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Is Playground Sand Dangerous?! SafetyWorks! Newsletter

Sand used in playgrounds will sometimes have a carcinogen warning on the label, which prompts the question, is playground sand dangerous?

Sand is primarily composed of silica, which is considered a carcinogen (and thus the warning label). In an occupational setting, such as sandblasting, exposure to the silica in the sand may be problematic. But exposure to children in a playground setting, or to an employee who might have to work with the sand is different as follows:

1. The sand is not being pulverized or ground (as would happen with sandblasting or mining), so the particles are larger and not inhaled as deeply into the respiratory system.
2. The exposure period is short (as opposed to a sandblaster who may be exposed for an entire shift, and is sometimes working indoors where exposure would typically be increased).

Therefore, it is not expected that exposure to children or RPD employees would be significant. And there do not appear to be studies that measured and assessed children's exposure to silica in playground sand; the studies focus primarily on occupational exposure to adults.

While no government entity is regulating playground sand, a number of credible organizations (such as the Healthy Schools Network, an EPA partner) recommend that sands without fine dust be used (such as river or beach sand). Sand that is specially washed to remove much of the dust component can be used as well. Sands not specifically manufactured for playgrounds would be expected to have a higher dust component than playground sand.

To summarize, no government entity regulates playground and so silica exposure to children and RPD employees from playground sand is not expected to be significant. The Healthy Schools Network, an EPA partner, recommends that sands without fine dust be used (such as river or beach sand, or sand that has been washed).