

As of March 22, 2018

Comparison of Key Requirements of CARB and U.S. EPA Regulations to Reduce Formaldehyde Emissions from Composite Wood Products

Note: For products sold in California, if there is a difference between the CARB and U.S. EPA requirements, the more stringent requirement applies, regardless of whether it is a CARB or U.S. EPA requirement. This table will be updated if there are future changes to the regulatory requirements.

Legal Disclaimer: CARB's Airborne Toxic Control Measure (ATCM) to Reduce Formaldehyde Emissions from Composite Wood Products (sections 93120-93120.12, title 17, California Code of Regulations) addresses formaldehyde emissions from composite wood products. U.S. EPA has enacted a similar regulation pursuant to the Federal Toxic Substances Control Act, 15 U.S.C. section 2697. At the request of composite wood industry stakeholders, CARB staff prepared the following table to compare key aspects of the two regulations. Unlike the regulations, this table does not have the force of law. It is not intended to and cannot establish new requirements beyond those that are already in the regulations, and it does not supplant, replace, or amend any of the legal requirements of the regulations. Conversely, any omission or truncation of regulatory requirements found within this table does not relieve stakeholders of their legal obligation to fully comply with all requirements of the regulations.

Element/ Requirement	CARB ATCM	U.S. EPA TSCA Title VI
Effective date	Introduced in two phases between 2009 and 2013, with initial emission standards (Phase 1) followed by more stringent emission standards (Phase 2); as of January 2014, only Phase 2 compliant products are legal for sale in California.	TSCA Title VI regulation became effective on May 22, 2017; compliance date (manufacture-by date) for emission standards is June 1, 2018. <ul style="list-style-type: none">• Until March 22, 2019, CARB Phase 2 composite wood products (i.e., panels) and finished goods (e.g., flooring, cabinets, furniture) that contain CARB Phase 2 composite wood material produced by a panel producer certified by a CARB-approved third-party certifier (TPC) that has been recognized by U.S. EPA will be considered as TSCA Title VI compliant.• Composite wood panels produced domestically or imported into the U.S. prior to June 1, 2018,

Element/ Requirement	CARB ATCM	U.S. EPA TSCA Title VI
		may be sold or used to make finished goods until supplies are depleted.
Authority for regulation	California Health & Safety Code (title 17, sections 93120 – 93120.12).	Federal Toxic Substances Control Act, 15 U.S.C., Sec. 2697 (TSCA Title VI).
Emission standards	<p>Formaldehyde emission standards for three types of composite wood products (i.e., panels): hardwood plywood (HWPW), particleboard (PB), and medium density fiberboard (including thin MDF).</p> <ul style="list-style-type: none"> Requires use of composite wood products that comply with emission standards in all finished goods. 	Same as CARB.
Affected businesses	Manufacturers (i.e., panel producers); fabricators of finished goods; and distributors, importers, and retailers of panels and finished goods.	Same as CARB.
Recordkeeping	Two years.	More stringent than CARB - three years.
Product labeling	<p>Requires panels (or bundles of panels) and finished goods (or boxes that contain finished goods) to be labeled as compliant with CARB's Phase 2 formaldehyde emission standards.</p> <p>Note: Panels and finished goods that comply with TSCA Title VI and are labeled as TSCA Title VI compliant will be accepted as being compliant with CARB's formaldehyde emission standards, because the TSCA Title VI and CARB standards are identical. CARB recommends labeling panels and finished goods offered for sale in California as</p>	<p>Beginning June 1, 2018, panels (or bundles of panels) and finished goods (or boxes that contain finished goods) may be labeled as complying with TSCA Title VI, CARB Phase 2, or both, whichever is true for the product. Early labeling is allowed once composite wood products are certified under TSCA Title VI by a third-party certifier recognized by EPA.</p> <ul style="list-style-type: none"> Until March 22, 2019, composite wood panels and finished goods labeled as being compliant with CARB Phase 2 will be considered as TSCA Title VI compliant.

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	<p>being compliant with both the EPA and CARB regulations, because retailers and consumers are familiar with the CARB Phase 2 label.</p> <ul style="list-style-type: none"> • <u>Panels</u> - Information required for label on panel (or bundles of panels): <ul style="list-style-type: none"> ➢ Name of panel producer. ➢ Product lot or batch number. ➢ Compliance level [Phase 2, NAF (made with no-added formaldehyde resin), or ULEF (made with ultra-low-emitting formaldehyde resin)]. ➢ CARB third-party certifier number (not required for NAF/ULEF panel producers exempted from third party certification). • <u>Finished goods</u> - Information required for label on finished good (or box that contains finished good): <ul style="list-style-type: none"> ➢ Fabricator name. ➢ Production date (month and year). ➢ Compliance level (Phase 2 or NAF/ULEF). 	<ul style="list-style-type: none"> • After March 22, 2019, all manufactured (including imported) regulated composite wood panels and finished goods must be labeled as TSCA Title VI compliant. • <u>Panels</u> - Information required for label on panel (or bundles of panels): <ul style="list-style-type: none"> ➢ Name of panel producer. ➢ Product lot number. ➢ Compliance level (TSCA Title VI or NAF/ULEF). ➢ EPA TSCA Title VI third-party certifier number. ➢ NAF/ULEF panels require EPA TSCA Title VI third-party certifier number. • <u>Finished goods</u> - Information required for label on finished good (or box that contains finished good): <ul style="list-style-type: none"> ➢ Fabricator name. ➢ Production date (month/year). ➢ Compliance level [TSCA Title VI; label may also note if made with NAF/ULEF products (if true for all composite wood products in finished good), or made with combination of TSCA Title VI and NAF/ULEF products].
Identification of unlabeled panels and finished goods	Individual panels and finished goods are not required to be labeled (when bundles of panels or boxes of multiple finished goods are labeled).	More stringent than CARB - Requires importers, distributors, fabricators, and retailers to have method (e.g., color-coded edge marking) to identify supplier of each compliant panel and finished good.

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De minimis labeling requirement	More stringent than EPA - All finished goods must be labeled as containing Phase 2 compliant composite wood material, regardless of amount of composite wood material contained in the finished good.	Labeling of a finished good is not required if the composite wood product content does not exceed 144 square inches, based on the surface area of the largest face (e.g., small picture frame); however, the composite wood material must still be compliant.
Reasonable prudent precautions	Fabricators, importers, distributors, and retailers are required to take reasonable prudent precautions (e.g., obtaining statements of compliance from suppliers) to ensure purchase and sale of compliant products.	Same as CARB.
Fabricators of wood-veneered laminated products (e.g., table tops, cabinet doors)	Requires use of CARB Phase 2 compliant platform (core) material.	Requires use of TSCA Title VI compliant platform (core) material. More stringent than CARB - Beginning March 22, 2024, these fabricators must comply with requirements for HWPW panel producers; requires routine emissions testing and third-party certification as required for HWPW panel producers; exempt from testing and certification requirement based on use of NAF or phenol formaldehyde (PF) resin (verified by recordkeeping). Final EPA rule allows businesses that produce veneered laminated products to petition EPA to add exemptions from the definition of “HWPW.” (Petition process only applies to laminated products consisting of wood or woody grass veneers, and does not include synthetic laminates.)

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Third-party certification	<p>Required for all panel producers.</p> <ul style="list-style-type: none"> • Third-party certifiers (TPCs) must be approved by CARB (CARB has approved over 40 TPCs); re-approval required every two years. • TPCs must participate in inter-laboratory comparisons and submit annual reports to CARB. • Third-party certification limited to panel producers and does not include fabricators of finished goods. <p>TPCs may use primary or secondary test methods to certify panel producers, to establish quality control limits and correlations with quality control test methods operated by panel producers, and for quarterly emissions tests at panel producers.</p>	<p>Requires CARB-approved TPCs to apply to EPA for recognition before they can certify any products under TSCA Title VI; once recognized, TPCs may continue certifying panel producers until March 22, 2019.</p> <ul style="list-style-type: none"> • After March 22, 2019, TPCs must meet EPA's specified qualifications and be accredited by EPA-approved product and laboratory accreditation bodies (ABs). • TPCs must participate in inter-laboratory comparisons organized by CARB or EPA. • TPCs must submit annual reports to EPA through EPA's Central Data Exchange (CDX) system. (TPCs can allow CARB access to reports, to eliminate need to send reports to both agencies). • New TPCs (not CARB-approved) must be accredited by EPA-approved product AB to ISO/IEC 17065 and by EPA-approved laboratory AB to ISO/IEC 17025 before being recognized by EPA, in addition to meeting all other TSCA Title VI requirements. <p>Same as CARB.</p>
Exemption from third-party certification	Panel producers must work with TPC to conduct testing and apply to CARB for approval to be granted exemption from TPC-oversight for two years.	Status quo for panel producers already approved by CARB.

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<p>based on use of no-added formaldehyde (NAF) or ultra-low-emitting formaldehyde (ULEF) resins</p>	<ul style="list-style-type: none"> • Panel producers must apply for re-approval every two years. • NAF - More stringent than EPA - NAF application for exemption from TPC oversight requires three months of quality control (QC) data and one TPC test (primary or secondary test method); 90 percent of QC data and the TPC test must be no higher than 0.04 ppm; all data must be no higher than 0.05 ppm for HWPW and no higher than 0.06 for PB, MDF, and thin MDF. • ULEF - same requirements as NAF, but requires six months of QC data and two TPC tests. 	<ul style="list-style-type: none"> • Panel producers seeking new exemption must apply to CARB or their EPA TSCA Title VI TPC for approval to be granted exemption from TPC-oversight for two years. • Must apply for re-approval every two years. • NAF/ULEF panels must be labeled as specified in TSCA Title VI, including panel producer's TSCA Title VI TPC number. • EPA requests that CARB-approved Executive Orders for NAF/ULEF exemptions and approvals for reduced testing be provided to EPA by the TSCA Title VI TPC through the EPA CDX system. • Applications to EPA for NAF/ULEF exemption or reduced testing must be submitted to the EPA CDX system by an EPA-recognized TSCA Title VI TPC. • NAF - Application for exemption from TPC oversight requires three months of QC data and one TPC test; 90 percent of QC data (does not include TPC test) must be no higher than 0.04 ppm; all data must be no higher than 0.05 ppm for HWPW and no higher than 0.06 ppm for PB, MDF, and thin MDF. • ULEF - same requirements as NAF, but requires six months of QC data and two TPC tests.

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Domestic agents	Not required.	More stringent than CARB - All accreditation bodies and TPCs located outside of the U.S. must have an agent for service within the U.S. to receive legal documents and correspondence from EPA.
Quality control (QC) testing by panel producers	CARB ATCM specified two methods. <ul style="list-style-type: none"> • CARB has approved five alternative QC test methods (listed on CARB's composite wood products webpage under the heading of "Test Methods"). 	Same as CARB.
Development of correlation values	TPC's primary or secondary test method results and a panel producer's quality control test results must be shown to correlate based on a minimum of five data pairs. <ul style="list-style-type: none"> • A minimum acceptable correlation is not specified. • Correlation is used in establishing a quality control limit for each product type and production line. 	Correlation based on a minimum of five data pairs; must also calculate linear regression. <ul style="list-style-type: none"> • More stringent than CARB - Specifies minimum acceptable correlation coefficient. • More stringent than CARB - Requires successful annual correlation for three years; afterwards, required every two years.
Equivalence for secondary test method	Allows TPCs to use small chambers for certification tests of panel producers, after small chamber method has been established as secondary test method, providing equivalent test results as primary test method (large chamber) through a series of tests. <p>More stringent than EPA – Equivalence between secondary test method and primary test method must be established by annual comparison.</p>	Similar requirements. <p>After three successful annual equivalence demonstrations, equivalence testing only required every two years.</p>

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	<p>More stringent than EPA - Equivalence requires five comparison tests in each of two emission ranges.</p> <p>CARB ATCM requires annual equivalence testing for each laboratory's secondary test method, but does not specifically require equivalence testing for each identical small chamber.</p>	<p>Requires at least five comparison tests of products representing the range of emissions of products a TPC intends to certify.</p> <p>More stringent than CARB - Equivalence testing required for each small chamber operated by TPC.</p>
Composite wood products used in manufactured housing (mobile homes)	<p>Authority of U.S. Dept. of Housing and Urban Development (HUD) over manufactured homes preempted CARB from regulating emissions of hardwood plywood and particleboard.</p> <ul style="list-style-type: none"> • HUD has less stringent emission standards for hardwood plywood and particleboard. • MDF in manufactured homes is not regulated by HUD and must comply with CARB ATCM. 	<p>Federal Formaldehyde Act of 2010 requires HUD to adopt EPA's formaldehyde emission standards for all three regulated products in manufactured homes within 180 days of the release of EPA's final regulation.</p>
Import certification	<p>Not required.</p>	<p>More stringent than CARB - Beginning March 22, 2019, import certification through the U.S. Customs and Border Protection's Automated Commercial Environment will be required for all non-domestic composite wood products being imported into the U.S.</p>