

ASK THE EXPERT

MTBE and whole house treatment

Q. Is there anything available for whole house reduction of MTBE in drinking water? I'm currently residing on the north shore of Long Island. Last fall, my wife and I were looking to relocate to the Manchester, N.H., area but found an abundance of water problems ranging from radon water to high levels of iron, manganese and even arsenic in private wells. There are growing concerns with MTBE turning up in water supplies even here in New York. As a small business owner, it occurs to me that there is a tremendous untapped market for MTBE filtration and I'm in the process of gathering info with the hope of a business startup in northern New England by next Spring. I have already perused your website. Any additional info you could offer would be invaluable.

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A. MTBE should be fairly well removed by granular activated carbon (GAC), although this is a relatively expensive method with several potential drawbacks. The contact time required is rather lengthy. Removal is not likely to be 100 percent, leaving some MTBE still in your water after treatment (as a guess, you can expect 80-90 percent removal from new carbon, declining gradually as the carbon is used). Second, the carbon will become depleted over time and you have no easy way to determine when it needs to be replaced—it may need to be every few weeks or perhaps more often.

Some work has been done on special microbes that aid in biodegradation of MTBE. Other methods of removal discussed for groundwater remediation include air sparging to oxidize and/or air stripping, or possibly other oxidation techniques (such as various combinations of UV, ozone and hydro-

gen peroxide). These methods probably aren't practical for home use (oxidation is likely to involve large tanks and may be difficult to control well enough to guarantee complete removal, while air stripping requires a secondary method to remove MTBE from air; otherwise, you'll wind up breathing it instead of drinking it).

More recently, special grades of GAC have become available for MTBE reduction. This material is available in tanks designed to treat the entire household water supply. The particular grade of activated carbon I have in mind is available from Calgon Carbon Corp. With regard to starting a business to supply this equipment, it's relatively simple to assemble units like this by purchasing a control valve from one manufacturer, an FRP tank from another and the GAC from Calgon Carbon. The key to success will be your ability to access the market and provide installation and service. Good luck.