

Sources of microplastics



Textiles

70% of textiles produced today are synthetic and shed large quantities of microplastics into the environment, accounting for 35% of total microplastics released into the ocean. The dispersion of **synthetic fibers and fabrics from clothing** is not only the result of washing and wear, but also takes place during production. **Geotextiles** - often used to retain and reinforce soil layers or as agricultural mulches - also release microplastics, due to the action of UV rays, physical damage and poor maintenance.



Personal Care Products

A variety of personal care products contain intentionally added microplastics (e.g. glitter, microbeads in face/body scrubs). These products wash down drains and represent 2% of total microplastics released into the marine environment.



Fishing, Aquaculture and Shipping

Microplastics are released by ships' greywater flowing unfiltered into the ocean, degradation of lost fishing gear, marine paints and coatings, single-use plastic waste from fishing and aquaculture, and lost maritime containers, containing plastic goods.



Agriculture

A variety of agricultural sources contribute to dispersing microplastics into the ground, for example through the widespread use of cultivation films, irrigation pipes, nutrient pills, seed coating, and **sewage sludge** from wastewater treatment plants used as soil fertiliser. With half of all sludge in Europe returned to land, this is a widespread problem.



Road Transport

Tyre wear, road markings and road abrasion account for more than 35% of all microplastics released into the environment. Tyre wear alone generates over 1.3 million tonnes of microplastics in Europe each year. "Recycling" of old tyres is often problematic, as their use in artificial reefs, sports pitches or school playgrounds directly releases microplastics into the environment.



Plastic Manufacturing

Pellets are virgin or recycled plastic beads used as raw materials in manufacturing most plastic products. However, **plastic pellet, flakes and powder loss** occurs all along the plastic production, transport and recycling value chains



Tourism

Particular pressure is exerted by **tourists' waste on local waste management systems**, cruise ships' wastewater discharges and the massive use of single-use plastic products and packaging.

