

Current Best Practices for Preventing Asbestos Exposure  
Among Brake and Clutch Repair Workers

EPA  
August 23, 2006

<http://www.epa.gov/asbestos/pubs/goldbooktext.html>

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**Who can this information help?**

This information can help professional automotive technicians and home mechanics who repair and replace brakes and clutches. By law, most professional automotive shops must follow the Occupational Safety and Health Administration's (OSHA) regulations at 29 CFR 1910.1001 and specifically paragraph (f)(3) and Appendix F. These are mandatory measures that employers must implement for automotive brake and clutch inspection, disassembly, repair, and assembly operations. State and local governments with employees who perform brake and clutch work in states without OSHA-approved state plans must follow the identical regulations found under the EPA Asbestos Worker Protection Rule (Subpart G of 40 CFR 763). For the purposes of this brochure, professional automotive technicians are those individuals who are subject to the regulations mentioned above. While home mechanics are not required to follow the OSHA work practices (or the identical requirements under the EPA Asbestos Worker Protection Rule), by using these practices home mechanics can minimize potential exposure to asbestos if it is present and thereby reduce their risk of developing any asbestos-related diseases.

**What is asbestos and how can it cause health problems?**

Asbestos, a naturally occurring mineral fiber that is highly heat resistant, can cause serious health problems when inhaled into the lungs. If products containing asbestos are disturbed, thin, lightweight asbestos fibers can be released into the air. Persons breathing the air may breathe in asbestos fibers. Continued exposure can increase the amount of fibers deposited in the lung. Fibers embedded in the lung tissue over time may result in lung diseases such as asbestosis, lung cancer, or mesothelioma. Smoking increases the risk of developing asbestosis and lung cancer.

**Why should mechanics be concerned about asbestos exposure?**

Because some, but not all, automotive brakes and clutches available or in use today may contain asbestos, professional automotive technicians and home mechanics who repair and replace brakes and clutches may be

exposed to asbestos dust. Brake and clutch dust can be seen when a brake disk, drum, clutch cover, or the wheel is removed from a car, truck, or other equipment. There are also many small dust particles that cannot be seen with the eye. If the brakes contain asbestos, the dust may contain asbestos fibers, which could be inhaled.

### **How do I know if I have asbestos brake or clutch components?**

You cannot tell whether brake or clutch components contain asbestos simply by looking at them. For newer vehicles and parts, auto manufacturers, auto parts retailers and packaging information may be able to tell you whether or not your brake or clutch components contain asbestos. For older vehicles, or vehicles that have had brakes replaced, you may not be able to easily find out if the brake or clutch components contain asbestos.

### **As a professional automotive technician, what work practices must I follow to reduce potential exposures to asbestos?**

If you work in a commercial automotive shop that performs work on more than five pairs of brakes or five clutches per week, OSHA regulations require the use of one of the following work practices (or an equivalent method):

**Negative-Pressure Enclosure/HEPA Vacuum System Method:** This type of enclosure and vacuum system has a special box with clear plastic walls or windows, which fits tightly around a brake or clutch assembly to prevent asbestos exposure.

**Low Pressure/Wet Cleaning Method:** This specially designed low-pressure spray equipment wets down the brake assembly and catches the runoff in a special basin to prevent airborne brake dust from spreading in the work area.

If you work in a commercial automotive shop that performs work on no more than five pairs of brakes or five clutches per week, OSHA regulations allow you to use the following method instead:

**Wet Wipe Method:** This method involves using a spray bottle or other device capable of delivering a fine mist of water, or amended water (water with a detergent), at low pressure to wet all brake and clutch parts. The brakes can then be wiped clean with a cloth.

### **As a home mechanic, what can I do to protect myself from asbestos exposure?**

If you are not able to determine whether your brakes or clutch contain asbestos, you may want to consider having your brakes or clutch serviced at a commercial automotive shop. As noted above, OSHA requires special work

practices for professional automotive technicians. If, however, this is not possible and you do not have access to the equipment professional automotive shops use to comply with the OSHA work practices, you may want to consider using the wet wipe method described in this brochure ([www.osha.gov/SLTC/asbestos/standards.html](http://www.osha.gov/SLTC/asbestos/standards.html)). This method has been deemed acceptable by OSHA for shops that service no more than five brakes or clutches per week.

### **Work Practice Don'ts:**

It is recommended that you:

Do not use compressed air for cleaning. Compressed air blows brake and clutch dust into the air.

Do not clean brakes or clutches with a dry rag, brush (wet or dry), or garden hose.

Do not use an ordinary shop-vac without a high-efficiency particulate air (HEPA) filter to vacuum dust. Invisible particles of brake or clutch dust can stay in the air and on your clothes long after a job is complete.

Avoid taking work clothing home after performing brake and clutch work to prevent exposing your family to dust particles that may contain asbestos.

Work Practice Do's: It is recommended that you:

Use pre-ground, ready-to-install parts.

If a brake or clutch lining must be drilled, grooved, cut, bevelled, or lathe-turned use low speeds to keep down the amount of dust created.

Use machinery with a local exhaust dust collection system equipped with HEPA filtration to prevent dust exposures and work area contamination.

### **How do I dispose of waste containing asbestos?**

Professional automotive technicians must dispose of waste that contains brake or clutch dust, including wet rags used to wipe this dust, in accordance with Federal and local regulations including the OSHA asbestos waste disposal regulations. Brake and clutch dust and other asbestos waste must be collected and disposed of in sealed, impermeable containers that are appropriately labeled (29 CFR 1910.1001(k)(6) and 29 CFR 1910.1001(j)(4)). These regulations do not apply to home mechanics. EPA recommends that asbestos waste be double bagged and taken to a landfill that accepts asbestos waste. Check with your state department of health or local solid waste department to find an appropriate landfill. You may contact your state asbestos representative for more

information.<http://www.epa.gov/asbestos/pubs/statecontact.pdf> (PDF) (16 pp., 172K, About PDF)

### **Where can I get additional information?**

OSHA has issued a **Safety and Health Information Bulletin on brake and clutch repair** that is available at <http://www.osha.gov/dts/shib/shib072606.html>.

The OSHA regulations on asbestos are located at 29 CFR 1910.1001 and the provisions specifically directed at clutch and brake replacement are located in paragraph (f)(3) and Appendix F which can be found at: <http://www.osha.gov/SLTC/asbestos/standards.html>.

The **EPA Asbestos Worker Protection Rule regulations** at 40 CFR Part 763, Subpart G can be found at: <http://www.gpoaccess.gov/cfr/>.

For more information on asbestos please contact the EPA Toxic Substances Control Act (TSCA) Assistance Information Service at (202) 554-1404. You may also contact the EPA office in your region.

<http://www.epa.gov/asbestos/>

**For more information contact:** Robert Courtnage (courtnage.robert@epa.gov) at 202-566-1081 or Tom Simons (simons.tom@epa.gov) at 202-566-0517