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Brakes a Hitch To Complete Asbestos Ban?

The performance of automobile and truck braking systems could be compromised by a ban on the use of asbestos in brake pads or linings, an expert panel organized by the American Society of Mechanical Engineers (ASME) has advised EPA.

Asbestos has been used as friction material in automobile, truck, and other vehicle brakes since the turn of the century because of its unique physical properties. Despite asbestos' usefulness in brakes, building insulation, and fireproofing, its fibrils can cause lung cancer and other diseases.

Because of the health risk, EPA has proposed a ban on the production and importation of asbestos and products containing it. To determine the impact of the asbestos ban on motor-vehicle safety, the agency asked ASME to assemble a panel of experts.

"It was the collective opinion of the panel that there are insufficient data on the safety of alternative materials to set a deadline for removing asbestos from all auto and truck brakes," said L.S. Fletcher, chairman of the panel, and associate director of the Texas Engineering Experiment Station, Texas A&M Univ. System, College Station.

Although substitutes exist for asbestos in friction materials, they may have coefficients of friction different from those in asbestos linings and may wear differently, affecting brake performance. "You cannot assume that just any non-asbestos material will work in a braking system designed for asbestos," said Scott Barber, a research scientist at Battelle Columbus (Ohio) Laboratories. "Nor will a material performing satisfactorily in the laboratory necessarily provide safe braking in a vehicle." If unqualified braking materials are substituted, he warned, the driver could lose control of the car or truck.

Point:
Systems are designed specifically for substitutes.

New, non-asbestos materials are being used successfully in new cars with brake systems designed specifically to accommodate those substitutes. Such materials include semimetallic pads used in disc brakes, and non-asbestos organic (polymer) linings used in the Ford Taurus and Mercury Sable rear drum brakes.

"Since there is no one commonly accepted braking material that has all the characteristics of asbestos," said the panel's Fletcher, "each vehicle manufacturer is going to design a system that is slightly different."

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