

The New York Times

Wheels

The Nuts and Bolts of Whatever Moves You

FEBRUARY 3, 2012, 6:00 AM

Movement to Banish Copper From Brake Pads Gains Momentum

By **JIM MOTAVALLI**

Government at the [state](#) and [federal](#) levels has been preoccupied with improving the fuel economy of the nation's fleet. Smaller environmental causes are also in the mix, including [mercury in car switches](#) and [lead weights used to balance auto wheels](#).

Add to these copper brake pads, which produce metal dust that environmental advocates say reaches waterways and harms aquatic life.

The issue has gained traction in the legislatures of California and Washington, where bans on the pads were enacted in 2010. These victories have inspired bills introduced recently in Rhode Island, [New York](#) and Oregon.

Manufacturers use copper because it effectively transfers away the heat produced when brake pads rub against rotors. But with the legislative movements gaining momentum, companies are exploring alternatives to copper and other potentially hazardous materials.

"Each time a driver uses their brakes, a small amount of copper and other metals are deposited on roadways from the brake pad," according to literature on the Web site of the [Ecology Department](#) in Washington State. "These metals then wash into our streams and rivers. With millions of drivers using their brakes each day, these small amounts significantly impact our waterways, including Puget Sound." The state says that brake pads "account for up to half of the copper entering our water from urban areas."

By 2021, brake pads containing more than 5 percent of the metal will be banned in Washington. Pads made as original equipment for cars built before 2021 are exempt from the law. [The California ban](#) is similar, though it also requires the use of pads with 0.5 percent copper or less by 2025. Pending a 2015 review of available alternatives to copper, Washington may eventually enact a [0.5 percent ban of its own](#).

The bills in Washington and California also require manufacturers to stop selling pads with more than minute amounts of asbestos, cadmium, chromium, lead and mercury by 2014.

Manufacturers have adopted a collaborative approach to the problem through the [Brake Pad Partnership](#), a consortium consisting of the Brake Manufacturers Council, the Environmental Protection Agency, Ford Motor Company, General Motors and various state water agencies. "We ended up supporting both pieces of state legislation," Ann Wilson, a senior vice president at the Motor and Equipment Manufacturers Association, the parent group of the manufacturers council, said in a telephone interview.

Ms. Wilson said she thought that additional state bans were unnecessary because existing legislation would lead to an industrywide change in brake pad formulations. "It's important to recognize that what these two states have done will impact vehicles around the country, from cars to heavy trucks," she said. "Our members are not going to design California-only brake pads."

But Kathryn Phillips, California director of the Sierra Club, said in a telephone interview that this was not this time to abandon the quest for more state bans.

"Catalytic converters came to California first, and it took a while for them to go national," she said. "The auto industry is more willing to do the right thing today than it was 40 or even 10 years ago, but it's helped that states have taken the lead and made clear they expect good behavior."

Others are looking beyond state regulations. FDP Friction Science, which makes copper-free brake pads, is a sponsor of a coming petition campaign, called [Give Water a Brake](#), that would seek nationwide bans of copper brake pads in the United States and Canada. The campaign is organized in part by [Earthgarage.com](#), an informational site that also promotes green auto products, including FDP's EcoStop brake pads.

"The copper ban is a sleeper of an issue," Bob Leonard, the chief executive of Earthgarage, said in an interview. "Many of the environmental groups I've approached, some fighting water pollution, aren't aware of the brake pad problem."