

Study Proves Rubber Granules in Artificial Turf Safe for the Environment

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MONTREAL, Aug. 30, 2007 (PRIME NEWSWIRE) -- The results of a long-term study confirms that the rubber granules used in the construction of artificial turf fields pose absolutely no threat to the environment.

ALIAPUR, the leading French government body responsible for used tires, along with ADEME, the French Agency for Environment and Energy Management has completed a scientific study that aimed at evaluating possible environmental impact from the rubber granules in sports fields that are derived from recycled used car tires.

The studies prove no cause for concern to human health.

The main goal of the study was to determine the quality of water transferred into the natural environment after passing through the rubber granules and other infill materials from the artificial grass sports fields. In addition, the study obtained a detailed analysis and evaluation of the gas emissions generated by these fields.

As part of the testing methodology, three artificial grass sample fields were infilled with three different materials, to create real life replicas of artificial turf fields used around the world in schools, parks and playgrounds. Each artificial grass sample field used a different rubber infill:

A - SBR (rubber granules from used tires).

B - TPE (new material thermoplastic rubber granules).

C - EPDM (new virgin material rubber granules).

An artificial grass carpet with no rubber infill was also used as a control field sample.

Initiated in 2005, this study was conducted with the scientific aim of replicating normal field usage conditions to properly evaluate any potential environmental impact from runoff water and the potential of any health risk from gaseous emissions.

The results indicate the following:

1 - A comparable behavior regardless which type of infill material was used -- whether SBR from used tires, new TPE thermoplastic material or EPDM new virgin rubber material.

2 - The absence of impact of these materials on water resources.

3 - There was no effect on health associated with the inhalation of VOC and aldehydes emitted by artificial surfaces.

4 - Emissions from the artificial turf without any infill material are very low compared with those from other construction products (ex: parquet flooring).

5 - The emissions from the artificial turf containing SBR (rubber granules from used tires) and from TPE (new material thermoplastic rubber granules) are both relatively low. "Relatively low" by European standards signifies an environmentally safe substance.

6 - The emissions from the artificial turf containing EPDM (new virgin material rubber granules) are greater.

7 - From an ecotoxicological point of view and on the basis of a comparison with strict European health standards, the water that passed through the artificial grass sample fields was proven to have no impact on the environment, regardless of the type of infill in the turf.

A Health Risk Evaluation (HRE) was performed by INERIS, the French National Institute for Industrial Environment and Risks, in order to evaluate more precisely, in indoor situations, the health risks linked to the inhalation of the VOC and aldehydes of which these emissions have been quantified by the scientific and technical center of France.

The results of the INERIS Health Risk Evaluation, based on the concentration of the substances and worst-case scenarios, indicate that the VOC and aldehyde emissions from the three types of artificial grass fields studied in small and poorly ventilated indoor gymnasium situations are of no cause for concern for human health, for the workers installing the surfaces as well as for the general public, professional or amateur athletes, adults and children.

In conclusion to its study, the INERIS stipulates that the health risks associated with the inhalation of VOC and aldehydes emitted by artificial grass fields in outdoor situations give no cause for concern towards human health.