

U.S. Formaldehyde Emission Requirements for Wood-Based Panels

Some wood-based panels emit small amounts of formaldehyde. Both the California Air Resources Board (CARB) Air Toxic Control Measure for Composite Wood Products and the U.S. Department of Housing and Urban Development (HUD) Manufactured Home Construction and Safety Standard contain requirements for wood-based panel products formaldehyde emission levels.

CARB Air Toxic Control Measure for Composite Wood Products

This regulation imposes limits on formaldehyde emissions from products it considers to be “Composite Wood Products”. At the core of the regulation are three categories of composite wood products: 1) hardwood plywood, 2) medium density fiberboard, and 3) particleboard. Manufactured goods, in panel form, that are made from combinations of these base products are ultimately grouped and regulated as a composite wood product. For clarification of how a particular product is regulated, please consult CARB’s website (<http://www.arb.ca.gov/toxics/compwood/implementation/faq.htm>) for a list of frequently asked questions or contact CARB directly (<http://www.arb.ca.gov/toxics/compwood/contact.htm>).

Structural wood panels, qualified to the US Department of Commerce’s Voluntary Product Standards PS 1 (Structural Plywood) and PS 2 (Wood-Based Structural-Use Panels) are exempt from the CARB regulation by the definition of “composite wood products”. Section 93120.1 (8) of the regulation clearly states that:

. . . “Composite wood products” does not include hardboard, structural plywood as specified in the Voluntary Product Standard – Structural Plywood (PS 1-07), structural panels specified in the Voluntary Product Standard – Performance Standard for Wood-Based Structural-Use Panels (PS 2-04)

U.S. Department of Housing and Urban Development Manufactured Housing Standard

HUD rule 24 CFR (4-1-02 Edition) Part 3280 places limits on formaldehyde emissions from (non-structural) plywood and particleboard. Particleboard is limited to 0.3 parts per million (ppm) emissions level and plywood to 0.2 ppm. Products manufactured exclusively with phenol-formaldehyde (PF) resin systems are exempt from the regulations in accordance with HUD rule 24 CFR (4-1-02 Edition) Part 3280.308 (b). While there is no specific limit stated for OSB, it has been well accepted that the stated exemption is applicable to OSB manufactured with PF.