# Reach mikroplastics restriction

Workshop: Utsläpp av mikroplaster – åtgärder för att minska miljöpåverkan

27/1-2022

Olof Johansson (olof.johansson@kemi.se)



## Microplastics – various sources and (potential) measures

Reach mikroplastics restriction, cosmetics / artificial turf (infill) etc.

Plastic pellets

Microplastics from tyres

Microplastics from textiles

Other sources and measures ....?



## Keml and ECHA work on intentionally added microplastics in products and current status

- Sweden 2018, ban for placing on the market of cosmetic products that are intended to be rinsed off or spat out and contain microplastics.
- Keml Report 2/18: Further restrictions at EU-level in collaboration with ECHA.
- Request to ECHA from the Commission in Nov 2017 to develop a Reach Annex XV dossier.
- Public consultation during 2019.
- ECHA's Committee for Risk Assessment (RAC) and the Committee for Socio-economic Analysis (SEAC), final opinion in December 2020.
- Reach committee workplan foresees first discussions in 2022.



## Reach microplastics restriction (3 parts)



#### Prohibition on 'placing on the market'

uses where releases to the environment are <u>inevitable</u> (e.g. agricultural / cosmetic products)



#### Mandatory 'labelling'

uses where release can be avoided / minimised; improved instructions for use e.g. paints/coatings



Mandatory downstream user 'reporting' for derogated uses

Tonnage, identify, function, releases

www.echa.europa.eu



## Various uses and sectors assessed in proposal

Cosmetic products	Rinse-off containing microbeads (exfoliators/cleansers), other rinse-off, leave-on.
Detergents	Detergents containing microbeads, fragrance encapsulation, other detergents, waxes, polishes and air care products.
Agriculture	Controlled release fertilisers, fertiliser additives, treated seeds, capsule suspension PPPs.
Infill material for synthetic pitches	Polymeric granules usually produced from end-of- life (ELT) tyres or other synthetic elastomers.
In vitro diagnostic devices	
Medical devices	Used as polymeric filters, adsorber and absorber granulates and in ultrasound devices. Includes "substance-specific" medical devices.
Paints and coatings	Texture and structure to surfaces, binders in water- based paints (film-forming).
Plastics	Pellets
more examples in Annex XV dossier	



## Microplastic restriction proposal

Polymers within the meaning of Article 3(5) of Regulation (EC) No 1907/2006)

- 1. Shall not, from [entry into force (EiF)], be placed on the market as a substance on its own or in a mixture as a microplastic in a concentration equal to or greater than 0.01% w/w.
- 2. For the purposes of this entry:
  - a. 'microplastic' means particles containing solid polymer, to which additives or other substances may have been added, and where  $\geq$  1% w/w of particles have (i) all dimensions 0.1 µm  $\leq$  x  $\leq$  5 mm, or (ii), a length of 0.3 µm  $\leq$  x  $\leq$  15 mm and length to diameter ratio of >3.
  - b. 'microbead' means a microplastic used in a mixture as an abrasive i.e. to exfoliate, polish or clean.
  - c. 'particle' is a minute piece of matter with defined physical boundaries; a defined physical boundary is an interface. Single molecules are not particles.
  - d. 'particles containing solid polymer' means either (i) particles of any composition with a continuous solid polymer surface coating of any thickness or (ii) particles of any composition with a solid polymer content of  $\geq 1\%$  w/w.
  - e. 'solid' means a substance or a mixture which does not meet the definitions of liquid or gas.

- f. 'gas' means a substance which (i) at 50 °C has a vapour pressure greater than 300 kPa (absolute); or (ii) is completely gaseous at 20 °C at a standard pressure of 101.3 kPa.
- g. 'liquid' means a substance or mixture which (i) at 50 °C has a vapour pressure of not more than 300 kPa (3 bar); (ii) is not completely gaseous at 20 °C and at a standard pressure of 101.3 kPa; and (iii) which has a melting point or initial melting point of 20 °C or less at a standard pressure of 101.3 kPa; or (b) fulfilling the criteria in ASTM D 4359-90; or (c) the fluidity test (penetrometer test) in section 2.3.4 of Annex A of the European Agreement concerning the International Carriage of Dangerous Goods by Road (ADR).
- 3. Paragraph 2a and 2b shall not apply to:
  - Natural polymers as defined in REACH Guidance on monomers and polymers) that have not been chemically modified (as defined in REACH Article 3(40)).
  - b. Polymers that are (bio)degradable according to the criteria in Appendix X.
  - c. Polymers with a colubility > 2 g/L according to the criteria in Appendix Y.

(Conditions 4-8 not shown.)



### Granular infill material for synthetic pitches

- > The largest source of pollution of microplastics in products.
- > Options considered:
- **Option A** use of risk management measures to ensure that annual releases of microplastic do not exceed 7g/m<sup>2</sup> (equivalent to 50 kg/full size pitch/year) after a transitional period of three years.
- **Option B** ban on placing on the market after a transitional period of six years.

RAC expressed a clear preference for the ban after six years, SEAC stated that it is a policy decision.





## Thank you for the attention!

