# California State Program and Consumer Costs

# From A.B. 2034 Food Safety: Additives and Ingredient Disclosure

Submitted by:

Policy Navigation Group

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# EXECUTIVE SUMMARY

The American Beverage Association (ABA) asked Policy Navigation Group (PNG) to prepare an economic assessment of the costs for the State of California to implement GRAS substance disclosure and safety review legislation.

The California legislature has advanced legislation that would significantly expand state-level oversight of food substances designated as Generally Recognized as Safe (GRAS) under the Federal Food, Drug, and Cosmetic Act. Implementation of the bill will impose substantial near-term costs on state government and households. In Phase 1, we examined the direct state budgetary costs for California to start and to administer the legislation during those years. In this analysis, as companies react to the costs and the incentives in the legislation, prices and quantities of food products in the California market will change. As a large purchaser of products for food assistance and for other state programs, the California government will face higher prices and then must spend more to provide the same level of assistance. In this analysis, we estimate the additional state budget costs from higher food prices caused by the legislation.

The analysis also includes the costs for all other California households and consumers. We divide the costs into two categories. First, there are the uses of real resources like labor and capital for businesses to carry out the tasks to achieve compliance and to resolve actions that are a direct result of the bill's provisions (e.g., litigation). Firms will see to recover these costs through higher prices on consumer products. Second, the bill's requirements will shift the price and the supply of goods in the marketplace. Consumers, including the state government, will shift their purchases in response to less desirable choices. These suboptimal outcomes are also costs.

In this analysis, we consider the consumer and initial losses in sales and in consumer income and satisfaction. Firms in the food supply chain will have $1.8 billion in compliance costs. They will try to pass these costs to consumers through higher prices. At the same time as the prices consumers pay increases, food items will be banned or withdrawn from the California market. These market costs add another $2.4 billion in increased spending on groceries and loss of satisfaction with alternatives. Table ES shows the combined average per household cost for California households. The average household in California will experience an effective price increase of approximately $310 per year due to the legislation's market impacts. This additional cost increases grocery bills by 2.3 percent in the state.

In addition to these direct, financial costs, consumers will suffer non-monetary costs in the form of less satisfaction from the alternative product they must buy and from the fewer amounts of goods they can afford with their budgets.

Table ES: Summary of Annual Household Consumer Costs

| Market Impact | $/family/year |
|---|---|
| Price Increases to Offset Compliance Costs | 130 |

| Market Impact | $/family/year |
|---|---|
| Products Banned or Withdrawn | 180 |
| Evaluation Costs | 1 |

The State of California is also a consumer and purchaser of food to support school meal programs, nutritional assistance programs, and institutional residence programs. It is difficult from state budget documents to isolate spending on food alone from overall spending in every program.

Acknowledging the data limitations that prevent precise calculation for certain key programs and the state shares of senior nutrition, the annual state budget impact from a 2.3 percent food price increase is at least $57 million, rising to approximately $72 million when state prison and other programs with unconfirmed but estimable food budgets are included. Universal meals accounts for the dominant share — roughly two-thirds of the total — with residential services and correctional facilities representing the next most significant components.

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## I. SUMMARY OF THE BILL AND THE COMPLIANCE TASKS

The bill requires ingredient production firms and food producers to spend resources for compliance. They must report their use of certain ingredients to remain on the market. Food producers must also submit a list of ingredients used in their products. We summarize the specific compliance costs and the type of real resources required for compliance.

### 1. Compliance Activities

Food ingredient and food item producers will be the primary organizations that will submit notices on ingredients covered by the legislation. These firms could be located throughout the world. Based on the bill's language, they will take the following action for compliance:

- **Data Gathering**. Food ingredients and food producers must submit the statutorily-required information in a notice to be able to continue to sell food items in the state. As discussed below, these firms are likely to gather some of the required data and analysis from suppliers, testing laboratories, and external experts. This effort will require labor and possibly financial resources to purchase data and analysis like dietary consumption estimates.

- **Ingredient and food manufacturers may distribute these costs in different ways**. Purchasers of ingredients may expect their suppliers to absorb the costs. Food producers may form third-party consortia or compliance groups to share market sales and product formulation data without triggering market collusion charges. Different groups may form for the same ingredient due to competitive factors. These expected transaction costs add to the real response cost of the data gathering.

- **Prepare, Review, and Submit Reports**. Once this data is gathered, the food ingredient and food producers must assemble, verify, and send the notice and ingredient list to the state. This action will require internal company labor. If there is a consortium preparing the report, there may be multiple reviews within several companies. A key part of the report preparation will be to seek the maximum protection of trade secrets allowed by the bill.

- **Address State Questions and Claims**. Due to the ambiguity in the bill text and the uncertainty in how state agencies will interpret or expand the requirements through regulation and enforcement, some firms are likely to be asked to amend their initial reports. Responding to state comments will likely require both labor and some data purchases or exchanges.

- **Maintain Records**. To show compliance, firms must allow the state to review and to request the supporting information. Firms must therefore maintain the information in

their notice for as long as they sell items in California. This activity requires capital equipment and company labor or payments to maintain this data at a third party.

- **Defend Against Litigation**. While the bill does not explicitly allow third parties to sue to enforce its provisions, litigants can allege harm if a company's product is technically deemed "unsafe" due to noncompliance with the bill's requirements. Noncompliance could be triggered by the actions of another entity; for example, if an ingredient manufacturer does not submit an adequate notice, the food producers using the ingredient could be out of compliance. Defending against these claims will have real costs. This litigation threat expands the information a prudent firm would retain. Companies may spend labor and capital resources to keep to information on shipments, on ingredient use for each lot, on the ingredient suppliers for each lot, and on other data. Preparing defenses against these claims will require labor resources.

### 2. Summary of Report Contents

The bill requires reporters to provide the same data and analysis that the U.S. Food and Drug Administration (FDA) requires for FDA review of a self-determined GRAS determination. The report's required content can be divided into several categories:

- Information about the ingredient manufacturer;
- Information about the substance's use in food items and the occurrence in the diet of the U.S. population;
- Information about the manufacturing process of the substance and its origin and standard of identity and the history of its use;
- Information about the safety of the substance; and,
- Justification for the GRAS determination.

## II. SUMMARY OF THE MARKET IMPACTS AND COSTS

In addition to costs to complete these compliance tasks, firms will lose several sources of revenue if the bill is enacted. Consumers will also bear additional costs as they spend time and greater resources identifying and purchasing alternatives. Changing consumer and producer behavior will change the food service marketplace in California. In this analysis, we concentrate on the grocery market. The five ways the grocery market may or will change are the following:

1. If the state agency fails to make notices available in the public database in a timely manner, the food producer is banned at least temporarily from distributing affected items with that ingredient for sale.

2. If firms experience delays setting up notifications and certifications through the food distribution system, retailers may refuse to accept products without sufficient certifications. Retailers' actions then will reduce availability for consumers.

3. State agencies may move to ban or to restrict the use of certain ingredients after reviewing the submitted notices, ingredient lists, and associated safety and exposure information.

4. Faced with the compliance costs and litigation and trade secret loss risk, some food producers will conclude that it is less expensive to leave the California market rather than to comply with the legislation.

5. As producers and retailers pass the costs of their compliance to consumers in the form of higher prices, consumers will cut back their total food purchases. Overall food sales will fall in California State as consumers respond to higher prices due to this bill's provisions.

To understand this latter category, recall that prior to any change due to the legislation, consumers have their favorite products that they have selected over time for their price and for the satisfaction they provide. They could buy products without self-determined GRAS ingredients today but choose otherwise. Their choices mean that these products are not these consumers' preference and are inferior in some way. Specifically, the alternative products "cost" more, where cost could be a higher purchase price, less desirable features (e.g., taste, shelf-life), less availability, or some combination of all of these deficiencies. Changing the availability of a product is undesirable and has the same effect as if the price of the good increased – i.e., the purchase provides less satisfaction.

After the law takes effect, products containing any restricted ingredients will no longer be available in California. Consumers then must choose among several options for their new purchasing decision. First, this change causes consumers to spend time researching and evaluating alternative products. Second, consumers respond to this effective price increase in three ways. They can pay to switch to a similar product without the ingredient that typically costs more. They can decide the alternative is not worth the price and reduce their purchases. Finally, they can decide to spend resources to evade the restrictions by buying the goods out of state or through shipments from other jurisdictions. The five market changes will increase consumer costs and lower product choices in California. We will quantify some of these changes in Section IV.

## III. ASSUMPTIONS AND DATA

To estimate the compliance costs and the market impacts, the analysis gathers data about the food supply chain, the reporting requirements, and the implementation timing. Each of these inputs to the analysis are described below.

## 1. Universe of Regulated Entities

### *Food Ingredient and Food Producers*

We gather the number of establishments from the 2022 Economic Census prepared by the U.S. Census Bureau.[1] We use the same NAICS sectors that FDA identified as covered by its Substance Generally Recognized as Safe Final Rule regulatory impact analysis.[2] These firms are listed in Table 1. We assume that all U.S. firms that make ingredients have at least one ingredient that is used in the California market.[3] Table 1 shows the number of firms with greater than 100 employees since the bill exempts firms with fewer employees from compliance.

Table 1: Number of Potential Ingredient Manufacturers

| Category | NAICS Code | Total Establishments | Firms with 100+ Employees |
|---|---|---|---|
| **Basic Chemical Manufacturing** | 325100 | 2,250 | 142 |
| **Other Chemical Product and Preparation Manufacturing** | 325900 | 2,060 | 273 |

To allocate compliance costs, we divide the food ingredient and manufacturing sectors into two groups:

1. Large businesses that sell numerous items at the national level; and,
2. Smaller companies that sell items at the national or at the regional level. While smaller, these companies are larger than the small business exemption in the California bill.

Each group follows a different path for compliance.

[1] U.S. Census Bureau, "2022 Economic Census" (2022).

[2] U.S. Food and Drug Administration, Substances Generally Recognized as Safe: Final Rule, Final Regulatory Impact Analysis, Docket No. FDA-1997-N-0020 (2016).

[3] We recognize that food manufacturers may buy ingredients from foreign companies. While some ingredients may be imported, we assume that the domestic food manufacturer or the domestic distributor of the imported ingredient would submit the reports to the Commissioner.

**Large Businesses**. We expect large businesses to prepare and to submit reports or to prepare draft reports ready for submission as a fallback if ingredient manufacturers fail to file reports in a timely manner.

**Smaller Companies**. For these companies, the costs of gathering the data to file a report could be prohibitively expensive. Therefore, they are likely to adopt one of many possible strategies to wait until the conditions allow them an affordable path to compliance. First, they could submit a report that, while likely insufficient or missing required data, allows them to continue selling this ingredient in food items. Second, they could sell large quantities of their product prior to the deadline, offering to store the product at distribution centers until the retailer has space to accept it. They will wait for their substances to be listed on the public database before resuming shipments. Third, they could pay to join a coalition that will put together the common data on an ingredient and share the cost with other contributing companies. Through these approaches, smaller companies will then be able to file their own reports for their products at a lower cost. As a result, we expect the initial and the majority of the reports to be filed by large companies.

Table 2: Other Firms in the National and in the California Food Supply Chain

| Category | Name | NAICS Code | Total Establishments | Total Firms | Firms with 100+ Employees |
|---|---|---|---|---|---|
| **Food Manufacturers** | Nonchocolate Confectionery Manufacturing | 311340 | 577 | 505 | 53 |
| | Chocolate and Confectionery Manufacturing from Cacao Beans | 311351 | 280 | 250 | 19 |
| | Confectionery Manufacturing from Purchased Chocolate | 311352 | 973 | 927 | 53 |
| | Frozen Fruit, Juice, and Vegetable Manufacturing | 311411 | 218 | 139 | 44 |
| | Cheese Manufacturing | 311513 | 568 | 410 | 89 |
| | Seafood Product Preparation and Packaging | 311710 | 516 | 435 | 68 |
| | Retail Bakeries | 311811 | 9,219 | 8,628 | 91 |
| | Commercial Bakeries | 311812 | 2,842 | 2,447 | 225 |
| | Frozen Cakes, Pies, and Other Pastries Manufacturing | 311813 | 237 | 192 | 47 |
| | Cookie and Cracker Manufacturing | 311821 | 461 | 375 | 45 |
| | Roasted Nuts and Peanut Butter Manufacturing | 311911 | 267 | 228 | 44 |
| | Mayonnaise, Dressing, and Other Prepared Sauce Manufacturing | 311941 | 376 | 342 | 58 |
| | Perishable Prepared Food Manufacturing | 311991 | 1,032 | 852 | 144 |

## 2. Number of Applicable GRAS Substances and Food Items

This analysis' estimates are drawn from: (1) the Natural Resource Defense Council's (NRDC) 2013/2015 reports 'Generally Recognized as Secret,' which identified 275–398 substances by name from trade press and company communications; (2) the Environmental Working Group's (EWG) 2022 analysis and its 2025/2026 investigation, which identified 100+ additional substances from press releases and grocery product databases; (3) FDA enforcement actions and warning letters; and (4) documented cases of consumer harm (e.g., tara flour, 2022).[4] Estimates of the total number of undisclosed ingredients range from approximately 1,000 (NRDC/EWG industry estimate) to 4,000 to 10,000. As shown in FDA GRAS notification patterns, a substance may see around three or over ten different applications for the same substance.[5] Thus, assuming 1,000 self-determined GRAS substances and a rate of four different uses per substance yields an estimate of 4,000 GRAS substance-use pairs. While this estimate may overstate the number of applicable ingredients and ingredient uses based on the published estimates, it is on the low end of the estimated range and thus could underestimate costs.

### Distribution of Use Pairs in Food Categories

These substance-use pairs could be found in thousands of food products. There are over 550,000 individual food items for sale at U.S. grocery stores, according to NielsenIQ.[6] The Nielsen data comes from measuring millions of individual retail transactions at almost all U.S. stores, including major chains such as Walmart, Whole Foods Market, Amazon, independent

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[4] Thomas G. Neltner et al., "Conflicts of Interest in Approvals of Additives to Food Determined to Be Generally Recognized as Safe: Out of Balance," *JAMA Internal Medicine* 173, no. 22 (2013): 2032–36, https://doi.org/doi:10.1001/jamainternmed.2013.10559; Natural Resources Defense Council, *Generally Recognized as Secret: Chemicals Added to Food in the United States* (2014), https://www.nrdc.org/resources/generally-recognized-secret-chemicals-added-food-united-states; Tom Neltner and Maricel Maffini, *Generally Recognized as Secret: Chemicals Added to Food in the United States* (Natural Resources Defense Council, 2014), https://www.nrdc.org/sites/default/files/safety-loophole-for-chemicals-in-food-list.pdf; Olivia Backhaus and Melanie Benesh, *Almost All New Food Chemicals Greenlighted by Industry, Not the FDA* (Environmental Working Group, 2022), https://www.ewg.org/news-insights/news/2022/04/ewg-analysis-almost-all-new-food-chemicals-greenlighted-industry-not-fda; Melanie Benesh and Maricel Maffini, *Secret GRAS: How 100+ Food Chemicals Bypassed Government Safety Review* (Environmental Working Group, 2026), https://www.ewg.org/research/secret-gras-how-100-food-chemicals-bypassed-government-safety-review.

[5] U.S. Food and Drug Administration, "GRAS Notices," March 18, 2026, https://hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=GRASNotices.

[6] NielsenIQ (NIQ), "NIQ for Grocery Brands."

retailers, online stores. Nielsen divides all grocery items into 740 food categories like “almond milk” or “sour cream.”

To determine the likelihood that affected ingredients are in Nielsen food categories, we start by examining groups of common food items. To estimate the groups of food products that are likely to contain one of these substance-pairs, we analyzed the available public and proprietary information on the use of all GRAS substances, not just self-determined GRAS ingredients.

One source of data is from the Flavor and Extract Manufacturers Association (FEMA). The organization has formed expert panels to review flavorings and extracts for human consumption.[7] These substances do not appear in the FDA GRAS Notification Inventory and no 'no questions' letter has been issued for them. FEMA-reviewed substances occupy a unique middle ground: they have been disclosed and have received independent expert review but have not undergone a review by a U.S. government agency. The FEMA use-level tables publish each substance’s approved use level in FEMA’s 34 standardized food categories. The 34 FEMA categories are: Baked Goods, Beverages Type I (Non-Alcoholic), Beverages Type II (Alcoholic), Breakfast Cereals, Cheeses, Chewing Gum, Condiments and Relishes, Confections and Frostings, Egg Products, Fats and Oils, Fish Products, Frozen Dairy, Fruit Ices, Gelatins and Puddings, Granulated Sugar, Gravies, Hard Candy, Imitation Dairy Products, Instant Coffee and Tea, Jams and Jellies, Meat Products, Milk Products, Nut Products, Other Grains, Poultry Products, Processed Fruits, Processed Vegetables, Reconstituted Vegetable Protein, Seasonings and Flavors, Snack Foods, Soft Candy, Soups, Sugar Substitutes, Sweet Sauces.

[7] Flavor and Extract Manufacturers Association. "About the FEMA GRAS Program." April 2026. https://www.femaflavor.org/gras.

Table 3 presents, for each major food group, estimated counts of self-determined GRAS substances broken into two columns: (1) the FEMA GRAS flavor substances; and, (2) non-FEMA self-declared substances. The last column identifies significant food items for each category. From this data, we develop a count of how many GRAS substances are likely to be used in the FEMA food category.

Table 3: Estimates of Self-Determined GRAS Substances in Key Food Groups

| Food Category | Est. FEMA GRAS Flavor Substances (industry panel-reviewed, not FDA) | Est. Non-FEMA Self-Declared Substances | Most Significant Identified Examples / Legislative Notes |
|---|---|---|---|
| **Baby food / infant formula** | 5–10 | 10–20 | Non-FEMA: precision fermentation-derived lactoferrin (novel hosts), novel HMO preparations, air-based protein (announced 2024). FEMA: minimal; flavor use in infant formula tightly restricted. Legislative note: highest-vulnerability population; disclosure gaps here carry greatest public health risk. |
| **Baked goods** | 150–250 | 15–30 | FEMA: esters (ethyl butyrate, isoamyl acetate), aldehydes (vanillin, benzaldehyde, cinnamaldehyde), ketones (diacetyl, acetoin), lactones, pyrazines, furanones — broadest single-category FEMA use. Non-FEMA: novel enzyme strains (xylanase, asparaginase novel sources), high-dose cinnamon extract, novel leavening acid preparations. |
| **Beer, wine & distilled spirits** | 80–120 | 10–20 | FEMA: terpenes (myrcene, linalool, geraniol for dry-hopped products), furanones, sulfur compounds (dimethyl sulfide), pyrazines. Non-FEMA: novel hop extract preparations beyond brewing specifications, diethyl pyrocarbonate (banned 1972 — historical), novel botanical bittering agents. Legislative note: TTB overlap adds jurisdictional complexity. |
| **Beverages — dairy** | 60–100 | 20–35 | FEMA: lactones (gamma-decalactone, gamma-nonalactone for cream/coconut notes), aldehydes (diacetyl, acetoin), vanilla absolute. Non-FEMA: postbiotics (heat-killed Lactobacillus paracasei), hyaluronic acid, novel fermentation-derived lactoferrin sources, mushroom extract blends in dairy-adjacent functional beverages. |
| **Beverages — non-dairy** | 100–180 | 40–70 | FEMA: esters (ethyl butyrate, hexyl acetate for fruit notes), terpenes (limonene, linalool, valencene), natural complexes (lemon/orange/grapefruit oil), aldehydes (citral, decanal). Non-FEMA: mushroom extract blends (428 products per EWG), adaptogens (ashwagandha, rhodiola), elderberry, green coffee bean extract, butterfly pea flower colorant, guarana extract, hyaluronic acid. Highest self-GRAS concentration of any single food category. |
| **Candy & confections** | 200–300 | 15–25 | FEMA: single highest-use category for FEMA flavors — virtually all flavor types used here; esters dominate (isoamyl acetate, ethyl butyrate, benzyl acetate), plus menthol/carvone for mint, vanillin, fruit aldehydes, lactones. Non-FEMA: |

| Food Category | Est. FEMA GRAS Flavor Substances (industry panel-reviewed, not FDA) | Est. Non-FEMA Self-Declared Substances | Most Significant Identified Examples / Legislative Notes |
|---|---|---|---|
| | | | grape skin extract/anthocyanins, butterfly pea flower color, novel high-intensity sweetener fractions, licorice/glycyrrhizin high-dose. |
| **Canned & processed fruits and vegetables** | 20–40 | 5–10 | FEMA: natural complex restoratives (citrus oils for canned citrus), aldehydes (hexanal for fresh green note). Non-FEMA: stannous chloride beyond asparagus specification, novel botanical antimicrobials, high-dose rosemary extract as preservative. |
| **Cereals, grain-based breakfast foods & granola** | 60–100 | 15–25 | FEMA: pyrazines (2-acetylpyrazine, trimethylpyrazine for roasted note), furanones (furaneol for strawberry/sweet notes), vanilla absolute, maple-type lactones/cyclotene. Non-FEMA: lion's mane/reishi mushroom extracts, adaptogen blends (ashwagandha, bacopa), high-dose curcumin concentrates, novel prebiotic fiber preparations. |
| **Chewing gum & mints** | 40–70 | 5–10 | FEMA: menthol, carvone (d- and l-), cineole/eucalyptol, isopulegol, methyl salicylate, spearmint/peppermint oils — mint/cooling compounds dominate. Non-FEMA: novel polyol sweetener preparations beyond listed specifications, some novel menthol delivery encapsulations. |
| **Condiments, sauces, dressings & marinades** | 60–100 | 10–20 | FEMA: natural complexes (garlic/onion oleoresin, black pepper oil, coriander, cumin, dill), sulfur compounds (diallyl disulfide, dimethyl sulfide), phenolics (carvacrol, thymol, eugenol). Non-FEMA: yohimbine extracts in specialty hot sauces, high-dose botanical antimicrobials (oregano oil, thymol at preservation doses), hydroxylated lecithin as emulsifier, stannous chloride beyond specification. |
| **Dairy products** | 80–120 | 10–20 | FEMA: lactones (gamma-decalactone, delta-decalactone, whiskey lactone), acids (butyric, caproic, caprylic for cheese character), ketones (diacetyl, 2-heptanone for blue cheese), methyl ketones, sulfur compounds (methanethiol, dimethyl sulfide). Non-FEMA: novel enzyme strains (lipase, protease novel sources), postbiotics, novel microbial transglutaminase preparations beyond GRNs. |

| Food Category | Est. FEMA GRAS Flavor Substances (industry panel-reviewed, not FDA) | Est. Non-FEMA Self-Declared Substances | Most Significant Identified Examples / Legislative Notes |
|---|---|---|---|
| **Dietary supplements** | 40–80 | 80–120 | FEMA: esters and natural complexes for masking bitter notes of botanical ingredients. Non-FEMA: the largest non-FEMA self-declared category — virtually all Table 2A botanicals appear here (adaptogens, nootropics, immune botanicals, weight management, hormonal health). Legislative note: this category represents the primary nexus where GRAS pathway is used as DSHEA NDI substitute. |
| **Energy drinks & sports nutrition beverages** | 30–60 | 30–50 | FEMA: esters (ethyl butyrate, isoamyl acetate for fruit flavor masking), citrus terpenes, natural complexes (guarana seed extract for flavor). Non-FEMA: guarana high-concentration extract (stimulant dose), yohimbine/yohimbe (FDA warning letters issued), synephrine (bitter orange), high-dose green tea/EGCG, theacrine. |
| **Fats, oils & shortenings** | 15–25 | 5–10 | FEMA: natural complexes (rosemary, sage oleoresin as flavor antioxidants at low level). Non-FEMA: BHA/BHT in novel delivery/encapsulation formats, octyl gallate, propyl gallate above 0.02% specification, high-dose rosemary extract fractions beyond 21 CFR 182.20. |
| **Fermented foods** | 15–25 | 15–25 | FEMA: minimal direct flavor addition; some natural complexes used in kombucha flavoring (ginger, citrus, lavender). Non-FEMA: novel microbial fermentation strains (exopolysaccharides), postbiotics, novel bacteriocin preparations beyond nisin, novel yeast strains with undisclosed GRAS determinations. |
| **Flavored & specialty/functional water** | 20–40 | 20–35 | FEMA: esters (light fruit notes), citrus terpenes, natural complexes (cucumber, mint, citrus oils). Non-FEMA: mushroom extracts, adaptogen blends, butterfly pea flower colorant, hyaluronic acid, novel botanical infusions (tulsi, lemon balm, passionflower). |
| **Frozen desserts & ice cream** | 80–120 | 5–15 | FEMA: lactones (gamma-nonalactone for coconut, gamma-decalactone for peach), vanillin, benzaldehyde (cherry/maraschino), natural complexes (vanilla absolute, strawberry/raspberry flavor complexes), fruity esters. Non-FEMA: novel fiber preparations, some novel sweetener fractions. |

| Food Category | Est. FEMA GRAS Flavor Substances (industry panel-reviewed, not FDA) | Est. Non-FEMA Self-Declared Substances | Most Significant Identified Examples / Legislative Notes |
|---|---|---|---|
| **Meat, poultry & seafood products** | 60–100 | 5–15 | FEMA: natural complexes (black pepper, garlic/onion oleoresins, sage, thyme), sulfur compounds (diallyl disulfide, methional, 2-methyl-3-furanthiol for meaty note), smoke flavor complexes, pyrazines. Non-FEMA: high-dose rosemary/sage oleoresin fractions at preservation doses, novel antimicrobial botanical blends, sodium lauryl sulfate beyond egg-white specification, novel phospholipase A2 strains. |
| **Pasta & noodles** | 10–20 | 5–10 | FEMA: minimal; some natural complexes in flavored pasta. Non-FEMA: air-based protein (novel noodle applications, announced 2024), novel legume protein isolates, tara flour (banned 2024 after use in pasta/meat applications). |
| **Plant-based meat & dairy analogs** | 30–60 | 20–40 | FEMA: sulfur compounds are critical here — 2-methyl-3-furanthiol, bis(2-methyl-3-furyl) disulfide, methional, dimethyl trisulfide (all for meaty note); pyrazines (roasted character); smoke flavor complexes. Non-FEMA: novel fungal fermentation proteins beyond Quorn GRNs, pea protein novel isolates, air-based protein, precision fermentation collagen, novel transglutaminase strains, fermentation-derived collagen peptides. Fastest-growing category for both FEMA and non-FEMA self-declared use. |
| **Snack bars & nutrition bars** | 60–100 | 30–50 | FEMA: lactones (coconut/caramel notes), pyrazines (roasted/nut notes), vanillin, fruity esters, natural complexes (vanilla, cocoa, coffee flavor complexes). Non-FEMA: lion's mane/reishi/chaga mushroom blends, ashwagandha/bacopa adaptogen blends, high-dose curcumin concentrates, green coffee bean extract, novel protein sources (pea isolates, duckweed). |
| **Snack foods** | 80–130 | 10–20 | FEMA: pyrazines dominate (2-acetylpyrazine, trimethylpyrazine for roasted/potato notes), sulfur compounds (2-methyl-3-furanthiol, methional for savory), ketones (diacetyl for butter), natural complexes (cheese flavor complexes, BBQ-type complexes). Non-FEMA: high-dose curcumin/turmeric concentrates as colorant/flavor, novel antimicrobial botanical coatings, asparaginase novel strains for acrylamide reduction. |

| Food Category | Est. FEMA GRAS Flavor Substances (industry panel-reviewed, not FDA) | Est. Non-FEMA Self-Declared Substances | Most Significant Identified Examples / Legislative Notes |
|---|---|---|---|
| **Soups, broths, gravies & sauces** | 60–100 | 10–20 | FEMA: sulfur compounds (dimethyl sulfide, dimethyl trisulfide, 2-methyl-3-furanthiol, methional for savory/meaty depth), pyrazines, Maillard-type furanones, natural complexes (onion/garlic oleoresins, celery seed, black pepper). Non-FEMA: novel enzyme strains (protease, alpha-galactosidase), high-dose botanical antimicrobials, novel exopolysaccharide thickeners. |

The next steps are to use this distribution of all GRAS uses across these food groups to the distribution to project the distribution of self-determined GRAS ingredients across these food groups. Then we must allocate the ingredient estimates for each food group to the 740 Nielsen food categories. For each food group we estimate the distinct, non-FDA-reviewed, self-determined GRAS substances plausibly present across products in that group. We draw from two public sources:

- FEMA GRAS food use categories (GRAS 32, May 2024); and,
- The Environmental Working Group's (EWG) 2026 "Secret GRAS" analysis.

Each Nielsen category maps to one or more of these FEMA categories. Where a Nielsen category maps to one FEMA category cleanly (e.g., CHEWING GUM → Chewing Gum), we assign the FEMA substance count to the Nielsen category. When a Nielsen category maps to a fraction of a FEMA category (e.g., WHEAT BREAD is a subset of Baked Goods), we apply a fraction that reflects the overlap between the Nielsen and the FEMA categories. The fraction will be based on one of four categories:

- Full coverage (1.0): The Nielsen category encompasses essentially the entire FEMA category;
- Major subcategory (0.3–0.5): The Nielsen category is a major but partial slice;
- Minor subcategory (0.05–0.2): The Nielsen category is a narrow slice; or,
- Zero: Whole commodity or non-flavored product where flavor ingredient use is negligible.

The EWG report provides product counts for 49 confirmed self-determined GRAS substances in the USDA Branded Foods Database, a database that is developed using Nielsen data. The food type descriptions in the EWG table (e.g., green tea extract appearing in "energy and granola bars, yogurt, water, candy...") help with our assignment to the applicable food category. We take the EWG product counts along with the corresponding food categories. We use these specific product counts within specific product categories to construct a "non-FEMA self-GRAS signal" for each Nielsen category — the count of EWG-identified substances that appear in products belonging to that Nielsen category.

Table 4 below distills the 740 Nielsen categories to 26 categories that both (1) have an estimated occurrence of numerous self-determined GRAS ingredients; and, (2) contain a large number of food products (as measured by UPC counts) and significant retail sales. These categories are not exhaustive. Our objective is not to identify all possible uses in all food items, but to create a large sample population of food products that could contain a covered GRAS substance for projections.

Table 4: Distribution and Estimated Occurrence of Self-Determined GRAS Ingredients in Certain Food Categories

| Nielsen Category | Total UPCs | Total US Sales ($/year) | Est. # Self-GRAS (Non-FDA-Reviewed) Substances |
|---|---|---|---|
| Breakfast Sausage | 1,235 | $ 3,040,398,840 | 341 |
| Cake | 34,720 | $ 6,558,629,927 | 780 |
| Cheese Snacks | 1,221 | $ 2,645,972,115 | 390 |
| Chocolate | 20,689 | $ 17,290,719,104 | 811 |
| Complete Meal | 10,158 | $ 7,855,403,151 | 243 |
| Confection | 22,752 | $ 9,073,843,155 | 1,337 |
| Cookies | 20,860 | $ 12,393,881,376 | 584 |
| Dips | 10,237 | $ 5,340,166,228 | 433 |
| Energy Beverages | 2,846 | $ 9,227,946,200 | 462 |
| Frozen Novelty | 4,726 | $ 7,563,595,759 | 588 |
| Fruit Drink | 7,560 | $ 8,224,934,777 | 518 |
| Gum | 1,589 | $ 2,395,617,647 | 1,282 |
| Ice Cream | 9,389 | $ 7,984,411,677 | 723 |
| Liquid Coffee Creamer | 982 | $ 5,186,323,650 | 320 |
| Liquid Tea | 2,623 | $ 4,383,167,628 | 400 |
| Main Course | 8,158 | $ 2,750,477,591 | 198 |
| Packaged Lunchmeat | 4,891 | $ 8,139,123,162 | 264 |
| Potato Chip | 5,315 | $ 8,723,029,186 | 450 |
| Regular Bagels | 2,081 | $ 1,652,914,818 | 120 |
| Ready-to-eat (RTE) Cereal | 5,620 | $ 9,580,681,302 | 563 |
| Sandwich Bread | 7,086 | $ 8,924,781,217 | 192 |
| Sandwiches | 24,790 | $ 6,882,238,703 | 258 |
| Soft Drinks | 9,261 | $ 34,705,663,376 | 666 |
| Soft Shell Tortilla | 2,821 | $ 4,095,961,174 | 168 |
| Sport Drinks | 1,117 | $ 5,960,803,748 | 420 |

| Nielsen Category | Total UPCs | Total US Sales ($/year) | Est. # Self-GRAS (Non-FDA-Reviewed) Substances |
|---|---|---|---|
| Tortilla Chip | 2,504 | $ 6,961,291,348 | 396 |

## Estimated Number of Food Items Containing Covered GRAS Substances

By definition, it is impossible to know the number of food items containing self-determined GRAS ingredients. Estimates in the literature or from available data suffer with significant limitations. There are problems with using the numbers as the estimate of the number of affected products. The categories listed in Table 4 are only a subset of the 740 Nielsen categories. There will likely be self-certified GRAS compounds that are used in multiple food categories. A food item also may have more than one affected ingredient.

Recognizing this fundamental uncertainty, we draw upon our analysis of food marketing practices as observed in the Nielsen data to put forward some conjectures to construct our estimate. This approach is likely to underestimate the number of affected food items. We hypothesize that the distribution of GRAS ingredients across different food items is not likely to be random. Food manufacturers may develop a recipe, choose these ingredients for a food item, and then offer varieties of the same product as separate food item. The food manufacturer may offer the same product/brand in different packaging sizes, with different flavors, in different combinations with other food products/brands, in different preparation levels, and in other varieties. Therefore, each substance-use pair could be part of multiple food items within a product "family." Cookie brands, like Oreos, for example are offered with different levels of flavors, filling amounts, colors, large and small sizes, single-serving sizes for lunches, and other varieties. From the Nielsen data, a product family can have 10 or more different variations, all with almost the same ingredients.

We also observe from detailed analysis of product ingredients that (1) recipes can differ significantly among comparable food items; and, (2) a food producer can make many food items that are marketed under different private labels (i.e., a store brand). From our observations we concluded that we cannot assume that every item in a food category has a ingredient if one of them uses the ingredient. In addition, as with varieties of a single item, a food recipe could appear in many individual food items if part of a store's brand.

From these observations, it appears more appropriate to extrapolate up from the number of uses (i.e., substance-pair) rather than from food categories. For this analysis, we assume that each substance-pair is found in ten food items on average, leading to an estimate of 40,000 food items affected by the California legislation. This estimated total is less than ten percent of the approximately 550,000 food items for sale in U.S. grocery stores.

### Estimated Number of Food Items Subject to Ingredient Disclosure

Firms selling food items in California that contain ingredients not listed on the food nutrition label must submit a list of all ingredients to the state by July 1, 2027. The bill exempts food producers that sell less than $1 million in total food product sales.

In its regulatory impact analysis for the National Bioengineered Labeling standard, the United States Department of Agriculture (USDA) estimated that 20,000 UPCs would have sales below that action's small business cutoff of $2.5 million in sales. This estimate would imply that more than 500,000 UPCs have national sales above $2.5 million per year.

Other estimates give different estimates. Using NielsenIQ data, approximately 550,000 food items are sold in U.S. grocery stores during the time period from November 2024 to November 2025. We took a convenience sample of approximately 250,000 items and examined the product description and their reported sales.

First, we exclude food items in categories that seem unlikely to have added ingredients, categories names for specific fruit or vegetables (e.g., "cantaloupe," "broccoli") and specific meat and fish. Excluding these categories reduces the number of potential food items with unlisted ingredients to approximately 220,000, or 13 percent lower.

Second, we examine national sales of these UPCs. Only approximately 6,500 UPCs had U.S. sales above $1 million per year in this sample, or 2.6 percent of the items in the sample. Reducing the 550,000 total U.S. UPCs by 13 percent and then taking 2.6 percent of the remainder gives an estimate of 12,000 UPCs that are expected to have total sales above $1 million and thus subject to the ingredient disclosure provision.

## 3. Timing

This analysis examines the expected near-term costs to California's state budget spending and to consumer spending. These costs will likely occur within the first year to five years after the possible effective date of the legislation. For example, as market prices adjust to reflect the higher costs to sell food in California, state purchasing costs will rise and will place more demands on the state budget starting in the year after the legislation is effective.

The analysis also examines the near-term impact on consumers. Firms spend resources to comply with the report requirements and lose revenue from withdrawing banned products from California's market. The legislation's proposed marketplace changes shock consumers' current purchasing choices and firms' product lines and production levels. Consumers and producers shift to alternatives that are available today using existing technologies, ingredients, and capital equipment. Over the medium and the long-run, these consumer choices will change. Firms will innovate, develop new production methods, and thus potentially reduce compliance costs. Achieving these innovations requires additional investments in capital and in labor. Those future investments and their market effects are beyond the scope of this analysis.

## IV. COMPLIANCE COSTS

With this data and assumptions, we can estimate the real resources of capital and of labor necessary to carry out compliance with the California legislation. We first estimate the compliance costs for food ingredient manufacturers and food producers and then the costs for other firms in the supply chain.

Firms must gather the data for the reports, review and file the reports, respond to any questions about their submissions, pay assessed fees, maintain records, and respond to litigation alleging noncompliance. The cost of each of these compliance activities is estimated below.

### 1. Data Gathering

The costs to gather the required data will vary substantially based on several factors:

- **Complexity of the ingredient's chemical, physical, and biological characteristics**. Examples in Table 3 include organic and inorganic compounds, active microorganisms, deactivated microorganisms, and other substances. A large organic molecule could have multiple modes of action in the body. Alternatively, some self-determined GRAS substances may be close genetic modifications of a well-studied GRAS substance and thus are well understood.
- **Availability of the data**. All manufacturers will have some data to support their GRAS determination. Firms may have assembled the data recently for submission to regulatory bodies in other jurisdictions. However, since the California reporting elements are substantial, not all of the required data may be available.
- **Volume and use of the ingredient**. The more common and widely used an ingredient, the more likely the requisite data is readily available.
- **Timing of the GRAS determination**. Data is more likely to be available for more recent determinations than those determinations made decades earlier.
- **Sole Reporter or Consortium**. All this information may not be held by a single firm. Therefore, to comply, firms are likely to arrange to buy, to obtain, to contract, or to research the necessary information. They may also come together to share information in a consortium. The greater the number of entities coordinating the report, the more likely the costs will increase.

Trade journals report that preparing a voluntary notification to FDA of a GRAS determination can cost between tens of thousands of dollars and hundreds of thousands of dollars.[8] These reports confirm this variability in existing data and in ingredient complexity.

To represent this cost range, we classify the reports into three, broad categories to reflect the different levels of effort to fulfill the California statutory requirements:

- **30 percent of the notices can be prepared for $25,000**. This level of effort could reflect many different situations. Producers may have recently made a determination and just need to update their evidence and provide the specific information required by the legislation. The producer may have recently updated their evidence for submission to another jurisdiction and must tailor that information for the California requirements. It could also reflect the effort needed to modify an existing determination for a minor modification or a genetic variation.

- **50 percent of the notices can be prepared for $250,000**. We expect most ingredients to require around this level of effort. For ingredients with determinations made more than a decade ago, likely a majority of self-determined GRAS ingredients, their producers are likely to be required to update their evidence using current scientific techniques. For example, the safety investigation now must include a systematic and quality of literature review. In general, producers will update and invest to improve the required safety assessment, dietary survey and analysis, and other technical support to current standards. Other determinations may have some technical information updated to current standards but lack a specific analysis required for the California report (e.g., dietary and total consumption analysis for U.S. subpopulations).

- **The remaining 20 percent of the notices can be prepared for $700,000**. This amount reflects the costs to obtain a substantial amount of new scientific and technical data, to analyze this data, to evaluate the biological effects, and to collect the other required information for the report.[9] This approximate spending level could reflect a GRAS determination made decades ago that requires substantial buttressing and/or that requires significant effort to find older records and scientific evidence. While substantial, this amount is much lower than the costs to conduct a full toxicological assessment of the human health effects of substance.[10]

We expect firms that possess different components of the report to exchange information through commercial transactions with each other or with a third-party hired to allow pooling of confidential business information. Carrying out these transactions has costs over and above

[8] Kate Quackenbush, "Great To Be GRAS," Nutrition Industry Executive, December 1, 2011.

[9] Firms facing this level of data gathering may decide to submit this information to FDA so that they can eventually be exempt from the California law.

[10] U.S. Environmental Protection Agency, "EPA's ToxCast and ExpoCast: Chemical Screening, Better and Faster," EPA Science Matters Newsletter, January 2014.

the minimum amount of labor and capital necessary to produce a report. We assume that transaction costs increase the report's preparation costs by 15 percent.[11]

Using these assumptions, the average notice will cost $313,375. The assumptions in this section introduce an unknown error into the analysis.

### 2. Estimated Number of Notices

Since compliance has certain costs and potential costs from the risks of product bans, restrictions, lawsuits, and negative publicity, some ingredient manufacturers and food product companies may decide that the lowest cost way to comply is to withdraw products/ingredients from the California market. Firms may reach this decision through different considerations: (1) a food producer determines that California sales do not justify filing a notice and disclosing an ingredient list; (2) a food producer chooses not to pay an increased price for an ingredient once the ingredient manufacturer seeks to recoup its compliance costs; (3) the fees to join a consortia are greater than the return on sales; (4) reformulation is possible; (5) the ingredient manufacturer decides to discontinue the product rather than file a notice; (6) the risk of copycat products from the ingredient disclosure is too great; and, (7) many other scenarios.

To decide, firms will compare at a minimum the costs of compliance with the lower net income from lower sales. For example, suppose a company earns a 10 percent profit margin on its sales, has a rate of return hurdle rate of 10 percent and has a time horizon of seven years, and seeks to ensure that it achieves this profit level after the firm prepares a notice and responds to the state's questions. In this scenario, Table 5 gives the annual average sales necessary in California to achieve the target net income.

Table 5: Representative Sales Thresholds in the California Market

| Category | Cost per Notice ($) | Sales Level to Offset Costs (million $/year) |
|---|---|---|
| Simple Notice | 25,000 | 0.08 |
| Moderate Data Collection | 250,000 | 0.8 |
| More Intensive Data Collection | 700,000 | 2.3 |

[11] Lloyd S. Dixon, Deborah Drezner, and James K. Hammitt, Private-Sector Cleanup Expenditures and Transaction Costs at 18 Superfund Sites (Santa Monica, Calif.: RAND, 1993).

If the ingredient manufacturer anticipates a more intensive data collection to file a report under the legislation, assuming the business targets described above, the company would pull its product out of the California market if the sales are less than $2.3 million per year.

The threshold for withdrawing from the market is likely much lower for several reasons. First, we assume most reports will have lower costs than the most intensive data gathering. Second, food ingredient manufacturers may bear most of the costs of the report, diminishing the increased cost to the food producer. Third, if consortia are formed, the cost to the individual food producer will be lower. Fourth, the food producer may use the ingredient in multiple food items.

To consider how companies may decide, we examine a sample detailed product sales data. The sales data is national and scaled to California by California's share of total U.S. grocery sales, 6.1 percent.[12] We draw a sample of over 33,000 food items in certain food categories (the details of the sample selection are described in Section II).

Table 6 gives the food category, the number of UPCs in each food category in the sample, and the estimated number of UPC with California sales above two threshold values, $2.3 million per year and $0.01 million per year. If a company's threshold is $2.3 million in sales per year, only a few food items per category have sufficient sales to justify the costs of compliance. The threshold is lower than this amount if the food producer is concerned about loss of a competitive advantage with the ingredient disclosure. Over 90 percent of products would not justify the cost of the most intensive notice.

Even if the threshold is much lower, $10,000, the number of food items with lower sales volume than this threshold comprises 40-70 percent of the total food items in this sample. The median sales for items below $10,000 in California sales is less than $1,000 for almost all categories. This data implies that it would be rational for companies to withdraw large numbers of individual food items from the California market.

Table 6: Median Annual Sales for UPCs at Two Threshold Values by Food Category

| Row Labels | Count of UPC | UPCs selling >$2.3M | Pct UPCs selling >$2.3M (%) | Median annual sales for UPCs with annual sales <$2.3M | UPCs selling <$10K | Pct UPCs selling <$10K (%) | Median annual sales for UPCs with annual sales <$10K |
|---|---|---|---|---|---|---|---|
| Breakfast Sausage | 144 | 3 | 2.1% | 8,079 | 77 | 53% | $ 35 |
| Cake | 2,604 | 7 | 0.3% | $ 2,035 | 1,765 | 68% | $ 312 |
| Cheese Snacks | 496 | 11 | 2.2% | $ 1,620 | 323 | 65% | $ 15 |
| Complete Meal | 556 | 11 | 2.0% | $ 7,261 | 284 | 51% | $ 3 |
| Confection | 11,647 | 6 | 0.1% | $ 838 | 8,908 | 76% | $ 296 |
| Cookies | 2,902 | 4 | 0.1% | $ 968 | 2,037 | 70% | $ 23 |

[12] U.S. Census Bureau, "Grocery Store Sales in the U.S." (2017 Economic Census); author's calculation of California's share of total U.S. grocery sales.

| Row Labels | Count of UPC | UPCs selling >$2.3M | Pct UPCs selling >$2.3M (%) | Median annual sales for UPCs with annual sales <$2.3M | UPCs selling <$10K | Pct UPCs selling <$10K (%) | Median annual sales for UPCs with annual sales <$10K |
|---|---|---|---|---|---|---|---|
| Dips | 311 | 6 | 1.9% | $ 10,060 | 152 | 49% | $ 894 |
| Energy Beverages | 2,139 | 39 | 1.8% | $ 1,082 | 1,378 | 64% | $ 27 |
| Frozen Novelty | 1,207 | 11 | 0.9% | $ 7,840 | 619 | 51% | $ 81 |
| Fruit Drink | 1,555 | 13 | 0.8% | $ 2,414 | 991 | 64% | $ 162 |
| Ice Cream | 1,385 | 1 | 0.1% | $ 4,108 | 874 | 63% | $ 627 |
| Liquid Coffee Creamer | 223 | 11 | 4.9% | $ 28,821 | 88 | 39% | $ 2 |
| Liquid Tea | 459 | 6 | 1.3% | $ 954 | 322 | 70% | $ 26 |
| Main Course | 169 | 1 | 0.6% | $ 8,596 | 87 | 51% | $ 568 |
| Packaged Lunchmeat | 274 | 2 | 0.7% | $ 27,398 | 108 | 39% | $ 254 |
| Potato Chip | 435 | 4 | 0.9% | $ 1,251 | 283 | 65% | $ 12 |
| Regular Bagels | 82 | 1 | 1.2% | $ 4,198 | 55 | 67% | $ 1,662 |
| Rte Cereal | 1,454 | 20 | 1.4% | $ 804 | 947 | 65% | $ 3 |
| Sandwich Bread | 663 | 18 | 2.7% | $ 11,645 | 302 | 46% | $ 1 |
| Sandwiches | 728 | 8 | 1.1% | $ 2,845 | 468 | 64% | $ 428 |
| Soft Drinks | 2,914 | 73 | 2.5% | $ 2,093 | 1,864 | 64% | $ 248 |
| Soft Shell Tortilla | 407 | 8 | 2.0% | $ 18,719 | 169 | 42% | $ 759 |
| Sport Drinks | 642 | 40 | 6.2% | $ 2,123 | 355 | 55% | $ 20 |
| Tortilla Chip | 480 | 17 | 3.5% | $ 485 | 305 | 64% | $ 5 |

However, once again there are other considerations when interpreting this data. The individual food items could be variants of a brand such as a different size or flavor of the main product. They could also reflect private label items with a common recipe that is marketed across multiple stores. In these cases, the individual food items are part of a larger family which, as a whole, justifies the effort to file a report for a self-determined GRAS ingredient. Smaller volume food items may also systematically have less frequent occurrence of self-determined GRAS ingredients since the low sales potential does not support optimization of shelf-life, appearance, and other characteristics.

Although this sample data would support a larger percentage of food products assumed to be withdrawn from the California market, we assume 10 percent of affected products are at least temporarily withdrawn. Based on the assumption of 10 food items per product pair, the number of products at least temporarily withdrawn from the California market is assumed to be 4,000.

We also assume that large food producers will prepare, and potentially submit, duplicative notices on their ingredients to ensure sales continue, to protect trade secrets, and to avoid litigation challenges. Due to the short deadline to file, food producers may take steps to

prepare a draft report in case the ingredient manufacturer falls short. Producers may not share trade secrets with a consortium or an ingredient producer profit-maximizing firms to invest in a potentially duplicative effort. Duplicative reporting could yield several thousand submitted notices or draft duplicate notices. We assume that duplicative notices and draft notices comprise an additional 50 percent of the estimated number of 3,600 submitted, for a total of 5,400.

Table 7 gives the cost to gather the data for the notices and to pay transaction costs. Overall, the total costs would approach $1.6 billion in one-time compliance costs to gather the data and to prepare reports. This estimate rests on key assumptions concerning the number of self-determined GRAS substances, the number of duplicative or notices reports submitted, and the incremental effort to meet the legislative requirements for the report.

Table 7: Report Preparation Costs

| Category | Cost per Report ($) | Estimated Number of Reports | Cost (million $) |
|---|---|---|---|
| Simple Report | 28,750 | 1,620 | 47 |
| Moderate Data Collection | 287,500 | 2,700 | 780 |
| More Intensive Data Collection | 805,000 | 1,080 | 870 |

### 3. Prepare, Review, and Submit Reports

The bill requires a person with a senior position in the company to certify several times that the information submitted is accurate, a legal determination that exposes the company to the risk of fines and to loss of market access. Therefore, submitting a notice requires multiple layers of review in a company, including technical, administrative, legal, and managerial.

We adopt the approach FDA assumed in its "Substances Generally Recognized as Safe Final Rule" final regulatory impact analysis.[13] To estimate the financial costs and financial savings from shifting from a formal petition process to a notification, FDA assumed that firms would spend at least 170 hours, split equally between administrative staff and compliance staff.[14] We use the average Bureau of Labor Statistics hourly labor rate for California (excluding California City) loaded with a multiplier of 1.3 to account for nonwage benefit compensation. The proposed California process is more like FDA's notification process since, in both cases, the regulatory agency does not give explicit approval before marketing can occur.

[13] U.S. Food and Drug Administration, Substances Generally Recognized as Safe: Final Rule, Final Regulatory Impact Analysis, Docket No. FDA-1997-N-0020 (2016).

[14] U.S. Food and Drug Administration, Substances Generally Recognized as Safe: Final Rule, Final Regulatory Impact Analysis, Docket No. FDA-1997-N-0020 (2016).

Since a key part of the report preparation will be to identify trade secrets and to seek the maximum protection allowed by the bill, we add additional time for legal review to FDA's estimate. We assume this review comprises 10 percent of the hours of other staff, or 17 hours per report. The approximately $50 million costs for notice review would occur in the first year after the legislation is passed.

Table 8: Notice Review Costs

| Labor Category | Hourly Wage ($) | Estimated Hours per Notice | Cost (million $) |
|---|---|---|---|
| Administrative Staff | 24 | 85 | 14.5 |
| Compliance Officer | 47.5 | 85 | 28.8 |
| Legal Staff | 47.50 | 17 | 5.8 |

### 4. Address State Questions and Claims

Due to multiple interpretations of the regulatory requirements and the uncertainty in how the state will interpret or expand the requirements, many firms are likely to miss the state's expectations in their first notice submission.[15] Further, as commission staff review the initial manufacturers' filings, they will find some deficiencies and define more precisely the information they are seeking. We assume that 30 percent of the first year's submissions are rejected and require two reviews by state staff. This rate falls to 10 percent in subsequent years as the state increases its education efforts, the state's computer systems improve, and companies learn the requirements. We assume that an average response requires 30 percent of the initial cost. We further assume that the state's questions are concentrated in the costliest notices. These costs would occur in the second year after the legislation is passed.

Table 9: Summary of Costs to Respond to State Issues with Notices

| Activity | Cost (million $) |
|---|---|
| Respond to State Issues | 68 |

[15] For example, FDA reported that by the end of 2015 it had sent 17 "insufficient basis letters" and 97 "cease to evaluate letters" for human-food GRAS notices during its Interim Pilot program. U.S. Food and Drug Administration, Substances Generally Recognized as Safe: Final Rule, Final Regulatory Impact Analysis, Docket No. FDA-1997-N-0020 (2016).

### 5. Maintain Records

As part of the notice, firms must allow the state to review and to request the supporting information. Firms must therefore maintain the information. Food producers will also retain records as a defense against potential litigation. Since suppliers and customers already maintain records for commercial purposes, the incremental costs of the additional recordkeeping caused by this legislation must be considered carefully. In addition, to support a GRAS determination and to maintain compliance in other jurisdictions, food companies already must currently store and maintain records.

FDA wrestled with a similar question as part of its rulemakings on food traceability.[16] In these rulemakings, FDA layered specific data tracking and recordkeeping requirements for a few food items/categories on the existing commercial recordkeeping system. The California legislation creates a similar incentive to capture shipment information throughout the supply chain as part of its existing commercial recordkeeping system that would allow a company to defend against a claim that it sold or shipped an "unsafe" food item.

FDA took the following approach to estimate the additional recordkeeping costs:

> To estimate the recordkeeping costs of the rule, including frequency of recordkeeping and the average time spent keeping records for covered foods by record type, we consulted estimates that ERG [Eastern Research Group] elicited from external food industry experts [reference omitted]. Experts expressed a high degree of uncertainty regarding the time burden per record across activities. In general, experts provided estimates of manual entry times in minutes while conveying in supplemental comments that scanning using an electronic system would take seconds. As experts also estimated the proportion of industry that currently keeps records mostly manually, we scaled estimated times they provided by the proportion of industry with electronic recordkeeping capabilities in order to account for baseline practices in estimating the incremental burden of the rule. Our estimates of time burden per record therefore represent averages between manual and electronic recordkeeping weighted by the baseline prevalence of these practices.[17]

Specifically, FDA used the following estimates of the time required for manual and electronic recordkeeping:

> As explained in the beginning of section II.F.5, we scaled experts' estimates of manual entry times by the proportion of industry they estimated to have electronic

[16] U.S. Food and Drug Administration, Requirements for Additional Traceability Records for Certain Foods (Proposed Rule) Regulatory Impact Analysis, Docket No. FDA-2014-N-0053 (2020); U.S. Food and Drug Administration, Requirements for Additional Traceability Records for Certain Foods (Final Rule) Regulatory Impact Analysis, Docket No. FDA-2014-N-0053 (2022).

[17] U.S. Food and Drug Administration, Requirements for Additional Traceability Records for Certain Foods, Final Regulatory Impact Analysis, Docket No. FDA-2014-N-0053 (2022), pp. 130–131.

recordkeeping capabilities in order to account for baseline practices in estimating the incremental burden of the rule. Our estimates of time burden per record therefore represent averages between manual and electronic recordkeeping weighted by the baseline prevalence of these practices. For our primary estimates, we thus estimate that about 60 percent of small and large businesses will keep records manually at about two minutes per record, while the remainder will scan records at about 2.5 seconds per record.[18]

For the recordkeeping at the ingredient and food producer locations, we measure the shipments out of the food producer and the distribution centers. We use that estimate to project the incoming shipments from food manufacturers. According to the International Foodservice Distributors Association (IFDA), the overall food distribution industry delivers approximately 12 billion cases annually in the United States.[19] Averaged over the year, this amount is roughly 33 million cases per day moved from warehouses to commercial kitchens, retail stores, and grocery stores. The estimated number of annual shipments just to grocery stores in the United States is roughly 200 million to 250 million, a fraction of total shipments since there are so many restaurants and other food service locations.

The frequency of deliveries is determined by the volume and perishability of the goods:

- **Primary Distribution Center Deliveries**: Large grocery stores typically receive three to five full truckload shipments per week from their primary wholesaler or corporate distribution center. For the approximately 63,000 grocery stores in the U.S., this rate accounts for roughly 10 million to 16 million major inbound shipments annually. While many of these food items could have a self-determined GRAS ingredient, many of these shipments comprise fresh fruits, vegetables, fish, meat, and other perishables.

- **Direct Store Delivery (DSD)**: A significant portion of grocery items that could be affected by this legislation (e.g., soda, dairy, snacks, bread, and beer) are delivered directly from food company-specific distribution centers. A single store may receive 20 to 50 DSD deliveries per week from various vendors, totaling over 100 million annual shipments nationwide.

We then gather information about California deliveries. There are approximately 13,675 grocery stores and supermarkets currently operating in California. This total includes a wide range of retail formats, from large-scale national chains to small independent stores with only one location.

Based on this data, California supermarkets are 12.8 percent of all U.S. supermarkets and thus proportionately receive nearly 29 million shipments per year. From the analysis found in Section II, we assume that 40,000 food items of the total 550,000 separate foods items sold in the U.S. contain a self-determined GRAS item, or approximately seven percent. If seven

[18] Ibid., p 143.

[19] International Foodservice Distributors Association, "Industry Facts."

percent of the 29 million shipments are lots of goods with self-determined GRAS items, then two million lots would require additional recordkeeping.

The retail shipment estimate becomes the upper bound of the number of shipments from food producers to warehouses and distribution centers. We depart from the FDA estimate and assume that electronic scanning is the norm at food manufacturers. Assuming an administrative wage rate and 2.5 seconds per lot, the additional recordkeeping costs are approximately $0.05 million per year.

### 6. Conduct Specific Compliance Demonstrations and Lawsuit Costs

In the first few years as companies come into compliance and there is likely to be a lag between report submission and report posting on the public database, we expect there will be numerous incidences of technical noncompliance. If activists or plaintiffs conduct their own investigations, we would expect some claims that retailers are technically distributing unsafe food under the legislation. Each claim will require a response effort.

We assume ten claims in the first three years, falling to three in subsequent years. We assume that each claim only affects one food producer, one warehouse, and one transportation firm. We divide the response labor into two parts, identifying the applicable records and preparing a legal defense. We use FDA's estimate of the hours spent to provide information to the agency for food-born illness outbreak that the agency used its recent final food traceability regulatory analysis.[20] FDA assumed that each organization would spend 16 hours of technical labor per request to assemble the data on shipments. This effort is relatively minor compared to other compliance costs.

We expect legal fees to defend against claims to be the largest costs. Assuming two defendant for each lawsuit filed and that the allegations are settled before trial, we assume each defendant pays $50,000 in legal fees per lawsuit. For the first three years when there are 10 lawsuits per year and three respondents per lawsuit, the annual cost would be $1.5 million.

#### Conduct Specific Compliance Demonstrations

In the first few years as companies come into compliance and there is likely to be a lag between report submission and report posting on the public database, we expect there will be numerous incidences of technical noncompliance. If activists or plaintiffs conduct their

[20] U.S. Food and Drug Administration, Requirements for Additional Traceability Records for Certain Foods, Final Regulatory Impact Analysis, Docket No. FDA-2014-N-0053 (2022), pp. 142–143.

own investigations, we would expect a significant number of initial claims that retailers are distributing unsafe food. Each claim will require a response effort.

As in the food producers estimate, we assume ten claims in the first three years, falling to three in subsequent years. Since the claims will be made about a food product, multiple retailers or locations within a company could face the same lawsuit. For these reasons, we expect the legal fees to be higher than those on the producer, warehouse, or distribution company. We assume $250,000 of legal fees per lawsuit, or a total cost of $2.5 million in the first three years.

## 7. Compliance Costs for Ingredient Disclosure

As with the notice filing, food producers must gather the information, review it, submit it to the state, and respond to any state inquiries. In addition to this initial activity, firms must provide new disclosures if ingredients are added to, modified, or removed from the food product. Firms must file a new ingredient list if the product's label has been revised to include all ingredients.

An estimated 12,000 UPCs have sufficient sales to require ingredient disclosure in California. Since the information will be available to the company, the compilation time is assumed to be two hours for administrative staff and 0.25 hours each for legal and compliance staff per UPC. This compliance activity will cost $1.8 million in direct compliance costs.

## 8. Summary of Compliance Costs

Table 10 below summarizes the estimated compliance costs for the food production and for the distribution and retail network for the first year if the legislation becomes law in California. These costs would exceed $1.8 billion.

Table 10: Summary of First Year Compliance Costs

| Category | Total Cost (million $) |
|---|---|
| Data Gathering | 1,700 |
| Prepare and Submit Reports | 50 |
| Address State Questions | 68 |
| Maintain Records | 0.05 |
| Compliance Demonstration | 2.5 |

| Category | Total Cost (million $) |
|---|---|
| Ingredient Disclosure | 1.8 |
| **Total** | **1,800** |

## V. MARKET COSTS

In addition to the legislation's demand to direct capital and labor form productive actions to compliance actions, the legislation will change the retail and the food service markets. Disrupting consumers' preferences and preferred purchases has social cost. Section II outlined the six market changes that may or would occur in California markets if this legislation becomes law. Two of these changes would occur if the state agency or reporting firms fail to meet the law's deadlines. It is customary in policy analysis to assume perfect compliance with a law or regulation. Therefore, while we do not estimate any costs due to imperfect execution of compliance actions, we note that they could come to pass in the real world and cause higher costs than these estimates. The remaining four market effects will cause two principal market changes that will increase costs to California consumers:

- General price increases on all affected goods to offset compliance costs; and,
- Product-specific, shifts to less desirable items due to product bans and product withdrawals.

We estimate each of these market effects below and their impact on consumers.

### 1. Household Costs from Expected General Price Increases

Food producers will seek to recover all the compliance costs discussed in previous sections. Producers will increase the price they charge per unit of quantity (e.g., $/oz). While there are many ways to carry out this price increase (e.g., fewer discounts, smaller package size), we model the possible permutations as a simple price increase on existing products.

Due to California's size and population, producers are expected to be able to limit these price increases to California consumers. There may be some minor spill over to adjacent states since products may be distributed from a regional warehouse. We also expect increased prices only on grocery sales. While households purchase significant amounts of food away from home, Table 2 shows that most restaurants and other places serving food are exempt from the bill's requirements. This assumption overstates the bill's consumer grocery bill increase since some large franchises, firms, stadiums, and other venues will also bear compliance costs

and seek to defray these costs through higher prices. Consumers will pay a share of these costs through higher prices at these venues.

Grocery purchases in California are $13,700 on average per year per household.[21] The latest estimate is that California has 13.8 million households in 2024.[22] Using the estimated total compliance costs of $1,800 million in the first year and assuming that producers could pass on all of the compliance costs, households could face a maximum cost from general price increase of $130 per household in the first years of the legislation. This cost would increase the average household's grocery annual expenses by one percent.

The likely household spending increase will likely be slightly smaller than $133 since companies will be generally unsuccessful in passing the full compliance costs to their customers. In the face of rising prices, consumers cut back on their purchases of that good. As a result, instead of a financial cost, consumers are less well off when they consume less or they purchase goods that they value less. In economic terms, the price elasticity of demand – the ratio of the change of the relative price to the change in relative quantity purchased – allows us to estimate how much purchases will fall when prices increase. Most grocery items are pretty inelastic – consumers buy the same amount even if the price increases. The U.S. Department of Agriculture (USDA) has identified a range of estimates of the price elasticity of demand for different goods consumed at home. Using a composite price elasticity value of 0.06 the expected annual financial costs for the average California household will be $130.[23]

### 2. Consumer Costs from Product-Specific Changes

The larger market impact will occur as individual food items are removed from the California marketplace. Consumers will lose access to products due to two consequences of the legislation:

- Voluntary withdrawal of products as a means of compliance;
- Restrictions or bans imposed by state agencies based on the information in the submitted ingredient reports.

In addition, consumers must spend some of their own time to react to these changes and to choose alternatives. These impacts and their associated consumer costs are estimated in this section.

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[21] U.S. Bureau of Labor Statistics, "California: Quintiles of Income Before Taxes, 2022–2023," Consumer Expenditure Surveys.

[22] Ibid.

[23] U.S. Department of Agriculture, Economic Research Service, "Food Consumption & Demand—Food Demand Analysis"; Abigail M. Okrent and Julian M. Alston, The Demand for Disaggregated Food-Away-From-Home and Food-at-Home Products in the United States, Economic Research Report No. 139 (2012).

## 3. Estimated Number of Food Items Banned or Withdrawn from the California Market

In this section, we estimate the number of individual food items that are likely to be no longer available to California consumers.

### Voluntary Withdrawals from the California Market

In Section III above, we estimated that food ingredient manufacturers and food producers would decline to submit 400 ingredients reports due to the compliance costs. Based on the assumption of 10 food items per product pair, the number of products at least temporarily withdrawn from the California market is assumed to be 4,000.

In addition to the GRAS disclosure requirements, the ingredient disclosure may also lead some firms to withdraw their products from the California market. These firms may be concerned with the increased risk of the loss of their trade secrets, not only for the food item with greater than $1 million in sales, but also for other products in the product family (e.g., the same product offered in a different package size) Other firms may temporarily withdraw their products from the California market, reformulate them for the California market, and then reenter the market.

Using the sample of 250,000 products, we observe that approximately 1,000 UPCs of the 6,500 UPCs with sales above $1 million have sales within $0.3 million of $1 million. We expect these products to the ones most likely to be withdrawn from the California market. We assume one-half, or 500 products, are withdrawn due to the increased cost of potential trade secret loss.

### Restrictions by State Agencies

While we cannot be certain if and when the California State government may decide to ban or to restrict significantly certain reported ingredients, we assume that some restrictions are likely within a few years after the reports are submitted. Supporters of the bill also favor bans on certain ingredients.[24] Other prominent interest groups have called for bans or for restrictions on certain ingredients.[25] Two states, Louisiana and Texas, recently passed state

[24] Center for Science in the Public Interest, "The California Food Safety and Chemical Disclosure Act" fact sheet (2025).

[25] Environmental Working Group, "A Baker's Dozen of Food Chemicals the FDA Should Ban Next," January 15, 2025; Center for Science in the Public Interest, "5 Food Ingredients California and New York Could Soon Ban," August 1, 2023.

product labeling laws that require new labels on food items with certain GRAS ingredients.[26] Finally, the state could decide to align its actions to match actions by other public health agencies that have banned certain GRAS ingredients.[27] We assume that, in the first five years of the legislation's implementation, the state will ban or significantly restrict four ingredients that causes the remove of 160 food items from the marketplace.

### Summary

Combined the three actions are expected to cause the elimination of approximately 4,700 food items from sale in California over the first five years after the legislation is effective.

Table 11: Summary of Market Costs from Food Items Banned or Withdrawn from the California Market

| Activity | Number of Food Items |
|---|---|
| Voluntary Withdrawals | 4,500 |
| State Restrictions | 160 |
| **Total** | **4,700** |

## 4. Price Difference between Banned/Withdrawn Food Items and Alternatives

As discussed above, there is a lot of fundamental uncertainty on how a specific ingredient ban could change food item availability. We do not know which food items contain self-determined GRAS items. We do not know which ingredients California State could choose to ban. We also do not know which food products would then either be removed from sale in the state or be reformulated to use non-banned ingredients.

In the face of this fundamental uncertainty, we apply the law of large numbers, more formally known as the central limit theorem. If we gather a large enough population of products with different prices and with different ingredients, the population's characteristics will match the characteristics of a specific sample drawn from that population. Even though the sample has a different frequency of a characteristic (i.e., containing a GRAS ingredient) than the population, the larger the sample, the lower the difference between the sample description and the population descriptor. In this case, we are trying to identify the price and

[26] Texas S.B. 25, 89th Leg., R.S. (2025); 2025 Regular Session Enrolled Senate Bill No. 14 (La. 2025).

[27] U.S. Food and Drug Administration, "FDA to Revoke Authorization for the Use of Red No. 3 in Food and Ingested Drugs," January 15, 2025; European Medicines Agency, "Reflection Paper on the Use of Methyl- and Propylparaben as Excipients in Human Medicinal Products for Oral Use," noting that from 2006 propylparaben was no longer allowed as a food additive in the European Union.

sales of 5,424 items within an estimated 40,000 food items that is in a population of at least 550,000 food items.

We assume that products certified as organic represent products without self-determined GRAS ingredients. To be certified as organic, a food item's ingredients must generally be reviewed and listed by the National Organic Standards Board (NOSB). While products labeled as organic can have some non-organic ingredients, the non-organic ingredients must be on National List of Allowed and Prohibited Substances.[28] Therefore, if the self-determined GRAS ingredient has not been disclosed or listed, it cannot be used in an organic product.

Organic products usually are an available choice to consumers. Thus they could form readily available alternatives if the consumer's preferred product is banned. For example, if red velvet cake mix uses Red Dye No. 3 and is banned, consumers may shift to an organic red velvet cake mix. The price difference between the conventional cake mix (that is banned) and the organic red velvet cake mix is an example of the market effect of the proposed legislation.

We measure the cost of these market changes through consumer's willingness to pay for products without self-determined GRAS substances. Consumers freely express their preferences today in their current grocery and food purchases and will be free to react to the mandated changes in the price, the quantity, and the quality of those choices stemming from the California law. As HHS states in its guidance for regulatory analysis:

> The second is that individuals can be modeled as deriving utility (well-being) from the goods and services they consume. If an individual chooses to buy a good or service, economists conventionally assume (consistent with consumer sovereignty) that he or she values the good or service more than the other goods or services he or she could have used that money to buy. Thus an individual's willingness to exchange perceives from their consumption. The monetary value of a risk reduction is appropriately measured by determining the change in wealth that has the same effect on utility as the risk reduction. [29]

We use an extremely large sample of recent, individual consumer purchases in the United States by which consumers can maximize their well-being. In these very large markets, consumers currently express their willingness to pay (WTP) by choosing products either with or without listed ingredients and thus maximize their well-being. As OMB states:

> Market prices provide rich data for estimating benefits and costs based on willingness-to-pay if the goods and services affected by the regulation are traded in well-functioning competitive markets. The opportunity cost of an alternative includes the value of the benefits forgone as a result of choosing that alternative. The opportunity cost of banning a product -- a drug, food additive, or hazardous chemical -- is the

[28] U.S. Department of Agriculture, Agricultural Marketing Service. "The National List of Allowed and Prohibited Substances." 7 C.F.R. pt. 205, subpt. G (2024).

[29] US Department of Health and Human Services: ASPE, "Guidelines for Regulatory Impact Analysis," sec. 3.1.1.

forgone net benefit (i.e., lost consumer and producer surplus ) of that product, taking into account the mitigating effects of potential substitutes.[30]

In the analysis, consumers forgo some benefits as the legislation directly or indirectly bans their preferred products. By being required to choose an alternative, the difference in price between their current choices and the alternative measures their reduction in consumers' WTP through these real market transactions, the richest and most accurate measure of opportunity costs.

We have grocery price and sales data for hundreds of thousands of individual items for a 12-month period from November 2024 to November 2025 in the United States.[31] We scale the national sales data to estimate California sales. We review tens of the thousands of products for both conventional and organic food items. We must normalize each food item since food is sold in different package size. Once we normalize the sizes and find comparable products/product sizes, we pair the organic and the conventional products and measure the price difference.

### Assumptions

This approach rests on several key assumptions to allow us to draw upon existing data on actual consumer food purchases, food ingredients, and consumer behavior. The key assumptions are the following:

- **Differences in Prices Between Organic and Conventional Goods Represents the Price Difference Between Food Items with and without GRAS Ingredients**. We assume that food items with an organic certification reflect the price and quality of a product without self-certified GRAS ingredients. Specifically, the average price difference between food items with and without an organic designation is equal to the average price difference between similar products with or without self-certified GRAS ingredients. We chose this organic-conventional product price difference since organic products typically are barred from containing a self-determined GRAS ingredient, since organic product consumers have a greater level of consumer interest in their ingredients and the source of those ingredients, and since organic products are already in the market and available to consumers as alternatives. However, since there are many other requirements for an organic product certification, the cost to be certified organic may be greater than the cost of products that only differ by self-determined GRAS ingredients. In addition, there may be lower priced, conventional products that do not contain a self-determined GRAS ingredient. In general, this assumption may lead to an overstatement of the potential costs.

[30] U.S. Office of Management and Budget, "Circular A-4, Regulatory Analysis," 18-19.

[31] Red Dye 40, Yellow 5, Blue 1, titanium dioxide, DATEM, bleached flour, Yellow 6, Acesulfame K, BHT, and sucralose.

- **The Selected Food Categories are Representative of All Food Products with GRAS Substances**. Table 4 gives the Nielsen food categories that we draw from to compare groups of items. These categories contain over 200,000 individual food items. Self-determined GRAS substances will occur in other Nielsen categories in addition to those listed in Table 4. We assume that the price difference between affected food products in other Nielsen categories is comparable to the price differences we measure in our sample. This assumption creates an unknown bias in our estimate.

- **The Average Quantities Sold of Items within a Food Category Match the Average Quantities Sold of Items with GRAS Ingredients in that Food Category**. Within each food category, we compare the price per unit quantity of conventional items to similar items with an organic designation. In addition to the price difference, we have the quantity purchased nationally of each food item in a category like potato chips. We assume that the average sales of items within the potato chip category represents the average sales of potato chips formulated with self-certified GRAS ingredients. This assumption creates an unknown bias in our estimate.

With these assumptions, we carry out the sampling. We start with the 220,000 items in the 25 food categories in Table 4. Specifically, we gather a large sample (over 21,000) of conventional products and organic products within these categories. For each item we have the national sales in dollars and the average price from hundreds of thousands of actual purchases. We then condense them based on their package size and find pairs, i.e., a conventional and organic product that have the same serving size and only differ in their ingredients. We take the average of each food item in the size category. For example, if there are four, 16 oz red velvet cake mix brands and two organic, 16 oz red velvet cake mix brands, the product pair the average price of the four conventional cake mixes as compared to the average price of the two organic cake mixes. All prices are normalized to price per ounce. These 21,000 products in the sample then are represented in 88 product pairs.

Figure 1: Frequency Distribution of Price Difference Between Conventional and Organic Products

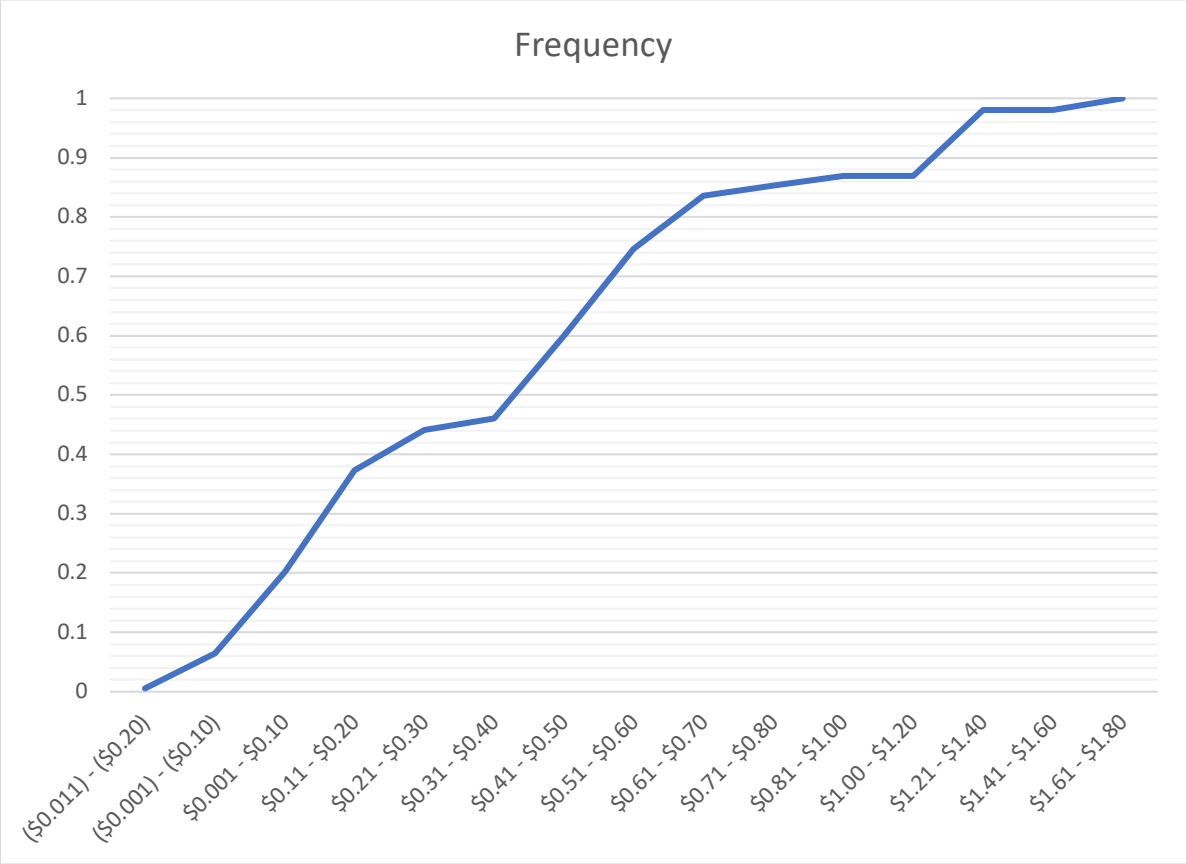


Figure 1 plots the frequency distribution of the 21,000 conventional products and the price difference between those products and the corresponding organic product. For a few percent of the products, organic products are on average less expensive than conventional products. The 50$^{th}$ percentile difference is a little more than $0.40 per oz. At the 95$^{th}$ percentile, the price difference is over $1.20 per oz. From this analysis, our best estimate of the additional amount consumers will pay for the alternatives to the 4,000 products withdrawn from the California market is $0.40 per oz. We also convert this price increase into a percentage increase above the conventional item's average price. The median price increase across the product pairs is 41 percent.

### Costs from Product Bans and Withdrawals

We use the price increase to simulate the market changes. From the sample population of 22,000 items, the estimated average sales in California of a food item is $1.5 million per year. The median price per food item is $6.16. While this price seems high, recall that it is the price that is weighted by the amount sold in different package sizes. Larger package sizes and

their corresponding higher prices pulls the median price higher. Applying the median price increase of 41 percent, the increased cost for households for these products in California is $2,600 million per year.

However, consumers will react to the price increase by reducing their consumption. From USDA data, consumers are more price sensitive to price increases in snack, sugary goods, and fatty goods. If we use a price elasticity range that researchers have measured for these goods (e.g., -1.1), the total market costs for consumers falls to $2,400 million per year.

In addition, we expect around 500 products with total sales just above $1 million to be withdrawn from the California market. Assuming that $0.3 million of the total sales comes from California, consumers would lose an additional value of $150 million per year from this market response.

As compared to California consumers' total spending on groceries, the bans and withdrawals increases spending by four percent, or $180 per household per year.

### 5. Cost of Consumers' Time

To obtain the health benefits proponents believe can come from these bans, consumers must change their purchases. They will only do so after observing the absence of their favored products, weighing different product choices, and evaluating the alternative product after they purchase it. This effort takes time; this time has an opportunity cost. Consumers spending more time purchasing food items have less time to spend on childcare, home maintenance, leisure, and other activities.

We note that federal agencies include consumers' time to read and to understand government-mandated provision of information as a regulatory cost. For example, the U.S. Environmental Protection Agency includes the cost of the time for applicators and for workers to read pesticide labels and associated safety information.[32] By enacting The Paperwork Reduction Act, Congress directed agencies to estimate the burden of the agencies' information collections. OMB's implementation regulations define "burden" as

> ***Burden*** means the total time, effort, or financial resources expended by persons to generate, maintain, retain, or disclose or provide information to or for a Federal agency, including:
>
> (i) Reviewing instructions;..[33].

For product switches that must occur due to the ingredient ban or product withdrawal, we assume consumers evaluate a new product the first time they must switch and then only

[32] U.S. Environmental Protection Agency, *Economic Analysis of the Agricultural Worker Protection Standard Revisions*, September 2015.

[33] 5 CFR § 1320.3(b)(1)

spend additional time if they must switch again. This assumption minimizes the time needed to acquire information, to act on it, and the costs of the legislation. We assume consumers make a clear decision the first time they must choose a new product. In reality, since learning and understanding is often an iterative process, this assumption underestimates the time and the cost of these mandates on the consumer.

The analysis draws upon several data sources to conduct the estimates:

- **Number of Consumers that Shop for Groceries**. We start with the U.S. Census estimate for the total number of households in California.[34] We assume only adults purchase significant amounts of groceries for the household. From Census data we estimate the average number of adults (18 years or older) that live in each household in the state. We then subtract those adults who say they never shop. From Census survey data, we subtract the 12.8 percent of U.S. adults that report that they "never" go grocery shopping.[35]

- **Initial Evaluation Time**. We obtain from the academic literature estimates of how long consumers consider label information. Several researchers have conducted observational studies of consumers as they shop.[36] For example, Grunnert et al. observed nearly 10,000 consumers in six European countries and measured the time these consumers considered nutrition information on six categories of products.[37] We use the average value in this study, 35 seconds, for this analysis. We assume that consumers spend this amount of time to conduct an in-store or online evaluation in the first year after the bans and product withdrawals.

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[34] U.S. Census Bureau, *Households and Families: 2012-2016 American Community Survey 5-Year Estimates*, no. S1101 (n.d.), https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?src=bkmk.

[35] The U.S. Department of Labor, Bureau of Labor Statistics' (BLS) American Time Use Survey (ATUS) provides nationally representative estimates of how, where, and with whom individuals spend their time. ATUS measures the amount of time people spend doing various activities, such as paid work, childcare, volunteering, and socializing. The data files include information collected from nearly 245,000 interviews, conducted from 2003 to 2023. USDA's Economic Research Service (ERS) worked with BLS and the U.S. Department of Commerce, Bureau of the Census (Census Bureau) to create the Eating and Health Module (EHM) as a supplement to the ATUS. The EHM was first fielded in 2006–2008, again in 2014–2016, and the latest round in 2022–2023. The 2022–2023 EHM asks ATUS respondents about secondary eating—that is eating while doing another activity considered primary by the respondent—height and weight, physical activity, self-assessed diet quality and health status, USDA food assistance program participation, income, grocery shopping, and meal preparation.

[36] See, for example, Volkova E, Neal B, Rayner M, Swinburn B, Eyles H, Jiang Y, Michie J, Ni Mhurchu C., 2014, Grunert KG, Wills JM, Fernández-Celemín L., 2010, Hammond D, Acton RB, Rynard VL, White CM, Vanderlee L, Bhawra J, Reyes M, Jáuregui A, Adams J, Roberto CA, Sacks G, Thrasher JF., 2023.

[37] Grunert et al., "Use and Understanding of Nutrition Information on Food Labels in Six European Countries," *PubMed* 18 (January 2010): 261–77.

- **Number of Products with Additional Evaluation Time**. Non-peer reviewed marketing studies state that consumers purchase between 250 to 500 unique grocery items per year.[38] The results of the product ingredient analysis show that approximately one percent of products will be banned. The analysis assumes that consumers initially evaluate alternative products for a total of three to five products.

- **Value of Consumers' Time**. The U.S. Department of Transportation (DOT) has issued a series of guidance documents to value the social gains from more efficient transport.[39] For local personal travel, DOT sets the opportunity cost of travel time at 50 percent of hourly median household income. The estimated 2025 median annual household income in California is divided by the number of adults in the household and by 2,080 hours per year to yield an estimated value of consumers' time of $24 per hour per adult in a household.[40]

### Evaluation Costs in the First and Subsequent Years

In the subsequent years after the bans are implemented and products are withdrawn, the consumers' costs will change for two reasons. First, new adults will start shopping, and some adults will stop shopping. Second, consumers will experience new product restrictions or newly reformulated products to comply with the bill's provisions. We use the following data to estimate the evaluation costs for consumers in the immediate years after the effective dates.

- **Change in Number of Consumers**. Each year the net number of consumer changes as the state's population changes through births, deaths, and migration. We use the average population growth rate from April 2000 to July 2024 for each state to estimate the annual change in the number of adult consumers.

In addition, the value of consumers' time increases as real wages increase over time. Based on recent trends, we assume that real household income increases by two percent per year in each state.[41] We consider the evaluation costs for two years at a discount rate of seven percent. We present the net present value, the annualized amount, and the first year costs.

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[38] Catalina, Engaging the Selective Shopper: Why Today's Consumers Expect Personalization (2013).

[39] U.S. Department of Transportation, Revised Departmental Guidance on Valuation of Travel Time in Economic Analysis (September 27, 2016).

[40] U.S. Census Bureau, California, S1901, 2024 American Community Survey 1-Year Estimates.

[41] U.S. Census Bureau, Real Median Household Income in the United States [MEHOINUSA672N], retrieved from FRED, Federal Reserve Bank of St. Louis.

### Results: Opportunity Cost of Consumer Evaluation Time

Table 12 presents the total costs of consumer evaluation of alternative products. Each adult spends less than 0.03 hours during the first year evaluating the new products and the implications of the effective price increase. The total cost of consumers' time in the first year of the legislation is $8.6 million per year.

Table 12: Consumer Costs Evaluation Costs

| | California |
|---|---|
| Consumers in 2026 | 28,600,000 |
| Products Evaluated by Consumers in the First Year | 3 |
| Products Evaluated by Consumers Every Year | 1 |
| Total Time Spent Per Household to Evaluate Labels/Reformulated Products (hours) | 0.03 |
| Cost of Leisure Time ($/hour) | 24.12 |
| **Evaluation Costs ($ mil/yr)** | $17 |

The average household spends approximately $1.30 per year evaluating new products and making new purchasing decisions.

## VI. COMBINED HOUSEHOLD COSTS

Table 13 below summarizes the per household costs from the two principal market changes and the value of consumer's time spent reacting to the market changes. The average household in California will experience an effective price increase of approximately $310 per year due to the legislation's market impacts. This additional cost increases grocery bills by 2.3 percent in the state.

Table 13: Summary of Household Costs

| Market Impact | $/family/yr |
|---|---|
| Price Increases to Offset Compliance Costs | 130 |
| Products Banned or Withdrawn | 180 |
| Evaluation Costs | 1 |

## VII. CALIFORNIA STATE COSTS

Since California purchases food directly and indirectly, California state programs will also pay costs if the legislation becomes law. This section identifies both the state's direct exposure, where a state agency or state-operated institution purchases and serves food itself, and its indirect exposure, where the state funds reimbursements, benefits, or grants that support food purchases. In the indirect cases, higher food prices could either reduce recipients' purchasing power or increase pressure on the state to raise reimbursement levels or appropriations.

The analysis relies on public agency webpages, budget documents, rate sheets, procurement records, and program fact sheets. Programs were included when the state either appears to purchase food directly through state-operated institutions or support food acquisition indirectly through reimbursements, grants, or benefit programs. Where the public source did not isolate a food-specific amount, a state-only share, or a statewide total, the analysis preserves that limitation rather than inferring a number.

Two assumptions are especially important. First, in indirect programs such as school meals, WIC, CalFresh/SNAP, SUN Bucks, the Summer Food Service Program, the Child and Adult Care Food Program, and senior nutrition, higher food prices do not necessarily show up immediately as a one-for-one increase in state spending. In many cases, the more immediate effect is reduced benefit adequacy or pressure on the state to raise reimbursement or appropriations. Second, in direct institutional programs such as state hospitals, veterans homes, developmental services residential facilities, and correctional institutions, the connection to higher food costs is conceptually stronger, but publicly available line-item food budgets are often limited.

California's clearest and largest state appropriation for food is the $1.937 billion Child Nutrition appropriation in the FY 2025–26 CDE budget, which funds the California Universal Meals Program serving public school students statewide. CDE child nutrition programs served over 885 million meals and snacks in 2024–25. Table 15 shows a mix of large benefit programs and direct institutional purchasers.

Table 14: Overview of Key California State Programs

| Program | Direct or indirect | State funding |
|---|---|---|
| **California State Universal Free Meals** | Indirect | $1.937 billion state Child Nutrition appropriation, FY26 enacted-budget appropriation |
| **California WIC Program** | Indirect | $1.47 billion total program (including $876M federal and $184M in manufacturer rebates) no state General Fund required |

| Program | Direct or indirect | State funding |
|---|---|---|
| **CalFRESH/SNAP** | Indirect | $14.8 billion total; $10.9 million state-funded benefits (May 2024); predominantly federal |
| **SUN Bucks** | Indirect | $464M in food benefits to 3.8M+ children (2025); $73.4M state General Fund for administration |
| **Summer Food Service Program (SFSP)** | Indirect | $90M+; predominantly federal; state administrative role |
| **Child and Adult Care Food Program (CACFP)** | Indirect | State add-on reimbursement of $0.216/meal |
| **Congregate Nutrition Program (Title III C-1)** | Indirect | $60.5 million total (FY 2023-24); federal OAA + state General Fund mix |
| **Home-Delivered Nutrition Program (Title III C-2)** | Indirect | $100.2 million total (FY 2023-24); federal OAA + state General Fund mix |
| **Emergency Food Assistance Program (EFAP)** | Indirect | $7.2M federal (FFY 2016); state Emergency Food Bank Reserve and $497K tax check-off fund |
| **DDS Residential Services** | Direct | $7.255 billion for Residential Services |
| **Department of State Hospitals (DSH)** | Direct | $3.203 billion total (FY 2026-27); food expenditures embedded within $19.6M patient-related OE&E |
| **Veterans Home of California, Yountville** | Direct | $145.6M total (FY 2024-25); 876-885 beds; food costs not separately isolated |
| **Veterans Homes, Greater LA/Ventura cluster** | Direct | $122.4M total (FY 2024-25) |
| **CDCR Food Services** | Direct | $4.31 per-meal allowance |

For public benefits, the California WIC Program has a $1.47 billion spending level and serves approximately one million participants per month. The program is entirely federally financed through USDA discretionary grants and infant formula manufacturer rebates, with no state General Fund match required. Higher food prices would reduce the purchasing power of WIC food benefits for eligible households and could increase administrative pressure on the 84 local agencies through which California delivers the program, but the direct impact on the state General Fund is limited. The purchasing power of those benefits is fixed by the food package rules and only changes when USDA revises the food package regulations, which happens infrequently. WIC's funding is categorized as discretionary, with funding amounts determined entirely through the annual appropriations process. The formula used to allocate NSA grants to state agencies is designed to guarantee states enough money to maintain their

previous year's operating level and caseload, with adjustments for inflation — but the total pot of money available is whatever Congress appropriates. If food prices rise faster than Congress appropriates, states face a squeeze: the same dollar buys fewer participant-months of benefits.

CalFresh, California's version of SNAP, provided benefits to approximately 5.5 million participants across 3.2 million households statewide as of May 2024, with over $14.8 billion in total program obligations. California's state-funded share of benefit issuances is very small — approximately $10.9 million per month against $1.03 billion in federal issuances — meaning the primary fiscal impact of higher food prices on CalFresh falls on benefit adequacy rather than state budget exposure. Furthermore, SNAP benefit levels are based on the cost of the Thrifty Food Plan, and SNAP automatically adjusts benefit levels each October 1 to reflect changes in the cost of food. The maximum benefit for a given fiscal year equals the cost of the TFP as measured in the preceding June. The adjustment is automatic, but it is annual and not continuous. SNAP benefit levels are based on the TFP costs set in June and remain at that level until the following September, meaning that during periods of high inflation this waiting period erodes the real value of the benefit. This inflation adjustment tracks broad food price movements across the whole economy, not a price increase attributable to any specific regulatory cause. If the bill causes manufacturers to pass compliance costs through as higher grocery prices for products in California, that price increase would eventually be partially captured in the national TFP COLA — but diluted across all foods nationally and with up to a 15-month lag (a price increase today would not be reflected in benefits until October of next year).California also maintains the California Food Assistance Program, which provides state-funded food benefits to approximately 60,000 legally present noncitizens not eligible for federal SNAP, at an annual cost of roughly $135 million.

SUN Bucks delivered approximately $464 million in food benefits to over 3.8 million children during the 2025 summer period, with the state contributing $73.4 million in General Fund for outreach, automation, and administration from the 2024 Budget Agreement. California's senior nutrition programs add two further identified programs: the Congregate Nutrition Program (Title III C-1), with $60.5 million in total program funding serving over 204,000 participants at approximately 800 community dining sites, and the Home-Delivered Nutrition Program (Title III C-2), with $100.2 million in total program funding serving approximately 128,000 participants. Both programs draw on a mix of federal Older Americans Act funds, state General Fund, local contributions, and voluntary participant contributions; the state-only share is not isolated in publicly available documents.

On the direct institutional side, California's Department of Developmental Services carries the largest identified food-proximate budget. The FY 2026–27 Governor's Budget identifies $7.255 billion for Residential Services — the component most directly tied to settings where food is a required element of 24-hour residential care. A food-specific line item is not isolated within this amount. The Department of State Hospitals, which operates five facilities and serves over 7,500 patients daily, has a total FY 2026–27 budget of $3.203 billion; foodstuffs are embedded within a $19.6 million patient-related operating expenses line that also includes utilities, pharmaceuticals, and outside medical costs, so a stand-alone food figure cannot be extracted from public sources.

The Veterans Homes of California provide direct long-term care across multiple facilities. Yountville, the largest, had total funding of $145.6 million in FY 2024–25 at approximately 876–885 beds. The Greater Los Angeles/Ventura County cluster — which includes the West Los Angeles, Lancaster, and Ventura facilities — had combined total funding of $122.4 million in the same period. Food costs are not separately identified within these facility budgets, though all homes provide three meals daily plus snacks and maintain dedicated nutritional services staff. The California Department of Corrections and Rehabilitation operates an institution food services program across its facilities with a documented meal allowance of $4.31 per individual; a statewide aggregate food expenditure is not publicly isolated in the reviewed sources.

The clearest and most direct state General Fund exposure is the $1.937 billion universal meals appropriation. A 2.3 percent food price increase would add approximately $116 million annually in state budget pressure from that program alone before accounting for DDS residential services, DSH, CalVet facilities, CDCR, the $73.4 million SUN Bucks administration appropriation, and the benefit adequacy pressure across CalFresh, WIC, senior nutrition, and CACFP.

For DDS residential services — where food is a required component of around-the-clock residential care across facilities serving nearly 500,000 consumers — food costs are embedded within service rates rather than publicly isolated. Applying a conservative estimate that food represents approximately 10 percent of the $7.255 billion residential services budget, and that roughly 65 percent of that total is state General Fund, yields an estimated state-attributable impact of approximately $28 million annually from a 2.3 percent food price increase. For CDCR, which operates an institutional food services program with a documented per-meal allowance of $4.31 across a daily population of approximately 95,000 incarcerated individuals, the estimated statewide food expenditure implied by that allowance is approximately $450 million per year, suggesting a potential 2.3 percent impact of roughly $27 million.

The Veterans Homes of California, with combined total funding of approximately $268 million across the Yountville and Greater Los Angeles/Ventura cluster, would face an estimated additional $2 to $3 million in food cost pressure annually, assuming food represents approximately 15 percent of total facility operating costs, consistent with long-term care industry norms. DSH's foodstuffs exposure is embedded within a $19.6 million patient-related operating expenses line that also covers pharmaceuticals and utilities; the food component is not publicly disclosed and the estimated impact is small relative to other programs.

Taking these estimates together, and acknowledging the data limitations that prevent precise calculation for CDCR, DSH, CACFP, and the state shares of senior nutrition, the annual state budget impact from a 2.3 percent food price increase is approximately $57 million at a conservative floor, rising to approximately $75 million when CDCR and other programs with unconfirmed but estimable food budgets are included. Universal meals accounts for the dominant share — roughly two-thirds of the total — with DDS residential services and CDCR representing the next most significant components.

Table 15: Summary of State Costs

| Program | Baseline ($/year) | Food share | State share | Est. impact ($M/year) |
|---|---|---|---|---|
| Universal Meals Program (CDE) | $1,937 | 100% | 100% | $45 |
| DDS Residential Services | $7,255 | ~10% | ~65% | $11 |
| CDCR Food Services | ~$450 | 100% | 100% | $10 |
| Senior Nutrition Programs (CDA) | $160.7 | ~100% | Partial | $3.7 |
| Veterans Homes of California (CalVet) | $268 | ~15% | Partial | $0.9 |
| CalFresh / SNAP (state-funded benefits only) | ~$132 | 100% | ~1% of total | $0.03 |
| **Full range** | | | | **$72** |

# REFERENCES


Backhaus, Olivia, and Melanie Benesh. "Almost All New Food Chemicals Greenlighted by Industry, Not the FDA." Environmental Working Group, April 2022. https://www.ewg.org/news-insights/news/2022/04/ewg-analysis-almost-all-new-food-chemicals-greenlighted-industry-not-fda.

Benesh, Melanie, and Maricel Maffini. *Secret GRAS: How 100+ Food Chemicals Bypassed Government Safety Review*. Environmental Working Group, 2026. https://www.ewg.org/research/secret-gras-how-100-food-chemicals-bypassed-government-safety-review.

Catalina. *Engaging the Selective Shopper: Why Today's Consumers Expect Personalization*. 2013.

Center for Science in the Public Interest. "5 Food Ingredients California and New York Could Soon Ban." August 1, 2023.

Center for Science in the Public Interest. "The California Food Safety and Chemical Disclosure Act." 2025.

Dixon, Lloyd, Deborah Drezner, and James K. Hammitt. *Private-Sector Cleanup Expenditures and Transaction Costs at 18 Superfund Sites*. Santa Monica, CA: RAND, 1993.

Environmental Working Group, "A Baker's Dozen of Food Chemicals the FDA Should Ban Next," January 15, 2025.

European Medicines Agency. "Reflection Paper on the Use of Methyl- and Propylparaben as Excipients in Human Medicinal Products for Oral Use."

Flavor and Extract Manufacturers Association. "About the FEMA GRAS Program." April 2026. https://www.femaflavor.org/gras.

*Food Safety and Chemical Disclosure Act*, S. 1239-F, 2025–2026 Reg. Sess. § 2(5)(a) (N.Y. 2026).

Grunert, Klaus G., Laura Fernández-Celemín, Joseph M. Wills, Stephan Storcksdieck genannt Bonsmann, Lada Nureeva. "Use and Understanding of Nutrition Information on Food Labels in Six European Countries." Journal of Public Health 18, no. 3 (2010): 261–277.

International Foodservice Distributors Association. "Industry Facts."

Louisiana Senate 2025 Regular Session. "Act No.463 - PUBLIC HEALTH: Provides Relative to Nutrition." June 20, 2025. https://legiscan.com/LA/text/SB14/id/3260174.

Natural Resources Defense Council. *Generally Recognized as Secret: Chemicals Added to Food in the United States*. 2014. https://www.nrdc.org/resources/generally-recognized-secret-chemicals-added-food-united-states.

Neltner, Thomas G., Heather M. Alger, James T. O'Reilly, Sheldon Krimsky, Lisa A. Bero, and Maricel V. Maffini. "Conflicts of Interest in Approvals of Additives to Food Determined to Be Generally Recognized as Safe: Out of Balance." *JAMA Internal Medicine* 173, no. 22 (2013): 2032–36. https://doi.org/doi:10.1001/jamainternmed.2013.10559.

Neltner, Tom, and Maricel Maffini. *Generally Recognized as Secret: Chemicals Added to Food in the United States*. Natural Resources Defense Council, 2014. https://www.nrdc.org/sites/default/files/safety-loophole-for-chemicals-in-food-list.pdf.

NielsenIQ (NIQ). “NIQ for Grocery Brands.” Accessed 2026. https://nielseniq.com/global/en/landing-page/niq-for-grocery-brands/.

Okrent, Abigail M., and Julian M. Alston. *The Demand for Disaggregated Food-Away-From-Home and Food-at-Home Products in the United States*. Economic Research Report No. 139. Washington, DC: U.S. Department of Agriculture, Economic Research Service, 2012.

Quackenbush, Kate. "Great to be GRAS." *Nutrition Industry Executive*, December 1, 2011.

Texas Legislature. *Senate Bill 25*, 89th Leg., R.S. 2025.

U.S. Bureau of Labor Statistics. “California: Quintiles of Income Before Taxes, 2022–2023,” Consumer Expenditure Surveys. Washington, DC. 2024.

U.S. Census Bureau. “2022 Economic Census.” 2022.

U.S. Census Bureau. “Grocery Store Sales in the U.S.” 2017 Economic Census. Washington, DC. 2019

U.S. Census Bureau. *Households and Families: 2012-2016 American Community Survey 5-Year Estimates*. No. S1101. n.d. https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?src=bkmk.

U.S. Census Bureau. "Real Median Household Income in the United States." MEHOINUSA672N. Federal Reserve Bank of St. Louis, FRED. Accessed 2026.

U.S. Census Bureau. “Statistics of U.S. Businesses (SUSB)” (2022). Washington, DC. 2024.

U.S. Department of Agriculture, Agricultural Marketing Service. “The National List of Allowed and Prohibited Substances.” 7 CFR pt. 205, subpt. G. 2024.

U.S. Department of Agriculture, Economic Research Service. “Food Consumption & Demand—Food Demand Analysis.” Washington, DC. 2024.

U.S. Department of Health and Human Services. *Guidelines for Regulatory Impact Analysis*. Washington, DC. 2016.

U.S. Department of Transportation. R*evised Departmental Guidance on Valuation of Travel Time in Economic Analysis*. Washington, DC. 2016.

U.S. Department of Labor, Bureau of Labor Statistics. *American Time Use Survey*. Washington, DC.

U.S. Environmental Protection Agency. *Economic Analysis of the Agricultural Worker Protection Standard Revisions*. Washington, DC. September 2015.

U.S. Environmental Protection Agency. “EPA’s ToxCast and ExpoCast: Chemical Screening, Better and Faster.” *EPA Science Matters Newsletter*. January 2014.

U.S. Food and Drug Administration. “FDA to Revoke Authorization for the Use of Red No. 3 in Food and Ingested Drugs.” January 15, 2025.

U.S. Food and Drug Administration. “GRAS Notices.” Accessed on March 18, 2026. https://hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=GRASNotices.

U.S. Food and Drug Administration. *Requirements for Additional Traceability Records for Certain Foods (Proposed Rule) Regulatory Impact Analysis*. Docket No. FDA-2014-N-0053. 2020.

U.S. Food and Drug Administration. *Substances Generally Recognized as Safe: Final Rule, Final Regulatory Impact Analysis*. Docket No. FDA-1997-N-0020. 2016.

U.S. Office of Management and Budget. *Circular A-4: Regulatory Analysis*. Washington, DC. 2003.

## ATTACHMENT 1: INGREDIENT ESTIMATES

Attachment 2 contains the results of this analysis for all 740 Nielsen categories. The first column gives the 740 Nielsen categories. The second column gives the results of the FEMA category mapping to the Nielsen category, where the third and fourth column gives the rationale for the mapping and the confidence in the category assignment. Based on this mapping, the fifth column gives the estimated number self-certified GRAS substances expected to be in the Nielsen category. The sixth column identifies if the Nielsen food category was part of the EWG analysis. If it is in the EWG report, the seventh column gives examples of self-determined GRAS ingredients.

| Nielsen Category | FEMA Category Mapping (food use category × coverage fraction) | Coverage Rule / Rationale | Confidence | Est. FEMA GRAS Substance Count (flavor substances; non-FDA-reviewed) | EWG Confirmed Secret-GRAS Substances (count of 49) | EWG Substance Names (from EWG Feb 2026 report) | Combined Est. Self-GRAS Substances (FEMA + EWG) |
|---|---|---|---|---|---|---|---|
| **ALL OTHER CAKE CANDY BAKING DECORATING** | Confections and Frostings ×10%; Baked Goods ×5% | Decorating items; minor share of frostings + baked goods | **Medium** | 320 | 1 | Anthocyanins/proanthocyanins | **321** |
| **ALL PURPOSE BAKING MIX** | Baked Goods ×15% | Core Baked Goods subcategory | **High** | 360 | 0 | | **360** |
| **ALMOND BUTTER** | Nut Products ×15% | Nut butter subcategory | **High** | 135 | 0 | | **135** |
| **ALMOND MILK** | Imitation Dairy Products ×20%; Nut Products ×5% | Nut-based milk alternative | **High** | 325 | 0 | | **325** |
| **ALOE DRINK** | Beverages Type I ×5% | Non-alcoholic beverage subcategory | **High** | 110 | 1 | Aloe vera | **111** |
| **ALTERNATIVE CHEESE** | Imitation Dairy Products ×20%; Cheeses ×5% | Plant-based cheese analog | **High** | 340 | 0 | | **340** |
| **ANCHOVY + SARDINE** | Fish Products ×8% | Canned fish; moderate seasoning | **High** | 72 | 0 | | **72** |
| **ANCHOVY PASTE** | Fish Products ×8%; Condiments and Relishes ×5% | Fish paste condiment | **High** | 137 | 0 | | **137** |
| **APPETIZER** | Meat Products ×10%; Snack Foods ×8%; | Mixed flavored appetizer items | **Medium** | 364 | 0 | | **364** |

| Nielsen Category | FEMA Category Mapping (food use category × coverage fraction) | Coverage Rule / Rationale | Confidence | Est. FEMA GRAS Substance Count (flavor substances; non-FDA-reviewed) | EWG Confirmed Secret-GRAS Substances (count of 49) | EWG Substance Names (from EWG Feb 2026 report) | Combined Est. Self-GRAS Substances (FEMA + EWG) |
|---|---|---|---|---|---|---|---|
| | Seasonings and Flavors ×5% | | | | | | |
| **APPETIZER PARTY PLATTER** | Meat Products ×8%; Snack Foods ×5% | Mixed appetizer items; heterogeneous | **Low** | 178 | 0 | | **178** |
| **APPLE CIDER** | Beverages Type I ×8%; Processed Fruits ×5% | Fruit-based non-alcoholic beverage | **High** | 246 | 0 | | **246** |
| **APPLE SAUCE** | Processed Fruits ×15%; Jams and Jellies ×5% | Processed fruit product | **High** | 285 | 0 | | **285** |
| **APPLES** | Processed Fruits ×1% | Fresh fruit; essentially zero FEMA flavor use | **High** | 14 | 0 | | **14** |
| **APRICOTS** | Processed Fruits ×1% | Fresh fruit | **High** | 14 | 0 | | **14** |
| **ARCTIC CHAR** | Fish Products ×4% | Fresh fish; minimal FEMA | **High** | 36 | 0 | | **36** |
| **ARTICHOKES** | Processed Vegetables ×1% | Fresh vegetable | **High** | 9 | 0 | | **9** |
| **ARTISAN BREAD** | Baked Goods ×10% | Bread subcategory; moderate flavor use | **High** | 240 | 0 | | **240** |
| **ASIAN** | Seasonings and Flavors ×15%; Condiments and Relishes ×8% | Asian seasoning/meal catch-all | **Medium** | 434 | 0 | | **434** |
| **ASIAN CONDIMENTS** | Condiments and Relishes ×20%; Seasonings and Flavors ×10% | Flavored Asian condiments | **High** | 480 | 0 | | **480** |
| **ASIAN SAUCE** | Sweet Sauces ×15%; Condiments and Relishes ×15%; Seasonings and Flavors ×8% | Complex flavored sauces | **High** | 596 | 0 | | **596** |
| **ASPARAGUS** | Processed Vegetables ×1% | Fresh vegetable | **High** | 9 | 0 | | **9** |
| **ASSORTED BAGELS** | Baked Goods ×5% | Bagels: low FEMA use relative to category | **High** | 120 | 0 | | **120** |
| **ASSORTED BAKERY PARTY PLATTER** | Baked Goods ×20%; Confections and Frostings ×5% | Mixed bakery; broad coverage | **Medium** | 580 | 0 | | **580** |

| Nielsen Category | FEMA Category Mapping (food use category × coverage fraction) | Coverage Rule / Rationale | Confidence | Est. FEMA GRAS Substance Count (flavor substances; non-FDA-reviewed) | EWG Confirmed Secret-GRAS Substances (count of 49) | EWG Substance Names (from EWG Feb 2026 report) | Combined Est. Self-GRAS Substances (FEMA + EWG) |
|---|---|---|---|---|---|---|---|
| **ASSORTED BREAD** | Baked Goods ×12% | Core bread subcategory | **High** | 288 | 0 | | **288** |
| **ASSORTED DELI PARTY PLATTER** | Meat Products ×10%; Cheeses ×5% | Mixed deli items | **Low** | 170 | 0 | | **170** |
| **ASSORTED DESSERTS** | Frozen Dairy ×15%; Gelatins and Puddings ×10%; Confections and Frostings ×8% | Mixed dessert category | **Low** | 590 | 0 | | **590** |
| **ASSORTED FORM** | Snack Foods ×10%; Baked Goods ×8% | Ambiguous catch-all | **Low** | 372 | 0 | | **372** |
| **ASSORTED PACK** | Snack Foods ×10%; Baked Goods ×8% | Ambiguous assorted pack | **Low** | 372 | 0 | | **372** |
| **ASSORTED PRODUCE PARTY PLATTER** | Processed Fruits ×3%; Processed Vegetables ×3% | Mixed produce platter | **Low** | 69 | 0 | | **69** |
| **ASSORTED ROLLS AND BUNS** | Baked Goods ×8% | Rolls/buns subcategory | **High** | 192 | 0 | | **192** |
| **ASSORTED SWEET GOODS** | Baked Goods ×20%; Confections and Frostings ×10% | Mixed sweet bakery | **Medium** | 680 | 0 | | **680** |
| **ASSORTED SWEET SNACKS** | Snack Foods ×15%; Confections and Frostings ×8% | Catch-all sweet snack | **Low** | 430 | 0 | | **430** |
| **ASSORTED TORTILLA** | Other Grains ×5%; Baked Goods ×3% | Mixed tortilla products | **Medium** | 132 | 0 | | **132** |
| **AVOCADOS** | Processed Vegetables ×1% | Fresh fruit/vegetable | **High** | 9 | 0 | | **9** |
| **BACON** | Meat Products ×12%; Seasonings and Flavors ×5% | Cured/smoked meat | **High** | 242 | 0 | | **242** |
| **BACON TOPPINGS** | Meat Products ×10%; Seasonings and Flavors ×5% | Processed bacon pieces | **High** | 220 | 0 | | **220** |
| **BAGEL CHIP** | Snack Foods ×10%; Baked Goods ×5% | Snack chip from bagel | **High** | 300 | 0 | | **300** |

| Nielsen Category | FEMA Category Mapping (food use category × coverage fraction) | Coverage Rule / Rationale | Confidence | Est. FEMA GRAS Substance Count (flavor substances; non-FDA-reviewed) | EWG Confirmed Secret-GRAS Substances (count of 49) | EWG Substance Names (from EWG Feb 2026 report) | Combined Est. Self-GRAS Substances (FEMA + EWG) |
|---|---|---|---|---|---|---|---|
| **BAGEL PARTY PLATTER** | Baked Goods ×8% | Assorted bagels | **Medium** | 192 | 0 | | **192** |
| **BAGELS & SPREADS** | Baked Goods ×5%; Cheeses ×5% | Bagel + cream cheese combo | **Medium** | 180 | 0 | | **180** |
| **BAKING CHIPS** | Confections and Frostings ×10%; Baked Goods ×5% | Chocolate/flavor chips for baking | **High** | 320 | 0 | | **320** |
| **BAKING CHOCOLATE** | Confections and Frostings ×12%; Baked Goods ×8% | Chocolate for baking | **High** | 432 | 0 | | **432** |
| **BAKING COCOA** | Confections and Frostings ×8%; Baked Goods ×6% | Cocoa powder | **High** | 304 | 0 | | **304** |
| **BAKING CRUMBS** | Baked Goods ×6%; Snack Foods ×3% | Breadcrumbs/coating crumbs | **High** | 198 | 0 | | **198** |
| **BAKING CUPS** | Baked Goods ×1% | Packaging; negligible flavor | **High** | 24 | 0 | | **24** |
| **BAKING MIXES COMBINATION PACKS** | Baked Goods ×12% | Mixed baking mixes | **Medium** | 288 | 0 | | **288** |
| **BAKING POWDER** | Baked Goods ×1% | Leavening agent; negligible flavor | **High** | 24 | 0 | | **24** |
| **BAKING SODA** | Baked Goods ×1% | Leavening agent; negligible flavor | **High** | 24 | 0 | | **24** |
| **BAKING SUPPLIES COMBINATION PACKS** | Baked Goods ×6% | Heterogeneous baking supplies | **Low** | 144 | 0 | | **144** |
| **BANANAS** | Processed Fruits ×1% | Fresh fruit | **High** | 14 | 0 | | **14** |
| **BARBECUE & WING SAUCE** | Sweet Sauces ×20%; Condiments and Relishes ×15% | Heavily flavored BBQ/wing sauces | **High** | 495 | 0 | | **495** |
| **BATTERS** | Baked Goods ×8%; Meat Products ×5%; Seasonings and Flavors ×5% | Coating batter: baked goods + meat + seasonings | **High** | 357 | 0 | | **357** |

| Nielsen Category | FEMA Category Mapping (food use category × coverage fraction) | Coverage Rule / Rationale | Confidence | Est. FEMA GRAS Substance Count (flavor substances; non-FDA-reviewed) | EWG Confirmed Secret-GRAS Substances (count of 49) | EWG Substance Names (from EWG Feb 2026 report) | Combined Est. Self-GRAS Substances (FEMA + EWG) |
|---|---|---|---|---|---|---|---|
| **BEANS** | Processed Vegetables ×3% | Canned beans; minimal added flavor | **High** | 27 | 0 | | **27** |
| **BEEF** | Meat Products ×5% | Fresh beef: minimal FEMA | **High** | 55 | 0 | | **55** |
| **BELL PEPPERS** | Processed Vegetables ×1% | Fresh vegetable | **High** | 9 | 0 | | **9** |
| **BEVERAGE ENHANCERS COMBINATION PACKS** | Beverages Type I ×8% | Mixed enhancers | **Medium** | 176 | 0 | | **176** |
| **BEVERAGE MACHINE MIX** | Beverages Type I ×10% | Powdered beverage base | **Medium** | 220 | 0 | | **220** |
| **BEVERAGES COMBINATION PACKS** | Beverages Type I ×15% | Heterogeneous beverage mix | **Low** | 330 | 0 | | **330** |
| **BISCUIT MIX** | Baked Goods ×8% | Baked Goods subcategory | **High** | 192 | 0 | | **192** |
| **BISCUITS** | Baked Goods ×8% | Baked Goods subcategory | **High** | 192 | 0 | | **192** |
| **BISON** | Meat Products ×4% | Fresh game meat | **High** | 44 | 0 | | **44** |
| **BLACK** | Processed Vegetables ×2% | Likely black beans; beans catch-all | **Low** | 18 | 0 | | **18** |
| **BLACK BEANS** | Processed Vegetables ×3% | Canned beans | **High** | 27 | 0 | | **27** |
| **BLACKBERRIES** | Processed Fruits ×1% | Fresh fruit | **High** | 14 | 0 | | **14** |
| **BLACKEYED PEAS** | Processed Vegetables ×3% | Legume | **High** | 27 | 0 | | **27** |
| **BLENDS** | Seasonings and Flavors ×10%; Beverages Type I ×8% | Ambiguous blends catch-all | **Low** | 396 | 0 | | **396** |
| **BLINTZES** | Baked Goods ×8%; Cheeses ×5% | Filled pastry | **High** | 252 | 0 | | **252** |

| Nielsen Category | FEMA Category Mapping (food use category × coverage fraction) | Coverage Rule / Rationale | Confidence | Est. FEMA GRAS Substance Count (flavor substances; non-FDA-reviewed) | EWG Confirmed Secret-GRAS Substances (count of 49) | EWG Substance Names (from EWG Feb 2026 report) | Combined Est. Self-GRAS Substances (FEMA + EWG) |
|---|---|---|---|---|---|---|---|
| **BLUE CHEESE** | Cheeses ×20% | Specialty cheese subcategory | **High** | 240 | 0 | | **240** |
| **BLUEBERRIES** | Processed Fruits ×1% | Fresh fruit | **High** | 14 | 0 | | **14** |
| **BOUILLON** | Soups ×15%; Seasonings and Flavors ×10% | Concentrated soup base | **High** | 415 | 0 | | **415** |
| **BREAD BOWLS** | Baked Goods ×5% | Bread vessel; minimal flavor addition | **High** | 120 | 0 | | **120** |
| **BREAD COMBINATION PACKS** | Baked Goods ×10% | Mixed bread products | **Medium** | 240 | 0 | | **240** |
| **BREAD MIX** | Baked Goods ×10% | Baked Goods subcategory | **High** | 240 | 0 | | **240** |
| **BREAD PARTY PLATTER** | Baked Goods ×8% | Assorted bread | **Medium** | 192 | 0 | | **192** |
| **BREADSTICKS** | Baked Goods ×6%; Snack Foods ×5% | Baked/snack boundary | **High** | 234 | 0 | | **234** |
| **BREAKFAST MEALS/ COMBOS** | Meat Products ×10%; Baked Goods ×8%; Egg Products ×5% | Multi-component breakfast | **Medium** | 342 | 0 | | **342** |
| **BREAKFAST MEAT** | Meat Products ×12%; Seasonings and Flavors ×5% | Seasoned processed breakfast meat | **High** | 242 | 0 | | **242** |
| **BREAKFAST SANDWICHES** | Baked Goods ×8%; Meat Products ×8%; Egg Products ×5% | Multi-component sandwich | **High** | 320 | 0 | | **320** |
| **BREAKFAST SAUSAGE** | Meat Products ×15%; Seasonings and Flavors ×8% | Heavily seasoned sausage | **High** | 341 | 0 | | **341** |
| **BREAKFAST SYRUPS** | Sweet Sauces ×20%; Jams and Jellies ×5% | Maple/pancake syrups | **High** | 375 | 0 | | **375** |
| **BREAKFAST TOPPINGS/MIXES** | Sweet Sauces ×15%; Jams and Jellies ×8% | Mixed breakfast toppings | **High** | 345 | 0 | | **345** |
| **BROCCOLI** | Processed Vegetables ×1% | Fresh vegetable | **High** | 9 | 0 | | **9** |

| Nielsen Category | FEMA Category Mapping (food use category × coverage fraction) | Coverage Rule / Rationale | Confidence | Est. FEMA GRAS Substance Count (flavor substances; non-FDA-reviewed) | EWG Confirmed Secret-GRAS Substances (count of 49) | EWG Substance Names (from EWG Feb 2026 report) | Combined Est. Self-GRAS Substances (FEMA + EWG) |
|---|---|---|---|---|---|---|---|
| **BROTH** | Soups ×12%; Seasonings and Flavors ×5% | Soup broth | **High** | 266 | 0 | | **266** |
| **BROWNIES** | Baked Goods ×15%; Confections and Frostings ×5% | Chocolate baked goods | **High** | 460 | 0 | | **460** |
| **BRUSCHETTA** | Baked Goods ×5%; Condiments and Relishes ×8% | Bread + tomato topping | **High** | 224 | 0 | | **224** |
| **BRUSSEL SPROUTS** | Processed Vegetables ×1% | Fresh vegetable | **High** | 9 | 0 | | **9** |
| **BULK BAGELS** | Baked Goods ×5% | Bagels subcategory | **High** | 120 | 0 | | **120** |
| **BULK BREAD** | Baked Goods ×12% | Core bread | **High** | 288 | 0 | | **288** |
| **BULK COOKIES** | Baked Goods ×18%; Confections and Frostings ×5% | Highly flavored baked goods | **High** | 532 | 0 | | **532** |
| **BULK DOUGHNUTS** | Baked Goods ×15%; Confections and Frostings ×5% | Flavored sweet baked goods | **High** | 460 | 0 | | **460** |
| **BULK LUNCHMEAT** | Meat Products ×12% | Processed lunchmeat | **High** | 132 | 0 | | **132** |
| **BULK MUFFINS** | Baked Goods ×12% | Muffins | **High** | 288 | 0 | | **288** |
| **BULK ROLLS** | Baked Goods ×7% | Rolls | **High** | 168 | 0 | | **168** |
| **BUNS** | Baked Goods ×6% | Plain buns; modest flavor use | **High** | 144 | 0 | | **144** |
| **BUTTER** | Fats and Oils ×15%; Milk Products ×5% | Dairy fat; some flavor | **High** | 170 | 0 | | **170** |
| **BUTTER AND MARGARINE BLEND** | Fats and Oils ×12%; Milk Products ×5% | Blended dairy/non-dairy fat | **High** | 149 | 0 | | **149** |
| **BUTTERFISH** | Fish Products ×4% | Fresh fish | **High** | 36 | 0 | | **36** |
| **BUTTERMILK** | Milk Products ×8% | Dairy subcategory | **High** | 104 | 0 | | **104** |

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|---|---|---|---|---|---|---|---|
| **CABBAGE** | Processed Vegetables ×1% | Fresh vegetable | **High** | 9 | 0 | | **9** |
| **CAESAR** | Condiments and Relishes ×15%; Seasonings and Flavors ×8% | Caesar dressing | **High** | 371 | 0 | | **371** |
| **CAJUN/CREOLE** | Seasonings and Flavors ×15%; Condiments and Relishes ×10% | Heavily spiced seasoning blend | **High** | 460 | 0 | | **460** |
| **CAKE** | Baked Goods ×20%; Confections and Frostings ×15% | Cake: top FEMA baked goods application | **High** | 780 | 0 | | **780** |
| **CAKE DECORATION** | Confections and Frostings ×15%; Baked Goods ×5% | Frostings/decorations primary | **High** | 420 | 0 | | **420** |
| **CAKE MIX** | Baked Goods ×18%; Confections and Frostings ×5% | Cake mix | **High** | 532 | 1 | Anthocyanins/proanthocyanins | **533** |
| **CALZONE/ STROMBOLI** | Baked Goods ×8%; Meat Products ×5%; Cheeses ×5% | Multi-component filled pastry | **High** | 307 | 0 | | **307** |
| **CANADIAN BACON** | Meat Products ×10% | Cured meat | **High** | 110 | 0 | | **110** |
| **CANDIED FRUIT** | Processed Fruits ×15%; Confections and Frostings ×8% | Sugared/coated fruit | **High** | 370 | 0 | | **370** |
| **CANDY KITS, COMBINATION AND GIFT PACKS** | Hard Candy ×15%; Soft Candy ×15%; Confections and Frostings ×8% | Mixed candy products | **Medium** | 775 | 0 | | **775** |
| **CANDY, GUM, MINTS PARTY PLATTER** | Hard Candy ×12%; Soft Candy ×10%; Chewing Gum ×8% | Mixed candy/gum | **Medium** | 580 | 0 | | **580** |
| **CANDY/COOKIE TOPPING** | Confections and Frostings ×12%; Baked Goods ×5% | Candy/sprinkle toppings | **High** | 360 | 1 | Grape skin extract | **361** |

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|---|---|---|---|---|---|---|---|
| **CANNED BREAD** | Baked Goods ×4% | Specialty; low flavor complexity | **High** | 96 | 0 | | **96** |
| **CANNED HAMS** | Meat Products ×8% | Processed canned ham | **High** | 88 | 0 | | **88** |
| **CANNED MEAT** | Meat Products ×10%; Seasonings and Flavors ×5% | Canned processed meat | **High** | 220 | 0 | | **220** |
| **CANNELLINI BEANS** | Processed Vegetables ×3% | Canned beans | **High** | 27 | 0 | | **27** |
| **CANTALOUPE** | Processed Fruits ×1% | Fresh melon | **High** | 14 | 0 | | **14** |
| **CAPERS** | Condiments and Relishes ×8% | Pickled caper; minimal added flavor | **High** | 104 | 0 | | **104** |
| **CARROTS** | Processed Vegetables ×1% | Fresh vegetable | **High** | 9 | 0 | | **9** |
| **CASHEW BUTTER** | Nut Products ×12% | Nut butter subcategory | **High** | 108 | 0 | | **108** |
| **CATFISH** | Fish Products ×4% | Fresh fish | **High** | 36 | 0 | | **36** |
| **CAULIFLOWER** | Processed Vegetables ×1% | Fresh vegetable | **High** | 9 | 0 | | **9** |
| **CAVIAR** | Fish Products ×5% | Specialty fish roe | **High** | 45 | 0 | | **45** |
| **CELERY** | Processed Vegetables ×1% | Fresh vegetable | **High** | 9 | 0 | | **9** |
| **CEREAL AND GRANOLA BARS** | Breakfast Cereals ×20%; Confections and Frostings ×8%; Snack Foods ×10% | Highly flavored bar: cereal + confection + snack | **High** | 620 | 40 | Acacia fiber; Amino acid chelate; Ashwagandha extract; Astaxanthin; Berberine; Beta-glucan; Chaga mushroom extract; Chlorella; Chondroitin; | **660** |

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|---|---|---|---|---|---|---|---|
| | | | | | | Chromium nicotinate; Chromium picolinate; Cinnamon extract; Cocoa extract/theobromine; Collagen peptides; Curcumin/turmeric extract; Elderberry extract; Ergothioneine; Fermentation-derived protein; GABA; Glucosamine; Green coffee bean extract; Green tea extract; Hemp extract; Inositol; L-theanine; Lion's mane extract; Lutein; Lycopene; Maca extract; Moringa extract; Mushroom extracts; Mycoprotein; Phosphatidylserine; Quercetin; Reishi mushroom extract; Resveratrol; Salidroside/Rhodiola; Schisandra | |

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|---|---|---|---|---|---|---|---|
| | | | | | | extract; Spirulina; Tara flour | |
| **CEREAL AND GRANOLA COMBINATION PACKS** | Breakfast Cereals ×25% | Cereal assortments | **Medium** | 350 | 0 | | **350** |
| **CHAI** | Instant Coffee and Tea ×20%; Beverages Type I ×10% | Heavily spiced tea beverage | **High** | 460 | 0 | | **460** |
| **CHARRO BEAN** | Processed Vegetables ×4%; Seasonings and Flavors ×3% | Seasoned bean dish | **High** | 102 | 0 | | **102** |
| **CHEESE COMBINATION PACKS** | Cheeses ×25% | Assorted cheeses | **Medium** | 300 | 0 | | **300** |
| **CHEESE PARTY PLATTER** | Cheeses ×20% | Assorted cheeses | **Medium** | 240 | 0 | | **240** |
| **CHEESE SAUCE** | Cheeses ×15%; Gravies ×8%; Sweet Sauces ×5% | Processed cheese sauce | **High** | 335 | 1 | Mushroom extracts | **336** |
| **CHEESE SNACKS** | Snack Foods ×15%; Cheeses ×10% | Cheese-flavored snacks | **High** | 390 | 0 | | **390** |
| **CHEESECAKE MIX** | Baked Goods ×10%; Cheeses ×5%; Gelatins and Puddings ×5% | Multi-category: baked + dairy + gelatin | **Medium** | 380 | 0 | | **380** |
| **CHERRIES** | Processed Fruits ×2% | Fresh/processed fruit | **High** | 28 | 0 | | **28** |
| **CHICKEN** | Poultry Products ×10% | Fresh poultry | **High** | 100 | 0 | | **100** |
| **CHICKEN EGGS** | Egg Products ×10% | Fresh eggs; minimal flavor | **High** | 80 | 0 | | **80** |
| **CHICKPEA/GARBANZOS** | Processed Vegetables ×4% | Legume | **High** | 36 | 0 | | **36** |
| **CHILI** | Soups ×15%; Meat Products ×8%; Seasonings and Flavors ×8% | Flavored meat/bean stew | **High** | 459 | 0 | | **459** |

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| **CHILI PEPPERS** | Processed Vegetables ×2%; Seasonings and Flavors ×3% | Hot pepper/seasoning | **High** | 84 | 0 | | **84** |
| **CHILI SAUCE** | Sweet Sauces ×15%; Condiments and Relishes ×12%; Seasonings and Flavors ×8% | Flavored chili sauce | **High** | 557 | 0 | | **557** |
| **CHILLED CEREAL** | Breakfast Cereals ×15% | Refrigerated cereal products | **High** | 210 | 0 | | **210** |
| **CHOCOLATE** | Soft Candy ×20%; Confections and Frostings ×15%; Hard Candy ×5% | Chocolate: top FEMA confection use | **High** | 805 | 6 | Cocoa extract/theobromine; Grape skin extract; Green coffee bean extract; Green tea extract; Lycopene; Resveratrol | **811** |
| **CINNAMON AND OTHER SWEET ROLLS** | Baked Goods ×18%; Confections and Frostings ×5% | Heavily flavored sweet rolls | **High** | 532 | 0 | | **532** |
| **CINNAMON BREAD** | Baked Goods ×10% | Flavored bread subcategory | **High** | 240 | 0 | | **240** |
| **CLAMS** | Fish Products ×6% | Shellfish | **High** | 54 | 0 | | **54** |
| **CLUB SODA** | Beverages Type I ×2% | Minimal FEMA — essentially unflavored | **High** | 44 | 0 | | **44** |
| **COATING MIX/CRUMB KITS** | Seasonings and Flavors ×15%; Baked Goods ×5% | Seasoned coating mixes | **High** | 450 | 0 | | **450** |
| **COATING MIXES** | Seasonings and Flavors ×18%; Baked Goods ×5% | Flavored coating mixes | **High** | 516 | 0 | | **516** |
| **COBBLER/CRISP MIX** | Baked Goods ×8%; Processed Fruits ×5% | Baked goods + fruit filling | **Medium** | 262 | 0 | | **262** |
| **COBBLERS/CRISPS** | Baked Goods ×8%; Processed Fruits ×5% | Baked + fruit | **Medium** | 262 | 0 | | **262** |

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| **COCONUT** | Processed Fruits ×8%; Confections and Frostings ×5% | Coconut ingredient | **High** | 212 | 0 | | **212** |
| **COCONUT MILK** | Imitation Dairy Products ×12%; Processed Fruits ×5% | Plant-based dairy alternative | **High** | 238 | 0 | | **238** |
| **COCONUT WATER** | Beverages Type I ×5%; Processed Fruits ×3% | Natural coconut beverage | **High** | 152 | 1 | Aloe vera | **153** |
| **COD + SCROD** | Fish Products ×5% | Fresh fish | **High** | 45 | 0 | | **45** |
| **COFFEE** | Instant Coffee and Tea ×35%; Beverages Type I ×10% | Primary Instant Coffee & Tea application | **High** | 640 | 7 | Chaga mushroom extract; Cocoa extract/theobromine; Collagen peptides; Green coffee bean extract; Lion's mane extract; Mushroom extracts; Reishi mushroom extract | **647** |
| **COFFEE CAKE** | Baked Goods ×15%; Instant Coffee and Tea ×5% | Flavored cake subcategory | **High** | 420 | 0 | | **420** |
| **COFFEE ENHANCER** | Instant Coffee and Tea ×15%; Milk Products ×8% | Flavored creamer/enhancer | **High** | 284 | 0 | | **284** |
| **COFFEE SUBSTITUTE** | Instant Coffee and Tea ×20% | Coffee analog | **High** | 240 | 0 | | **240** |
| **COLE SLAW DRESSING** | Condiments and Relishes ×15% | Flavored dressing | **High** | 195 | 0 | | **195** |
| **COMPLETE MEAL** | Meat Products ×8%; Processed Vegetables ×5%; Seasonings and Flavors ×5% | Heterogeneous complete meal | **Low** | 243 | 0 | | **243** |

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|---|---|---|---|---|---|---|---|
| **CONCENTRATE** | Beverages Type I ×12%; Processed Fruits ×8% | Fruit/beverage concentrate | **Medium** | 376 | 0 | | **376** |
| **CONCH** | Fish Products ×5% | Specialty shellfish | **Medium** | 45 | 0 | | **45** |
| **CONDENSED MILK** | Milk Products ×10%; Sweet Sauces ×5% | Sweetened condensed milk | **High** | 205 | 0 | | **205** |
| **CONDIMENTS COMBINATION PACKS** | Condiments and Relishes ×15% | Mixed condiments | **Low** | 195 | 0 | | **195** |
| **CONFECTION** | Hard Candy ×25%; Soft Candy ×25%; Confections and Frostings ×15% | Broad confection category | **High** | 1325 | 12 | Anthocyanins/proanthocyanins; Ashwagandha extract; Cocoa extract/theobromine; Curcumin/turmeric extract; Elderberry extract; GABA; Grape skin extract; Green tea extract; L-theanine; Lion's mane extract; Resveratrol; Spirulina | **1337** |
| **COOKIE AND CRACKER VARIETY PACK** | Baked Goods ×20%; Snack Foods ×10% | Mixed cookies/crackers | **Medium** | 660 | 0 | | **660** |
| **COOKIE MIX** | Baked Goods ×18% | Cookie subcategory | **High** | 432 | 1 | Anthocyanins/proanthocyanins | **433** |
| **COOKIE PARTY PLATTER** | Baked Goods ×18% | Assorted cookies | **Medium** | 432 | 0 | | **432** |
| **COOKIES** | Baked Goods ×20%; Confections and Frostings ×5% | Cookies: highest FEMA use in Baked Goods | **High** | 580 | 4 | Beta-glucan; Cocoa extract/theobromine; Hemp extract; Lycopene | **584** |

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| **COOKIES COMBINATION PACKS** | Baked Goods ×20% | Assorted cookies | **Medium** | 480 | 0 | | **480** |
| **COOKING GREENS** | Processed Vegetables ×1% | Fresh greens | **High** | 9 | 0 | | **9** |
| **COOKING OIL** | Fats and Oils ×15% | Culinary oil; some flavor additions | **High** | 105 | 1 | Cinnamon extract | **106** |
| **COOKING SAUCE ADD MEAT** | Sweet Sauces ×15%; Gravies ×10%; Condiments and Relishes ×8% | Complex cooking sauce | **High** | 429 | 1 | Grape skin extract | **430** |
| **COOKING SPRAY** | Fats and Oils ×8% | Oil spray; minimal flavor | **High** | 56 | 0 | | **56** |
| **COOKING SYRUPS** | Sweet Sauces ×20%; Instant Coffee and Tea ×5% | Flavored cooking syrups | **High** | 360 | 0 | | **360** |
| **COOKING WINE** | Beverages Type II ×8%; Condiments and Relishes ×5% | Wine for cooking | **High** | 217 | 0 | | **217** |
| **CORN** | Processed Vegetables ×2% | Fresh/canned corn | **High** | 18 | 0 | | **18** |
| **CORN AND OTHER FOOD STARCH** | Baked Goods ×2%; Other Grains ×2% | Starch; negligible flavor | **High** | 72 | 0 | | **72** |
| **CORN CHIPS** | Snack Foods ×20% | Corn-based flavored snacks | **High** | 360 | 0 | | **360** |
| **CORN HUSK** | Other Grains ×1% | Wrapper; negligible flavor | **High** | 12 | 0 | | **12** |
| **CORNBREAD** | Baked Goods ×6% | Simple corn bread | **High** | 144 | 0 | | **144** |
| **CORVINA** | Fish Products ×4% | Fresh fish | **High** | 36 | 0 | | **36** |
| **COTTAGE CHEESE** | Cheeses ×10% | Fresh cheese subcategory | **High** | 120 | 0 | | **120** |
| **COUNTRY HAMS** | Meat Products ×8% | Cured ham | **High** | 88 | 0 | | **88** |

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|---|---|---|---|---|---|---|---|
| **COUSCOUS** | Other Grains ×15%; Seasonings and Flavors ×5% | Flavored grain product | **High** | 290 | 0 | | **290** |
| **COWS MILK** | Milk Products ×8% | Plain milk; minimal FEMA | **High** | 104 | 0 | | **104** |
| **CRAB** | Fish Products ×6% | Shellfish | **High** | 54 | 0 | | **54** |
| **CRACKER CHIP** | Snack Foods ×12%; Baked Goods ×5% | Snack chip from cracker | **High** | 336 | 0 | | **336** |
| **CRACKERS** | Baked Goods ×12%; Snack Foods ×10% | Baked/snack boundary | **High** | 468 | 0 | | **468** |
| **CRACKERS COMBINATION PACKS** | Baked Goods ×10%; Snack Foods ×8% | Mixed crackers | **Medium** | 384 | 0 | | **384** |
| **CRACKLIN AND MUSH AND SCRAPPLE** | Meat Products ×10%; Seasonings and Flavors ×5% | Processed pork products | **Medium** | 220 | 0 | | **220** |
| **CRANBERRIES** | Processed Fruits ×2% | Fresh/frozen cranberries | **High** | 28 | 0 | | **28** |
| **CRANBERRY BEANS** | Processed Vegetables ×2% | Beans | **High** | 18 | 0 | | **18** |
| **CRANBERRY SAUCE** | Processed Fruits ×20%; Jams and Jellies ×10% | Fruit sauce/condiment | **High** | 430 | 0 | | **430** |
| **CRAWFISH + CRAYFISH** | Fish Products ×5% | Shellfish | **High** | 45 | 0 | | **45** |
| **CREAM** | Milk Products ×8% | Heavy/light cream | **High** | 104 | 0 | | **104** |
| **CREAM CHEESE** | Cheeses ×15%; Confections and Frostings ×5% | Soft cheese; sometimes used in frostings | **High** | 280 | 0 | | **280** |
| **CREME FRAICHE** | Milk Products ×8%; Cheeses ×5% | Cultured cream | **High** | 164 | 0 | | **164** |
| **CROAKER** | Fish Products ×4% | Fresh fish | **High** | 36 | 0 | | **36** |
| **CROISSANTS** | Baked Goods ×10%; Fats and Oils ×3% | Buttery pastry | **High** | 261 | 0 | | **261** |

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|---|---|---|---|---|---|---|---|
| **CROUTONS** | Baked Goods ×6%; Seasonings and Flavors ×5% | Seasoned bread product | **High** | 254 | 0 | | **254** |
| **CROWDER PEA** | Processed Vegetables ×2% | Legume | **High** | 18 | 0 | | **18** |
| **CRUMBS** | Baked Goods ×5%; Snack Foods ×3% | Bread/cracker crumbs | **High** | 174 | 0 | | **174** |
| **CRUST MIX** | Baked Goods ×7% | Pie crust mix | **High** | 168 | 0 | | **168** |
| **CRUSTS** | Baked Goods ×8% | Pastry/pie crust | **High** | 192 | 0 | | **192** |
| **CRUSTY/HOT HEARTH BREAD** | Baked Goods ×9% | Artisan bread subcategory | **High** | 216 | 0 | | **216** |
| **CUBED, DICED, JULIENNED** | Processed Vegetables ×2% | Cut vegetable catch-all | **Low** | 18 | 0 | | **18** |
| **CUCUMBERS** | Processed Vegetables ×1% | Fresh vegetable | **High** | 9 | 0 | | **9** |
| **CUPCAKES** | Baked Goods ×18%; Confections and Frostings ×15% | Cake + frosting category | **High** | 732 | 0 | | **732** |
| **CURRANTS** | Processed Fruits ×2% | Dried/fresh fruit | **High** | 28 | 0 | | **28** |
| **CURRY** | Seasonings and Flavors ×20%; Condiments and Relishes ×10% | Spice blend/sauce | **High** | 570 | 0 | | **570** |
| **CURRY PASTE** | Seasonings and Flavors ×20%; Condiments and Relishes ×12% | Concentrated spice paste | **High** | 596 | 0 | | **596** |
| **CUSTARD MIX** | Gelatins and Puddings ×20%; Milk Products ×5% | Custard/pudding subcategory | **High** | 385 | 0 | | **385** |
| **DAIRY BASED DRINKS** | Milk Products ×20%; Beverages Type I ×5% | Flavored milk beverages | **High** | 370 | 0 | | **370** |
| **DAIRY COMBINATION PACKS** | Milk Products ×10%; Cheeses ×8% | Mixed dairy | **Low** | 226 | 0 | | **226** |

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| **DANISH** | Baked Goods ×15%; Confections and Frostings ×8% | Pastry subcategory | **High** | 520 | 0 | | **520** |
| **DATES** | Processed Fruits ×3% | Dried fruit | **High** | 42 | 0 | | **42** |
| **DELI COMBINATION PACKS** | Meat Products ×10%; Cheeses ×5% | Mixed deli | **Low** | 170 | 0 | | **170** |
| **DESSERT BAR MIX** | Baked Goods ×12%; Confections and Frostings ×5% | Baked dessert bar mix | **High** | 388 | 0 | | **388** |
| **DESSERT BARS** | Baked Goods ×14%; Confections and Frostings ×5% | Baked dessert bar | **High** | 436 | 1 | Anthocyanins/proanthocyanins | **437** |
| **DESSERT SAUCE** | Sweet Sauces ×25%; Confections and Frostings ×8% | Sweet dessert sauce | **High** | 535 | 0 | | **535** |
| **DESSERT SYRUP** | Sweet Sauces ×25% | Flavored dessert syrup | **High** | 375 | 1 | Anthocyanins/proanthocyanins | **376** |
| **DESSERT TOPPING KITS** | Confections and Frostings ×15%; Sweet Sauces ×10% | Combined dessert toppings | **High** | 450 | 0 | | **450** |
| **DESSERTS PARTY PLATTER** | Frozen Dairy ×10%; Confections and Frostings ×8% | Mixed desserts | **Low** | 340 | 0 | | **340** |
| **DINNER ROLLS** | Baked Goods ×6% | Plain rolls; modest flavor use | **High** | 144 | 0 | | **144** |
| **DINNER SAUSAGE** | Meat Products ×15%; Seasonings and Flavors ×8% | Seasoned sausage | **High** | 341 | 0 | | **341** |
| **DIPPED / COVERED FRUIT** | Processed Fruits ×12%; Confections and Frostings ×10% | Chocolate/flavored coated fruit | **High** | 368 | 0 | | **368** |
| **DIPS** | Condiments and Relishes ×20%; Cheeses ×5%; | Flavored dips | **High** | 430 | 3 | Anthocyanins/proanthocyanins; Grape | **433** |

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|---|---|---|---|---|---|---|---|
| | Seasonings and Flavors ×5% | | | | | skin extract; Mushroom extracts | |
| **DIPS/SPREADS COMBINATION PACKS** | Condiments and Relishes ×15% | Mixed dips/spreads | **Medium** | 195 | 0 | | **195** |
| **DIPS/SPREADS MIX** | Condiments and Relishes ×18%; Seasonings and Flavors ×8% | Flavored dip mixes | **High** | 410 | 0 | | **410** |
| **DIPS/SPREADS PARTY PLATTER** | Condiments and Relishes ×15% | Assorted dips | **Medium** | 195 | 0 | | **195** |
| **DOUGHNUT MIX** | Baked Goods ×15% | Doughnut subcategory | **High** | 360 | 0 | | **360** |
| **DOUGHNUT PARTY PLATTER** | Baked Goods ×15% | Assorted doughnuts | **Medium** | 360 | 0 | | **360** |
| **DOUGHNUTS** | Baked Goods ×16%; Confections and Frostings ×8% | Flavored + glazed/frosted | **High** | 544 | 0 | | **544** |
| **DOUGHNUTS COMBINATION PACKS** | Baked Goods ×16% | Assorted doughnuts | **Medium** | 384 | 0 | | **384** |
| **DOUGHS** | Baked Goods ×10% | Raw dough products | **High** | 240 | 0 | | **240** |
| **DRIED BEANS** | Processed Vegetables ×2% | Dry beans; minimal flavor | **High** | 18 | 0 | | **18** |
| **DRY EGGS** | Egg Products ×15% | Processed egg product | **High** | 120 | 0 | | **120** |
| **DRY MIXES** | Baked Goods ×10%; Seasonings and Flavors ×5% | Catch-all dry mixes | **Low** | 350 | 0 | | **350** |
| **DUMPLING MIX** | Baked Goods ×6%; Seasonings and Flavors ×5% | Flavored dumpling mix | **Medium** | 254 | 0 | | **254** |
| **DUMPLING/WONTON WRAP** | Baked Goods ×3%; Other Grains ×3% | Wrapper; minimal flavor | **High** | 108 | 0 | | **108** |

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|---|---|---|---|---|---|---|---|
| **DUMPLINGS** | Baked Goods ×6%; Meat Products ×5%; Seasonings and Flavors ×5% | Filled dumpling | **High** | 309 | 0 | | **309** |
| **EGG NOG** | Milk Products ×15%; Frozen Dairy ×5%; Beverages Type I ×5% | Flavored dairy holiday beverage | **High** | 395 | 0 | | **395** |
| **EGG SUBSTITUTES** | Egg Products ×20%; Imitation Dairy Products ×5% | Plant-based egg substitute | **High** | 230 | 0 | | **230** |
| **EGG/SPRING ROLL AND CREPE WRAPS** | Egg Products ×8%; Baked Goods ×4% | Egg-based wrapper | **High** | 160 | 0 | | **160** |
| **EGGPLANT** | Processed Vegetables ×1% | Fresh vegetable | **High** | 9 | 0 | | **9** |
| **ENERGY BEVERAGES** | Beverages Type I ×20% | Highly flavored functional beverages | **High** | 440 | 22 | Amino acid chelate; Ashwagandha extract; Astaxanthin; Chaga mushroom extract; Cocoa extract/theobromine; Curcumin/turmeric extract; Green coffee bean extract; Green tea extract; Hemp extract; Hyaluronic acid; Inositol; L-citrulline; L-theanine; Lemon balm extract; Lion's mane extract; Moringa extract; Mushroom | **462** |

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|---|---|---|---|---|---|---|---|
| | | | | | | extracts; Quercetin; Reishi mushroom extract; Salidroside/Rhodiola; Schisandra extract; Theacrine | |
| **ENGLISH MUFFINS AND CRUMPETS** | Baked Goods ×6% | Plain baked goods | **High** | 144 | 0 | | **144** |
| **ESPRESSO** | Instant Coffee and Tea ×20% | Coffee subcategory | **High** | 240 | 0 | | **240** |
| **ETHNIC ROLLS** | Baked Goods ×7% | Specialty rolls | **Medium** | 168 | 0 | | **168** |
| **EVAPORATED MILK** | Milk Products ×8% | Concentrated milk | **High** | 104 | 0 | | **104** |
| **EXTRACTS** | Seasonings and Flavors ×20%; Baked Goods ×5% | Vanilla/flavor extracts: primary Seasonings & Flavors use | **High** | 560 | 0 | | **560** |
| **EXTRACTS, HERBS, SPICES AND SEASONINGS COMBINATION PACKS** | Seasonings and Flavors ×18% | Mixed seasonings | **Medium** | 396 | 0 | | **396** |
| **FAVA BEANS** | Processed Vegetables ×2% | Beans | **High** | 18 | 0 | | **18** |
| **FIELD PEA** | Processed Vegetables ×2% | Legume | **High** | 18 | 0 | | **18** |
| **FIGS** | Processed Fruits ×3% | Dried/fresh fruit | **High** | 42 | 0 | | **42** |
| **FLATBREADS** | Baked Goods ×7% | Bread subcategory | **High** | 168 | 0 | | **168** |
| **FLAVORED SWEET BREADS** | Baked Goods ×15% | Highly flavored subcategory | **High** | 360 | 0 | | **360** |
| **FLOUNDER** | Fish Products ×4% | Fresh fish | **High** | 36 | 0 | | **36** |
| **FLOUR AND MEAL** | Baked Goods ×3%; Other Grains ×2% | Plain flour; minimal flavor | **High** | 96 | 0 | | **96** |

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|---|---|---|---|---|---|---|---|
| **FOUNTAIN BEVERAGE SYRUP** | Beverages Type I ×18%; Fruit Ices ×5% | Concentrated flavored syrup | **High** | 471 | 0 | | **471** |
| **FOWL & EXOTICS** | Poultry Products ×8% | Specialty poultry | **Medium** | 80 | 0 | | **80** |
| **FRANKFURTER** | Meat Products ×15%; Seasonings and Flavors ×5% | Processed hot dog | **High** | 275 | 0 | | **275** |
| **FRENCH** | Condiments and Relishes ×15% | French dressing | **High** | 195 | 0 | | **195** |
| **FRENCH TOAST** | Baked Goods ×8%; Egg Products ×5% | Baked goods + egg | **High** | 232 | 0 | | **232** |
| **FRITTATA** | Egg Products ×15%; Meat Products ×5% | Egg-based dish | **High** | 175 | 0 | | **175** |
| **FROSTING** | Confections and Frostings ×30% | Direct match — frostings are core product | **High** | 600 | 0 | | **600** |
| **FROSTING MIX** | Confections and Frostings ×25% | Frosting subcategory | **High** | 500 | 0 | | **500** |
| **FROZEN COMBINATION PACKS** | Frozen Dairy ×12%; Fruit Ices ×8% | Mixed frozen products | **Low** | 336 | 0 | | **336** |
| **FROZEN NOVELTY** | Frozen Dairy ×20%; Fruit Ices ×15% | Ice cream novelties and frozen bars | **High** | 585 | 3 | Amino acid chelate; Green tea extract; Mushroom extracts | **588** |
| **FRUIT COCKTAIL** | Processed Fruits ×10%; Jams and Jellies ×5% | Processed mixed fruit | **High** | 215 | 3 | Anthocyanins/proanthocyanins; Cinnamon extract; Grape skin extract | **218** |
| **FRUIT COMBINATION PACKS** | Processed Fruits ×8% | Mixed processed fruit | **Medium** | 112 | 0 | | **112** |
| **FRUIT DRINK** | Beverages Type I ×20%; Processed Fruits ×5% | Juice drinks; highly flavored | **High** | 510 | 8 | Aloe vera; Anthocyanins/proanthocyanins; | **518** |

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|---|---|---|---|---|---|---|---|
| | | | | | | Cinnamon extract; Elderberry extract; Grape skin extract; Green coffee bean extract; Lemon balm extract; Lycopene | |
| **FRUIT JUICE** | Beverages Type I ×15%; Processed Fruits ×8% | Juice: flavored beverage | **High** | 442 | 4 | Aloe vera; Anthocyanins/proanthocyanins; Elderberry extract; Grape skin extract | **446** |
| **FRUIT PARTY PLATTER** | Processed Fruits ×5% | Fresh fruit platter | **Medium** | 70 | 0 | | **70** |
| **FRUIT SALAD** | Processed Fruits ×8% | Mixed fruit product | **High** | 112 | 0 | | **112** |
| **FRUIT SAUCE/GLAZE** | Sweet Sauces ×20%; Processed Fruits ×10% | Fruit-based sauce/glaze | **High** | 440 | 0 | | **440** |
| **FRUIT/VEG BLEND** | Processed Fruits ×5%; Processed Vegetables ×5% | Mixed fruit/vegetable blend | **Medium** | 115 | 0 | | **115** |
| **FUDGE** | Soft Candy ×15%; Confections and Frostings ×10% | Soft candy subcategory | **High** | 500 | 0 | | **500** |
| **FUDGE MIX** | Soft Candy ×12%; Confections and Frostings ×8% | Fudge mix | **High** | 400 | 0 | | **400** |
| **GARLIC** | Seasonings and Flavors ×5%; Processed Vegetables ×2% | Flavor ingredient; allium | **High** | 128 | 0 | | **128** |
| **GELATIN** | Gelatins and Puddings ×30% | Direct match to Gelatins & Puddings | **High** | 480 | 0 | | **480** |
| **GELATIN MIX** | Gelatins and Puddings ×25% | Gelatin subcategory | **High** | 400 | 0 | | **400** |

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|---|---|---|---|---|---|---|---|
| **GIFT SET COMBINATION PACKS** | Confections and Frostings ×8%; Baked Goods ×5% | Mixed gift set; heterogeneous | **Low** | 280 | 0 | | **280** |
| **GINGERBREAD MIX** | Baked Goods ×12%; Seasonings and Flavors ×5% | Spice-heavy baked goods mix | **High** | 398 | 0 | | **398** |
| **GLAZE** | Sweet Sauces ×20%; Confections and Frostings ×10% | Sugar/fruit glaze | **High** | 500 | 0 | | **500** |
| **GRAB AND GO** | Snack Foods ×10%; Baked Goods ×6% | Mixed convenience items | **Low** | 324 | 0 | | **324** |
| **GRAPEFRUITS** | Processed Fruits ×1% | Fresh citrus; minimal FEMA | **High** | 14 | 0 | | **14** |
| **GRAPES** | Processed Fruits ×1% | Fresh fruit | **High** | 14 | 0 | | **14** |
| **GRAVY** | Gravies ×50% | Direct match to Gravies category | **High** | 500 | 0 | | **500** |
| **GREAT NORTHERN BEANS** | Processed Vegetables ×2% | Beans | **High** | 18 | 0 | | **18** |
| **GREEK YOGURT** | Milk Products ×15%; Processed Fruits ×5% | Flavored Greek yogurt | **High** | 265 | 2 | Aloe vera; Green tea extract | **267** |
| **GREEN** | Processed Vegetables ×2% | Likely leafy greens catch-all | **Low** | 18 | 0 | | **18** |
| **GREEN BEANS** | Processed Vegetables ×2% | Fresh/canned beans | **High** | 18 | 0 | | **18** |
| **GROCERY COMBINATION PACKS** | Snack Foods ×8%; Baked Goods ×5% | Heterogeneous grocery combo | **Low** | 264 | 0 | | **264** |
| **GROUPER** | Fish Products ×4% | Fresh fish | **High** | 36 | 0 | | **36** |
| **GUM** | Chewing Gum ×80% | Direct match to Chewing Gum category | **High** | 1280 | 2 | Green tea extract; Lycopene | **1282** |
| **HADDOCK** | Fish Products ×4% | Fresh fish | **High** | 36 | 0 | | **36** |
| **HALF AND HALF** | Milk Products ×5% | Cream product; minimal flavor | **High** | 65 | 0 | | **65** |

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|---|---|---|---|---|---|---|---|
| **HALIBUT** | Fish Products ×4% | Fresh fish | **High** | 36 | 0 | | **36** |
| **HAM OFFALS** | Meat Products ×6% | Specialty meat | **Medium** | 66 | 0 | | **66** |
| **HAM STEAKS/SLICES** | Meat Products ×8% | Processed ham | **High** | 88 | 0 | | **88** |
| **HANDHELD ENTREES** | Meat Products ×10%; Baked Goods ×8%; Seasonings and Flavors ×5% | Multi-component meat+bread | **High** | 412 | 0 | | **412** |
| **HARD SHELL TORTILLA** | Other Grains ×6%; Snack Foods ×5% | Tortilla chip | **High** | 162 | 0 | | **162** |
| **HAZELNUT BUTTER** | Nut Products ×12%; Confections and Frostings ×5% | Nut butter + confection use | **High** | 208 | 0 | | **208** |
| **HEALTH/NUTRITION BARS** | Breakfast Cereals ×15%; Confections and Frostings ×10%; Snack Foods ×12% | Functional bars: multiple flavor categories | **High** | 626 | 33 | Acacia fiber; Air protein; Ashwagandha extract; Astaxanthin; Beta-glucan; Chlorella; Chondroitin; Chromium nicotinate; Chromium picolinate; Cocoa extract/theobromine; Collagen peptides; Curcumin/turmeric extract; Elderberry extract; Fermentation-derived protein; GABA; Glucosamine; | **659** |

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|---|---|---|---|---|---|---|---|
| | | | | | | Green coffee bean extract; Green tea extract; Hemp extract; Hyaluronic acid; Inositol; L-theanine; Lion's mane extract; Lutein; Lycopene; Maca extract; Mushroom extracts; Mycoprotein; Phosphatidylserine; Quercetin; Resveratrol; Spirulina; Tara flour | |
| **HEALTH/NUTRITION BITES** | Snack Foods ×12%; Confections and Frostings ×8% | Bite-sized functional snack | **High** | 376 | 7 | Ashwagandha extract; Beta-glucan; Curcumin/turmeric extract; GABA; Maca extract; Mycoprotein; Spirulina | **383** |
| **HEALTH/NUTRITION COOKIES** | Baked Goods ×15%; Confections and Frostings ×5% | Functional cookie | **High** | 460 | 0 | | **460** |
| **HEALTH/NUTRITION POWDER** | Milk Products ×10%; Breakfast Cereals ×8%; Sugar Substitutes ×5% | Supplement powder: multiple flavor categories | **High** | 272 | 43 | Acacia fiber; Air protein; Amino acid chelate; Ashwagandha extract; Astaxanthin; Berberine; Beta- | **315** |

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|---|---|---|---|---|---|---|---|
| | | | | | | glucan; Chaga mushroom extract; Chlorella; Chondroitin; Chromium nicotinate; Chromium picolinate; Cocoa extract/theobromine; Collagen peptides; Curcumin/turmeric extract; Elderberry extract; Ergothioneine; Fermentation-derived protein; GABA; Glucosamine; Green coffee bean extract; Green tea extract; Hemp extract; Hyaluronic acid; Inositol; L-citrulline; L-theanine; Lion's mane extract; Lutein; Maca extract; Moringa extract; Mushroom extracts; Mycoprotein; Phosphatidylserine; Precision fermentation collagen; | |

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|---|---|---|---|---|---|---|---|
| | | | | | | Quercetin; Reishi mushroom extract; Resveratrol; Salidroside/Rhodiola; Schisandra extract; Spirulina; Tara flour; Theacrine | |
| **HEALTH/NUTRITION REMAINING** | Breakfast Cereals ×10%; Snack Foods ×8% | Catch-all health products | **Low** | 284 | 1 | Lemon balm extract | **285** |
| **HEALTH/NUTRITION SHAKES** | Milk Products ×12%; Frozen Dairy ×5%; Beverages Type I ×5% | Flavored nutritional shake | **High** | 356 | 6 | Acacia fiber; Amino acid chelate; Collagen peptides; L-citrulline; Mushroom extracts; Precision fermentation collagen | **362** |
| **HERB SPICE SEASONING KITS/SETS** | Seasonings and Flavors ×20% | Seasoning kits | **High** | 440 | 0 | | **440** |
| **HERBAL** | Instant Coffee and Tea ×20%; Beverages Type I ×8% | Herbal tea and infusions | **High** | 416 | 1 | Lemon balm extract | **417** |
| **HERBS AND SPICES** | Seasonings and Flavors ×30% | Direct match — core Seasonings & Flavors use | **High** | 660 | 0 | | **660** |
| **HERRING** | Fish Products ×6% | Cured/pickled fish | **High** | 54 | 0 | | **54** |
| **HONEY** | Sweet Sauces ×8%; Jams and Jellies ×5%; Confections and Frostings ×3% | Natural sweetener; moderate flavor | **High** | 255 | 1 | Cinnamon extract | **256** |

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|---|---|---|---|---|---|---|---|
| **HONEY BUNS** | Baked Goods ×14%; Sweet Sauces ×5% | Sweet glazed baked goods | **High** | 411 | 0 | | **411** |
| **HONEYDEW** | Processed Fruits ×1% | Fresh melon | **High** | 14 | 0 | | **14** |
| **HORSERADISH** | Condiments and Relishes ×10%; Seasonings and Flavors ×5% | Condiment subcategory | **High** | 240 | 0 | | **240** |
| **HOT CEREAL** | Breakfast Cereals ×20%; Other Grains ×5% | Flavored hot cereals | **High** | 340 | 1 | Beta-glucan | **341** |
| **HOT CHOCOLATE** | Instant Coffee and Tea ×15%; Milk Products ×5% | Chocolate-flavored hot beverage | **High** | 245 | 0 | | **245** |
| **HOT CIDER** | Beverages Type I ×10%; Processed Fruits ×5% | Spiced apple beverage | **High** | 290 | 0 | | **290** |
| **HOT COCOA** | Instant Coffee and Tea ×15%; Confections and Frostings ×5% | Cocoa beverage | **High** | 280 | 0 | | **280** |
| **HOT COCOA COMBINATION PACKS** | Instant Coffee and Tea ×12% | Hot cocoa assortments | **Medium** | 144 | 0 | | **144** |
| **HOT DOG CONDIMENTS** | Condiments and Relishes ×12% | Ketchup/mustard/relish | **High** | 156 | 0 | | **156** |
| **HOT PEPPERS** | Processed Vegetables ×2%; Condiments and Relishes ×3% | Hot pepper | **High** | 57 | 0 | | **57** |
| **HOT SAUCE/CHILI CONDIMENTS** | Condiments and Relishes ×15%; Seasonings and Flavors ×10% | Spiced condiment | **High** | 415 | 0 | | **415** |
| **HUMMUS** | Condiments and Relishes ×15%; Processed Vegetables ×8% | Flavored bean dip | **High** | 267 | 0 | | **267** |
| **HUSHPUPPY MIX** | Baked Goods ×6% | Fried batter mix | **High** | 144 | 0 | | **144** |
| **ICE** | Fruit Ices ×2% | Plain ice; negligible flavor | **High** | 30 | 0 | | **30** |

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|---|---|---|---|---|---|---|---|
| **ICE CREAM** | Frozen Dairy ×40% | Primary Frozen Dairy application | **High** | 720 | 3 | Amino acid chelate; Cocoa extract/theobromine; Green tea extract | **723** |
| **ICE CREAM CONE AND CUP** | Baked Goods ×5%; Confections and Frostings ×2% | Cone: minimal flavor | **High** | 160 | 0 | | **160** |
| **ICE SUBSTITUTE** | Fruit Ices ×10% | Frozen dessert substitute | **Medium** | 150 | 0 | | **150** |
| **ICELANDIC YOGURT** | Milk Products ×12% | Specialty flavored yogurt | **High** | 156 | 0 | | **156** |
| **ITALIAN** | Condiments and Relishes ×15%; Seasonings and Flavors ×8% | Italian dressing | **High** | 371 | 0 | | **371** |
| **JACKFRUIT** | Processed Fruits ×3% | Tropical fruit | **High** | 42 | 0 | | **42** |
| **JELLIES & JAMS** | Jams and Jellies ×50% | Direct match to Jams & Jellies | **High** | 750 | 0 | | **750** |
| **JUMBO MARSHMALLOWS** | Confections and Frostings ×12%; Soft Candy ×8% | Marshmallow subcategory | **High** | 400 | 0 | | **400** |
| **JUMBO MUFFINS** | Baked Goods ×12% | Muffins subcategory | **High** | 288 | 0 | | **288** |
| **KALE** | Processed Vegetables ×1% | Fresh greens | **High** | 9 | 0 | | **9** |
| **KETCHUP** | Condiments and Relishes ×15%; Sweet Sauces ×5% | Tomato-based condiment | **High** | 270 | 0 | | **270** |
| **KIDNEY BEANS** | Processed Vegetables ×3% | Canned beans | **High** | 27 | 0 | | **27** |
| **KITS** | Seasonings and Flavors ×8%; Baked Goods ×5% | Catch-all kit category | **Low** | 296 | 0 | | **296** |
| **KIWI** | Processed Fruits ×1% | Fresh fruit | **High** | 14 | 0 | | **14** |

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|---|---|---|---|---|---|---|---|
| **KOMBUCHA** | Beverages Type I ×10%; Instant Coffee and Tea ×5% | Fermented flavored beverage | **High** | 280 | 0 | | **280** |
| **LACTOSE REDUCED/FREE MILK** | Milk Products ×8% | Modified milk | **High** | 104 | 0 | | **104** |
| **LAMB** | Meat Products ×5% | Fresh lamb: minimal FEMA | **High** | 55 | 0 | | **55** |
| **LARD** | Fats and Oils ×5% | Animal fat; minimal flavor | **High** | 35 | 0 | | **35** |
| **LASAGNA** | Baked Goods ×5%; Meat Products ×5%; Cheeses ×5%; Seasonings and Flavors ×5% | Multi-component baked pasta dish | **High** | 345 | 0 | | **345** |
| **LATIN CREMA** | Milk Products ×8%; Cheeses ×5% | Cultured cream product | **High** | 164 | 0 | | **164** |
| **LATINO** | Seasonings and Flavors ×12%; Condiments and Relishes ×8% | Latino meal catch-all | **Low** | 368 | 0 | | **368** |
| **LATINO CONDIMENTS** | Condiments and Relishes ×18%; Seasonings and Flavors ×8% | Latin-style condiments | **High** | 410 | 0 | | **410** |
| **LATINO SAUCE** | Sweet Sauces ×12%; Condiments and Relishes ×12%; Seasonings and Flavors ×8% | Latin sauces | **High** | 512 | 0 | | **512** |
| **LATINO SWEET GOODS** | Baked Goods ×14%; Confections and Frostings ×8% | Specialty sweet baked goods | **Medium** | 496 | 0 | | **496** |
| **LEAF WRAP** | Processed Vegetables ×1% | Wrapper; negligible flavor | **High** | 9 | 0 | | **9** |
| **LEEKS** | Processed Vegetables ×1%; Seasonings and Flavors ×2% | Allium vegetable | **High** | 53 | 0 | | **53** |

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|---|---|---|---|---|---|---|---|
| **LEMON/LIME JUICE** | Processed Fruits ×10%; Condiments and Relishes ×5% | Acidic flavor ingredient | **High** | 205 | 0 | | **205** |
| **LEMONS** | Processed Fruits ×1% | Fresh citrus | **High** | 14 | 0 | | **14** |
| **LENTILS** | Processed Vegetables ×3% | Legume | **High** | 27 | 0 | | **27** |
| **LETTUCE** | Processed Vegetables ×1% | Fresh vegetable | **High** | 9 | 0 | | **9** |
| **LIMA BEANS** | Processed Vegetables ×2% | Beans | **High** | 18 | 0 | | **18** |
| **LIMES** | Processed Fruits ×1% | Fresh citrus | **High** | 14 | 0 | | **14** |
| **LIQUID COFFEE CREAMER** | Milk Products ×20%; Instant Coffee and Tea ×5% | Flavored creamer: high FEMA use | **High** | 320 | 0 | | **320** |
| **LIQUID TEA** | Beverages Type I ×10%; Instant Coffee and Tea ×15% | RTD tea; highly flavored | **High** | 400 | 0 | | **400** |
| **LOBSTER** | Fish Products ×5% | Shellfish | **High** | 45 | 0 | | **45** |
| **LUNCH COMBOS** | Meat Products ×10%; Baked Goods ×6%; Cheeses ×5% | Multi-component lunch | **Medium** | 314 | 0 | | **314** |
| **LUNCHMEAT PARTY PLATTER** | Meat Products ×10% | Assorted lunchmeat | **Medium** | 110 | 0 | | **110** |
| **LUPINI BEAN** | Processed Vegetables ×2% | Legume | **High** | 18 | 0 | | **18** |
| **MAC AND CHEESE** | Cheeses ×12%; Other Grains ×8%; Seasonings and Flavors ×5% | Cheese sauce + pasta dish | **High** | 350 | 0 | | **350** |
| **MACADAMIA NUT BUTTER** | Nut Products ×10% | Nut butter | **High** | 90 | 0 | | **90** |
| **MACKEREL** | Fish Products ×5% | Fish | **High** | 45 | 0 | | **45** |

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|---|---|---|---|---|---|---|---|
| **MAHI MAHI** | Fish Products ×4% | Fresh fish | **High** | 36 | 0 | | **36** |
| **MAIN COURSE** | Meat Products ×8%; Seasonings and Flavors ×5% | Heterogeneous entree catch-all | **Low** | 198 | 0 | | **198** |
| **MANDARINS** | Processed Fruits ×1% | Fresh citrus | **High** | 14 | 0 | | **14** |
| **MANGOS** | Processed Fruits ×2% | Fresh tropical fruit | **High** | 28 | 0 | | **28** |
| **MARGARINE** | Fats and Oils ×10%; Imitation Dairy Products ×5% | Non-dairy fat spread | **High** | 140 | 0 | | **140** |
| **MARINADE** | Condiments and Relishes ×18%; Seasonings and Flavors ×10%; Meat Products ×5% | Flavored marinade | **High** | 509 | 0 | | **509** |
| **MARSHMALLOW AND CREAM TOPPING** | Confections and Frostings ×15%; Sweet Sauces ×8% | Marshmallow topping | **High** | 420 | 0 | | **420** |
| **MAYONNAISE** | Condiments and Relishes ×12%; Fats and Oils ×5% | Emulsified condiment | **High** | 191 | 0 | | **191** |
| **MEAL KIT** | Meat Products ×8%; Seasonings and Flavors ×8%; Other Grains ×5% | Multi-component meal kit | **Medium** | 324 | 0 | | **324** |
| **MEAL REPLACEMENT BARS** | Breakfast Cereals ×15%; Confections and Frostings ×8%; Snack Foods ×10% | Meal replacement bar | **High** | 550 | 2 | Chromium picolinate; Tara flour | **552** |
| **MEAL REPLACEMENT POWDER** | Milk Products ×10%; Breakfast Cereals ×8%; Sugar Substitutes ×5% | Meal replacement powder | **High** | 272 | 18 | Acacia fiber; Air protein; Amino acid chelate; Beta-glucan; Chlorella; Chromium nicotinate; Chromium picolinate; | **290** |

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|---|---|---|---|---|---|---|---|
| | | | | | | Collagen peptides; Fermentation-derived protein; Green tea extract; Inositol; L-citrulline; Lutein; Maca extract; Mushroom extracts; Precision fermentation collagen; Spirulina; Tara flour | |
| **MEAL REPLACEMENT REMAINING** | Milk Products ×8% | Catch-all meal replacement | **Low** | 104 | 0 | | **104** |
| **MEAL REPLACEMENT SHAKES** | Milk Products ×12%; Frozen Dairy ×5% | Meal replacement shake | **High** | 246 | 4 | Amino acid chelate; Collagen peptides; Mushroom extracts; Precision fermentation collagen | **250** |
| **MEAT ALTERNATIVES** | Reconstituted Vegetable Protein ×40%; Seasonings and Flavors ×10% | Plant-based meat: primary RVP application | **High** | 540 | 3 | Air protein; Fermentation-derived protein; Mycoprotein | **543** |
| **MEAT CONDIMENTS** | Condiments and Relishes ×15%; Sweet Sauces ×8%; Seasonings and Flavors ×8% | Meat-specific condiments | **High** | 491 | 0 | | **491** |
| **MEAT SNACK** | Meat Products ×15%; Snack Foods ×8%; Seasonings and Flavors ×8% | Jerky/meat snacks: highly seasoned | **High** | 485 | 0 | | **485** |

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|---|---|---|---|---|---|---|---|
| **MEATLOAF/MEATBALL** | Meat Products ×12%; Seasonings and Flavors ×8% | Seasoned ground meat | **High** | 308 | 0 | | **308** |
| **MEDITERRANEAN** | Seasonings and Flavors ×12%; Condiments and Relishes ×8% | Mediterranean meal/seasoning | **Medium** | 368 | 0 | | **368** |
| **MILK ENHANCER** | Milk Products ×15%; Beverages Type I ×5% | Flavored milk additive | **High** | 305 | 3 | Amino acid chelate; Cinnamon extract; Lycopene | **308** |
| **MILK SHAKES/SMOOTHIES** | Frozen Dairy ×15%; Milk Products ×10%; Beverages Type I ×5% | Multi-dairy beverage | **High** | 510 | 0 | | **510** |
| **MINCED WHITEFISH** | Fish Products ×6%; Meat Products ×3% | Processed fish | **High** | 87 | 0 | | **87** |
| **MINI BAGELS** | Baked Goods ×5% | Bagels subcategory | **High** | 120 | 0 | | **120** |
| **MINI DOUGHNUTS** | Baked Goods ×15%; Confections and Frostings ×6% | Doughnuts subcategory | **High** | 480 | 0 | | **480** |
| **MINI MARSHMALLOWS** | Confections and Frostings ×10% | Marshmallow subcategory | **High** | 200 | 0 | | **200** |
| **MINI MUFFINS** | Baked Goods ×10% | Muffins subcategory | **High** | 240 | 0 | | **240** |
| **MINTS** | Hard Candy ×15%; Chewing Gum ×10% | Mints: primary Hard Candy + Chewing Gum use | **High** | 475 | 1 | Lycopene | **476** |
| **MISCELLANEOUS BAKERY** | Baked Goods ×20%; Confections and Frostings ×8% | Catch-all bakery | **Low** | 640 | 0 | | **640** |
| **MISCELLANEOUS DELI** | Meat Products ×10%; Cheeses ×5% | Catch-all deli | **Low** | 170 | 0 | | **170** |
| **MISCELLANEOUS MEAT** | Meat Products ×10% | Catch-all meat | **Low** | 110 | 0 | | **110** |

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|---|---|---|---|---|---|---|---|
| **MISCELLANEOUS PRODUCE** | Processed Vegetables ×2%; Processed Fruits ×2% | Catch-all produce | **Low** | 46 | 0 | | **46** |
| **MISCELLANEOUS SEAFOOD** | Fish Products ×8% | Catch-all seafood | **Low** | 72 | 0 | | **72** |
| **MIXED BERRIES** | Processed Fruits ×5% | Mixed berry product | **High** | 70 | 0 | | **70** |
| **MIXED FRUIT** | Processed Fruits ×8% | Mixed fruit product | **High** | 112 | 0 | | **112** |
| **MIXED PROTEINS** | Meat Products ×8%; Poultry Products ×5%; Fish Products ×5% | Mixed protein catch-all | **Low** | 183 | 0 | | **183** |
| **MIXED VEGETABLES** | Processed Vegetables ×5% | Mixed vegetable product | **High** | 45 | 0 | | **45** |
| **MOJARRA** | Fish Products ×4% | Fresh fish | **Medium** | 36 | 0 | | **36** |
| **MOLE PASTE** | Seasonings and Flavors ×20%; Condiments and Relishes ×12% | Complex spice paste | **High** | 596 | 0 | | **596** |
| **MONKFISH** | Fish Products ×4% | Fresh fish | **High** | 36 | 0 | | **36** |
| **MOUSSE MIX** | Gelatins and Puddings ×15%; Confections and Frostings ×8% | Chilled dessert mix | **High** | 400 | 0 | | **400** |
| **MUFFIN LOAVES** | Baked Goods ×11% | Muffins subcategory | **High** | 264 | 0 | | **264** |
| **MUFFIN MIX** | Baked Goods ×12% | Muffins subcategory | **High** | 288 | 0 | | **288** |
| **MUFFIN PARTY PLATTER** | Baked Goods ×11% | Assorted muffins | **Medium** | 264 | 0 | | **264** |
| **MUFFIN TOPS** | Baked Goods ×10% | Muffins subcategory | **High** | 240 | 0 | | **240** |
| **MUFFINS** | Baked Goods ×14% | Muffins subcategory | **High** | 336 | 0 | | **336** |
| **MULTI SERVE** | Snack Foods ×8%; Baked Goods ×5% | Ambiguous multi-serve catch-all | **Low** | 264 | 0 | | **264** |

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| **MULTIGRAIN SNACK** | Snack Foods ×15%; Other Grains ×8% | Multi-grain flavored snack | **High** | 366 | 0 | | **366** |
| **MUSHROOMS** | Processed Vegetables ×3% | Fresh/processed mushrooms | **High** | 27 | 0 | | **27** |
| **MUSSELS** | Fish Products ×5% | Shellfish | **High** | 45 | 0 | | **45** |
| **MUSTARD** | Condiments and Relishes ×12%; Seasonings and Flavors ×5% | Mustard condiment | **High** | 266 | 0 | | **266** |
| **NAAN** | Baked Goods ×6% | Specialty flatbread | **High** | 144 | 0 | | **144** |
| **NAVY BEANS** | Processed Vegetables ×2% | Beans | **High** | 18 | 0 | | **18** |
| **NECTARINES** | Processed Fruits ×1% | Fresh fruit | **High** | 14 | 0 | | **14** |
| **NO BAKE DESSERT** | Gelatins and Puddings ×15%; Confections and Frostings ×10% | No-bake = gelatin/pudding + frosting | **Medium** | 440 | 0 | | **440** |
| **NON-SPECIALTY** | Snack Foods ×8% | Ambiguous catch-all | **Low** | 144 | 0 | | **144** |
| **NONDAIRY YOGURT** | Imitation Dairy Products ×20%; Processed Fruits ×5% | Plant-based yogurt | **High** | 350 | 0 | | **350** |
| **NOODLES** | Other Grains ×12%; Seasonings and Flavors ×8% | Flavored noodle products | **High** | 320 | 0 | | **320** |
| **NUT BUTTERS, JAM, JELLIES COMBINATION PACKS** | Nut Products ×12%; Jams and Jellies ×8% | Mixed nut butter + jam | **Medium** | 228 | 0 | | **228** |
| **NUT TOPPING** | Nut Products ×10%; Baked Goods ×5% | Nut topping | **High** | 210 | 0 | | **210** |
| **NUTS** | Nut Products ×20% | Nuts: direct Nut Products match | **High** | 180 | 2 | Cinnamon extract; Lycopene | **182** |

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|---|---|---|---|---|---|---|---|
| **NUTS AND SEEDS COMBINATION PACKS** | Nut Products ×18% | Mixed nuts/seeds | **Medium** | 162 | 0 | | **162** |
| **NUTS AND SEEDS PARTY PLATTER** | Nut Products ×15% | Assorted nuts | **Medium** | 135 | 0 | | **135** |
| **OAT MILK** | Imitation Dairy Products ×15%; Breakfast Cereals ×5% | Oat-based milk alternative | **High** | 280 | 0 | | **280** |
| **OCTOPUS + SQUID** | Fish Products ×5% | Cephalopod | **High** | 45 | 0 | | **45** |
| **OILS/BUTTER/MARGARINE SPREADS/SUBSTITUTES COMBINATION PACKS** | Fats and Oils ×10%; Imitation Dairy Products ×5% | Mixed fat/oil products | **Medium** | 140 | 0 | | **140** |
| **OLIVES** | Condiments and Relishes ×8%; Fats and Oils ×3% | Pickled/brined condiment | **High** | 125 | 0 | | **125** |
| **OLIVES/CAPERS/PICKLED&MARINATED VEGETABLES COMBINATION PACKS** | Condiments and Relishes ×12%; Processed Vegetables ×5% | Mixed pickled condiments | **Medium** | 201 | 0 | | **201** |
| **OMELETS** | Egg Products ×15%; Meat Products ×5%; Cheeses ×3% | Egg-based dish | **High** | 211 | 0 | | **211** |
| **ONION** | Seasonings and Flavors ×5%; Processed Vegetables ×2% | Flavor vegetable; allium | **High** | 128 | 0 | | **128** |
| **ONION SNACK** | Snack Foods ×15%; Seasonings and Flavors ×8% | Onion-flavored snack | **High** | 446 | 0 | | **446** |
| **ONIONS** | Processed Vegetables ×2%; Seasonings and Flavors ×3% | Allium vegetable | **High** | 84 | 0 | | **84** |

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| **OOLONG** | Instant Coffee and Tea ×15% | Tea subcategory | **High** | 180 | 0 | | **180** |
| **ORANGES** | Processed Fruits ×1% | Fresh citrus | **High** | 14 | 0 | | **14** |
| **OTHER** | Snack Foods ×5% | Ambiguous catch-all | **Low** | 90 | 0 | | **90** |
| **OTHER BREAD** | Baked Goods ×10% | Catch-all bread | **Low** | 240 | 0 | | **240** |
| **OTHER DELI BREAKFAST FOODS** | Meat Products ×8%; Egg Products ×5%; Baked Goods ×4% | Catch-all deli breakfast | **Low** | 224 | 0 | | **224** |
| **OTHER DESSERT TOPPINGS** | Confections and Frostings ×12%; Sweet Sauces ×10% | Catch-all toppings | **Low** | 390 | 1 | Cinnamon extract | **391** |
| **OTHER FIN FISH** | Fish Products ×5% | Catch-all fin fish | **Low** | 45 | 0 | | **45** |
| **OTHER HAMS** | Meat Products ×8% | Catch-all ham | **Low** | 88 | 0 | | **88** |
| **OTHER MEAL COMBOS** | Meat Products ×8%; Seasonings and Flavors ×5% | Catch-all meal combos | **Low** | 198 | 0 | | **198** |
| **OTHER NUT SPREADS** | Nut Products ×12% | Catch-all nut spreads | **Low** | 108 | 0 | | **108** |
| **OTHER PICKLED/MARINATED VEGETABLES** | Condiments and Relishes ×10%; Processed Vegetables ×5% | Catch-all pickled veg | **Low** | 175 | 0 | | **175** |
| **OTHER POULTRY EGGS** | Egg Products ×8% | Specialty eggs | **Medium** | 64 | 0 | | **64** |
| **OTHER PROBIOTIC DRINK** | Beverages Type I ×8%; Milk Products ×5% | Fermented/probiotic beverage | **Medium** | 241 | 0 | | **241** |
| **OTHER SEAFOOD** | Fish Products ×6% | Catch-all seafood | **Low** | 54 | 0 | | **54** |
| **OTHER SHELLFISH** | Fish Products ×5% | Catch-all shellfish | **Low** | 45 | 0 | | **45** |
| **OTHER SWEET GOODS** | Baked Goods ×18%; Confections and Frostings ×8% | Catch-all sweet baked goods | **Low** | 592 | 0 | | **592** |

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|---|---|---|---|---|---|---|---|
| **OTHER SWEET SNACKS** | Snack Foods ×15%; Confections and Frostings ×8% | Catch-all sweet snacks | **Low** | 430 | 0 | | **430** |
| **OTHER TORTILLA SHELLS** | Other Grains ×5% | Catch-all tortilla | **Low** | 60 | 0 | | **60** |
| **OYSTERS** | Fish Products ×5% | Shellfish | **High** | 45 | 0 | | **45** |
| **PACKAGED COFFEE COMBINATION PACKS** | Instant Coffee and Tea ×20% | Coffee assortments | **Medium** | 240 | 0 | | **240** |
| **PACKAGED LUNCHMEAT** | Meat Products ×14%; Seasonings and Flavors ×5% | Processed lunchmeat | **High** | 264 | 0 | | **264** |
| **PACKAGED TEA COMBINATION PACKS** | Instant Coffee and Tea ×20% | Tea assortments | **Medium** | 240 | 0 | | **240** |
| **PANCAKE** | Baked Goods ×10% | Baked Goods subcategory | **High** | 240 | 0 | | **240** |
| **PANCAKE MIX** | Baked Goods ×10% | Baked Goods subcategory | **High** | 240 | 0 | | **240** |
| **PAPAYAS** | Processed Fruits ×1% | Fresh tropical fruit | **High** | 14 | 0 | | **14** |
| **PARFAITS AND CREAM GELATINS** | Gelatins and Puddings ×20%; Frozen Dairy ×8% | Gelatin + dairy dessert | **High** | 464 | 0 | | **464** |
| **PASTA** | Other Grains ×10%; Seasonings and Flavors ×5% | Pasta products | **High** | 230 | 1 | Tara flour | **231** |
| **PASTA SAUCE** | Sweet Sauces ×15%; Condiments and Relishes ×10%; Seasonings and Flavors ×8% | Complex tomato-based sauce | **High** | 531 | 0 | | **531** |
| **PASTA, RICE, DRY BEANS & GRAINS COMBINATION PACKS** | Other Grains ×10%; Processed Vegetables ×4% | Mixed grain/bean combo | **Medium** | 156 | 0 | | **156** |

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|---|---|---|---|---|---|---|---|
| **PASTRIES** | Baked Goods ×20%; Confections and Frostings ×10% | Flavored pastry + frosting | **High** | 680 | 0 | | **680** |
| **PASTRY CRUSTS AND SHELLS** | Baked Goods ×8% | Plain pastry crust | **High** | 192 | 0 | | **192** |
| **PEA BUTTER** | Nut Products ×8%; Reconstituted Vegetable Protein ×5% | Pea-based spread | **High** | 112 | 0 | | **112** |
| **PEACHES** | Processed Fruits ×2% | Fresh/canned fruit | **High** | 28 | 0 | | **28** |
| **PEANUT BUTTER** | Nut Products ×25% | Primary Nut Products application | **High** | 225 | 0 | | **225** |
| **PEANUT BUTTER WITH JELLY** | Nut Products ×12%; Jams and Jellies ×10% | Combined PB+J product | **High** | 258 | 0 | | **258** |
| **PEARS** | Processed Fruits ×1% | Fresh fruit | **High** | 14 | 0 | | **14** |
| **PEAS** | Processed Vegetables ×2% | Fresh/frozen peas | **High** | 18 | 0 | | **18** |
| **PECAN BUTTER** | Nut Products ×10% | Nut butter | **High** | 90 | 0 | | **90** |
| **PEPPERCORNS** | Seasonings and Flavors ×5% | Spice | **High** | 110 | 0 | | **110** |
| **PERCH** | Fish Products ×4% | Fresh fish | **High** | 36 | 0 | | **36** |
| **PERFORMANCE BAKERY** | Baked Goods ×15%; Reconstituted Vegetable Protein ×5% | Fortified baked goods | **Medium** | 400 | 0 | | **400** |
| **PERFORMANCE NUTRITION BARS** | Breakfast Cereals ×15%; Confections and Frostings ×8%; Snack Foods ×10% | Performance bar | **High** | 550 | 6 | Fermentation-derived protein; Green coffee bean extract; Green tea extract; Hemp extract; Mycoprotein; Theacrine | **556** |

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|---|---|---|---|---|---|---|---|
| **PERFORMANCE NUTRITION POWDER** | Milk Products ×10%; Breakfast Cereals ×8%; Sugar Substitutes ×5% | Performance powder | **High** | 272 | 13 | Air protein; Amino acid chelate; Ashwagandha extract; Chromium picolinate; Cocoa extract/theobromine; Collagen peptides; Fermentation-derived protein; Green tea extract; L-citrulline; Mushroom extracts; Phosphatidylserine; Precision fermentation collagen; Theacrine | **285** |
| **PERFORMANCE NUTRITION REMAINING** | Breakfast Cereals ×8% | Catch-all performance nutrition | **Low** | 112 | 2 | Quercetin; Salidroside/Rhodiola | **114** |
| **PERFORMANCE NUTRITION SHAKES** | Milk Products ×12%; Beverages Type I ×5% | Performance shake | **High** | 266 | 3 | Amino acid chelate; L-citrulline; Mushroom extracts | **269** |
| **PERUVIAN BEAN** | Processed Vegetables ×2% | Beans | **High** | 18 | 0 | | **18** |
| **PICKLES** | Condiments and Relishes ×15% | Pickled condiment | **High** | 195 | 0 | | **195** |
| **PIE CRUST** | Baked Goods ×7% | Plain pastry | **High** | 168 | 0 | | **168** |
| **PIE FILLING** | Processed Fruits ×25%; Jams and Jellies ×10%; Sweet Sauces ×5% | Fruit filling: Processed Fruits primary | **High** | 575 | 0 | | **575** |

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|---|---|---|---|---|---|---|---|
| **PIE MIX** | Baked Goods ×8%; Gelatins and Puddings ×5% | Multi-category | **Medium** | 272 | 0 | | **272** |
| **PIECE** | Snack Foods ×5% | Ambiguous single piece catch-all | **Low** | 90 | 0 | | **90** |
| **PIES** | Baked Goods ×15%; Processed Fruits ×10%; Confections and Frostings ×5% | Crust + filling + topping | **High** | 600 | 0 | | **600** |
| **PIGEON PEAS** | Processed Vegetables ×2% | Legume | **High** | 18 | 0 | | **18** |
| **PIKE** | Fish Products ×4% | Fresh fish | **High** | 36 | 0 | | **36** |
| **PINEAPPLES** | Processed Fruits ×2% | Fresh/canned pineapple | **High** | 28 | 0 | | **28** |
| **PINK BEANS** | Processed Vegetables ×2% | Beans | **High** | 18 | 0 | | **18** |
| **PINTO BEANS** | Processed Vegetables ×3% | Beans | **High** | 27 | 0 | | **27** |
| **PITA BREAD** | Baked Goods ×5% | Plain bread | **High** | 120 | 0 | | **120** |
| **PITA CHIP** | Snack Foods ×10%; Baked Goods ×5% | Snack chip from pita | **High** | 300 | 0 | | **300** |
| **PIZZA SAUCE** | Sweet Sauces ×12%; Condiments and Relishes ×8%; Seasonings and Flavors ×5% | Flavored tomato sauce | **High** | 394 | 0 | | **394** |
| **PLUMS** | Processed Fruits ×1% | Fresh fruit | **High** | 14 | 0 | | **14** |
| **POLLOCK** | Fish Products ×5% | Fish | **High** | 45 | 0 | | **45** |
| **POMEGRANATE** | Processed Fruits ×2% | Fresh fruit | **High** | 28 | 0 | | **28** |
| **POMPANO** | Fish Products ×4% | Fresh fish | **Medium** | 36 | 0 | | **36** |

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|---|---|---|---|---|---|---|---|
| **POP UP PASTRIES** | Baked Goods ×15%; Confections and Frostings ×8% | Toaster pastries | **High** | 520 | 0 | | **520** |
| **POPCORN** | Snack Foods ×20% | Popcorn: core Snack Foods application | **High** | 360 | 2 | Cinnamon extract; Lycopene | **362** |
| **PORGY** | Fish Products ×4% | Fresh fish | **Medium** | 36 | 0 | | **36** |
| **PORK** | Meat Products ×6% | Fresh pork | **High** | 66 | 0 | | **66** |
| **PORK RIND** | Snack Foods ×15%; Seasonings and Flavors ×8% | Flavored pork snack | **High** | 446 | 0 | | **446** |
| **PORTIONS** | Snack Foods ×5% | Ambiguous portion catch-all | **Low** | 90 | 0 | | **90** |
| **POT PIE** | Baked Goods ×8%; Meat Products ×8%; Gravies ×5% | Multi-component savory pie | **High** | 330 | 0 | | **330** |
| **POTATO CHIP** | Snack Foods ×25% | Potato chips: major Snack Foods application | **High** | 450 | 0 | | **450** |
| **POTATOES** | Processed Vegetables ×2% | Fresh potatoes | **High** | 18 | 0 | | **18** |
| **POULTRY** | Poultry Products ×10% | Poultry subcategory | **High** | 100 | 0 | | **100** |
| **POWDERED** | Milk Products ×10%; Beverages Type I ×8% | Ambiguous powdered product | **Low** | 306 | 0 | | **306** |
| **POWDERED COFFEE CREAMER** | Milk Products ×15%; Instant Coffee and Tea ×5% | Powdered flavored creamer | **High** | 255 | 0 | | **255** |
| **PRE PACKAGED SALADS** | Processed Vegetables ×3%; Condiments and Relishes ×3% | Salad kit with dressing | **High** | 66 | 0 | | **66** |
| **PRE-SLICED** | Processed Fruits ×2%; Processed Vegetables ×2% | Catch-all sliced produce | **Low** | 46 | 0 | | **46** |
| **PRETZEL** | Snack Foods ×15%; Baked Goods ×5% | Pretzel snack | **High** | 390 | 0 | | **390** |

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|---|---|---|---|---|---|---|---|
| **PRETZEL CHIP** | Snack Foods ×12%; Baked Goods ×5% | Pretzel chip snack | **High** | 336 | 0 | | **336** |
| **PROCESSED MEAT COMBINATION PACKS** | Meat Products ×12% | Mixed processed meats | **Medium** | 132 | 0 | | **132** |
| **PRODUCE COMBINATION PACKS** | Processed Fruits ×3%; Processed Vegetables ×3% | Mixed produce | **Low** | 69 | 0 | | **69** |
| **PROTEIN SALTY SNACKS** | Snack Foods ×18%; Reconstituted Vegetable Protein ×5% | Protein-fortified salty snacks | **High** | 364 | 0 | | **364** |
| **PROTEIN SNACK BITES** | Snack Foods ×15%; Reconstituted Vegetable Protein ×5% | Protein snack bites | **High** | 310 | 0 | | **310** |
| **PRUNES** | Processed Fruits ×5% | Dried plums | **High** | 70 | 0 | | **70** |
| **PUDDING MIX** | Gelatins and Puddings ×25% | Pudding subcategory | **High** | 400 | 1 | Cinnamon extract | **401** |
| **PUDDING, MOUSSE / CUSTARD, FLAN** | Gelatins and Puddings ×30% | Direct match to Gelatins & Puddings | **High** | 480 | 0 | | **480** |
| **PUMPKINS** | Processed Vegetables ×3% | Seasonal vegetable | **High** | 27 | 0 | | **27** |
| **PURPLE HULL PEA** | Processed Vegetables ×2% | Legume | **High** | 18 | 0 | | **18** |
| **QUICHE** | Egg Products ×15%; Cheeses ×5%; Baked Goods ×4% | Egg/cheese pastry dish | **High** | 276 | 0 | | **276** |
| **RADISHES** | Processed Vegetables ×1% | Fresh vegetable | **High** | 9 | 0 | | **9** |
| **RAISIN BREAD** | Baked Goods ×10%; Processed Fruits ×3% | Flavored bread | **High** | 282 | 0 | | **282** |
| **RAISINS** | Processed Fruits ×5% | Dried grapes | **High** | 70 | 0 | | **70** |

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|---|---|---|---|---|---|---|---|
| **RAMEN** | Soups ×15%; Other Grains ×8%; Seasonings and Flavors ×5% | Flavored noodle soup | **High** | 401 | 0 | | **401** |
| **RANCH** | Condiments and Relishes ×15%; Seasonings and Flavors ×8% | Ranch dressing | **High** | 371 | 0 | | **371** |
| **RASPBERRIES** | Processed Fruits ×1% | Fresh fruit | **High** | 14 | 0 | | **14** |
| **RED** | Processed Vegetables ×2% | Likely red beans catch-all | **Low** | 18 | 0 | | **18** |
| **REGULAR BAGELS** | Baked Goods ×5% | Bagels subcategory | **High** | 120 | 0 | | **120** |
| **REGULAR DOUGHNUTS** | Baked Goods ×15%; Confections and Frostings ×6% | Doughnuts subcategory | **High** | 480 | 0 | | **480** |
| **REGULAR MARSHMALLOWS** | Confections and Frostings ×10%; Soft Candy ×5% | Marshmallow subcategory | **High** | 300 | 0 | | **300** |
| **REGULAR MUFFINS** | Baked Goods ×12% | Muffins subcategory | **High** | 288 | 0 | | **288** |
| **RELISH** | Condiments and Relishes ×15%; Processed Vegetables ×5% | Pickled relish | **High** | 240 | 0 | | **240** |
| **REMAINING** | Snack Foods ×5% | Ambiguous remaining catch-all | **Low** | 90 | 0 | | **90** |
| **REMAINING BAKING MIXES** | Baked Goods ×12% | Catch-all baking mixes | **Low** | 288 | 1 | Tara flour | **289** |
| **REMAINING BAKING STAPLES** | Baked Goods ×5% | Catch-all baking staples | **Low** | 120 | 0 | | **120** |
| **REMAINING BEANS** | Processed Vegetables ×3% | Catch-all beans | **Low** | 27 | 0 | | **27** |
| **REMAINING BERRIES** | Processed Fruits ×2% | Catch-all berries | **Low** | 28 | 0 | | **28** |
| **REMAINING BEVERAGE MAKERS** | Beverages Type I ×8% | Catch-all beverage equipment/pods | **Low** | 176 | 0 | | **176** |

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|---|---|---|---|---|---|---|---|
| **REMAINING BREAKFAST FOODS** | Breakfast Cereals ×12%; Baked Goods ×5% | Catch-all breakfast | **Low** | 288 | 0 | | **288** |
| **REMAINING CONDIMENTS** | Condiments and Relishes ×12% | Catch-all condiments | **Low** | 156 | 0 | | **156** |
| **REMAINING DAIRY YOGURT** | Milk Products ×12% | Catch-all dairy yogurt | **Low** | 156 | 0 | | **156** |
| **REMAINING DESSERTS** | Gelatins and Puddings ×12%; Frozen Dairy ×8% | Catch-all desserts | **Low** | 336 | 0 | | **336** |
| **REMAINING DRY SALAD AND POTATO TOPPINGS** | Seasonings and Flavors ×12%; Condiments and Relishes ×8% | Catch-all toppings | **Low** | 368 | 0 | | **368** |
| **REMAINING FRUIT** | Processed Fruits ×3% | Catch-all fruit | **Low** | 42 | 0 | | **42** |
| **REMAINING MELONS** | Processed Fruits ×1% | Catch-all melons | **Low** | 14 | 0 | | **14** |
| **REMAINING MILK** | Milk Products ×10% | Catch-all milk | **Low** | 130 | 0 | | **130** |
| **REMAINING MILK ALTERNATIVES** | Imitation Dairy Products ×15%; Beverages Type I ×8% | Alt milk catch-all | **Low** | 386 | 0 | | **386** |
| **REMAINING PARTY PLATTER** | Snack Foods ×8%; Baked Goods ×5% | Catch-all party platter | **Low** | 264 | 0 | | **264** |
| **REMAINING PASTE** | Condiments and Relishes ×10%; Seasonings and Flavors ×8% | Catch-all paste | **Low** | 306 | 0 | | **306** |
| **REMAINING PEPPERS** | Processed Vegetables ×2% | Catch-all peppers | **Low** | 18 | 0 | | **18** |
| **REMAINING PROTEIN** | Meat Products ×8%; Poultry Products ×5% | Catch-all protein | **Low** | 138 | 0 | | **138** |
| **REMAINING ROLLS AND BUNS** | Baked Goods ×7% | Catch-all rolls | **Low** | 168 | 0 | | **168** |
| **REMAINING SALTY SNACKS** | Snack Foods ×15% | Catch-all salty snacks | **Low** | 270 | 1 | Lycopene | **271** |
| **REMAINING SAUCE** | Sweet Sauces ×12%; Condiments and Relishes ×8% | Catch-all sauce | **Low** | 284 | 1 | Grape skin extract | **285** |

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|---|---|---|---|---|---|---|---|
| **REMAINING SNACK** | Snack Foods ×10% | Catch-all snacks | **Low** | 180 | 0 | | **180** |
| **REMAINING TYPE SALAD DRESSING** | Condiments and Relishes ×15% | Catch-all dressings | **Low** | 195 | 0 | | **195** |
| **REMAINING VEGETABLES** | Processed Vegetables ×2% | Catch-all vegetables | **Low** | 18 | 0 | | **18** |
| **REMAINING WRAPS AND SHELLS** | Other Grains ×5%; Baked Goods ×3% | Catch-all wraps | **Low** | 132 | 0 | | **132** |
| **RICE** | Other Grains ×8%; Seasonings and Flavors ×5% | Flavored/plain rice products | **High** | 206 | 0 | | **206** |
| **RICE CAKE** | Snack Foods ×8%; Other Grains ×5% | Rice-based snack | **High** | 204 | 0 | | **204** |
| **RICE CHIP** | Snack Foods ×10%; Other Grains ×5% | Rice snack chip | **High** | 240 | 0 | | **240** |
| **RICE MILK** | Imitation Dairy Products ×12%; Other Grains ×5% | Rice-based milk alternative | **High** | 228 | 0 | | **228** |
| **RICE/POTATO** | Other Grains ×8%; Processed Vegetables ×5% | Mixed grain/potato product | **Medium** | 141 | 0 | | **141** |
| **RICOTTA** | Cheeses ×10% | Fresh cheese | **High** | 120 | 0 | | **120** |
| **ROCKFISH** | Fish Products ×4% | Fresh fish | **High** | 36 | 0 | | **36** |
| **ROLL** | Baked Goods ×6% | Rolls subcategory | **High** | 144 | 0 | | **144** |
| **ROLLS AND BUNS PARTY PLATTER** | Baked Goods ×7% | Assorted rolls | **Medium** | 168 | 0 | | **168** |
| **ROOT VEGETABLES** | Processed Vegetables ×2% | Root vegetable subcategory | **High** | 18 | 0 | | **18** |
| **ROUGHY** | Fish Products ×4% | Fresh fish | **High** | 36 | 0 | | **36** |
| **RTD CHAI TEA** | Instant Coffee and Tea ×20%; Beverages Type I ×10% | Ready-to-drink chai | **High** | 460 | 0 | | **460** |

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|---|---|---|---|---|---|---|---|
| **RTD COFFEE** | Instant Coffee and Tea ×20%; Milk Products ×5% | RTD coffee beverage | **High** | 305 | 3 | Cocoa extract/theobromine; Collagen peptides; Green coffee bean extract | **308** |
| **RTD TEA** | Instant Coffee and Tea ×20%; Beverages Type I ×8% | RTD tea; highly flavored | **High** | 416 | 16 | Acacia fiber; Aloe vera; Ashwagandha extract; Chaga mushroom extract; Cinnamon extract; Curcumin/turmeric extract; Green tea extract; Hemp extract; Hyaluronic acid; L-theanine; Lemon balm extract; Lycopene; Moringa extract; Mushroom extracts; Reishi mushroom extract; Schisandra extract | **432** |
| **RTE CEREAL** | Breakfast Cereals ×40% | Ready-to-eat cereal: major Breakfast Cereals application | **High** | 560 | 3 | Beta-glucan; Cinnamon extract; Cocoa extract/theobromine | **563** |
| **RUSSIAN/THOUSAND ISLAND** | Condiments and Relishes ×15% | Salad dressing subcategory | **High** | 195 | 0 | | **195** |
| **SALAD BAR** | Processed Vegetables ×3%; Condiments and Relishes ×3% | Mixed salad bar items | **Medium** | 66 | 0 | | **66** |

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| **SALAD DRESSING COMBINATION PACKS** | Condiments and Relishes ×15% | Mixed dressings | **Medium** | 195 | 0 | | **195** |
| **SALAD DRESSING MIX** | Condiments and Relishes ×18%; Seasonings and Flavors ×8% | Dry dressing mix | **High** | 410 | 2 | Grape skin extract; Lycopene | **412** |
| **SALADS** | Processed Vegetables ×4%; Condiments and Relishes ×3% | Prepared salad products | **Medium** | 75 | 0 | | **75** |
| **SALMON** | Fish Products ×5% | Fresh/smoked fish | **High** | 45 | 0 | | **45** |
| **SALT** | Seasonings and Flavors ×2% | Salt; negligible flavor | **High** | 44 | 0 | | **44** |
| **SALT PORK** | Meat Products ×6% | Cured pork fat | **High** | 66 | 0 | | **66** |
| **SANDWICH BREAD** | Baked Goods ×8% | Plain sliced bread | **High** | 192 | 0 | | **192** |
| **SANDWICH DRESSING** | Condiments and Relishes ×15% | Sandwich condiment | **High** | 195 | 0 | | **195** |
| **SANDWICH PARTY PLATTER** | Baked Goods ×6%; Meat Products ×5% | Mixed sandwich items | **Medium** | 199 | 0 | | **199** |
| **SANDWICH ROLLS** | Baked Goods ×6% | Plain rolls | **High** | 144 | 0 | | **144** |
| **SANDWICHES** | Baked Goods ×6%; Meat Products ×6%; Cheeses ×4% | Multi-component sandwich | **High** | 258 | 0 | | **258** |
| **SAUCE AND SEASONING MIX COMBINATION PACKS** | Seasonings and Flavors ×15%; Condiments and Relishes ×10% | Mixed sauce/seasoning | **Medium** | 460 | 0 | | **460** |
| **SAUCE/GRAVY/MARINADE COMBINATION PACKS** | Sweet Sauces ×12%; Gravies ×10%; Condiments and Relishes ×8% | Mixed sauces/gravies | **Medium** | 384 | 0 | | **384** |

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| **SAUERKRAUT** | Condiments and Relishes ×6%; Processed Vegetables ×5% | Fermented condiment | **High** | 123 | 0 | | **123** |
| **SAUSAGE** | Meat Products ×18%; Seasonings and Flavors ×8% | Heavily seasoned sausage | **High** | 374 | 0 | | **374** |
| **SCALLOPS** | Fish Products ×5% | Shellfish | **High** | 45 | 0 | | **45** |
| **SCONES** | Baked Goods ×12% | Flavored baked goods | **High** | 288 | 0 | | **288** |
| **SEA BASS** | Fish Products ×4% | Fresh fish | **High** | 36 | 0 | | **36** |
| **SEAFOOD COMBINATION PACKS** | Fish Products ×8% | Mixed seafood | **Medium** | 72 | 0 | | **72** |
| **SEAFOOD CONDIMENTS** | Condiments and Relishes ×12%; Fish Products ×5% | Seafood sauces/condiments | **High** | 201 | 0 | | **201** |
| **SEAFOOD PARTY PLATTER** | Fish Products ×6% | Mixed seafood | **Medium** | 54 | 0 | | **54** |
| **SEAFOOD SAUCE** | Sweet Sauces ×10%; Condiments and Relishes ×10%; Fish Products ×5% | Cocktail/tartar sauce | **High** | 325 | 1 | Lycopene | **326** |
| **SEAFOOD SNACK** | Fish Products ×10%; Snack Foods ×8%; Seasonings and Flavors ×5% | Seasoned seafood snack | **High** | 344 | 1 | Green tea extract | **345** |
| **SEASONINGS** | Seasonings and Flavors ×35% | Direct match to Seasonings & Flavors | **High** | 770 | 4 | Anthocyanins/proanthocyanins; Curcumin/turmeric extract; Green tea extract; Mushroom extracts | **774** |
| **SEAWEED/SUSHI WRAP** | Fish Products ×4%; Other Grains ×2% | Sushi wrap | **High** | 60 | 0 | | **60** |

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| **SEEDS** | Nut Products ×10%; Seasonings and Flavors ×5% | Seeds subcategory | **High** | 200 | 0 | | **200** |
| **SELTZER WATER** | Beverages Type I ×5% | Lightly or unflavored sparkling water | **High** | 110 | 1 | Aloe vera | **111** |
| **SERVICE** | Snack Foods ×5% | Ambiguous service catch-all | **Low** | 90 | 0 | | **90** |
| **SHAKE AND SMOOTHIE MIX** | Frozen Dairy ×10%; Milk Products ×8%; Beverages Type I ×5% | Multi-category mix | **High** | 394 | 0 | | **394** |
| **SHAKES** | Frozen Dairy ×15%; Milk Products ×8% | Dairy-based flavored shakes | **High** | 374 | 0 | | **374** |
| **SHAPES** | Snack Foods ×10%; Baked Goods ×5% | Ambiguous shaped product catch-all | **Low** | 300 | 0 | | **300** |
| **SHELF STABLE MEAL KIT** | Meat Products ×8%; Seasonings and Flavors ×8%; Other Grains ×5% | Shelf-stable multi-component kit | **Medium** | 324 | 0 | | **324** |
| **SHELL TOPPING** | Confections and Frostings ×12%; Frozen Dairy ×5% | Chocolate shell topping for ice cream | **High** | 330 | 0 | | **330** |
| **SHORTENING** | Fats and Oils ×10% | Solid fat; minimal flavor | **High** | 70 | 0 | | **70** |
| **SHRIMP** | Fish Products ×6% | Shellfish | **High** | 54 | 0 | | **54** |
| **SIDES** | Processed Vegetables ×5%; Other Grains ×5%; Seasonings and Flavors ×5% | Mixed side dishes | **Low** | 215 | 0 | | **215** |
| **SINGLE SERVE** | Snack Foods ×8% | Single-serve catch-all | **Low** | 144 | 0 | | **144** |
| **SLICED HAMS** | Meat Products ×8% | Processed ham | **High** | 88 | 0 | | **88** |
| **SLOPPY JOE SAUCE** | Sweet Sauces ×12%; Condiments and Relishes ×8%; Meat Products ×5% | Flavored meat sauce | **High** | 339 | 0 | | **339** |

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| **SLUSHES** | Fruit Ices ×25%; Beverages Type I ×10% | Frozen flavored beverages | **High** | 595 | 0 | | **595** |
| **SMELT** | Fish Products ×4% | Fresh fish | **High** | 36 | 0 | | **36** |
| **SMOKED PICNICS** | Meat Products ×8% | Smoked pork | **High** | 88 | 0 | | **88** |
| **SMOOTHIES** | Beverages Type I ×10%; Processed Fruits ×5%; Milk Products ×5% | Blended fruit/dairy beverage | **High** | 355 | 11 | Acacia fiber; Ashwagandha extract; Astaxanthin; Chlorella; Collagen peptides; Curcumin/turmeric extract; Hemp extract; Hyaluronic acid; Maca extract; Moringa extract; Spirulina | **366** |
| **SNACK COMBOS** | Snack Foods ×20% | Multi-component snack combo | **High** | 360 | 0 | | **360** |
| **SNACK COMBOS WITH DIP** | Snack Foods ×18%; Condiments and Relishes ×8% | Snack + dip combo | **High** | 428 | 0 | | **428** |
| **SNACK MIXES** | Snack Foods ×20%; Seasonings and Flavors ×5% | Mixed flavored snack items | **High** | 470 | 8 | Amino acid chelate; Beta-glucan; Curcumin/turmeric extract; Hemp extract; Lion's mane extract; Mushroom extracts; Mycoprotein; Spirulina | **478** |
| **SNAPPER** | Fish Products ×4% | Fresh fish | **High** | 36 | 0 | | **36** |

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| **SNOW CONE SYRUP** | Fruit Ices ×20%; Sweet Sauces ×10% | Flavored ice syrup | **High** | 450 | 0 | | **450** |
| **SOFT DRINKS** | Beverages Type I ×30% | Carbonated soft drinks: major FEMA use | **High** | 660 | 6 | Aloe vera; Anthocyanins/proanthocyanins; Cinnamon extract; Grape skin extract; Green coffee bean extract; Lycopene | **666** |
| **SOFT SHELL TORTILLA** | Other Grains ×6%; Baked Goods ×4% | Flour tortilla | **High** | 168 | 0 | | **168** |
| **SOLE** | Fish Products ×4% | Fresh fish | **High** | 36 | 0 | | **36** |
| **SOUP** | Soups ×30% | Direct match to Soups category | **High** | 390 | 1 | Curcumin/turmeric extract | **391** |
| **SOUP/STEW** | Soups ×30%; Meat Products ×5% | Soups + stew products | **High** | 445 | 0 | | **445** |
| **SOUR CREAM** | Milk Products ×8%; Cheeses ×3% | Cultured dairy | **High** | 140 | 0 | | **140** |
| **SOUR CREAM ALTERNATIVE** | Imitation Dairy Products ×12% | Plant-based sour cream | **High** | 168 | 0 | | **168** |
| **SOY BEANS** | Reconstituted Vegetable Protein ×10%; Processed Vegetables ×3% | Legume/RVP crossover | **High** | 107 | 0 | | **107** |
| **SOY BUTTER** | Nut Products ×8%; Reconstituted Vegetable Protein ×5% | Soy-based spread | **High** | 112 | 0 | | **112** |
| **SOY MILK** | Imitation Dairy Products ×20%; Reconstituted Vegetable Protein ×5% | Soy-based milk alternative | **High** | 320 | 0 | | **320** |
| **SOY SAUCE** | Condiments and Relishes ×12%; Seasonings and Flavors ×8% | Fermented flavor condiment | **High** | 332 | 0 | | **332** |
| **SPARKLING JUICE** | Beverages Type I ×12%; Processed Fruits ×5% | Sparkling juice beverage | **High** | 334 | 0 | | **334** |

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| **SPARKLING WATER** | Beverages Type I ×8% | Flavored sparkling water | **High** | 176 | 1 | Aloe vera | **177** |
| **SPECIALTY** | Snack Foods ×8% | Ambiguous specialty catch-all | **Low** | 144 | 0 | | **144** |
| **SPECIALTY BEVERAGE SYRUP** | Beverages Type I ×15%; Sweet Sauces ×8% | Concentrated beverage syrup | **High** | 450 | 2 | Anthocyanins/proanthocyanins; Grape skin extract | **452** |
| **SPECIALTY CITRUS** | Processed Fruits ×1% | Specialty citrus subcategory | **Medium** | 14 | 0 | | **14** |
| **SPECIALTY COOKIES** | Baked Goods ×20%; Confections and Frostings ×5% | Specialty cookies | **High** | 580 | 0 | | **580** |
| **SPECIALTY DESSERTS** | Gelatins and Puddings ×15%; Frozen Dairy ×10% | Specialty desserts | **Medium** | 420 | 0 | | **420** |
| **SPECIALTY DRIED BREAD** | Baked Goods ×8% | Specialty dried bread | **Medium** | 192 | 0 | | **192** |
| **SPECIALTY FROZEN VEGETABLES** | Processed Vegetables ×5% | Specialty frozen vegetables | **Medium** | 45 | 0 | | **45** |
| **SPECIALTY FRUITS** | Processed Fruits ×3% | Specialty fruit subcategory | **Medium** | 42 | 0 | | **42** |
| **SPECIALTY GRAIN** | Other Grains ×18%; Breakfast Cereals ×8% | Specialty grain products | **Medium** | 328 | 0 | | **328** |
| **SPECIALTY MELONS** | Processed Fruits ×1% | Specialty melon subcategory | **Medium** | 14 | 0 | | **14** |
| **SPECIALTY NUTRITION BARS** | Breakfast Cereals ×15%; Confections and Frostings ×8% | Specialty nutrition bar | **Medium** | 370 | 22 | Ashwagandha extract; Astaxanthin; Berberine; Beta-glucan; Chaga mushroom extract; Chondroitin; Elderberry extract; Ergothioneine; GABA; Glucosamine; | **392** |

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| | | | | | | Green coffee bean extract; Green tea extract; Hemp extract; Lion's mane extract; Lutein; Moringa extract; Phosphatidylserine; Quercetin; Reishi mushroom extract; Resveratrol; Salidroside/Rhodiola; Schisandra extract | |
| **SPECIALTY NUTRITION POWDER** | Milk Products ×10%; Sugar Substitutes ×5% | Specialty nutrition powder | **Medium** | 160 | 10 | Acacia fiber; Amino acid chelate; Chromium nicotinate; Chromium picolinate; Cocoa extract/theobromine; Collagen peptides; Green tea extract; L-citrulline; Mushroom extracts; Precision fermentation collagen | **170** |
| **SPECIALTY NUTRITION REMAINING** | Breakfast Cereals ×8%; Snack Foods ×5% | Catch-all specialty nutrition | **Low** | 202 | 28 | Ashwagandha extract; Astaxanthin; Berberine; Chaga mushroom extract; Chlorella; | **230** |

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|---|---|---|---|---|---|---|---|
| | | | | | | Chondroitin; Curcumin/turmeric extract; Elderberry extract; Ergothioneine; GABA; Glucosamine; Hyaluronic acid; Inositol; L-theanine; Lemon balm extract; Lion's mane extract; Lutein; Lycopene; Maca extract; Moringa extract; Phosphatidylserine; Quercetin; Reishi mushroom extract; Resveratrol; Salidroside/Rhodiola; Schisandra extract; Spirulina; Theacrine | |
| **SPECIALTY NUTRITION SHAKES** | Milk Products ×10% | Specialty nutrition shake | **Medium** | 130 | 1 | Mushroom extracts | **131** |
| **SPECIALTY ROLLS** | Baked Goods ×8% | Specialty rolls | **Medium** | 192 | 0 | | **192** |
| **SPECIALTY VEGETABLES** | Processed Vegetables ×3% | Specialty vegetables | **Medium** | 27 | 0 | | **27** |
| **SPINACH** | Processed Vegetables ×1% | Fresh greens | **High** | 9 | 0 | | **9** |
| **SPIRAL HAMS** | Meat Products ×8% | Glazed/flavored ham | **High** | 88 | 0 | | **88** |
| **SPORT DRINKS** | Beverages Type I ×18% | Flavored electrolyte beverages | **High** | 396 | 24 | Acacia fiber; Amino acid | **420** |

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| | | | | | | chelate; Ashwagandha extract; Astaxanthin; Beta-glucan; Chlorella; Chromium picolinate; Collagen peptides; Curcumin/turmeric extract; Glucosamine; Green coffee bean extract; Green tea extract; Hemp extract; Hyaluronic acid; Inositol; L-citrulline; L-theanine; Lutein; Moringa extract; Mushroom extracts; Precision fermentation collagen; Quercetin; Spirulina; Theacrine | |
| **SPRAY MARGARINE** | Fats and Oils ×8% | Fat spray; minimal flavor | **High** | 56 | 0 | | **56** |
| **SPREADABLE** | Cheeses ×12%; Confections and Frostings ×5% | Spreadable cheese or sweet spread | **Medium** | 244 | 0 | | **244** |
| **SPREADS** | Jams and Jellies ×15%; Fats and Oils ×5% | Flavored spreads | **Medium** | 260 | 0 | | **260** |
| **SPROUTS** | Processed Vegetables ×1% | Fresh sprouts | **High** | 9 | 0 | | **9** |

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| **SQUASH** | Processed Vegetables ×2% | Fresh squash | **High** | 18 | 0 | | **18** |
| **STEW** | Soups ×20%; Meat Products ×8% | Hearty meat stew | **High** | 348 | 0 | | **348** |
| **STOCK** | Soups ×15%; Seasonings and Flavors ×5% | Concentrated cooking stock | **High** | 305 | 0 | | **305** |
| **STRAWBERRIES** | Processed Fruits ×1% | Fresh fruit | **High** | 14 | 0 | | **14** |
| **STRIP/BAR** | Snack Foods ×10%; Confections and Frostings ×5% | Ambiguous strip/bar catch-all | **Low** | 280 | 0 | | **280** |
| **STRIPED BASS** | Fish Products ×4% | Fresh fish | **High** | 36 | 0 | | **36** |
| **STRUDELS** | Baked Goods ×15%; Confections and Frostings ×5%; Processed Fruits ×5% | Flavored pastry with filling | **High** | 530 | 0 | | **530** |
| **SUBSTITUTE SPREADS** | Imitation Dairy Products ×10%; Fats and Oils ×8% | Non-dairy spread substitute | **High** | 196 | 0 | | **196** |
| **SUGAR** | Granulated Sugar ×50% | Direct match to Granulated Sugar category | **High** | 200 | 1 | Cocoa extract/theobromine | **201** |
| **SUGAR AND SWEETENERS COMBINATION PACKS** | Granulated Sugar ×20%; Sugar Substitutes ×8% | Mixed sugars/sweeteners | **Medium** | 128 | 0 | | **128** |
| **SUGAR SUBSTITUTES** | Sugar Substitutes ×50% | Direct match to Sugar Substitutes category | **High** | 300 | 0 | | **300** |
| **SUN DRIED TOMATO** | Processed Vegetables ×10%; Condiments and Relishes ×5% | Processed vegetable condiment | **High** | 155 | 0 | | **155** |
| **SUNFLOWER BUTTER** | Nut Products ×10% | Seed butter | **High** | 90 | 0 | | **90** |

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| **SUSHI** | Fish Products ×6%; Other Grains ×3%; Condiments and Relishes ×3% | Multi-component seafood dish | **High** | 129 | 0 | | **129** |
| **SUSHI PARTY PLATTER** | Fish Products ×6% | Assorted sushi | **Medium** | 54 | 0 | | **54** |
| **SWAI** | Fish Products ×4% | Fresh fish | **High** | 36 | 0 | | **36** |
| **SWEET GOODS PARTY PLATTER** | Baked Goods ×18%; Confections and Frostings ×8% | Assorted sweet baked goods | **Medium** | 592 | 0 | | **592** |
| **SWORDFISH** | Fish Products ×4% | Fresh fish | **High** | 36 | 0 | | **36** |
| **TAHINI BUTTER** | Nut Products ×10%; Condiments and Relishes ×5% | Sesame paste | **High** | 155 | 0 | | **155** |
| **TANGELOS** | Processed Fruits ×1% | Citrus | **High** | 14 | 0 | | **14** |
| **TANGERINES** | Processed Fruits ×1% | Citrus | **High** | 14 | 0 | | **14** |
| **TAPE** | Baked Goods ×1% | Ambiguous; likely packaging | **Low** | 24 | 0 | | **24** |
| **TAPIOCA PURE** | Gelatins and Puddings ×10%; Other Grains ×5% | Starch-based dessert ingredient | **High** | 220 | 0 | | **220** |
| **TILAPIA** | Fish Products ×4% | Fresh fish | **High** | 36 | 0 | | **36** |
| **TOASTER SCRAMBLES** | Egg Products ×10%; Baked Goods ×5%; Meat Products ×5% | Egg/meat/bread combo | **High** | 255 | 0 | | **255** |
| **TOASTER STRUDELS** | Baked Goods ×15%; Confections and Frostings ×8% | Toaster pastry | **High** | 520 | 0 | | **520** |
| **TOMATO PASTE** | Processed Vegetables ×12%; Sweet Sauces ×5% | Concentrated tomato | **High** | 183 | 0 | | **183** |
| **TOMATO SAUCE** | Sweet Sauces ×12%; Processed Vegetables | Tomato-based sauce | **High** | 317 | 0 | | **317** |

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| | ×8%; Condiments and Relishes ×5% | | | | | | |
| **TOMATOES** | Processed Vegetables ×2% | Fresh/canned tomatoes | **High** | 18 | 0 | | **18** |
| **TONIC WATER** | Beverages Type I ×8% | Flavored carbonated water | **High** | 176 | 0 | | **176** |
| **TOPPING MIX** | Confections and Frostings ×15%; Sweet Sauces ×8% | Dessert topping mix | **High** | 420 | 0 | | **420** |
| **TORTILLA CHIP** | Snack Foods ×22% | Tortilla chips: major Snack Foods application | **High** | 396 | 0 | | **396** |
| **TORTILLA MIX** | Other Grains ×6%; Baked Goods ×4% | Tortilla mix | **High** | 168 | 0 | | **168** |
| **TRADITIONAL DAIRY YOGURT** | Milk Products ×18%; Processed Fruits ×5% | Flavored dairy yogurt | **High** | 304 | 2 | Aloe vera; Green tea extract | **306** |
| **TROPICAL FRUIT MIXES** | Processed Fruits ×5% | Mixed tropical fruit | **High** | 70 | 0 | | **70** |
| **TROUT** | Fish Products ×4% | Fresh fish | **High** | 36 | 0 | | **36** |
| **TUNA** | Fish Products ×6% | Canned/fresh tuna | **High** | 54 | 0 | | **54** |
| **TURKEY** | Poultry Products ×12% | Poultry subcategory | **High** | 120 | 0 | | **120** |
| **TURNOVERS** | Baked Goods ×14%; Processed Fruits ×5% | Fruit-filled pastry | **High** | 406 | 0 | | **406** |
| **TWIST/ROPE** | Snack Foods ×10%; Confections and Frostings ×5% | Twisted snack or candy rope | **Medium** | 280 | 0 | | **280** |
| **UNSLICED HAMS** | Meat Products ×7% | Whole ham | **High** | 77 | 0 | | **77** |
| **VALUE ADD WATER** | Beverages Type I ×8% | Enhanced water | **High** | 176 | 1 | Aloe vera | **177** |
| **VANILLA BEAN** | Seasonings and Flavors ×15%; Baked Goods ×5% | Vanilla: primary flavor ingredient | **High** | 450 | 0 | | **450** |
| **VARIETY PACK** | Snack Foods ×12%; Baked Goods ×8% | Mixed variety pack | **Low** | 408 | 0 | | **408** |

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| **VEAL** | Meat Products ×4% | Fresh veal | **High** | 44 | 0 | | **44** |
| **VEGETABLE BASED SALTY SNACKS** | Snack Foods ×18%; Processed Vegetables ×5% | Vegetable-derived salty snacks | **High** | 369 | 0 | | **369** |
| **VEGETABLE COMBINATION PACKS** | Processed Vegetables ×5% | Mixed vegetables | **Medium** | 45 | 0 | | **45** |
| **VEGETABLE JUICE** | Beverages Type I ×10%; Processed Vegetables ×5% | Vegetable-based juice | **High** | 265 | 0 | | **265** |
| **VEGETABLE PARTY PLATTER** | Processed Vegetables ×4% | Vegetable platter | **Medium** | 36 | 0 | | **36** |
| **VEGETABLE/SALAD STARTERS** | Processed Vegetables ×4%; Condiments and Relishes ×3% | Salad starter kit | **High** | 75 | 0 | | **75** |
| **VINAIGRETTE** | Condiments and Relishes ×15%; Fats and Oils ×5% | Oil/acid dressing | **High** | 230 | 0 | | **230** |
| **VINEGAR** | Condiments and Relishes ×5% | Acidulant; minimal FEMA flavor | **High** | 65 | 0 | | **65** |
| **WAFFLE** | Baked Goods ×10% | Baked Goods subcategory | **High** | 240 | 0 | | **240** |
| **WALNUT BUTTER** | Nut Products ×10% | Nut butter | **High** | 90 | 0 | | **90** |
| **WATER** | Beverages Type I ×1% | Plain water; minimal FEMA | **High** | 22 | 2 | Anthocyanins/proanthocyanins; Lycopene | **24** |
| **WATER ENHANCER** | Beverages Type I ×15% | Highly concentrated flavor drops | **High** | 330 | 5 | Collagen peptides; Green tea extract; Hemp extract; Hyaluronic acid; Lemon balm extract | **335** |
| **WATERMELONS** | Processed Fruits ×1% | Fresh melon | **High** | 14 | 0 | | **14** |

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| **WEIGHT MANAGEMENT BARS** | Breakfast Cereals ×15%; Confections and Frostings ×8% | WM bars | **High** | 370 | 2 | Chromium nicotinate; Green tea extract | **372** |
| **WEIGHT MANAGEMENT BROWNIES** | Baked Goods ×10%; Confections and Frostings ×3% | Functional brownie | **High** | 300 | 0 | | **300** |
| **WEIGHT MANAGEMENT CAKE** | Baked Goods ×12%; Confections and Frostings ×5% | Functional cake | **High** | 388 | 0 | | **388** |
| **WEIGHT MANAGEMENT COOKIES** | Baked Goods ×14% | Functional cookies | **High** | 336 | 0 | | **336** |
| **WEIGHT MANAGEMENT MUFFINS** | Baked Goods ×10% | Functional muffins | **High** | 240 | 0 | | **240** |
| **WEIGHT MANAGEMENT POWDER** | Milk Products ×10%; Sugar Substitutes ×5% | WM powder | **High** | 160 | 6 | Acacia fiber; Amino acid chelate; Berberine; Chromium nicotinate; Chromium picolinate; Mushroom extracts | **166** |
| **WEIGHT MANAGEMENT REMAINING** | Breakfast Cereals ×8% | Catch-all WM | **Low** | 112 | 1 | Berberine | **113** |
| **WEIGHT MANAGEMENT SHAKES** | Milk Products ×12%; Frozen Dairy ×5% | WM shake | **High** | 246 | 3 | Amino acid chelate; Chromium picolinate; Mushroom extracts | **249** |
| **WHEAT GERM** | Other Grains ×5% | Whole grain ingredient; minimal flavor | **High** | 60 | 0 | | **60** |
| **WHIPPED TOPPING** | Milk Products ×10%; Confections and Frostings ×8% | Flavored whipped topping | **High** | 290 | 0 | | **290** |

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| **WHITE** | Processed Vegetables ×2% | Likely white beans catch-all | **Low** | 18 | 0 | | **18** |
| **WHITE BEANS** | Processed Vegetables ×2% | Beans | **High** | 18 | 0 | | **18** |
| **WHITING** | Fish Products ×4% | Fresh fish | **High** | 36 | 0 | | **36** |
| **WING SAUCE** | Sweet Sauces ×15%; Condiments and Relishes ×12% | Flavored wing sauce | **High** | 381 | 0 | | **381** |
| **WINGS** | Poultry Products ×10%; Seasonings and Flavors ×8% | Seasoned poultry parts | **High** | 276 | 0 | | **276** |
| **YEAST** | Baked Goods ×2% | Leavening; negligible flavor | **High** | 48 | 0 | | **48** |