
SENATE COMMITTEE ON ENVIRONMENTAL QUALITY

Senator Allen, Chair

2021 - 2022 Regular

Bill No: AB 1201
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Version: 6/23/2021
Urgency: No
Consultant: Rylie Ellison

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Fiscal: Yes

SUBJECT: Solid waste: plastic products: labeling: compostability and biodegradability

DIGEST: This bill expands content and labeling requirements for compostable plastic.

ANALYSIS:

Existing law:

- 1) Declares that it is the public policy of the state that environmental marketing claims should be substantiated by competent and reliable evidence to prevent deceiving or misleading consumers about the environmental impact of plastic products. (Public Resources Code (PRC) §42355.5)
- 2) Prohibits the sale of a plastic product that is labeled “compostable” or “home compostable,” unless it meets certain American Society for Testing and Materials (ASTM) standard specifications, the OK Compost HOME certification, as specified, or a standard adopted by the Department of Resources Recycling and Recovery (CalRecycle), or unless the plastic product is labeled with a qualified claim for which CalRecycle has adopted a relevant standard, and the plastic product meets that standard. (PRC §42357)
- 3) Prohibits the sale of a plastic product that is labeled as “biodegradable,” “degradable,” “decomposable,” or implies that the plastic product will break down, fragment, biodegrade, or decompose in a landfill or other environment, except as specified. (PRC §42357)
- 4) Requires a manufacturer or supplier to provide a person, upon request and within 90 days of the request, easily understandable and scientifically accurate documentation of compliance with the requirements above. (PRC §42357)
- 5) Authorizes CalRecycle to review a new standard developed by ASTM or any other organization for labels “compostable” or “marine degradable” and to

make recommendations to the Legislature if CalRecycle determines the new standard is more protective of public health, public safety, and the environment, and consistent with state policies. (PRC §42356.1)

- 6) Authorizes the sale of commercial agricultural mulch film labeled “soil degradable” if CalRecycle has adopted the European Committee for Standardization’s appropriate standard specification or an equivalent or more stringent standard and the commercial agricultural mulch film is certified to meet both the specification and the ASTM standard specification for compostability. (PRC §42357)
- 7) Defines “plastic product” as a product made of plastic, alone or in combination with other material. (PRC §42356)
- 8) Imposes a civil liability of \$500 for the first violation of the statutes related to marketing of plastic products, \$1,000 for the second violation, and \$2,000 for the third and any subsequent violation. (PRC §42358)
- 9) Requires CalRecycle to, by July 1, 2020, convene a Statewide Commission on Recycling Markets and Curbside Recycling, and, by January 1, 2021, to issue policy recommendations to achieve market development goals and identify products that are recyclable or compostable. (PRC §42005.5)

This bill:

- 1) Prohibits a person from selling a plastic product in California that is labeled with the term “compostable” or “home compostable” unless the product satisfies all of the following:
 - a) Has a certification from the Biodegradable Products Institute (BPI), the Compost manufacturing alliance, or another third-party certification entity that is approved by CalRecycle as specified, for meeting compostability and toxicity standards;
 - b) On and after January 1, 2026, is an allowable organic input under the requirements of the United States Department of Food and Agriculture (USDA) National Organic Program (NOP) and the California Department of Food and Agriculture (CDFA) Organic Input Material Program. The director may grant a five-year extension for complying with this requirement if has or will soon be:
 - i) Included on the National List of Allowed and Prohibited Substances for the NOP; or,

- ii) Included as an allowable organic input for compost under federal law.
 - c) Does not include intentionally added perfluoroalkyl or polyfluoroalkyl substances (PFAS); and,
 - d) Is labeled in a manner that clearly distinguishes the product from a noncompostable product upon quick inspection by consumers and solid waste processing facilities, and, where possible, that includes the word “compostable,” an approved third-party certification mark, and the use of green or brown colors.
- 2) Authorizes CalRecycle to adopt regulations for plastic product labeling to ensure that plastic products labeled “compostable” or “home compostable” are clearly distinguishable from noncompostable products upon quick inspection by consumers and solid waste processing facilities. In adopting regulations, CalRecycle may consider the plastic product labeling requirements of other states, stakeholder input, and industry-standard guidelines to maximize consistency, when possible.
- 3) Allows CalRecycle to include requirements that plastic products are not designed, pigmented, or advertised in a manner that is misleading to consumers.

Background

- 1) *Compostable plastic*. Compostable plastic is different from biodegradable plastic. Both materials break down into their organic constituents, however they may require different processes to do so. Biodegradable plastic means it will decompose by the action of living organisms, usually microbes, whereas compostable plastic must biodegrade into soil conditioning material (i.e. compost) under a certain set of conditions. Compostable plastics should also not contain any toxic materials that would contaminate the finished compost. Almost all compostable plastics are biodegradable, but not all biodegradable plastics are compostable.

The most common compostable plastic products are “biobased” (i.e. made from plants or microbes). Some varieties currently in use are polymers produced from plants or bacteria. These include polylactic acid (PLA), usually made from corn sugar and can be used in plastic films, bags, thermoform cups and containers, and polyhydroxyalkanoate (PHA), made from bacterial fermentation of plant starch and can be used to make foodware, as well as for

several medical uses like sutures and gauzes. There are also biomass-based plastics made with starch and cellulose from crop residues or wood. It should be noted that not all bioplastics are biodegradable or compostable. There are also fossil fuel-based plastics that are compostable.

Composting requires a strict control of environmental factors, including higher temperatures, pressure and nutrient concentration, and aeration. There are also several different types and levels of sophistication of composting, ranging from at-home backyard static piles to industrial composting plants. Often, compostable plastics do not break down as easily as food waste and require more industrial composting that can grind down the plastics or use more extreme conditions to degrade material at a faster rate.

- 2) *Compostable plastic standards.* California's labeling requirements for compostable plastic were crafted to ensure that environmental marketing claims are accurate and do not mislead consumers. Prior to the state adopting standards in 2004, plastic with misleading claims of biodegradability and compostability were widely marketed to consumers, even though the material does not break down in the environment. These materials are also not recyclable and are instead a contaminant when mixed with recyclable plastic waste. The Legislature has enacted numerous bills that attempt to prevent misleading environmental marketing claims and ensure that the materials we use can be properly managed, including banning the use of terms like "biodegradable" for plastic products and requiring plastics labeled "compostable" to meet the widely accepted ASTM standards for compostability.

ASTM is an international standards organization that develops and publishes consensus technical standards. ASTM has adopted over 12,000 voluntary standards for a wide range of materials, products, systems, and services. ASTM standards include two for compostable plastics. For plastics designed to be composted in industrial compost facilities (D6400), and for paper and other products coated in plastic or other polymers designed to be composted in industrial compost facilities (D6868), the standards provide consistency and clarity for consumers and producers who want to ensure that their products are compostable.

- 3) *Federal law.* The FTC broadly prohibits unfair and deceptive acts or practices in advertising. To aid marketers in avoiding making environmental claims that mislead consumers, the FTC issued "Green Guides," which states that "a marketer claiming that an item is compostable should have competent and reliable scientific evidence that all the materials in the item will break down

into, or otherwise become part of, usable compost (e.g., soil-conditioning material, mulch) in a safe and timely manner (i.e., in approximately the same time as the materials with which it is composted) in an appropriate composting facility, or in a home compost pile or device.”

- 4) *Third party verification.* There are several independent companies that certify compost according to a robust set of standards. BPI and the Compost Manufacturing Alliance are two examples. According to their websites, BPI is a “science-driven organization that supports shifting to a circular economy by promoting the production, use, and appropriate end of life management for materials and products that are designed to fully biodegrade in specifically biologically active environments,” and the Compost Manufacturing Alliance is a “leader in providing industrial composting facilities an acceptance standard for compostables by performing field disintegration testing through several prominent processing methods to ensure products sent to industrial compost facilities adequately break down within the production cycle.” To be certified by either, the product must demonstrate compliance with ASTM D6400 and/or D6868. Both have a policy that organic fluorinated chemicals, such as PFAS, cannot be intentionally added and/or present. Products may need to meet additional requirements for certification, such as:
 - Not intentionally include carcinogens, mutagens, or reproductive toxins, and trace amounts must be below 0.1% by weight; and,
 - Substances identified as persistent, bioaccumulative, and toxic, as specified, shall not be intentionally added or exceed 0.1% by weight.
- 5) *Organic standards.* CalRecycle’s 2010 Assessment of Compost and Mulch Infrastructure estimated that more than half of the state’s compost is applied to agriculture lands, with a large fraction used in organic agriculture. Organic inputs, such as compost, that are suitable for use in organic production in California are required to meet USDA NOP standards and be registered as an Organic Input Material with the CDFA. The NOP standards specify what substances are suitable feedstocks for compost that can be applied to crops and soil in organic agricultural production. Currently, compostable plastic is not an allowable food waste and green waste input for compost.
- 6) *Perfluoroalkyl and polyfluoroalkyl substances (PFAS).* PFAS are a class of chemicals characterized by highly stable carbon-fluorine bonds that are used to make fluoropolymer coatings and products that resist heat, oil, stains, grease, and water. These coatings are commonly used in food packaging, such as in fast-food wrappers, paper cups, microwave popcorn bags and take-out containers. PFAS are a concern because they do not break down in the environment, can move through soils and contaminate waterways, and

bioaccumulate in fish and wildlife, which is why they are often called “forever chemicals.”

PFAS chemicals can also accumulate and persist in the human body. Several PFAS chemicals have been linked with several adverse health effects, including pregnancy-induced hypertension/pre-eclampsia, liver damage, increased cholesterol, increased risk of thyroid disease, decreased antibody response to vaccines, increased risk of asthma diagnosis, increased risk of decreased fertility, and small decreases in birth weight. The main route of exposure to PFAS is through ingestion, by eating or drinking contaminated food or liquid or swallowing contaminated household dust. The Centers for Disease Control (CDC) includes testing for PFAS in its National Report on Human Exposure to Environmental Chemicals, which includes biomonitoring data gathered since 1999 on participants in the National Health and Nutrition Examination Survey. The CDC scientists found PFAS in “nearly all” of the participants tested, indicating widespread exposure to PFAS in the United States population.

Comments

- 1) *Purpose of Bill.* According to the author, “AB 1201 ensures that California’s compost stream is safe from harmful chemicals and that what is labeled as compostable actually is compostable. A majority of compostable packaging is currently sorted then disposed of in landfills. Californians are paying higher costs for their food to come in compostable containers and even more for their waste collector to sort these erroneously marked materials, only to end up in the landfill rather than a compost facility. This practice also results in higher environmental costs. It’s crucial that claims of compostability reflect the realities of the infrastructure where these products are managed and that we do not allow harmful “forever chemicals” to impact our health through the compost process.”
- 2) *Cleaning up the waste stream.* Several laws have been passed in California in the last decade encouraging a transition to either fully recyclable or fully compostable plastic products. There has been a boom in companies developing compostable food packaging to meet this demand. However, not all are equally compostable or biodegradable. These have been followed by new laws to ensure that products meet standards of compostability and are labelled correctly so they are disposed of properly. However, the standards are imperfect. Composting technology has advanced since the adoption of these standards and material can be processed more quickly, so thicker compostable items, like utensils, often have to be removed from the finished compost and

landfilled. Furthermore, composting facilities are variable across the state, and many facilities do not have the capacity to break down plastic products. Composting is generally designed to manage organic waste, like yard clippings and food waste, and currently is not the ideal management option for plastic waste, even if it is technically compostable.

AB 1201 adds additional requirements to the existing regulations on compostable plastic, including having a third party verification system and eventual adherence to federal and state organic requirements. This will also help to ensure that products labeled as compostable do not contain potentially harmful chemicals like PFAS that would contaminate the finished compost.

- 3) *What compostable plastics would be accepted?* The addition of the third party certification requirement would narrow the amount of compostable plastic products that are allowed under current law. Products will have to meet additional standards beyond the ASTM standards, such as not including intentionally added PFAS and meeting other toxicity standards.

Currently, the USDA NOP and CDFR organics program do not allow compostable plastic like PLA or PHA as an organic input. AB 1201 was amended to delay this requirement for 5 years or more to give time for these programs to evaluate these plastic products.

- 4) *Labeling requirements.* Municipal compost waste is often contaminated with non-compostable materials. Consumers need to be able to correctly identify when a product should be composted and workers at composting facilities need to be able to quickly assess if plastic is compostable or non-compostable when sorting the material they receive. AB 1201 would require compostable plastic to be labeled in a manner that clearly distinguishes the product from a noncompostable or nonbiodegradable product upon quick inspection. This could be through the use of the word “compostable,” a third party identification mark, and green and brown coloring.

Non-compostable products may mirror some of these traits, which could also be an issue for composting facilities. While non-compostable products cannot be labeled as compostable, they can be green or brown or advertised in other ways that may lead a consumer to think something is compostable. Greenwashing, or making a product look like it is in some way more environmentally sound (e.g. compostable) when it is not, remains a concern. AB 1201 does allow CalRecycle to include requirements that plastic products are not designed, pigmented, or advertised in a manner that is misleading to consumers, which could apply to non-compostable plastic products to address

this problem.

Related/Prior Legislation

AB 2287 (Eggman, Chapter 281, Statutes of 2020) authorized the use of soil degradable agricultural mulch film that meets specified standards.

SB 1383 (Hueso, 2014) would have authorized the Director of CalRecycle to adopt a standard for plastic products that degrade in soil, as specified, and permits the sale of agricultural mulch film plastic that meets that standard. AB 1383 was vetoed by Governor Brown, who stated that the standard for biodegradable agricultural film plastic was not yet finalized.

SB 567 (DeSaulnier, Chapter 594, Statutes of 2011) created the Plastic Products Law under the California Integrated Waste Management Act of 1989, to prohibit a plastic product from being sold that is labeled “compostable,” “home compostable,” or “marine biodegradable” unless the plastic meets certain ASTM standards or another standard that is subject to CalRecycle requirements.

SB 228 (DeSaulnier, Chapter 406, Statutes of 2010) required a compostable plastic bag manufacturer meeting certain standards to ensure that the compostable plastic bag is “readily and easily identifiable” (as defined in this bill) from other plastic bags, in a manner that is consistent with the Federal Trade Commission Guides for the Use of Environmental Marketing Claims.

AB 2147 (Harman, Chapter 349, Statutes of 2006) prohibited persons from selling plastic food and beverage containers labeled as “compostable,” “biodegradable,” “degradable,” or any form of those terms, unless the containers meet certain requirements.

SB 1749 (Karnette, Chapter 619, Statutes of 2004) prohibited persons from selling a plastic bag labeled as “compostable,” “biodegradable,” “degradable,” or any form of those terms, unless the plastic bag meets certain requirements.

SOURCE: California Compost Coalition

SUPPORT:

Agromin
American Refuse
Athens Services
Blt

Breast Cancer Prevention Partners
Burrtec
Cal-waste
California Compost Coalition
California Product Stewardship Council
California Waste Haulers Council
Californians Against Waste
Carts
Center for Environmental Health
City of Long Beach
Clean Fleets
Clean Water Action
Clover Flat
Ecoconsult
Environmental Working Group
Los Angeles County Solid Waste Management Committee/integrated Waste
Management Task Force
Marin Sanitary Service
Monterey Bay Aquarium Foundation
Mrwmd
Mt Diablo Resource Recovery
Napa Recycling and Waste Services
National Stewardship Action Council
Natural Resources Defense Council (NRDC)
Northern California Recycling Association
Nrws
Plastic Pollution Coalition, a Project of Earth Island Institute
Pleasanton Garbage Service
Quackenbush Mountain Resource Recovery & Compost Facility
Recology
Recyclesmart
Refuel
Republic Services - Western Region
Resource Recovery Coalition of California
Rethinkwaste
San Gabriel Valley Council of Governments
Save Our Shores
Seventh Generation Advisors
Sierra Club
Silicon Valley Democratic Club
Soiland Co., INC.
Sonoma Compost
South Bayside Waste Management Authority (sbwma) DbA Rethinkwaste
The 5 Gyres Institute

The Center for Oceanic Awareness, Research, and Education
Thousand Oaks; City of
Tracy Delta Solid Waste Management
Upper Valley
Vision Recycling
Zbest Composting

OPPOSITION:

California Manufacturers & Technology Association
Household and Commercial Products Association

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