European Parliament
2014-2019

Committee on Petitions

29.6.2016

NOTICE TO MEMBERS

Subject: Petition No 2553/2014 by Ludwig Bühlmeier (German) on microplastics and nanoparticles

1. Summary of petition

The petitioner calls for an EU-wide ban on microplastics and nanoparticles. Microplastics can be found in the environment and in water and are even absorbed by plants. The petitioner says they are carcinogenic. Nanoparticles are so small that they penetrate cells effortlessly and can damage them, causing cancer. Because the precautionary principle applies in the EU, the petitioner urges a ban on these small particles as soon as possible.

2. Admissibility

Declared admissible on 20 July 2015. Information requested from Commission under Rule 216(6).

3. **Commission reply**, received on 29 June 2016

While the common object of the petition are particles in the environment, the two cases should be approached separately: nanoparticles are particles of any material of sufficiently small size to be in 'nanoscale', meaning in the interval between 1-100 nanometer (nanometer = a thousand of a millionth of a metre). Nanoparticles are ubiquitous in the environment. Many are natural, others incidental as results of processes such as combustion. There are also manufactured nanomaterials, some deliberately designed at nanoscale to obtain new properties. Some of these materials may represent a danger to the environment and human health, potentially even be carcinogenic, others not. In that respect, they are similar to other chemicals, and the same risk management measures, from hazard classification to authorisation and restriction can be applied as appropriate. The Commission's Second Regulatory Review of nanomaterials[1] outlined that the general regulatory framework on

[1] COM(2012) 572 final

chemicals[1] together with the sectorial legislation, some of which includes specific provisions on nanomaterials[2], are appropriate to assess and manage the risks from nanomaterials, provided that a case-by-case assessment is performed. Existing risk assessment methodologies are appropriate, though some testing methods are still being adapted. Challenges remain in establishing validated methods and instrumentation for detection, characterization, and analysis, completing information on hazards of nanomaterials and developing methods to assess exposure to nanomaterials. The need for modification of REACH to include more specific requirements for nanomaterials was also identified. An Impact Assessment of the proposed changes is being finalized and the modification of technical Annexes to include specific considerations for nanomaterials is planned in early 2017.

The Commission has launched a web portal[3] to improve communication regarding nanomaterials that will be in the near future superseded by the EU Nano Observatory, managed by the European Chemicals Agency. Information on nanomaterials in the environment is still scarce and sometimes misleading, also due to some early scientific results that are now under further scrutiny, as flaws in the initial experimental designs have been identified. The Organisation for Economic Cooperation and Development (OECD) is leading the international effort in the compilation and assessment of nanomaterial safety information[4].

In conclusion, as the risk to health and the environment from nanomaterials is considered to be manageable through existing legislation and case-specific application, the Commission has no plans for a generic ban of nanomaterials. Nanotechnology has a considerable potential to develop tools that protect human health and the environment and address other societal challenges, and the Commission supports its responsible development and use[5].

Microplastics may sometimes contain also particles in nanoscale, but commonly microplastics is understood as meaning any plastic particles under 5 mm. These particles may be either directly manufactured and used for example in detergents and cosmetics[6], or plastic fragments resulting from the breakdown of larger plastic debris through abrasion and UV radiation and being the by far most important source of microplastics in the marine environment. Both end up predominantly in the marine environment, affecting the ecosystem and entering the food chain, representing a global challenge. "*Study to support the development of measures to combat a range of marine litter sources*"[7] commissioned by the European Commission has

[1] Main EU regulation on chemicals is Regulation No 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), OJ L 396, 30.12.2006, p.1;
[2] Notably Regulation on Biocidal products (EU) No 528/2012, OJ L 167, 27.6.2012, p.1; Cosmetics Regulation, OJ L 342, 22.12.2009, p.59; Regulation on Novel Foods, OJ L 327, 11.12.2015, p.1;] Regulation on the provision of food information to consumers, OJ l 304, 22.11.2011, p.18
[3] https://ihcp.jrc.ec.europa.eu/our_databases/web-platform-on-nanomaterials
[4] OECD Working Party on The Safety of Manufactured Nanomaterials
[5] http://ec.europa.eu/growth/industry/key-enabling-technologies/european-strategy/index_en.htm
[6] See for example UNEP FactSheet http://unep.org/gpa/documents/publications/PlasticinCosmetics2015Factsheet.pdf
[7] http://ec.europa.eu/environment/marine/good-environmental-status/descriptor-10/pdf/MSFD%20Measures%20to%20Combat%20Marine%20Litter.pdf

recently been finalized and the Commission is currently examining, on the basis of this study and other relevant information, if and what actions are necessary to reduce microplastics from various sources in the aquatic (freshwater and marine) environment.

Regarding the use of microplastics in cosmetics, the European industry is already taking voluntary steps to eliminate microplastics in the wash-off cosmetic and personal care products[1]. The European Commission is also aware of the international developments such the recent "Microbeads-Free Water Act of 2015"[2] in the United States of America.

The European Commission is presently preparing a strategy on plastic in the circular economy as announced in its Communication "Closing the loop – An EU Action Plan for the Circular Economy"[3], part of the Circular Economy Package[4]. In that context all questions having to do with the sustainability of plastic and plastic products will be examined. The overall aim of a plastic strategy will be to create a plastic economy which is circular and in which no end-of-life plastic ends up in the natural environment, to break down into microplastics.

The Commission proposal on the circular economy adopted in December 2015 has already taken important steps in banning the landfill of any separately collected plastic and in setting a recycling target for plastic packaging of 55% by 2025. It needs to be taken into account, however, that plastic in the marine environment is a problem of global concern that can only be effectively tackled at global level. The Commission is, however, also exploring whether a ban of primary microplastics in cosmetics as well as other products including also operations such as sandblasting etc. could be helpful and if so, how to achieve it most effectively.

[1] Recommendation by Cosmetics Europe, main association of cosmetics manufacturers, can be found here.
[2] https://www.congress.gov/bill/114th-congress/house-bill/1321
[3] COM(2015) 614 final
[4] http://ec.europa.eu/environment/circular-economy/index_en.htm