



Minnesota Department of Health

Environmental Health Information Sheet

Chromated Copper Arsenate (CCA)

This information is written in response to health concerns about the use of wood treated with chromated copper arsenate (CCA). Wood used in outdoor structures, such as decks and children's play equipment, is often pressure-treated with CCA. CCA protects the wood from deterioration and prevents structures from rotting, collapsing and causing injuries. The CCA in treated wood is a combination of the metals chromium, copper and arsenic, chemically bonded together. The most toxic part of the CCA pesticide is arsenic. Arsenic is a naturally occurring element and can be found in small amounts in soil, water and air.

Recommendations

- ➔ **NEVER BURN TREATED WOOD, WOOD SCRAPS OR SAWDUST.** Decide on a safe disposal method or location for wood, wood scraps and sawdust prior to purchasing treated wood. Contact the Minnesota Pollution Control Agency, city or county environmental officials for information. By law, treated wood cannot be disposed of in demolition landfills or unlined landfills in Minnesota. Improper disposal of CCA-treated wood or wood scraps may result in contaminated soil or groundwater.
- ➔ Seal existing CCA-treated structures (decks, playscapes) every 2 years with an oil-based sealant. This is in accordance with the wood manufacturers' recommendations for maintenance of CCA-treated wood. Proper sealants will decrease the amount of arsenic residue on the surface as well as keep the wood from cracking and splitting. Sealants should also minimize the amount of arsenic that can be leached into the soil beneath a structure.
- ➔ Encourage children to wash their hands following play on CCA-treated playscapes. Adults who work with treated wood should also wash their hands before handling food.
- ➔ Do not eat or prepare food on CCA-treated surfaces. If you use a CCA-treated picnic table, cover the table with a tablecloth.
- ➔ Follow safe handling guidelines if you use CCA-treated wood in building projects. Cut and sand CCA-treated wood outdoors; wear a dust mask; collect sawdust and scraps on a dropcloth; wash hands and clothing upon completing work.
- ➔ Limit use of under-deck areas where arsenic may have accumulated in the soil.
- ➔ Do not use treated wood on exposed indoor surfaces.
- ➔ Do not use CCA-treated wood for wood chips or mulch.

What are the Health Concerns?

Arsenic causes cancer in humans and has other toxic effects on the skin and internal organs. These effects may occur following long-term (chronic) exposures to small amounts of arsenic. Arsenic health effects can take years to develop. Short-term (acute) exposures to arsenic can also affect health.

Exposure to arsenic from treated wood occurs when the wood, scraps or sawdust is burned. Since arsenic is an element, it cannot be destroyed by fire. Burning CCA-treated wood releases arsenic, copper and chrome into the air in dangerous amounts and the leftover ash can have very high concentrations of arsenic. Arsenic in ash can be drawn into the groundwater by rainwater and contaminate drinking water wells.
CCA-treated wood should never be burned.

Boards used in playgrounds may have a fine coating (or residue) of the pesticide left on the wood's surface. This can easily be picked up on hands or clothing of children. Given the skin-contact and frequent hand to mouth behaviors prevalent among young children, daily play activity could result in significant exposure. Older children who spend considerable time playing on CCA-treated structures or adults who frequently eat on CCA-treated tables that are not properly sealed, may also be at risk.

Recent studies have shown the CCA "leaches" (is released) from treated wood by rainwater. This can leave a residue on the wood surface and contaminate the soil beneath the wood structure. This is of particular concern for children who play underneath CCA-treated wood structures and who may ingest soil. Leaching of CCA can be minimized by sealing structures every two years with an oil-based sealant.

People working with treated wood can also be exposed to significant amounts of arsenic. This can occur if dust is breathed, or if dust or residues on unwashed hands is ingested.

Arsenic is not readily absorbed by plants but soil or dust contaminated with arsenic can accumulate on leafy or root vegetables. If you are concerned, insert a plastic liner on the inside of treated wood to frame garden beds.

Are there alternatives to CCA-treated wood?

Yes. For new structures, consider redwood and cedar, which are naturally rot-resistant and can be used in above ground construction. Wood-plastic composites are another alternative. Metal play equipment and picnic tables are also available. Wood boards that are pressure treated with other pesticides may not contain arsenic but still should be carefully evaluated.

Who can I contact for more information?

Minnesota Department of Health, Division of Environmental Health: (651) 201-5000 or (888) 345-0823.

Minnesota Pollution Control Agency: (651) 296-6300 or (800) 657-3864; TDD (651) 282-5332.
Environmental Protection Agency, Office of Pesticide Programs: <http://www.epa.gov/pesticides/>

This information sheet was prepared in cooperation with the U.S. Agency for Toxic Substances and Disease Registry.

To request document in another format - 651-201-4911; TTY: 651-201-5797