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INDEPENDENT TESTING, STUDIES AND REPORTS ON THE SUBJECT OF SBR AND ANY POTENTIAL HEALTH AND ENVIRONMENTAL IMPACT

Hundreds of studies have been completed and thousands of pages compiled which detail the exhaustive research available on the subject of SBR (granulate tire rubber) and the other components of synthetic turf.

In spite of the facts that turf is safe, many have simply jumped on the "scare tactic" bandwagon, extrapolating on misleading headlines to gain viewers, sensationalize their story, fear monger and promote their own agenda.

For those seeking the truth, simply review the wealth of independent research and reports that consistently confirm synthetic turf is safe. The following is a sampling of the conclusions reached by independent experts who have completed studies on SBR infill.

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CONCLUSIONS – WHAT THE EXPERTS SAY…

"The use of rubber-granulate in playgrounds forms no relevant risk to children or the environment."

– Danish Technology Institute, Commissioned by the Danish Ministry of the Environment - Discussion of Children's Playgrounds that have Infill Crumb Rubber – 2005

"…regular exposure (e.g., regular play on ground rubber filled athletic fields) to ground rubber for the length of one's childhood does not increase risk of cancer above levels considered by the State of California to be de minimus*." (*i.e., "a lifetime excess cancer risk of 1 in 1 million.)

– The United States Environmental Protection Agency - Child- Specific Exposure Factors Handbook, Interim Report - 2002

"There is no risk for the health playing on artificial grass fields that are filled with rubber particles."

– Netherlands Olympic Committee and Dutch Sports Federation - 2007

"Ingestion of a significant quantity of tire shred did not elevate a child's risk of developing cancer, relative to the overall cancer rate of the population."

– University of California-Berkeley – Laboratory For Manufacturing and Sustainability – Ms. R Simon – Impacts of Crumb Rubber in Artificial Turf Applications – February 2010

"Extensive research has pointed to the conclusion that (synthetic turf) fields result in little, if any, exposure to toxic substances."

– University of California-Berkeley – Laboratory For Manufacturing and Sustainability – Ms. R Simon – Impacts of Crumb Rubber in Artificial Turf Applications – February 2010

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"Numerous studies have been carried out on this material and have addressed numerous different aspects of the issue. For the most part, the studies have vindicated defenders of crumb rubber, identifying it as a safe, cost-effective, and responsible use for tire rubber."

– University of California-Berkeley – Laboratory For Manufacturing and Sustainability – Ms. R Simon – Impacts of Crumb Rubber in Artificial Turf Applications – February 2010

"Based on the available literature on exposure to rubber crumb swallowing, inhalation and skin contact … we conclude, that there is not a significant health risk due to the presence of rubber infill for football players (for) an artificial turf pitch with rubber infill from used car tires."

– Hofstra University – Environmental and Health Risks of Rubber Infill: Rubber Crumb from Car Tires as Infill on Artificial Turf – 2007

"…conclude[d] that young children are not at risk from exposure to lead in synthetic athletic fields."

" Newer fields had no lead or generally had the lowest lead levels…[and while] small amounts of lead were detected on the surface of some older fields, none of these tested fields released amounts of lead that would be harmful to children."

– U.S. Consumer Product Safety Commission (in Release #08-348, entitled CPSC Staff Finds Synthetic Turf Fields OK to Install, OK to Play On) - 2008

"Crumb rubber samples digested in acid revealed that the lead concentration in the crumb rubber samples were well below the federal hazard standard for lead in soil and indicate that the crumb rubber from which the samples were obtained would not be a significant source of lead exposure if used as infill material in synthetic turf fields."

– New York State Department of Environmental Conservation on behalf of the New York State Department of Health - An Assessment of Chemical Leaching, Releases to Air and Temperature at Crumb-Rubber Infilled Synthetic Turf Fields - 2009

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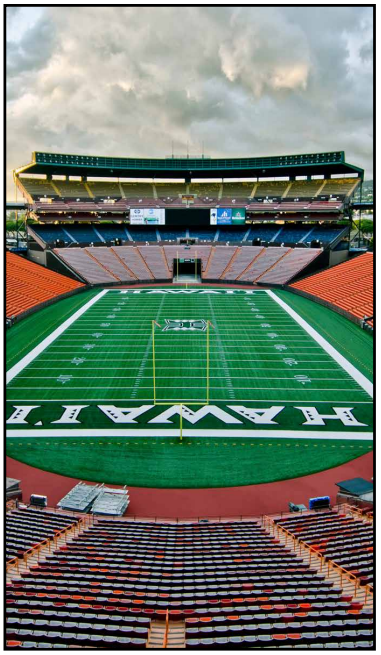
"In the event of ingestion of crumb particles…the particles do not present any toxicity, as the digestive system is not powerful enough to extract the chemical components from the rubber."

"[t]his updated data confirms that the end-of-life [tire] crumb is a perfectly suitable material for sports and play area floors, without any palpable danger of toxicity for users or the environment."

– Catherine Rigaud, of Laboratoire de Recherches et de Controle du Caoutchouc et des Plastiques - Use of End-Of-Life [tire] Rubber Crumb in Sports Floors: Environmental Consequences-Updated - 2006

"Indoor and outdoor use of rubber infill poses absolutely no risk to sportsmen/sportswomen or other parties concerned through inhalation."

– ISA - Independent Sporting Association, Sport Test Institute – NOC/NSF – May 2006



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"…[tire] abradate is much finer particulate than the granules used as infill materials in Football Turf. The research demonstrates that the finer the particles the greater the surface area and higher potential for chemicals to leach out of the rubber."

– FIFA - An Open Letter Concerning the Potential Cancer Rick for Certain Granulate Infills from Artificial Turf – Dr. Jiri Divorak – July 2006

"Tire waste has no toxic influence on fauna and micro-aquatic organisms."

"In the event of ingestion of crumb rubber particles, although it is highly improbable, the particles do not present any toxicity, as the digestive system is not powerful enough to extract the chemical components from the rubber."

"Inhaling is practically negligible because crumb rubber does not give off volatile products."

– Laboratoire de Recherches et de Controle du Caoutchouc et des Plastiques – End of Life Tire Crumb Rubber in Sports Floors – Environmental Consequences, 2006 Updated

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"In summary, and analysis of the air in the breathing zones of children above synthetic turf fields do not show applicable impacts from COPCs (Contaminants of Potential Concern) contained in the crumb rubber'"

– New York City Department of Health and Mental Hygiene – Air Quality Survey of Synthetic Turf Fields Containing Crumb Rubber Infill – March 2009

"Direct contact with the skin does not present any real danger, even from the point of view of allergy."

"Biological tests have shown the absence of genotoxicity."

– Laboratoire de Recherches et de Controle du Caoutchouc et des Plastiques – End of Life Tire Crumb Rubber in Sports Floors – Environmental Consequences, 2006 Updated

"There has been no proof that these definitely are cancer causing exposures"

"…parents should be more concerned about pesticides on natural grass. Lowering exposure to pesticides is one reason schools say they installed turf fields."

– Dr. Donald Northfelt – Oncologist – Mayo Clinic – Fox 10 Phoenix – Crumb Rubber; is it safe for athletes to play on – October 30 2014

"Epidemiological studies conducted by the Heath Effects Institute, The World Health Organization and other investigators do not implicate tire wear particles in ambient air as contributing to human health effects (respiratory and cardiovascular disease)."

– FIFA – Potential cancer risk for certain granulate infills from artificial turf – July 2006

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"PAHs are absorbed in the matrix of the rubber granules and do not leach."

– Dutch National Institute for Public Health & Environment – Answers to Questions on Harmful Substances in Artificial Turf Fields - Public Health, Social Welfare and Sport – May 2006

"The RUVM has reached the conclusion that PAH's can in fact be released, to a small degree, from rubber granule particles in artificial turf fields, but on the basis of the available data, this does not seem to entail any health risk."

– Ministry of Social Housing, Regional Planning and Environmental Administration, The Hague – 2007

"Because tire rubber is designed to be strong, durable and substantially impermeable, it is unlikely that any losses could occur to air or water in concentrations that would pose serious human or environmental risk. This opinion is supported by the reports and academic studies reviewed, which have shown insignificant effects of such chemicals or release of volatiles and particulates in the atmosphere."

– The Use of Recycled Rubber in Sports Surfaces – Sports and Play Construction Association – 2006

"No test was clearly genotoxic. No tests performed without microsomal activation demonstrated genotoxic activity. Seven tests were marginal after activation but did not meet the criteria for genoteoxicity and are considered negative."

"In all instances except one, the PEEP index was determined to be less than 3, which is considered acceptable by Environment Canada. In the case of schoolyard material, which was freshly installed and kept in place for three months, the PEEP index was only marginally greater than 3 (3.2). With further aging or treatment before installation, this value should drop below 3."

– Toxicological Evaluation for the Hazard Assessment of Tire Crumb for Use in Public Playgrounds – Birkholz, Belton and Guidotti – July 2003

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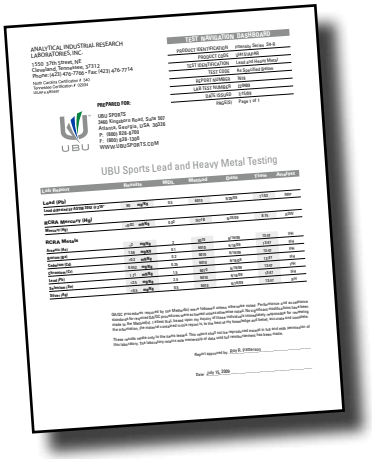

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UBU Sports Lead and Heavy Metal Testing

"All heavy metal levels are in compliance with standards applicable to toy manufacturing and the risk of harmful effects on sportsmen and women is therefore negligible."

"Indoor and outdoor use of rubber infill poses absolutely no rick to sportsmen/sportswomen or other parties concerned through inhalation."

– Study from ISA Sports test institute, the NOC/NSF and the KNVB – May 2006

"Using the most severe extraction methodology, the nitrosamines found were only slightly above the detection level. These low levels of NDMA and N-MOR represent a worst-case scenario with regard to the product."

– Tun Abdul Razak Research Center – Test Report - 2006

"The concentration of 0.03 ppb means a level of about one million times below the limit recommended in the TUV Report. I consider such a margin safe enough."

– Answers to Questions on Harmful Substances in Artificial Turf Fields – Public Health, Social Welfare and Sports – Dr J.M. Roels – Head of Substances Expertise Centre – May 2006

"The health risk on children's playgrounds that contained worn tires and granulate rubber was insignificant."

– Danish Ministry of the Environment - Emissions and Evaluation of Health of PAH's and Aromatic Mines and Tires – Survey of Chemical Substances in Consumer Products No. 54 – 2005

"A reduction of the concentration of PAHs in tires will insignificantly reduce the overall concentration of PAHs in the environment."

– The European Commission - Scientific Committee on Toxicity, Ecotoxicity and the Environment (CSTEE) – December 2003

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"A wide range of PAHs, including the carcinogenic ones, is found in the air – especially in urban air. They originate from various combustion sources (eg; power generation, vehicular traffic, space heating, etc.). Given their widespread availability, human exposure to PAHs cannot be avoided. Some exposure scenarios are:

- Inhalation of smoke particles
- Ingestion of smoked or char grilled foodstuffs
- Skin contact with soot

"Exposure does not stop at risks from smokes and chars. As any particulate pollutant once released into the air can be transferred to other materials or media the PAHs carried on some can settle on the ground (or vegetation) or be washed into ground waters."

"That means that if you go hunting for PAHs (yes, even the carcinogenic ones) you will find them."

– PAHs & Other Organics in Tires – Origins and Potential for Release – June 2006

"Regarding the potential for Zinc leeching, away from trench, Zn levels rapidly decay to background levels."

"Tire shreds placed above or below water table have a negligible impact on water quality."

– Rubber – Its Implications to Environmental Health (Hydrocarbon Rubbers) Dr. Brian G Willoughby – June 2006

"A reduction of the concentration of PAHs in tires will insignificantly reduce the overall concentration of PAHs in the environment."

– The European Commission - Scientific Committee on Toxicity, Ecotoxicity and the Environment (CSTEE) – December 2003

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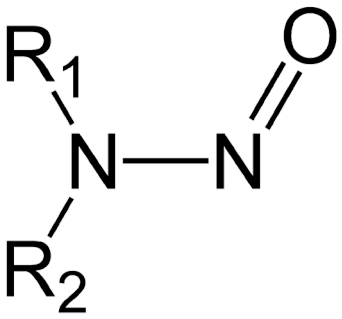


"N-nitrosamines figure prominently in concerns over cancer risks from rubber, although they have the potential to be formed whenever protein-containing material is roasted in a current of air."

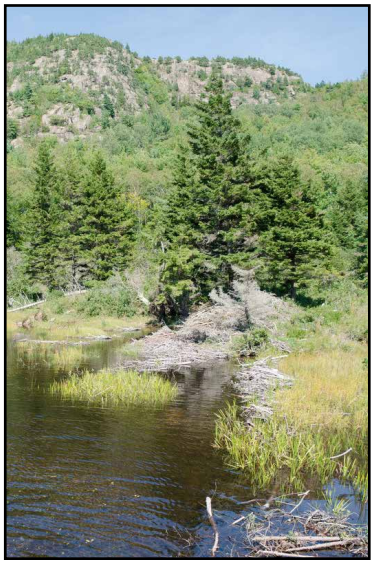
"Beer, Whisky and Bacon contain carcinogenic N-nitrosamines. Unlike the carcinogenic PAHs, N-nitrosamines are volatile. They can be formed during vulcanization and released from the rubber (12 different ones are regulated for the German rubber industry)."

"Over the last twenty years, the tire industry has responded to worldwide concerns and effected large reductions in N-nitrosamine levels. Quite possibly they are now completely undetectable."

– PAHs & Other Organics in Tires – Origins and Potential For Release – June 2006

"From an ecotoxicological viewpoint, the results obtained show that the nature of the percolates likely to infiltrate into the ground underlying the artificial turf sports surface proves to be without impact on the aquatic environment."

– Environmental and health assessment of use of elastomer granulates (virgin and from used tires) as infill in third-generation artificial turf – General conclusions – Dr Robert Moretto ADEME / ALIAPUR – 2007



"It can be concluded that rubber tires contain PAHs originating from certain oils used in tire manufacturing, but there is clear scientific evidence that any release into the environment is negligible relative to other PAHs sources."

– The European Commission - Scientific Committee on Toxicity, Ecotoxicity and the Environment (CSTEE) – December 2003

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"One of the earliest studies of airborne PAH in tire factories (started in 1973) quickly found that the results made little sense without comparative measurements on the outside air. Studies, over the remainder of that decade, in both the UK and USA, found that, no carcinogenic PAH was present in the tire factories in excess over ambient air levels."

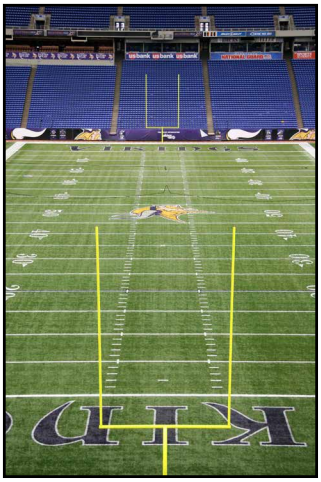
– PAHs & Other Organics in Tires – Origins and Potential For Release – June 2006

"It also has been demonstrated that the risk of rubber workers developing skin cancer from exposure to highly aromatic oils contained in rubber is non-existent."

– Environmental Health and Safety Report – Goodyear Tire and Rubber - 2003

"Polycyclic aromatic hydrocarbons (PAHs) are formed during incomplete combustion. Domestic wood burning and road traffic are the major sources of PAHs in Sweden."

– Cancer Risk Assessment, Indicators & Guidelines for Polycyclic Aromatic Hydrocarbons in the Ambient Air - 2002



"Serious Blunder with Artificial Turf – Scattered rubber granules safe for sports after all."

"Poisonous nitrosamine vapours floating above artificial turf pitches have probably never existed. According to the State Institute for Public Health (RIVM), artificial turf pitches sprinkled with rubber granules are in fact not damaging for health, as had been previously assumed."

– Jouke Schaafsma-De Telegraaf – Scattered Rubber Granules Safe for Sports After All – ARNHEM – 2007

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"The rubber granulate meets the Building Materials Decree requirements regarding chemical composition and the leaching out of substances."

"The rubber granulate meets the standards set for heavy metals and the Toys Decree."

"No health risks are posed by breathing in or brief skin contact."

"No studies showing that rubber granulate poses a risk to health and the environment were unearthed."

"The use of rubber granulate in playgrounds forms no relevant risk to children or the environment."

"Prolonged daily skin contact with rubber tires does not pose any relevant health risk."

– Rubber Granulate from Recycled Car Tire is Safe for People and the Environment – VACO – June 2006

"There is no risk for health playing on artificial grass fields that are filled with rubber particles."

"The environment aspects have also been examined. Representatives of the Ministries of VROM and Health, Welfare and Sports, the association Dutch municipalities, ISA sport and the player trade union WCS also participated in the advisory commission beside the constituents."

– Tire Crumb Rubber Used in Artificial Turf Fields – KNVB and combined Netherlands Olympic Committee and Dutch Sports Federation NOC*NSF – March 2007

"PAHs can in fact be released to a limited extent from rubber granule particles, but based on the available data, this does not lead to a health risk. There is no health risk for DEHP from oral exposure either."

– Dutch National Institute for Public Health & the Environment – Answers to Questions on Harmful Substances in Artificial Turf Fields – Public Health, Social Welfare & Sports – May 2006

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"The studies to date have concluded that PAHs are not released or at most negligibly released from tire abradate."

"It is accepted that the vast majority of PAHs in the environment derive from the incomplete combustion of fossil fuels in particular diesel exhausts from truck and car emissions."

– The University of Dortmund Institute for Environmental Research - 1997

"Epidemiological studies conducted by the Health Effects Institute, The World Health Organization and the other investigators do not implicate tire wear particles in ambient air as contributing to human health effects (respiratory and cardiovascular diseases)."

"Tire debris is found in diffuse roadside soils, but the published studies present no evidence for ecotoxic effects in or from roadside soil."

"In general tire abradate is a much finer particulate than are the granules used as infill materials in Football Turf. The finer the particulates the greater the surface area and higher potential for chemicals to leach out of rubber. The majority of the studies have been on these higher surface area particles and have concluded they are currently acceptable."

"The larger granules used in Football Turf will therefore have even less potential for emissions."

"A study undertaken by the Danish Ministry of the Environment concluded that the health risk on children's playgrounds that contained worn tires and granulate rubber was insignificant."

– FQC – Infill Health Statement 2007 – Evaluation of Environmental Impact on Water - 2007

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"All of the physicochemical results (42 parameters analyzed) obtained on the percolates from the 32.5-m2 pilots leads to the observation of a release kinetic for potentially polluting substances comparable to the course of time irrespective of the type of granulate used (7 percolate samples analyzed at one year)."

"The artificial turf pilot without infill granulates used as a control also displayed release rates fairly close to those of the 3 pilots. The concentrations recorded were low for the majority of the compounds and elements searched for. While certain elements displayed slightly higher concentrations at the start of experimentation, these fell very rapidly, thereby indicating a very rapid reduction effect in terms of release rates"

"In situ on the football pitch the concentrations and release kinetics are fairly comparable to those observed on the pilots. The chlorides, fluorides and sulphates are even in lower concentrations than in the percolates collected on the pilots, a finding to be linked with the difference in chemical composition of the water that has percolated through the sports surfaces (rain water in situ and drinking water on the pilots)."

– Environmental and health assessment of the use of elastomer granulates (virgin and from used tires) as infill in third-generation artificial turf – General Conclusions – Dr Robert Moretto ADEME / ALIAPUR – 2007

"A Health Risk Evaluation (HRE) conducted by the Institut National de l'Environment Industriel et des Risques (France) was based on the values of the concentration of 112 substances identified in the emission chambers and their comparison to the international toxicological reference value (RTV). According to the HRE methodology, a "worst-case scenario" was modeled "small".

– Environmental and health assessment of the use of elastomer granulates (virgin and from used tires) as infill in third-generation artificial turf – General Conclusions – Dr Robert Moretto ADEME / ALIAPUR – 2007

"On the basis of a comparison with French and European limit values currently in force, the concentrations of organic compounds, metals and anions from the percolates are without impact on water resources."

– Environmental and health assessment of the use of elastomer granulates (virgin and from used tires) as infill in third-generation artificial turf – General Conclusions – Dr Robert Moretto ADEME / ALIAPUR – 2007

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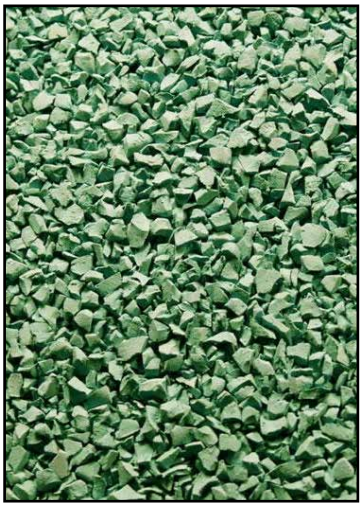
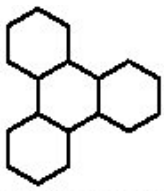
"Emissions test of Volatile Organic Compounds and aldehydes by elastomer granulate-based sports surfaces conducted by the CSTB (Centre Scientifique et Technique de Batiment – France) using the standards in force of the characterization of the emissions in indoor air of construction products (emission chamber) show that:

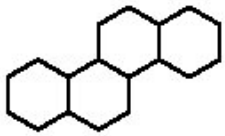
- Emissions from artificial turf containing used tire granulates are relatively low.
- Emissions from artificial turf containing EPDM granulates are the most significant.

– Environmental and health assessment of the use of elastomer granulates (virgin and from used tires) as infill in third-generation artificial turf – General Conclusions – Dr Robert Moretto ADEME / ALIAPUR – 2007

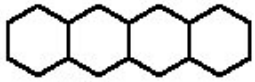




Triphenylene



Chrysene



Tetracene

"Zinc – With all surface types, Zinc was found in concentrations of 0.009 to 0.003 mg/l. In rainwater, which was also investigated a concentration of 0.02 mg/l was found."

"Polycyclic Aromatic Hydrocarbons – None of the surfaces systems including the surfaces with recycled granules showed any noticeable PAH concentration. PAHs are ubiquitous substances in the environment and in water. They are present in any street sewage and also in purified sewage from communal sewage purification plants as well as sewage sludge in partly much higher concentrations."

"Due to the results of the pre-test it is expected that the DOC concentration will decrease in the course of time."

– Swiss Federal Authority of Health – Swiss Lysometer Environmental Test - ISSS Conference - July 6, 2006

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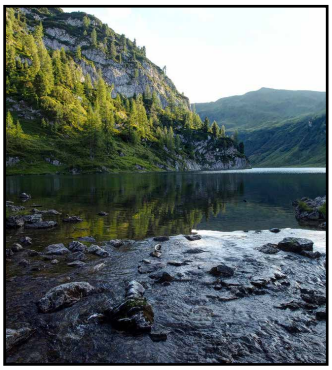
"This authority was challenged to provide a statement regarding health risk caused by PAH in artificial turf. The issue refers to recycled rubber granules i.e. SBR granules from car tires."

"It is considered the question of abraded particles being inhaled as dust and being washed out and ending up in waters and in the subsoil. PAHs can be substances added to softeners of tires, but are also generated by burning processes, from traffic exhaust fumes and heating systems; they also come from tobacco smoking and chimneys."

"The estimatable PAH stress is low even in worst case scenarios compared with stress from other sources. The health risk for player and spectators is classified low. Thus, from the health point of view no urgent need for action is needed."

– Investigation and Assessment of Synthetic Sports Surfaces in Switzerland including Athletic and Soccer Facilities – Han J. Kolitzus – IST Switzerland - 2007



"Initiated in 2005, this study was conducted with the scientific aim of getting as close as possible to the pitch usage conditions. The results of the evaluation of the environmental impact on water and of the health risk evaluation (gaseous emissions) on the population groups show:

- Comparable behaviour irrespective of the type of filling granulate (virgin TPE and EPDM, used tire granulates)
- An absence of impact of this type of work on water resources
- No effect worthy of concern on the health associated with the inhalation of VOC and aldehydes emitted by artificial surfaces."

– Environmental and health assessment of the use of elastomer granulates (virgin and from used tires) as infill in third-generation artificial turf – General Conclusions – Dr Robert Moretto ADEME / ALIAPUR – 2007

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"Recycled rubber granulate contains many chemical substances which are potentially harmful to health. The concentrations of these substances are however extremely low, they are only leached from the rubber granulate in very small quantities and they are only present in low concentrations in the hall air."

"The quantities of this type of substances are consistently lower than in the other types of rubber granulate which are used."

– Artificial Turf Pitches – An assessment of the health risks for football players – Norwegian Institute of Public Health and the Radium Hospital – Oslo – January 2006

"On the basis of estimated exposure values and the doses / concentrations which can cause harmful effects in humans or in animals experiments, it is concluded that the use of artificial turf halls does not cause any elevated health risk. This applies to children, older children, juniors and adults."

"As regards allergies, it is concluded that exposure to the low concentrations which were measured does not constitute any elevated risk with respect to the development of contact allergies."

"Worst case calculations based on air measurements carried out by NILU and exposure values from the Norwegian Institute of Public Health indicate that training in sports halls does not cause any increased risk of leukemia as a result of benzene exposure or any elevated risk as a result of exposure to polycyclic aromatic hydrocarbons (PAH)."

– Artificial Turf Pitches – An assessment of the health risks for football players – Norwegian Institute of Public Health and the Radium Hospital – Oslo – January 2006

"There is no significant threat from chemicals leaching into surface water and groundwater."

– New York State Department of Environmental Conservation and New York State Department of Health – An Assessment of Chemical Leaching, Release to Air and Temperature at Crumb-Rubber Infilled Synthetic Fields – May 2009

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"BRMA survey or airborne benzo[a]pyrenein ten UK tire factories found:

- Concentrations from zero to 28ng/m3
- No correlations with process or factory areas
- Strong correlation with season and weather"

– Nutt (1984) repeated this with simultaneous measurements of inside (tire factory) and outside air found – no excess of B[a]P in factory air.

"PAH are already in the environment from combustion processes, transport, power generation, cigarettes, etc. PAHs are:

- Routinely monitored in ambient air
- Carried on soot particles and washed out of the air by rain
- Passed into rivers and lakes – and then into sediments

Nilsson et al (2005) studied PAHs in sand in a children's playground with used tire components and found:

- Distribution of PAHs did not reflect that in tire rubber
- That the PAH's arose from deposition from the air
- Additional risks from PAH's in tire granulate judged insignificant"

– Rubber – Its Implications to Environmental Health (Hydrocarbon Rubbers) – Dr Brian G. Willoughby – June 2006

SBR RUBBER INFILL SUMMARY

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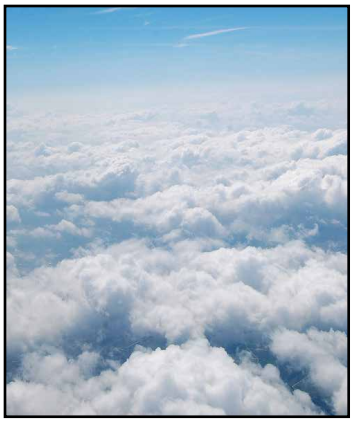

"The air studied at the artificial turf football field does exceed any maximum value established in the European legislation of air environment:

- Results obtained in the analysis of HAP's and VOC's picked up in the realized samples are similar to the emission generated by traffic in the zone of influence
- No sulphurated hydrogen detected in the air sampled ins the installation."

– IBV – Instituto De Biomechnica De Valencia – Applus Medico Ambiente - 2007

"Eleven different risk assessments applied various available concentrations of COPCs and none identified an increase risk for human health effects as a result of ingestion, dermal or inhalation exposure to crumb rubber."

– New York City Department of Health and Mental Hygiene – A Review of the Potential Health and Safety Ricks from Synthetic Turf Fields containing Crumb Rubber – May 2008

"Based upon these findings, the use of outdoor and indoor artificial turf fields is not associated with elevated health risks."

– Connecticut Department of Public Health Program in Environmental and Occupational Health Assessment – Human Health Risk Assessment of Artificial Turf Fields Based Upon Results from Five Fields in Connecticut – July 2010

" On average, concentrations of components monitored in this study were below levels of concern"

– U.S. Environmental Protection Agency (EPA) – A Scoping-Level Field Monitoring Study of Synthetic Turf Fields and Playgrounds – November 2009

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IMPACT OF TIRE USE ON ROADS

"The effects of motorway runoff on the water quality, sediment quality, and biota of small streams were investigated over a 12-month period. Downstream of motorway runoff discharges there was an increase in the sediment concentrations of total hydrocarbons, aromatic hydrocarbons, and heavy metals and an increase in water concentrations of heavy metals and select anions. Hydrocarbon contamination of sediments was positively correlated with potential contaminant loading (i.e. length of road drained/stream size)."

"The dominant PAHs in contaminated sediment at this site were phenanthrene, pyrene and fluoranthene, whereas the dominant metals were zinc, cadmium, chromium, and lead. Differences between the station, upstream and downstream of discharges in the diversity and composition of macro invertebrate assemblages were detected in four out of seven streams surveyed."

"However, there was no evidence of an effect on either the diversity of abundance of epilithic algae. The diversity of the aquatic hyphomycete assemblages was only affected at the most impacted site. Reductions in the macroinvertebrate diversity were associated with reductions in the processing of leaf litter and a change from an assemblage based on benthic algae and coarse particulate organic matter to one dependent upon fine particulate organic matter."

– The Effects of Motorway Runoff on Freshwater Ecosystems – Cranfield Centre for Ecochemistry – Cranfield University - 2009