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MICROBEADS

Microbeads constitute a sizable and unnecessary source of marine litter that pollute the marine biosphere. They also burden society and the economy. Increasing awareness of their impacts, the availability of substitute products, and consumer concerns have resulted in increasing pressure for action. This brief makes the case for an EU wide ban on microbeads in the forthcoming Plastic Strategy as part of the drive towards a circular economy.

“A single shower can release up to 94,500 plastic particles”¹

What are microbeads and where do they come from?

- Microbeads are micro-plastics (<5mm diameter) which are added by manufacturers to cosmetics, toothpastes and other cleaning products.
- Microbeads can pass through wastewater sewage treatment and then enter waterways, oceans and other parts of the environment. Each year in Europe between 2,461 – 8,627 tonnes of microbeads enter the marine environment²
- Microbeads, like other plastics, are durable, and so persist and accumulate in the environment. One study estimated that for 2014 93,000 – 236,000 tonnes of microplastics entered the oceans globally³. Concerns about impacts are increasing.

Why are microbeads a problem?

- Impacts on wildlife – micro-plastics are known to be ingested by a range of organisms, including fish, shellfish and sea birds, in some cases being confused for fish eggs. Impacts of ingestion can include physical harm, fertility impacts and acting as a vector for toxins.⁶
- Socio-economic impacts – microbeads can be ingested by humans in seafood, raising concerns for aquaculture, fisheries, as well as more acute concerns for public health.

UNEP: “Impacts related to plastic pollution in the oceans cost EUR 7 billion per year”⁷

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“The average European shellfish consumer ingests 11,000 micro-plastics annually”⁸

What solutions to the problem have been launched to date?

Action on microbeads – Key Examples!

- Global commitments to reduce marine litter include the Honolulu Declaration (2011), Rio+20's *The Future We Want* (2012), the Sustainable Development Goals (2015), G7 Leaders Declaration (2015) and the UNEA Resolution (2016).
- 2012: NGOs launched a smartphone App as part of their Beat the Microbead campaign; Dutch Government pledges support for EU ban on microplastics in cosmetics; 1st global industry commits to phasing out microbeads
- 2014: Joint call for EU action from Belgian, Dutch, Austrian and Swedish delegations supported by Luxembourg¹⁰.
- 2015: USA – Microbead Free Waters Act – nationwide ban on manufacture of rinse-off microbeads from 2017¹¹.
- 2016: French Law bans the sale of microbeads from 2018¹², UK Government pledges to ban microbeads in 2017.
- 2020: Voluntary commitments from industry to phase out use, but concerns over consistency and market implementations.
- Countries currently considering bans: New Zealand, Canada, Taiwan, and Kenya.

How does this link to the circular economy package?

Microbeads are closely linked to the EU Circular Economy Action Plan because they contribute to marine litter and represent a single use product which has a linear pathway to waste which pollutes the environment. Microbeads should be considered within the Commission's forthcoming “strategy on plastics in the circular economy” in line with its commitments to address issues such as recyclability, biodegradability, and marine litter, as there is explicit relevance of microbeads to these objectives. The economic benefits of recovering microbeads from the marine environment are very low, so an upstream, design-based, solution should be promoted to avoid waste and its impacts. As alternative products already exist and are widely used, legislative action could be used to effectively prevent this kind of pollution.

Policy recommendations

- **Legislative ban on microbeads** in consumers products across the common market as part of the Plastics Strategy and Circular Economy Action Plan.
- **Provide legal clarity** on the definitions of microbeads (i.e. on issues of biodegradability, particle size, and applications of products²).
- **Promote transparency** through clear labelling on personal care products containing plastics, such as deodorants, shampoo, conditioner, shower gel, lipstick, hair colouring, shaving cream, sunscreen, insect repellent, moisturizers, hair spray, facial masks, baby care products, eye shadow, and mascara⁶.
- **Support research** on the impacts of microplastics on marine biodiversity, public health (i.e. via ingestion) and the economy (i.e. fisheries). Use evidence to promote industry action and policy on microbeads globally.
- **Implement existing commitments:** The MARPOL Convention, Waste Framework, Water Framework and Marine Strategy Framework Directives, the Directive on Port Reception Facilities, and Target 14.1 of the Sustainable Development Goals.

References

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6. UNEP, 2015. *Plastic in Cosmetics*, Nairobi: United Nations Environment programme.
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10. General Secretariat of the Council, 2014. Elimination of micro-plastics in products - an urgent need Information from the Belgian, Dutch, Austrian and Swedish delegations, supported by the Luxembourg delegation. Brussels, Council of the European Union.
11. Congress, 2015. H.R.1321 - Microbead-Free Waters Act of 2015, 114th Congress (2015-2016). Washington, D.C., 114th Congress.
12. Loi n° 2016-1087 du 8 août 2016 Conception, production et distribution de produits générateurs de déchets, article L541-10-5 (in French)

USEFUL LINKS

The Joint Group of Experts on the Scientific Aspects of Marine Environmental Protection: *GESAMP*
<http://www.gesamp.org>

Global Partnership on Marine Litter
<http://www.unep.org/gpa/gpml/MOOC.asp>

UNEP *Plastics in Cosmetics* Report
http://apps.unep.org/publications/index.php?option=com_pub&task=download&file=011718_en

UNEP *Valuing Plastic* Report
<http://www.unep.org/pdf/ValuingPlastic/>

UNEP's Report: Marine Plastic Debris and Microplastics: Global lessons and research to inspire action and guide policy change

<http://capacity4dev.ec.europa.eu/unep/document/marine-plastic-debris-and-microplastics-global-lessons-and-research-inspire-action-and-guid>

Plastic Soup Foundation – Beat the Microbead Campaign
<http://www.plasticsoupfoundation.org/en/beat-the-microbead/>

Greenpeace *Plastics in Seafood*
<http://www.greenpeace.org.uk/sites/files/gpuke/PlasticsInSeafood-Final.pdf>

House of Commons Environmental Audit Committee Report
Environmental Impact of microplastics
<http://www.publications.parliament.uk/pa/cm/201517/cmselect/cmenvaud179/179.pdf>

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