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THIRD READING

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Bill No: AB 1423  
Author: Schiavo (D)  
Amended: 9/1/23 in Senate  
Vote: 21

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SENATE ENVIRONMENTAL QUALITY COMMITTEE: 6-0, 6/28/23  
AYES: Allen, Dahle, Gonzalez, Hurtado, Menjivar, Skinner  
NO VOTE RECORDED: Nguyen

SENATE GOVERNANCE & FIN. COMMITTEE: 7-0, 7/12/23  
AYES: Caballero, Blakespear, Dahle, Durazo, Glazer, Skinner, Wiener  
NO VOTE RECORDED: Seyarto

SENATE APPROPRIATIONS COMMITTEE: 5-1, 9/1/23  
AYES: Portantino, Ashby, Bradford, Wahab, Wiener  
NOES: Jones  
NO VOTE RECORDED: Seyarto

ASSEMBLY FLOOR: 64-9, 5/25/23 - See last page for vote

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**SUBJECT:** Product safety: PFAS: artificial turf or synthetic surfaces

**SOURCE:** Environmental Working Group

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**DIGEST:** This bill prohibits, commencing January 1, 2026, a public entity or educational institution, as specified, from purchasing or installing a covered surface that contains intentionally added per- and polyfluoroalkyl substances (PFAS) or PFAS at a concentration at or above 20 part per million (ppm). Commencing January 1, 2026, this bill prohibits a person or entity from manufacturing, distributing, selling, or offering for sale in the state any covered surface meeting these PFAS criteria. If the Department of Toxic Substances Control (DTSC) takes a regulatory action on artificial turf containing PFAS, the prohibitions of this bill will be repealed.

**ANALYSIS:**

Existing law:

*California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65) (HSC § 25249.5 et seq.)*

- 1) Prohibits a person, in the course of doing business, from knowingly discharging or releasing a chemical known to the state to cause cancer or reproductive toxicity into water or onto or into land where such chemical passes or probably will pass into any source of drinking water.
- 2) Prohibits a person, in the course of doing business, from knowingly and intentionally exposing any individual to a chemical known to the state to cause cancer or reproductive toxicity without first giving clear and reasonable warning to such individual.
- 3) Requires the Governor to publish a list of chemicals known to cause cancer or reproductive toxicity and to annually revise the list. The Office of Environmental Health Hazard Assessment (OEHHA) has listed perfluorooctanoic acid (PFOA) and perfluorooctane sulfonate (PFOS), which are members of the PFAS class, as chemicals known to the state to cause developmental toxicity and cancer.

*Safer Consumer Products (Green Chemistry) statutes (HSC § 25252 et seq.):*

- 4) Requires the Department of Toxic Substances Control (DTSC) to adopt regulations to establish a process to identify and prioritize chemicals or chemical ingredients in consumer products that may be considered chemicals of concern, as specified.
- 5) Requires DTSC to adopt regulations to establish a process to evaluate chemicals of concern in consumer products, and their potential alternatives, to determine how to best limit exposure or to reduce the level of hazard posed by a chemical of concern.
- 6) Specifies, but does not limit, regulatory responses that DTSC can take following the completion of an alternatives analysis, ranging from no action, to a prohibition of the chemical in the product.

This bill:

- 1) Defines “covered surface” as artificial turf or a synthetic surface resembling grass.
- 2) Prohibits, commencing January 1, 2026, covered surfaces containing intentionally added PFAS or PFAS at or above 20 ppm to be purchased or installed by:
  - a) A public entity;
  - b) A public or private school serving pupils K through 12; or
  - c) A public or private institution of higher education.
  - i) Requests but does not require the University of California to comply.
- 3) Provides that the above prohibitions do not apply to a listed public and/or education entity who has, on or before December 31, 2025, approved the concept design of, contracted for the installation of, or purchased a covered surface that contains PFAS prohibited by this bill.
- 4) Prohibits, commencing January 1, 2026, any person or entity from manufacturing, distributing, selling, or offering for sale in the state any covered surface containing intentionally added PFAS or PFAS at or above 20 ppm.
- 5) Requires manufacturers of covered surfaces to use the least toxic alternative when replacing PFAS in a covered surface and that if a responsible entity conducts an alternatives analysis for the use of PFAS in a covered surface under DTSC’s Safer Consumer Products program, those findings and guidelines are to govern the choice of alternatives.
- 6) Repeals the prohibitions in this bill if DTSC adopts a regulatory response governing activity covered in this bill.
- 7) States that this legislation shall not be construed to prohibit or restrict the authority of DTSC to prioritize or take action on any products containing PFAS.
- 8) Provides that, upon an action brought by the Attorney General, a city attorney, a county counsel, or a district attorney, a person or entity that violates the PFAS restrictions of this bill shall be liable for a civil penalty not to exceed \$5,000 for a first violation, and not to exceed \$10,000 for each subsequent violation.

- a) Provides that if DTSC adopts regulations that conflict with this authority, the Attorney General, city attorney, county counsel, or district attorney may resolve any action brought prior to the adoption of DTSC regulations but shall no longer be authorized to bring any action.
- b) Except as described in (a) above, provides that these penalty provisions do not impair or impede any other rights, causes of action, claims, or defenses available under any other law. Provides that the remedies delineated in the bill are cumulative with any other remedies available under any other law.

## Background

- 1) *Perfluoroalkyl and polyfluoroalkyl substances (PFAS)*. PFAS exposure occurs mainly through ingestion of contaminated food or liquids. Exposure can also occur through inhalation and touch, and PFAS can be transferred through pregnancy and breastfeeding. PFAS remains in the body for a long time, so as people continue to be exposed to PFAS, the PFAS levels in their bodies may increase to the point that they suffer adverse health effects. According to the United States Environmental Protection Agency (US EPA), current peer-reviewed scientific studies have shown that exposure to certain levels of PFAS may lead to reproductive effects such as decreased fertility or increased high blood pressure in pregnant people; developmental effects or delays in children, including low birth weight, accelerated puberty, bone variations, or behavioral changes; increased risk of some cancers, including prostate, kidney, and testicular cancers; reduced ability of the body's immune system to fight infections, including reduced vaccine response; interference with the body's natural hormones; and, increased cholesterol levels and/or risk of obesity.
- 2) *DTSC's Safer Consumer Products Program*. DTSC administers the Safer Consumer Products (SCP, previously known as Green Chemistry) Program, which aims to advance the design, development, and use of products that are chemically safer for people and the environment. DTSC's approach provides science-based criteria and procedures for identifying and evaluating alternatives with the objective of replacing chemicals of concern with safer chemicals and avoiding the use of substitute chemicals that pose equal or greater harm. Under DTSC's SCP Program, all PFAS chemicals are "Candidate Chemicals" because they exhibit specified hazard traits. DTSC has designated two product categories that contain PFAS as "Priority Products": carpets and rugs and certain surface treatments. A Priority Product is a consumer product identified by DTSC that contains one or more Candidate Chemicals and that has the potential to contribute to significant or widespread adverse impacts to humans or the environment. Manufacturers of a Priority Product must submit certain

documentation regarding their product to DTSC and submit an alternatives analysis or they can remove the product for sale in California or remove or replace the chemical of concern. DTSC has proposed evaluating artificial turf with PFAS in its 2021-2023 Priority Product Work Plan.

## Comments

- 1) *Purpose of Bill.* According to the author, “PFAS are a class of ‘forever chemicals’ which, when ingested, inhaled, or contacted with the skin can harm human and environmental health. This includes negative impacts on the immune system, cardiovascular system, childhood development, and risks of cancer. Artificial turf fields have been found to contain PFAS, and, as fields age, they release microplastic dust that contains PFAS. Children are particularly at risk of inhaling and ingesting this dust as they play on fields. AB 1423 protects youth and adult athletes by ensuring that fields installed in schools and by public agencies do not contain PFAS and that artificial turf of the future does not contain these harmful chemicals.”
- 2) *PFAS in artificial turf.* A number of recent studies identified PFAS in artificial turf, where PFAS may be used as an aid in molding and extrusion of the plastic blades, or may be applied to the finished product to enhance surface properties. Artificial turf is listed in DTSC’s 2021-2023 Priority Product Work Plan as part of the SCP Program. According to this Plan, chemicals in artificial turf are of particular concern because turf is frequently used by sensitive subpopulations such as young children and the potential exposure to chemicals is high because of the wear and tear the turf undergoes through high-friction athletic use and its exposure to the elements outdoors. This wear and tear also means chemicals including PFAS can readily enter the environment, including contaminating groundwater. A set of tests of artificial turf being considered for installation at a high school in 2021 detected PFAS of between 10 and 70 ppm in the artificial turf components, as measured in total organic fluorine. Existing patents for artificial turf suggest concentrations as high as 400 ppm.
- 3) *Chemical bans benefit from someone in charge.* Many chemical prohibition bills, including this one, are placed in a unique location in the California Codes, sometimes referred to as the “orphan codes.” In these code sections, no state agency is designated to provide oversight of the provisions of the law. As a result, there is no direct enforcement, no establishment of standardized testing methods, no compliance program, no guidance for manufacturers seeking to comply with these laws, and no related information for consumers. Because of these deficiencies, it is challenging for some manufacturers to

comply and difficult or impossible to know if manufacturers are complying with the requirements of the law. The only current option for enforcement of the prohibitions in the “orphan codes” is for a district attorney or the state Attorney General to bring an action against a manufacturer under the Unfair Competition Law (UCL), unless specified otherwise. However, this requires a member of the public to pay for the testing of a product for the presence of a prohibited chemical, and then the Attorney General or district attorney must have the resources and ability to prioritize action on these complaints.

This bill takes a step forward on statutory chemical prohibitions by adding civil penalties for violations of the restrictions in the bill. These penalty provisions are in addition to the authority to enforce under the UCL, and are consistent with existing statutory penalties relating to PFAS in firefighting foam. Further, this bill repeals its prohibitions if DTSC adopts a regulatory response on artificial turf. This approach was taken in AB 1319 (Butler, Chapter 467, Statutes of 2011), which banned bisphenol A above 0.1 parts per billion in baby bottles. Artificial turf is listed in DTSC’s 2021-2023 Priority Product Work Plan as part of the SCP Program, but it will likely take a number of years to result in a regulation for PFAS in artificial turf. The intention is to ensure that there is the appropriate entity provides guidance and ensures compliance with the regulatory actions it determines appropriate, once it is prepared to do so.

- 4) *PFAS concentration thresholds.* This and several other PFAS prohibitions prohibit intentionally added PFAS and additionally set a concentration threshold for any PFAS in a product, intentionally added or not. Such a threshold may be warranted because determining whether PFAS were intentionally added in the manufacturing of a product can be a challenge when certain manufacturing information is proprietary or contaminated product components are used. Setting a concentration threshold can further protect public health, but the chosen concentration should be appropriate. There is no concentration of PFAS that has been proven safe, and as long-lasting chemicals, they build up in the human body and in the environment over time. PFAS in different types of products may be of greater concern than others depending on how likely the chemicals are to enter the body.

As with enforcement, determining an appropriate concentration threshold could benefit from a public entity with scientists with health and environmental backgrounds determining the risks of chemical exposure at different levels. Without that resource, the Legislature is tasked with setting the appropriately protective standard in statute, and presumably updating those statutory

thresholds by legislation when needed. An agency performing oversight may also be better-equipped to establish testing methodology standards.

### **Related/Prior Legislation**

AB 1319 (Butler, Chapter 467, Statutes of 2011) prohibited bisphenol A (BPA) above 0.1 parts per billion from bottles or cups designed to hold food or beverages for children 3 years of age or younger.

[NOTE: See the Senate Environmental Quality Committee analysis for detailed background of this bill.]

**FISCAL EFFECT:** Appropriation: No Fiscal Com.: Yes Local: No

According to the Senate Appropriations Committee:

- Potential costs of an unknown amount (Proposition 98 General Fund) to local educational agencies, to the extent the cost of alternatives to a covered surface containing PFAS is more expensive. The state has over 11,000 schools.
- Potential costs of an unknown but likely minor amount (General Fund) to the University of California (UC), to the extent the cost of alternatives to a covered surface containing PFAS is more expensive. The UC has nine undergraduate campuses with various intercollegiate athletic facilities that may use artificial turf or synthetic surfaces that resemble grass.
- The Department of Justice anticipates any costs would be minor and absorbable.

**SUPPORT:** (Verified 9/1/23)

Environmental Working Group (source)  
A Voice for Choice Advocacy  
Active San Gabriel Valley  
Ban Single Use Plastic  
California Product Stewardship Council  
California Professional Firefighters  
Cleanearth4kids.org  
Climate Reality Project, Los Angeles Chapter  
Climate Reality Project, San Fernando Valley  
East Bay Municipal Utility District  
Friends Committee on Legislation of California

Glendale Environmental Coalition  
National Stewardship Action Council  
Natural Resources Defense Council  
Safe Healthy Playing Fields, Inc.  
Sierra Club California  
Surfrider Foundation  
Urban Ecology Project

**OPPOSITION:** (Verified 9/1/23)

Synthetic Turf Council

**ARGUMENTS IN SUPPORT:** According to supporters, “The Department of Toxic Substances Control has confirmed the science -- PFAS are long-lasting, toxic chemicals that adversely affects humans and the environment. We are exposed through water, food, and consumer products like food packaging, furniture, carpet, cosmetics, and clothing. The Legislature has recognized this and has taken recent actions to ban PFAS in a wide range of consumer products. One product that has yet to be addressed and which creates a health hazard especially for children is turf. PFAS contaminates every blade, as it’s used to prevent the blades from sticking to the mold in the extrusion process. The Swedish Environmental Protection Agency conducted studies on the amount of plastic and microplastics shed from artificial turf annually, finding an average of 5 grams of particles under 300 microns per square meter per year. In context, California has over 1000 turf fields, and if each is just the size of a football field (5,351 square meters), that’s over 50,000 pounds of plastic particles shed a year. With PFAS a component of this dust, and our children are particularly exposed, California must act to protect our children from these toxic forever chemicals. And, the shedding PFAS can end up in the environment and drinking water through runoff from turf.”

**ARGUMENTS IN OPPOSITION:** According to the Synthetic Turf Council, “The bill also intends to regulate levels of unintentionally added PFAS to 1 part per million (PPM) [since amended to 20 ppm] in total organic fluorine. While our manufacturers and suppliers fully intend to comply with the provisions of the bill related to intentionally added PFAS, we are concerned that trace quantities of a chemical may be present in natural or synthetic ingredients, recycled content, manufacturing processes or equipment. Therefore, we believe it would be more prudent (in addition to allowing for testing protocols to be developed) to establish the compliance threshold for unintentionally added PFAS at 100 PPM beginning in 2026 and 50 PPM in 2028. These thresholds have been previously recognized by the legislature in AB 1817 (Ting) (2021) and AB 652 (Friedman) (2021).”



ASSEMBLY FLOOR: 64-9, 5/25/23

AYES: Addis, Alvarez, Arambula, Bains, Bauer-Kahan, Bennett, Berman, Boerner, Bonta, Bryan, Calderon, Juan Carrillo, Wendy Carrillo, Cervantes, Connolly, Essayli, Flora, Mike Fong, Friedman, Gabriel, Garcia, Gipson, Grayson, Haney, Hart, Holden, Irwin, Jackson, Jones-Sawyer, Kalra, Lee, Low, Lowenthal, Maienschein, McCarty, McKinnor, Muratsuchi, Stephanie Nguyen, Ortega, Pacheco, Pellerin, Petrie-Norris, Quirk-Silva, Ramos, Reyes, Luz Rivas, Robert Rivas, Rodriguez, Blanca Rubio, Santiago, Schiavo, Soria, Ting, Valencia, Villapudua, Waldron, Wallis, Ward, Weber, Wicks, Wilson, Wood, Zbur, Rendon

NOES: Megan Dahle, Davies, Dixon, Vince Fong, Gallagher, Hoover, Jim Patterson, Joe Patterson, Sanchez

NO VOTE RECORDED: Aguiar-Curry, Alanis, Chen, Lackey, Mathis, Papan, Ta

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