

THE NEXT STEP Toward a Healthier Future

A BI-MONTHLY NEWSLETTER OF THE SEBASTOPOL TOXICS EDUCATION PROGRAM



Under Pressure

Are you considering an outdoor wood project or product, such as a deck, fence, garden box, or play equipment? **If so, you might be considering pressure-treated (PT) wood,** to help protect the wood from rot and insect damage.

But before you sign on the dotted line, be sure to dig a little deeper. There are important issues to consider — and other options!

So what is PT wood? It sounds innocent enough. But what it means is that toxic materials are forced into the wood using pressure. Sometimes incisions (tiny slits) are made in the wood to get the toxics inside.

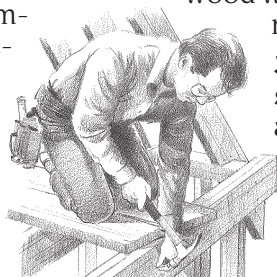
These toxics can make working with the wood more complicated and hazardous, and discarding it more difficult and costly. Plus these materials can leach into soil and waterways.

How Is the Wood Treated?

If you're considering a PT wood, start by asking what specific chemicals are in it. Look for a tag or stamp on the end, or ask the salesperson or contractor.

The key current options are:

1) Chromated copper arsenate (CCA). For decades, PT wood was primarily CCA, which is 22% arsenic by weight. It was commonly used for decks, picnic tables, play structures, and more. **Arsenic is a known human carcinogen** and can increase cancer risk. The risk is



even higher for children, professional and home carpenters, and manufacturing workers. **Unsafe amounts have been shown to stay on the wood surfaces** and rub off, even after 15 years of outdoor exposure and use. It can also wash off structures, accumulate in soil, and harm aquatic invertebrates and plants.

In 2003, after action by nonprofits and citizens, manufacturers withdrew virtually all U.S. residential sales of CCA wood. However, professionals and industry can still buy and use it. So CCA still might be in shingles you buy, structural pieces installed other than decks, and agricultural/commercial products such as fence posts.

2) Copper-based formulas, such as alkaline copper quaternary (ACQ), copper boron azole (CBA), and copper azole (CA). These have largely replaced CCA for residential use, and also protect against rot and insects. This lumber is categorized by use, which then determines chemical levels — for example, if the wood will have ground contact or be above ground. **Be sure the rating matches your planned use.**

This wood is said to have a low health risk once installed. Small amounts of the copper do leach into soil. This heavy metal is highly toxic to aquatic life, so don't use this wood where water runoff can get into marshes or bodies of water.

3) Borate compounds, such as sodium borate and zinc borate. These protect against insects, mold, mildew, and fungi. And

Local Toxics Disposal

■ **The next Sebastopol Household Hazardous Waste (HHW) Collection Event is April 5,** from 4 to 8pm. To make an appointment, at least 24 hours before the event, call 707/795-2025 or 877/747-1870. Or go to <https://bit.ly/3q4OB3S>. Or email toxicsdisposal@cleanharbors.com.

■ **For more about local toxics disposal,** see www.zerowastesonoma.gov or call 707/565-3375.

they're very low-toxic — enough to be used inside homes! However, the material can move out of wood that's continuously exposed to liquid water. **That makes these great for use inside a house's moisture barrier,** such as sill plates and interior framing.

Issues with PT Wood

■ **Limited disposal options and cost.** In Sonoma County, PT wood can't go in the trash, green can, hazardous waste (toxics) disposal system, or main dump. That's to avoid putting these toxics into our air, water, and ecosystems. **And never burn PT wood!** It's illegal because it risks the health of people and animals who breathe the air and ash.

The few places that accept PT wood charge a fee with a minimum. For more, see www.zerowaste.sonoma.gov/materials/treated-wood.

■ **Copper-based and CCA PT wood have notably strong usage guidance.**

- **Personal protection.** Always wear gloves, long sleeves, and eye protection when handling this wood. Add a dust mask when sawing, sanding, or drilling.

- **Cut wood outdoors.**

- **Cleanup.** Wash your hands right after working with this wood — especially before eating, drinking, or smoking. Take a shower afterwards.

- **Managing waste.** Ideally put a tarp under your work surface, to easily clean up all the scraps and sawdust. Don't put waste in the green

See *Pressure*, over

Pressure, continued

can. Keep it away from animal bowls, compost bins, and children's play areas. Don't use as mulch.

- **Special fasteners.** Only use approved fasteners with copper-based PT wood. This includes nails, screws, connectors, deck hangers, etc. That's because the copper in the formula is extremely corrosive to common metal fasteners. This problem has been linked to a number of deck collapses in recent years!

- **Specific installation and maintenance requirements.** PT wood is moisture-filled from its pressure processing, so as it dries, it can shrink, warp, and crack. There are also issues to avoid when staining and painting it.

So ask your contractor or salesperson key questions, such as:

Do we need to wait for this wood to dry before installation, to avoid cracking? Do we need to apply a chemical to cut board ends, and which one? Do we need to wait before staining or painting (so it will adhere)? If we don't stain or paint, do we need to apply a product at the start and/or regularly to block water and UV rays, and seal the PT chemicals in? How often? (Then consider if you want to do that, including in hard-to-access areas.)

"As always, *The Next STEP* is relevant and helpful."

~ Marilyn Madrone

ABOUT STEP

The Next STEP (TNS) is published six times a year by the **Sebastopol Toxics Education Program (STEP)**. STEP is a project of the City of Sebastopol, implemented by local citizen volunteers. STEP's mission is to support city residents in reducing their toxic use and exposure, creating a healthier and safer Sebastopol for everyone.

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Where to Use Copper-based PT Wood

- **Use copper-based PT wood outside your home only**, not inside. Also don't use it for food-related products or activities.

- **I suggest using it only where you really need it, in places with minimal human interaction.**

- **I personally wouldn't use it for garden beds.** It does leach into soil and sometimes into plants. If you do use it for a garden bed, consider installing a thick plastic liner.

What Are the Options?

- **Use the heartwood from naturally durable species**, such as redwood and cedar, which also offer good resistance to rot and insects.

- **Non-wood material**, including steel, aluminum, concrete, and vinyl. Each has pros and cons. Consider what meets your needs for strength, durability, and low-toxicity.

Deciding

I had this choice when rebuilding my little front deck a few years ago. I decided that I didn't want PT wood's sawdust or ongoing leaching on my property, nor its maintenance and disposal requirements. So I used new redwood for the structure underneath (with concrete footings) and put reused redwood on top (including from the prior deck). And I love it!

What About Existing Structures?

What do you do if you already have a deck, play structure, picnic table, or other wood structure?

- **Evaluate if it's made with PT wood, especially CCA wood.**

Got a pest problem? Or a toxics question?

The STEP Online Index can help! It's easy to look up your topic and find our well-researched, condensed, and useful information — to help you get up-to-speed and into action. It also makes it easy to share this information!

www.healthyworld.org/STEP

Some clues: Does it have incisions (small slits) or a green tone? Does it have an oily chemical smell, versus the fresh natural smell of untreated wood? You can also ask an expert or order a swipe test online.

- **If it is PT wood, especially CCA, decide what you want to do.** There's debate about how risky it is. You might tip more towards concern if children will use it or you have health concerns.

Possible actions: Cover picnic tables with tablecloths. Keep children and pets from playing under decks or storing toys there. Regularly seal items with clear coat. Replace key boards in high-traffic areas, such as handrails, with safer options. Remove or replace the item(s).

SOURCES: www.thehandymansdaughter.com/pressure-treated-wood • www.epa.gov/ingredients-used-pesticide-products/overview-wood-preservative-chemicals • https://en.wikipedia.org/wiki/Chromated_copper_arsenate • www.ewg.org/news-insights/news-release/ewg-statement-phase-out-cca • www.softwoodlumber.org/pdfs/Borate-treated_Wood.pdf

Safer Food & Cookware

A new law will help reduce our shared toxic exposure, starting in 2023. Called the California Safer Food Packaging and Cookware Act (AB 1200), **it bans PFAS "forever" chemicals in paper-based food packaging**, such as liners, bags, sleeves, and dinnerware. This group of chemicals is linked to serious health problems, and can move from packaging into food, soil, and water. **The act also requires cookware manufacturers to disclose hazardous chemicals** such as PTFE, a pan coating that can contaminate our kitchens, communities, and environment. And it **prohibits misleading advertising on cookware packaging**.

Thank you to the nonprofits, activists, and legislatures who do the valuable work of shaping these protections for us all!

"Times of disruption can be times of opportunity. We can all help positive futures emerge."

~ Patricia Dines