

Department of Toxic Substances Control (DTSC)
Guidelines for Selecting a Testing Certification Agency

PURPOSE:

The purpose of this document is to provide guidelines to brake friction materials manufacturers regarding the obligations of testing certification agencies which intend to certify brake friction materials content of brake pads offered for sale in the State of California. **The reader should note that DTSC has not promulgated regulations regarding the testing protocol, marking or the certification agency requirements. This document is for informational purposes only and is not an enforceable regulation by DTSC.**

BACKGROUND:

The California legislature passed Senate Bill 346¹ in 2010. This law prohibits the sale of any motor vehicle brake friction materials (brake pads) containing specified constituents in amounts that exceed certain concentrations. The intent of this legislation is to restrict the use of copper in brake pads sold in California to no more than 0.5% by 2025. In 2010, the State of Washington passed a similar law² restricting the use of copper and other constituents in brake friction material and Washington recently adopted the Better Brakes Rule³ which makes specific the requirements to implement the Washington law.

The following are key dates and prohibitions of California's law (Health and Safety Code sections 25250.50 et seq.):

- On and after January 1, 2014, any motor vehicle brake friction materials containing any of the following constituents in an amount that exceeds the following concentrations shall not be sold in this state:
 - (1) Cadmium and its compounds: 0.01 percent by weight;
 - (2) Chromium (VI)-salts: 0.1 percent by weight;
 - (3) Lead and its compounds: 0.1 percent by weight;
 - (4) Mercury and its compounds: 0.1 percent by weight; or
 - (5) Asbestiform fibers: 0.1 percent by weight.
- On and after January 1, 2021, any motor vehicle brake friction materials exceeding 5 percent copper by weight shall not be sold.
- On and after January 1, 2025, any motor vehicle brake friction materials exceeding 0.5 percent copper by weight shall not be sold in this state.

The law also includes some exemptions for brakes friction materials on specific types of vehicles, and there is also a provision for an extension of the 2025 deadline for 0.5 percent copper.

¹ Health and Safety Code section 25250.50 et seq

² Revised Code of Washington 70.285 et seq.

³ Washington Administrative Code chapter 173-901.

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Although both laws are similar in their intent to restrict the use of copper in brake pads, there are some key differences. The California law requires that a “Testing Certification Agency” serve as the official registration of certification for compliance⁴. In California, a Testing Certification Agency (Registrar) uses an accredited laboratory to certify compliance with California law, as defined⁵ by the law.

ACCREDITED LABORATORIES:

DTSC has worked with Washington State’s Department of Ecology and various industry stakeholders in the development of all criteria for testing and marking brake friction material, and for adopting certification procedures. However, DTSC has not yet initiated rulemaking to adopt these requirements. In the interim, DTSC is providing this guidance as information, so that industry can meet the obligations under both the California law and Washington States law and the implementing regulations.

The California law requires an accredited laboratory program that provides testing for the following constituents: cadmium and its compounds, chromium (VI) salts, lead and its compounds, mercury and its compounds, asbestiform fibers and copper and its compounds⁶.

The Washington law requires the accredited laboratory to be qualified and equipped for testing of products, materials, equipment, and installations in accordance with national or international standards; and accredited by a third-party organization approved by the department to accredit laboratories for purposes of this chapter. Washington’s regulations are more specific and require testing of antimony, asbestiform fibers, cadmium, chromium VI, copper, lead, mercury, nickel, and zinc. The guidance below is based on discussions with the Washington State Department of Ecology to establish the minimum criteria for the Registrars that certify brake friction material formulations in both California and the State of Washington.

MARK PROOF:

The California law requires mark proof on the brake friction materials to indicate that the formulation content complies with the law⁷. The Washington State law and regulation includes a mark proof the brake friction material and on its packing⁸.

TESTING CERTIFICATION AGENCY:

Under the California law, the testing certification agency⁹ is defined as “...a third-party testing certification agency that is utilized by a vehicle brake friction materials manufacturer and that has an

⁴ Health and Safety Code section 25250.60(h)

⁵ Health and Safety Code section 25250.50(g)

⁶ Health and Safety Code section 25250.50(g), 25250.51, 25250.60

⁷ Health and Safety Code sections 25250.60(c)(2), 25250.60(e)(2), and 25250.60(g)(2)

⁸ Washington Administrative Code section 173-901-090

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accredited laboratory program that provides testing in accordance with the certification agency requirements that are approved by the department.” The certification of brake friction materials¹⁰ must be posted on the internet, include a mark of proof which identifies the manufacturer and must facilitate acceptance in all 50 states and United States territories. Washington requires brake friction material to be marked in accordance with SAE J866:2012¹¹.

SELECTING A TESTING CERTIFICATION AGENCY (REGISTRAR): DTSC will not be “selecting” a registrar. Instead, the department is providing these guidelines to outline the minimum criteria for the testing certification agency which will certify products for sale in both California and Washington. In addition to meeting all the requirements of the California law, DTSC strongly recommends that brake friction materials manufacturers strive to meet the State of Washington Department of Ecology (WA ECY) requirements as well. In order to certify compliance with both Washington State and California law, Testing Certification Agencies will be will be responsible for performing the following tasks:

- Using chemical analysis data from an accredited laboratory¹² for each brake friction material formulation it certifies. Accredited labs commonly follow the International Standards Organization (ISO) 17025:2005¹³ standard, or are accredited by the National Environmental Laboratory Accreditation Program (NELAP)¹⁴. Either ISO 17025:2005 or NELAP are accepted by Washington State. If the chemical analysis laboratory is accredited by a different program, then the laboratory or a brake friction material manufacturer needs to show Washington State that the program is equivalent to, or better than, ISO17025:2005 or NELAP;¹⁵
- Ensuring the chemical analysis for each brake friction material formulation is conducted per the Society of Automotive Engineers (SAE) Standard SAE 2975:2011¹⁶ procedure that describes the method for generating, preparing and analyzing samples of new and unused brake friction materials for their chemical constituents.¹⁷ Alternative procedures for chemical analysis may be vetted by Washington State using the procedure described in the regulation;¹⁸
- Issuing a “certification of compliance” for the brake friction material formulation according to its compliance with the law¹⁹.

⁹ Health and Safety Code section 25250.50 (g)

¹⁰ Health and Safety Code section 25250.60

¹¹ Washington Administrative Code section 173-901-090(3)(a)

¹² Health and Safety Code section 25250.50(g)

¹³ Washington Administrative Code section 173-901-070(1)(a)

¹⁴ Washington Administrative Code section 173-901-070(1)(b)

¹⁵ Washington Administrative Code section 173-901-070(1)(c)

¹⁶ This test methodology was developed with the Washington State Department of Ecology, and the Society of Automotive Engineers (SAE) Brake Pad Working Group. DTSC’s Environmental Chemistry Lab reviewed the results generated from this procedure and has accepted the results.

¹⁷ Washington Administrative Code section 173-901-080 (1)

¹⁸ Washington Administrative Code section 173-901-080 (8)

¹⁹ Health and Safety Code sections 25250.51, 25250.52, and 25250.53

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- Publishing all certifications on the internet;²⁰
- Using an environmental designator or mark of proof which follows the standard outlined in SAE Standard J866:2012 in Washington State²¹. This mark shall: identify the brake friction material manufacturer, be easily applied and be legible;²² and
- Assigning an environmental designator or mark of proof for each brake friction material formulation that meets the restrictions outlined in California Health and Safety Code sections 25250.51, 25250.52, or 25250.53 and which will facilitate acceptance all states.²³ DTSC suggests a potential registrar coordinate with leading brake friction materials testing agencies and industry groups in order to ensure consistency and acceptance of the certification and environmental designator in the United States.
- Review the requirements regarding the packaging mark of proof required on all packaging for brake pads sold in the State of Washington²⁴. Under the California law, manufacturers are not required to have a mark of proof for the packaging. The Motor Equipment Manufacturers Association (MEMA) is the registered trademark owner of the three-leaf packaging certification mark, as discussed by the Brake Pad Working Group. Potential registrars interested in using this certification mark may contact MEMA on their licensing agreement pertaining to this packaging logo. If an alternative certification mark is to be used, the State of Washington requires the certification mark to be a United States Patent and Trademark Office registered certification mark.²⁵

ADDITIONAL CONSIDERATIONS:

DTSC also recommends that manufacturers who will be selling brake friction material in the State of Washington work with registrars to ensure compliance with the following requirement and encourage the attainment of an endorsement for their certification practices:

- Review the self-certification requirements as outlined in the Washington Administrative Code (WAC) section 173-901-060 to ensure compliance with the State of Washington Department of Ecology Better Brake Pads law in addition to California's law.
- In order to help build confidence in a Registrar's mark, one may want to consider using the ISO 17065 standard. This standard is internationally accepted by numerous accreditation bodies such as the American National Standards Institute (ANSI) and International Accreditation Service (IAS) in order to demonstrate to the marketplace and regulators that their certification practices are evaluated and monitored.

²⁰ Health and Safety Code section 25250.60(h)

²¹ Washington Administrative Code section 173-901-090

²² Health and Safety Code section 25250.60(a)

²³ Health and Safety Code section 25250.60(j)

²⁴ Washington Administrative Code section 173-901-090 (5)

²⁵ Washington Administrative Code section 173-901-090 (5)

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FOR FURTHER INFORMATION:

Brake friction manufacturers who have questions regarding this guidance or the California and Washington laws should contact:

California:	http://www.dtsc.ca.gov/PollutionPrevention/BrakePads.cfm	
	Evelia Rodriguez	(916) 327-6104 or evelia.rodriquez@dtsc.ca.gov
	Suzanne Davis	(916) 327-4206 or suzanne.davis@dtsc.ca.gov
Washington:	http://www.ecy.wa.gov/programs/hwtr/betterbrakes.html	
	Ian Wesley	(360) 407-6747 or ian.wesley@ecy.wa.gov

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