

Preservation Technology at Work



Osmose Lifewood Marine H6

Lifewood FAQ's

"Used since the 1960's, CCA-treated wood has never been linked to skin diseases or cancer in children exposed during recreational use.

Manifestations of arsenical skin diseases and cancers would be expected after 30+ years of use if toxic levels of arsenic were leaching from the wood.

Thus, the levels of arsenic in or around CCA-treated wood in playgrounds and recreational facilities does not appear to be sufficient to adversely affect the health of children or adults."

Florida Physicians Work Group June 14, 2002

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O. Is Lifewood CCA treated wood safe?

Yes, when used as recommended. Wood properly treated with waterborne preservatives in accordance with New Zealand and Australian standards and used within the guidelines of the Environmental Protection Agency poses no threat to people, plants, or pets.

Q. Does the use of treated wood affect the environment?



First of all, treated wood comes from a renewable resource. Wood is our only major renewable building material. The trees used for treated lumber and poles in New Zealand and Australia are species that are plentiful and fast-growing, thereby replenished rapidly. They are grown on managed timberlands, not in ecologically sensitive old-growth forests or unregulated tropical rain forests. Like all wood, treated wood provides good insulation against noise, temperature, and electricity.

And preservative treatment extends the life of wood, reducing demands on forests and related resources. Moreover, the production of treated wood requires less energy than production of alternatives such as steel or plastics and, because of its lighter weight, preserved wood can often be installed with lighter equipment, thus causing less environmental disturbance.

On top of all this, the lower price typical of treated wood allows limited budgets to devote savings to other aspects of conservation.

Q. What additional safety equipment do I need while working with Chromated Copper Arsenate (CCA) treated wood?

Use standard safety equipment and common sense when working with all types of building materials. Eye protection and dust masks should be used when sawing or machining any wood product, treated or untreated. Inhalation of sawdust can cause nose and throat irritation. Protecting your eyes from any foreign matter while sawing or machining is good safety practice. Wearing gloves provides extra protection against splinters. Practising good housekeeping hygiene at the completion of any construction project is always advisable. This includes washing hands and cleaning up sawdust in the work area. Other recommendations by Osmose can be found on our Consumer Information Handling Guides and the Osmose website www.osmose.com.au or www.osmose.co.nz.

Q. How should I dispose of pressure-treated wood?

Before considering disposal, you should consider reusing or recycling the treated wood product. Treated wood can be reused in a manner compatible with its original purpose, such as fence posts, retaining walls, landscaping, decks, general construction and the like. Poles may often be reused in landscaping projects.

Home owners can dispose of treated wood with normal trash for disposal in a landfill. Commercial and industrial users can also deposit treated wood in a landfill.

Q. Can wood treated with preservatives be burned?

As with many building products, treated wood should not be burned in open fires or stoves, fireplaces, or residential boilers.

Treated wood should only be burned in an approved commercial or industrial permitted co-generation or incinerator facility that is properly permitted to accept the treated wood under the applicable state and Federal regulations.

Q. Why do some claim that treated wood causes cancer in humans?

The claims are unfounded in fact or in the scientific data. Laboratory and experimental investigations of the product have shown that treated wood has not caused cancer in humans. Epidemiology studies of wood-treatment plant workers and of carpenters showed no increased risk of cancer as a result of exposure to preservative-treated wood.

In order to confirm that treated wood did not contribute to a cancer hazard in humans, a series of researchers undertook studies on the health status, including cancer incidence, of workers at wood-treating plants.

By the nature of their profession, wood treaters had the greatest degree of contact with treated wood and wood-treating pesticides, and, presumably, are the population at greatest risk of suffering adverse health effects as a result of exposure to treated wood.

Three independent studies conducted on wood-preserving workers' long-term health status, interpreted by professional epidemiologists, provided reproducible evidence that people exposed to arsenic and chrome from preserved wood are at no increased health risk. The treated wood plant workers, in fact, did not experience illness of any kind, including cancer of any type, at a greater incidence than workers not involved with treated wood. The studies also showed that the workers studied did not die from any cause at an earlier age than workers not exposed to treated wood.

Quantitative scientific studies have documented the absence of an excess of detrimental health effects of any kind, including cancer, in those individuals.

 Renowned US toxicologist Dr Barbara Beck of Gradient Corporation conducted a human health risk assessment, completed in October 2001.

The study concludes that both the cancer and non-cancer health risks from exposure to arsenic in CCA-preserved wood fall within the US EPA's acceptable risk limits. Dr Beck's team studied the potential for dermal contact with and ingestion of arsenic dislodged from CCA- preserved wood structures as well as ingestion, dermal contact, and inhalation of soil containing arsenic released from CCA-treated wood structures.

O. What if treated wood comes in contact with food and water?

Incidental contact of treated wood with drinking water, as with piling, docks, piers, or bridges, is acceptable. However, treated wood should not be used where it is likely to become a component of food or animal feed, or where the wood is likely to mix with foodstuffs.

Treated wood should not be used for kitchen counter tops or food cutting boards. The U.S. Food and Drug Administration recommends not using any wood for kitchen counter tops or food cutting boards, because food may become trapped in the knife cuts in the board, allowing bacteria to grow and creating an unsanitary environment.



Q. If my child drops food onto the deck and then picks it up and eats it, will it cause harm?

No. There is little risk that the preservative will migrate from the wood to the food. You should, however, discourage this practice with your children no matter where their food falls.



A splinter from treated wood should be treated in the same way as a splinter from non-treated wood. Remove the splinter, wash the affected area, apply first aid ointment where appropriate and place a bandage on the wound if necessary.



Q. Where is wood treated with waterborne preservatives used?

Wood treated with these preservatives is used in decks, fences, landscaping, docks, marinas, utility poles, mine shafts, bridges, boardwalks, highway sound barriers, cooling towers, agricultural stakes, walkways, trellises, railways, roller coasters, playground equipment, and pilings, among many other uses.

Q. Is treated wood suitable to use in the water?

Yes. Pressure-treated wood is suitable for use when used as directed in nearly all dock, marinas, pilings, and bulkheads, and is widely used for these applications.

Q. Can treated wood be used in gardening projects?

Yes. The extra durability of pressure treatment makes treated wood the perfect product for raised beds, terraced gardens, grape or tomato stakes, mushroom trays, vineyard supports, retaining walls, trellises, arbors, garden furniture, compost bins, walkway steps, flower bed edging, and planters. Any assertion that gardeners should not grow edibles in planters or raised beds made with treated wood is without basis.

Q. If treated wood is used for piers, docks, and pilings does it have any effect on marine organisms?

Treated wood does not release significant amounts of preservative materials. In fact, many marine organisms live, grow, and flourish on treated pilings. A study at Springborn Laboratories looked further, checking for any effects on tiny, bottom-of-the-food-chain organisms that live in sediment near CCA-treated wood. This study - designed by an independent toxicologist, reviewed by an independent marine biologist, and conducted by an independent laboratory - found no adverse impact from the treated wood.



Q. Does treated wood used for posts, poles, and in other ground contact applications leach chemicals into the soil?

Several studies have been completed by utility companies and by universities addressing the migration of preservatives from poles. These studies indicate that preservatives from poles do not cause groundwater contamination. The concentrations of preservatives released from treated wood pose no significant threat to human health and the environment.

Late in 1993, the Tasmanian (Australian) Parks and Wildlife Service published its study on the effects of CCA-treated wood walkways, some of which had been in place for 15 years. The study which included soil sampling and laboratory research, concluded that the treated-lumber poses "very low risk to the environment and workers" and pointed out the advantages of treated wood.



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O. Can livestock be housed in structures made with CCA treated wood?

Yes, properly processed CCA-treated wood is considered suitable for use in construction of livestock fencing, cribs, pens, stalls, and other boarding structures. Studies have shown no observed harmful effects to test animals from skin contact or even ingestion of CCA-treated wood.

Some livestock are prone to cribbing (biting and eating) the wood used for their enclosures. In studies where animals were fed CCA-treated sawdust, there were no observed harmful effects either to the animals themselves or to their offspring. In fact, laboratory studies based on animal exposures have shown that an average horse would have to eat a two-by-four approximately 10 feet long at one time to take in the amount of CCA preservative considered lethal.

Q. Why is pressure-treated wood preferable to concrete, plastics, steel, and aluminum in many uses?

Steel, concrete, and aluminum result in much higher construction costs, higher energy requirements in the process of creating substitute materials, greater air and water pollution and/or environmental protection costs, and higher dependence on foreign sources for imported materials.

In addition, some types of steel may corrode, concrete may deteriorate in salt water, and plastic may not have the strength, durability, and structural integrity of treated wood. Since wood is a renewable resource, modern forest managers can ensure a continuous and plentiful supply, while wood preservation extends the nation's forest resource.

Finally, it is easy to make on-site modification to wood structures. This is not only because wood is easier to work with than other materials, but also because woodworking skills are much more common than skills required for other materials.

For more detailed information visit www.preservedwood.com where you will find many peer reviewed studies including:

- Estimate of Risk of Skin Cancer from Dislodgeable Arsenic on Pressure-treated Wood Playground Equipment. Consumer Product Safety Commission, 1990.
- "Risk Assessment Underlines Safety of Preserved Wood" (press release), August 6, 2001.

- "How Safe Is Preserved Wood?", American Wood Preservers Institute video, 2000.
 "Swing Sets Test; Playing It Safe", Consumer Reports magazine, May 1996, page 42.
 "Trashing the Planet", Dixy Lee Ray, pp. 75-77, 1990.
 Assessments of Risk from exposure to CCA-Treated Wood in decks, Playgrounds and the Soil Beneath Them. Dr. Christopher Teaf, Florida State University, 2000.
- Evaluation of Risk to Children Using Arsenic-t
- Occupational Health, Inc., January 15 1984.
- Evaluating the Environmental Risks Associated With the Use of Chromated Copper Arsenate-Treated Wood Products in Aquatic Environments, Kenneth M. Brooks, Ph.D., Aquatic Environmental Sciences from Estuaries, Vol. 19, No. 2A, June 1996.
- Arsenic Availability from CCA Treated Lumber and Uptake by Plants, Farhana Alamgir, Deborah Allan, and Carl Rosen, department of Soil, Water, and Climate, University of Minnesota.

GUIDE TO WORKING SAFELY WITH TREATED TIMBER Always wear dust Always wear gloves Wash work clothes mask and goggles when working with separately treated wood Do not use treated Do not use treated Do not burn Treated wood should Dispose of waste in wood shavings or sawdust as animal litter wood to cook food treated wood not come into contact an approved landfill with drinking water

Osmose Australia

Customer Support 1 800 088 809 www.osmose.com.au