April 12, 2004

Concerns That Nanotech Label Is Overused

By BARNABY J. FEDER

hat exactly is nanotechnology? The definition is no longer academic as more investors become
attracted to anything that carries a nanotech label.

On Thursday, Asensio & Company, an investment firm, faxed a letter to Eliot Spitzer, the New York
attorney general, charging that misuse of the nano label has become a favorite tactic for fraudulent stock
promotion.

Asensio asked Mr. Spitzer to investigate Merrill Lynch for including many companies that have little or
nothing to do with nanotechnology in an index of 25 publicly traded nanotechnology companies that
Merrill introduced on April 1.

"Investors are being harmed on a daily basis," said Manuel P. Asensio, chief executive of the investment
firm, which is based in New York.

Juanita Scarlett, a spokeswoman for Mr. Spitzer, said that the office's first step in response to such a
request would be an informal inquiry.

Merrill Lynch, to which Mr. Asensio made phone calls and faxed letters before turning to Mr. Spitzer, is
"in the process of performing a thorough and diligent inquiry," according to Susan McCabe, a company
spokeswoman. "I can't tell you how long that is going to take."

The term nanotechnology comes from the nanometer, which is one-billionth of a meter. Nanoscale
measurements are used to describe molecules and their behavior. One nanometer is roughly the diameter
of 10 hydrogen atoms and many of the smallest components of everyday products like the transistors in
microchips are measured in nanometers.

The world of viruses, proteins and drug interactions can also can measured on a nanoscale. The most
liberal view of nanotechnology encompasses all technology that operates below the threshold of 1,000
nanometers, or one micron.
The most common view - the one Merrill Lynch said it used - limits nanotechnology to products and production processes measured at 100 nanometers or smaller. Below 100 nanometers, the quantum forces that govern the behavior of individual atoms and molecules begin to have a discernible impact on metals and other materials, which can influence characteristics like strength, flexibility and electrical conductivity.

Strict constructionists reserve the term nanotechnology for innovations designed to exploit those novel behaviors and for devices able to control construction of nanoscale materials atom-by-atom. Some strict constructionists, like Mr. Asensio, would also exclude from the nanotech category products and processes developed before the rise of research in nanotechnology.

K. Eric Drexler, who coined the term in 1986, has complained that it is now so broadly used that it is almost meaningless.

Mr. Asensio's firm has a financial stake in the definition because its main trading strategy is short selling, in which an investor bets that a share's price will drop.

Mr. Asensio said the firm had lost money because he thought the stocks in companies that should have declined, or at least risen more slowly, in the last two weeks had been supported by the companies' inclusion in Merrill's technology index.

Merrill said that it was not endorsing any stock simply by including it in the index. Merrill's analysts track just 3 of the 25 companies in the index, Ms. McCabe said. The index, which is listed under the ticker symbol NNZ on the American Stock Exchange, is not a tradable security.