Copper in Brakes

MEMA Background & Update Material

As of April 28, 2016

2013 | Brake manufacturers must report the use of copper, nickel, zinc, and antimony in brake friction materials to Ecology starting January 1.

2014 | California proposes informal draft regulations.

2015 | EPA, the Environmental Council of the States, and the brake friction material industry sign an MOU to adopt WA and CA standards for brakes sold in all states.

2015 | All brakes made after January 1 must be certified and marked to indicate that they do not contain asbestos, lead, mercury, cadmium, or chromium (VI). Ecology determines brake friction materials containing less than 0.5% copper are available.

2016 | Ecology convenes a group of experts to determine how best to move forward with a ban on materials containing more than 0.5% copper by weight.

2016 | California proposes formal draft regulations.

2021 | Brakes made after January 1 may not contain more than 5% copper by weight.

2025 | Brakes made after January 1 may not contain more than 0.5% copper by weight.
Copper in Brakes Compliance

• Constituent testing by an accredited third-party laboratory
• Registration through a third-party registrar
• Labs communicate results directly to a third-party registrar
• Complying friction materials’ environmental code information posted on a public website
• Brake friction materials be marked with an environmental compliance level on the pad’s Edge Code*
  ➢ “A” = Compliant with other constituents (Asbestiform, Cr(VI), Pb, Hg, Cd)
  ➢ “B” = Compliant with Cu 5.00 wt%
  ➢ “N” = Compliant with Cu 0.50 wt%
  ➢ “WX” or “X” = exempted (WA State)

* Per SAE J866 Friction Coefficient Identification and Environmental Marking System for Brake Linings
LeafMark™
Industry-created certification mark for packaging

- **2014 CA / 2015 WA**
  - LEVEL “A”
  - > 5.0% Copper
  - 1 leaf

- **2021**
  - LEVEL “B”
  - 0.5 – 5.0% Copper
  - 2 leaves

- **2025**
  - LEVEL “N”
  - < 0.5% Copper
  - 3 leaves

+ NO asbestos, cadmium, chrome (VI), lead or mercury
## California DTSC

**Brake Friction Material Law Proposed Regulation**

- **June 2014 – Informal Proposed Rule**
  - MEMA/BMC submitted comments

- **April 2016 – Formal Proposed Rule**
  - Comments are due May 23
  - DTSC Public Hearing May 27 (MEMA testifying)

**MEMA – BMC Action**

- MEMA staff working with AASA’s Brake Manufacturers Council to develop comments
- Concerned with alignment and harmonization of certain aspects with WA and with elements of the proposal that require clarification (e.g. test results and registrars)

## Washington Ecology

**“Better Brakes” Regulation Implementation**

- **Dec. 2015 – Alternatives Decision***
  - Affirmative decision that alternatives to “may be” available

- **Q.2 2016 – WA Brake Friction Material Advisory Committee (BFMAC)**
  - Multiple stakeholder participants
  - Purpose is to propose recommendations to WA, including any appropriate exemptions
  - Apr/May – 2 conference calls
  - June 28 – Workshop scheduled in WA

**Mid-2016/Mid-2017**

- WA will conduct its Product Enforcement Plan

---

* Required by WA statute
Resource Links

Copper Free Brakes Industry Education
http://www.copperfreebrakes.org

U.S. EPA Copper Free Brake Initiative
https://www.epa.gov/npdes/copper-free-brake-initiative

Memorandum of Understanding

State of Washington – Ecology
http://www.ecy.wa.gov/programs/hwtr/betterbrakes.html

State of California – DTSC
http://www.dtsc.ca.gov/SCP/BrakePads.cfm