

## branz recommends

- ◆ **Opening some windows 10 to 20 millimeters (about an adult finger-width)**
- ◆ **Doing this in a number of rooms rather than one or two**
- ◆ **Security stays on all open windows**

Aluminum window frames with trickle ventilators provide an easy way to ensure houses are adequately ventilated. These can be installed in new houses or fitted to existing houses at relatively little additional cost.

Proper ventilation also helps prevent formaldehyde build-up in new buildings.

## some reassuring facts

Millions of people come into contact with formaldehyde every day, through normal daily exposure and in their work. The chance of serious health risks has been the subject of a large number of in-depth scientific studies over the many years.

Overall, these studies have found that there is no convincing evidence of a relationship between exposure to formaldehyde and serious health risks, such as cancer in humans.

Similarly, there is no clear evidence that formaldehyde causes asthma, although it may create symptoms that are similar among particularly sensitive people. Also, high levels of exposure may trigger an attack for asthmatics. In both instances, the preventive measures listed in this brochure should solve the problem.

## further information

For specific queries about formaldehyde contact:

- ◆ The Public Health Service  
(at your nearest public hospital - usually listed under 'Hospitals & Other Health Service Providers' at the front of your local Telephone Directory)
- ◆ Executive Officer  
The NZ Wood Panel Manufacturers Assoc.  
Private Bag 92-066  
Auckland 1030  
Ph: (09) 367-0913  
Fax: (09) 367-0914

## Home Health

This brochure has been prepared with the assistance of the Ministry of Health and BRANZ.

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See also "Working Safely with Wood Panel Products", prepared by NZWPA with the assistance of the Department of Labour, Occupational Safety and Health.

# Home Health

## Facts about Formaldehyde in Wood Composite Products



## what is formaldehyde?

Formaldehyde is a colourless, naturally occurring gas, which is given off by plants, animals and human beings as part of the normal life process.

Formaldehyde occurs naturally in the air we breathe. Many man-made sources including car exhausts, LPG cooking and heating, smog and even cigarette smoke also create it.

Formaldehyde is used in a wide range of consumer products and scientific and industrial processes.

In building products, formaldehyde is part of the glue which bonds many wood composite products. These provide economical and long-lasting materials for use in houses and furniture.

Formaldehyde is biodegradable, being destroyed by exposure to sunlight and by biological processes in soil and water, plants, animals and human beings.

## what causes formaldehyde to build-up?

Formaldehyde may be emitted from products in which it is present, because it is a gas. To make sure the health risk is kept to a minimum, many countries have standards that regulate the amount of formaldehyde products emit when they leave the factory, and also the overall formaldehyde levels in homes.

New Zealand does not have any laws controlling the level of formaldehyde emission outside of industrial buildings, but the Ministry of Health uses the World Health Organization standard as a guideline for safe emission levels. New Zealand wood product manufacturers have voluntarily been keeping to the Australian/New Zealand joint standard AS/NZS 1859.1:1997 to help ensure that their products, once sealed or covered in the home, will not contribute significantly to formaldehyde in the environment.

As some people are sensitive to low levels of formaldehyde exposure, all possible sources of emissions in homes should be checked.

Among the factors that can lead to a build-up of formaldehyde levels in some homes are:

- ◆ Unsealed or uncovered wood composite flooring
- ◆ Unpainted or unsealed reconstituted wood composite products: fixtures such as door jambs, scotias and skirting boards, doors and some wall linings
- ◆ Unpainted or unsealed furniture, or toys, made out of wood composite products such as cupboards, chests of drawers and kitchen and laundry units
- ◆ Thermal-backed curtaining and upholstery
- ◆ Carpets
- ◆ Wood burning fires
- ◆ LPG-fuelled heaters and cookers (unflued)
- ◆ Cooking with hot oil
- ◆ Cigarette smoke

## exposure symptoms

Formaldehyde is a “respiratory irritant”, meaning that it can affect breathing. It can also cause allergic reactions or health effects similar to bronchitis or asthma or skin irritation in some very sensitive people.

The most common signs of reaction are watery eyes, a sore throat and nose, and a cough. These are also symptoms of other common ailments, especially colds and influenza. If the house does not have many of the listed sources, it is unlikely that formaldehyde is the cause of these symptoms. If there are any doubts, a doctor should be consulted.

At very high levels, formaldehyde can be hazardous to health. However, these levels are not normally encountered in domestic situations.

## keeping a healthy home

Two simple steps will help give homeowners confidence:

- ◆ *Make sure the house is well-ventilated (there are many other good reasons for doing this).*
- ◆ *Sealing or covering wood composite product surfaces (unfinished surfaces may be a health risk, and sealing or covering is recommended for basic hygiene).*

## floors

Floors should be:

- ◆ *Sealed with at least three coats of polyurethane, or covered with carpet, vinyl, cork tiles or ceramic tiles.*

*Sealing floors produces a 90 percent reduction in emissions; vinyl, foamback carpet or rubber underlay reduce emissions by 75 percent.*

## other wooden surfaces

These should be:

- ◆ Painted with at least two coats of oil-based or acrylic paint, or
- ◆ Covered with laminate or tiles.

## ventilation in homes & buildings

According to the Building Research Association of New Zealand (BRANZ) there are two potential problems if houses are not aired regularly (BRANZ Bulletin 367 ‘Condensation’ - March 1998):

- ◆ ***People, house contents and daily activities, such as gas cooking, emit gases, which can affect health if they are allowed to build up. Breathing for example, produces carbon dioxide.***
- ◆ ***Moisture levels caused by steam from bathing, washing and drying clothes and cooking can lead to mould and mildew.***

In newer homes, which tend to be more airtight, people must compensate for these by ensuring windows or doors are opened regularly. Older houses have less of a problem.

In addition, homeowners who use LPG fuelled heaters and cookers should make sure they have flues to clear the house or ensure windows are opened.