

Home & Garden

How & Buy

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# <u>Don't Preserve Formaldehyde</u> in Your Home



By Gemma Alexander

O APR 5, 2022 • formaldehyde, Red List



If the word formaldehyde makes you think of mad scientists, you're not entirely wrong. Formaldehyde is the smelly chemical that preserves dead specimens floating in jars in a science lab. It's not something you want in your home — it doesn't belong there. But it is there. In fact, formaldehyde is in so many things it's hard to completely avoid bringing it into your house. Learn where to find it, how to get rid of it, and what to buy instead.

## Formaldehyde

Best known as a preservative, formaldehyde is a colorless, flammable gas at room temperature. (It's mixed with water in

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those laboratory jars.) It is a <u>volatile organic compound</u> (VOC) with a strong odor. Low levels of exposure cause irritation and sensitization of the skin, eyes, nose, and throat. It also acts as an asthma trigger. Formaldehyde is a known <u>human carcinogen</u>. Long-term exposure is associated with nasal cancers and leukemia. For these reasons, formaldehyde is included in the <u>Red List</u> of "worst in class" materials, chemicals, and elements the green building industry tries to avoid.

### Formaldehyde at Home

Despite the dangers, formaldehyde consistently ranks among the top 50 manufacturing chemicals used by volume. It can be found in insulation and manufactured building products like composite countertops, particleboard, and laminates. It's also in household products like mattresses and upholstery, as well as glues, paints, caulks, cleaning products, and even nail polish. Melamine and bamboo composite kitchenware can contain formaldehyde. People are also exposed to formaldehyde from cigarettes, wood smoke, and automobile tailpipe emissions. Individually, most of these exposures contain such low levels of formaldehyde that they are considered safe. However, human exposure is cumulative, and the little things do add up.

#### Insulation

When you talk about formaldehyde in houses, insulation is often the first thing people think about. When you buy or sell a home, most disclosure agreements require you to state whether there is foam insulation in the house. In the 1970s, urea-formaldehyde foam insulation (UFFI) was commonly installed in homes. It was temporarily banned in 1982 after its health effects became apparent. The ban was overturned when studies showed that off-gassing decreases over time. Although UFFI is still used today, most modern spray foam insulation products do not contain formaldehyde. However, they are still far from green building materials.

Sources vary on whether off-gassing becomes insignificant over a period of <u>mere days</u> or more than <u>two years</u>. In any case, most UFFI is now more than 20 years old and no longer a significant source of formaldehyde in the home – although it may not be providing much value as insulation either. The general recommendation is to leave foam insulation in place until it becomes damaged or you are ready to replace it with a new, <u>sustainable insulation</u>. Removal should be done by a professional. Although it is unlikely to release more

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formaldehyde, it can be tricky to remove large quantities of hardened foam insulation.

#### **Pressed Wood**

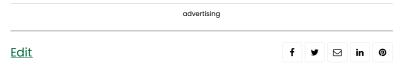
These days pressed, or composite, wood products are the most significant source of formaldehyde in most homes. Resins used in the manufacture of hardwood plywood, particleboard, and medium-density fiberboard contain and can off-gas formaldehyde. Where you can, choose solid wood over pressed-wood products. When you can't, choose products that are labeled compliant with the criteria of the American National Standards Institute (ANSI) or California Air Resources Board Air Toxics Control Measure (CARB ACTM). Avoid "acid-cured" wood floors and finishes. Most composite wood products are not reusable or recyclable (plywood can be an exception) and unless you have a very small amount, must be disposed of as construction and demolition (C&D) waste.

#### Formaldehyde -Free

You can reduce your exposure to the formaldehyde already in your home by maintaining good ventilation, avoiding extremely high temperatures, and keeping indoor humidity levels around 40% to 50%. Because so many building products contain formaldehyde (and other Red List items), a contractor who understands and supports green building practices can be your greatest ally on construction and remodeling projects.

Products containing 1% or more formaldehyde are required to be labeled. Check ingredient lists for formaldehyde, or <u>formalin</u>, as well as <u>synonyms</u> such as methylene glycol, methanal, methanediol, or formaldehyde monohydrate. California has <u>stricter laws</u> for allowable amounts of formaldehyde in wood products; Washington, Minnesota, and New York restrict allowable amounts of formaldehyde in children's products.

Even though labels such as formaldehyde-free, no formaldehyde, low-VOC, and no-VOCs are not backed by law, there are some third-party certifications to look for: SCS Indoor Advantage™ + Formaldehyde Free (primarily for wood products) and <u>Green Guard</u> for overall VOC levels.



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