

Assembly Bill No. 1628

Passed the Assembly September 13, 2023

Chief Clerk of the Assembly

Passed the Senate September 12, 2023

Secretary of the Senate

This bill was received by the Governor this _____ day
of _____, 2023, at _____ o'clock ____M.

Private Secretary of the Governor

CHAPTER _____

An act to add Chapter 11 (commencing with Section 119425) to Part 15 of Division 104 of the Health and Safety Code, relating to environmental health.

LEGISLATIVE COUNSEL'S DIGEST

AB 1628, McKinnor. Microfiber filtration.

Existing law, to protect public health and water quality, regulates a broad range of consumer products and processes, including water softeners, water treatment devices, and backflow prevention devices, among others.

This bill would require, on and after January 1, 2029, that all new washing machines sold or offered for sale in California for residential or state use contain a microfiber filtration system, as defined, with a mesh size not greater than 100 micrometers, and bear a label with a specified consumer notice, as provided. The bill would provide that a violation of these provisions is punishable by a specified civil penalty, upon an action brought by the Attorney General, a city attorney, a county counsel, or a district attorney. The bill would also include legislative findings and declarations.

The people of the State of California do enact as follows:

SECTION 1. The Legislature finds and declares all of the following:

(a) California is in the midst of a plastic pollution crisis with plastics of all sizes, from milk jugs to nylon fibers, increasingly accumulating in our natural environment. New scientific research estimates that under the current trajectory, plastic production will double by 2030. While all shapes and sizes of plastic pollution and waste are problematic, microplastics, which are small plastic pieces that are less than five millimeters in size, are a largely invisible and particularly challenging form of plastic pollution to address. Microplastics are highly mobile, distribute easily and widely, and are nearly impossible to capture once released into the environment.

(b) Californians are exposed to microplastics through the air we breathe, the water we drink, and the food we eat. Researchers

have estimated that Americans ingest tens of thousands of microplastic particles per person each year through foods, including fruits, vegetables, meats, table salt, honey, and beverages like beer and water. Microplastics have been detected in human pulmonary tissues, intestines, and even placentas. While the long-term health impacts of human ingestion of microplastics are still an area of active research, the ubiquity of microplastics in the environment raises concerns about plastic ingestion.

(c) Synthetic microfibers, shed or fragmented from polyester, nylon, or rayon clothing and textiles, are one of the most abundant and ubiquitous types of microplastic. With global production of synthetic textiles expected to triple by 2050, microfiber pollution in California is expected to continue to grow. Additionally, there are approximately 11,000,000 residential and 600,000 commercial washing machines operating in California. Without intervention, it is estimated that annual microfiber emissions to California's natural environments from machine washing of synthetic textiles will continue to increase.

(d) Microfibers may be the most prevalent type of microplastic found in oceans. In a study conducted in San Francisco Bay, microfiber concentrations in surface waters reached 580,000 particles per square kilometer compared to 520,000 particles per square kilometer for all nonfiber particles combined, including tire wear fragments, films, spheres, and foam pieces.

(e) Microfibers, given their shape, may be the most readily absorbable of the types of microplastics. In marine and freshwater systems, synthetic fibers, relative to other forms of microplastics, appear to have higher potential for entering the food chain because their size and form allow them to be readily consumed by aquatic animals and to be more prone to entanglement and gut retention. Microfibers and other microplastics can also have negative impacts on terrestrial ecosystems and soil health.

(f) In addition, like all microplastics, microfibers can serve as a vector for the dyes, flame retardants, and waterproof chemicals associated with them, and also for additional harmful chemicals. With a high surface-to-volume ratio, microfibers in particular can absorb a wide range of toxins, and therefore serve as a vehicle for introducing additional waterborne toxins into the food chain.

(g) Wastewater treatment facilities are passive receivers of microfibers and do not create them. In California, a significant

portion of synthetic microfibers are effectively removed by wastewater treatment plants and retained in sewage sludge, known as biosolids. Many of these microfibers, however, can then be released into the natural environment through the spreading of biosolids on agricultural lands, and to a lesser degree through the use of recycled wastewater on agricultural fields.

(h) When impacted biosolids are applied to agricultural fields, microfibers can be incorporated and accumulate in the soil where they are nearly impossible to eliminate. Wastewater agencies seek to maximize use of biosolids for land application or for composting rather than disposing of them in landfills. Biosolids are a nutrient-rich material that sequesters carbon, saves water, and improves soil health. Microfibers have the potential to be released into the natural environment when biosolids are used on agricultural lands. The best way to protect biosolids quality is to keep microfibers from entering wastewater in the first place.

(i) Preventing microfibers from entering wastewater and biosolids will help avoid harm to rural communities from microfibers.

(j) California has proven to be a national leader on controlling plastic pollution. Among other important actions, the state has passed a ban on microbeads in wash-off products like face scrubs and toothpaste, and on the distribution of single-use plastic bags, as well as comprehensive extended producer responsibility and source reduction legislation. In addition, as part of ensuring safe drinking water for all Californians, the State Water Resources Control Board is creating the first standardized methods for testing microplastics in drinking water, and leveraging the latest research to better monitor and identify the sources of microplastics in drinking water. The Ocean Protection Council has also prioritized the need to address microfiber pollution through requiring use of filters in washing machines in their Statewide Microplastics Strategy.

(k) Research suggests microfiber capture filters added to clothes washers can dramatically reduce the number of microfibers that enter wastewater treatment plants and surface waters. A study suggested that full adoption of filters across washing machines in California decreased annual synthetic microfiber emissions to natural environments by almost 80 percent.

(l) Policies are being considered and adopted around the globe to address the use of microfiber capture. France recently passed a law requiring all new clothes washers sold in France to be equipped with built-in filters by 2025.

(m) Washing machine filtration systems are an effective strategy for capturing microfibers, with research showing microfiber filtration rates ranging from 70 percent to nearly 90 percent. Washing machines with built-in filters are already widely available in Japan among manufacturers like Hitachi, Panasonic, and Toshiba. Energy-efficient clothes washers with built-in microfiber filters are also commercially available in Europe, and some washers with built-in microfiber filters are also available at a smaller scale in the United States.

(n) While interventions to address microfiber pollution are needed across the full life cycle of synthetic textiles, filtration technologies provide a critical and near-term solution to reduce the amount of microfibers released into California’s lands and waters.

SEC. 2. Chapter 11 (commencing with Section 119425) is added to Part 15 of Division 104 of the Health and Safety Code, to read:

CHAPTER 11. MICROFIBER FILTRATION

119425. (a) On and after January 1, 2029, a new washing machine shall not be sold or offered for sale in the state for residential or state use unless the washing machine meets both of the following:

(1) Contains a microfiber filtration system with a mesh size of not greater than 100 micrometers.

(2) Bears a conspicuous label that is visible to the consumer, in the form of a sticker or any other label type, that includes the following statement: “Notice: This washing machine contains a filter to capture microfibers. Check filter regularly and dispose of captured lint in a waste bin.”

(b) Upon an action brought by the Attorney General, a city attorney, a county counsel, or a district attorney, a person or entity that violates subdivision (a) shall be liable for a civil penalty not to exceed ten thousand dollars (\$10,000) for a first violation, and

not to exceed thirty thousand dollars (\$30,000) for each subsequent violation.

(c) This section does not impair or impede any other rights, causes of action, claims, or defenses available under any other law. The remedies provided in this section are cumulative with any other remedies available under any other law.

(d) For purposes of this chapter, the following definitions apply:

(1) “Microfiber filtration system” means a filtration unit that is active across all washing cycles and meets either of the following:

(A) The unit is integrated into the washing machine design as a built-in filter.

(B) The unit is included as an in-line filter and is packaged, sold, and installed with the washing machine.

(2) “Washing machine” means a machine designed and used for washing clothes and linen.

Approved _____, 2023

Governor