limits.



## SIMPLE THINGS YOU CAN DO:

- ✓ When renovating or doing home maintenance, avoid exposing your family, neighbors, or pets to lead-based paint hazards. Test for lead residues, keep surfaces clean of dust and chips, and if necessary hire a person skilled in correcting lead problems.
- ✓ For your home painting jobs, choose VOC-free, no-VOC, or zero-VOC paints. Ask your office or building manager to use these paints as well.
- ✓ Avoid alkyd- or oil-based paints, even if they are labeled low-VOC, and seek latex paints instead.
- ✓ Ask your local hardware store or paint store to carry low-toxicity paints. Many leading paint companies now offer full lines of these paints.

## FOR MORE INFORMATION

- 🔦 **Environmental Construction Outfitters** ([www.environproducts.com](http://www.environproducts.com)) is a source for information and materials on environmentally conscious construction.
- 🔦 **Environmental Home Center** ([www.environmentalhomecenter.com](http://www.environmentalhomecenter.com)) provides information on green building supplies including non-toxic paint, natural carpets, sustainable wood products, energy-efficient insulation, and people-friendly cleaning supplies.
- 🔦 **U.S. Environmental Protection Agency** ([www.epa.gov/lead/](http://www.epa.gov/lead/)) offers information on the hazards of lead-based paints as well as tips on avoiding these dangers.