

ASK THE INSPECTOR COLUMN FOR FEBRUARY 17, 2016  
HEADLINE: IS VERMICULITE AN ISSUE?

Every year, as home sales pick up in the spring, the number of questions about UFI insulation, knob and tube wiring, asbestos, mold and a host of other difficult environmental and air quality questions arise, including the question about vermiculite insulation. By now it may be thought that after so many years of us knowing about this issue, all of the homes with this type of insulation in the attic and a tiny number with it in the walls have been found, the vermiculite either removed or declared and the home re-sold.... not so.

While vermiculite on its own is not an issue, the problem stems from a mine in Montana owned by W.R Grace & Co, operated from the early 60's and closed in 1990. This mine contained a huge deposit of vermiculite ore. Unfortunately, it also contained a strain of tremolite, a type of asbestos. Asbestos has been around for centuries, the Greeks used it for oil lamp wicks and cloth. With the known fire retardancy, asbestos was used in hundreds of products, shingles, caulking, furnace cement, brake linings, floor and ceiling tiles, appliance wiring, electric blankets, it's an endless list. This mine produced the majority of what was known as "Zonolite" insulation. During the late 70's, due to the oil embargo, a hastily announced program was introduced. The CHIP (Canadian Home Insulation Program) recommended this type of insulation, along with UFI (urea formaldehyde insulation), another problem insulation, and grants for other upgrades like windows, made this a very popular program. Tens of thousands of bags of Zonolite were sold and installed in Canadian homes. What is not as well-known is that a small mine in Saskatchewan also mined vermiculite during this period and their stock was asbestos free, as was some from South Africa.

By the early 1980's, the evidence of exposure to "short-strand" asbestos had become very well known. The miners who worked in these mines developed cancer, asbestosis and mesothelioma, both of which are lung related diseases. It took years for diagnosis and, often times, it was over 10 years, sadly, before a miner was confirmed to have this disease.

Where are we now? Asbestos is still used today in very restricted applications in its long strand form and rarely used unless encapsulated. The point here is "encapsulated" and this means the fine particles that make up short fibre asbestos, if left undisturbed, may not be an issue. That said, prolonged exposure may still have some health risks. So how do you handle vermiculite if found in your prospective or current home?

The federal government has a very clearly written document on this web site [www.healthycanadians.gc.ca](http://www.healthycanadians.gc.ca) that describes the issues and how to minimize your

risk. The Canadian Centre for Occupational Health and Safety [www.ccohs.ca](http://www.ccohs.ca) has similar statements on this product.

Most of the air moving through your home travels from the lower occupied areas up into the attic and discharges. The bottom line is simple; there are still hundreds of products that contain asbestos in older Canadian homes, floor and ceiling tiles being the most visual and now on the radar for some home sales. Do not disturb is the commonly accepted recommendation and as Health Canada notes, “if vermiculite based insulation is contained and not exposed to the home or interior environment, it poses very little risk.”

If found in your attic, it can't be said often enough...do not disturb and stay out of the attic. Seal up any voids in the ceiling, such as around your attic hatch and any ceiling lights. Simply put, leave it alone. That may be easier said than done, since, if you have a home with this insulation, there may be a stigma come time to sell the house. My first suggestion is to get the insulation tested. Carefully, open your attic hatch, have a proper mask on, not a dust mask and disposable gloves. From the hatch area, take 3-4 samples from areas around the hatch that you can safely reach and put these samples in a zip-loc bag, closed tight. Lab testing is not that expensive; we get it done for less than \$150.00. If you are selling, declare this and offer the test results as confirmation.

The area of most concern is, “What do you do if you intend to renovate your home and upgrade the insulation?” None of the blown cellulose or fibreglass installers I know will allow their staff in an attic with vermiculite. It's widely known that, if this insulation is disturbed, the airborne asbestos content rises dramatically. Removal can be done, but is expensive. Earlier on, when this became an issue, costs as high as \$8.00 sq. ft. were heard of. Today, I am aware of removal costs in the range of \$3 to \$5.00 per sq. foot of floor space. This translates into a sizeable sum for a 1000 sq. foot home, however. The cost often includes replacement with one of the blown insulations like cellulose or fibreglass.

How will the potential buyer of your home assess this? There are no simple answers here. I have seen some buyers accept it and others simply walk away. Today, it's becoming more and more common to have it removed, in order to eliminate the issue when the home is sold. This type of extraction should only be done by a trained, certified and qualified asbestos removal company. Look them up on the web or in the yellow pages under “asbestos abatement/ removal.” Fortunately, we have two very good certified removal contractors here in Kingston.

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