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Will Governments Legislate Microfiber Pollution from Synthetic Clothing?

By [Jasmin Malik Chua](#)

With U.S. lawmakers, led by Senator Tom Udall (D-N.M.) and Representative Alan Lowenthal (D-Calif.), proposing “comprehensive” legislation to tackle the plastic-pollution crisis, experts warn similar bills may soon target microfibers that slough off petroleum-based materials such as polyester, acrylic and nylon.

This may be easier said than done, however. Such materials, according to a 2013 survey by the Food and Agriculture Organization of the United Nations and the International Cotton Advisory Committee, make up more than 60 percent of the total global demand for apparel fibers. Polyester, in particular, is the most widely employed fiber in the textiles industry, outpacing even cotton.

But hope springs eternal.

“My guess is they will start mandating design changes to reduce fiber shedding, require filters on any carpet cleaning and textile washing machines, and if that isn’t successful, they will move to ban certain fibers and move to natural fibers,” Heidi Sanborn, executive director of the National Stewardship Action Council, a California-based consortium of governments, nonprofits and businesses that support extended producer responsibility as a pathway to the circular economy, told [Ecotextile News](#) Friday.

Udall and Lowenthal circulated a draft bill in November that would codify into federal law phase-outs of certain single-use consumer products (such as Styrofoam), extended producer responsibility for those and other products and container deposit or charge requirements at the consumer level.

“We have passed a tipping point in the plastic pollution crisis,” Udall said in a statement then. “We are in dire need of action to tackle this enormous problem. The ripple effects of plastic waste are everywhere: in our neighborhoods, our rivers and oceans, our food and water and even our inside our bodies.

“And on top of all that, the public is having to shell out more and more of their hard-earned money to fund cleanup and disposal of these products that were manufactured and sold—for a profit,” Udall added. “We need to work across industry sectors and with all stakeholders on solutions that reduce plastic waste and make the marketplace more accountable—and sustainable.”

While the proposal doesn’t mention microfibers from synthetic clothing specifically, there’s little doubt they’re an emerging threat.

In July 2018, the European Commission noted in a Science for Environment Policy bulletin that microfibers from clothes may be just as [detrimental to marine life as microbeads](#)—already the target of widespread sanctions worldwide—if not more so.

In December, scientists from King's College London found that [92 percent of microplastics](#) in London's air are "fibrous [microplastics](#)" from abraded plastic textiles such as clothing, upholstery and carpets. And of all the microplastics currently inundating oceans, rivers and lakes, the International Union for Conservation of Nature estimates more than one-third stem from laundering synthetic textiles.

Indeed washing synthetic clothing may generate as many as 700,000 minuscule fibers, smaller than one-fifth of an inch, per average washing load at standard temperatures of 30 and 40 degrees Celsius (86 and 104 degrees Fahrenheit), according to a 2016 investigation by Plymouth University.

Often mistaken by marine life as food, microplastics have been uncovered in the gastrointestinal tracts of fish, turtles and whales. They have also been detected in most drinking water, in rain, snow and [Antarctic ice](#), in [flying insects](#), the majority of table salt and even [human stool](#).

So far, any attempt to regulate microfibers from clothing has stalled.

[A bill introduced into the California State Assembly](#) in early 2018, and amended in March 2019, wanted all clothing containing more than 50 percent polyester to carry a label warning of microplastics release during machine washing. It also required any public entity that uses a laundry system—and any private entity that contracts with a state agency for laundry services—to install a filtration system for capturing shed microfibers.

Connecticut, [as late as April 2018](#), was mulling the creation of a "consumer awareness, education and clothing labeling program that is intended to reduce the amount of microfiber plastic in the state's waterways."

The European Union is considering banning [90 percent of microplastics](#) that are intentionally added to products such as paints, cosmetics and detergents, as early as this year, though it has not called out synthetic clothing as yet.