

Indoor Air Quality and VOC Paint

By Jon Sader

Your home's indoor air quality should be a primary concern considering the negative health effects related to particular building materials. Using certain products within the home may lead to a contamination of the air quality and may be difficult to eradicate. If you have sealed in harmful airborne chemicals it can be detrimental to you and your family's health.

Everyone tends to enjoy the "new car smell" or the "freshly painted home" smell. However, these chemicals contain Volatile Organic Compounds, otherwise referred to as VOCs. VOCs can cause both long-term and short-term negative health effects such as:

- Cancer
- Damage to liver and kidneys
- Damage to central nervous system
- Eye, nose, and throat irritation
- Headaches
- Nausea

Water will boil at roughly 212 degrees Fahrenheit and therefore will evaporate and release molecules into the air. Other chemicals, such as those found in paint, have a "boil" point at lower than room temperature and therefore will "off-gas" harmful chemicals when released from its container. Therefore, when typical paint dries within your home it will "off-gas" harmful VOCs throughout the home that may harm you and your family. The United States Environmental Protection Agency states that levels of VOCs are 2-5 times higher inside homes than outside. This is why using products inside the home lead to a high VOC contamination and may linger depending on how well sealed your home may be.

The good thing is that paint manufacturers have caught on to the harmful health effects of VOC paint and now offer "Low VOC" and "No VOC" paint. A few years ago, "Low VOC" and "No VOC" paint were more expensive and the quality was inferior as well. Now, the cost is equal to or less than "High VOC" paint and the quality is equivalent. Paint manufacturers have also done a good job indicating the VOC level on their cans so it is easy to find.

The difference between high and low VOC paint is the type of solvent the paint manufacturer uses. "High VOC" paint typically uses solvents that help dissolve the paint chips that may include aliphatic hydrocarbons, glycol ethers, acetone, and ethyl acetate. All of which are known VOCs that may cause cancer among other harmful short-term health effects. The "No VOC" paints use a water-based solvent instead that is much more healthy and will not produce the "fresh paint" smell that is typical of older paints.



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Next time you start a paint project, purchase (or make sure the contractor uses) "No VOC" paints to prevent exposure to harmful chemicals.

