



European Synthetic
Turf Organisation

Brussels, October 13, 2014

An Open Letter concerning the potential risk from certain granulate infills from synthetic turf

The European Synthetic Turf Organisation (ESTO) is the European trade association for synthetic turf with a key focus on all consumer aspects regarding synthetic turf usage, benefits and applications.

The studies mentioned below have concluded that *“PAHs [Polynuclear Aromatic Hydrocarbons] are not released or at most negligibly released from tyre abradate”* (The University of Dortmund Institute for Environmental Research 1997). Epidemiological studies conducted by the Health Effects Institute, The World Health Organisation and other investigators do not implicate tyre wear particles in ambient air as contributing to human health effects (respiratory and cardiovascular diseases).

- In general, tyre abradate is a 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.
- The majority of the studies have been on higher surface area particles and have concluded they are currently acceptable. Therefore the larger granules used in artificial turf will have even less potential for emissions. For example a study undertaken by the Danish Ministry of the Environment concluded that the health risk on children’s playgrounds that contained both worn tyres and granulate rubber was insignificant.

For further information of the issue and the risk, please consult the references below.

EUROPEAN SYNTHETIC TURF ORGANISATION

References

- European Commission Opinion of the Scientific Committee on Toxicity, Ecotoxicity and the Environment (CSTEE) ON Brussels, C7/GF/csteeop/PAHs/12-131103 D(03)
- European Union Commission Report IP/04/208 Brussels 16th February 2004
- European Union Commission 27th amendment to the Council Directive 76/769/EEC
- TÜV Produkt und Umwelt Information 08/2005
- Department of the Environment Investigation Denmark 2004
- Goodyear Tyres 2003 Environmental Health and Safety Report
- Chelsea Center for recycling and Economic Development University of Massachusetts Technical Report
- 2 Environmental Impacts of Recycled Rubber in Light Fill Applications August 1998
- BIOLOGI Rapport, provtagningsåren 96/97, 97/98, 98/99 Environmental monitoring in Stockholm
- Municipality Laboratory for Aquatic Ecotoxicology and Institute of applied Environmental research Stockholm University 2002
- Perspect 110 Suppl 3 451-489 2002 Cancer risk assessment, indicators, and guidelines for polycyclic aromatic hydrocarbons
- Gas and Particle Emissions from automobile Tires in Laboratory and Field Studies Rubber Chemistry and Technology, 52, 146-158 1978
- Rubber Dust from the normal wear of tires Rubber Chem. Technol. 47, 1011-1037, 1974
- The Determination of Rubber in Atmospheric Dusts Rubber Chem. Technol. 232-241 1974
- EEA CORINAIR Summary Report Final Version. Report to the European Environmental Agency from the European Topic Center on Air Emissions 1997.
- Particulate air pollution with emphasis on traffic generated aerosols Riso R-1053(EN), Riso National Laboratory, Roskilde, Denmark, 1999
- IARC Monographs on the Evaluation of the Carcinogenic Risk of Chemicals to Humans. Polynuclear Aromatic Compounds Part 1, Chemical, Environmental and Experimental Data, Vol. 32, Lyon, France P.39. 1983
- IPCS Environmental Health Criteria 202, World Health Organisation Geneva 1998
- The effects of motorway runoff on freshwater ecosystems: 1 Field Study. Env Toxicol Chem 14, 1079-1092 1995a
- The effects of motorway runoff on freshwater ecosystems: 2 Identifying major toxicants Env Toxicol Chem 14, 1101-1092, 1995b
- Tire wear as a source of PAH, Umweltbundesamt, Berlin CSTEE/2003/18/4
- Source of fine organic aerosol 3. Road dust, tyre debris, and organometallic brake lining dust: Roads as sources and sinks. Environ Sci Technol 27, 1892-1904, 1993

Biomarker responses and chemical analyses in fish indicate leakage of polycyclic aromatic hydrocarbons and other compounds from car tire rubber. Environ Toxicol Chem 22, 2926-2931 2003

Fate and effect of Zinc from Tire Debris in Soil Environ. Sci. Technol. 2002, 36, 3706-3710

Kazakova SV et al. A clone of methicilline-resistant Staphylococcus aureas among professional football players.

The New England Journal of Medicine 2005 352(5); 468-475.

Health and Safety Executive. Cancer risk following exposure to polycyclic aromatic hydrocarbons (PAHs): a meta-analysis. Research Report 2003/068. Published by the HSE available on-line at:

<http://www.hse.gov.uk/research/rrpdf/rr068.pdf>

The Norwegian Pollution Control Authority (SFT), 23.01.06