



January 23, 2006

Kenneth W. Kauffman
Environmental Health Specialist
Environmental Toxicology Program
Department of Human Services
State Office Building, Suite 608
800 NE Oregon Street
Portland, Oregon 97232

VIA UPS

Dear Mr. Kaufmann:

It was a pleasure speaking with you on January 19, 2006 relative to the 3M Tartan Brand flooring. As we discussed I am sending some comments and additional information on 3M Tartan Brand flooring, which was the subject of an "Advisory" dated September 22, 2005 that you forwarded to schools in Oregon regarding polyurethane flooring. The 3M Company was a producer of athletic flooring material and we would like to clarify some of the content of your Advisory. Once you have read these comments please feel free to contact me with any further questions.

In the way of background, 3M Company manufactured and sold the "3M Tartan Brand" flooring beginning in the early 1960's and discontinued sales of this product in the early 1980's. However, we are aware that there have been several other manufacturers of polyurethane floors, and other companies not associated with 3M have used the "Tartan" name in marketing athletic flooring and surfaces, from at least the early 1990s. Moreover, usage of the term "Tartan" appears to have become widespread as a way to refer to any resilient athletic flooring or surface. Thus, the suggestion in the Advisory that 3M is or was the only manufacturer of "Tartan flooring" or polyurethane flooring generally is not accurate. Also, it has not been demonstrated that the resilient floors in Ohio and Michigan cited in your Advisory were manufactured by 3M.

When 3M is asked about resilient athletic flooring, we reply based on the product information on the 3M Tartan Brand flooring, but we are careful to point out that there were other manufacturers. We also try to avoid confusion on this by referring to "polyurethane flooring" or "resilient athletic flooring" in a general manner. It is important that schools or gymnasiums with resilient athletic flooring make the effort to determine the type of flooring or its composition. There are other chemical processes and materials used to manufacture some resilient athletic floors that do not use mercury compounds as an ingredient at all. Some of these resilient floors may present use and disposal issues that need to be considered.

The Advisory refers to mercury in the product as a "stabilizer." The 3M Tartan Brand flooring contained a very small amount of phenyl mercuric acetate (PMA), used as a catalyst (not a stabilizer) in producing the product. This was used by other flooring manufacturers as well. It would generally be bound in the flooring. Additionally, the 3M Tartan Brand flooring was covered with a topcoat of a different chemistry to seal the flooring and create a nontacky surface.

With respect to the Advisory's comments on the mercury vapor readings, 3M agrees with the conclusions that the measurements cited, from schools in Ohio and Michigan, show that in day-to-day use, the floors studied, i.e., organo-mercury-catalyzed polyurethane floors, are safe for staff and students on or near the floors. As noted above, it was not determined that these were 3M Tartan Brand floors.

A few specific points related to the mercury vapor discussion section:

- The Advisory references "that the product contains 1000-2000 ppm mercury and can produce indoor building vapor levels as high as 22 ug/m3." This statement is based on one set of data taken in 1971, at a location six inches from the floor and not in the breathing zone. This should be noted in the Advisory. Additionally, the 1000-2000 ppm number represented the amount of PMA, a compound containing mercury. The actual amount of mercury actually would be about approximately 1/2 those numbers.
- Occasionally we are asked questions regarding possible repair or replacement of resilient athletic floors. Repair or removal of the product may require worker protection, depending on the nature of the removal techniques and whether dust may be generated. Because we do not know the conditions involved in a particular situation (e.g., the type of flooring, whether it is a 3M Tartan flooring or a flooring made by another manufacturer, the type of removal or repair anticipated, or the other materials that may be present), we support your recommendation in the Advisory that a qualified industrial hygienist be involved to determine what safety practices will be necessary for workers to remove the flooring.

In addition, we recommend that any removed product be appropriately tested to determine if it meets criteria requiring disposal as a hazardous waste under federal and state laws.

If you have any questions, please contact me at 651 733-6374.

Sincerely,



Michael A. Santoro, Director
Environmental, Health, Safety and
Regulatory Affairs
3M Company Bldg 236 1B 10
St. Paul, MN 55144
651 733-6374