



## FACT SHEET

# ASBESTOS-CONTAMINATED VERMICULITE

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### Overview

In response to reports it received about adverse human health impacts associated with exposure to asbestos-contaminated vermiculite, the Environmental Protection Agency (EPA) conducted a series of tests to evaluate the extent and nature of the risk. The results of this investigation indicate that the potential exposure to asbestos from some vermiculite products poses only a minimal health risk to consumers, although workers may face more serious risks.

### What is vermiculite and where does it come from?

Vermiculite is produced from ore mined throughout the world. In the United States, mines are located in Montana, South Carolina, and Virginia. When heated, the ore expands into a light, rather fluffy material, that is fire resistant, chemically inert, absorbent, light weight, and odorless. The absorbent properties of the expanded vermiculite make it useful in lawn and garden, agricultural, and horticultural products. Other common uses are as thermal and sound insulation, construction material, insulation material, and for lightweight, absorbent packaging material.

### Where does the asbestos come from and why is it a health concern?

Vermiculite ores often contain a range of other minerals including, in some cases, asbestos. Asbestos is not a major contaminant, and only a few ore deposits have been found to contain more than trace amounts of asbestos minerals. However, exposure to airborne asbestos particles has been linked to respiratory ailments including cancer, and EPA is concerned about the increased risk to consumers and workers from use of asbestos-contaminated vermiculite products.

### What has EPA done to assess the risk?

To evaluate the risk posed by compounds such as asbestos, EPA needs to determine if the contaminant is present in certain products and also whether people come in contact with sufficient quantities to cause harm. For asbestos, this means that airborne fibers need to be inhaled and lodged into the lungs. EPA began its investigation by purchasing and testing a number of vermiculite products available in garden stores across the country. Only 15 percent (8/54) of these products contained



enough asbestos to allow EPA to quantify the percentage of asbestos reliably. Further analysis of the likelihood of the asbestos becoming airborne, during routine use of these products, indicated that this potential exposure poses a minimal health risk to consumers. Vermiculite products may, however, present more serious risks in a work setting where the frequency and duration of exposures are likely to be significantly greater. EPA has provided the report of its investigation, *Sampling and Analysis of Consumer Garden Products That Contain Vermiculite*, to the Occupational Safety and Health Administration (OSHA) to assist that Office in evaluating the hazards to workers from exposure to certain vermiculite products.

### **What Can Consumers Do?**

To further reduce the low risk associated with the occasional use of vermiculite products during gardening activities, EPA recommends that consumers can do the following:

- Use vermiculite outdoors or in a well-ventilated area.
- Keep vermiculite damp while using it to reduce the amount of dust created.
- Avoid bringing dust from vermiculite use into the home on clothing.
- Use premixed potting soil, which usually contains more moisture and less vermiculite than a pure vermiculite product, and is less likely to generate dust.
- Use other soil additives such as peat, sawdust, perlite, or bark.

### **For More Information**

- Contact EPA's Toxic Substances Control Act (TSCA) Assistance Information Service, 202-554-1404, for additional information or to obtain a copy of the vermiculite survey report identified above.
  - Go to EPA's Asbestos website at [www.epa.gov/asbestos](http://www.epa.gov/asbestos). The vermiculite garden product survey report also will be posted there.
  - For more information on risks to workers, contact the OSHA Public Affairs Office, 202-693-1999, or visit the OSHA website at [www.osha.gov](http://www.osha.gov).
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