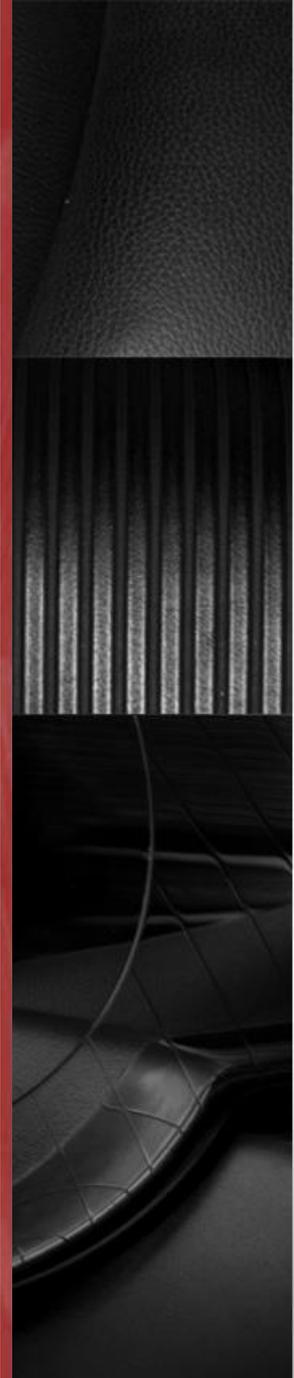


California's Brake Pad Proposed Regulations

July 2014

Department of Toxic Substances
Control

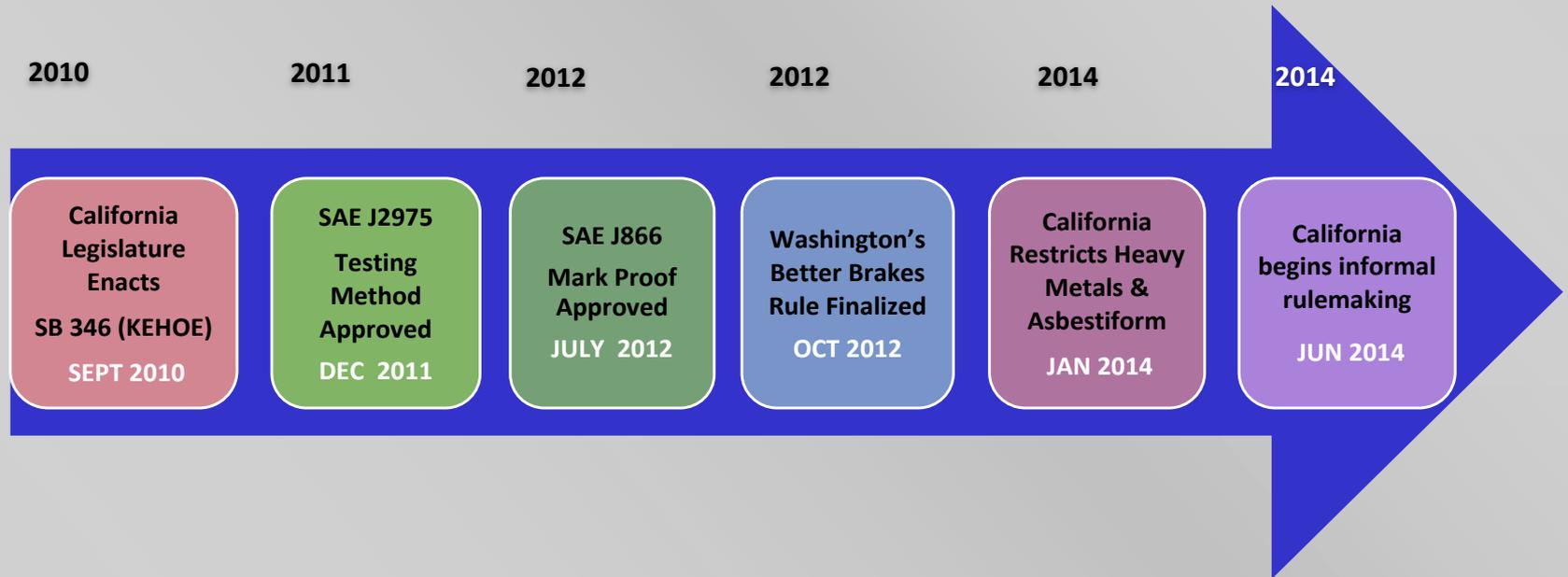


Overview

- California's Motor Vehicle Brake Friction Materials Law – SB 346 and its implementation
- Intent and scope of the regulation
- Overview of the provisions of the regulations
 - Testing Methodology
 - Testing Certification Agency & Certified Laboratories
 - Mark Proof of Certification
 - Extension Process for 2025 Requirements



Timeline



- Sept 2013 –California’s law is amended to allow motor vehicle dealers to continue to sell vehicles with existing pads.
- Dec 2013 – SAE J2975 is updated.

Brake Friction Material Law

2010
SB 346

2014
Cd, Cr VI, Hg, Pb,
Abestiform fibers
De Minimis

2021
Copper
5.0 wt %

2025
Copper
0.5 wt %



Intent and Scope of Proposal

- Memorializing agreements made on testing, mark proof and certification
- Clarifying the process used by DTSC to determine test method equivalency and testing laboratory accreditation equivalency
- Providing more specific detail on the process for DTSC to approve the certification process used by the testing certification agency
- Providing more specific detail on the process to be used to accept requests for an extension requests submitted for the January 1, 2025 restriction

The Proposal does not include

- A provision to require a product label, such as the three leaf logo in Washington's Better Brakes Rule



- Additional specificity for the alternatives screening requirement (Health and Safety Code (HSC) section 25250.56)
- Details on enforcement activities (HSC section 25250.62)
- Additional details for the 2023 report due to the Legislature (HSC section 25250.65)



Proposed Brake Pad Regulations

- Definitions
- Self-Certification of Compliance
- Testing Certification Agency for Brake Friction Materials
- Certified Laboratories for Brake Friction Materials
- Testing Methodology for Brake Friction Materials
- Marked Proof of Certification
- Extension Process



Self-Certification of Compliance

- Steps involved in the self-certification process
- Testing and reporting responsibilities of the brake friction material manufacturer
- Reporting responsibilities of the testing certification agency



Friction Material Self-Certification Program Goals

- Will use an **industry-wide, self-certification program** that ensures friction material suppliers manufacture, sell and distribute only products which comply with applicable California and Washington requirements.
- Will use **accredited laboratories** (ISO 17025 or NELAC certified) to ensure compliance with applicable state regulations for copper and other constituents contained in brake friction material products.
- Will use a **third-party testing certification agency (aka registrar)** to confirm regulatory compliance and provide public access to list of certified companies and products.



Brake Friction Material Certification Process

- **Step 1. TESTING:** Test brake friction material per the SAE Standard J2975:2013 at a laboratory approved by the testing certification agency (a.k.a., registrar). NSF International, the testing certification agency, has identified Link Engineering, EMSL Analytical, Inc., and NSF International as approved testing labs.
- **Step 2. CERTIFICATION:** Certify brake friction material with NSF International. The certification of brake friction material is performed by the testing certification agency which is NSF International.
- **Step 3. MARK of PROOF:** Mark certified product with the “mark of proof” per the format provided in Society of Automotive Engineers (SAE) Standard J866:2012.

Testing Certification Agency for Brake Friction Materials

- Certification or accreditation requirements of the testing certification agency
- The process for obtaining the Department's approval of the certification requirements used by the testing certification agency





Certification Requirement

- “Testing certification agency”
 - Third-party testing certification agency;
 - Utilized by a vehicle brake friction materials manufacturer;
 - Has an accredited laboratory program that provides testing in accordance with the certification agency requirements that are approved by the department.



Certified Laboratories for Brake Friction Materials

- Certification or accreditation required for the certified analytical laboratory
 - ISO/IEC 17025:2005 by a lab accreditation body that is a signatory to the International Laboratory Accreditation Cooperation Multilateral Recognition Arrangement, as of the effective date of this chapter;
 - By any accreditation body recognized by the National Environmental Laboratory Accreditation Program, or
 - By the California environmental laboratory accreditation program.
- Describes the process to approve an alternative accreditation program not listed in this section



Testing Methodology for Brake Friction Materials

- SAE J2975:2013 is the acceptable test methodology for testing brakes
- Describes the process for obtaining the department's approval of an alternative testing method
- Precludes the department from approving alternative methods that alter the sample preparation method outlined in SAE J 2975-2013 section 4.1

Developing Analytical Laboratory Methodology

- Worked with DTSC ECL, State of Washington Department of Ecology, and the brake friction material manufacturers to develop analytical test methodology for brake friction materials.
 - Outcome = SAE J2975
- Worked with ECL to determine if XRF was a viable tool to screen commercially available brake pads in the field.
 - Outcome = DTSC's Environmental Laboratory Report.





Marked Proof of Certification

- SAE J866:2012 as the standard for the mark proof of certification
- Lists the steps to be followed for marking the brake friction material
- Marked proof not required if exempt (HSC section 25250.55)



Existing Product Mark of Proof

- Updated existing industry standard to include environmental code
 - Outcome = SAE Standard J866:2012 (Friction Coefficient Identification and Environmental Marking System for Brake Linings)
- The certification is overseen by a testing certification agency (NSF International)
- NSF certifies the environmental code and posts the certifications on its website
- California recognizes SAE J866:2012 as the standard for showing “a consistent date format, designation, and labeling to facilitate acceptance in all 50 states and United States territories for purposes of demonstrating compliance with all applicable requirements.” [California H&SC section 25250.60(j)]

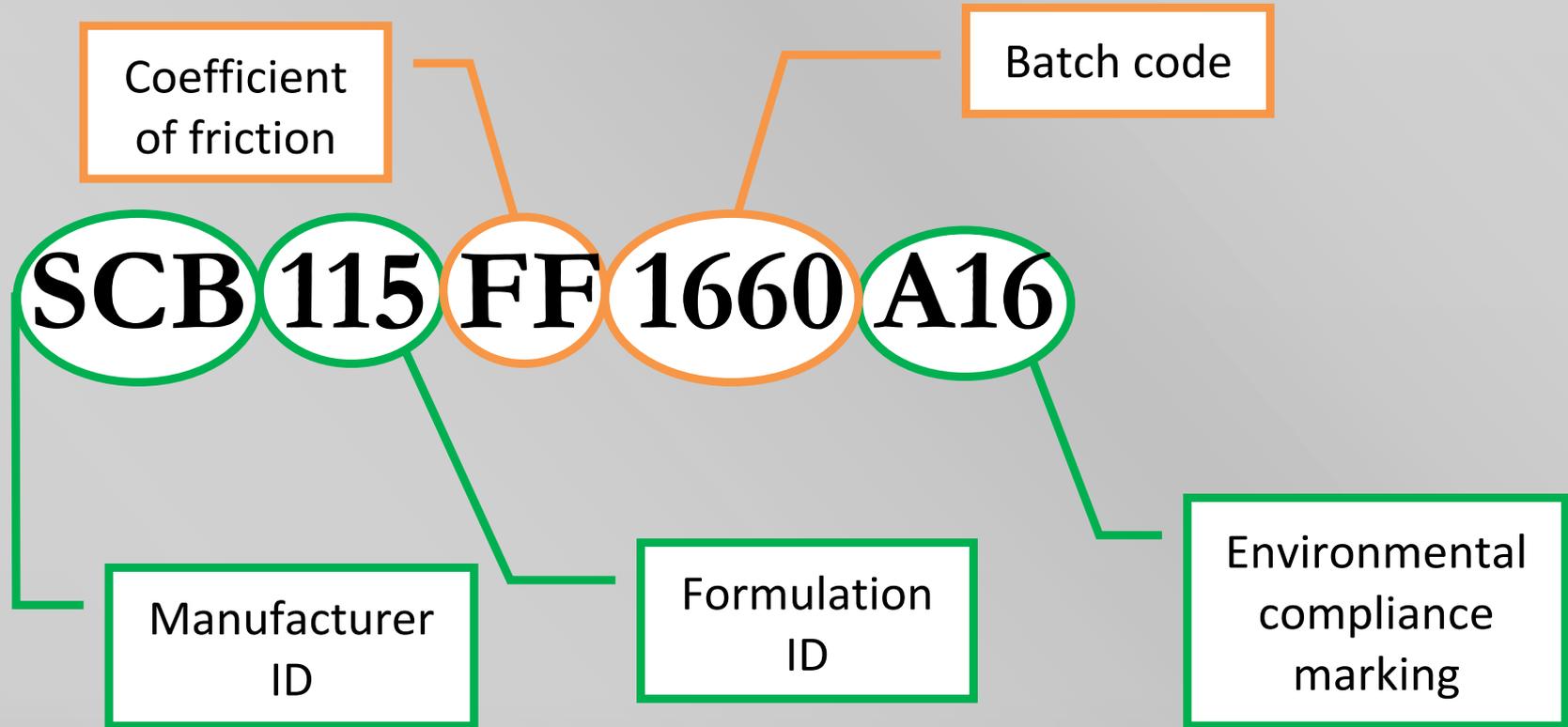


SAE Standard J866:2012

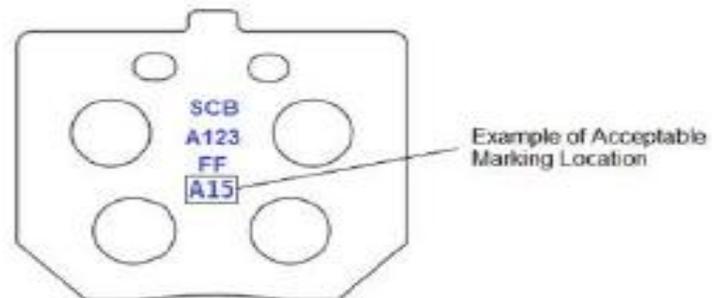
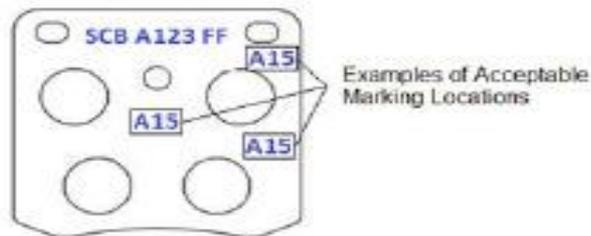
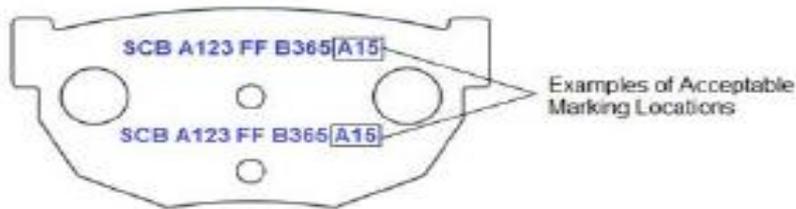
Environmental Codes

- “A” indicates the brake friction material does not contain any of the following compounds, in amounts exceeding the given concentrations:
 - Asbestiform fibers, 0.1 percent by weight;
 - Cadmium and its compounds, 0.01 percent by weight;
 - Chromium(VI)-salts, 0.1 percent by weight;
 - Lead and its compounds, 0.1 percent by weight;
 - Mercury and its compounds, 0.1 percent by weight.
- “B” indicates copper content between 0.5 % and 5% copper by weight along with the requirements specified for “A”.
- “N” indicates copper content less than 0.5% copper by weight long with the requirements specified for “A”.
- “A”, “B”, and “N” also have a two digit code to indicate year manufactured (e.g., 2014 = 14).

Example of a Mark of Proof



Washington State Dept. of Ecology - Guidance for Marking Brake Friction Material





Extension Process for 2025

- Describes the process for submitting an extension request to the Department
- Most of the procedure is written into law in HSC section 25250.54, including the formation of an advisory committee and the need for Cal/EPA Secretary approval



Written Comments

- DTSC will be taking comments until August 22, 2014
- Written comments can be sent either by
 - e-mail at brakepad@dtsc.ca.gov or
 - via mail at:

Department of Toxic Substances Control

Attn: Comments on Draft Informal Regulations for the Brake Friction Material
Law

P.O. Box 806, Mail Station/Code: SPWP/MS 12A

Sacramento, California 95812-0806



What's Next?

- Planning on starting formal rulemaking this fall
- There is an effort by the industry to reach an agreement with the U.S. EPA on a Memorandum of Understanding that relies on both California law and Washington's law and regulation.



Additional Guidance

- Brake Pad Webpage available
 - <http://www.dtsc.ca.gov/PollutionPrevention/BrakePads.cfm>
 - Updated FAQ section for repair shops
- New listserv created
- Industry specific fact sheets (being developed)
- Links to SAE standards available
- Other

Questions or Comments?

Molded Shim Technology*



**on selected applications*