

Preserved pine in children's playgrounds — how safe?

Round posts and rails made of pine treated with a preservative that gives it a greenish tinge are attractive and durable. They're finding many outdoor uses these days; one is in children's playgrounds. The preservative is made of copper, chromium, and arsenic compounds and, although these become insoluble in wood, people have expressed fears that children sucking and chewing the timber could be poisoned. However no adverse effects on health have been reported.

Mr Ron Johanson and Mr Frank Dale, of the CSIRO Division of Building Research, recently assessed the hazard to children who mouth timber impregnated with the preservative. They concluded

that it appears very small.

The scientists obtained samples of newly treated timber from four plants in Australia where it is prepared. To find out whether dangerous amounts of copper or arsenic could be taken up from the surface, they scrubbed the wood in water and analysed the liquid left afterwards.

Considerably more arsenic and copper came off treated ends of posts than off equivalent areas elsewhere, but the amounts were small. Most of the arsenic was in insoluble compounds, which are less likely to be dangerous than soluble ones.

The scientists say that, while the health hazard to children from treated pine even before it has been ex-

posed to the weather appears extremely small, some precaution is advisable. Inadequate control during preparation could lead to an increase in the proportion of easily soluble arsenic compounds, and there is uncertainty about how safe the insoluble compounds are.

Mr Johanson and Mr Dale suggest that as a precaution it is better to err on the cautious side and hose and scrub the treated surface, particularly the ends, of timber that will be accessible to children.

Arsenic on the surface of round pine treated with Cu-Cr-As preservative. R. Johanson and F. A. Dale. *Holzforschung*, 1973, 27, 187-9.

