

FORMALDEHYDE: THE FACTS

GREENfirst™

WHAT IS FORMALDEHYDE?

At room temperature, Formaldehyde (HCHO) is an organic colourless gas compound and has a characteristic pungent odour which is an irritant in higher exposures. It is used in the production of glues that are used in the manufacture of pressed wood products, and is released over time. Urea formaldehyde (UF Resin), such as that used in many board products, is also used in agriculture as a controlled release source of nitrogen fertilizer. Levels emitted from board products decrease with time.

WHERE IS FORMALDEHYDE FOUND?

Formaldehyde is found virtually everywhere, indoors and out, naturally occurring and man-made. It is emitted by animals and humans as a by-product of digestion, and it is created during combustion. It can be found in smoke from fires, smog, tobacco smoke and vehicular exhaust fumes. Formaldehyde is like sunlight—it occurs naturally and we cannot live without it. At higher exposures, it is an irritant. Too much sunlight, you get sunburned. Too much formaldehyde, your eyes water and your nose runs. All people are exposed to naturally occurring formaldehyde daily.¹

- One of the major sources of formaldehyde in buildings is pressed wood products, including particleboard, fibreboard and some plywood products. The amount of formaldehyde released by wood products can vary. Levels can increase with hotter and more humid conditions, and
- Where panel surfaces are uncoated, and
- Where high emission products are used (such as some lower quality, imported wood products)

An apple has an approximate formaldehyde content of 22 ppm².
Superfine meets E1 limits of <1.5 mg/l.



WHAT ARE THE HEALTH HAZARDS?

Health effects occur when formaldehyde based materials and products release formaldehyde into the air. Formaldehyde can cause watery eyes, burning sensations in the eyes and throat, nausea, and difficulty in breathing in some humans exposed at elevated levels (above 1 part per million). The World Health Organization and Health Canada have estimated that the average adult ingests 9 times more formaldehyde each day from food than they inhale from all airborne sources combined.^{1,4}

Formaldehyde does not accumulate in the environment, because it is broken down within a few hours by sunlight or by bacteria present in soil or water. Humans metabolize formaldehyde quickly, so it does not accumulate, and is converted to formic acid in the body.³

HOW IS FORMALDEHYDE IN WOOD PRODUCTS REGULATED?

Formaldehyde is an extensively regulated material. National and international regulations require that wood products have low formaldehyde emissions. These requirements for formaldehyde allow for safe production, storage, handling and use of this important building block chemical.

Our standard range of panel products are all low formaldehyde emitting and comply with the low emission level E1 defined in AS/NZS 1859, putting them amongst the best in the world.



Lakepine[®]
MDF



Lakepine[®]
MR ZERO



Superfine™



Trade Essentials[®]
LITECRAFT™



Trade Essentials[®]
HARBOARD™

strandboard™

strandfloor®

triboard®

Sources:1 hardwoodfloorsmag.com; 2 American Wood Council; 3 formaldehydefacts.org/newsroom/blog; 4World Health Organisation

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