

# AFM: Superior Building Products For Safer Homes

AFM is a specialty manufacturer of paints, primers, clear coatings, stone and tile sealers, stains and other building materials. We are dedicated to developing products which focus on human health and the elimination of toxicity as well as performance. Our mission is to eliminate the use of hazardous or toxic materials, reduce offgassing to de minimis levels, and create formulations that prevent indoor air pollution.

For these reasons, AFM products have a history of safe use even by the chemically sensitive and environmentally ill. By making materials so low in toxicity that they work for the chemically sensitive, we've created products that are better for everyone.

# Understanding Safecoat® Paints and Sealers

Many of today's building materials and coatings are loaded with toxic chemicals. They contribute to the problem of indoor air pollution and chemical sensitivity through a process of evaporation called offgassing (see illustration). This is true even for so called "environmental zero VOC coatings" which can still contain toxic ingredients not prohibited by any government regulation.

AFM Safecoat paints, stains and sealers are different. With our unique formulas, we eliminate the aromatic solvents, heavy metals and formaldehyde preservatives found in the typical paint or sealer. The result is a non-polluting coating that also *acts as a sealer* to help reduce offgassing from the surface below.

The best news is that these safer formulas perform as well as or better than their toxic counterparts. Safecoat products set the standard for healthier building construction.

## Typical Paints and Sealers

The loose knit molecular structure in conventional paints and sealers allows toxic emissions to seep into your environment.

Imagine ping pong balls laying side by side on a surface



## The Safecoat® Difference

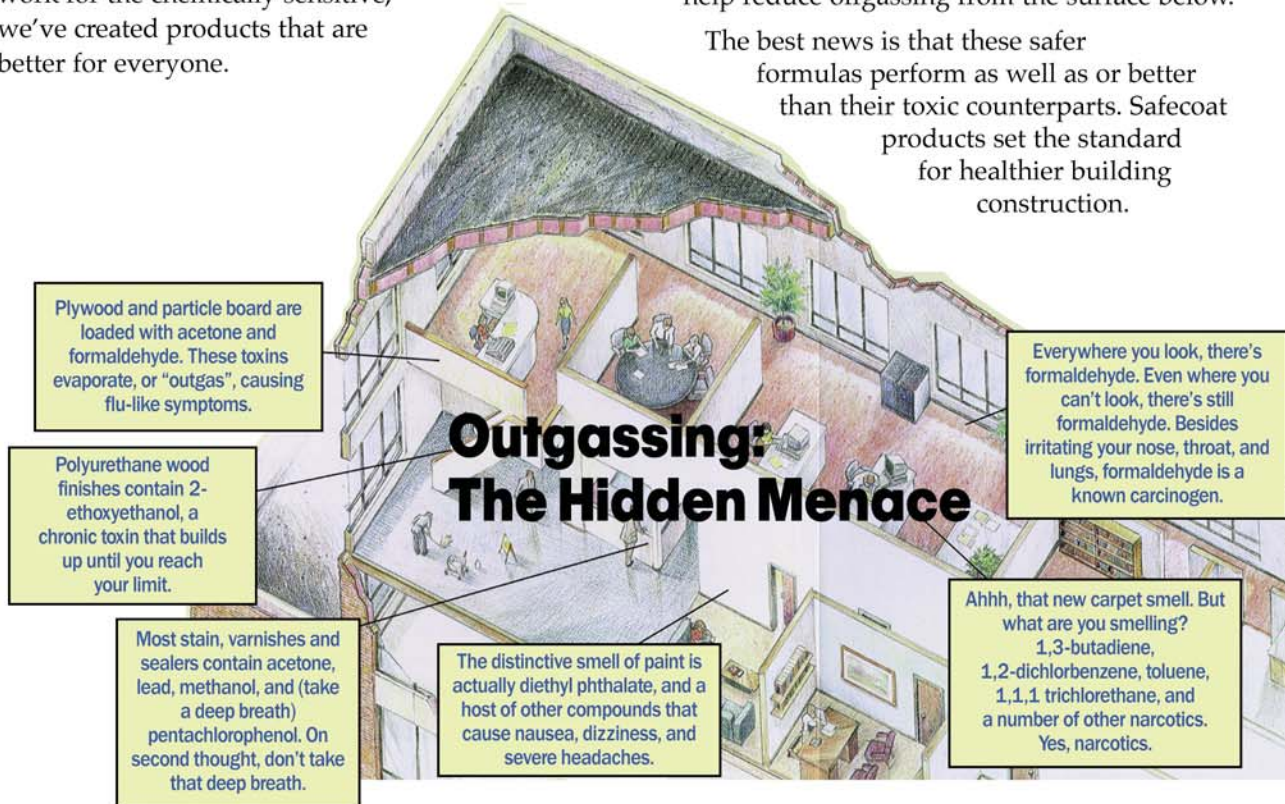
AFM Safecoat's® unique molecular structure forms a tightly knit pattern to block toxic emissions from building material surfaces.

Imagine marshmallows packed tightly together.



Outgassing is like evaporation, only with solid materials. It happens because even the densest solid material isn't really solid. There are spaces between the molecules. And molecules can work their way into the atmosphere, just like they do in evaporation.

All of which would be fine if the evaporating molecules were, say, water molecules. Unfortunately, they're usually something a lot more noxious. Like formaldehyde molecules. They're also constantly bubbling away, into the air you breathe. To make matters worse, today's energy efficient buildings seal in all the toxic gasses so they accumulate, creating a toxic stew.



Plywood and particle board are loaded with acetone and formaldehyde. These toxins evaporate, or "outgas", causing flu-like symptoms.

Polyurethane wood finishes contain 2-ethoxyethanol, a chronic toxin that builds up until you reach your limit.

Most stain, varnishes and sealers contain acetone, lead, methanol, and (take a deep breath) pentachlorophenol. On second thought, don't take that deep breath.

The distinctive smell of paint is actually diethyl phthalate, and a host of other compounds that cause nausea, dizziness, and severe headaches.

Everywhere you look, there's formaldehyde. Even where you can't look, there's still formaldehyde. Besides irritating your nose, throat, and lungs, formaldehyde is a known carcinogen.

Ahhh, that new carpet smell. But what are you smelling?  
1,3-butadiene,  
1,2-dichlorobenzene, toluene,  
1,1,1 trichloroethane, and  
a number of other narcotics.  
Yes, narcotics.

## Formaldehyde Offgassing Reduction Analysis Using Safecoat® Products

Sample	Primer Coat	Finish Coat	Formaldehyde Evaporation mg. per liter
A	Uncoated Plywood	Uncoated Plywood	3.2
B	Transitional Primer	0 VOC Semi Gloss	.03
C	0 VOC Semi Gloss	0 VOC Semi Gloss	.04
D	Polyureseal BP Gloss	Polyureseal BP Gloss	.02

Formaldehyde Offgassing reduced 90+% with various Safecoat systems after one week cure. All surfaces oak plywood with urea adhesive. Dimensions: L - 150mm x W - 50mm x H - 5mm

