

THIRD READING

Bill No: AB 1604
Author: Stefani (D), et al.
Amended: 8/21/26 in Senate
Vote: 21

SENATE ENVIRONMENTAL QUALITY COMMITTEE: 7-0, 6/17/26
AYES: Blakespear, Valladares, Allen, Dahle, Gonzalez, Hurtado, Menjivar

SENATE APPROPRIATIONS COMMITTEE: 5-0, 8/13/26
AYES: Cervantes, Cabaldon, Grayson, Richardson, Wahab
NO VOTE RECORDED: Seyarto, Dahle

ASSEMBLY FLOOR: 70-2, 5/26/26 - See last page for vote

SUBJECT: Product safety: proofs of purchase: intentionally added bisphenols

SOURCE: Breast Cancer Prevention Partners, Californians Against Waste

DIGEST: This bill prohibits the provision or manufacture of a paper proof of purchase (receipt) containing intentionally added bisphenol A (BPA), on or after January 1, 2028, or containing any intentionally added bisphenol, on or after January 1, 2029.

Senate Floor Amendments of 8/21/2026 clarify the meaning of intentionally added bisphenol and allow chemicals on the Department of Toxic Substance Control (DTSC) Candidate Chemical List to substitute for bisphenol in paper proofs of purchase.

ANALYSIS:

Existing law:

- 1) Defines “bisphenol” as a chemical with two phenol rings connected by a single linker atom. (Health and Safety Code (HSC) § 108942(a))

- 2) Prohibits, through SB 1266 (Limón, Chapter 790, Statutes of 2024), the manufacture or sale of any juvenile's feeding, sucking, or teething product that contains any form of bisphenol above the practical quantitation limit determined by The Department of Toxic Substance Controls (DTSC) on or after January 1, 2026. (HSC § 108940 (a))
- 3) Requires a manufacturer to use the least toxic alternative when replacing any form of bisphenol in a juvenile's feeding product or juvenile's sucking or teething product and prohibits a manufacturer from replacing any form of bisphenol pursuant to these provisions with chemicals known to cause cancer or reproductive harm, or with any chemical identified by DTSC as a Candidate Chemical through its Safer Consumer Products Program. (SB 1266 (Limón); HSC § 108941)
- 4) Establishes, through SB 1379 (Perata, Chapter 599, Statutes of 2006), the California Environmental Contaminant Biomonitoring Program which:
 - a) Requires the California Department of Public Health (CDPH), in collaboration with the California Environmental Protection Agency, to utilize biological specimens, as appropriate, to identify designated chemicals that are present in the bodies of Californians;
 - b) Defines "designated chemicals" as those chemicals that are known to, or strongly suspected of, adversely impacting human health or development, based upon scientific, peer-reviewed animal, human, or in vitro studies, and according to certain parameters;
 - c) Includes bisphenol in the list of designated chemicals. (HSC §§ 105440, 105441)
- 5) Under the California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65):
 - a) 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;
 - b) Requires the Governor to publish a list of chemicals known to the state to cause cancer or reproductive toxicity and to revise and republish the list in light of additional knowledge at least once per year;

- c) Includes BPA and bisphenol S (BPS) in the list of chemicals known to the state to cause birth defects and/or other reproductive harm. (HSC §§ 25249.6, 25249.8)
- 6) Establishes the Safer Consumer Products Program which requires 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. (HSC § 25252)

This bill:

- 1) Makes legislative findings and declarations about paper receipts and bisphenols.
- 2) Defines the following:
 - a) “bisphenol” as a chemical with two phenol rings connected by a single linker atom. Specifies that the linker atom and phenol rings may have additional substituents;
 - b) "intentionally added bisphenols" as bisphenols that a manufacturer has intentionally added to a product and that have a functional or technical effect in the product, including if the bisphenol is a component of an intentionally added chemical or is the intentional breakdown product of an added chemical that also has a functional or technical effect in the product;
 - c) “intentionally added bisphenol A” as above for BPA (CAS no. 80-05-7);
 - d) "manufacturer" as the person that makes the paper for the paper receipt using raw materials, machinery, or both;
 - e) "proof of purchase" as a receipt for the retail sale of food, alcohol, or other tangible personal property, or for the provision of services, provided at the point of sale;
- 3) Prohibits a person from manufacturing, distributing, selling, or offering for sale a receipt which contains:
 - a) intentionally added BPA, on and after January 1, 2028; or
 - b) any intentionally added bisphenols, on and after January 1, 2029.
- 4) Authorizes DTSC to adopt regulations to implement this bill.

- 5) Requires DTSC:
 - a) to post any violation or enforcement action of the provisions of this bill on its internet website.
 - b) to deposit all penalties collected pursuant to the provisions of this bill into the Toxic Substances Control Account for use to enforce the provisions of this bill.
- 6) Authorizes DTSC to enforce the provisions of this bill by a civil penalty not to exceed \$5,000 for a first violation and not to exceed \$10,000 for each subsequent violation, considering:
 - a) The nature and severity of the violation;
 - b) The good or bad faith of the person in violation;
 - c) The history of prior violations, if any;
 - d) Evidence that the violation was willful; and
 - e) The extent that the person has cooperated with the department.
- 7) Requires manufacturers to use the least toxic alternative when replacing bisphenol in a paper receipt and prohibits any alternative which is:
 - a) Classified by the US EPA as carcinogenic, likely to be carcinogenic in humans, or has suggestive evidence that it is carcinogenic in humans; or
 - b) Identified by the state, pursuant to Proposition 65, to cause cancer or cause reproductive harm.

Background

What are bisphenols? Bisphenols are a group of synthetic chemicals that are used in the manufacturing of polycarbonate plastics and epoxy resins.¹ The most widely used and well-studied chemical in the group is BPA, but the use of other bisphenols, such as BPS and bisphenol F (BPF), is increasing as manufacturers use

¹ Mayo Clinic (2023) *What is BPA? Should I be worried about it?* <https://www.mayoclinic.org/healthy-lifestyle/nutrition-and-healthy-eating/expert-answers/bpa/faq-20058331>

these chemicals to replace BPA, especially following restrictions on the use of BPA.²

The Human Biomonitoring for Europe program (HBM4EU), a joint European human biomonitoring initiative, explains in its "Bisphenols: What You Need to Know" factsheet that BPA is used as a building block in the production of polycarbonate plastics.³ The resulting plastic is clear and tough and used to manufacture a wide range of consumer goods, including sports equipment, impact-resistant safety equipment, automobile parts, and food containers, such as reusable beverage bottles and reusable plastic tableware.⁴

Another primary use of BPA is in the production of epoxy resins used to line food and beverage cans to avoid corrosion of the metal and to avoid migration of metals into the can's contents. Epoxy resins are also used to line water pipes and in the manufacture of thermal papers used for shop sales receipts, ATM receipts, public transport tickets, parking tickets, and airline boarding passes. Finally, BPA is used in dental sealants. In terms of other bisphenols, both BPS and BPF are also used in the manufacture of plastics. Also, BPS is increasingly used in the production of thermal papers.⁵

Health impacts of bisphenols. BPA classified as an endocrine disruptor, meaning it adversely impacts the hormonal systems in humans.⁶ BPA is linked to several adverse effects including neurological,⁷ immunological,⁸ cardiovascular effects.⁹ Additionally, BPA is associated with increased cancer risk, low birth weight, and infertility.¹⁰

BPA largely enters the body through food, leeching into food from plastic food containers. Since BPA is so common in plastic and plastic-coated products, BPA

² Jaskulak, M. & Zorena, K. (2025) Quantifying the metabolic health burden of increased BPA/BPF/BPS endocrine-disrupting chemical exposure: A temporal and cross-country comparative analysis from 2000 to 2024, *Science of the Total Environment*. <https://www.sciencedirect.com/science/article/pii/S0048969725025379>

³ HBM4EU, *Bisphenols*. <https://www.hbm4eu.eu/hbm4eu-substances/bisphenols/>

⁴ New York State Department of Health, *Bisphenol A*. https://www.health.ny.gov/environmental/chemicals/bisphenol_a/

⁵ Bernier, M. R. & Vandenberg, L. N. (2017) *Handling of thermal paper: Implications for dermal exposure to bisphenol A and its alternatives*, *PLoS One*. <https://pmc.ncbi.nlm.nih.gov/articles/PMC5453537/>

⁶ Ma, Y., et al. (2019) *The adverse health effects of bisphenol A and related toxicity mechanisms*, *Environmental Research*. <https://www.sciencedirect.com/science/article/abs/pii/S001393511930372X>

⁷ Costa, H. E. & Cairrao, E. (2023) *Effect of bisphenol A on the neurological system: a review update*, *Archives of Toxicology*. <https://pubmed.ncbi.nlm.nih.gov/37855918/>

⁸ Zhang, Q., et al. (2024) *Integrated analysis reveals the immunotoxicity mechanism of BPs on human lymphocytes*, *Chemico-Biological Interactions*. <https://www.sciencedirect.com/science/article/abs/pii/S0009279724002941>

⁹ Fonseca, M. I., et al. (2022) *Endocrine-Disrupting Effects of Bisphenol A on the Cardiovascular System: A Review*, *Journal of Xenobiotics*. <https://pmc.ncbi.nlm.nih.gov/articles/PMC9326625/>

¹⁰ European Environment Agency (2023) *Human Exposure to Bisphenol A in Europe*. <https://www.eea.europa.eu/en/analysis/publications/human-exposure-to-bisphenol-a>

was found in 92% of people. Food or drinks may contain very low levels of BPA that have migrated from containers and linings; however, BPA toxicity occurs on low doses.¹⁰ Small children have an increased risk of becoming exposed to BPA due to their higher food consumption compared to their size.

Widespread health concerns over BPA lead to the compound being removed from many consumer products. However, BPS is a common BPA replacement which is less well-studied and potentially just as hazardous.²

Under Proposition 65, OEHHA listed BPA for effects on the female reproductive system in 2015 and for developmental effects in 2020.¹¹ On December 29, 2023, OEHHA placed BPS on the Proposition 65 list for reproductive toxicity based on the female reproductive endpoint, and on January 3, 2025, it added the male reproductive toxicity endpoint.¹² However, there are other bisphenols which are not yet on the Prop 65 list.¹³ Bisphenol as a chemical group is on the Safer Consumer Product's Candidate Chemical List.¹⁴

Show me the receipts. Most receipts are made of thermal paper, which is coated with layers of chemicals that allow for rapid image formation. Though most people are exposed to bisphenols from food packaging, people may also be exposed to BPA through the skin by handling thermal papers, such as register receipts.¹⁵ Retail workers, predominantly younger women and lower-income people, have 30 percent more BPA in their bodies than other adults.¹⁶¹⁷ Alternatives to bisphenol thermal paper exist. A 2023 study found that Bisphenol-based receipts have decreased from about 93% of receipts in 2017 to 86% in 2022. Non-bisphenols increased from 5% to 14% of receipts.¹⁸ Starting this year, Washington State banned bisphenols from all thermal paper.¹⁹

¹¹ Proposition 65, Bisphenol A (BPA) Fact Sheet. <https://www.p65warnings.ca.gov/fact-sheets/bisphenol-bpa>

¹² <https://oehha.ca.gov/proposition-65/chemicals/bisphenol-s-bps>

¹³ OEHHA, *Chemicals Considered or Listed under Proposition 65: Bisphenol S (BPS)*

<https://www.p65warnings.ca.gov/fact-sheets/tetrabromobisphenol-tbbpa>

¹⁴ DTSC, *Candidate Chemicals*. <https://dtsc.ca.gov/scp/candidate-chemicals-list/>

¹⁵ Schwartz, A. W. & Landrigan P. J. (2012) *Bisphenol A in Thermal Paper Receipts: An Opportunity for Evidence-Based Prevention*, Environmental Health Perspectives. <https://pmc.ncbi.nlm.nih.gov/articles/PMC3261950>

¹⁶ EWG (2010) *BPA Coats Cash Register Receipts*. <https://www.ewg.org/research/bpa-coats-cash-register-receipts>

¹⁷ Ndaw, S., et al. (2016) *Occupational exposure of cashiers to Bisphenol A via thermal paper: urinary biomonitoring study*, International Archive of Occupational and Environmental Health.

<https://pmc.ncbi.nlm.nih.gov/articles/PMC4927604/>

¹⁸ Miller, G. Z., et al. (2023) *Bisphenols and alternative developers in thermal paper receipts from the U.S. market assessed by Fourier transform infrared spectroscopy*, Environmental Pollution.

<https://pubmed.ncbi.nlm.nih.gov/37481030/>

¹⁹ Ecology Center (2026) *Washington state's first-in-the-nation ban on toxic bisphenols in receipts takes effect*.

<https://www.ecocenter.org/washington-states-first-nation-ban-toxic-bisphenols-receipts-takes-effect>

However, the compounds used in non-bisphenol thermal paper are not well studied. Pergafast 201 is one such alternative used bisphenol-free thermal paper and is already found in 12% of receipts.¹⁴ Of the limited studies available on Pergafast, a 2026 paper found that Pergafast is less able to be absorbed through the skin but may remain in the body for longer.²⁰ The Washington State Department of Ecology concluded that Pergafast and e-receipts are safer alternatives to bisphenols in thermal paper.²¹ Another alternative NKK-1304 was first reported in a medical journal in 2023.¹⁴ Other alternatives, include minimizing the use of thermal paper or eliminating it entirely. For example, businesses may allow the consumer to receive a digital receipt or skip a receipt entirely.

Chemical classes and regrettable substitutions. As with BPS becoming a common yet harmful substitution for BPA, regulating chemicals one at a time can lead to regrettable substitutions where the new chemical is less well-studied and potentially as, if not more, harmful compared to the original chemical. Regulating chemicals as a class, rather than one at a time, allows agencies to prioritize public health by minimizing substitutions with little safety data, extrapolating data from well-studied chemicals to less well-studied substitutions, taking into account cumulative health impacts, and greater regulatory efficiency.²²

Previous legislation has regulated bisphenols and per- and polyfluoroalkyl substances (PFAS) chemicals as a class, rather than as individual chemicals, including SB 1266 (Limon) which bans bisphenols in children’s teething toys and AB 2515 (Papan, Chapter 1008, Statutes of 2024) which bans PFAS, as a chemical class, in menstrual products.

Comments

Purpose of Bill. According to the author, “AB 1604 will better protect public health and the environment in California by eliminating harmful bisphenol chemicals from paper receipts. Beginning January 1, 2028, manufacturers and businesses will no longer be allowed to use BPA in receipts, with a full phase-out of all bisphenol chemicals by January 1, 2029. These chemicals have been linked to detrimental health issues for women and children, which are known to cause reproductive, developmental, and behavioral harm. By removing bisphenols from

²⁰ Tyskhotska, O., et al. (2026) *Assessment of Pergafast 201 absorption and metabolism in viable human skin: A comparative study with bisphenol A and bisphenol S*, Environment International. <https://www.sciencedirect.com/science/article/pii/S0160412026001492>

²¹ Washington Department of Ecology (2022) *Regulatory Determinations Report to the Legislature: Safer Products for Washington Cycle 1 Implementation Phase 3*, Publication 22-04-018. <https://apps.ecology.wa.gov/publications/documents/2204018.pdf>

²² Maffini, M. V., et al. (2023) *Advancing the science on chemical classes*, Environmental Health <https://link.springer.com/article/10.1186/s12940-022-00919-y>

receipts, this legislation helps reduce daily exposure to toxic substances and prevents contamination in recycling and composting systems – prioritizing health, safety, and environmental responsibility for all Californians.”

Protecting cashier health. AB 1604 takes a strong approach to protecting the health of cashiers who are currently exposed to bisphenols at their workplace. By prohibiting bisphenols as a chemical class in receipts, AB 1604 avoids a piecemeal approach which would have allowed other bisphenols to replace the commonly used BPA. Additionally, AB 1604 includes language precluding other harmful substitutes, such as chemicals identified either by the federal or the state government as being carcinogenic or endocrine disrupting. Additionally, safer and cost-effective alternatives already exist in the form of digital receipts.

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

According to the Senate Appropriations Committee:

- The Department of Toxic Substances Control (DTSC) estimates ongoing costs of about \$999,000 in fiscal year 2027-2028 and \$979,000 annually thereafter (Toxic Substances Control Account [TSCA]) to develop and implement compliance and enforcement activities that would be required by this bill. These costs would be borne by TSCA, which may require an increase to the Environmental Fee. Based on DTSC’s current assumptions, the fee would need to be increased by less than 1% to generate sufficient revenues to support the increase in expenditures.

SUPPORT: (Verified 8/20/2026)

Breast Cancer Prevention Partners (co-source)
Californians Against Waste (co-source)
350 Bay Area Action
350 Contra Costa Action
A Voice for Choice Advocacy
Active San Gabriel Valley
Alliance of Nurses for Healthy Environments
American Nurses Association - California
American Sustainable Business Network
Ban Single Use Plastic (SUP)
Between the Waters
Beyond Plastics
Blue Ocean Warriors
California Black Health Network

California Climate Action Now!
California Communities Against Toxics
California Health Coalition Advocacy
California Nurses for Environmental Health and Justice
California Product Stewardship Council
Calpirg, California Public Interest Research Group
Clean Earth 4 Kids
Clean Water Action
Climate Reality Project, Los Angeles Chapter
Climate Reality Project, Orange County
Community Environmental Council
Courage California
Earthday.org
Ecology Center
Endangered Habitats League
Environmental Working Group
Facts: Families Advocating for Chemical & Toxics Safety
Friends Committee on Legislation of California
Glendale Environmental Coalition
Global Alliance for Incinerator Alternatives
Green America
Green Science Policy Institute
Healthy Children Project, INC.
I'm Hoi Strategies
Just Zero
Learning Disabilities Association of America
Mendez Law
National Association of Environmental Medicine
Natural Resources Defense Council
Nontoxic Neighborhoods
Northern California Recycling Association
Pacific Environment
Physician and Scientist Network Addressing Plastics and Health
Physicians for Social Responsibility - Los Angeles
Physicians for Social Responsibility - San Francisco Bay
Plastic Pollution Coalition, a Project of Earth Island Institute
San Francisco Baykeeper
Santa Cruz Climate Action Network
Save the Albatross Coalition
Sunrise Bay Area

The Keep a Breast Foundation
The Last Beach Cleanup
The Last Plastic Straw
The Story of Stuff Project
Toxic Free Future
Trillium Asset Management
West Berkeley Alliance for Clean Air and Safe Jobs
West Marin Environmental Action Coalition
Worksafe
Yosemite Rivers Alliance
Zero Waste Ithaca
Zero Waste San Diego

OPPOSITION: (Verified 8/20/2026)

California Restaurant Association
Cinema Association of California
Golden Gate Restaurant Association

ASSEMBLY FLOOR: 70-2, 5/26/26

AYES: Addis, Aguiar-Curry, Ahrens, Alanis, Alvarez, Arambula, Ávila Farías, Bains, Bauer-Kahan, Bennett, Berman, Boerner, Bonta, Bryan, Calderon, Caloza, Carrillo, Chen, Connolly, Davies, Dixon, Elhawary, Ellis, Fong, Gabriel, Garcia, Gipson, Mark González, Hadwick, Haney, Harabedian, Hart, Hoover, Irwin, Jackson, Johnson, Kalra, Krell, Lee, Lowenthal, Macedo, McKinnor, Nguyen, Ortega, Pacheco, Papan, Patel, Patterson, Pellerin, Petrie-Norris, Quirk-Silva, Ramos, Ransom, Michelle Rodriguez, Rogers, Blanca Rubio, Sanchez, Schiavo, Schultz, Sharp-Collins, Solache, Soria, Stefani, Valencia, Wallis, Ward, Wicks, Wilson, Zbur, Rivas

NOES: DeMaio, Tangipa

NO VOTE RECORDED: Castillo, Flora, Gallagher, Jeff Gonzalez, Lackey, Muratsuchi, Celeste Rodriguez, Ta

Prepared by: Alyssa Poletti / E.Q. / (916) 651-4108

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