



Protecting, maintaining and improving the health of all Minnesotans

MEMORANDUM

DATE: August 23, 2007

TO: School Administrators

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SUBJECT: High Levels of Mercury

We are writing to notify you about possible high levels of mercury in air caused by off-gassing of mercury from some synthetic (rubber-like, polyurethane) floors, most commonly found in gyms. Concentrations of mercury in air that exceed levels of health concern have been observed in several gyms with these floors. Determining the actual exposures that may occur in a gym is not always simple. However, the levels of mercury vapor in air can be reduced to levels below health concern by mechanical ventilation with fresh air (for example, in one situation, 2 air exchanges per hour was enough to reduce the concentrations of mercury).

Merely opening windows and doors, without an active system pulling in outside air, does not appear to provide sufficient ventilation to reduce the mercury vapor to safe levels. We recommend that gyms be actively ventilated with fresh air beginning at least two hours before the gym is occupied and continuing throughout the period of use.

Mercury was used as a catalyst (up to 0.2% by weight) in the curing process for some synthetic gym floors manufactured from the 1960s until the mid-1990's. These floors give off mercury vapor continuously. The mercury vapors can accumulate to relatively high levels in poorly ventilated spaces, even in large spaces such as gyms. Increases in mercury vapor to levels of health concern, is especially problematic in the summer because higher temperatures increase the amount of mercury off-gassing from the flooring material.

MPCA and MDH will be giving a presentation on mercury in schools, including mercury issues associated with these synthetic gym floors, at the Minnesota Association of School Administrators Conference this fall; however because the highest levels of mercury in gyms have been found in the summer, we are notifying you about this problem now.

MDH published a Health Consultation about a year ago with some preliminary findings. This document is available at <http://www.atsdr.cdc.gov/HAC/pha/MercuryVaporReleaseAthleticPolymerFloors/MercuryVaporRelease-FloorsHC092806.pdf> or <http://www.health.state.mn.us/divs/eh/hazardous/topics/mercuryvapor.pdf>

We are continuing to investigate this problem and will inform you as new information becomes available. If you have questions or concerns, please feel free to contact us.

General Information: 651-201-5414, 1-877-676-5414 * TDD/TYY: (651) 201-5797 * Minnesota Relay Service: (800) 627-3529

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