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SYNTHETIC TURF – BRIEFING PAPER

Who We Are

The Synthetic Turf Council is a non-profit association dedicated to serving as a resource for trustworthy information about synthetic turf. Our objective is to encourage, promote and facilitate better understanding among all parties involved in the manufacture, selection, delivery and use of today's synthetic turf systems. To that end, we make every attempt to dispense information that is neutral, objective and validated by independent, current and credible research.

Our Commitment

The Synthetic Turf Council is committed to protecting the health and safety of the public. Because currently there is no standard for synthetic turf, the synthetic turf industry is looking forward to working with the U.S. Consumer Product Safety Commission to develop a workable and reasonable standard and phase-in period for lead chromate in the formulation used to make synthetic turf; as well as clear and objective Terminology to describe acceptable or undetectable levels of lead chromate in synthetic turf, e.g., “lead-free” as used to describe lead-free gasoline.

The Issue

Recent testing of artificial turf fields in New Jersey and other states have raised public concern that the materials used to make synthetic turf may contain levels of lead that could pose a threat to public health. Such concern has resulted in certain field closures and for the Environmental Protection Agency and Consumer Product Safety Commission to begin formal testing procedures to determine whether, in fact, a threat exists.

The Facts

In over 40 years, there has been no evidence or science to suggest that synthetic turf poses a risk to human health or the environment.

- **Lead Chromate in Synthetic Turf is Not a Health Hazard.** Recent disclosures by the New Jersey Department of Health and Senior Services that 3 synthetic turf sports fields tested with elevated levels of lead resulted in a warning about lead levels in synthetic turf. It is an ingredient in pigments used to color and improve colorfastness in many consumer products like synthetic turf. Over 90% of synthetic turf fibers contain pigments with very low or undetectable levels of lead chromate;
- **Lead chromate is almost completely insoluble.** It is encapsulated in glass and resin, and diluted so that it has extremely low bioavailability. It is not absorbed by the body if ingested or inhaled. It does not leach into the environment;
- **Extremely Low Bioavailability of Lead Chromate.** The Center for Disease Control's Lead Prevention Program (1997-2006) identified no risks from synthetic turf during its investigation of 763,216 childhood exposures to lead. Of the nearly 40,000 cases of high blood lead concentrations in children reported in 2006, none were attributed to exposure to synthetic turf.

- **Scientists Support Synthetic Turf Has Few Health Risks.**

-- “There is no scientific evidence of a health risk for children or adults based on recent test results and current knowledge of the chemical structure of aged synthetic turf products,” concluded Davis Lee, Ph.D., synthetic organic chemistry, and David Black, Ph.D., forensic toxicology, April 21, 2008. Drs. Lee and Black calculated that a 50-lb. child would have to ingest an over 10 square feet of synthetic turf to receive 90 ppm of lead, the U.S. toy industry’s voluntary standard for migratory lead.

-- Dr. Eddy Bresnitz, Deputy Commissioner and State Epidemiologist, NJDHSS, said, “Available evidence suggests that there is no acute health risks due to use of artificial turf fields, and risks due to chronic and repeated exposure are unlikely.” The three NJ fields tested negative for lead in the air above them, and the soil below them. The blood lead levels of over 70 children who regularly played on one of the fields tested at or below the national average.

- **New Research is underway to ensure the product is safe.** New pigment formulations are being developed to continue to reduce lead chromate levels for all of our colors without compromising performance required by buyers.

Action Plan

The Council is committed to protecting the health and safety of the public. Because currently there is no standard for synthetic turf, the synthetic turf industry is looking forward to working with the U.S. Consumer Product Safety Commission and U.S. Environmental Protection Agency (EPA) to develop:

- A workable and reasonable standard and phase-in period for lead chromate in the formulation used to make synthetic turf;
- Clear and objective Terminology to describe acceptable or undetectable levels of lead chromate in synthetic turf, e.g., “lead-free” as used to describe lead-free gasoline.
- A workable means of mitigating any potential threat to public health posed by synthetic turf.

Synthetic Turf Benefits

- Provides a safe uniform all-weather playing low maintenance surface that can be used year-round. A grass sports field is often overused out of necessity, creating an unsafe playing surface. Increasingly, synthetic turf sports fields are the option of choice for high schools, colleges, professional sports teams, Parks & Recreation Departments, and townships and municipalities;
- Eliminates the need for 50,000 gallons of water each week during growing season and thousands of pounds of pesticides, herbicides, and fertilizers annually for every grass sports field;
- Recycles 25 million used auto tires annually that would otherwise end up in U.S. landfills. The U.S. EPA encourages the use of ground tire rubber in playgrounds, sports and playing fields, and other common applications. At least one of our member companies (and other companies have applied) is an approved member of the U.S. EPA’s GreenScapes Program because of the significant environmental benefits of synthetic turf;

The STC Position: The STC believes that reliable scientific data should be the foundation of any discussion regarding synthetic turf’s safety and utility. After reviewing the available research from independent and credible third-party experts, we are confident that synthetic turf is safe to humans and the environment. The STC has posted to its website, www.syntheticurfCouncil.org, a collection of unfiltered studies, research summaries, chemical analyses, technical papers, and position statements.