



Falls on Slippery Floors – the why & what of this hazard

When new, almost all floors will have a minimum co-efficient of friction (C.O.F) of 0.50 or above in a dry condition and it is seldom that a slip/fall will occur. However, when floor surfaces are subjected to water or other liquid spills, the C.O.F will drop dramatically.

Polymerization is the chemical reaction in which a compound is made into a polymer by the addition or condensation of smaller molecules. The initial culprit that begins this process is actually the cleaner we've use as our floor cleaner. Alkaline-based cleaners are unsurpassed for dissolving a wide variety of floor contaminates, but unfortunately, they all leave behind a trace of soapy residue. This residue is undetectable after the floor dries but when any liquid is introduced, it becomes slippery. The more you clean with this type of product, the more residues are left behind.

This cleaner residue actually attracts contaminates such as dirt, oil, and grease as they are spilled on the floor or distributed through the air and then deposited on the floor. The contaminates then become compressed through foot traffic and the wheels of carts resulting in molecular polymerization, which then begins filling in the microscopic pores and crevices of the flooring. This whole process occurs repeatedly, day in and day out, as the cycle of cleaning and then compressing dirt and contaminants into the floor continues; thus the floors become more and more slippery as the soap and contaminants build.

The situation worsens dramatically when polymer materials are spilled on the working surface. Many materials used in water and wastewater utility operations can produce extremely slippery conditions when spilled on the floor or other working surfaces. **Polymer spills that have absorbed water form a gel which makes walking surfaces extremely slippery** and therefore hazardous. It is essential, to recognize and react to the hazards of spills.



Complacency, or “*I didn't spill it so why should I clean it*”, have no place in our operations. We must remove as much of the polymer and its residue as possible from walking and working surfaces and affected equipment. Polymer spills should be addressed immediately. Barricade the area to prevent unintentional entry. Heed warning signs. Get help!

Dry polymer spills should be left; dry swept up and disposed of according to disposal regulations. If the polymer becomes wet, an absorbent material should be applied to the spill, then swept up and discarded.

Do not add water to a polymer spill in an attempt to flush it down the drain. This only spreads the spill and some polymers are environmental pollutants and therefore cannot be flushed to drains that lead to open water.

Any questions?

Attach to completed sign-in sheet

Presenter: _____

Date: ____/201__

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