



Treated Wood

Use, Disposal, and Alternatives for Consumers

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Treating wood with chemical preservatives or pesticides lengthens its useful life and conserves trees, but some of the chemicals used in treating wood are toxic to people and the environment. To reduce adverse health and environmental impacts, be sure to select, use, and dispose of treated wood products safely and appropriately.

Chromated copper arsenate (CCA)

The pressure-treated wood industry voluntarily discontinued the use of chromated copper arsenate (CCA) as the primary wood preservative used for most residential and general consumer construction. Federal and Minnesota Pollution Control Agency (MPCA) guidelines recommend that any stockpiled CCA-treated wood *not* be used inside homes, on decks, or in playground equipment.

There are now several arsenic-free wood pressure treatment alternatives to CCA for sale, including:

- Ammoniacal copper quaternary (ACQ)
<http://www.epa.gov/oppad001/reregistration/cca/acq.htm>
- Borates
<http://www.epa.gov/oppad001/reregistration/cca/borates.htm>
- Copper azole
<http://www.epa.gov/oppad001/reregistration/cca/copperazole.htm>
- Cyproconazole
<http://www.epa.gov/oppad001/reregistration/cca/cyproconazole.htm>
- Propiconazole
<http://www.epa.gov/oppad001/reregistration/cca/propiconazole.htm>

These alternatives are made with less-toxic materials. Wherever possible, consider alternatives to treated wood, listed at the end of this fact sheet. For more information please visit

<http://www.epa.gov/oppad001/reregistration/cca/pressure-treated-wood-alternatives.htm>

Other preservatives to avoid because of the danger from skin, inhalation, and oral exposure:

- Pentachlorophenol (PCP or “penta”) is typically used for telephone poles and becoming less popular as a wood preservative.
- Creosote, a tar-like substance, is used for railroad ties and construction pilings.

Federal guidelines recommend not using penta- and creosote-treated wood for structural uses inside homes, on decks, or in playground equipment.

Selecting and using treated wood

Before buying or using treated wood, consider these factors: Will it be used indoors or outdoors? Will it come into direct contact with people or animals? Will it come into contact with any drinking water, lakes, streams, or groundwater? Is there a less-toxic or nontoxic alternative to treated wood?

- The U.S. Environmental Protection Agency and the wood-treating industry have established federal guidelines on using treated wood. These Consumer Information Sheets are available from lumber suppliers. Ask for them when you purchase your lumber.

Selecting wood for projects

- Treated wood can be used for docks, bridge supports, underground construction pilings, and other structural purposes where it comes into contact with surface or ground water. However, other less-toxic alternatives are available for some of these purposes.
- CCA-treated wood should never be used or “recycled” as mulch, compost, or any other product that may become a component of food or animal feed. Do not use treated wood for cutting boards, counter tops, animal bedding, borders for food gardens, and structures or containers for storing animal feed or human food.
- Only treated wood that is visibly clean and free of surface residue should be used for patios, decks, and walkways.
- Do not use treated wood for construction of those portions of beehives which may come into contact with honey.
- Treated wood should not be used where it may come into direct or indirect contact with drinking water.

Tips for working with treated wood

- Use the smallest amount of treated wood needed and make the fewest possible cuts to reduce wood waste.
- All sawdust and construction debris should be cleaned up and disposed of after construction.
- Avoid frequent or prolonged inhalation of sawdust from treated wood. When sawing, sanding, and machining treated wood, wear a dust mask. Whenever possible, work outdoors to avoid indoor accumulations or airborne sawdust from treated wood.
- When power-sawing and machining, wear goggles to protect eyes from flying particles.
- Wear gloves when working with the wood.
- After working with the wood, and before eating, drinking, toileting, and use of tobacco products, wash exposed areas thoroughly.
- Because preservatives or sawdust may accumulate on clothes, they should be laundered before reuse. Wash work clothes separately from other household clothing.

Never burn treated wood

Treated wood should never be burned in wood stoves, fireplaces, or recreational or cooking fires. Open burning of treated wood is prohibited by state law (Minn. Stat. § 88.171). The particulate matter and toxic gases released during burning can cause eye and nose irritation, breathing difficulty, coughing, and headaches. People with heart disease, asthma, emphysema, or other respiratory diseases are especially sensitive to air pollutants. The chance of human health impacts depends mostly on the concentration of air pollutants in people’s breathing zone (the air that’s breathed around the nose and mouth).

The toxic chemicals released during burning include nitrogen oxides, sulfur dioxide, volatile organic chemicals, and polycyclic organic matter. Burning treated wood also releases heavy metals and toxic chemicals such as dioxin.

Dispose of treated wood properly

In many areas, CCA-treated wood can be disposed of with regular municipal trash (but not yard waste). Some trash haulers have special requirements for treated wood pickup, or may not accept it. Contact your county solid waste office for information on how to dispose of CCA-treated wood in your area. Disposal in demolition landfills is prohibited.

Avoid treating existing wood structures

Self treating wood structures with a preservative is not effective, so the MPCA strongly discourages this practice. However, coatings to protect wood, such as stains, paints and water sealants (which are not true wood preservatives) can be applied after wood is already in place. Even these coatings should be applied with care to prevent spills and leaks, which can cause contamination. Precautions include removing docks from the water before applying a coating, or using drop cloths and catch basins when possible.

Alternatives to treated wood

Plastic lumber is usually made with high-density polyethylene (HDPE) plastic resin, and does not leach toxic chemicals into the soil or water the way treated lumber does.

- Metal and plastic dock or fence materials can be used in place of treated wood.
- Untreated cedar for the portions of deck and playground equipment that people frequently touch or use.
- Landscape blocks for gardening and landscaping.
- Steel pilings filled with concrete in place of creosote-treated underground construction pilings.
- Wood treated with less toxic preservatives, such as ACQ, copper azole, and ammonia cal copper citrate.

Recycled products directory: (scroll down to Construction: plastic lumber)

<http://www.pca.state.mn.us/oea/rpdir/index.cfm>

Plastic lumber guide:

<http://www.rethinkrecycling.com/government/eppg/-buy-products-services/exterior-building-products>

For more information

Contact your county solid waste management office.

<http://www.pca.state.mn.us/oea/lc/county.cfm>

Or contact the Minnesota Pollution Control Agency at 651-296-6300 or 800-657-3864; TTY: 651-282-5332.

Regional offices: 800-657-3864;

<http://www.pca.state.mn.us/waste/hhw/index.html>