WHY LOOKING AT ... MICROPLASTICS FROM COSMETICS?

Despite them being ubiquitous in our society, we are not always aware of how much plastic there is in the products we consume every day. Tiny plastic pieces (with a size <5mm), referred to as microplastic are used in several personal care and cosmetic products like toothpaste, skin creams, baby products, sunscreen and shaving cream. Microplastics serve as additives for example for their abilities to conserve, stabilize, perfume, colour or as abrasive agents. Given how widely they are used, it can be hard for the consumer to understand which products contain which ingredients and it is not always obvious what the best options are.

Since most of these products are used in the bathroom, they go down the drain as part of household wastewater streams. Even where advanced wastewater treatment facilities exist, a considerable amount of tiny microplastic particles find their way through the filters and end up in the marine environment. Some cosmetic products (e.g. sun protection creams) are also used directly…. on the beach. In addition, some microplastics can reach the sea accidentally during the (maritime) transport of plastic pellets.

WHICH CHALLENGES FACED FOR ADDRESSING ... MICROPLASTICS IN COSMETICS?

Once microplastics reach the ocean, it can be ingested by marine animals and impact there feeding behaviour. Plastic can also absorb and release pollutants and can therefore act as vector for bacteria and viruses which can be harmful for marine and coastal organisms. While the research on the impact of microplastic is in its early stages, there are some warning signs about the effects for the environment and for human welfare.

Microplastics and its impact on the oceans is a quite recent subject in the environmental debate, though information campaigns targeted to the general public have multiplied in the last years. Cosmetics is only one possible source, but it is an important example of how people unknowingly have contributed to the plastic problem in the oceans through their behaviour as consumers. Even today, where awareness is raising, it is not easy for consumers who want to purchase cosmetic products to identify if they contain – or not – microplastics.

Information on ecosystem components and potential impacts of microplastics is mostly missing when the microplastics story is told. Research on the impact of ingestion of microplastics by marine fauna is in its early stages. Nevertheless, it is possible to see warning signs of its effects. For example, scientific studies show the biological effects of microplastic exposure in marine organisms, such as a negative impact on growth or feeding behaviour. This can also affect species that humans use for seafood consumption, and reports have already found microplastics in seafood such as mussels, shellfish or shrimps. So far, the current knowledge shows no impact on human health but given the impacts on marine fauna, the situation should be assessed with precaution. It is uncertain also how much personal care and cosmetic products contribute to the plastic pollution in the marine environment, but it is an issue where tangible action is possible.

WHAT CAN OCEAN LITERACY DELIVER?

Ocean Literacy initiatives that address microplastics in cosmetics do target consumers.

Efforts to address this environmental problem are taking place mainly through highly untargeted information provided to the general public. Communication originates mainly from social actors and the media and is highly focused on environmental problems, consumer behaviour and economic or regulatory responses.

Different strands of action can be highlighted:

- Informing consumers on the concrete impact (and remaining uncertainty) of microplastics on the marine environment as well as on human health. This can increase consumers' interest and motivation to choose microplastic-free cosmetic products.

- Ensuring consumers can concretely identify products containing–or not–microplastics. A wide-reaching, but specific information campaign, supported with product specific labels indicating the presence of microplastics (e.g. implemented by producers and enforced by regulators,) could play the trick.

- Developing a buyer's guide presenting products containing microplastics or microplastic free.

Consumers are not the only ones that can contribute to reducing the amount of day care-related microplastics reaching the ocean. Actors that are part of the solutions and that can be targeted by Ocean Literacy initiatives include: cosmetic producers; maritime transport; local authorities in charge of sewage: tourism industry; retailers: innovation developers; national and European policy-makers; European citizens. Suitable channels for reaching these different groups, and multipliers (e.g. specific civil society organisations committed to environmental and/or consumption issues, professional associations of different economic actors of the value chain) need to be well adapted, complementing and supporting discussions between cosmetic producers and policy makers that aim at reducing the microplastic footprint of cosmetic products.

LOOKING AHEAD

- Continue research on (a) the impacts of microplastics on the marine environment and human health, (b) on alternative ingredients for cosmetic and day care products, (c) on technologies to treat wastewater–find mechanisms that regularly inform policy makers and value chain actors of their results.

- Support coordinated Ocean Literacy initiatives addressing simultaneously actors of the value chain

- Empower consumers to clearly identify products containing microplastics, and alternative microplastic-free products, e.g. awareness-raising campaigns combined with the use of logos or buyer's guides.