

CAMPAIGN TOOLKIT

Safer Sports Surfaces

Introduction

This toolkit has been developed to support NASUWT Workplace Representatives in protecting members' health, safety and working conditions in relation to the use of rubber crumb infill on 3G artificial sports pitches. It provides practical guidance, legal context and campaign resources to help representatives raise concerns, influence employer decision-making and support safer alternatives where risks are identified.

NASUWT has longstanding concerns about rubber crumb, which is manufactured by shredding end-of-life vehicle tyres into small granules used as infill on synthetic sports surfaces. Evidence continues to emerge about the potential health and environmental risks associated with tyre-derived materials, including exposure to chemical compounds and the release of microplastics into the wider environment. While research is still developing, the Union believes that a precautionary approach is necessary to protect teachers, pupils and the wider school community.

This toolkit is designed to help you understand the issue, assess local risks and take effective workplace action in line with NASUWT policy and UK health and safety law.



Union position

NASUWT's National Executive has resolved that the Union will oppose the construction of new 3G pitches using rubber crumb infill and will campaign for existing surfaces to transition towards safer alternatives where reasonably practicable. Representatives play a key role in ensuring employers are aware of the risks, understand their legal duties and properly consult with staff before decisions are made.

Why this issue matters

Health risks and uncertainty

Rubber crumb is produced from recycled tyres and contains a complex mixture of substances including polycyclic aromatic hydrocarbons, volatile organic compounds, metals and other additives used in tyre manufacture, including benzene and formaldehyde. A significant number of chemicals associated with tyre materials have been classified by international agencies as carcinogenic or harmful. Scientific reviews have noted that exposure pathways may include inhalation of airborne dust and vapours, skin contact and accidental ingestion during physical activity.

Although long-term epidemiological evidence remains limited, gaps in research have led many organisations to call for further investigation. In workplace health and safety practice, uncertainty does not remove the employer's responsibility to assess and manage risks. Representatives should therefore encourage employers to adopt a precautionary approach where exposure cannot be ruled out.

Environmental and sustainability concerns

Synthetic turf infill contributes to microplastic pollution through surface runoff and the loss of granules on clothing or equipment. Environmental regulators have highlighted that artificial pitches are a significant source of secondary microplastics entering watercourses. European legislation has moved towards restricting intentionally added microplastics, with a phase out of rubber infill planned within the European market from 2031. These developments demonstrate increasing regulatory concern about the long-term environmental impact of such materials.

Impact on teachers and pupils

Teachers may be required to supervise lessons, fixtures or extracurricular activities on 3G pitches, increasing their exposure time. Members have reported concerns about dust clouds during play, granules entering indoor spaces/carried home on clothing, and the difficulty of maintaining clean environments. Where staff feel their workplace may present avoidable risks, this can affect morale, wellbeing and trust in employer decision-making.

Legal and contractual framework

Health and Safety at Work etc. Act 1974

Employers must ensure, so far as is reasonably practicable, the health, safety and welfare of employees. This includes assessing risks arising from sports facilities and taking steps to remove or reduce hazards where possible.

Management of Health and Safety at Work Regulations 1999

Employers must undertake suitable and sufficient risk assessments and review them when new information becomes available. Representatives should request copies of risk assessments relating to synthetic pitches and ensure that chemical exposure, environmental risks and supervision duties have been properly considered.

Control of Substances Hazardous to Health Regulations (COSHH) 2002

Where substances may present a health risk, employers must assess exposure and implement control measures, either removing the substance or reducing exposure to as low as reasonably practicable (the ALARP principle). Representatives can ask whether rubber crumb materials have been assessed under the COSHH, whether safety data sheets have been reviewed, and if the ALARP principle is being followed.

Working Time Regulations 1998 and wellbeing duties

Where increased supervision duties or extended exposure occur, representatives should ensure workloads remain reasonable and that staff are not placed under additional pressure without consultation.

Education sector responsibilities

Governing bodies, local authorities and academy trusts retain responsibility for procurement decisions and must ensure facilities are safe for staff and pupils. Employers must consult recognised trade unions on health and safety matters under established consultation regulations.

Evidence and research overview

Chemical composition

Research has identified substances such as benzene, formaldehyde and other compounds associated with tyre-derived products. Some of these have recognised health hazards, depending on exposure levels. Laboratory studies have demonstrated that rubber crumb can release dust and particles during use, particularly in dry conditions. The dangers of benzene and formaldehyde are explained in this document, [Benzene, Formaldehyde and Acute Myeloid Leukaemia Risk](#).

Regulatory developments

European regulatory bodies have increasingly recognised concerns relating to intentionally added microplastics, including rubber crumb infill used on synthetic sports pitches.

Following assessment by the European Chemicals Agency, the European Union (EU) adopted measures restricting microplastic materials, with a transition period allowing continued use before a full ban takes effect in 2031. This means that the placing on the market of rubber crumb infill within EU jurisdictions will be prohibited after that date.

While the UK is no longer bound by EU law, these developments demonstrate a clear direction of travel in international regulation and reflect growing environmental and public health concerns. Representatives may wish to reference the forthcoming EU ban when engaging with employers, particularly where new installations are being considered, as investments made now could become outdated or require costly replacement in the near future.

Research limitations

Many studies emphasise the need for further long-term research. The absence of definitive conclusions does not remove the employer's duty to manage risk, particularly where safer alternatives exist.

Key concerns identified by NASUWT

Rubber crumb is manufactured by pulverising old car tyres and contains multiple chemical additives.

Limited epidemiological studies mean long-term health effects remain uncertain. Dust and particles may be released during use, creating potential inhalation exposure.

Granules can be carried into classrooms or homes on clothing and equipment. Microplastic pollution is associated with synthetic turf infill.

European regulatory changes indicate increasing concern about environmental and health impacts.

Alternative infill materials such as cork, sand or organic compounds are available.

Campaign actions for Workplace Representatives

- Raise awareness among members about NASUWT policy and the potential risks associated with rubber crumb.
- Request full disclosure of procurement plans where new pitches are proposed.
- Ask employers to provide detailed risk assessments, including the COSHH considerations.
- Encourage employers to explore alternative materials that present fewer risks.
- Use health and safety committees to ensure concerns are formally recorded and discussed.
- Promote member engagement with relevant petitions or consultations where appropriate.

Evidence gathering

Collect information on how often staff supervise activities on 3G pitches.
Record member concerns relating to dust, skin irritation or environmental impact.
Request maintenance schedules and details of how rubber crumb loss is managed.
Keep records of meetings, employer responses and agreed actions.

Guidance for members

Members should speak to their NASUWT Representative if their school or college plans to install a rubber crumb pitch or replace infill material.
Concerns can be raised with leadership teams supported by Union guidance.
Members can contact NASUWT for further advice where risks are not being adequately addressed.

Escalation and support

Where issues cannot be resolved locally, representatives should contact their Local Association Secretary or National Executive Member or, in their absence, their Regional or National Centre.

Using this toolkit

This toolkit is designed to be flexible so that representatives can adapt the approach to their workplace. Whether you are raising early concerns, reviewing risk assessments or challenging procurement decisions, the materials provided will support you at every stage.

Working together

Protecting the health, safety and wellbeing of teachers and pupils requires informed campaigning and strong workplace organisation. By using this toolkit and working collectively, representatives can help ensure that decisions about sports surfaces are made responsibly and with the best interests of staff and pupils at the centre.

Thank you for your continued commitment to supporting NASUWT members and promoting safe, healthy workplaces across education.