

# SAFEGUARDS

SGS CONSUMER TESTING SERVICES

HARDLINES

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## US CARB UPDATES: PART 5 APPLICATION DETAILS FOR MANUFACTURERS USING NO-ADDED FORMALDEHYDE (NAF) AND ULTRA-LOW EMITTING FORMALDEHYDE (ULEF) RESINS

Application details and requirements for manufacturers who plan to use NAF or ULEF-based resins were published by the California Air Resources Board (CARB). Such manufacturers are required to contact a CARB third party certifier (TPC) to obtain the necessary data for application requirements.

The Airborne Toxic Control Measure (ATCM) to control formaldehyde emissions from composite wood products was approved by the Office of Administrative Law in April 2008<sup>1</sup>. In this new law, there are special provisions for manufacturers of hardwood plywood (HWPW), particleboard (PB), and medium density fiberboard (MDF) who plan to use NAF- or ULEF-based resins<sup>2</sup>. NAF-based resins are resins formulated in the absence of formaldehyde as part of the resin cross linking structure and include resins from soy, polyvinyl acetate (PVA) or methylene diisocyanate. ULEF-based resins are formulated in the presence of formaldehyde but the formaldehyde emissions are consistently below applicable Phase 2 emission standards.

Manufacturers who plan to use NAF-based resins may apply for exemption from TPC certification (§ 93120.3 (d)). Manufacturers who plan to use ULEF resins may apply for approval to test their products less frequently or for exemption from TPC certification (§ 93120.3 (d)). Highlights on the information required are summarized on the following page<sup>3</sup>.

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<sup>1</sup>'Composite Wood ATCM', California Environmental Protection Agency, Air Resources Board, <http://www.arb.ca.gov/toxics/compwood/compwood.htm> and references therein

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<sup>2</sup>No-Added Formaldehyde (NAF) and Ultra Low Emitting Formaldehyde Resins (ULEF), Composite Wood Products ATCM, California Environmental Protection Agency, Air Resources Board, [http://www.arb.ca.gov/toxics/compwood/naf\\_ulef/naf\\_ulef.htm](http://www.arb.ca.gov/toxics/compwood/naf_ulef/naf_ulef.htm) and references therein

<sup>3</sup>Application to use No Added Formaldehyde (NAF) or Ultra Low Emitting Formaldehyde (ULEF) Resins, California Environmental Protection Agency, Air Resources Board, [http://www.arb.ca.gov/toxics/compwood/naf\\_ulef/naf\\_ulefapp.pdf](http://www.arb.ca.gov/toxics/compwood/naf_ulef/naf_ulefapp.pdf) and references therein

The logo for SGS, consisting of the letters 'SGS' in a bold, sans-serif font. A vertical line is positioned to the right of the letters, and a horizontal line is positioned below the letters, forming a partial frame.

## 1. Qualifying Test Results for Composite Wood Products manufactured with NAF, ULEF-Reduced or ULEF-exempt Resins

- Compliance tests conducted by the TPC
- Correlation tests between results of primary or secondary compliance test conducted by TPC and corresponding quality control (QC) test results measured by QC personnel
- QC test data for NAF-based resin
  - 3 Months of routine QC testing data
  - Correlation of routine QC testing data to primary or secondary method testing data, including plot with corresponding regression analysis and correlation (r)
  - Results of 1 primary or secondary method test (Appendix 2, § 93120.12)
- QC test data for ULEF-reduced or ULEF-exempt
  - 6 Months of routine control testing data
  - Correlation of routine QC testing data to primary or secondary method testing data, including plot with corresponding regression analysis and correlation (r)
  - Results of 2 quarterly primary or secondary method tests (Appendix 2, § 93120.12)



## 2. Composite Wood Product Manufacturer and Resin Information

- Company name of composite wood product manufacturer
- Product name (eg 'IND' for all thicknesses of industrial grade particleboard)
- Range in production parameters
  - Press time and press temperature.
  - Resin spread application rate on a 100 % solids basis [HWPW (pounds / single glue lines), PB and MDF [resin usage (kg /m³)], including allowances for plant operation during warm and cold seasons of a year.
- Post-press product treatment
- Resin information for the specified product type:
  - Resin type (ie NAF, ULEF-reduced, ULEF-exempt) used in the face, core, or face and core layers of product.
  - Resins used: trade name(s) and manufacturer(s) / supplier (s). If applicable, specify face and core resins separately.
  - Estimated annual usage (100 % **solids basis** in pounds).



- Ingredients added by composite wood product manufacturers for specified product type:
  - Any ingredients added such as [catalysts (eg ammonium chloride, hexamethyltetramine), buffers (eg ammonia), scavengers (eg specific ureas), fire retardants, wax and biocides.
  - Amount added per pound of base resin (range per pound of base resin (100% solids basis))

### 3. Resin Ingredient Information

- Composite wood product manufacturer's name, address, email, product name, name of typical resin.
- Name of base resin / adhesive (from base resin manufacturer / supplier):
  - Base resin type (eg UF + melamine, PVA),
  - Molar ratio (for ULEF specify the type such as formaldehyde:urea, formaldehyde:phenol),
  - Ingredient names including organic, inorganic and water content,
  - CAS no.,
  - Percentage by weight values (minimum and maximum % by weight that will be used in a calendar year).
- Resin manufacturer's name, address, contact details.

### 4. Statement of Exclusive NAF or ULEF resin use

### 5. Certifying information in application



Throughout our global network of laboratories, we are able to provide a range of services, including analytical testing and consultancy for the emission of formaldehyde in composite wood products destined for California and International markets. Our laboratories in Hong Kong and Guangzhou are approved by CARB to conduct third party certification services of composite wood products destined for California. For further information, please visit our website<sup>4</sup> or contact your nearest SGS office.

<sup>4</sup> <http://www.hardlines.sgs.com/carb-composite-wood-products-consumerproducts>

#### FOR ENQUIRIES:

Global Competences Support Centre: [gpsc@sgs.com](mailto:gpsc@sgs.com)  
 Chuck Coletta +770-319-6019 [Chuck.Coletta@sgs.com](mailto:Chuck.Coletta@sgs.com)  
 HingWo Tsang +852 2774 7420 [Hingwo.Tsang@sgs.com](mailto:Hingwo.Tsang@sgs.com)

Asia – Hong Kong. Tel: +852 2334 4481 Fax: +852 2144 7001 [mktg.hk@sgs.com](mailto:mktg.hk@sgs.com)  
 Australasia \_ Perth. Tel: +61 (0) 3 9790 3418 Fax: +61 (0) 3 9701 0988 [au.cts@sgs.com](mailto:au.cts@sgs.com)  
 Europe – London —UK. Tel: +44(0) 20 8991 3410 Fax: +44 (0) 20 8991 3417 [gb.cts.sales@sgs.com](mailto:gb.cts.sales@sgs.com)  
 Africa & Middle East – Turkey. Tel: +90 212 225 0024 Fax: +90 212 296 47 82 [sgs.turkey@sgs.com](mailto:sgs.turkey@sgs.com)  
 Americas – USA. Tel: +1 973 575 5252 Fax: +1 973 575 1193 [Marketing.CTS.US@sgs.com](mailto:Marketing.CTS.US@sgs.com)

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WHEN YOU NEED TO BE SURE

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