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DataChem News

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Artificial Turf—An Athletes Slow Poison

Those beautifully green, always perfect, year-round lawns known as artificial turf. They are long living, long wearing and are put through tremendous abuse via athletes, children and weather. No other terrain is known to have such desirable effects. But all is not perfect on the field. That perfect appearance is partly achieved by using lead. Lead isn't harmful unless you eat it, inhale it, or by some other mechanism introduce it in to your

Adult Exposures can cause:

Increased blood pressure
Kidney damage
Digestive problems
Nerve disorders
Sleep problems
Muscle and joint pain
Mood problems

Childhood Exposures can cause:

Brain damage
Kidney damage
Growth impairment
Hearing impairment
Vomiting
Headaches
Appetite loss
Learning problems
Behavior problems

body. The Consumer Product Safety Commission (CPSC) is looking in to the possible risks these artificial turfs pose to public health. Health officials have closed down two fields in New Jersey after detecting high concentrations in the turf. A spokesman for the CPSC stated there is "a great deal of interest in any consumer product that could be used by children where children could potentially be in harms way because of lead exposure." Nearly 800 artificial turfs are installed annually throughout the United States at schools, colleges, parks and stadiums. Lead Chromate is used to make the grass green and allow it to maintain its color under the fading effects of the sun but during use lead may become airborne and therefore easily inhalable particularly by individuals of short stature i.e.—children (concentrations are higher towards the ground). Lead poisoning is thought to be one of the most important chronic environmental illnesses

affecting children today. Lead in consumer products has been mostly phased out over the past two decades however, many products still contain lead. Products with lead include: candle wicks, toy jewelry, candy wrappers, kitchenware, and, as recently documented in the news, many toy products produced overseas. It is unclear if the levels found in these products have negative associated health effects. Several factors come in to play when determining potential exposure including the route of exposure and the size of the individual.

For additional information on the effects of lead visit <http://www.epa.gov/iaq/lead.html>

Analysis of the Month

Lead

For the month of May DataChems Salt Lake Lab is offering **Lead Analysis using NIOSH 7082 for \$10.**

For further details contact us at info@datachem.com
For a complete list of our Salt Lake labs services visit www.datachem.com

To take advantage of the offer simply refer to the newsletter in your analytical request. Discount is only available at our Salt Lake facility.



Lead in Astroturf can lead to an array of long term health problems for the individuals that are regularly exposed.

Did your copy of DataChem News arrive late last month? Did you receive it more than once? We are making some changes to how we distribute our newsletter. These changes should be transparent to our subscribers. If you did not receive a copy of our April newsletter you can review it, along with other past copies, at www.datachem.com/newsletters.aspx

Lettuce and Swimming Pools

At first glance the salad you ate for lunch and swimming in a chlorine treated pool don't seem to have anything in common but the health effects experienced by those that work around indoor pools or pack vegetables are much the same. Chlorine is used to disinfect both the water we swim in as well as the vegetables we eat. When chlorine comes in contact with organic matter, such as sweat or urine in a public pool, its composition changes and becomes chloramine. The same is true of vegetables, when they are cut during preparation they release sap proteins, these proteins, in the presence of chlorine, combine to form chloramines. The typical concentrations that most people come in contact with due to using an indoor pool or consuming vegetables is highly unlikely to cause ill health effects. For the workers that are repetitively exposed, as well as children who are much more susceptible to ill health effects at lower concentrations than that of an adult, asthma can be a very real result. Short term effects that are often experienced include respiratory and eye irritation. Alternatives to chlorine disinfection are being investigated and include UV treatments. UV is extremely efficient at killing water and air-borne pathogens.

For a complete list of alternative disinfectants visit http://www.epa.gov/safewater/mbdp/alternative_disinfectants_guidance.pdf

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