

How safe is CCA treated pine?

In recent months CCA treated timber has received some adverse publicity. The first occurrence was in the TV show "The Practice" where a fictional law suit was conducted claiming that children were poisoned by playing on CCA treated playground equipment. More recently an article on the same thing was published in Time Magazine. The Time article quoted emotionally charged language such as "toxic playgrounds" and "an arsenic delivery system for our kids". This is sure to generate questions from the general public.

The first thing to note about the claims being made is that there is no evidence to support any of these statements. The environmentalists quoted in the Time article are concerned about arsenic poisoning from contact with the surface of CCA treated timber. Some genuine research has been conducted which clarifies the situation.

Renowned toxicologist, Dr Chris Teaf, from Hazardous Substance & Waste Management Research Inc. in Florida US, conducted the most comprehensive study of recent times. Dr Teaf tested soil from under CCA treated decks, soil from under playground equipment and wood surface exposure from playground equipment or decks. In all three situations the potential arsenic exposure was significantly below levels needed to have any adverse health

effects in either short or long term. A study of carpenters in fabrication plants conducted by the Wisconsin Department of Health & Social Services, and a study of treatment plant workers by the University of Hawaii showed no measurable health effects from CCA chemicals. The workers in both studies had been exposed to CCA chemicals and timber over long periods.

A paper by Harry Greaves of the CSIRO Forestry and Forest Products Division gives the following information on arsenic. Arsenic is a common element in our environment. It can be found in soils, water, meats, vegetables, fruit, grains, dairy products and seafood. Arsenic is found in two common forms, trivalent and pentavalent. The trivalent form is able to bind with biological tissues causing chronic and acute effects, but the pentavalent form is much less reactive. In treated wood, arsenic is predominantly pentavalent.

Evaluations by the Environmental Protection Agency and the Consumer Product Safety Commission in the U.S. have found CCA treated timber safe to use. In its Handbook for Public Playground Safety, the Consumer Product Safety Commission affirms the use of CCA treated wood in accordance with the industry standard for playground equipment. CPSC official John Preston stated, "The amounts of dis-lodgeable arsenic were

much below the level that makes a difference to health. I have no problem with telling consumers it is appropriate for playground use." Regarding the Kidspace Playground in Florida that sparked this whole issue, the amount of arsenic found in the soil immediately around the playground is less than what occurs in many soils naturally. In order for the playground soil to begin to cause any harm, a child would have to consume from three to four tablespoons per day over six to seven years.

There can be no doubting the environmental benefits of building with pine. It is a renewable resource and consumes far less energy than alternate products in the production process. CCA treatment extends the product life, which further reduces its environmental impact.

The evidence is clear that CCA treated pine is safe to build with when normal safety guidelines are followed, and it is safe for consumers in the applications for which it is designed. Further information is available from your Pine Solutions Australia Representative.

By Greg Berriman, based on extensive research of published articles on CCA treated pine. See references below.



References

Time magazine, July 16, 2001 • Greaves H. 1985. CCA Treated Timber facts, Figures and Comments on Health and Safety in Use • Hazardous Substance and Waste Management Research, Inc. 2001. Letter form Christopher Teaf to Scott Ramminger, President and CEO of the American Wood Preservers Institute, April 9, 2001 • Consumer Product Safety Commission, Handbook for Public Playground Safety, 1990.