

# The Netherlands proposes a restriction on PAHs in granules and mulches used as infill material<sup>1</sup>

## Summary

The Netherlands, in cooperation with the European Chemicals Agency (ECHA), submitted an Annex XV dossier under REACH proposing a restriction on eight polycyclic aromatic hydrocarbons (PAHs) in granules and "*mulches*"<sup>2</sup> used as infill material in synthetic turf pitches or in loose forms on playgrounds and in sports applications.

The basis for this restriction proposal by the Netherlands is a concern for human health resulting from the exposure to PAHs in infill granules used in synthetic turf pitches. This material is primarily derived from End-of-Life Tyres (ELT) but also from other materials such as TPE and EPDMs. Recent evaluations by RIVM (2017)<sup>3</sup> and ECHA (2017)<sup>4</sup> concluded that PAH levels found in granules on synthetic turf pitches currently in use are assessed to have a relatively low excess cancer risk. However the reports highlighted that the current concentration limits permitted in entry 28 of Annex XVII of REACH are insufficient for protecting those who come into contact with the granules and "*mulches*" while playing at sports facilities and playgrounds.

The public consultation on this proposed restriction will start on 19/09/2018 and end on 19/03/2019. However, the rapporteurs of ECHA's Committees for Risk Assessment (RAC) and Socio-economic Analysis (SEAC) would welcome early comments, by 16/11/2018, to assist them in their opinion development.

## SUGGESTED RESTRICTION

### Scope

The proposal suggests restricting the placing on the market of granules and "*mulches*" for use as infill material in synthetic turf pitches or in loose form on playgrounds and in sports applications if these materials contain more than 17 mg/kg of the sum of the eight PAHs in the scope of Annex XVII entry 50:

- a) Benzo[a]pyrene (BaP) CAS No 50-32-8
- b) Benzo[e]pyrene (BeP) CAS No 192-97-2
- c) Benzo[a]anthracene (BaA) CAS No 56-55-3
- d) Chrysen (CHR) CAS No 218-01-9
- e) Benzo[b]fluoranthene (BbFA) CAS No 205-99-2
- f) Benzo[j]fluoranthene (BjFA) CAS No 205-82-3
- g) Benzo[k]fluoranthene (BkFA) CAS No 207-08-9
- h) Dibenzo[a,h]anthracene (DBA<sub>h</sub>A) CAS No 53-70-3

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<sup>1</sup> The information note has been prepared based on the Annex XV report prepared by the Dutch National Institute for Public Health and the Environment (RIVM).

<sup>2</sup> In this restriction, "*mulches*" refers to mixtures produced from rubber or other materials in the form of thin slivers or nuggets.

<sup>3</sup> <https://www.rivm.nl/bibliotheek/rapporten/2017-0017.pdf>

<sup>4</sup> [https://echa.europa.eu/documents/10162/13563/annex-xv\\_report\\_rubber\\_granules\\_en.pdf/dbcb4ee6-1c65-af35-7a18-f6ac1ac29fe4](https://echa.europa.eu/documents/10162/13563/annex-xv_report_rubber_granules_en.pdf/dbcb4ee6-1c65-af35-7a18-f6ac1ac29fe4)

The proposal is not limited to ELT-derived infill material, but targets all granules and "*mulches*" that are used in the same way.

### Reasons for action

The use of ELT-derived granules in synthetic turf pitches has recently received high public attention in a number of EU countries. Concerns have been raised because of the presence of carcinogenic chemicals and the human health risks associated with using these pitches. The current permissible concentration limits applicable for supply to the general public are set at 100 mg/kg for two of the eight PAHs relevant to the proposal and 1 000 mg/kg for the other six.<sup>5</sup> Given these currently applicable concentration limits, the restriction proposal identifies how an unacceptable risk to human health would arise as a consequence of the use of PAH-containing granules and "*mulches*" as infill material in synthetic turf pitches and in loose form on playgrounds and in other sports applications. In addition, the risks to workers has been considered.

The specific limit value chosen reflects the 95th percentile of the REACH-8 PAH sum concentration in measurements taken from synthetic turf pitches.

### Consequences of the action

The proposed restriction outlines that the suggested concentration limit would ensure the cancer risk from PAH exposure remains very low for those coming into contact with granules and "*mulches*". This is in particular the case for individuals for which the exposure is highest such as professional football players including goalkeepers, children playing on the pitches and/or on playgrounds as well as workers installing and maintaining the pitches and playgrounds. In addition, the proposal aims at alleviating societal concerns about the possible negative health impacts resulting from the use of infill material containing PAHs in artificial sports pitches.

The societal costs of the proposed restriction are estimated to be in a range of €40-70 million over a 10-year period. These costs are incurred due to measures that ELT recycling companies may take to reduce PAH concentrations in granules and "*mulches*" or lost sales in cases where non-compliant material can no longer be sold as infill material, and testing to ensure compliance with the concentration limit. While the restriction proposal foresees additional costs from enforcement activities of authorities, no major additional administrative burden on public authorities in terms of implementing the lower concentration limit is expected.

### SPECIFIC INFORMATION REQUESTED

A few specific elements are highlighted for the Public Consultation to gather relevant information, if available, from stakeholders:

1. Do you have information on the PAH content of infill material not derived from ELT?
2. Do you have information on analytical methods and/or costs of testing for PAHs in ELT granules and/or infill material not derived from ELT?

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<sup>5</sup> Entry 28 of Annex XVII of REACH.

3. Do you have any information on the current practices and measures used to control worker exposure during the installation and maintenance of synthetic turf pitches, playgrounds, or in other applications?
4. Do you have any information on the typical duration and frequency of exposure of professional football players and/or other athletes to synthetic turf pitches/sporting areas containing rubber granules in your Member States?
5. Section 1.5.3 of the report contains information on the measured PAH concentrations from 1 234 ELT infill samples mainly taken in the Netherlands. Do you consider the presented measurement data to be representative of the EU as a whole? If you have any additional information on measured PAH concentrations from infill used in synthetic turf pitches that has not yet been taken into consideration, please submit.
6. Apart from the proposed restriction described above, the report also details a second restriction option (RO2). RO2 would envisage a lower concentration limit of 6.5 mg/kg. What are the impacts (positive and negative) on your industry/organisation (manufacturer, distributor, importer, sports club/community owning the field) of a 6.5 mg/kg concentration limit? What are the impacts of a 17 mg/kg concentration limit?

### **Comments preferably by 16/11/2018**

The opinion forming process of the ECHA Committees for Risk Assessment (RAC) and Socio-economic Analysis (SEAC) starts with a public consultation on 19/09/2018. Interested parties can comment on the proposed restriction report using the ECHA website. Although the public consultation concludes on 19/03/2019, the rapporteurs of RAC and SEAC would appreciate receiving comments by 16/11/2018 to assist them in the early stages of the opinion development process.

The final opinions of both Committees are scheduled to be available by September 2019. ECHA will send the joint opinion of the Committees to the European Commission, which will take the decision whether to include the proposed restriction in the Annex XVII of the REACH Regulation.

**Further information on the purpose, objectives, and process of the public consultation on restriction proposals is available in the Public Consultation Guidance**

[http://echa.europa.eu/documents/10162/13641/public\\_consultation\\_guidance\\_en.pdf](http://echa.europa.eu/documents/10162/13641/public_consultation_guidance_en.pdf)