

REPORTER

What you need to know about wood pressure-treated with chromated copper arsenate (CCA)

from the United States Environmental Protection Agency

Chromated Copper Arsenate (CCA) is a chemical mixture consisting of three pesticidal compounds (arsenic, chromium, and copper) registered for wood preservative uses. EPA is currently reassessing CCA as part of its ongoing reregistration program for older pesticides. Federal law directs EPA to periodically reevaluate older pesticides to ensure that they continue to meet current safety standards. We have updated this document to reflect recent changes to the status of the registration for CCA.

How is CCA used?

CCA is injected into wood by a process that uses high pressure to saturate wood products with the chemical. Only people who have received the proper safety training should use CCA to treat wood products. CCA is intended to protect wood from dry rot, fungi, molds, termites, and other pests that can threaten the integrity of wood products. CCA-treated wood is most commonly used in outdoor settings. Around the home, CCA-treated wood is commonly used for decks, walkways, fences, gazebos, boat docks, and playground equipment. Other common uses of CCA-treated wood include highway noise barriers, sign posts, utility posts, and retaining walls. On February 12, 2002, EPA announced a voluntary decision by industry to move consumer use of treated lumber products away from CCA pressure-treated wood by December 31, 2003, in favor of new alternative wood preservatives. As of January 1, 2004, EPA will not allow CCA products to be used to treat wood intended for most residential settings.

What precautions should be taken when working with CCA-treated wood?

Excessive exposure to inorganic arsenic can be hazardous to your health. Certain activities can facilitate the release of inorganic arsenic, so people working with CCA-treated wood should take a number of precautions, as follows:

- Saw, sand, and machine CCA-treated wood outdoors. Wear a dust mask, goggles, and gloves.
- Clean up all sawdust, scraps, and other construction debris thoroughly and dispose of in the trash (e.g., municipal solid waste). Do not compost or mulch sawdust or remnants from CCA-treated wood.
- Do not burn CCA-treated wood, as toxic chemicals may be released as part of the smoke and ashes.
- After working with the wood, wash all exposed areas of your body, especially the hands, thoroughly with soap and water before eating, drinking, toileting, or using tobacco products.
- Wash your work clothes separately from other household clothing before wearing them again.

These precautions will reduce your exposure from inhaling or ingesting sawdust, protect your eyes from flying particles, and prevent exposure to toxic smoke and ash. For more suggestions on avoiding unnecessary exposure to CCA, the Agency has identified some Common Sense Tips. Before working with CCA-treated wood, always consult the Consumer Safety Information Sheet, which is also available in hard copy at 1-800-282-0600.

How should you dispose of CCA-treated wood?

Homeowners should never burn CCA-treated wood or use it as compost or mulch. CCA-treated wood can be disposed of with regular municipal trash (e.g., municipal solid waste, not yard waste). Home-owners should contact the appropriate state and local agencies for further guidance on the disposal of CCA-treated wood.

Does arsenic leach from treated wood products into soil? If so, what happens to it?

Published results of scientific studies suggest that arsenic, over time, slowly leaches from CCA-treated wood products. The amount and rate at which arsenic leaches, however, varies considerably depending on numerous factors, such as local climate, acidity of rain and soil, age of the wood product, and how much CCA was applied. Some chemicals may also be dislodged from the surface of the wood upon contact with the skin.

Is arsenic present in the environment from other sources?

Arsenic is a chemical element and is a natural constituent of the Earth's crust. It occurs naturally in rocks and soil, water, air, and plants and animals. When in the natural environment, arsenic usually binds to other molecules, such as those found in soils, and does not tend to travel very far. The average concentration of arsenic in soils in the United States varies considerably. Arsenic can be released into the environment through natural occurrences such as volcanic activity, erosion of rocks, and forest fires, or through human actions. Agricultural practices, mining, and smelting also contribute to arsenic releases in the environment. Approximately 90 percent of industrial arsenic in the United States is currently used as a wood preservative, but it is also used in paints, dyes, metals, and semiconductors.

What risks does arsenic pose to human health?

Arsenic is a known human carcinogen and is acutely toxic. When estimating the potential risks that a chemical may pose, one must consider two factors: toxicity and exposure. Toxicity is described as the harmful effects that the chemical may cause, which is

often dependent on the amount or dose received. Exposure is the dose received, typically orally or through contact with the skin, or by inhaling, over a certain period of time. Thus, whether any risk of toxic effects exists is dependent on both toxicity and exposure. As part of our comprehensive reassessment, EPA is evaluating both the toxicity and the potential exposure to arsenic from CCA-treated wood in light of the most recent scientific studies, which will allow EPA to characterize the potential risks from CCA-treated wood. EPA expects to release its comprehensive risk assessment for public and scientific review in 2003.

How should I use CCA-treated wood?

CCA-treated wood is used in a variety of outdoor structures. Many people have used CCA-treated wood for fences, posts, decks, and gazebos. It should not be used where routine contact with food or animal feed can occur. Do not use CCA-treated wood for cutting boards, counter tops, bee hives, compost, mulch, or structures or containers for storing human food or animal feed. Furthermore, since some animals like to eat wood, CCA-treated wood should not be used where animals can chew on the treated wood. Also, do not use where treated wood may come into direct or indirect contact with drinking water, except for uses involving incidental contact with docks or bridges. On February 12, 2002, EPA announced a voluntary decision by industry to move consumer use of treated lumber products away from CCA pressure-treated wood by December 31, 2003, in favor of new alternative wood preservatives. As of January 1, 2004, EPA will not allow CCA products to be used to treat wood intended for most residential settings. ■

This article can be found on the EPA's Web site at www.epa.gov/pesticides/citizens/cca_qa.htm

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