



KIMO Resolution 2021/01

Pollution by plastic microfibres from textiles

Introduction

Microfibres are plastic fibres that are shed from synthetic textiles and clothing when they are worn or washed. The level of release in this process can vary according to the synthetic material and the cleaning or washing process. Their small size (less than 5mm) means that they cannot be caught by standard washing machines so leak in the waste water or sewage systems from where, if not filtered, they are released into waterways and subsequently into the marine environment. They cause harm to riverine and marine species and can ultimately enter the human food chain¹.

Microfibres have been found to be present in oceans, rivers, soil and even in the air. Insufficient research means that the extent of the problem is not yet clear but it is estimated that microfibres from synthetic textiles account for over 34% of the total microplastic load in the oceans, making them one of the largest contributors of microplastics into global waters².

To prevent leakage of microfibres into the environment requires a co-ordinated and determined response from all parts of society. European member states, national governments and transnational institutions must design and implement strategies and legislation that specifically target this type of pollution.

Background

Studies conducted on marine life in a laboratory setting have identified that the presence of microfibres in seawater can result in serious harm to marine life. Ingestion of microplastics by marine biota will negatively affect their growth, behaviour and reproduction capabilities³ and may also block the digestive systems of marine organisms leading to starvation. Due to their shape and size, plastic microfibres are particularly easy for fish and shellfish to ingest and could therefore end up in the human food chain with the consequent risk to human health. Additionally, there will be a significant economic impact to coastal communities and the livelihoods of those who work locally in the fisheries and seafood industries.

Lack of research and limited development of alternative products means that challenging the behaviour of the textile industry through presentation of findings is yet to be effected, but positive changes could be made now. Increasing the use of transparent labelling of textile composition and sustainable supply chains, coupled with reducing consumption of new clothing items will have a positive impact on mitigating the release of microfibres and should be promoted.

Since plastic microfibres can be released into the environment from multiple sources during their lifecycle, from design and manufacture to retail, consumers and waste water treatment plants, it can only be addressed through a cross-sector approach. France and Australia have undertaken to fit microfibre filters in all washing

¹ All-party parliamentary group on microplastics, 2021. *Microplastic policies for the Government*. [online] All-party parliamentary group on microplastics. Available at: <https://media.mcsuk.org/documents/WI_APPGMicroplastics_Report_FINAL_WEB_YJanAzo.pdf>

² Boucher, Julien & Friot, Damien. (2017). IUCN - Primary Microplastics in the Oceans: A Global Evaluation of Sources.

³ Botterell, L.R, Z et al (2019) Bioavailability and effects of microplastics on marine zooplankton: A review, *Environmental Pollution*, Volume 245, Pages 98-110, <https://www.sciencedirect.com/science/article/pii/S0269749118333190>

machines by 2025 and 2030 respectively. France's action alone has been predicted to reduce release of microfibres by 500 tons in the 5 years after implementation⁴.

KIMO

Recognizing the need for a clean environment in and around the Northern and Baltic seas and the threat posed to marine ecosystems and coastal communities' economies by leakage of plastic microfibers into the marine environment.

Urges:

- **European Governments and the European Commission to take vigorous action to ban or set strict limits regarding discharge of plastic microfibres from any source, including introducing an Extended Producer Responsibility scheme for textiles;**
- **European Governments to take unilateral action to ensure that all washing machines are fitted with filters by 2025;**
- **European Governments to introduce initiatives at all governance levels to educate about the effects of microplastic pollution and achieve widespread public awareness.**

KIMO members:

- **Agree to submit this Resolution to all National Governments, the European Commission, HELCOM, OSPAR, and other relevant organizations.**

⁴ France is leading the fight against plastic microfibers - Ocean Clean Wash <https://www.oceancleanwash.org/2020/02/france-is-leading-the-fight-against-plastic-microfibers/>