Fashion and Microplastics

What can we do about it?

This session is organised by the Environment Directorate of the OECD.

Objective(s) of the session

This session will present and discuss product design, technological and policy solutions to address the issue of microplastics throughout the textile life-cycle. It will involve a multi-stakeholder panel, which will bring together environmental policy makers, scientists, representatives from the textile industry and civil society to discuss potential mitigation strategies for microplastics originating from synthetic textiles.

In particular, the main objectives of the session will be to:

- Justify the need for mitigation action by presenting the state of the latest science on the environmental fate, bioaccumulation and quantification of microplastics in the environment, their impacts of on ecosystems, wildlife and human health, and the contribution of the textile sector to the problem of microplastics pollution.
- Assess the feasibility and cost-effectiveness of technological solutions, best practices, and emerging policy initiatives to prevent or mitigate microplastics pollution originating from textiles.
- Deliver preliminary policy recommendations to mitigate and manage microplastics pollution originating from textiles.

The session will build upon the outcomes of the invite-only OECD workshop “Microplastics from synthetic textiles in the Environment: Knowledge, Mitigation and Policy”, held on 11 February 2020.

Background

What is the context?

Scientists are gathering mounting evidence that microplastics, commonly defined as plastic particles under 5mm, are everywhere – from the remotest mountains and the deepest parts of the ocean, to our local rivers, drinking water, food products and the air we breathe.[1] Microplastics are likely to persist across all stages of the water and wastewater treatment cycles.

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[1] Dris, R., Gasperi, J., Saad, M., Mirande, C., & Tassin, B. (2016). Synthetic fibers in atmospheric fallout: A source of microplastics in the environment? *Marine Pollution Bulletin, 104*(1-2), 290-293. doi:10.1016/j.marpolbul.2016.01.006 ;

In response to these findings, recent years have seen the introduction of microbead bans in cosmetic and personal care products and bans of single use plastics, which with time degrade into microplastics. However, microplastics originating during the washing of synthetic textiles remain untargeted by the current policy framework on plastic waste and pollution. This is despite that fact that synthetic textiles are recognised to be one of the largest contributors to microplastics pollution of the oceans, e.g. through the leakage of microfibres generated during washing.[2]

What are remaining challenges/gaps?

Policymakers need tools and instruments that contribute to effective management of microfibers. Part of the challenge is the increasing need to find cost-effective solutions across the textiles chain – from fabric design and production, through to disposal and wastewater treatment. Because this issue sits across the waste management and water policy arenas, cross-sectoral mitigation policies along the lifecycle of textile products are required in order to address it. This requires complex policy responses involving a diverse number of policy instruments and stakeholders, i.e. the textile industry, the washing machine manufacturing sector, water and wastewater utilities, and final consumers.

Discussion questions

- What is the contribution of the textile sector to the problem of microplastics pollution? What are the consequences (economic, social and environmental) of business as usual?
- What are the opportunities to mitigate microplastics shedding at source, i.e. at the level of textile design and manufacturing, and what are the barriers to the implementation of best practices?
- What are best practices to mitigate the release of microplastics during the use-phase of textiles? What are the available technologies? How cost-effective are they?
- How can governments support policy alignment in the textile sector to prevent and mitigate microplastics leakage?

For more information

- OECD Workshop on Microplastics from Synthetic Textiles in the Environment: Knowledge, Mitigation and Policy, Link

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[2] Eunomia. (2016). *Plastics in the Marine Environment.* Eunomia. Retrieved fromwww.eunomia.co.uk;
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- Napper, I. and R. Thompson (2016), “Release of synthetic microplastic plastic fibres from domestic washing machines: Effects of fabric type and washing conditions”, Marine Pollution Bulletin. Link
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- Ocean Clean Wash website, Plastics Soup Foundation. Link