

## Copper chrome arsenic (CCA) treated timber

Copper chrome arsenic (CCA) treated timber is timber that has been preserved with a combination of copper, chrome and arsenic. CCA treatment prolongs the life of wood, which is why CCA treated timber is commonly used in so many ways, including playground equipment, fences, retaining walls and jetties.

### International concerns about CCA timber

The CCA process gives the treated wood a green tint. While the timber is harmless when the chemicals it contains are fixed within the dry wood, there have been recent international concerns about the potential for harm, as arsenic may leach out to the surface of the timber. For example, the United States and Canada jointly decided to avoid the use of CCA treated timber in non-industrial settings after January 2004. In March 2005, the Australian Pesticides and Veterinary Medicines Authority (APVMA) reviewed the safety of CCA treated timber.

### Australian recommendations

The APVMA concluded that:

- From March 2006, CCA treated timber is not permitted to be used in the construction of new garden furniture, picnic tables, exterior seating, children's play equipment, patios, domestic decking and handrails.
- CCA treated timber can be used in other applications such as piling and other structure foundations, residential construction, industrial and commercial construction, rural and farm use, poles, fencing, landscaping timbers, fresh and salt water structures, signage and boat construction.
- There is no evidence to suggest that CCA timber is harmful when handled or used properly. Therefore, existing structures made from CCA treated timbers don't need to be removed and replaced until they reach the end of their functional life.

### The preservation process

The compounds copper and arsenic help to protect the wood from insect and fungal damage, while the chrome 'locks' the compounds into the timber and reduces the risk of the chemicals leaching out. The CCA process was pioneered in 1933 and is used worldwide. New Zealand, USA and Australia are the three highest consumers of CCA treated timber.

### Arsenic

The general population is exposed to naturally occurring amounts of arsenic in soil, water and food. The main concerns about CCA treated timber relate to arsenic, which could be absorbed via the skin, inhaled when burnt or ingested. Over time, small amounts of chemicals may leach from CCA treated timber, but research has found that the amount of leached arsenic is less than that found in common foods. The human body can metabolise and eliminate small amounts of swallowed arsenic.

### How to reduce risk in your home workshop

While CCA treated timber appears to be a safe product, it is important to limit possible exposure to the chemicals. To reduce your risk while using CCA treated timber at home, you should:

- Select the correct timber for the job. The timbers are treated to different levels according to their intended end use. Observe warning labels on CCA treated timber.
- Cover any existing skin injuries such as cuts, wounds or abrasions before you work with CCA treated timber.
- Wear a dust mask labelled either as P1 or P2 to avoid inhaling sawdust.
- Wear eye goggles, gloves and appropriate clothing to prevent splinters.
- Keep food and drinks away from sawdust or CCA wood surfaces.
- Avoid sawing or sanding the wood in confined spaces. Work with CCA wood outdoors whenever possible.
- Reseal cut surfaces with a timber preservative.
- Use stainless steel or 'hot-dip' galvanised plates, bolts and nails.
- Wash your hands and face after working with the wood and before eating, drinking or any other activity that involves hand-to-mouth contact such as smoking.
- Clean sawdust from personal protective equipment before you use it again.
- Clean your workshop or garage thoroughly – don't leave sawdust lying about.

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## Playground equipment

It has been proposed that children risk eating tiny amounts of arsenic if they lick their hands after playing on CCA treated timber play equipment, or eat the soil surrounding the equipment.

However, the Commonwealth Department of Health and Ageing states that there is 'no compelling evidence from the available data to conclude that there was likely to be an unacceptable risk to public health'. CCA treated timber has been in use for 30 years and no cases of adverse health effects have been reported in children playing on (or near) CCA treated timber play equipment. If you would prefer to take a cautious approach, suggestions include:

- Don't allow food to come in contact with CCA treated timber play equipment.
- Make sure that children wash their hands after playing outside and before eating and drinking.

There is no need to remove existing CCA treated timber play equipment from your backyard. It is unknown whether or not painting or sealing CCA treated timber play equipment is helpful. If you are planning to build play equipment on your property, consider using arsenic-free alternative timber treatment products. Talk to the staff at your local hardware store for information and guidance.

## Risk reduction strategies – general suggestions

Suggestions include:

- Wash your work clothes separately after cutting or sanding CCA timber.
- Don't use CCA timber for kitchen cutting boards, kitchen countertops or food containers.
- Never burn CCA treated timber in fireplaces, barbecues, wood stoves or any other type of wood fire.
- Don't use sawdust in mulch, compost or animal feed.
- Don't leave the timber where others may take it and use it for firewood; for example, don't put it out on your nature strip.
- Put small amounts of offcuts into your regular rubbish bin or dispose of CCA treated timber at approved landfill sites. Contact your local council for further information.

- Be guided by the relevant timber associations but, generally speaking, it may not be advisable to use CCA treated timber for animal cages – for example, bird cages – if the animal likes to chew on wood.
- Don't use CCA treated timber in the construction of fish ponds.

## Where to get help

- Your doctor
- Your local council
- Department of Human Services Victoria, Environmental Health Unit Tel. (03) 9637 4156
- Plantation Timber Association Australia Tel. (03) 9859 2455
- Timber Preservers Association of Australia Tel. (03) 9597 0680
- EPA Victoria Tel. (03) 9695 2722
- Contact the Department of Human Services Children's Services Adviser in your region for information about CCA treated timber equipment in kindergartens and child care centres
- Contact the Department of Education and Training for information about CCA treated timber equipment in schools Tel. (03) 9637 2000
- Contact the Department of Primary Industries, Chemicals Standards Branch for information on permitted applications for CCA treated timber after March 2006 Tel. (03) 9210 9379

## Things to remember

- Copper chrome arsenic (CCA) treated timber is timber that has been preserved with a combination of copper, chrome and arsenic.
- While CCA treated timber can be considered to be a safe product when handled or used properly, it is important to limit possible exposure to the chemicals.
- Never burn CCA treated timber in fireplaces, barbecues, wood stoves or any other type of wood fire.

This page has been produced in consultation with, and approved by the Department of Human Services, Victoria – Environmental Health Unit. The Better Health Channel is part of the Department of Human Services, Victoria

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